



Assessing the Impact of Microenterprise Services (AIMS)

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MANAGING RESOURCES, ACTIVITIES, AND RISK IN URBAN INDIA: THE IMPACT OF SEWA BANK

SEPTEMBER 2001

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The AIMS Project is implemented by Management Systems International (the prime contractor) in partnership with Harvard University, the University of Missouri, and the Small Enterprise Education and Promotion Network. The Project is a technical resource of the United States Agency for International Development, Global Bureau, Center for Economic Growth, Office of Microenterprise Development (Contract No.PCE-C-00-95-00036-00).



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ACKNOWLEDGEMENTS

This report is the result of a multi-year effort involving valuable contributions from numerous individuals in Ahmedabad City, Harvard University, and beyond. We wish to express warm appreciation of our colleagues on the AIMS team: Monique Cohen from USAID for her vision and stewardship of the AIMS project; Elizabeth Dunn from the University of Missouri for her sound methodological guidance and technical supervision of the project; Caroline Barnes from Management Systems International (MSI) for the insightful perspectives and experience that she brought to the project; J. Gordon Arbuckle and William Matthews from the University of Missouri who helped develop the case study protocol and assemble the comments from various outside reviewers; Russ Webster, Ky Johnson, and Vicky Michener of MSI for their administrative leadership of the project. We would like also like to acknowledge the valuable substantive contributions that Jennefer Sebstad made to the original research design and the final synthesis report of the overall project.

In Ahmedabad, India, where we spent part of each winter for the past five years, we are deeply grateful and indebted to a large number of individuals at the SEWA Bank and its sister institutions, at the Taleem Research Foundation, and in the wider community. First and foremost, we are indebted to the remarkable staff of SEWA Bank, the SEWA Union, and the SEWA Academy. We are especially indebted to those staff members of SEWA Bank who answered our myriad questions, provided the valuable data we requested, and made logistical arrangements for our multiple visits. Without the gracious cooperation of Jayshree Vyas, the Managing Director of SEWA Bank, and her staff, especially Rekha Barve, Padmini Makwana, Vandana Mehta, Kiran Shah, and Surekha Thakar, our field work would not have been so productive or so pleasurable. We are also grateful to Vipul Shah, a computer consultant, and to the staff of the computer section of SEWA Bank, who generated lists of SEWA Bank clients and provided other data.

We are also deeply indebted to the researchers of the SEWA Academy who met with us on multiple occasions to review and discuss the research hypotheses, the survey questionnaire, our interim findings, and more. The insights and perspectives of Namrata Bali, Director of the SEWA Academy, and other members of the researcher team at the Academy, contributed in many ways to our understanding of Ahmedabad City and of SEWA's membership. We are particularly grateful to Shanta Koshti, who assisted us in so many ways, including helping us test our draft questionnaire and train the investigators, and to Irfana Jariwala, who assisted us during our preliminary fieldwork. We would also like to acknowledge Pratima Singh who carried out an important study of the garment sector in Ahmedabad City in collaboration with the SEWA Academy.

Many of the senior staff and local organizers of the SEWA Union shared their long experience and in-depth knowledge of Ahmedabad City and SEWA. We would like to commend the pioneering work, uncommon wisdom, and deep commitment of Ela Bhatt, Mirai Chatterjee, Renana Jhabvala, Reema Nanavaty, and Manali Shah. Ramila Parmar and Manjula Parma of the SEWA Union offered important insights on the work of SEWA Union. Two other persons at SEWA – Jama S. Desai and Jilu Parmar – were indispensable to us in our fieldwork. Without

their able driving skills and familiarity with Ahmedabad City, locating our twelve case respondents live and making repeat visits to their homes would have been far more demanding.

We are deeply indebted to the director, Binod Agarwal, and the faculty and staff of the Taleem Research Foundation, who collaborated with us on this project. In particular, we are grateful to Rukmini Vemraju (Professor) and Priya Raghavan (Research Associate), who tested and translated the survey questionnaire, hired and trained the investigators, supervised the survey work, did a preliminary analysis of the data, assisted with the case study interviews, and so much more. Had it not been for their efficient and professional work style, the fieldwork would simply not have been completed; and had it not been for their amiable and cheerful interpersonal style – and Rukmini’s uncanny wit – the fieldwork would not have been nearly as pleasant. We are also grateful to Vijay Uttekar (Research Associate, Computer), who entered and cleaned the data and carried out a preliminary tabulation of the data, and to Komal Parmar (Research Associate) who helped supervise the data collection. Also, of course, we want to express our gratitude and appreciation to the team of local investigators – 25 young women in all – who, under sometimes difficult field conditions, collected the two rounds of survey data. Vina Parikh, Meenaxi Parmar, and Anita Vankar collected data in both rounds, while Vaishali Acharya, Kailash Jhala, Sunita Kalaria, Renu Lal, Geeta Nai, Rekha Nigam, Apeksha Patel, Damini Patel, Geeta Patel, Varsha Patel, Bhavna Parmar, Sunita Parekh, Manisha Pathak, Sangita Purohit, Neelam Raval, Nehal Raval, Jyotika Shah, Darshana Solanki, Sadguna Tatani, Gayatri Upadhyay, Pravina Vaghela, and Jyotika Vanjara collected data in one round each.

The pioneering research of Jeemol Unni, Uma Rani, and N. Lalitha of the Gujarat Institute of Development Research (GIDR) on the informal sector in Ahmedabad contributed significantly to our understanding of economic and employment trends in Ahmedabad. So much so, that we asked Jeemol Unni and Uma Rani to help us answer some of the outstanding and rather puzzling questions we had regarding recent economic and employment trends. We are extremely grateful to them for undertaking this additional research. Two former directors of GIDR – Amitabh Kundu and the late Vimal Shah – provided important insights and perspectives.

Other members of the local research community shared their insights and perspectives on these trends, including Rakesh Basant, Indira Hirway, S.P. Kashyap, Darshini Mahadevia, and Prem Pangotra. Two foreign researchers, Jan Breman and Howard Spodek, who specialize on Surat and Ahmedabad respectively, also contributed to our understanding of the local context. Others from the wider community who shared their insights and perspectives with us included Mihir Bhatt, Mrinal Boumik, M.D. Mistry, N.L. Mote, B.B. Patel, Kartikeya Sarabai, and S.K. Varma.

Back home at Harvard University, we are extremely grateful to Yanhong Zhang, our data analyst, who carried out the statistical analyses, and to Sharmila Murthy, our summer research assistance, whose own study of the rural operations of SEWA Bank is to be recommended and whose background research for our study proved invaluable. Without the able assistance of Michael Kerry, Aaron Miller, Deborah Farnham, and David Moore, the various drafts of this report could not have been produced. Two former colleagues from the Harvard Institute for International Development, Rosanne Kumins and Helen Solomon, provided the necessary and valuable administrative and financial services. We would like to express our gratitude to Mark

Moore and Shawn Bohlen of the Hauser Center for Nonprofit Organizations at Harvard who provided space, administrative support, and encouragement during the final year of the project.

We also wish to express our gratitude for the thoughtful comments received from readers of earlier drafts of this report: Monique Cohen, Elaine Edgecomb, Peter Little, Charles Reichert, Mark Schreiner, and Jennefer Sebstad. Their inputs substantially improved our study.

Last, but hardly least, we want to express our gratitude and appreciation to the women respondents themselves, whose willing cooperation made this study possible. We hope our analysis and interpretation of their lives and work does some justice to their remarkable strength, courage, and resilience.

EXECUTIVE SUMMARY

The Study: Goals, Site, and Research Procedures

This study, one of three parallel core impact assessments carried out under the AIMS project, was intended to measure the impact of microfinancial services on low-income women in an Indian city. The services in question are the credit and savings programs of SEWA Bank, a cooperative bank that operates in Ahmedabad, the principal city of Gujarat state in western India. SEWA Bank is a sister institution of the Self-Employed Women's Association (SEWA), a trade union dedicated to advancing the interests of low-income women who work in the informal sector. SEWA provides a range of development services and engages in struggles to help these women gain a collective voice and improve the welfare of their families as well as their personal economic and social positions. Since its establishment in 1974, SEWA Bank has provided a widening range of financial services to SEWA members, including savings, credit, and insurance.

Three sub-groups of working class were selected for intensive study: two groups of program participants – current borrowers from SEWA Bank and savers in SEWA Bank who did not have a loan outstanding – and a control group of comparable non-members of SEWA. The women studied are very poor. Half of them live in households where per capita income is below the World Bank's dollar-a-day poverty line and the rest are only slightly better off. They live in a country whose low economic growth (until recently), regulatory environment, and traditional social structures make it hard for low-income individuals or families to improve their living standard. Their city, moreover, has experienced the collapse of its principal industry and is known for periodic civil unrest, slum evictions, floods, drought, and recently a major earthquake. Most of the women studied belong to Backward or Scheduled castes or tribes and all of them suffer severe discrimination based on gender and social class. All the women in the study worked in the informal sector in 1998, forty-one percent as microentrepreneurs and the remainder as dependent sub-contractors or casual laborers.

The core of the study was a sample survey that collected information on 900 working class women who live in ten wards of Ahmedabad, as well as on their households, microenterprises, and other informal sector economic activities. Surveys conducted in early 1998 and early 2000 provided complete and consistent data for a panel of 798 respondents, permitting both cross-section and longitudinal statistical tests of the impact of microfinancial services.

To supplement the two surveys and facilitate sound interpretation of their results, three complementary analyses were carried out. The first of these was an overview of the economic, social, and political setting in which SEWA Bank's microfinancial services are provided and its clients make their livings. Second, the objectives, structure, and operating procedures of SEWA Bank were reviewed to provide a thorough understanding of the microfinancial institution involved. Finally, detailed case studies of 12 SEWA Bank borrowers were conducted with the aim of gaining a deeper understanding of the problems and opportunities that SEWA Bank clients face and the specific ways in which microfinancial services can help them in their daily lives.

The study sought to identify, characterize, and measure the impact of credit and savings services on SEWA members. Its theoretical foundation assumed that resources obtained through participation in financial services are fungible and are combined by the household with other resources to be allocated within a household economic portfolio.

AIMS explicitly hypothesizes that specific impacts may be found at three different levels.

- ◆ At the *household level*, participation in microfinancial services may lead to higher household income, more diversified household income sources, improved housing, increased ownership of major household appliances and motor vehicles, higher educational participation by children in the household, increased expenditure on food (especially among the very poor), and improved effectiveness in coping with shocks.
- ◆ At the *enterprise level*, participation in microfinancial services may lead to increased revenues, fixed assets, and employment, as well as improved transactional relationships.
- ◆ At the *individual level*, participation in microfinancial services may lead to increases in the client's control over resources and income within the household economic portfolio, her self-esteem and self-confidence, and her ability to deal with the future.

Four important characteristics of SEWA Bank and its clients shaped this particular study and distinguished it to some degree from the other core impact assessments.

- ◆ SEWA Bank emphasizes savings over credit. Like credit, savings can be used in the household economy to generate resources for enterprise expansion, to finance housing improvements, or to pay down higher-cost debt. Even those who borrow must save subsequently to repay their loans. We were therefore interested in the impact of saving as well as that of credit. We hypothesized that not only would borrowing from SEWA Bank yield benefits, as in other microcredit programs, but also that members who maintain savings accounts would experience benefits unavailable to non-members of SEWA.
- ◆ Many SEWA Bank members are not microentrepreneurs but rather make their living as sub-contractors or laborers. In addition to testing the impact of financial services on microenterprise, therefore, we also examine their impact on the total informal sector earnings of the household.
- ◆ SEWA Bank credit is not solely, or even primarily, intended for fixed and working capital loans for enterprise development. The Bank provides secured and unsecured loans for a variety of purposes, including housing improvement, debt repayment, redemption of mortgaged assets, and social consumption purposes such as education, health, and weddings. Since the range of loan purposes is unusually wide, one's a priori expectation that impact will be felt at the enterprise level is weakened.
- ◆ SEWA and SEWA Bank offer a number of other services to their member/clients. The Bank itself provides health, property, and life insurance. Other branches of SEWA organize and train working-class women for a variety of "struggle" and "development" activities. This wide range of services raises an important question that we were not able to examine in depth in this study: to what extent an individual's participation in multiple services enhances the impact of borrowing and saving.

Ahmedabad, the site of the study, is a traditional commercial center that gained fame as India's main producing textile city in the late 19th and early 20th centuries. After independence the textile mills declined and ultimately closed, creating severe unemployment in Ahmedabad and

forcing thousands of male and female workers into the informal sector, which became increasingly competitive. After the economic policy reforms of the early 1990s, Gujarat emerged as one of India's fastest growing states, but much of the new economic activity was located outside Ahmedabad or in sectors that provided few employment opportunities for the poor. Relatively few secure jobs were created by formal sector employers. Salaried positions were particularly scarce for women, who continued to face severe social constraints on their ability to earn a living for themselves and their families.

At the end of 1999, SEWA Bank had 28,000 shareholding members and 119,000 depositors. The Bank had made 34,000 loans since its formation in 1974. Deposits totaled \$4.4 million on March 31, 1999. SEWA Bank offers current, savings, fixed-term, and recurring accounts. It lends a maximum of 25,000 rupees (\$538) for three-year terms at 17 per cent interest. Unlike many microfinancial intermediaries, the Bank has never received a grant. In 1999 it received its first outside capital when it borrowed \$600,000 from the Government of India's Housing and Urban Development Corporation (HUDCO). Cautious lending policies, low delinquency rates, and modest operating costs have permitted SEWA Bank to be financially self-sustaining throughout its history.

Analysis of data from the two rounds of the sample survey followed the core AIMS data analysis plan. For each impact hypothesis, a quantitative impact variable was defined. Several moderating variables were used in the tests to reduce selection bias and account for major influences on the impact variables other than program participation. Values of the impact variables were compared between controls and (respectively) borrowers, savers, and clients (borrowers plus savers). The following tests were performed for each hypothesis:

- ◆ Cross-section differences were examined and evaluated for statistical significance using analysis of variance (ANOVA). A positive finding was taken as possibly indicative of impact but not conclusive.
- ◆ The direction and statistical significance of changes between Rounds 1 and 2 of the survey were evaluated. Did the impact variable move in the expected direction, and if so was the change significant?
- ◆ Gain score analysis was used to compare amounts of change over time between treatment and control groups and determine whether such differences were significant.
- ◆ The strongest test used was analysis of covariance (ANCOVA), which controls for the possible influence of various personal characteristics on the impact variables. The methodology makes it possible to determine whether borrower, saver, or client status is a statistically significant determinant of changes in the values of the impact variables between survey rounds, once certain moderating variables have been taken into account. This procedure minimizes, although it does not eliminate, selection bias.

The 12 case studies involved four borrowers from each of the three dominant trades in which SEWA Bank borrowers are concentrated: vegetable vending, bidi (hand-made cigarette) rolling, and garment making. The women were interviewed in two rounds and gave detailed accounts of the resources, activities, life-cycle events, and emergencies within their households. The results of these interviews were then analyzed on a case and comparative basis.

Findings

Borrower households had higher per capita income in Round 1 than saver households, which in turn exceeded the average for control households. Some of these differences may be attributable to participation in SEWA prior to the Round 1 survey. In the two years between survey rounds, average real household income per capita rose 13.9 per cent. Savers enjoyed the largest increases, followed by borrowers and controls in that order. Microenterprise generated nearly 40 per cent of household income, while women's activities also accounted for about 40 per cent of the total. However, income from microenterprises in manufacturing and from sub-contracting (including both bidi rolling and garment making) fell between the two rounds of the survey. Microenterprises in trade did much better. The largest contributors to rising household income, however, were salaries and semi-permanent employment, both predominantly male activities.

The households studied reported high levels of debt. At the time of the Round 1 sample survey, they owed an average of \$294, equivalent to 27 per cent of household income. For savers and controls, nearly all of this money was borrowed from informal sources, with family and friends making up more than half the total. SEWA Bank borrowers owed only slightly smaller sums to informal lenders but increased their debt by borrowing about half the total amount owed from SEWA Bank. It thus appears that borrowers use SEWA Bank to increase their outstanding debt for whatever reason, rather than to pay off loans from other sources. The case studies confirm this impression. Case study households used only 10 per cent of their SEWA Bank loans to pay off old debt, devoting 70 per cent of what they borrowed to investments in business and housing, 18 per cent to pay for weddings, and 2 per cent to cover medical expenses.

While most households try to save and all SEWA Bank clients have at least one savings account, total reported savings were quite small. At the time of the Round 1 survey, households in the sample held an average of only \$47 in financial savings. However, SEWA Bank clients had two to three times as much savings as non-clients in Round 1 and held most of these funds in SEWA Bank. Controls, by contrast, saved primarily through chit funds and rotating saving/credit associations. No one in the sample seems to have much to do with banks other than SEWA Bank, either as a source of credit or as a savings vehicle.

At the time of Round 1, more than one-half of the households in the sample (53%) were living below the "dollar a day" poverty line established by the World Bank. A further 34 percent had daily per capita incomes in the \$1–2 range, leaving only 13 per cent above the \$2/day level. Round 2 showed only modest improvement, on average, in these poverty measures. The percentage of households below \$1 fell and the percentage above \$2 rose, in both cases by less than one percentage point. The efforts of borrower households to escape poverty brought mixed results: the numbers below \$1 and above \$2 both increased. Saver households made steadier progress, with the numbers in the \$1–2 range and above \$2 both rising. Underlying these small net changes was a good deal of change in the poverty status of particular households. The position of borrower households was particularly volatile. Nearly half of them (122 out of 264) moved from one poverty category (below \$1, \$1–2, or above \$2) to another between survey rounds. Overall, borrowers had the largest share of non-poor households in Round 1 and experienced the largest increase in the number of non-poor households between rounds. Yet they also had the most households that slipped to a lower poverty category between survey rounds. This suggests that while many borrowed to take advantage of business opportunities and

were able thereby to improve their lot, others may have borrowed out of desperation, then found that borrowing did not solve their problems.

The hypothesis tests on data from the sample survey establish that SEWA Bank's financial services have several of the impacts postulated by AIMS but fail to support certain other hypothesized impacts. These tests suggest that the use of the credit and savings services of SEWA Bank raises household income, both total and per capita. SEWA Bank's financial services are also strongly associated with spending on housing improvements, with expenditure on consumer durables, and with school enrollment, especially for boys. There was at least some suggestion that participation in SEWA Bank enhances all the remaining hypothesized impact variables: income diversification, expenditure on food, and the ability to cope with the financial shocks that are common in this environment, but the evidence is mixed. The number of loans ever taken from SEWA Bank is strongly related to several impacts. Compared to one-time borrowers, repeat borrowers enjoy greater increases in income, lay out more money on household improvements and consumer durables, are more likely to have girls enrolled in primary school, and spend more on food.

The urban working class population in our sample frequently experiences financial shocks of several kinds: deaths of family earners, theft losses, fire losses, job losses, business failures, serious injuries or illnesses, civil unrest, births, marriages and other events that either interrupt normal income flows or necessitate extraordinary expenditures. In Round 1 of the survey, 71 per cent of respondents reported at least one significant financial shock during the past two years. One fifth of the sample experienced two or more shocks during that period. Although we hypothesized that participation in SEWA Bank would help clients cope with crises by having to resort less frequently to the liquidation of earning assets, evidence in support of this hypothesis turned out to be weak. Sample households cope with risks through combinations of saving, borrowing, and insuring. The instruments available to them are clearly inadequate. As a result, many of the sample households, including some SEWA Bank clients, remain deeply in debt.

Forty-one per cent of the women in our sample operate microenterprises as their principal economic activity. Nearly all the others work as dependent sub-contractors (36%) or as laborers (22%). Only 12 women (1% of the sample) hold salaried jobs. Microenterprises operated by women in the panel generally raised their revenues between rounds of the sample survey, but the increase was smaller than the rise in household income and was not clearly linked to participation in financial services. The clearest finding is that the informal sector earnings of respondents and both the total microenterprise revenues and the informal sector earnings of respondents' households are positively impacted by participation in SEWA Bank. There also appears to be some significant impact on employment, although the total amount of employment created these microenterprises is very small. Notably absent in our quantitative findings is any apparent impact on the principal microenterprise (if any) of the client herself. Nor did we find any significant impact on the fixed assets of microenterprises anywhere in the household. Finally, it should be noted that we saw no significant impact at the enterprise level from long-term participation in SEWA Bank as a repeat borrower.

Our interpretation of these somewhat negative findings at the enterprise level relies on several contextual factors:

- ◆ There is severe overcrowding and keen competition in the informal sector in Ahmedabad. Although the income level is rising, even among the poor, scope for an individual entrepreneur to expand his or her microenterprise is limited because any gains will swiftly be competed away.
- ◆ Specific constraints apply to all the principal trades in which women in our sample participate. For example, street vending faces problems with municipal regulations and the police, bidi rollers have been fighting with the employer/contractors over rates of pay and retirement contributions, and garment makers face rising competition and have trouble acquiring needed new skills.
- ◆ SEWA Union engages in “struggle” (trade union and lobbying activity) on behalf of all women engaged in some of the major trades in which women in our sample participate. SEWA Union has fought for higher piece rates in bidi rolling, garment sub-contracting, and incense making. It has pushed for improved government services and benefits such as those provided under the Bidi Workers Welfare Act. It has tried to get the municipal government to provide better infrastructure and services in the neighborhoods in which their members live. SEWA Union has worked to reduce police harassment of street vendors and obtain better market space allocations for vendors. The impact of these and other struggle activities is not easy to identify or measure. To the extent that non-members of SEWA share in the benefits, however, differences between members and non-members fail to provide an adequate measure of impact.

Survey findings indicate some impact at the individual level. They suggest that women who borrow repeatedly over an extended period benefit most. The case studies also suggest that women who participate most extensively in a range of SEWA activities enjoy more extensive benefits. Analysis of the quantitative survey findings indicates that women who borrow from SEWA Bank participate actively in the decisions regarding whether to borrow, how to use the loan proceeds, and how to use the resulting increases in microenterprise revenues, if any. Participants in SEWA Bank do not appear to have more positive images of themselves than other working-class women or to be more optimistic about the future. They are, however, far more likely to have personal savings accounts and to be taking specific steps to prepare for the future. One reason why more significant individual-level impacts were not detected in our study may be that many working class women in Ahmedabad entered the labor force by the 1970s (if not earlier) and were already economically mobile and participated in household economic decision making long before our Round 1 survey. They did not have to be induced to such behavior by SEWA Bank.

The detailed case studies leave little doubt that SEWA Bank and its sister institutions have been able to improve the lives and work of countless women in Ahmedabad in ways that our survey did not capture or measure. For example, Gayatri (a pseudonym) has taken two loans from SEWA Bank and attended 2–3 SEWA Union meetings. When asked about the impact of SEWA on her life, Gayatri readily listed several impacts. To begin with, SEWA has helped raise the piece-rate for bidi-rolling. As Gayatri noted, “A bidi-roller cannot bargain on her own. Bidi-rollers need to join together to bargain effectively.” Second, SEWA helped Gayatri secure a scholarship for her daughter, the only one of her children who scored high enough on school

tests to be eligible for a scholarship under the Bidi Workers Welfare Act. Over a 7–8 year period, Gayatri’s daughter received 450 rupees per year in a scholarship and 170 rupees per year as food allowance. Third, Gayatri has benefited from the financial services of SEWA Bank. She was particularly grateful to have a secure place to save money out of the reach of her gambler husband. Finally, Gayatri was one of 150 or so bidi–rollers who, in a lottery draw, “won” a house in a SEWA–sponsored subsidized housing project. Only one of these impacts – the beneficial impact of savings services – is due to SEWA Bank and would have been captured in our survey. The other impacts – increased piece–rates, scholarship, and subsidized housing – are due to SEWA Union and were not captured in our survey.

The study shows that the urban poor earn their living primarily through their labor power. Their main physical asset is their housing stock, which often serves as a place of business as well as abode. Social relations – including both social claims and social obligations – are important and ultimately tied to the provision of informal financial services. Other than through SEWA Bank, few poor households have access to formal financial services. Informal borrowing, saving, mortgaging or pawning of assets, and insurance (for marriages and deaths), drawing on both vertical and horizontal social ties, are the only financial services available to poor households. Social norms relating to caste and gender also matter. The elaborate social system that confers advantage or disadvantage based on a person’s gender and caste is still pervasive, in urban as well as rural areas.

The level of resources and range of opportunities available to low–income working families in Ahmedabad make earning a decent living quite difficult. Compounding their day–to–day struggle to secure livelihoods, the poor have to face numerous risks or contingencies with few financial resources. They must save as best they can or borrow to meet household financial needs, including housing improvement, life cycle events, and emergencies. Because they repeatedly need lump sums in excess of what they are able to save up, they borrow money on a regular basis from various informal sources. Each household, therefore, manages a diverse financial portfolio including loans from several informal sources and several types of informal savings. Some observers view this continuous cycle of saving, borrowing, spending, and repaying as a vicious circle that demonstrates how poor households try to cope with risk; others view it as a virtuous circle that demonstrates how poor households manage their money. Our findings suggest a mixed picture. Some households are able to manage this cycle with discipline or resilience, while others are unable to control it and fall into a spiral of indebtedness.

Since informal savings and borrowing are the only financial services available to most poor households in Ahmedabad, SEWA Bank expands the available options for SEWA members to save and borrow. Considering the reasons why low–income households take out loans, the impact of borrowing from SEWA Bank is not necessarily greater than the impact of saving. Given similar household needs, the household that is able to save to meet anticipated needs might do better than the one that is unable or unwilling to save and is forced to borrow to meet its financial needs. Clearly, financial shocks constitute one important motive for borrowing. Thus borrowing may indicate either financial stress or financial stability. The same can be said for forced saving such as the minimum saving required to borrow from SEWA Bank. By contrast, voluntary saving – particularly repeated deposits or earmarked fixed deposits – is more likely to indicate financial stability. Some of the impacts measured in our statistical analysis

were at least as great for savers as for borrowers, or even greater. It is also notable that savers enjoyed a greater increase in income between survey rounds than borrowers.

The fungibility of loans clearly emerged as a theme from both the statistical analysis and the case studies. Credit is used for many purposes and individual loans are used interchangeably with other loans and with savings. To begin with, loans were used for various purposes within the household, not just in the respondent's enterprise or other economic activity. Contrary to the orthodox understanding of how microfinance works, we found that borrowing from SEWA Bank had impact on different enterprises in the household but not on the respondent's own primary enterprise. Second, loans were used for both fixed and working capital, even for the same enterprise. Third, loans were used interchangeably for production and consumption purposes. Even among microentrepreneurs who run their own businesses, borrowing from SEWA Bank was often intended to meet household needs or to invest in other enterprises, not to expand their own businesses. Finally, we found fungibility among various forms of debt, including the following patterns: two or more loans being used for a single purpose; one loan being split for different uses; and one loan being used to repay other loans.

Why would low-income working women (or their households) want to borrow from SEWA Bank, rather than from informal sources? First, SEWA Bank charges 17 per cent per annum while most informal lenders charge more than twice as much, sometimes four times as much. In addition to higher interest rates, there are other costs of informal loans. Several case study respondents report that they prefer the anonymity of taking loans from SEWA Bank, compared to the shame associated with borrowing from family, friends, and neighborhood moneylenders, and the disciplined regularity of repayments to SEWA Bank, compared to the whims of their informal creditors.

Why would low-income working women (or their families) want to save at SEWA Bank? There is little doubt that they want a safe place to save, not only for security from theft and fire but also from unwanted claims by their husbands, children, or other relatives and from unnecessary withdrawals by themselves for their own and their families' spending needs.

Emerging Themes and Lessons

We drew several broad lessons from our study, both for research and for the practice of microfinance and microenterprise development. Briefly, these are:

Implications for research:

- ◆ The mix of quantitative and qualitative methods used in the AIMS project was helpful because it allowed for both statistical validation of impact and qualitative interpretation of impact. The supporting analyses of context and program provided additional support for interpretation and program-related feedback to SEWA Bank.
- ◆ Like AIMS, future assessments should be guided by a core set of research questions or hypotheses and a clear understanding of different methods.
- ◆ Equally important is the need to modify and test hypotheses, measures, indicator variables, and survey questionnaires to "fit" the characteristics of the local context and the specific program.

- ◆ Capturing or measuring change is difficult, particularly at the enterprise and individual levels.

Implications for practice:

- ◆ The concept of microfinance needs to be broadened. There has been a longstanding and widespread assumption that the role of microcredit is to promote microenterprise development, that clients invest their loan proceeds in their enterprises and then use the added cash flow from their enterprises to repay their loans. Our findings and the experience of SEWA Bank support an increasingly popular alternative conception, namely that clients use their loans as they (or other members of their household) see fit and then repay their loans with funds from various sources, within or outside the household. In the setting that we studied, there are two primary reasons for the fungible use of loans. First, it is hard to develop a microenterprise, particularly a female enterprise, in Ahmedabad. Second, households living at or near the \$1-a-day poverty line face a range of competing demands on their financial resources, including housing improvement, life cycle events, and emergencies.
- ◆ The concept of microenterprise development also needs to be broadened. Microfinance has long dominated the wider field of microenterprise development. Recently, there has been renewed interest in non-financial or business development services. The SEWA Union experience and our findings suggest a need for sector-specific business development services that address as many backward and forward linkages – and constraints – as possible.
- ◆ The concept of women's empowerment also needs to be broadened. SEWA's model of empowerment grows out of 30 years of experience and focuses on women's identity as workers or economic agents and therefore addresses both class and gender relations. The underlying model of power that dominates the SEWA model relates to the power relationships that women experience in their working lives. SEWA's understanding of the importance of class-based power relations poses a challenge to conventional feminist understanding of the primacy of gender relations.
- ◆ Finally, the concept of poverty alleviation needs to be broadened. Poor working families like those in our study face difficult problems of household financial management. Besides offering severely limited income earning opportunities, the environment in which the poor live periodically presents them with financial crises. These events, which are sometimes predictable but are often unexpected, involve either one-time expenditures or interruptions of normal income flows that are large relative to the total financial resources available to the household. Insurance, pensions, social welfare programs, and other institutionalized mechanisms that help families in developed countries cope with poverty and financial crises are generally unavailable in developing countries. Borrowing and saving must therefore carry more of the load. Programs like SEWA Bank give people expanded access to credit (often their first contact with formal financial institutions) and help them to save. When these programs offer better lending terms and credit and savings instruments that better fit clients' needs, they strengthen the ability of the working poor to use finance to cope with financial crises and improve the welfare of their families.

Section 1 – Introduction: Purposes and Overview of the Study

This research monograph reports on a study intended to measure the impact of microfinancial services on a group of low-income women in an Indian city.¹ The services in question are the credit and savings programs of SEWA Bank, a cooperative bank that operates in Ahmedabad, the principal city of Gujarat state in Western India.² SEWA Bank is a sister institution of the Self-Employed Women's Association (SEWA), a trade union devoted to advancing the interests of low-income working women who are active in either self-employment, sub-contracting, or casual labor. Since it was established in 1974, the Bank has provided a widening range of financial services to SEWA members.

The research has several components. Its core is a sample survey that collected information on 900 working class women in Ahmedabad, their households, microenterprises, and other informal sector economic activities. This survey was conducted in two rounds (early 1998 and early 2000) and provides data for both cross-section and longitudinal tests of the impact of microfinancial services, using analytical methods described in Section 4. Results of this analysis are presented in Section 5.

The descriptive information collected in these surveys and the analytical results derived from it can be interpreted soundly, however, only if three additional types of analysis are brought to bear. The first of these is an overview of the economic, social, and political setting in which microfinancial services are provided and the subjects of the research make their living. Next, a good understanding of the microfinancial institution involved – its objectives, structure, and methods of operation – is required. Finally, detailed case studies of some of the clients have been carried out, with the important aim of gaining a better understanding of the problems and opportunities that they face and the specific ways in which microfinancial services can help them in their daily lives.

The study sought to identify, characterize, and measure the impact of credit and savings services on SEWA members. It explicitly hypothesized that impact might be found at three different levels: on the individual clients of the Bank, on their households, and on their microenterprises and other informal sector economic activities.

This study shares a common research design with two other AIMS studies, carried out in Peru and Zimbabwe, including a core set of hypotheses about how microfinancial services have impact at the household, enterprise, and individual levels (AIMS Core Team 1997). These hypotheses are derived from a conceptual model that views individual microenterprises and other economic activities as embedded in a household economic portfolio (Chen and Dunn 1997). The household economic portfolio is defined as follows: a) a set of human, physical, and financial resources; b) a set of consumption, production, and investment activities; and c) the circular flow

¹ The study is part of the Assessing the Impact of Microenterprise Services (AIMS) Project sponsored by the United States Agency for International Development (USAID). Parallel core impact analyses have been carried out in Lima, Peru and in Zimbabwe.

² SEWA Bank also provides insurance policies to SEWA members, but the impact of this service has not been evaluated.

of interaction between household resources and activities. It is assumed that credit and other resources are fungible within the household.

Using the common core hypotheses,³ participation in microfinancial services is hypothesized to lead to the following changes:

At the household level, that participation in microfinancial services leads to:

- ◆ an increase in the level of household income;
- ◆ greater diversification of the household's income sources;
- ◆ improvements in housing;
- ◆ increases in ownership of major household appliances and motor vehicles;
- ◆ higher educational participation by children in the household;
- ◆ increases in expenditures on food, especially among the very poor; and
- ◆ improved effectiveness in coping with shocks.

At the enterprise level, that participation in microfinancial services leads to:

- ◆ an increase in revenues;
- ◆ an increase in enterprise fixed assets;
- ◆ an increase in the employment generated by the enterprise; and
- ◆ improved transactional relationships.

At the individual level, that participation in microfinancial services leads to:

- ◆ an increase in the client's control over resources and income within the household economic portfolio;
- ◆ increased self-esteem and self-confidence; and
- ◆ an increased ability to deal with the future.

In addition to these common core hypotheses of the AIMS Project, our study investigates two context-specific hypotheses suggested by important differences between our case and the other two AIMS studies.

First, SEWA Bank emphasizes savings over credit. Savings can be used in many of the same ways as credit in the household economy: to generate resources for enterprise expansion; to finance housing improvements; to smooth consumption; and to pay down higher-cost debt.⁴ Even those who borrow must save subsequently to repay their loans. We were therefore interested in the impact of saving as well as that of credit and accordingly interpret all the standard AIMS hypotheses about possible impacts at the household, enterprise, and individual levels to apply to savings as well credit. We expected that the benefits of participation in the financial services offered by SEWA Bank would manifest themselves among borrowers, as in any microlending program, but we also hypothesized that members who maintain savings accounts with SEWA Bank would experience benefits unavailable to non-members of SEWA. Since all borrowers also have savings accounts, we hypothesized that the benefits of borrowing

³ The three studies also have a common set of variables and measures to facilitate comparative analysis across the three programs as well as a few specific context-specific variables and measures.

⁴ See Stuart Rutherford, *The Poor and their Money* (New Delhi: Oxford University Press, 2000).

and saving would be additive; that is, borrowers were expected to receive greater benefits than savers.

Second, many of SEWA Bank's client members are not independent microentrepreneurs, but rather make their living as dependent sub-contractors or laborers. In addition to testing the impact of financial services on microenterprise, therefore, we also examined their impact on the total informal sector earnings of the household.

SEWA and SEWA Bank offer a number of specific services to their member-clients. The Bank provides secured and unsecured loans for a range of purposes that includes housing, repayment of old debts, redemption of mortgaged assets, and social consumption purposes such as education, health, and weddings. It also provides loans for fixed and working capital for enterprises. SEWA Bank puts most emphasis, however, on savings accounts, which involve ten times as many SEWA members as the loan program. SEWA Bank also provides health, property, and life insurance. Other branches of SEWA organize and train working-class women for a variety of "struggle" and "development" activities (see Section 3).

The research reported here addresses both substantive and methodological issues. Can the financial services provided by SEWA Bank be shown to have measurable impacts? If so, what are the nature and magnitudes of these impacts? What moderating factors affect program impacts? What is the influence of the environment in which the clients live and work, and in which the program is implemented? What difference does the structure of the program itself, the form of its credit and savings instruments, make? What can we learn from impact evaluation of microfinancial service programs?

Section 2 of this research monograph presents an overview of the economic, social, and political context in which the SEWA Bank provides its services and the sample households make their living. Section 3 describes the SEWA Bank – its objectives, structure, and methods of operation – and its sister institutions. Section 4 details the design, methods, and sample of the main research methodologies used in the study, a longitudinal sample survey and case study interviews. In Section 5, the main findings of the sample survey are presented, with references to related qualitative findings. In Sections 6 and 7, the findings from a series of in-depth interviews with 12 case study borrowers from the SEWA Bank are presented. Finally, Section 8 draws overall conclusions that have implications for researchers and the microfinancial industry.

Section 2 – Program Context: Ahmedabad City, Gujarat State, India⁵

In this section, we describe at some length the context of SEWA Bank's activities. We do so for several reasons. First, many readers may be unfamiliar with India. Second, the customers of SEWA Bank are not solely, or even primarily, microentrepreneurs; many of them work under sub-contracting systems that require some explanation. Most important, however, we believe that the context described in this section has an important bearing on the findings about program impact that we present later on. We will refer back to this context in subsequent discussion.

A. General Description

A.1. Location and Physical Environment

SEWA (described below in Section 3) works both in Ahmedabad City, where it had 49,000 union members in 1999, and in selected areas of rural Gujarat, where there were 99,000 additional members (SEWA 1999). It is gradually expanding to other states and had nearly 68,000 additional members outside Gujarat in 1999. SEWA Bank, however, is headquartered in Ahmedabad and our study is confined to that city.

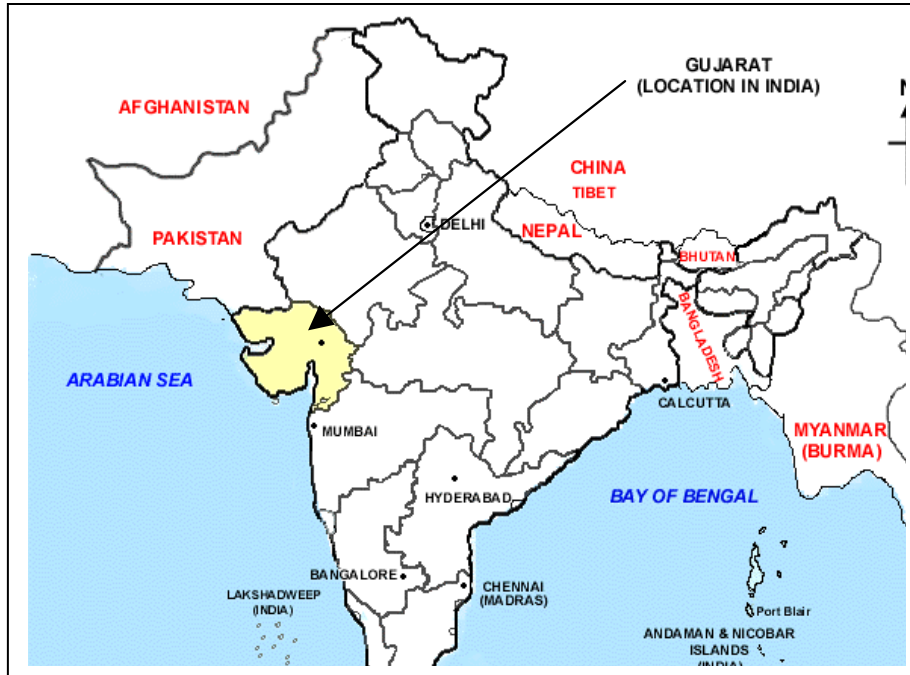
Greater Ahmedabad is India's seventh largest city with a population of nearly four million. It ranks in the second tier of Indian cities along with Bangalore, Hyderabad, and Pune (Poona), but below the leading urban concentrations of Mumbai (Bombay), Delhi, Calcutta, and Chennai (Madras). Ahmedabad is the commercial center and largest city of Gujarat, a west Indian state with a population of 45 million and an area of 196,000 square km., 6 per cent of the total area of the Indian Union (see Map 1).

Ahmedabad straddles the Sabarmati River fifty miles from its mouth and 173 feet above sea level (see Map 2). Except in the rainy season, the Sabarmati is a thin stream in a broad bed of deep sand. The women in this study live on the river's east bank, in and around the old walled city (see Map 3). Most of Ahmedabad's textile mills (see below) were also located on the east bank. The newer suburbs are on the west bank, which has been more dynamic economically in recent years.

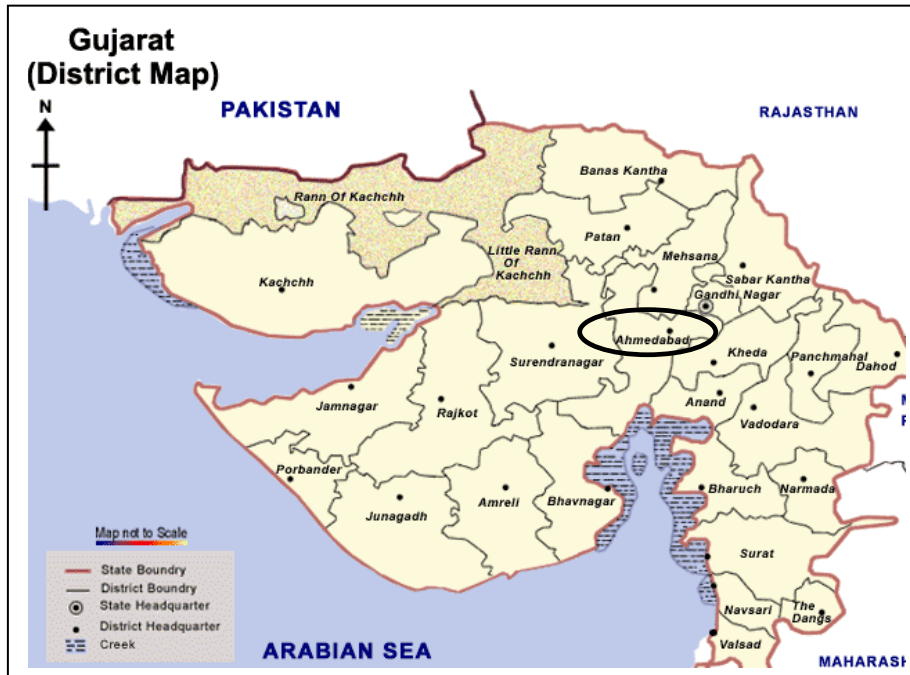
Ahmedabad's climate features four relatively cool months (November–February) and eight months of heat, which becomes extreme as the June–October monsoon season approaches. Rainfall is sparse and concentrated in the monsoon period. Agriculture and some urban activities are seasonal. Many trades stop during the monsoon because their products or materials cannot be kept dry; workers in these trades may become laborers during this season. Some products (such as kites flown at an annual festival or images of Ganesh offered at temples on his holiday) are made only in particular seasons. Another kind of seasonal disturbance is the slowdown in trade that occurs prior to presentation of the central government's budget in March each year. At this time, traders hoard goods in anticipation of higher prices. According to SEWA informants, the most representative months in which to carry out a survey are December and January.

⁵ The assistance of Sharmila Murthy in writing this section is gratefully acknowledged. Howard Spodek provided useful information and insights.

Map 1: Gujarat in India



Map 2: Districts of Gujarat



Map 3: Ahmedabad City



source: <http://mapsofindia.com/maps/gujarat/index.html>

A.2. Economic Position of Gujarat and Ahmedabad

Gujarat is considered one of the more economically advanced states in India. In income per capita it ranks fifth, after Punjab, Haryana, Kerala, and Maharashtra (Shariff 1999, p. 7). In 1991, Gujarat was India's fourth most urbanized state, with 34.5 per cent of its people resident in urban areas, compared to a national average of 25.7 per cent (Gujarat 1998: viii). It was also one of the most industrialized states in India.

Economic growth in the state has been rapid in recent years. The annual average growth rate of state domestic product accelerated from 5.1 per cent in 1981–91 to 9.6 per cent in 1991–98 (Unni and Rani 2000). There has been some slowdown in the past two years, but Gujarat continues to rank among the leaders in the acceleration of Indian economic growth that followed policy reforms in the early 1990s.

Inflation has slowed a bit recently. Between March 1996 and March 1997, the Ahmedabad consumer price index went up by 12.4 per cent. However, between January 1998 and January 2000—the two-year span between the two rounds of the household survey discussed in later sections of this report—the rise was 15.6 per cent, a lower annual rate (7.7%).

Despite a few years of fast economic growth, the population of Gujarat remains very poor. In 1993/94, 35 per cent of rural households and 31 per cent of urban households in the state lived below the official poverty line (Datt 1998: 205).⁶

Over recent decades, Ahmedabad has lost some of its previous economic dominance of Gujarat State. The growth and structure of the local economy cannot be delineated precisely because nearly all economic statistics are compiled on a state-wise or district-wise basis, not for the Ahmedabad municipality or urban agglomeration.

A.3. Historical Background

Unlike Bombay, Calcutta, or New Delhi, Ahmedabad is not primarily a creation of British colonialism. Founded by the invading Moguls in 1411, the city was developed by indigenous financial and mercantile elites. Muslim weavers and Hindu and Jain financiers and merchants cooperated to bring wealth to the city. Ahmedabad had little religious significance for either Hindus or Muslims; people came there to do business (Gillion 1968). In the mid-nineteenth century, textile mills began to be established and Ahmedabad became known as “the Manchester of India.” Later, World Wars I and II interrupted access to imported textiles, spurring the growth of the city's dominant industry.

Between the wars, Ahmedabad played an important role in the independence movement. It was the city where Mahatma Gandhi organized many of his protests for India's independence in accordance with his principles of non-violence and passive resistance.

⁶ This poverty line was set lower than the World Bank's well-known “\$1 a day” poverty line, causing the percentage of poor households to be understated to some degree.

Changes in the textile industry since the 1960s have devastated Ahmedabad's integrated textile mills. Mills of this type in Ahmedabad and elsewhere steadily lost market share to small weaving factories known as powerlooms. Eventually, most of the mills closed. In part because the Ahmedabad textile mills were strongly unionized, the powerlooms clustered in Surat, a city in southern Gujarat. Ahmedabad was only partially successful in finding new industries to replace the closed textile mills. It did develop a chemical industry, which specializes in dyes used in the textile industry. Recently a few surviving textile mills have reorganized and entered new areas of production, notably Reliance Mills and Arvind Mills, which were given government permission to expand because they produce for export. Arvind Mills has introduced a new, cheaper line of denim, called "Ruf 'n Tuf," intended to induce lower-income consumers to wear jeans.

Garments represent an important new area of production, serving both domestic and export markets through a combination of factory and informal sector operations. In the past decade, Indian customers have shifted strongly from custom-made to ready-made garments. Some of these garments are sold under advertised brand names while many others compete mainly on the basis of price. The latter category of garments is produced and/or marketed by the informal sector (Tirthankar Roy 1998). Whereas the textile mills formerly marketed cloth by brand names, many of which were well known, now the brand names of the garments are more significant. This shift has cost the mills a competitive advantage.

In general, however, structural change is slower in Ahmedabad's economy than in some Indian cities. The city is "practically drawing a blank in high-tech manufacturing" compared to places like Bangalore and Pune (Pangrotra 1998). Yet Ahmedabad is located in one of India's most dynamic regions. Gujarati people have a historic reputation for business enterprise (Gillion 1968). The Ahmedabad Municipal Council has the second-largest municipal budget in India, possesses more revenue-raising powers than most other Indian cities,⁷ has ambitious infrastructure development plans, and was the first Indian city to successfully float a bond issue. Several large industrial investments are planned or underway, but they tend to be in capital-intensive industries such as chemicals and pharmaceuticals (an exception is light engineering) and most are located either on the fringes of the city or in other parts of Gujarat. While industrial investment in the region may boost construction and service employment in Ahmedabad, B. B. Patel has estimated that only 1.6 non-industrial jobs will be created for each industrial job. The policy framework still discourages the creation of regular employment by mandating minimum wages and benefits and making worker termination and plant closing legally almost impossible, so most of the jobs created are likely to be casual in nature, with large numbers of workers hired indirectly through labor contractors.

A.4. Ahmedabad's Textile Industry

The past three decades have seen the downfall of Ahmedabad's dominant industry. There were over 150,000 mill workers⁸ and about 75 large integrated mills⁹ in the city in the late 1960s, but

⁷ However, more than half of the municipal revenue is generated by octroi, a tax on shipments of goods in or out of the municipal area. The proposed elimination of octroi would require the municipality either to generate substantial revenue from other sources or to cut back on its expenditures.

⁸ According to Ahmedabad historian Howard Spodek, mill labor included local people and immigrants from Uttar Pradesh, Andhra Pradesh, Rajasthan and other states. Many were female. Untouchables did the lower-paid spinning

the industry's profitability declined and textile employment fell sharply¹⁰ as one mill after another closed. The decline and fall of the textile mills is attributable in large measure to government policy, particularly measures intended to favor handloom weaving. In addition, the Factory Act (unintentionally) discouraged the hiring of regular workers by making it almost impossible to fire them legally should the need arise. Market forces also contributed to the mills' decline by hampering their ability to compete with the powerlooms.¹¹ Some of the mills were taken over by the government, while others were closed in defiance of the Factory Act. Many government mills later shut down as well.

The Indian textile industry is conventionally split into three categories: the integrated mills, the powerlooms (which vary in size but are smaller than the mills and only do weaving), and the handlooms. The broad trend has been for powerlooms to expand rapidly as the mills contract and the handlooms grow slowly. In 1940, more than two-thirds of the cotton cloth produced in India came from the mills and nearly all the rest was hand-loomed. By 1994/95, mill production had fallen by two-thirds and its share of total output had plunged to 7 per cent; powerlooms now produced 61 per cent of cotton cloth output while handlooms accounted for 32 per cent (primarily hand-made saris). Powerlooms also dominate the growing production of synthetic and blended fabrics (Tirthankar Roy 1998, p. 898).

A.5. Population and Social Structure

According to India's population censuses, Ahmedabad's population growth measured 90 per cent between 1931 and 1941, but slowed in each succeeding decade. The population estimate for 2000 is 3.3 million within the city proper and about four million in the entire urban agglomeration (Rani and Unni 2000). The population is believed to be growing at about 2 per cent a year within the Ahmedabad Municipal Council (AMC) area and at 3–4 per cent in the fringe areas.

Ahmedabad's population is about 80 percent Hindu, with a significant Muslim presence (perhaps 12% of the population) and small minorities of Jains (5%), Parsees, and Christians. The native languages of its residents suggest their places of origin: 70 per cent Gujarati, 13 per cent Urdu, 3 per cent Hindi, 3 per cent Marathi, 1.7 per cent Rajasthani, and 1.3 per cent Sindhi (Patel 1988: 10, citing the 1981 population census). Both Muslims and Hindu Scheduled Castes and Tribes (ex-untouchables) are strongly represented in Ahmedabad because these groups were recruited by the textile mills in earlier times.

work while the weavers were Muslims and members of the upper-caste Patel community. (Spodek: personal communication).

⁹ Integrated textiles mills combine spinning, weaving, and other processes under one roof.

¹⁰ It is now about 30,000, so some 120,000 mill jobs were lost.

¹¹ See Mazumdar (1984); Little, Mazumdar, and Page (1987); and Tirthankar Roy (1998). Mazumdar notes that in 1950 mills were banned from producing a wide range of textile products; in addition, excise taxes were levied on textiles produced in plants with more than four looms. Later, the mills were required to devote a certain proportion of their production to coarse cloth which then had to be sold at a controlled price; this weakened their financial position. Later still, the mills were forbidden to expand, except for exports (the additional demand, it was hoped, would be met by the handlooms). Tirthankar Roy cites four other factors that helped the powerlooms displace the mills: (1) an unlimited supply of unskilled labor; (2) developing systems of inter-firm coordination; (3) agglomeration based on such systems; and (4) continuous investment in powerlooms of funds earned in handloom weaving, other small businesses, and agriculture.

Areas of Ahmedabad resemble rural India, with Muslims and the various Hindu castes and tribals all clustering in their own communities. In past decades, the prospect of work in the textile mills drew immigrants not only from rural Gujarat but also from Uttar Pradesh, Rajasthan, Maharashtra, Andhra Pradesh, and Madhya Pradesh. The decline of these mills slowed but did not stop immigration into Ahmedabad. Successive droughts, increasing landlessness, and displacement of traditional skills in the villages continue to push people toward Ahmedabad. As immigrants enter the city, they erect slum settlements in barren lots or along canals or the railroad tracks. Approximately 40 per cent of Ahmedabad city's population lives in 129 slums (informal settlements) and 1,383 chawls (tenements) (UNDP–World Bank n.d.). These settlements exist side-by-side with some of India's leading institutes of architecture, management, space research, and design.

The ratio of females to males in Ahmedabad has been rising. There were 804 females for every 1,000 males in 1961, 829 in 1971, and 869 in 1981. This trend most likely reflects increased female migration in the wake of earlier male-dominated immigration.

Gujarat's social development compares less favorably to other Indian states than its economic achievements. The *India Human Development Report* (Shariff 1999) places Gujarat in the middle group of states on its human development index. Its standing by this measure is similar to Karanataka, Andhra Pradesh, and West Bengal but below Maharashtra, Kerala, Tamil Nadu, Haryana, Punjab, and Himachal Pradesh. Gujarat was, however, superior to the more backward states of Rajasthan, Uttar Pradesh, Madhya Pradesh, Bihar, Orissa, and Assam.

The infant mortality rate fell from 116 in 1981 to 61 in 1996 (Gujarat 1998: xix). Over the same period, the birth rate declined from 34.5 to 25.7 and the death rate dropped from 12.0 to 7.6. These moderate improvements left Gujarat in the middle group of Indian states by these measures. Its total fertility rate had fallen to 3.7 by 1994, which was below the All-India average of 4.3 (Shariff 1999: 153).

Participation in education is somewhat higher in Gujarat than in India generally. A 1994 household survey found that 74.5 per cent of the population had been enrolled in school at some time in their lives (Shariff 1999: 105). This was above the national average of 64.8 per cent. Fifty-nine percent of the state's population (age 7+) was found to be literate in 1994, above the national average of 54 per cent but far behind Kerala's outstanding 90 per cent literacy rate. Female literacy was put at 46.7 per cent, compared to 71.3 per cent for males (Shariff 1999: 100). The 24-point disparity between men and women in this regard is slightly smaller than the gender disparity in literacy for all of India.

Infrastructural facilities appear to be much better in Gujarat than in India generally. In 1994, 72 per cent of households had electrical connections, versus only 43 per cent in the nation in general (Shariff 1999: 7). Similarly, 60 per cent enjoyed piped water, compared to a national average of 24 per cent.

Environmental issues loom as important in determining future economic development in Gujarat. Environmental pollution has been considerable and the supply of water is severely limited.

A.6. Government and Politics

Ahmedabad City is divided into 43 wards. The local government is headed by a mayor, who works with the Municipal Commissioner, an Indian Administrative Service (IAS) officer appointed by the government of Gujarat. The Ahmedabad Municipal Corporation (AMC) is responsible for providing all municipal services to the city and employs a workforce of 40,000 (UNDP–World Bank, Ahmedabad Parivartan Field Note).

Previously ruled by the Congress Party, Gujarat was later taken over by the Bharat Janata Party (BJP) and is currently controlled by a local offshoot of the BJP. Considerable turmoil has accompanied these changes in government. Since the 1960s, Ahmedabad has suffered from repeated, violent, and disruptive communal riots. Although these conflicts have often pitted Hindus against Muslims, upper caste and lower caste Hindus have also quarreled over the issue of reservations for lower caste Hindus. Riots are often devastating for SEWA members. During the communal riots of 1985, for example, most informal workers in Ahmedabad could not work for five months because of curfews. Home-based workers could not get their raw materials or deliver the finished products. Vendors also suffered because areas were curfew-bound (Women and Media Group 1985).

B. Economy

B.1. India's Economic Development

B.1.a. Policy Reform and Macroeconomic Trends

When India achieved Independence in 1947, its founding fathers adopted socialist goals and a planned approach to development. Under the banner of socialism, many protective laws and policies were enacted. In line with the nationalist swadeshi (self-sufficiency) movement, the government imposed high customs tariffs to protect local industries. It also created stringent labor laws, which benefited those workers fortunate enough to have jobs in large-scale enterprises but limited employment opportunities for millions of others. For many years, India was notorious for slow economic growth. Its long-term average for GNP growth of 3.5 per cent per annum was jokingly known among Indian economists as “the Hindu rate of economic growth.” Population growth averaged 2.3 per cent through the 1960s and declined only gradually thereafter.¹² This combination of slow production growth and relatively rapid population increase meant that per capita income rose at only 1.5–2.0 per cent per year on average, with year-to-year fluctuations attributable in large part to rainfall variations. During the 1980s, Indians became more conscious that many other countries were passing them by and policy reform became more feasible. Partial reforms instituted under Rajiv Gandhi in the 1980s accelerated economic growth, but severe imbalances developed in government finances and the balance of payments. By January 1991, India ranked as the world's fourth largest debtor and foreign exchange reserves were sufficient to finance only 13 days of imports. This crisis prompted several policy reforms. The initial steps involved a large devaluation, the pledging of Indian gold to raise foreign currency loans, and sharp cutbacks in government expenditure.

¹² As a result, India's population now exceeds one billion and is expected to surpass China's slower-growing total within the next few decades.

India undertook a structural adjustment program of the sort commonly recommended by the International Monetary Fund and the World Bank. Measures to control external and internal imbalances were followed by initial steps to deregulate industry, trade, and finance. What had begun as short-term stabilization measures thus became fundamental economic reforms. Customs tariffs were cut from above 150 per cent to a ceiling of 65 per cent. Major steps were taken to make the rupee convertible, several industries were de-licensed, and foreign investors began to be allowed entry into domestic equity markets (Rao and Linnemann 1996: 256).

The economic policy reforms significantly accelerated the pace of national economic growth. Gross Domestic Product grew at 7.6–7.8 per cent between 1994 and 1997. The growth rate dipped to 5.0 per cent in 1997–98 under the influence of the Asian financial crisis (a small impact compared to the hardest-hit countries), but has since recovered to around 6 per cent. Only a few countries have grown faster than India in the past five years.

Since national population growth is now down to 2.0 per cent, the acceleration of economic growth has led to totally unprecedented increases in per capita income, in the region of 4 per cent per year. If sustained, this rate of growth would double per capita income in 17.5 years.

B.1.b. Poverty

The impact of the policy reforms and the faster economic growth that has resulted from them on poverty and employment has been widely debated. Many politicians, economists, and others have joined this debate. Neo-classical economists invariably argue that the reforms will benefit everyone, at least in the long run, but many dissidents have questioned their assertions. Recent, high-quality evidence on which to base a clear conclusion is regrettably absent. The most recent final data are for 1993/94. Preliminary data from National Sample Survey (NSS) rounds subsequent to 1993/94 suggest that poverty may have worsened slightly during the early post-reform years, especially in rural areas. Many critics have used this finding to bolster their contention that policy reform has had a negative effect, at least in the short run, but their arguments are by no means conclusive, for at least three reasons. First, questions have been raised about the validity of estimates based on the NSS. Second, the reforms had not been in effect very long at the time the last survey for which final data are available (1993–94) was taken. Finally, a number of other factors, notably the weather, significantly influence the extent and depth of poverty in the country. Unfortunately, pertinent statistics are released very slowly. Estimates for 1994/95, 1995/96, 1997, and 1998 are all based on a preliminary “thin sample” and those for 1998 cover only half of the year (Gupta 2000: 26).

Prior to the reform era, the percentage of the Indian population categorized as living in poverty (as measured by the NSS) had declined slowly, with several reversals, since the early 1950s (Datt 1998, p. 195).¹³ In the 3rd round of the NSS, taken in 1951/52, approximately 47 per cent of rural people, 35 per cent of urban residents, and 45 per cent of all Indians were classified as

¹³ Datt (1998) provides a careful review of NSS data, which measure consumption per capita in real terms. Poverty is defined as an income level insufficient to provide a diet of 2,400 calories per person per day in rural areas, or 2,100 calories in urban areas. Datt also measures the poverty gap (the extent to which the average consumption of the poor falls below the poverty line) and the squared poverty gap, a measure of the severity of poverty. The latter two measures both show larger declines than the head-count index (incidence of poverty).

poor. These percentages rose and fell in the 1950s and 1960s, sometimes exceeding 60 per cent for rural residents and 50 per cent for urbanites. After 1967/68, however, the incidence of poverty clearly declined. In the 50th round of the NSS (1993/94), 37 per cent of rural people and 31 per cent of urban residents were found to be poor. This was about ten percentage points lower for rural dwellers and five points less for urban residents than the prevailing poverty incidence in the early 1950s, a distinct but not very large decline over four decades. In 1993/94, some 330 million Indians still lived in poverty.

Preliminary estimates for more recent years suggest that rural poverty rose in 1994/95, fell in 1995/96 and 1997, then increased again in 1998 to a prevalence rate of 43 per cent. There may also have been some resurgence of poverty in urban areas, but the preliminary estimates suggest that the poverty head count was less than one percentage point higher in 1998 than it had been in 1993/94.¹⁴

B.2. Employment Changes in the Indian Economy

The largest shortcoming of economic development in India in terms of its impact on the welfare of the masses has been its failure to generate significant amounts of highly productive and adequately remunerated employment. Unemployment figures fail to capture this problem because poverty forces many Indians to accept any kind of work that may be available (including self-employment, casual day-by-day work, or even unpaid family work), rather than remain unemployed while searching for a better job. Poverty is if anything less prevalent among the unemployed than among the employed. In the 1993/94 round of the NSS, 63.5 per cent of those reported to be unemployed had completed secondary or higher education (Gupta 2000:33).

The true measure of the employment problem in India is not unemployment, but rather the supply-driven changes that have occurred, and the demand-driven changes that have *not* occurred, in the structure of employment. The number of workers in what is known as the organized sector (large public and private firms and organizations) rose only from 24 million to 27 million between 1983 and 1990/91 (Gupta 2000: 27). Employment growth in this sector, clearly the most sought-after by job seekers, has slowed further since the policy reforms began. In 1997 the number of workers in the organized sector was reported to be 28.2 million. Employment growth in the organized private sector picked up after the 1991 reforms, but employment in public sector bodies grew more slowly. Employment growth in the organized sector as a whole therefore slowed from an average of 1.6 per cent a year (already clearly inadequate) in 1981/91 to 0.7 per cent on average in 1991/95 (Shariff and Gumber 1999: 201).

The National Sample Survey Organization classifies workers as self-employed, regularly employed, or casually employed. Between 1977/78 and 1993/94, the percentage of male workers who were regularly employed declined, falling from 11 to 8 per cent in rural areas and from 46 to 42 per cent in urban areas. Casually employed male workers, meanwhile, rose from 27 to 34 per cent of the rural total and from 13 to 16 per cent of the urban total (Unni and Rani

¹⁴ As Sundaram and Tendulkar (2001) discuss, there are significant discrepancies between the poverty estimates of the NSS and what can be deduced from the national accounts statistics. The question of which estimate is better is unsettled. See K. Sundaram and Suresh D. Tendulkar, "NAS-NSS Estimates of Private Consumption for Poverty Estimation: A Disaggregated Comparison for 1993-94," *Economic and Political Weekly*, January 13, 2001.

1999: 630). The shares of self-employed workers remained fairly steady, falling slightly in rural areas and rising by one percentage point in urban areas. For female workers, the trends were somewhat different. The share of women workers with regular employment was consistently much smaller than that of men, but it remained constant at 3 per cent in rural areas between 1977/78 and 1993/94 and rose from 25 per cent to 29 per cent in urban areas. Casual employment, generally the most precarious way to make a living, occupied 39 per cent of rural female workers in 1993/94 (up from 35 per cent in 1977/78) and 26 per cent of urban female workers in both years. Only 29 per cent of urban female workers, the group with whom SEWA works, thus had regular employment in 1994/94. The remaining 71 per cent were either self-employed or worked as casuals.

Economic growth in India has not produced healthy growth in the kind of employment that people seek: relatively secure, well-paid, benefit-carrying jobs. Since nearly everyone needs to earn something to survive, self-employment and casual employment have expanded. Many of these jobs can be characterized as more traditional informal sector employment, but some represent a more recent process of casualization that is affecting formal sector employment (Unni and Rani 1999).

Based on the NSS, 374 million workers were employed¹⁵ in India in 1993/94. Women constituted 32.5 per cent of this total (Hashim 2000: 9), but national statistics are notoriously bad at capturing the numbers of home-based workers in India. Many women are omitted from these estimates while others are mis-categorized. For example, NSS data may incorrectly categorize home-based sub-contracted work involving poor unskilled workers as “self-employment” when it is really casual labor. Also, the regular employees category of the NSS may include piece-rate workers who do not enjoy all the benefits generally available to regular employees, such as job security, paid leave, and medical allowance (Shariff and Gumber 1999: 202).

Between 1988 and 1994, employment grew faster than the population growth rate of about 2 per cent. Male employment grew faster than female employment, and urban employment faster than rural employment (Shariff and Gumber 1999, 196). Employment growth in the unorganized sector (excluding agriculture) was much higher than in the organized sector during the period 1973–1994; the non-agricultural unorganized sector has grown at a rate of around 4.5 per cent over this 21-year period (Shariff and Gumber 1999: 201).

NSS data from 1973 to 1994 highlight the steady long-term decline in the shares of both self-employed and regular wage/salaried employees, as well as the corresponding increase in the share of casual wage laborers, both male and female (Shariff and Gumber 1999, 202). In 1993, there were 119 million casual workers in India, 205 million self-employed people, and 55 million with regular salaried employment. The proportion of self-employed fell from 61.4 per cent in 1972/73 to 56 per cent in 1987/88 and 54 per cent in 1993/94 while the proportion of casual workers rose from 23.2 per cent in 1972/73 to 26.9 per cent in 1987/88 and 32.0 per cent in 1993/94.

The shrinkage of the public sector has added to the casualization of employment. The share of casual labor is much higher among female than among male workers, but this disparity has

¹⁵ On the basis of usual status (principal and subsidiary) concept (Hashim 2000, 9).

declined over time (Shariff and Gumber 1999: 202). Women suffer comparatively more from the casualization process because of their lower access to productive resources and lack of skill (Ibid.). There has also been a marginal decline in the share of child labor in the workforce, attributable to initiatives to universalize primary education and eliminate child labor. Adult women have often replaced these children in the workforce (Shariff and Gumber 1999, 211).

Steady growth of informal sector activities with low productivity, especially in urban areas, reflects the failure to absorb sufficient labor in formal sector employment. The informal sector is likely to continue to grow and absorb new workers, workers retrenched from the organized sector, and those left unemployed by the decline of traditional activities (Shariff and Gumber 1999, 212).

C. Informal Sector Employment in Ahmedabad

C.1. Characteristics and Dimensions

Out of a total labor force of about 1.5 million workers in Ahmedabad city, over 75 per cent – about 1.15 million – work in the informal sector (Rani and Unni 2000). The poor and women are even more concentrated in the informal economy. The vast majority of poor households depend on the informal economy; and over 80 per cent of women workers work in the informal economy. Major informal sector activities include shop keeping, street vending, small-scale manufacturing and repair workshops, auto-rickshaw driving, construction work, scrap and paper recycling, domestic services, and home-based manufacturing.

The most visible informal workers work on the streets or in open areas. The streets of Ahmedabad are lined by barbers, cobblers, and makers and sellers of rope, baskets, cricket bats, kites, and papier-mache images. Vendors and hawkers of vegetables, fruit, fish, snack-foods, and a myriad of non-perishable items ranging from locks and keys to incense sticks to soaps and detergents, to clothing throng the streets. One sees head-loaders, cart-pullers, donkey herders, bicycle carts, bicycle peddlers, and auto rickshaw drivers, all trying to make their way through the maze of cars, trucks, and buses. Those who work in the open air and on the streets not only have to jostle for space but also have to face noise, dust, pollution, and the vagaries of weather (sun, rain, heat, cold).

Less visible informal workers work in small shops and workshops. Lining most streets and lanes are countless small kiosks, stalls, or shops that sell goods of every conceivable kind, along with small workshops that repair bicycles and rickshaws; recycle scrap metal; make furniture and metal parts; tan leather and stitch sandals; weave, dye, and print cloth; polish diamonds; make and embroider garments; sort and sell cloth, paper, and metal waste; and more. Those who work in small shops or workshops face cramped conditions as well as poor ventilation and lighting.

The least visible informal workers, the majority of them women, sell or produce goods from their homes: garment makers; embroiderers; incense-stick rollers; cigarette-rollers; paper bag makers; kite makers; hair band makers; food processors; and more. Those who work from their homes also often face cramped conditions and poor ventilation and lighting.

The informal economy of Ahmedabad is both large and heterogeneous. Conditions of work and the level of earnings differ markedly among the woman who scavenges on the streets for rags and paper, the woman who produces goods on a sub-contract from her home, the men and women who sell goods on the streets, and the man who works in a powerloom or diamond polishing factory. In fact, the informal economy of Ahmedabad, like other cities in India, is highly segmented by location of work, sector of the economy, and status of employment and, across these segments, by social group and gender.

Official statistics underestimate informal sector work, especially home-based and street-based activities and women's activities.¹⁶ Fortunately, the Gujarat Institute of Development Research (GIDR) and the SEWA Academy, the research and training wing of SEWA, recently conducted a large random-sample household-cum-enterprise survey of Ahmedabad Municipal Corporation area that was specifically designed to capture these segments of the informal sector. By applying the findings of this survey to the total population, the GIDR researchers have estimated the share of the informal sector in total employment and income in the main industries or sectors of the Ahmedabad economy. This discussion draws heavily on the findings of the SEWA-GIDR study.¹⁷ Unless otherwise specified, the statistics presented are for the AMC area (Ahmedabad City) and exclude the growing metropolitan area outside the municipal corporation's jurisdiction.

Location of Work: Informal sector work is done in four different sites: within homes, on the streets, at building sites, or at business premises. Those who work in their own homes may do so in a corner or on the floor of a multi-purpose room or, if space allows, in a special room set aside for the business. When they work in other people's homes, they may do so as domestic workers or as workers in production units set up by their employer. When they sell things on the streets, they may sell goods from a cloth or basket placed on the ground or from a pushcart. If they peddle their goods in different neighborhoods, they may do so on foot, by bicycle, or by pulling a cart. If they are engaged in transport, they may carry head loads, pull carts, or steer donkeys along the street.

There are marked gender differences in the location of work. Table 2-1 shows the distribution of all male and female workers – both formal and informal – across different work sites.

¹⁶ For an excellent discussion of what parts of the informal economy are covered or excluded by different sources of official statistics, see Unni 2000 and Rani and Unni 2000.

¹⁷ The findings from the SEWA-GIDR survey, the compilations of official data by GIDR researchers, and the estimates based on applying the SEWA-GIDR survey findings to the total population are presented in two important publications: Unni 2000 and Rani and Unni 2000.

Table 2-1: Distribution of Total Workforce by Gender and Location of Work*

Location of Work	Total Workforce	
	Male	Female
Within Homes	8.6%	69.6%
Own Home	7.6%	51.6%
Employer's Home	1.0%	18.0%
On Streets	22.7%	5.2%
At Construction Sites	5.0%	2.6%
At Factories/Offices/Shops	58.1%	21.8%
Own	8.3%	2.6%**
Employer's	49.8%	19.2%
At Other Locations	5.6%	0.9%

Source: SEWA-GIDR Survey [Unni 2000]

Notes: *= This table does not include the 1.3% of the total workforce that is engaged in agricultural activities [including livestock rearing] in Ahmedabad city.

**=All women who work in "own shop" are unpaid family helpers.

There are also marked differences **among** groups of women in regard to the location of work. Most Muslim women and upper caste Hindu women work from their homes, if they work at all. Compared to upper caste Hindu women, a higher percentage of middle caste women and a far higher percentage of lower caste women are in the paid labor force and work outside the home.

In the present context it is significant, despite these differences among women from different social groups, that the vast majority of all economic activities managed or operated by women are home-based (see Table 2-2).¹⁸ Three points stand out in Table 2-2. First, virtually no women run small manufacturing units outside their homes. Second, although women street vendors are highly visible in the city, nearly three-quarters of women traders operate from their homes. Third, the vast majority of women in services are likely to be domestic servants working in other people's homes. Although largely confined to their homes, women operate nearly 70 per cent of informal manufacturing activities, nearly 30 per cent of informal service activities, and just under 15 per cent of informal trading activities.

Table 2-2: Location of Women-Run Informal Economic Activities

<u>Sector</u>	<u>Home</u>	<u>Street</u>	<u>Business Premise</u>
Manufacturing	100%	–	–
Trade	73.6%	19.9%	6.5%
Services	92.8%	–	7.2%

Source: Unni and Rani 2000

Industry or Sector of Work: While informal workers are found in many industries or sub-sectors of the Ahmedabad economy, they are concentrated in particular activities, notably construction,

¹⁸ In this monograph, we use the term home-based work to refer to the paid or market-oriented work that women do from their homes, not housework or domestic chores.

auto rickshaw and bicycle rickshaw transport, street vending and small shop keeping, domestic services, and garment manufacturing. The principal investigators of the SEWA–GIDR survey, based on their own findings and official data sources, have estimated the share of the informal economy in total employment and income in each the main industries or sectors of the Ahmedabad economy, as follows:

Table 2-3: Total and Informal Sector Employment and Income by Sector in Ahmedabad City: 1997–98

	EMPLOYMENT		INCOME	
	Total	Informal	Total	Informal
Agriculture	2.3	59.4	0.6	84.8
Manufacturing	35.4	67.4	36.4	43.1
Electricity	0.8	–	2.3	–
Construction	9.3	100	3.6	100
Transport	12.7	91.5	11.7	80.5
Storage	0.1	–	0.2	–
Trade, Hotels and Restaurants	19.0	90.5	18.9	63.1
Communications, Banking and Insurance	3.9	–	12.5	–
Services	16.4	81.5	11.6	48.9
Rentals	–	–	2.2	–
Total (%)	100%	76.7%	100%	46.8%
Estimates	1,504,033	1,153,886	60,130 m Rs.	28,146 m Rs.

Source: Rani and Unni 2000: 45 and Table 4.17.

Employment Status: Those who work in the informal economy do so under several employment statuses or work arrangements:

- ◆ **Self–Employed:** independent self–employed persons of two types:
 - **Employers:** owner operators of their own unregistered enterprises who hire at least one paid worker on a regular basis; and
 - **Own-account Workers:** self–employed persons who do not hire any paid workers on a regular basis.
- ◆ **Dependent Producers:** home–based producers who depend on others for the supply of work, supply of raw materials, or sale of finished goods of two types:
 - **Sub–Contract Workers:** home–based workers who work under sub–contracts for, or otherwise depend on, manufacturers or merchants or their contractors for supply of raw materials and sale of finished goods;¹⁹ and

¹⁹ Production is “put out” through sub–contracts to both small production units and home–based workers. In this, in an effort to clearly delineate the various economic actors in the putting–out system, the operators of small units that produce under sub–contracts are called **sub–contractors**; the home–based workers that produce under sub–contracts are called **sub–contract workers** or **homeworkers**; the agents or middle–men who “put out” production for lead

- **Unpaid Family Workers:** family members, relatives, or other members of the household who work without pay in businesses run by other members of the household.
- ◆ **Wage Workers:** dependent wage workers who work under either of the following arrangements:
- **Casual Workers:** dependent wage workers who do not work on a regular basis for a single employer or enterprise; and
 - **Employees of Unregistered Enterprises:** dependent wage workers who work on a regular basis for a single unregistered enterprise without, typically, a written contract, fixed wages, or worker benefits.²⁰

According to the SEWA–GIDR survey, the workforce of Ahmedabad City is distributed by gender across the various employment statuses roughly as shown in Table 2-4. Several facts stand out in this table. The first is that less than 30 per cent of the workforce is employed in registered formal sector enterprises. Second, an insignificant percentage of women are employers and surprisingly few are independent own account operators. The two largest shares of women workers (24% each) are dependent sub–contract workers and unpaid family workers.²¹ It is important to underscore that the share of women who are sub–contract workers is almost ten times the share of men who are sub–contract workers and more than twice the share of women who are independent own account workers. Third, a higher percentage of both men and women workers are employees of registered firms than are casual workers or employees of unregistered enterprises. The SEWA–GIDR survey found that, as might be expected, many employees in unregistered firms have no contracts (95.2%) or benefits (99.5%) but also, as might not be expected, that many employees in registered firms have no contract (49.1%) or benefits (56.2%) (Unni 2000: Table 5.6).²²

firms or traders are called **contractors**; and the factory owners or traders who “put out” work to home–based sub–contract workers are called **employers or employer–traders**.

²⁰ Elsewhere in this report we refer to these employees as “semi–permanent workers.”

²¹ In other contexts, there are dependent traders as well who depend on wholesalers for their stock of goods or who sell on a commission. In Ahmedabad city, many street vendors depend on wholesale traders for supply of goods on credit but are not otherwise dependent.

²² SEWA and GIDR recommend an employment–based definition of the informal sector that would include all those who work without security of work, written contracts, or benefits whether they work in informal or in formal units. They estimate that the share of the total workforce in Ahmedabad city in **informal employment**, so defined, would be 91 per cent (Unni 2000). The informal economy, so defined, would be comprised of owner operators of small unregistered enterprises; self–employed individuals who work on their own account or in small family businesses; contractors or middle–men who sub–contract out work on behalf of merchants or production units;; casual wage employees who do not work for a single employer; dependent homeworkers who work under a sub–contract for a contractor or a firm; and semi–permanent employees who work for a single enterprise (registered or non–registered) without security or benefits. This definition of the informal economy based on employment status has an enumeration advantage in that individuals are more likely to be able to report whether (or not) they have a contract/benefits than whether (or not) the enterprise they work for is registered.

Table 2-4: Employment Status of Workforce in Ahmedabad City

Employment Status	Male	Female	Total
Self-Employed			
Employers	2.7%	0.1%	2.1%
Own Account Workers	23.7%	10.3%	20.3%
Home-Based	3.3%	7.9%	4.4%
Street-Based	15.4%	2.2%	12.1%
Vendors	6.3%	2.2%	5.3%
Others	9.1%	–	6.8%
Others	5.0%	0.2%	3.8%
Dependent Producers:			
Sub-Contract Workers	2.5%	24.1%	7.8%
Unpaid Family Workers	5.3%	24.1%	9.9%
Wage Workers			
Casual Worker	20.4%	14.1%	18.9%
Employees of Unregistered Enterprises	10.2%	9.0%	11.2%
Employees of Registered Enterprises	35.2%	18.3%	29.8%
TOTAL	100%	100%	100%

Source: SEWA-GIDR Survey [Unni 2000: Table 5.1]

Note: This table does not include the 1.3% of the total workforce that is engaged in agricultural activities [including livestock rearing].

Dependent producers who work from their homes under sub-contracts for traders or manufacturing units form a large segment of the informal economy, not just in Ahmedabad but worldwide. Such workers are called variously homeworkers, industrial outworkers, or sub-contract workers. Manufacturing or retail companies typically “put-out” labor-intensive work that does not require heavy machinery (Sharma 1987: 14–15). Under the putting-out system, homeworkers typically have to purchase, repair, and maintain their own tools or machines. They also have to bear the costs of some inputs (e.g., garment workers often have to buy their own thread), transportation to and from the contractor or firm, and overhead (space, utilities, etc.) (Ibid.). Although they are not directly supervised, they typically do not purchase raw materials, market final products, or negotiate prices.

In Ahmedabad, production is “put out” from traders or large manufacturing units to home-based workers through one of three systems (Jhabvala, Dhawan and Mahajan 1985: 58; Sharma 1987: 14):

- ◆ **Direct System:** the worker is given the raw material from the manufacturer or merchant who markets the product. However, some manufacturers or traders – notably in the bidi industry – have phased out this system in favor of the next two in order to circumvent labor laws designed to protect homeworkers in general and bidi workers in particular.
- ◆ **Sub-Contract System:** the manufacturer or merchant employs a middleman or contractor on a commission basis who, on his behalf, contracts the workers, provides them with the raw materials, and collects the finished goods. The manufacturers and merchants who use this system argue that there is no direct link between the workers and themselves.
- ◆ **Sale-Purchase System:** manufacturers and merchants or their contractors “sell” raw materials to the homeworkers and “buy” the finished goods from them. Manufacturers and

merchants who use this system argue that the homeworkers are self-employed or own account producers, not employees.

The SEWA–GIDR survey found that more than 50 per cent of women homeworkers obtained homework through a contractor. This system was particularly prevalent for those who make kites or hair bands, roll incense sticks or bidis, or apply sequins to textile products. Although only 30 per cent of all women homeworkers obtain work directly from a merchant or trader, the vast majority of women who shell peas, make paper–bags, or do ring embroidery (around bits of mirrors) on textile products get their work directly from a trader or merchant. A little over 10 per cent of the women homeworkers – particularly those engaged in garment making, kite making, and bidi–rolling – get their work directly from a manufacturer (Unni 2000: Table 5.2). The SEWA–GIDR survey, carried out in late 1988 and early 1999, did not find any women who worked under the sales–purchase system. But, as we will discuss, many of the bidi traders switched to the sales–purchase system in 1999.

What is at stake here is whether the manufacturers or merchants are considered employers. If so, they are subject to labor laws designed to protect the workers. Also at stake, and relevant to the current impact assessment, is whether homeworkers are dependent workers or self-employed (Kantor 1998). Interventions for the self-employed typically include credit and business development services, whereas interventions for workers typically include organizing, collective bargaining, and enforcement of labor laws. While most homeworkers purchase and maintain their own equipment and cover the costs of overhead, they usually depend on one manufacturer, trader or contractor to supply raw materials and sell the finished goods. Thus they fall into an ambiguous or mixed employment status somewhere between independent own account workers and dependent wage workers: hence we, and others, prefer to designate them as “dependent producers” (Kantor 2000).

Virtually all the women included in this study work in the informal economy of Ahmedabad. As elsewhere in India, women dominate in three informal occupations: street vending, bidi–rolling, and garment–making (Kundu 1999: 21). The more precise descriptors of these three occupations, including location of work and employment status, are: street–based own account vending, home–based sub–contract bidi rolling, and home–based sub–contract and own account garment making. Since the majority of SEWA members in Ahmedabad also belong to these three occupations, we drew our case study sample from these three occupational groups.²³

C.2. Informal Economic Activities

In what follows, we describe the three main trades in which SEWA members, including the case study respondents, are engaged: street vending; bidi rolling; and garment making. In each case, we first describe the market structure and then the regulatory environment.

²³ According to SEWA’s annual report for 1999, 31,797 of its 48,618 members in Ahmedabad City belonged to the three occupational groups listed in Table 2-5 (SEWA 1999).

C.2.a. Bidi Rolling²⁴

C.2.a.(1). Bidi Rolling is Big Business

The related tobacco and bidi industries are big business, representing significant shares of the Indian economy and workforce. India is one of the largest producers of tobacco in the world.²⁵ An estimated one-fifth of Indian tobacco is used to make bidis (Jhabvala, Dhawan, and Mahajan 1985:3). Together, the tobacco and bidi industries employ several million people. Another sizeable number of people are engaged in collecting the tendu leaves used in bidis, instead of paper, to wrap the tobacco. Indian tobacco is grown mainly in Gujarat and Maharashtra, while the tendu leaf grows in many states of Central India, especially Madhya Pradesh (Ibid.)

Bidi making is a rather simple, labor-intensive process that, except for the final baking and packaging, requires no machinery or infrastructure. This makes it easy for the company owners to shift the location of production or to “put out” production. The first registered bidi manufacturing units, established around 1900, were concentrated in tobacco growing areas. Because it proved more economical to transport tobacco than tendu leaves, bidi production shifted to areas where tendu leaves and cheap labor were readily available (Jhabvala, Dhawan, and Mahajan 1985: 4). More recently, in an effort to avoid compliance with labor laws, bidi manufacturers have shifted production to areas where labor laws are not strictly enforced, “put out” production from factories to homes, and, as noted earlier, changed their transaction relationship with home-based workers.

C.2.a.(2). The Regulatory Environment

In the 1950s, the founding fathers of modern India passed a number of national laws to regulate employer–employee relationships, including:

- ◆ Employees’ Provident Fund Act (1952), which stipulates that employers contribute 10 per cent of the amount paid to workers as wages into a provident fund;
- ◆ Factories Regulation Act (1948), which stipulates that industries with power that hire 10 or more workers and industries without power that hire 20 or more workers provide written contracts, minimum wages, and worker benefits to their workers; and
- ◆ Minimum Wage Act, which stipulates that minimum wages for various industries or occupations be fixed and enforced.

Although these Acts were formulated to protect formal sector workers, their provisions have been extended in some instances to cover informal sector workers in selected industries. For instance, in the late 1970s, the Supreme Court of India ruled (in the P.M. Patel case) that home-based workers, including bidi rollers, are entitled to provident fund benefits. More recently, in 1993, the Bidi Petitions Committee of the Rajya Sabha (the appointed house of the Parliament of

²⁴ The following sub-sections on each of the major occupations draw on an excellent background paper written by Sharmila Murthy.

²⁵ In the late 1980s, India was the third largest producer of tobacco in the world.

India, equivalent to the House of Lords in Britain) recommended that minimum wages, social security, and other benefits be guaranteed to all bidi rollers. Also, SEWA has successfully negotiated to have bidi worker wages set and reviewed under the Minimum Wage Schedule.

Then, in the 1960s and 1970s, the Government of India passed two laws intended to guarantee bidi rollers the rights and benefits of formal sector workers:

- ◆ The Bidi and Cigar Workers Act (1966) calls for comprehensive worker benefits for bidi and cigar workers, including: identity cards, scholarships, uniforms, maternity benefits, maximum work day, weekly holidays, provisions of drinking water, canteens, toilets, and other benefits; and
- ◆ The Bidi Workers Welfare Fund and Cess Act (1976) calls for a levy of up to one rupee per kilogram of tobacco used in the manufacture of bidis to be used in improving health care, housing, and recreational facilities for workers (Sarkar undated, 6).

In the mid–1980s, as a measure to promote the growth of small enterprises, the Government of India imposed a tax on bidi manufacturers who produce more than two million bidis a year. The manufacturer’s response has been to farm out production to independent contractors who each collect less than two million bidis a year (Jhabvala, Dhawan, and Mahajan 1985, 59).

Although the passage of this legislation was intended as a positive step for bidi workers, it has had somewhat contradictory effects. The legislation has not been widely implemented. As the 1988 National Commission on Self–Employed Workers concluded: “The fact of this legislation...and its implementation are two very divergent realities.” An even greater concern is that the bidi industry has effectively avoided compliance with the legislation: where and when efforts have been made to implement the legislation, the industry simply moves to another location or shifts production from factories to homes (Jhabvala, Dhawan, and Mahajan 1985, 77).

C.2.a.(3). Industrial Relationships

Prior to the passage of the Bidi and Cigar Workers Act, bidi rolling was carried out mostly in factories and small workshops where the majority of workers were men. With the passage of the Act in 1966, the male bidi workers in the factories began to demand their rights under the law. The factory owners responded by shutting down the factories and outsourcing production to home–based workers, predominantly women (Jhabvala, Dhawan, and Mahajan 1985, 52). The SEWA–GIDR estimates suggest that, as of 1996–1998, there were 10,730 persons engaged in the bidi industry in Ahmedabad, generating 58 million rupees in net value added (\$1.6 million),²⁶ of whom only 700 or so worked in registered bidi factories or firms (Rani and Unni 2000).

²⁶ Rupee figures in this report are converted to dollars using appropriate market exchange rates obtained from OANDA.com and the International Monetary Fund. Rates used to deflate annual figures are averages for the last day of each month in the year. For the most relevant years, these were 1996: 35.4 rupees to the dollar; 1997: 36.5; 1998: 41.4; and 1999: 43.2.

Home-based bidi production is carried out through one of the three systems described earlier. Under all three systems, the bidi-rollers receive tobacco, thread, and tendu leaves from specific bidi traders or their contractors; roll and bundle the bidis at home; and return the finished bidis to the employers or their contractors. What is different, and at issue, is the nature of the relationship between the employer-traders and the home-based producers under each system.

Initially, the employer-traders gave raw materials directly to the home-based workers who returned finished bidis directly to them to market. Over time, however, most employer-traders phased out this **direct system** in favor of two other systems in order to circumvent the legislation designed to protect home-based workers. During the 1980s and 1990s, most rollers were employed under the **sub-contract system**, in which the rollers are sub-contracted through a middleman who supplies all of the materials and receives all of the finished bidis on behalf of the firms. However, in 1999, many employer-traders adopted the **sale-purchase system** in order to circumvent labor laws that mandate contributions to a provident fund for workers. Under this system, the traders or their sub-contractors “sell” raw materials to the bidi workers and “buy” the finished bidis back from them. Even though the bidi rollers remain dependent on the traders or their contractors for supply of raw materials and sale of finished bidis, the traders contend that they are no longer employers and are, therefore, exempt from labor laws (Jhabvala, Dhawan and Mahajan 1985, 58)

In sum, the employer-traders have effectively circumvented each piece of legislation designed to protect the right and benefits of bidi rollers. Where and when the Bidi and Cigar Workers Act has been enforced, the employer-traders have shifted production from factories to homes. Where and when the Bidi Welfare Cess and Excise Taxes Act has been enforced, the employer-traders simply shifted from the direct system to the sub-contract system of putting out work. And where and when the Provident Fund Act has been enforced, the employer-traders simply shifted from the sub-contract to the sale-purchase system of putting out work.

C.2.a.(4). The Bidi Making Process

There are three stages of bidi production. First, the tendu leaves are cut and the tobacco mixture is spread out on the cut leaf. The leaf is then rolled into a conical shape and the two ends are tapered and tied with thread to keep it in place (Sarkar undated, 2). Table 2-5 presents a step-by-step break down of the time needed to roll 1000 bidis.

Table 2-5: Stages of Bidi Production by Time Required to Produce 1000 Bidis

Stages of Production	Minimum Time Required	Maximum Time Required
Removing stems from tobacco leaves	20 min	40 min
Cutting tobacco leaves to size	1 hr & 40 min	2 hrs & 15 min
Rolling 1000 bidis	4 hrs	6 hrs
Tying bundles of bidis	50 min	1 hr & 30 min
Delivering bidis & collecting raw materials	1 hr	2 hrs
Total	7 hours	12 hours

Source: Jhabvala, Dhawan, and Mahajan 1985, 69

Although bidi-rolling is a rather simple process, the work is tedious, the wages are low, and working conditions are poor. Although most bidi-rollers work from their homes, and all have

modest but solid homes, they typically sit for long hours on the floor hunched over their baskets of leaves and tobacco. The rolling process often spreads tobacco leaves and dust all through their homes (Jhabvala, Dhawan, and Mahajan 1985, 34).²⁷ As a result, two types of health problems are common among bidi rollers: aches and pains in the lower back, neck, hands or fingers; and tuberculosis, bronchitis, or asthma (Sarkar undated, 3).

C.2.a.(5). Bidi Making in Ahmedabad City

In Gujarat state, there are an estimated 150,000 bidi-workers. In Ahmedabad, there are an estimated 10,700 bidi rollers, of whom 700 work in registered factories and firms. Of the 10,000 or so home-based bidi rollers, well over 95 per cent are women (Jhabvala, Dhawan, and Mahajan 1985).²⁸ In Ahmedabad City, five major bidi manufacturer-traders dominate the industry. The largest company is Jivraj Bidi Works, which employs over 3,000 home-based bidi workers, the vast majority of whom used to work under the sub-contract system. Because some of these companies, including Jivraj Bidi Works, operate in several states of India, they are able to take advantage of the differences among states in minimum wage and other labor legislation. Whereas Gujarat used to be one of the more important bidi producing states, several companies have found it more profitable to expand their operations to other states, notably Madhya Pradesh and Andhra Pradesh. The overall growth of the bidi industry has ensured that the total volume of production in Gujarat has not declined; the industry, therefore, continues to provide a major source of employment for women in Gujarat (Ibid.).

C.2.b Garment Making

C.2.b.(1). The Garment Industry in India and Ahmedabad

The garment industry in India is comprised of large numbers of small manufacturing units that mainly compete at the lower end of the domestic market and a far smaller number of manufacturing units that compete at the higher end of the domestic market or in the international market. There are no official estimates of the number of garment manufacturing units and workers in India. Estimates from the industry itself suggest that the smaller units account for about 75 per cent of the sewing machine capacity in the country, the larger units geared to the domestic market for over 15 per cent of machine capacity, and the export units for less than 10 per cent of capacity. The structure of the garment industry is largely a result of official policy. To reserve the garment industry for the small-scale sector, the Government of India has imposed limits on investments in garment manufacturing units. It is also partly a result of the nature of market demand. Because the demand for Indian garments is highly seasonal, large firms have found that it is cost-effective to sub-contract production during peak periods to small manufacturing units.

Since the late 1980s, garment exports have grown remarkably. In the early 1990s, the volume of exports more than doubled. By the mid-1990s, garments constituted 12 per cent of India's

²⁷ The SEWA-GIDR survey found that all bidi-rolling is done in semi-pucca (semi-permanent) structures while nearly one third of garment making is done in kucca (temporary) structures (Rani and Unni 2000: Table 2.6).

²⁸ In late 1998, there were an estimated 4.3 million bidi-workers in India: concentrated mainly in Andhra Pradesh, Madhya Pradesh, Orissa, Tamil Nadu, and Uttar Pradesh. The bidi and tobacco industries employ the largest number of women in India after agriculture.

merchandise exports and nearly 16 per cent of its manufactured exports. Between 1980 and 1994, India's share in world exports of clothing rose from 1.5 per cent to 2.6 per cent. Cotton garments – notably women's outerwear and men's shirts – account for the bulk of the trade. The main centers for garment manufacturing in the country are Delhi, Mumbai, and Calcutta. However, Ahmedabad's share in the domestic and export garment markets is growing (Singh 1999; Unni et al 1999).

Because of Ahmedabad's history as a textile center, it has long been known for a set of allied industries relating to textiles. These include the dyeing, block printing, and screen printing of cloth. Textile products manufactured include garments and a range of bed sheets, bed covers, cushion covers, and napkins. A variety of textile products are embroidered, including gold brocade embroidery (called **zari**), mirror work or ring embroidery, and other types of embroidery. While most tailors or seamstresses specialize in either garments or other textile products, some manufacture both and some combine embroidery work with stitching. In the SEWA Union, women who produce either garments or other textile products are organized into a single trade group. Most of what follows focuses on the garment sector per se.

During the 1990s, the garment sector in Ahmedabad grew rapidly: output grew by 18 per cent and retail trade grew by 12 per cent (Singh 1999). A recent study of over 100 small factories and workshops found that well over half were less than five years old and over one third were less than two years old (Ibid.). Because the garment industry in Ahmedabad is fast growing and changing it is difficult to capture in official statistics or otherwise. To begin with, the garment labor market is highly segmented by product, market, location of work, employment status, and, across or within each of these niches, by gender. Second, many garment workers are home-based – both own-account and sub-contract – and are not adequately captured in official statistics. Third, the garment sector is highly volatile, experiencing rapid changes in the domestic market and rapid expansion of the export market.

A thorough analysis of the garment sector would take into account the intersections of several niches or segments: which types of workers in what types of unit are cutting, stitching, finishing what types of garments for which market (see Table 2-6). To complicate matters still further, there is a marked division of labor by gender and, less so, by social group within the garment sector.

Historically, the garment sector in Ahmedabad was segmented roughly as follows. Men worked in small workshops or tailoring shops stitching garments that required a relatively high degree of skill: men's garments (both Western and Indian) and women's **kurtahs** (tunics) and other fashionable Indian garments. Women worked at home stitching petticoats²⁹, sari blouses, **salwars** (pants), night-gowns, underwear, and children's clothes. In addition, a sizeable number of home-based women sewed quilts made of textile scraps (called **chindi**) from the textile mills.³⁰ Some of the home-based women were independent producers who took orders (and cloth) from individual customers or sold items they had stitched at local markets. Most were dependent producers who were given cloth and orders by traders or their contractors. Under both

²⁹ A petticoat for wearing under a sari is cut to taper from the waist into a flare at the ankle.

³⁰ For example, in the late 1980s, most children's clothes marketed in Ahmedabad were exclusively stitched by women in Calcutta, the cost of transportation being negligible compared with profits (Sharma 1987, 47).

arrangements, the garment maker would have to provide her own sewing machine, needles, oil and thread (SEWA 1988:26). Until the 1990s, few women worked in the small factories or workshops.

Table 2-6: Segmentation of Garment Sector in Ahmedabad City

<p>1. Products</p> <p>Men's vs. Women's vs. Children's Western vs. Indian Everyday vs. Fashion Ready-Made vs. Custom-Made</p>	<p>4. Units</p> <p>Large Factories Small Workshops Tailoring Shops Home-Based</p>
<p>2. Operations</p> <p>Cutting Stitching Finishing</p>	<p>5. Employment Status</p> <p>Owners Owner Operators Own Account Producers Dependent Producers Permanent Employees Semi-Permanent Employees Casual Workers</p>
<p>3. Markets</p> <p>Export National State Local</p>	

Over the past decade, many large export-oriented garment factories have opened up to produce mainly men's wear, notably jeans and pants. Increasingly, small workshops supply garments on contract to larger firms or produce more fashionable items for the local city and state markets. Garments produced at home are still largely sold in the city market: only 30 per cent of home-produced garments reach markets outside of the city (Kantor 2000). The local market used to be saturated with low cost, low quality garments produced at home or in small workshops. Now there is a growing local market for more fashionable garments – Western garments for men and high-end Indian garments for women – that are more frequently produced in small workshops than at home. Both the large export-oriented factories and the small units now employ more women. Nevertheless, the largest number (and least visible) of garment makers are still women who sew garments under sub-contract or on their own account from their homes (SEWA 1998).

Although the majority of workers in all three types of garment units are women, there is a marked gender division of labor within each unit: by type of product or by task. In the large factories and small workshops, men are the cutters and supervisors; women are the finishers who sew on buttons and cut loose threads. Except in units that produce only one line of clothing, men predominantly stitch men's clothes while women predominantly stitch women's and children's clothing. In home-based sub-contracting, cut cloth is provided by the traders, merchants, or their contractors who contract male master cutters. Indirect supervision – that is, checking the quality of finished goods – is done by the traders, manufacturers, or their contractors. Men specialize in men's garments while women specialize in women's and children's garments. Home-based independent producers generally do their own cutting. Virtually all independent

male garment makers specialize in men's garments and virtually all independent female garment makers specialize in women's and children's garments.

There have been three recent studies of garment makers in Ahmedabad city:

- ◆ a 1998 survey of 871 home-based garment makers (Kantor 2000);
- ◆ a 1999 study including interviews with key experts on the garment sector, case studies of several garment value chains, and focus group discussions with women workers (Singh 1999); and
- ◆ a 1999 survey of 57 small garment factory owners, 52 small garment unit owner-operators who produce under sub-contract, and 184 workers (Unni et al 1999).

Thanks to these studies, we have been able to piece together a picture of the size, composition, and dynamics of the garment sector in Ahmedabad today.³¹ The number of units and percentage of workers that are women or men in each type of unit is roughly as follows:

Table 2-7: The Size and Structure of the Garment Industry in Ahmedabad City

Type of Unit	Number of Units	Number of/Percentages of Workers		
		Total #	Male	Female
Large Factories	127	3,197	10-40%	60-90%
Small Units/Tailoring Shops	2,237	5,966	16%	84%
Homebased Workers	NA	44,307	24%	76%
TOTALS	NA	53,704%		

Sources: Large Factories: Annual Survey of Industries and Chief Inspector of Factories, Ahmedabad (cited in Unni et al 1999: Table 2.4)

Small Units/Factories: NSS, Unorganized Manufacturing Sector Survey, Unpublished Data (cited in Unni et al 1999)

Home-Based Workers: Kantor, Paula. 1999.

In addition to the estimated workforce presented in Table 2-7, large numbers of people work at ancillary tasks related to garment production, usually under sub-contracts from their homes. They sew on buttons, embroider items, iron and package garments. There are also a large number of contractors in the garment industry who put out work on commission for garment factories or merchants to small units or home-based producers.

Finally, countless persons are engaged in selling garments, both new and used. These include merchants who sell garments from wholesale or retail outlets, vendors who sell garments on the streets or in open air markets, and itinerant hawkers who sell garments from push carts or bicycles. One recent study estimated that there are 1,800 retail garment outlets in Ahmedabad today (Singh 1999).³²

³¹ There is a large discrepancy between official and unofficial statistics on the garment sector in Ahmedabad, particularly on the home-based segment of the industry. The official 1991 census of household industries and marginal workers reported 16,588 homebased garment workers (44% men, 56% women) compared to an unofficial 1998 survey (Kantor 1999) that reported 44,307 homebased garment workers (24% men, 76% women).

³² Garment making places a lot of strain on the eyes of the home-based workers. Workers and their children may develop tubular vision, or their eyesight may become astigmatic. (ILO 1991, 6)

C.2.b.(2). The Regulatory Environment

Unlike in the bidi industry, there is no special legislation to protect informal workers in the garment industry. However, as with all industries, the national legislation to regulate employer–employee relationships – including the Employees’ Provident Fund Act, Factories Regulation Act, and Minimum Wage Act – has been extended, in principle, to cover informal sector garment workers. According to the Indian Factories Act of 1948, all factories with power which employ 10 workers and all factories without power that employ 20 workers have to be registered. Registered factories are supposed to provide regular employment with written contracts, minimum or above wages, and worker benefits, including paid leave, severance pay, bonuses, and pensions (through contributions to what, in India, are called provident funds). For dependent sub–contract workers to be covered by the minimum wage legislation, an appropriate wage or piece–rate for each type of work has to be negotiated and then entered in the state government’s Minimum Wage Schedule. In practice, as we will discuss below, the minimum wage for garment and textile workers is not widely enforced and is often resisted by employers.

C.2.b.(3). Market Relations

As noted earlier, garment production takes place in large factories geared mainly to the export markets, in small workshops geared to the city and state markets, and in homes for, largely, the local city market. How do these various units relate to each other and integrate into the garment sector as a whole?

Large Factories: The large factories are geared mainly to the export markets. Their owners carry out market research, join business associations, and inform themselves about export market trends and opportunities. Most of the large factories handle their own marketing and distribution. Large textile product and garment factories are concentrated in four industrial areas of the city. Those in two industrial areas – Vatva and Narol – produce mainly bed sheets, cushion covers, and napkins for export to Europe. Large factories in the two other areas – Chandola and Odhav – produce mainly jeans and pants for the domestic and export markets. The large factories engage from 200 to 800 workers each. Some put out a portion of their production or ancillary work, through contractors, to small units and home–based producers.

Small Workshops: Few small factories and workshops are registered under the Factories Act, even when they employ more than 10 workers, because they do not have power or simply avoid registration. Most of these units operate in one or two large rooms and employ 5 to 15 workers. They are concentrated within the walled city, mainly in the Gheekhantah and Mirzapur areas. They cater to either the local market or regional and domestic markets, depending on the type and quality of garments they produce. Some small units produce better quality products – bermudas, shirts, frocks, and gowns – for other cities, mainly Mumbai, Delhi, and Calcutta. Other small units produce lower quality products – called **chalu maal** (“everyday goods”) – for markets in Ahmedabad and small town or village markets elsewhere in Gujarat.

Many of the small units obtain their orders from – and operate as sub–contract units for – large merchants or, in a few cases, large factories. In such cases, they typically receive orders and cloth and supply final products through the contractors – or agents – of the merchant or factory. Within the garment industry, these sub–contract units are referred to as “fabricators”. The size of

these units and their dependence on merchants or larger manufacturing units does not allow them to upgrade their products or to acquire brand names (Unni et al 2000: 17).

The relationship of home-based producers to the garment manufacturing sector depends on their employment status: whether they are independent own account producers, dependent sub-contract producers, or some mix of both.

Dependent Producers: Dependent producers may get their work directly from a local retail shop or indirectly from a local small production unit through a contractor. In the first case, the local shopkeeper puts out work – as well as the necessary cloth (often cut to specification) and other inputs such as zippers and (sometimes) thread – directly to the producers. The producer stitches to the specifications of the order and returns the completed goods for an established piece rate. The retailer then sells the garments from his store to the final customers. In the second case, a contractor, who works on commission for one or more production units, will place orders and provide cloth and other inputs to the producers. The homeworkers return the finished products to the contractor for payment and the contractor supplies them to the production unit/s. These products are then pressed and packaged, often by someone sub-contracted to do so, and then sold to retail and wholesale outlets together with other garments produced by the unit (Kantor 2000:4–5).

Own Account Producers: As noted above, some of the home-based garment workers produce and sell garments independently. Most take orders from customers in their neighborhood. Some produce garments or, more often, other textile products for sale on the open market. When they take orders directly from customers, the customers provide cloth and design specifications and the producer makes the garment to specifications for an established price. Some home-based producers have a mixed status, producing garments under sub-contracts and sewing garments independently for individual customers or the city market.

C.2.b.(4). Payments and Benefits

Are the laws governing employer–employee relationships being implemented or enforced in the garment industry in Ahmedabad? How much do garment workers earn? Answers to these questions differ across the different types of units and different relationships of production.

Large Export-Oriented Factories: Most of the 127 or so large factories are registered and should, therefore, offer their workers written contracts, monthly wages, and benefits. However, this may not always be the case. The SEWA–GIDR survey found that 50 per cent of workers in all registered firms, not only in the garment industry, did not have written contracts and about 10 per cent did not receive any benefits. Another study found that many large factories hire workers on both a piece rate basis (whereby wages vary according to output) and a time rate basis (whereby wages are fixed by the week or month). This study also found that women are typically hired on a piece rate basis, whether or not they are permanent workers and whether they stitch or do ancillary tasks (Unni et al 2000: 21).³³

³³ See Unni et al 2000 for case studies of two women factory workers: in the late 1990s, the full-time worker earned Rs. 2500 per month; the part-time worker earned Rs. 1500 per month.

Small Workshops: Small factories and workshops tend to hire workers without written contracts and below minimum wages (Kantor 2000). One recent study found that only 34 per cent of female workers and 40 per cent of male workers in small garment workshops are paid a regular monthly salary. The rest are paid by the day or piece, depending on their output (Unni et al 1999). Moreover, workers typically do not get worker benefits such as paid leave, severance notice, or bonuses. Only 15 per cent receive employer contributions to a pension or provident fund; only about 5 per cent are covered by accident insurance. Some are given in-kind gifts (a garment produced by the workshop) in lieu of an annual bonus (which should consist of a stipulated percent of income). Most of these units are cramped, with little ventilation or proper lighting.

In small factories and units, women tend to earn much less than men. One study found that, on average, female workers earned 1,115 rupees per month (\$26) while male workers earned 1,529 rupees (\$35). While over three-quarters of the women earned less than 1,500 rupees per month, only one-third of the men earned such low incomes. While over one third of the men earned over 2,000 rupees per month (\$46), only 3.5 percent of the women earned such high incomes (Unni et al 2000: 55). This gender gap reflects the division of labor within garment manufacturing units. Supervisors and cutters, all men, often get monthly salaries. Piece rates for men's garments, mainly stitched by men, are typically higher than the rates for women's and children's garments, mainly stitched by women.

Dependent Sub-Contract Producers: Sub-contract workers are paid per piece or per dozen pieces produced. The rate per dozen pieces varies by the type of garment. Whatever the item, dependent home-based garment makers earn only a small percentage of the selling price – as low as 2 to 5 per cent – while the employer-trader (the **seth**) and his contractor (if any) earn a far higher percentage – as high as 40 per cent (ILO 1991: 7; Singh 1999). In our case study sample, the sub-contract garment makers averaged 20–25 rupees per day (46 to 58 cents) when they received work orders. They then had to deduct expenses for thread, oil, needles, and electricity as well as maintenance and repair of sewing machines.

Most workers – both dependent and independent – experience fluctuating earnings and income. What a person earns is not just a function of her wages but also of the number of days she gets work. There are seasonal fluctuations in the garment industry. The season when most festivals and weddings take place – from September to February – is the peak season for garment production. During the peak season, the volume production that is “put out” to small manufacturing units and home-based producers increases to help meet demand. During the other six months of the year – March through August – the volume of sub-contracting declines. During those months, if they do not get or expect work orders, some dependent producers shift to other occupations: for instance, rolling bidis or incense sticks.

Fluctuations in demand for garments affect all manufacturing units, not just home-based producers. One study found that men in all textile processing enterprises, both formal and informal, had more than 250 days of work per year whereas women had only 208 days of work on average in the sector (Unni 2000: Table 6.2). In all industries, workers in the informal sector obtained slightly fewer days of work per year on average than workers in the formal sector (Ibid.).

Payment of wages can be irregular. Wages are often paid weekly or monthly at the whim of the trader. If a garment is defective or lost or does not meet the satisfaction of the trader, that item is deducted from the worker's wages (Sharma 1987: 47). The number of garments stitched and the amount of wages earned is supposed to be recorded by the traders in a notebook that the worker holds onto. However, the traders or their contractors often tear out the relevant page from the notebook when they settle each worker's account, leaving no evidence linking the trader with the workers (Sharma 1987: 47).³⁴

Among home-based garment workers, there is no significant gender difference in employment status. Men and women are equally likely to be dependent or independent producers or a mix of both. Across all three employment statuses, however, men are likely to earn more than women (Kantor 2000: 56). For both genders, sub-contract workers earn the least on average and those of mixed employment status earn the most (Ibid.). Among home-based garment makers, the only way women can begin to approximate what men earn is to work both as independent and dependent producers (Ibid.: 80).

C.2.c. Street Vendors

Street vending represents an important share of trade in most cities of India and street vendors are the one of the largest and most visible occupational groups in the informal economy. Yet official statistics do not adequately capture many street vendors and the standard statistical publications do not distinguish between street vendors and other persons engaged in trade. Recent informal estimates suggest that street vending contributes significantly to both employment and income in all major cities.

C.2.c.(1). Regulatory Environment

Under existing laws and regulations throughout India, most of which date back to the British colonial era, street vendors are perceived as a nuisance or obstruction to the orderly flow of traffic and people, or even as illegal. The Municipal and Police Acts in all major cities consider street vending to be illegal and authorize the traffic police to arrest vendors who encroach on traffic space. No city has developed a regulatory framework to effectively contain street vendors, much less to protect their rights.

Changing the laws and regulations regarding street vending can help change the "rules of the game" between street vendors, the police, and the municipal government. Since the 1980s, thanks largely to SEWA's efforts, the courts have begun to issue rulings in favor of vendors. In 1982 a five-judge Constitution Bench of the Supreme Court of India ruled that street trading or hawking was a fundamental right of a citizen although occupying an unauthorized space for the purpose of trading was not. Both the vendors and some city governments contested the ruling. The vendors argued that municipal authorities that ban vendors from trading in specific urban areas violate fundamental rights guaranteed under Articles 19.1.g and 21 of the Constitution. The municipal authorities of New Delhi, meanwhile, argued that vendors cannot claim a fundamental right to occupy specific urban spaces for vending. In response, the Supreme Court

³⁴ The minimum wage for garment manufacturing was set at Rs 33.8 per day for establishments employing more than 3 workers + transport (Rani and Unni 2000, 55)

of India reviewed the merits of the case and ruled (on the basis of Article 19.1.g of the Constitution) that street vendors, if property regulated, cannot be denied the right to carry out their trade on street pavements. This ruling stipulated that a system of licensing that favors the poorer hawkers and vendors should be promoted. This Supreme Court judgment and another described below have provided a basis for negotiations by vendor organizations with the police and municipal authorities in different cities throughout India.

C.2.c.(2). Street Vendors in Ahmedabad

Until recently, the only available estimate of the number of street vendors in Ahmedabad city was SEWA’s estimate based on their knowledge of the sector and their surveys in various areas of the city. SEWA’s estimates of the number of street vendors have been going up steadily since the textile mills began to close and sizeable numbers of retrenched workers took up vending and hawking. The most recent one suggested that there were 100,000 vendors in the city. The recent SEWA–GIDR survey, which was specifically designed to capture home–based and street–based work, suggests that there may be about 80,000 vendors in the city, representing nearly 7 per cent of the estimated informal workforce.

Table 2-8: Estimated Number of Street Vendors in Ahmedabad City

	Estimated Informal Sector Workforce	Street Vendors as % of Informal Sector Workforce	Estimated Number of Street Vendors
Men	841,183	8.4%	71,129
Women	315,703	2.5	7,725
Total	1,153,886	6.8%	78,854

Source: Rani and Unni 2000: Table 3.1.

The SEWA–GIDR study also estimates that street vending operations represent 16.8 per cent of informal sector enterprises, that the net earnings of street vendors average 28,142 rupees per year (\$651), and that the net value added per street vending operation averages 41,952 rupees per year (\$971; Rani and Unni 2000). Ninety per cent of employment in trade, hotels, and restaurants is in the informal sector and street vendors comprise 43 per cent of informal employment in trade (Rani and Unni 2000).

Street vendors sell fruit, vegetables, flowers, fish, clothes, vessels, toys, footwear, edibles, and many other items for daily household use. Many vendors, especially those from the Patni Vagri caste, have been selling in the city’s markets for generations. While male sellers generally operate out of small stalls or sell from push–carts and bicycles, most women sell on the pavement spreading their goods on burlap cloth alongside a city street or walk through different neighborhoods with baskets on their heads. Those who sell from a cloth on the pavement or a basket on their head need few tools or equipment, except for a scale, a set of weights, a knife and a basket (SEWA 1988: 29–30). Those who sell from a stall or push–cart or bicycle have to invest a bit more: in 1999, a handcart sold for 1500 rupees (\$35) and rented for 10 rupees per day (23 cents).

Although street vendors can be found alongside many streets and lanes in the city, they concentrate around the main wholesale markets or in special hawker markets. Historically, the Manek Chawk wholesale market was the main vegetable and fruit market and the Manek Chawk market area had the greatest concentration of street vendors. Over 500 vendors have, for generations, sold goods around the main market building. On a major thoroughfare to the old walled city, the area has also served as a parking area for bicycles, scooters, and cars. Always crowded and congested, the competition for space in the Manek Chawk area has only intensified over the years. During the 1980s, Manek Chawk was the center of SEWA's struggle for the rights of vendors to a space from which to vend.

C.2.c.(3). Industrial Relations

Wholesale Merchants: Vendors begin their business at dawn, when they buy their wares from merchants or middlemen in the wholesale markets. Since most of these women have little working capital, they are forced to borrow from the merchants at very high interest rates – around 10 per cent per day on capital advanced (SEWA 1999, 57). In addition, since 1999, the wholesale vegetable markets have charged a 10 per cent market fee to the wholesale traders which they, in turn, pass on to the vendors in the form of higher prices. The vendors complain that they have not been able to pass all of this cost onto their customers. If they sell on credit, as many vendors have to, they suffer from severe cash flow problems (SEWA 1988, 30).

Police and City Government: Street vendors face constant threats, harassment, and eviction by police and civic authorities. There are no clear policies and laws for how to regulate vendors. Even though many of the vendors have been selling goods from the same spot for years – in some cases, for generations – increasing urban congestion and rising urban land prices have put a premium on their small spaces. As noted earlier, vendors are generally considered to be “traffic obstructions” and “nuisances” and are therefore subject to arbitrary arrests and charges by the police and civic authorities. They have to spend significant amounts of money and time on legal cases and trips to the courts in response to arrest warrants. The street vendors seek SEWA's intervention for various problems, including false charges, arbitrary arrests, confiscation of goods and pushcarts, and beatings at the hands of the police. Under the Ahmedabad Municipal Corporation's anti-encroachment policy, street vendors regularly have their push-carts and goods confiscated. To reclaim their belongings they have to follow lengthy procedures and pay fines (SEWA 1999, 58).

D. Conclusion

In sum, the evidence reviewed in this section highlights two key issues relating to our assessment of the impact of microfinancial services on SEWA Bank clients. The first is that market forces, the regulatory environment, and the socially defined segmentation of occupations may work against – or completely undermine – the anticipated impact of financial services on client households, their enterprises, and the clients themselves. The second is that, in such an environment, a range of interventions in addition to financial services – including organizing strategies, business development services, institutional and policy reforms – is needed to have significant impact on the working poor, their households, and their enterprises.

In this section of the report we looked at the market structure and relations of the major occupations in which women from the study sample are engaged. We did so because we believe that it is difficult to interpret the statistical findings – presented in Section 5 – on the impact of SEWA Bank without understanding the external forces that affect people’s life and work. In Sections 6 and 7, we illustrate how the wider stage affects the lives and work of twelve case study households.

Section 3 – SEWA Bank and Its Sister Institutions³⁵

A. Introduction³⁶

The Self-Employed Women's Association (SEWA), established in 1972 as an outgrowth of the Textile Labor Association, Ahmedabad's main textile labor union, is a trade union of women who earn their livelihoods by running small businesses, doing subcontracting work, or selling their labor. With 215,000 members in 1999, SEWA is the first and largest trade union of informal sector workers in India.³⁷ SEWA's objectives are to increase the self-reliance as well as the economic and social security of its members. Building up the asset holdings of its members, including their financial assets, is an important part of SEWA's strategy.

To promote its objectives, SEWA pursues a mix of what it calls "struggle" and "development" activities: that is, unionizing activities to address constraints and demand change and development interventions to promote alternative economic opportunities. To pursue these two strategies, SEWA organizes its membership into trade organizations and cooperatives, respectively. SEWA Bank is one of several sister institutions associated with SEWA. Others include the SEWA Union (which is responsible for recruiting and organizing SEWA's membership and managing SEWA's non-financial programs), the SEWA Academy (which is responsible for the research, training, and communication activities of SEWA), and the Gujarat Mahila Housing SEWA Trust (which coordinates all SEWA's housing activities). The financial services of SEWA Bank are thus part of a range of services that SEWA provides to its members, including housing, child care, legal aid, education, and training services.

SEWA groups its membership, from which the clients of SEWA Bank are drawn, into three broad occupational categories:

- ◆ **hawkers and vendors**, who sell a range of products including vegetables, fruit, and used clothing from baskets, push carts, or small shops;
- ◆ **home-based producers**, who stitch garments, make patch-work quilts, roll hand-made cigarettes (bidis) or incense sticks, prepare snack foods, recycle scrap metal, process agricultural products, produce pottery, or make craft items; and
- ◆ **manual laborers and service providers**, who sell their labor (as cart-pullers, head-loaders, or construction workers), or who sell services such as waste-paper picking, laundry services, or domestic services.

Within these three occupational groups, some women are self-employed, others work as casual laborers, and still others are sub-contractors (also called piece-rate workers). Many SEWA members, and therefore many clients of SEWA Bank, are thus not microentrepreneurs per se.

³⁵ Monique Cohen collaborated in the writing of this section.

³⁶ This discussion covers only the urban (Ahmedabad City) activities of SEWA Bank.

³⁷ By mid-2001, when this monograph was finalized, membership in the SEWA Union had grown to nearly 325,000.

SEWA Bank was established in 1974 at the initiative of 4,000 SEWA members, who each contributed 10 rupees (about US\$1 at the time) as share capital.³⁸ All low-income working women, the founding shareholders wanted a secure place to deposit savings as well as a source of loans. They also wanted their own bank in which they would not be made to feel inferior and unwanted as they had been by commercial banks. The Bank is a registered cooperative bank subject to the banking laws of the Reserve Bank of India and the cooperative banking laws of Gujarat State. As Table 3-1 illustrates, the Bank has enjoyed steady growth that has accelerated in the last five years, following the liberalization of financial policies.

Table 3-1: Growth of SEWA Bank

Year	Share holders (No.)	Share Capital (Rs. 000)	Depositors (No.)	Deposits (Rs. million)	Working Capital (Rs. 000)	Profits (Rs. 000)
75-76	6,631	76	10,549	1	1,660	30
80-81	7,507	81	14,022	3	3,194	54
85-86	9,825	538	22,208	11	13,537	222
90-91	13,151	1,460	27,923	24	34,417	741
95-96	19,258	6,102	56,540	86	114,648	2,096
96-97	20,657	7,260	70,117	127	167,331	1,788
97-98	24,678	8,430	88,786	152	209,570	1,760
98-99	26,955	10,281	112,750	176	259,159	2,259
As of Dec. 99	27,980	10,794	119,403	213	289,873	2,981

Source: SEWA Bank Reports

On December 31, 1999 the Bank had 27,980 share-holding members and 119,403 depositors. On a cumulative basis, it had made 34,126 loans.³⁹ Deposits with SEWA Bank totaled 192 million rupees (\$4.4 million). On March 31, 1999 individual deposits added up to 95 million rupees (\$2.2 million), while institutional deposits totaled 81 million rupees (\$1.9 million). Unlike many microfinancial intermediaries, SEWA Bank has never received a grant. From the beginning, the Bank has been financed primarily by the deposits and equity contributions of its members, all low-income working women. In 1999 SEWA borrowed 26 million rupees (\$602,000) from HUDCO (the Housing and Urban Development Corporation, formed by the Government of India) to be on-lent for housing finance. This was the first time that SEWA had accessed outside capital funds in a major way.

³⁸ The full name of the SEWA Bank is Shri Mahila SEWA Sahakari Bank which translates as Women's SEWA Cooperative Bank.

³⁹ The number of active loans on December 31, 1999 or any other date is unknown.

B. SEWA Bank

B.1. Financial Services

Women need finance for different purposes throughout their lives. SEWA's portfolio of financial products is intended to meet the changing needs of poor women over their lifetimes. The Bank offers three types of financial services: savings, loans, and insurance.

B.1.a. Savings

Savings, not loans, are the core financial service of SEWA Bank. SEWA begins with the development of savings products to respond to identified needs and only later considers the possibility of credit, based on observed savings behavior.

All members of the SEWA Union (and members of their families) are eligible to open savings accounts at the Bank. Savers are mobilized and recruited from among the SEWA membership by SEWA Union organizers.⁴⁰ According to SEWA Bank staff, savings facilities meet a priority need, promote financial discipline, and enable women to accumulate assets. To open a savings account members of the SEWA Union (or their relatives) must fill out a form. Depositors receive a simple passbook designed for use by semi-literate women. The frequency of deposits depends on the client although SEWA Bank stresses the importance of regular savings. The deposits are insured with two companies for a maximum amount of Rs. 30,000.

SEWA Bank offers four savings products:

- ◆ **Current deposit accounts:** women can deposit and withdraw as much and as often as they wish. No interest is paid on these accounts.
- ◆ **Savings accounts:** women can deposit freely but they can only withdraw funds once a month. These accounts earn 4.5 per cent interest per annum.
- ◆ **Fixed term deposit accounts:** the interest rate varies with the term of the deposit as shown in Table 3-2. There is a penalty for early withdrawal.

⁴⁰ In collaboration with the rural wing of the SEWA Union, SEWA Bank also provides financial services to savings and credit groups in several rural areas of Gujarat state. The savings and credit groups are comprised of 10–50 women whose deposits range from 10–25 rupees per month. These groups manage their own funds and decide who among them receives loans and at what interest rate. The Bank staff travel to the villages to collect deposits. As of March 31, 1999, there were 298 groups with 8,557 members that had collected nearly Rs. 2.5 million in savings and had Rs. 1.1 million in loans outstanding.

Table 3-2: Interest Rates on Fixed Term Deposits

Term	Interest rate p.a.
15 days to 60 days	6
61 days to 1 year	7
1 year to 3 years	10
Above 3 years to 5 years	12
Over 5 years	13

SEWA members are encouraged to utilize fixed term deposits for long term investments. Known as Swapana Siddhi, this product requires a lump sum investment over the medium and long term.

- ◆ **Recurring deposit accounts:** require regular deposits at established intervals; the interest rate varies from 7 to 13 per cent (Table 3-3). This product targets lumpy expenditure needs.

Table 3-333: Recurring Deposit Accounts

<u>Purpose</u>	<u>Term</u>	<u>Interest rate</u>	<u>Deposit schedule</u>
Emergencies	1 year	7%	40 rupees per month
Anticipated expenses such as education costs – Riddhi Siddhi	5 years	12%	Annual increasing savings rate over 5 Years
Marriage expenses	5 years	12%	200 rupees per month
Old age security – Bhavi Suraxa	10–15–20 years	13%	Regular monthly deposits
Housing	3–15 years	13%	250 rupees per month

B.1.b. Loans

SEWA Bank offers three loan products:

- ◆ **Unsecured loans:** instead of physical collateral, guarantors are required as “moral” security (one guarantor for loans under 2,000 rupees (\$43), two guarantors for loans above 2,000 rupees)⁴¹. These loans are targeted at the majority of SEWA members who are working women from low-income households.
- ◆ **Secured loans:** collateral in the form of either gold jewelry or fixed deposit savings is required. Loans are given for 65 per cent of the value of gold or 80–85 per cent of the value of the fixed deposit. While all shareholders of SEWA Bank are eligible for secured loans, only the better-off members can afford them. A small percentage of secured loans are made available to non-Bank members.⁴²
- ◆ **Housing loans:** since reaching agreement with HUDCO in March 1999, SEWA has offered its members unsecured five-year housing loans. The maximum loan size is 25,000 rupees (currently \$538) but this can be raised to 40,000 rupees (\$860) in special circumstances. In

⁴¹ As of January 2001, 2,000 rupees were worth \$43.

⁴² As of March 31, 1999, unsecured loans outstanding totaled Rs. 66 million, or 73 per cent of total loan volume, and secured loans totaled Rs. 24 million, 27 per cent of the total outstanding.

1999 the average housing loan was Rs. 13,000 (\$301). As of December 1999, 2,195 women had used this new product.

Unsecured and secured loans are both made for three-year terms, have a 25,000 rupee (\$538) ceiling, incur interest at 17 per cent per annum on the outstanding balance, and require monthly repayments. Until recently, the size of installments was calculated on the basis of 20 installments payable over 36 months. That is, each installment represented 5 per cent of the value of the loan plus interest. The Bank assumed that the first two payments would be missed and that, due to the vulnerability of its clients, there would be interruptions in the payment schedule. Thus it allowed for loans to be repaid in 20 installments over 36 months. Nevertheless, at least 65 per cent of the borrowers repaid within 20 months. Recently, SEWA tightened up on the term of the loan, requiring the 20 scheduled payments to be paid over 20 months.

Housing loans have a term of 5 years and are repaid in 60 monthly installments at an interest rate of 14.5 per cent. Unlike for other types of loans, site visits are mandatory for this loan product. SEWA staff must visit the borrower upon application and 3 months after the loan is disbursed. If the loan is not used for housing it is restructured into a general loan at 17 per cent.

The primary objective of SEWA Bank is to ‘capitalize’ or ‘re–capitalize’ its members: that is, to build up or rebuild their levels of asset ownership. To achieve this the Bank provides general loans for five main purposes: working capital; assets; home repairs; housing; and repayment of old debts/redemption of mortgaged assets. In addition, SEWA Bank provides loans for some types of social consumption: illness and education but not for celebrations.⁴³

This list of loan purposes reflects the needs of SEWA members. Because many of them do sub–contracting or sell their labor rather than run microenterprises, not all need working capital. Further, because many of the microentrepreneurs work from their homes, housing loans are a key to business expansion and sustainability. With SEWA Bank home repair loans, many women have added electricity and indoor plumbing to their homes. These features can greatly enhance productivity.⁴⁴ Also, housing loans have helped many women to build equity in an important asset, rather than paying rent. As of August 1998, SEWA Bank had disbursed over 152 million rupees (\$3.6 million) in housing loans to 12,015 borrowers. As of December 31, 1999 SEWA Bank’s outstanding housing loans, both HUDCO and earlier non–HUDCO loans, equaled 45 million rupees (\$1.0 million), or 48 per cent of SEWA Bank’s total outstanding loans of nearly 94 million rupees (\$2.2 million).

The following procedures and processes apply to the loan services of the Bank:

Eligibility: Although any woman above 18 years of age can apply for a loan, most borrowers are SEWA members: that is, working women, often illiterate, from low–income households. All borrowers must become shareholders to be eligible to borrow: one share costs 10 rupees (\$2.15).

⁴³ If a client is a particularly good saver and repayer, she may be allowed to borrow to cover the costs of a wedding.

⁴⁴ It is estimated that part of at least 80 per cent of loans designated for housing are spent on infrastructure, including electricity and water connections, latrines, and drainage.

To access an unsecured loan, a SEWA member must have had a savings account for at least six months and must have saved regularly. A woman's savings behavior – the regularity as well as the volume of her savings – is the main criterion in establishing her 'bankability'. In addition, the local organizers of the SEWA Union, who maintain close contact with SEWA's members, are asked to verify the creditworthiness of the loan applicant and her economic activity.

Application Process: Those deemed eligible to borrow may apply for a loan. After being recommended to a loan officer, the applicant completes a loan application form, which she submits together with a letter of application, a photograph, and a copy of her ration card.⁴⁵ The application is then reviewed by the SEWA Bank loan committee. This committee is chaired by the Chairperson of SEWA Bank and includes two board members, the Bank's Managing Director, and its Manager. The loan committee meets weekly, so each applicant is notified of her loan status within a week. The appraisal process is quite effective, given the familiarity of the SEWA Union field workers with the majority of potential borrowers and their economic activities.

Collateral: As noted above, SEWA Bank gives unsecured loans on the basis of personal guarantees rather than collateral. The same procedure applies to new housing loans. Members can receive housing loans without having a formal title, but problems sometimes arise. Recently, for example, the title of a member who had received housing loans was found to be invalid. Her investment disappeared when her home was bulldozed by the municipal authorities.

Size of Loans: The maximum loan amount is Rs. 25,000.

Term: SEWA Bank loans are generally repayable in 20 monthly installments.

Interest Rate: The interest rates for both deposits and loans, and thereby the gross spread of the Bank, are determined by the Reserve Bank of India.⁴⁶ SEWA Bank charges 14.5 per cent per annum on housing loans and 17 per cent on other loans.

Repeat Loans: After a loan is fully repaid, a client becomes eligible for a repeat loan. If her credit rating is good, she may apply for a new loan up to double the size of her previous loan.⁴⁷ No borrower can have more than one unsecured loan at any one time, but a client may have both an unsecured loan and a secured loan at the same time.

Delinquency: SEWA invests considerable staff time in averting default by encouraging clients who are having difficulties to make regular repayments, even if the amounts paid are less than the

⁴⁵ The application form contains information on the socioeconomic characteristics of the applicant, their business and social status, debt history and intended purpose of loan. The letter of application includes the name and address of both guarantors.

⁴⁶ As part of the ongoing process of financial sector reform, banks have been allowed to fix interest rates for certain levels of borrowing and for certain purposes, subject to minimum interest rate limits laid down by the Reserve Bank of India (BASIX 1996). However, this does not apply to loans below Rs. 200,000, for which the interest rates are specified.

⁴⁷ SEWA has begun offering incentives such as gifts of utensils for on-time repayment.

full amount due. A client is viewed as delinquent after 30 days or if the level of her repayment is less than three percent of the value of the loan. The following steps are taken to collect arrears:

- ◆ After 30 days, a reminder notice is sent to the client;
- ◆ After 60 days, the client is visited by a SEWA Bank recovery officer;
- ◆ After six months, a legal and advisory notice is sent to the client;
- ◆ After seven months, a legal advisory is sent to the client and her two guarantors; and
- ◆ After one year, legal action is taken.

In FY 99, 86 per cent of repayments due were made on time.⁴⁸ Another 3 per cent were less than three years overdue at the end of the year while 11 per cent were overdue by 3–5 years. Only 0.4 per cent were overdue by more than five years. In an endeavor to lower the overdue rate SEWA has formed a “handholding” team. Composed of 13 specially trained staff, the team’s role differs from that of loan officers whose key responsibility is to collect the debt. This team works with the client on a regular basis to ensure improved financial management by the borrower. Focussed on the economic well being of the member, SEWA Bank hopes that this initiative will also raise repayment rates over the long run. So far there have been no write-offs of any loan, although provisions have been made for bad debt service in accordance with Reserve Bank of India regulations. This reflects the position of SEWA Bank, which prefers to persist in seeking recovery and feels that writing off bad loans would send an incorrect message about the acceptability of subsidization.

B.1.c. Insurance

In 1992, the SEWA Union established a program of life, health, and property insurance in collaboration with two nationalized insurance companies (the Life Insurance Corporation and the United India Assurance Corporation). Managed by SEWA Bank, insurance is available to all SEWA members. In 1996, it was made compulsory for all who borrowed 5,000 rupees or more. Reflecting high demand, the program grew rapidly from 10,000 policyholders in 1993 to 32,000 in 1999. One-third of the policyholders are borrowers.

SEWA offers its members an integrated insurance package with two options for paying premiums: annual premiums or a fixed deposit. Annual premiums of either Rs. 67.50 or Rs. 82.50 can be paid in cash by the members. Alternatively, to facilitate the payment of premiums the insurance scheme can be linked with the savings scheme. Women may deposit either 700 or 900 rupees (\$15 or \$19) with SEWA Bank in a fixed deposit account and the premium is paid out of the interest. Women who choose this option are provided a maternity benefit of 300 rupees in addition to other benefits (see Table 3-4). Very poor women are permitted to pay the premium by saving either Rs. 67.50 or Rs. 82.50 (\$1.45 or \$1.77) monthly. After two years, the

⁴⁸ In the period March–December 1999 there was a noticeable increase in overdue accounts. This has been attributed by SEWA staff to the recession, the lockout of bidi workers, and problems with older clients.

savings are converted into a fixed deposit. Members have the option of including the husband's death in the policy for an extra payment. Maternity benefits are provided for younger women. For older women the same insurance can be used for cataract operations and dentures.

Table 3-4: SEWA's Integrated Insurance Package

	ANNUAL PREMIUM PAYMENT		FIXED TERM PAYMENT	
	Rs. 67.50 (without husband)	Rs. 82.50 (with husband)	Rs. 700 (without husband)	Rs. 900 (with husband)
RISKS	COVERAGE (Rs)			
Sickness ⁴⁹	1,200	1,200	1,200	1,200
Natural death (member)	3,000	3,000	3,000	3,000
Natural death (husband)	n.a.	3,000	n.a.	3,000
Accidental death (member)	40,000	40,000	40,000	40,000
Accidental death (husband)	15,000	40,000	15,000	40,000
Maternity, cataracts, dentures	n.a.	n.a.	300	300
Assets	5,000	5,000	5,000	5,000

Source: SEWA Bank

Indian banking regulations do not permit SEWA Bank to provide its borrowers with insurance on their outstanding balances. On the death of a policy owner, the benefit is paid directly to the nominated beneficiary. SEWA arranges for the funds to be deposited in the beneficiary's SEWA Bank savings account. If the beneficiary has no account, one is established in her or his name. Upon instruction from the beneficiary, withdrawals are made to cover any unpaid balance.

On December 31, 1999, 32,000 SEWA members had insurance policies. As many as 15,000 paid their premiums using the interest on their fixed deposit accounts. Only one-third of the policyholders were SEWA Bank clients. Through 1999, claims under SEWA's insurance program totaled 11.8 million rupees (\$273,000).

SEWA collects premiums annually from its policyholders, beginning each year April 1. In turn, SEWA is required to pay its insurance companies annually, on July 1.

Current claims procedures require women to submit their bills to the SEWA insurance workers. These are verified by the workers and subsequently reviewed by a claims committees composed of the Managing Director of the Bank, the head of the SEWA health unit, and SEWA Union members.

SEWA recently restructured its insurance programs. For health and property coverage, SEWA dropped the participation of the insurance companies in favor of self-insuring its members. Neither insurance company was judged to meet the clients' needs adequately. They denied poor women coverage for chronic illnesses linked to their work as well as for gynecological problems.

⁴⁹ Eligibility for sickness benefits requires 24 hours hospitalization. Costs incurred preceding and subsequent to hospitalization can be included in the claim.

Life and accident coverage continues to be provided in partnership with the insurance companies. However, the provision of insurance by SEWA is in flux, reflecting both the recent deregulation of the insurance industry in India and the emerging demands for new products by SEWA members, in particular family health, crop, and cattle insurance.

While the insurance program is evolving rapidly, it is still in an R&D phase. With its administrative costs covered by a grant from GTZ (German technical assistance),⁵⁰ SEWA is able to test out a range of innovations. Although the program is not yet sustainable, elements of the program show indications of moving in that direction. The health component is covering its costs and asset insurance is breaking even, but natural death insurance is operating at a loss. The challenge, to maintain affordable premiums while ensuring more appropriate coverage, is considerable. Additional premiums to provide health insurance for children, who average 3–5 per family, would increase the cost well beyond the ability of working women to pay. Health insurance also fails to meet the needs of rural women, who have little access to the hospital services covered by the insurance program.

B.2. Management

The Bank's Board of Directors has 15 members, nine of whom are elected by the shareholders. The other Board members are representatives of the SEWA Union and of local women's organizations, and are nominated by those organizations. Each Board member serves for a three-year term. The elected Board members are eligible for re-election. As of December 31, 1999, the Bank had 27,980 shareholders.

Under the overall supervision of a Managing Director, the Bank is divided into eight departments. These deal respectively with savings, shares, loans, recovery, training, research, computer services, and rural services. The largest is the savings department with a staff of over 22. The total staff of the Bank numbered 73 on December 31, 1999. The operational staff average 500 clients – both savers and borrowers – each. Local organizers from the SEWA Union help recruit and screen new clients, mobilize savings, monitor loans, and promote repayment.

All loan applications are received and all loan disbursements are made at SEWA Bank's office in Ahmedabad. Deposits and loan repayments are collected in the field through networks of extension centers (in eight areas of the city), mobile vans (which operate in 50 areas of the city), and area-level organizers (in all areas where SEWA works). Field workers from SEWA Bank supervise and coordinate the field-level collection process.

B.3. Financial Position

At the end of December 1999, SEWA Bank had 119,403 deposit accounts and capital of almost 290 million rupees (\$ 6.7 million). SEWA Bank is financially self-sustaining. It has consistently made positive returns on equity, total assets, and stockholders' funds. In FY 99 these rates of return were 20.9 per cent, 0.8 per cent, and 7.0 per cent respectively. Its debt

⁵⁰ GTZ is funding the secondment of a staff member from the United Insurance Company to assist SEWA in developing its integrated insurance package.

service coverage ratio (income net of operating expenses, divided by interest expenditure) has remained 1.2 or better and was 1.5 in FY 99.

Several factors account for the fact that the Bank has not felt any pressure to seek outside sources of finance (aside from the HUDCO loan mentioned earlier):

- ◆ Savings exceed loans by 2:1 in value terms;
- ◆ Deposits plus stockholders' funds constitute 81 per cent of the Bank's capital;
- ◆ Excess savings are invested in income-generating financial instruments;
- ◆ The level of delinquency has declined,⁵¹ and
- ◆ Salaries and allowances represent only 66% of operating costs.⁵²

SEWA Bank's objective is to increase the loan portfolio's share of assets to 70 per cent. This ratio stood at 32 per cent in FY 93; by FY 99 it had risen only to 35 per cent. The primary constraint to expanding loans appears to be the terms and conditions of SEWA Bank loans, namely, that the term of the loans (20 monthly installments) is long and that only one loan can be taken at a time.

Apart from meeting the viability norms for urban cooperative banks, SEWA Bank must continuously satisfy the capital adequacy norms set by the Reserve Bank of India, which expects equity and reserves to amount to 8 per cent of the risk-weighted assets. While SEWA Bank's capital has been more than adequate in relation to this norm, the trend over time has been for equity and reserves to fall as a proportion of total working funds (BASIX 1996).

A study of the financial viability of SEWA Bank made several years ago by a leading Indian microfinancial technical assistance organization concluded that the Bank is a profitable enterprise (BASIX 1996). However, its profitability and financial viability were found to be declining. Some of this decline was attributed to the myriad constraints posed by the Reserve Bank of India. The main recommendation was that SEWA Bank should lend as much as possible. The expansion of the Bank into rural areas through savings-and-credit groups was endorsed as another way to address the decline (Ibid.).

A tight and flat management structure and responsiveness to its market are among the positive features of SEWA Bank. Its flexibility and philosophy have permitted the Bank to respond to the evolving needs of its clients. An example is the evolving insurance scheme, which began as a simple life insurance scheme but now provides a broad package of coverage.

⁵¹ This reflects both the recent steps taken to reduce arrears by having Bank staff work closely with their clients to repay outstanding balances and to tighten up the repayment schedule as discussed above.

⁵² Salary costs are down from 16.7 per cent (FY 93) to 13.6 per cent (FY 96) of total costs. This reflects not only low salaries but also the integration of the bank into the family of SEWA services. Cross-subsidization of SEWA Bank by SEWA occurs in several ways, notably: SEWA Union leaders mobilize savers and screen prospective borrowers; SEWA's health department and SEWA Bank share extension premises.

C. Sister Institutions

C.1. The SEWA Union

SEWA Union is the mother institution, so to speak, of the sisterhood of SEWA institutions. Established as a trade union in 1972, SEWA is registered under the Indian Trade Unions Act of 1926. Membership in the Union is open to self-employed women workers – street vendors, home-based workers, and those who sell their labor or services – all over India. Union members pay an annual membership fee of 5 rupees (11 cents) and are organized into various trade groups. The Union is governed by two tiers of elected representatives: the Trade Council and the Executive Committee. Every three years, the members of each trade group elect representatives – one for every 100 members – to the Trade Council. In 1999, the Trade Council was comprised of nearly 400 members. Every three years, the Trade Council elects an Executive Committee of 25 members who, in turn, elect the office-bearers of the Union. The President is typically elected from the trade with the largest membership. With a 1999 membership of over 215,000 women, of whom 48,600 were in Ahmedabad City, SEWA is not only the first and largest trade union of informal sector workers in India but also the largest primary trade union.

In addition to the central Trade Council, there are Trade Committees for each of the major trades, comprised of 15–20 local area leaders each. These Trade Committees meet once a month to discuss the problems faced by women in their respective trades and to plan strategies to deal with these problems. The Union hires paid Organizers for each trade group who serve as Member-Secretaries of their respective Trade Committees. Under the leadership of the Organizers and local area leaders, the SEWA Union pursues “struggles” – collective bargaining and related strategies – for each of the major trade groups.

One distinguishing feature of the SEWA Union is that it promotes collective bargaining and related strategies for women in different employment statuses, not just dependent wage workers. For instance, they pursue collective bargaining for higher piece rates and selected benefits for homeworkers who work under sub-contracts. More notably, they pursue collective bargaining and related strategies for so-called independent own account workers. This is because they have found that most self-employed have to bargain with some “equivalent of the employer” for their basic rights as producers or traders. For instance, street vendors have to negotiate with the police and with municipal officials for the right to vend and for freedom from harassment, eviction, and confiscation of their goods. In other words, the SEWA Union has taken trade union strategies developed to deal with employment relations and extended or modified them to address production and distribution relations.

The three largest trade groups in the SEWA Union are bidi rollers, garment makers, and street vendors (see Table 3-5). The “struggles” in each of these dominant trades began in the mid- or late-1970s when one woman or a group of women from each of the trades approached SEWA to lodge complaints. A Muslim bidi roller complained that bidi rollers in her area were being paid less than the minimum wage and being denied services specially targeted to bidi workers. A group of quilt and garment makers protested against a recent increase in the price of thread. And two groups of street vendors – old clothes vendors and vegetable vendors – reported cases of police harassment and asked for help in getting bank loans. SEWA Union Organizers followed

up on each complaint by conducting small-scale surveys and holding group discussions to assess the situation on the ground.

Table 3-5: SEWA Membership in Ahmedabad (1999)

Trade Groups	Membership	Total Workers
Street Vendors	13,073	78,854
Home-based Workers	11,100	45,687
Bidi rollers	6579	10,730
Garment makers	3818	34,957
Manual Labor and Service Providers	7,624	137,136
Construction workers	3818	66,554
Workers in small industries	3806	70,582
TOTAL	49,818	444,500

Source: SEWA 1999: 51, and Rani and Unni 2000.

Since the 1970s, several strategies have emerged: local organizing, including worker education classes; protest marches and sit-ins; precedent-setting legal cases in the state High Court and the federal Supreme Court; and tripartite negotiations between the workers, employers or traders, and relevant government officials. The on-going “struggle” of each trade group, which involves an appropriate mix of these strategies, focuses on redrafting or enforcing, as needed, the laws, regulations, and industrial relations that govern their respective trades. The bidi workers’ struggle has demanded not only that the employer-traders pay minimum wages or piece-rates for bidi-rolling but also that the state government provide the services and benefits mandated under the Bidi Workers Welfare Fund and Cess Act (1972) and that the employer-traders contribute to the provident funds for bidi-workers mandated by the Employees’ Provident Fund Act (1952). The garment workers’ struggle has demanded that the state government introduce and then regularly update and enforce a minimum wage or piece-rate for stitching various garments. The street vendors’ struggle has focused on demanding that the city government guarantee vendors access to space and licenses, freedom from harassment by the police or municipal authorities, a right to legal representation by SEWA in the law courts, and a voice in urban planning.

C.2. Other SEWA Institutions

In addition to recruiting, organizing, and taking up struggles on behalf of SEWA’s membership, the SEWA Union has the overall responsibility for managing or monitoring the various services that SEWA provides to its members, including housing, child care, legal aid, education, and training services. Over time, as it did in the case of SEWA Bank, the SEWA Union has set up separate sister institutions to provide some of these services. At present, there are three registered SEWA institutions in addition to the SEWA Union and SEWA Bank. The SEWA Academy is responsible for the research, training, and communication activities of SEWA, including a newsletter for SEWA’s members, a magazine for the daughters of SEWA members, and videos that highlight the status of SEWA’s members and the work of SEWA’s sister institutions. The Gujarat Mahila Housing Trust provides housing services – financial, infrastructural, and technical

– to SEWA’s rural and urban members. The SEWA Gram Mahila Haat provides marketing and other business–related services to SEWA’s rural members.

Although not registered as separate institutions, SEWA’s rural program as well as its health and child care programs (both urban and rural) are run as separate departments of the SEWA Union. Under each of these programs, there are registered cooperatives: producer cooperatives and savings–and–credit groups under the rural program and service provider cooperatives under the child care and health care programs.

In sum, SEWA offers a wide range of services to its members, not just trade union organizing (through the Union) or financial services (through the Bank). In the context of the current study, it is important to note that successful struggles by the SEWA Union often impact all women in a given trade, not just those who are members of the SEWA Union or clients of SEWA Bank.

Section 4 – Research Design, Methods, and Sample

In this section, we describe the methodologies used to collect data and to carry out the quantitative and qualitative analyses that comprise the core of our study.

A. The Sample Survey

A.1. Questionnaire Design

The research design phase of the AIMS Project called for preliminary field research at each study site to develop a better understanding of the local context, refine the set of hypotheses, select the most relevant impact variables, identify a local survey firm, and pilot test a draft questionnaire.

Preliminary fieldwork in India included:

- ◆ Discussion of SEWA’s financial and non-financial services with key SEWA Bank and SEWA Union staff members;
- ◆ Discussion of the research design framework and methodology with the research staff of SEWA Academy;
- ◆ Interviews of local researchers and practitioners about current socioeconomic trends in Ahmedabad City and Gujarat State;
- ◆ Field visits to interview clients of SEWA Bank about their involvement with SEWA;
- ◆ Collection and review of relevant socio-economic literature on Ahmedabad City and Gujarat State; and
- ◆ Presentation of research design framework and methodology to a group of local researchers.

Toward the end of the preliminary field research, a draft questionnaire was formulated and pilot tested. The draft questionnaire was based on a format that had been developed and tested previously for the AIMS study in Peru. For most of the common questions, context-specific data categories and context-specific questions were added to the questionnaire. These modifications grew out of a series of interviews with SEWA Bank clients and SEWA research staff. Context-specific questions included a section on client participation in SEWA programs and special enterprise questionnaires for clients who work as sub-contract workers or as casual laborers. Six clients were interviewed initially to test the questionnaire. Later, after translating the draft questionnaire into Gujarati, the local survey firm pilot tested a revised questionnaire on thirty women (20 clients and 10 non-clients) in four wards of Ahmedabad City that fall outside the sample area. On the basis of that pilot test, and after discussions with the principal investigators at Harvard University, the local survey team revised the questionnaire into its final form.

A.2. Sample Design

Selection of Study Areas: For Round 1 of the survey, the intention was to draw a sample of 900 households, including 600 clients of SEWA Bank (300 borrowers and 300 savers) and 300 non-

clients. An attrition rate of 15–20 per cent was anticipated in Round 2 of the survey. This would leave a panel of 750 or more women for whom we had information from both rounds. The panel was to include at least 250 women in each of the three participation groups.

A three-step process was used to determine the initial sample:

- ◆ selection of geographical areas;
- ◆ selection of the two client samples; and
- ◆ selection of the non-client group.

Area Selection: As noted in Section 2, Ahmedabad City has 43 municipal wards (electoral units). To ease logistics and reduce the cost of the survey, we decided to limit its geographical coverage to ten wards. SEWA Bank's lists of current borrowers and savers showed that nearly half the Bank's clients (49% of the borrowers and 45% of the savers) lived in these ten wards, all of which are located in the older parts of the city on the east bank of the river. Two of the ten (Khadia and Raikhad) are within the old walled city. As a whole, the wards included in the survey are representative of the areas where SEWA's work began and where the majority of SEWA Bank's clients still live.

Client Sample Selection: We decided to survey two groups of women who participate in the financial services of SEWA Bank, current savers as well as current borrowers.⁵³ Savings are regarded as more important than credit by SEWA's leadership and ten times as many women have savings accounts at any given time as have loans outstanding. Our study explicitly considers the ways in which credit and savings may impact on households, enterprises, and individuals. A simplistic approach would regard credit as beneficial because it leads to higher revenue from a particular microenterprise, which in turn raises household income and thus confers a variety of other benefits. The household economic portfolio model suggests, however, that impacts can be far more widespread. Moreover, as we saw in Section 3, SEWA Bank's lending guidelines specify a variety of loan purposes, with housing improvement, debt reduction, and social purposes such as weddings competing with business uses. As shown in Section 5, one of the most important uses of SEWA Bank credit is to help members deal with "shocks" – unanticipated expenditure needs or disruptions in the income flow. Savings are another important way of dealing with this kind of difficulty, and also generate funds that can be used to attain the other ends for which households sometimes borrow. Since all borrowers are savers as well, we hypothesize that there will be greater impact on those who borrow as well as save. Because all the clients of SEWA Bank are working women, all members of the sample are aged 18 or above.⁵⁴

The following method was used to select the client samples.

- ◆ First, a list was prepared of all current SEWA Bank borrowers (defined as those who had loans outstanding at the time of the Round 1 survey) within Ahmedabad City. The list

⁵³ Insurance is a third financial service provided by the Bank, but we have not evaluated its impact.

⁵⁴ That is, all were working women when originally selected for Round 1 of the survey. As discussed below, 103 women had ceased to be economically active two years later when Round 2 was undertaken.

excluded two categories of borrowers with fixed salaries: SEWA Bank staff members and other salaried women whose loans are repaid by salary deductions.

- ◆ Second, current borrowers were grouped geographically by the 43 municipal wards. SEWA field staff workers, who are local experts, reconciled the addresses given by the clients with the geographic boundaries of the various wards.
- ◆ Third, the ten wards with the largest numbers of SEWA Bank borrowers were selected. One of these wards was later replaced because it had a high percentage of middle-class borrowers.
- ◆ Fourth, a sampling fraction was applied to reach a total of 350 borrowers and allocate proportional shares of this total in the ten wards. Over-sampling at this stage allowed for possible problems in either locating borrowers or obtaining their cooperation.
- ◆ Fifth, a random list of 350 borrowers was drawn and these borrowers were assigned to local neighborhoods (again, using the addresses given and the local knowledge of SEWA field staff).
- ◆ Sixth, a list of current savers (defined as those who had made at least one deposit in a SEWA Bank savings account during FY 97⁵⁵) was made for each of the neighborhoods represented in the borrower sample.
- ◆ Finally, a random sample of 300 current savers who did not take loans during FY 97 was drawn from the list of savers in those neighborhoods.

The randomly drawn respondents were replaced if the woman could not be located; if she was not economically active; or if she was unwilling to participate (2% of the cases). Also, in the case of savers, women who were no longer actively saving or who had taken out loans during the first few months of FY 98 were replaced. In the case of the borrower sample, women who had paid off the loan taken in FY 97 during FY 98 were replaced.

Non-client Sample Selection: The following method was used to select the control group.

- ◆ First, a preliminary pre-survey was carried out in the neighborhood of each of the 300 sample borrowers to identify 50 households in which there were economically active women over age 18 who were not SEWA members.
- ◆ Second, within these 15,000 households, all economically active women over age 18 were listed.
- ◆ Third, a random sample of 300 women was drawn from this list.

Like the client samples, the non-client sample consists of economically active women over age 18 engaged in one or more of a similar range of informal sector activities. Neighborhoods in the older parts of Ahmedabad City are relatively homogeneous in terms of caste, occupation, and class. Given the homogeneity of the neighborhoods, the range of economic activities open to non-client women in those neighborhoods is roughly the same as those open to client women, namely hawking or vending, home-based production, and selling labor or services.

Table 4-1 shows the final distribution of the borrower, saver, and non-client samples among the ten wards covered by the survey.

⁵⁵ SEWA Bank's financial year ends March 31. FY 97 is the year ending March 31, 1997.

Table 4-1: Distribution of Sample by Ward

Ward		Current Borrower Base	Proportionate Sample		
			Borrowers	Savers	Non-members
1.	Behrampura	475	57	57	57
2.	Jamalpur	327	39	39	39
3.	Bapunagar	321	38	38	38
4.	Rakhial	173	21	21	21
5.	Asarwa	219	26	26	26
6.	Khadia	214	25	25	25
7.	Amraiwadi	212	25	25	25
8.	Saraspur	210	25	25	25
9.	Raikhad	192	23	23	23
10.	Dudeshwar	176	21	21	21
TOTALS		2519	300	300	300

A.3. Data Collection in Round 1

For operational help in carrying out the survey, Harvard University sub-contracted with Taleem Research Foundation, an Ahmedabad-based research firm. Working under the close supervision of the Harvard researchers, Taleem Research Foundation performed several important functions prior to Round 1 of the sample survey:

- ◆ Helping to define the sampling frame;
- ◆ Translating it into Gujarati;
- ◆ Testing the questionnaire;
- ◆ Recruiting and training the investigators;
- ◆ Conducting both rounds of the survey;
- ◆ Entering and cleaning the data from both rounds; and
- ◆ Carrying out preliminary analyses of the data.

Taleem Research Foundation was established in 1996 by a small multidisciplinary group of professionals who had served as research directors or senior social scientists at different research institutions in India. The Director received his Ph.D. in anthropology from the University of Wisconsin. Given the reputation and experience of its founders, Taleem Research Foundation has received contracts to carry out field surveys from the Government of India, various national organizations, and several international organizations. For the current study, Taleem Research Foundation deputed two of its women professionals to the AIMS Project. Both have masters degrees in communication and prior experience in conducting large-scale field surveys; both proved to be very professional in their work.

A team of local enumerators was recruited in December 1997. As part of their training, the enumerators helped to create the list used to select the non-client sample. In January 1998, they went through a six-day training course (four days of classroom training and two days of field training). The curriculum covered the background and programs of SEWA, including the operations of SEWA Bank; the background and purpose of the AIMS Project; the conceptual framework and hypotheses of the AIMS study; and the survey questionnaire. Particular attention was paid to explaining and discussing the classification of enterprise or economic activity by sector (manufacturing, trade, and services); sub-sector (garment-making, cigarette-rolling, paper picking, etc.); employment status (own account, sub-contract, and casual wage). The significance of an economic activity to the respondent (primary, secondary, or tertiary) and the household economic portfolio (primary, secondary, or tertiary) was also stressed.⁵⁶ Finally, special attention was given to explaining how to calculate net income and other economic concepts in the enterprise section of the questionnaire.

Each enumerator was given a training manual in Gujarati that described all significant variables in detail. After a thorough review of each question in the questionnaire, the enumerators were assigned in pairs to conduct two simulated interviews each. These simulated interviews improved the enumerators' comprehension of the questionnaire and accuracy in entering and coding answers. Each completed test questionnaire was reviewed in detail. The enumerators were also trained in how to conduct an interview and what to do if the respondent is distracted, loses interest, or runs out of time. The resource persons for the training workshop included the two researchers from Taleem Research Foundation; two research staff members from SEWA Academy; and one of the principal investigators from Harvard University.

To carry out the survey, the enumerators worked in pairs, travelling to their assigned neighborhoods by bus or motorcycle rickshaw. Once a day, each pair reported to a central office set up by the Taleem Research Foundation to receive their next assignments, debrief the Taleem Research Foundation researchers on their completed interviews, and complete the coding of the questionnaires. During the survey, the Taleem Research Foundation researchers conducted routine review checks. From time to time, surprise checks were carried out in the field to ascertain whether interviews were being conducted at the designated time and place. According to the Taleem Research Foundation researchers who supervised the field survey, the team of enumerators proved to be quite efficient and diligent.

A.4. Data Collection in Round 2

For Round 2 of the sample survey, conducted in early 2000, the questionnaire was redesigned to avoid unnecessary repetition of information while adding questions needed to update the information received in Round 1. Taleem Research Foundation then recruited a new survey team, rehiring interviewers from the Round 1 team whenever possible and desirable while hiring a number of new enumerators. Training ensued, and in January 2000 the interviewers went out in search of the original interviewees. As noted earlier, the intention was to locate and interview at least 750 of the original 900 respondents, including a minimum of 250 in each of the three

⁵⁶ For example, to verify which activity is the primary activity of the individual, the enumerators were trained to cross-check two answers on the household section of the questionnaire (one from the first page of the questionnaire, the other on the first table of the questionnaire).

groups. Inevitably, the survey personnel found that some Round 1 subjects could not be located because they had died, moved away, or were simply of unknown whereabouts in early 2000. In addition, a very small number of Round 1 subjects refused to be re-interviewed, primarily because they remembered how time-consuming the initial interview had been. Because the survey focused on individual women, rather than on particular microenterprises, no one else was interviewed if the original interviewee was unavailable.

Determined efforts were made to locate and interview the women interviewed previously. As a result, it proved possible to interview a total of 798 women in Round 2 of the survey, including 276 borrowers, 260 savers, and 262 controls. This exceeded the target of 750 Round 2 interviews. Data supplied by the twelve borrowers who became the subjects for the case studies presented in Section 6, below, were then removed from the database for the quantitative analysis to ensure that the in-depth attention that they received did not contaminate the statistical results. This left a panel of 786 women and their households to be included in the quantitative analysis.

The characteristics of the 102 “drop-outs” who participated in Round 1 of the survey but could not be included in Round 2 were examined to determine whether their absence from the panel would bias the results in any significant way. Fortunately, they proved to be quite similar in their personal and household characteristics to the sample as a whole, so we could be confident that any such bias is slight.⁵⁷

B. Quantitative Data Analysis

Analysis of the data for both rounds of the survey followed the core AIMS data analysis plan. This called for a set of descriptive tables for data from Rounds 1 and 2, plus two types of statistical analysis – gain score analysis and ANCOVA. In addition, other forms of cross-section and longitudinal analyses were carried out.

The quantitative analysis tested the core AIMS hypotheses about impact at the household, enterprise, and individual levels (see Section 1, above). For each of these hypotheses, a quantitative measure (impact variable) was defined. The hypothesis in each case was that impact could be explained by participation in SEWA Bank’s financial services as a saver and/or borrower. The most potent statistical test undertaken, the analysis of co-variation (ANCOVA) took into account the possibility that the relationship might be influenced by other factors, known as moderating variables. Table 4-2 lists the hypotheses tested, along with the corresponding impact variables and moderating variables.

The 786 women who make up the database for our quantitative analysis fall into three participation groups:

⁵⁷Dropouts were slightly younger and poorer on average than the women who were interviewed in both rounds. Their average age was 33, versus 36 for members of the panel. Seventy-three per cent were married, compared to 87 per cent of panel members. Dropouts were slightly more likely to be Muslim (30 per cent, compared to 24 per cent of the panel). Occupational patterns were similar across the two groups. Average annual household income in Round 1 was 40,300 rupees for dropouts, compared to 41,700 rupees for those who were reinterviewed.

- ◆ **Borrowers:** SEWA members who had an outstanding loan from SEWA Bank at the time of the Round 1 survey. All borrowers also hold accounts in the Bank.
- ◆ **Savers:** SEWA members who had active accounts with the Bank (that is, made at least one deposit during FY 97) and did not have a loan outstanding at the time of the Round 1 survey. Savers may have borrowed from SEWA Bank at other times. As noted above, those who became inactive savers or took out loans from SEWA Bank during the first few months of FY 98 were removed from the saver sample.
- ◆ **Controls:** Non-members of SEWA at the time of Round 1, selected (as described above) to be as comparable as possible to the other two groups in their personal characteristics (that is, SEWA-eligible).⁵⁸

A fourth term used in discussing our quantitative results is **clients**. This category includes all borrowers and savers, as just defined.

The complete battery of tests performed on every hypothesis, and in some cases on more than one variant of the hypothesis, is as follows:

- ◆ Cross-section differences are examined and evaluated for statistical significance. We determine, first of all, whether clients (borrowers, savers, and borrowers and savers collectively) have more favorable values of the impact variable than controls in Round 1 of the survey. Next, we perform an analysis of variance (ANOVA) to see whether this difference is statistically significant. If a relationship passes this test, this is taken to indicate possible impact, but the association does not by itself establish a causal relationship.
- ◆ Changes between Round 1 and Round 2 are examined next, and their statistical significance is evaluated. We first ask whether the change in the value of the impact variable was in the expected direction. Next, we test whether the value of the impact variable for clients in Round 2 is statistically different from its value in Round 1.
- ◆ Gain score analysis. This form of data analysis compares amounts of change over time in an impact variable between treatment and control groups. It asks whether the amount of change (or percentage change) over time is more favorable for the treatment group and, if so, whether the difference between the changes is statistically significant. ANOVA was applied to the changes over time for borrowers, savers, and controls to determine whether differences among these changes are significant.

⁵⁸ By Round 2 of the survey, a small number of women in the control group had joined SEWA and a few had even taken out SEWA Bank loans.

**Table 4-2: List of Hypotheses, Impact Variables, and Moderating Variables
Used in Quantitative Analysis**

Hypotheses	Impact Variable	Moderating Variables
<u>Household Level</u>		
H-1. Household Income	a. Total annual household income b. Annual household income per capita	Standard*
H-2. Diversification of Income	Inverse Simpson's Index	
H-3a. Housing Improvements	Expenditures on building materials and labor payments in previous 12 months for housing improvements, repairs, expansion, and infrastructure connections	Tenure Housing Loan
H-3b. Appliances, transportation, and furniture	Expenditures on HH appliances, vehicles, and furniture in previous 24 months	
H-4. Children's Education	Net enrollment ratios for: a. Girls 7-10 b. Girls 11-17 c. Boys 7-10 d. Boys 11-17	
H-5. Food Expenditure	Daily per capita expenditure on food and beverages consumed in and out of home	
H-6. Coping with Shocks	Type of mechanism used in dealing with most damaging shock in past 2 years	
<u>Enterprise Level</u>		
E-1. Informal Sector Income	Income received in previous month from ME, sub-contracting and casual labor by: a. HH b. Respondent	
E-2. ME Revenue	Gross sales revenue in previous month from: a. All MEs in HH b. All MEs for which respondent is primarily responsible	
E-3. ME Fixed Assets	Money value of fixed assets used in: a. All MEs in HH b. All MEs for which respondent is primarily responsible	
E-4. ME Employment	a. Hours worked in previous week in all MEs in HH b. Days worked in previous month in all MEs in HH	
E-5. Transactional Relationships	a. Main types of suppliers b. Main types of customers	
<u>Individual Level</u>		
I-1. Control over income & resources	a. Who decided to take last loan? b. Who decided how to spend last loan? c. Who decided how to spend ME revenue?	
I-2. Self-respect & Esteem	a. Do you feel you make an important contribution to the HH? b. Do other HH members respect the contributions that you make?	
I-3. Personal Savings	Do you have personal savings?	
I-4. Position to deal with the future	a. Do you feel prepared to deal with the future? b. Are you doing anything to prepare yourself to deal with the future?	

*As discussed below, all ANCOVA equations include the following moderating variables: age of respondent; marital status; educational attainment; religion/caste; employment status; trade; household size; number of economically active household members. A few equations used additional moderating variables, as noted in the table above.

- ◆ ANCOVA (analysis of covariance). This is our strongest test of the significance of any measured impact of participation in SEWA Bank financial services because it is the only one that controls for the possible influence of various personal characteristics on the impact variables. ANCOVA statistically “matches” observations in the treatment and control groups that have the same baseline measures on the impact variables and on several moderating variables. It then compares these matched observations to determine whether there are any consistent differences between the treatment and control groups in terms of second-round outcome values. In other words, given similar measures on the impact variable and the moderating variables in the baseline, the ANCOVA procedure looks for systematic differences in second-round outcomes. In our case, the methodology permits us to see whether borrower, saver, or client status with SEWA Bank are statistically significant determinants of Round 2 values for the impact variables, once certain moderating variables have been taken into account. The value of the impact variable in Round 1 is entered into the equation as an additional moderating variable, so we are in effect looking at determinants of changes in the value of the impact variable.

In the ANCOVA, we experimented with four alternative specifications of program participation. Three of these specifications measured participation as defined above, while the fourth looked at the effects of participation over a longer period of time. Specifically, the specifications tested were as follows:

- ◆ A three-way comparison among borrowers vs. savers vs. controls. Did borrowers have significantly more favorable values of the impact variable than did controls? Did savers?
- ◆ A comparison of clients (borrowers and savers) with controls.
- ◆ An alternative specification suggested by a reviewer of an earlier draft of this report, which looked at the impact on borrowers but used client versus non-client status as an additional moderating variable. This specification takes account of the fact that borrowers, like savers, have savings accounts (a condition for borrowing imposed by SEWA Bank).
- ◆ Finally, the effect of longer-term participation was examined. This was done by defining the participation variable as the number of loans ever taken from SEWA Bank. This focused on a different group of participants, since women who had borrowed in the past, even those who had done so repeatedly, were not necessarily current borrowers.⁵⁹

These ANCOVA tests (see Section 5, below) attempt to measure the influence of the participation and/or the moderating variables in determining the observed values of the impact variables. Possible outcomes of the analysis are of four different types:

- ◆ The participation variables may be statistically significant, or nearly so, while few if any of the moderating variables attain statistical significance.⁶⁰ The logical inference in this case is that participation in SEWA Bank’s financial services primarily explains the more favorable values of the impact variables after other possible influences have been taken into account.

⁵⁹ Responses to this question were grouped as follows: no loans ever taken; borrowed once; borrowed 2–4 times; borrowed five or more times.

⁶⁰ Conventional standards of statistical significance are used in this study. For a relationship to be called “significant” in Section 5, below, the statistical error level must be .05 or less. In addition, we use the term “almost significant” to refer to cases where the error is from .06 to .10.

- ◆ Alternatively, both the participation variables and several of the moderating variables may be significant. In this case, the logical inference is that program participation and other factors jointly determine the outcome.
- ◆ A third possibility is that the participation variables are statistically insignificant but one or more of the moderating variables is significant. In this case, it is likely that program participation does not lead to higher values of the impact variables for borrowers, savers, or all clients, but we have identified other factors that probably do have this effect.⁶¹
- ◆ The final possible outcome is that neither the participation variables nor the moderating variables used have a statistically significant influence on the impact variables. In this case, three different inferences are possible. First, the variables may be poorly specified. Second, the data may be weak. Third, if the variables are well specified and measured, then most likely there really is no significant relationship among the variables. When the statistical result is that no significant influences appear, we can only speculate about which of these inferences is most likely to be correct.

Our analysis of data obtained from the two sample surveys resembles what is known as quasi-experimental research design. In the classic version of this approach, which approximates the scientific method of random testing, “treatment” and “control” groups are selected. These would be expected to have quite similar values of all the most relevant variables as measured in a baseline survey conducted prior to the onset of “treatment”. In other words, members of the two samples are regarded as having been drawn from the same population. A follow-up survey is then conducted some time after the start of “treatment” (i.e., the program whose impact is being evaluated). By inference, differences between the two groups observed at the time of the follow-up survey can be attributed to “treatment”. These differences serve as measures of program impact.

The besetting flaw of the quasi-experimental approach is selection bias. In many cases, those who choose to take part in a program might be expected to be more favorably disposed toward the forms of behavior sought by the program than those who do not choose to participate. If this is so, differences in performance cannot be attributed solely to program participation. SEWA Bank clients, for example, are not chosen at random but are in fact purposefully selected from a larger population, both by themselves and by SEWA Bank. A woman must first self-select by deciding to open a savings account and later to apply for a loan. Once she does so, SEWA Bank decides whether to provide her with the financial service in question. The Bank generally limits the right to open a savings account to working-class women and it carefully screens loan applicants, as described in Section 3, above. In these circumstances, it is possible that women who turn to SEWA Bank for microfinancial services and are granted access to these services by the Bank differ in significant ways from women who do not use SEWA Bank’s financial services.

One can never be sure that efforts to select comparable treatment and control groups, however diligent, have eliminated selection bias. For this reason, researchers must be careful not to overstate their conclusions. Even good quasi-experimental evaluations are often received with

⁶¹ The statement is phrased in terms of probabilities, since statistical techniques can only establish probabilities, not certainties. In the kind of case discussed here, it is possible that participation still has the hypothesized effect, but that cannot be established statistically.

skepticism. In its strongest form, this skepticism leads to the view that no quasi-experimental study is reliable and only truly experimental studies should be conducted. The latter type of study, however, requires that program participants be selected at random.⁶² This is seldom practical, so the question remains of how to evaluate the great majority of real-world programs in which participants were purposefully selected. The AIMS studies provide one possible answer to this question.

To minimize the risk that selection bias will lead to overstatement of our ANCOVA impact measures, an extensive set of moderating variables was included in all analyses. The following moderating variables were included in all ANCOVA tests. All refer to the respondent's status at the time of Round 2 of the survey.

- ◆ Age (30 or below, 31–54, or 55 or over).
- ◆ Marital status (married or not).
- ◆ Educational attainment (never attended school or attended kindergarten or a literacy program only; attended primary school or technical training only; attended secondary school; attended upper secondary school, college, or post-graduate education).
- ◆ Religion/caste (scheduled caste or tribe; backward caste Hindu; upper caste Hindu; Muslim; other religion).
- ◆ Employment status (not gainfully employed; self-employed; sub-contractor; wage worker; salaried; other).
- ◆ Trade (garment worker, vegetable/fruit vendor; bidi roller, other).
- ◆ Household size (number of members).
- ◆ Number of economically active members.

Other moderating variables were added in selected ANCOVA tests. These are listed in Table 4-2, above.

In addition to using moderating variables to reduce selection bias, we have been careful in reporting our analytical results in Section 5 to avoid overstating our findings regarding the impact of microfinancial services.

The AIMS core impact assessments differ from classic quasi-experimental studies in that our first-round surveys were conducted some time after the program began and are thus not true baseline surveys. In Round 1 of our survey, therefore, the participant and control groups should be similar to each other in characteristics that are not affected by program participation, such as age, marital status, religion, and caste. They may, however, differ significantly with respect to the hypothesized impact variables (e.g., household income, enterprise revenue, food consumption, educational participation by children in the households, etc.).

⁶² For example, Michael Kremer conducted an evaluation of the impact of a program by a Dutch NGO to distribute supplementary textbooks to selected schools in Kenya. To facilitate his study, the NGO agreed to allow the schools that would receive the textbooks to be chosen at random. The NGO did not object to this procedure because it did not have enough funds to supply all eligible schools and did not have strong views about which schools would be supplied. This would appear to be an unusual situation. See Michael R. Kremer with Paul Glewwe and Sylvie Moulin, "Textbooks and Test Scores: Evidence from a Prospective Evaluation in Kenya."

We hypothesize that the impacts listed above will be evident in cross-section comparisons, in time series, and in analyses that combine the two approaches. An impact in cross-section would be suggested by a significantly more favorable value of the impact variable for clients than for non-clients at a point in time. An impact in time series would be suggested by a significant improvement in the condition of clients over time. A combined analysis would compare changes over time for clients and non-clients. Impact would be indicated by a significantly larger improvement for clients than for non-clients. This could mean that the conditions of both groups improve but those of clients improve significantly more than those of non-clients, that the condition of clients improves while that of non-clients deteriorates, or that the conditions of both deteriorate but the condition of clients deteriorates significantly less than that of non-clients.

The cross-section test is pertinent to our study because, as just noted, the time-series test is not a pure before-and-after comparison. Most SEWA Bank clients had already had savings accounts for some time, and some had taken prior loans, when the Round 1 survey was conducted. The impact of this participation might well be reflected in cross-section differences in impact variables measured in the Round 1 survey. Such differences do not by themselves establish the existence of program impact, however, since they may also be attributable to inadequate control for differences between clients and controls that have nothing to do with participation in SEWA. Despite the elaborate efforts to make the control sample comparable to the client sample, we cannot be certain that selection bias has been eliminated. Persons with higher values of the impact variables (e.g., higher family incomes) may have chosen (or been chosen) to become clients of SEWA Bank for one reason or another, and this selection pattern, rather than Bank services, may explain their favorable positions in cross-section analyses.

C. The Case Study Research

The research design of the AIMS project calls for quantitative analysis to be complemented by qualitative research involving a set of in-depth case studies. The intention was to deepen our understanding of the impact of SEWA Bank and the context in which its borrowers operate.

C.1. Sampling

Sample: We decided to carry out 12 case studies, including four current borrowers from each of three dominant trades in which SEWA Bank borrowers are concentrated: vegetable vending, bidi rolling, and garment making.⁶³ Within each trade group of four borrowers, we sampled for the following criteria:

- ◆ Individual-level criterion: single SEWA Bank loan vs. Multiple SEWA Bank loans; and
- ◆ Household-level criteria: above poverty line vs. Below the poverty line; lost mill job vs. never had mill job.

⁶³ As of December 31, 1999, there were 48,618 members of SEWA in Ahmedabad city. Of these, 13,073 (27%) were vendors, 6,579 (14%) were bidi rollers, and 3,818 (8%) were readymade garment makers. The next largest trade group was the incense stick rollers.

To select the sample, Taleem Research Foundation drew up a full list of SEWA Bank borrowers in each of the three trades and determined whether each woman on the list had:

- ◆ Taken one or more SEWA Bank loans;
- ◆ Come from a household above or below the poverty line; and
- ◆ Come from a household in which a member had lost a textile mill job, or from a household in which no one had ever worked in a mill.

From each trade group on the list, we grouped the women according to the following matrix:

	Above Poverty Line	Below Poverty Line
Single Loan		
Multiple Loan		

We then chose one woman at random from each box of the matrix. However, in each trade group, we also wanted to select two women who came from households that had lost a mill job and two from households that had never had a mill worker. And, within the garment maker trade group, we wanted to select women who worked on their own account as well as on sub-contracts. To reach this purposive distribution, we moved down the list (within each box) from the randomly selected woman until we found a woman who fit the mix of criteria we wanted. Although they represent a purposive random sub-sample of the total borrower sample, the case study respondents and their households are reasonably comparable to the total borrower sample in terms of key variables.

C.2. Procedures

The case study interviews were conducted by one of the two principal investigators from Harvard University and the two researchers from Taleem Research Foundation. During Round 1 of the case study research, we interviewed each of the 12 women three times. The first interview, which lasted 2–3 hours, was conducted in a meeting room at SEWA Bank. To begin this interview, which we taped, we asked each woman to tell the economic history of her household. As needed to prompt the interviewee, we asked questions, following the field guide for the case studies. The second and third interviews were conducted in the women’s homes. During the second interview, other household members were typically present. We used this occasion to probe household-level issues, notably the household’s economic portfolio and their financial and risk management behavior. The third interview, which was the shortest, was intended to fill information gaps and probe selected issues as needed.

After the first interview, the principal investigator from Harvard University wrote up her field notes following a common outline. The researchers from Taleem Research Foundation reviewed and edited her field notes to provide missing information or correct existing information as needed. After the subsequent interviews, the principal investigator updated the notes on each case study and kept a separate set of notes on emerging themes and issues. Meanwhile, Taleem Research Foundation had the recorded interviews transcribed and translated. Also, the Taleem Research Foundation researchers collected information on the loans and savings of each of the

12 case study women from the SEWA Bank. After returning from the field, the principal investigator from Harvard University wrote a baseline report on the qualitative research.

During Round 2 of the case study research, we interviewed each of the 12 women twice. Both interviews were conducted in the women's home. The first interview lasted 2–3 hours and was designed to capture what had happened to the household – in terms of resources, activities, life-cycle events, emergencies, and more – over the past year. The second interview, which typically was shorter, sought to fill information gaps and probe selected issues as needed.

As during Round 1, the principal investigator from Harvard University updated her field notes after each interviewed and the researchers from Taleem Research Foundation edited her field notes and Taleem Research Foundation had the taped interviews transcribed and translated.

C.3. Analysis of Case Study Findings

Two types of analysis were carried out on the information gathered during the five case study interviews. First, the resources and activities as well as the financial and risk behavior of each of the case study households were analyzed. Then, a comparative analysis of the twelve case study households was carried out. The following key questions guided both parts of the analysis. How have the resources and activities of the households changed over time? What risks have the households faced and what investments have they made? How did they cope with these risks? How did they finance their investments? What has been the impact of the SEWA Bank on the case study respondents, their economic activities, and their households? What has been the impact of the SEWA Bank on their ability to cope with risks? The results of this two-part analysis are presented in Sections 6 and 7.

D. Description of Sample

What follows are brief descriptions of the sample survey panel of 786 women/households and the case study sample of twelve women/households.⁶⁴

D.1 Survey Sample

D.1.a. Demographics: Individual

Age: All three samples consist, by design, of women from low-income households who were 18 or older and economically active when first interviewed. Forty-three per cent of the total sample were in the younger (18–34) age group; fifty-four per cent were in the middle age (35–54) group; only 6.3 per cent were 55 or older. The borrower group was somewhat older on average (39) than the saver (35) or control group (36) (see Table 4-3, below).

Marital Status: A large majority of respondents (87%) were married. Over seven per cent were widowed and 1.5 per cent had been divorced or deserted. Just four per cent had never been

⁶⁴ For the panel of 786 women, these descriptions pertain to their status at the time of the Round 1 survey (early 1998). For the 12 case study subjects, they relate to their status of the initial interviews in early 1999.

married. The borrower group had the highest percentage of married women (90%) and the control group the lowest (81%).

Literacy: Forty percent of all respondents had never attended school. Nearly as many (38%) had been only to primary school, while 17 per cent had attended high school and four per cent had received some higher education. In all three sample groups, about forty percent had never attended school. This compares favorably to the rates of female illiteracy for India as a whole (61%) and for Gujarat state (52%). Within our sample, the saver group had the highest percentage of women who attended secondary school (21%) and college (1.5%), while the borrower group had the highest percentage of women who attended primary school only (44.3%). Only two women, a saver and a control, reported having received technical training and only one woman (a borrower) reported having attended a literacy program.

Place of Origin: A large majority (85%) of the total sample had lived in Ahmedabad for a long time. About seven per cent migrated to Ahmedabad from a rural area of Gujarat, while fewer than three per cent migrated from another city in Gujarat and five per cent or so migrated from another state.⁶⁵ These patterns are quite consistent across the three groups.

Primary Economic Activity: SEWA divides its membership into three categories of women who work in the informal sector of the economy:

- ◆ Small-scale vendors and hawkers who sell a range of goods from vegetables to garments to household utensils;
- ◆ Home-based producers who work either on their own account or as sub-contract workers weaving cloth, rolling cigarettes or incense sticks, stitching garments, and more; and
- ◆ Women who sell their labor (including agricultural and construction laborers, hand-cart pullers, and headloaders) or various services (including cooking, cleaning, paper picking, or laundry).

For the purposes of this study, we reclassified SEWA's categories into three employment status groups:

- ◆ Own account entrepreneurs: women who use their own capital to produce and sell – or buy and sell – goods;
- ◆ Sub-contract workers: women who produce goods on a piece-rate basis for a middleman, without using much (if any) of their own capital; and
- ◆ Wage workers: women who sell their labor or services for a casual or fixed wage.

⁶⁵ Substantial migration from other states occurred in the 1960s and 1970s. Historically, Ahmedabad was a textile city which attracted groups of migrants from neighboring states: this migration was mainly along caste lines with particular castes performing specific tasks in the textile and related sectors.

These categories have been used to classify not only the women in the sample but also the economic activities of their households. Economic activities were also classified by broad economic sector (i.e. manufacturing, services, or trade) and by sub-sector (i.e., specific occupations such as vegetable vending, paper picking, and cigarette-rolling).

Unlike many microfinancial and microenterprise programs, including the other two programs studied in the AIMS project, SEWA Bank has many client/members who are not own-account entrepreneurs. We use the term “economic activity” to include all the own-account, sub-contract, and labor pursuits of the women in the sample. Since we expect the impact of microfinancial services to differ by employment status, the economic activities of the sample respondents and households have been classified by employment status as well as by sector and sub-sector.

The primary economic activity⁶⁶ of 41 per cent of the women in the total sample was own account entrepreneurs; 36 per cent were sub-contract workers and 22 per cent were casual laborers. The highest concentration of own account entrepreneurs (48%) was among the borrowers, followed by savers (41%); the highest concentrations of sub-contractors and casual laborers (40% and 25%, respectively) were among the control group. Overall, a higher proportion of clients (45%) than non-clients (35%) reported own account businesses as their primary occupation.

As Table 4-3 indicates, the three sample groups were quite similar in terms of several key characteristics: average age, religion, caste, previous residence, percentage married, and percentage who never attended school. The possible influence of differences in these characteristics is allowed for, however, by including them as moderating variables in the ANCOVA presented in Section 5, below.

D.1.b. Demographics: Household

Religion and Caste: Because residential neighborhoods tend to be segregated by both caste and religion and because the borrower, saver, and control samples were drawn from the same neighborhoods, the distribution by religion and caste is quite consistent across the three groups. Three-quarters of the total sample are Hindu and nearly one-quarter are Muslim. In the all-India population, 82 per cent are Hindu and 12 per cent Muslim. The population of Ahmedabad was found to be 15 per cent Muslim in 1971, the last year in which this information was collected officially. Muslims probably form a higher percentage of the poorer classes of the city. The higher proportion of Muslims in Ahmedabad City is due in large measure to its long history of Muslim rule and settlement. Three respondents (two borrowers and one member of the control group) are Christian.

⁶⁶ That is, among the activities for which the respondent was primarily responsible, the one that yielded the highest annual income.

Table 4-3: Key Characteristics of the Sample*

	Borrower N = 276	Saver N = 260	Control N = 262
Average Age (years)	40	35	34
Marital Status:			
Married (%)	90	87	81
Educational Attainment:			
Never Attended School (%)	40	40	41
Religion (%):			
Hindu	73	77	78
Muslim	27	24	22
Caste (% of Hindus):			
Upper Caste	10	16	24
Backward Caste	47	44	40
Scheduled Caste	32	36	32
Scheduled Tribe	8	5	4
Primary Economic Activity (%):			
Own Account	48	41	35
Sub-Contract	32	36	40
Labor	20	23	25
Average Number of Household Members	6.1	5.7	5.9
Average Number of Earning Members	3.0	2.8	2.7

*These data refer to the status of the 786 women in the panel and their households at the time of Round 1 of the survey.

Among Hindu communities across India, there is a bewildering array of local castes, called *jati*.⁶⁷ Each of these can be classified under one of three broad social groupings: the upper castes (the Brahmins, the Kshatriyas and the Vaishyas); the middle castes (called the Other Backward Castes); and the lower castes (called the Scheduled Castes or, variously, the Outcastes, Untouchables, Harijans, or Dalits). For India as a whole, no more than 15 per cent of the Hindu population comes from the upper Hindu castes and another 20 per cent or so belongs to the lower Hindu castes (and tribal groups).⁶⁸ The vast middle of the Hindu population belongs to those

⁶⁷ Although other communities in India, including the Muslims, are socially stratified, the caste system per se is associated with Hinduism.

⁶⁸ The official term for the lower castes, which are listed in a government schedule, is Scheduled Castes. The official term for various localized tribal groups, also listed in a government schedule, is Scheduled Tribes.

castes collectively referred to as the Backward Castes. Among the Hindus in our panel, 17 per cent are from the Upper Castes, 44 per cent from the Backward Castes, and 39 per cent from the Scheduled Castes (and tribes).⁶⁹

Household Size and Structure: Over half the sample (53%) lives in nuclear households. Another 20 per cent live in joint households and a further 20 per cent in complex households. As used here, nuclear households consist of one married couple and their unmarried children. Joint households are those comprised of two or more married couples, plus their unmarried children, while complex households are nuclear or joint households that include other adult members. Very few women in the sample live on their own or with their young children. The distribution is quite even across the groups. Slightly more borrowers live in joint or complex households; and slightly more controls manage on their own.

The average household size for the three groups is similar: borrower (6.1), saver (5.7), and control (5.9). The average number of earning members per household across the three groups is as follows: borrower (3.0), saver (2.8), and control (2.7). As a result, the average number of dependents per earning member rises slightly across the borrower, saver, and control groups.

Primary Source of Household Income: In one-quarter of sampled households the primary income source of the woman respondent was also the primary income source of the household. More commonly (in one-half of these households), a salary or wage earned by another family member was the household's primary income source. The third most common pattern, accounting for one-fifth of all cases, was for an own-account enterprise operated by someone other than the respondent to be the primary income source.

D.2 Case Study Sample

As described above, we selected four borrowers from each of the dominant trades in which SEWA Bank borrowers are concentrated: namely, vegetable or fruit vending, hand-made cigarette (bidi) rolling, and garment making. To select the four women from each trade, we divided the borrower households within each trade into two groups: those above and those below the poverty line (see discussion in Section 5). Then, within each of these groups of households, we selected two women who had taken only one loan and two who had taken two or more loans.

Although they represent a purposive random sample of these sub-groups of borrowers, the case study respondents and their households are reasonably comparable to the total borrower sample in terms of key demographic variables. Two of the households are Muslim; the rest are Hindu. Of the Hindu households, half are from Backward Castes and all but one of the rest are from Scheduled Castes and Tribes. All of the Backward Caste households were originally from other states – Andhra Pradesh or Maharashtra. Several generations of men in these families – usually the father-in-law, sometimes the husband – had migrated to Ahmedabad to work in the textile mills. Although the average household size was 6.8, two households had only three members (those headed by the two widows) and one household had 18 members (husband, wife, 3 sons, 3 daughters-in-law, and 10 young grandchildren). And, although the average annual household

⁶⁹ In this monograph, we use the terms Upper Caste, Backward Caste, and Scheduled Caste for the three broad social groupings of Hindus.

income per capita was 7,887 rupees (\$216), one household enjoyed an annual per capita income above 20,000 rupees (\$548), one had an annual per capita income above 12,000 rupees (\$329), and three households had annual per capital incomes below 4,000 rupees (\$110). Two of the women were widows; the rest were married. Although the average age was 38, three were younger than 35 years of age and one was older than 60. See Table 4-4, below, for a comparison of key household and individual characteristics in the case study sample and the total borrower sample.

Table 4-4: Key Demographic Variables of Case Study Sample and Borrower Sample

Key Characteristics	Case Study Respondents N=12	Borrowers in Survey N=276
Average Age (years)	38	40
Marital Status (%):		
Married	83	89
Widowed	17	9
Other	0	3
Religion (%):		
Hindu	83	73
Muslim	17	27
Caste (% of Hindus):		
Upper Caste	10	14
Backward Caste	50	47
Scheduled Caste	30	32
Scheduled Tribe	10	6
Average Number of Household Members	6.8	6.1
Average Annual Household Income (rupees per capita)	7,887	9,103

Section 5 – Survey Findings: The Impact of Microfinancial Services on Households, Individuals, and their Economic Activities⁷⁰

A. Introduction

The analytical framework of the Core Impact Assessment of SEWA Bank carried out under the AIMS project has just been presented. Section 4 also described the quantitative and qualitative methodologies used to test the AIMS hypotheses about how the use of the microfinancial services of SEWA Bank might have socioeconomic impact at the household, enterprise, and individual levels. In Section 5 we report the results of our quantitative analyses. As necessary, the discussion draws on findings from the background study reported in Section 2, above, as well as on the qualitative work presented in more detail in Sections 6 and 7, below. Before presenting these findings, however, we lay out some important descriptive information on the 786 women in our panel, their households, and their economic activities. In addition, we draw an overall picture of how economic activities and outcomes changed in the two years between surveys.

B. Economic Patterns and Trends among Sample Households

Survey respondents and other members of their households engage in a wide range of economic activities to support their families. The average household had 2.63 income sources. Informal sector economic activity contributed 70.5 per cent of total income in Round 1. This included microenterprises in trade, services, and manufacturing (39.9% of total household income), casual labor (20.6%), and sub-contracting (10.0%). Semi-permanent employment and salaried jobs, both primarily male activities, brought in 17.4 per cent and 11.5 per cent of household income respectively. Men earned 60 per cent of household income, women 40 per cent. Microenterprise was the primary economic activity of fewer than half (41.0%) of our survey respondents. Almost as many (36.0%) were sub-contract workers, while 20.7 per cent were casual laborers.

Borrower households had higher average incomes in Round 1 than saver households, which in turn earned more than control households on average (see Table 5-2). Compared to saver and control households, borrower households earned a higher percentage of their income from microenterprise. They also had the highest earnings from salaried work. Saver households were the most likely to be engaged in sub-contracting, while control households had the highest proportion of income from casual labor.

Between Round 1 and Round 2, all three categories of sample households raised their average incomes. The rise was fastest for savers (17.3% or 8.3% per annum). It was also rapid for borrowers (16.2% or 7.8% per annum) but was slower for controls (6.8% or 3.3% per annum).

We now look in succession at the primary economic activities of survey respondents, at patterns and trends in household income, at household credit and savings, and at poverty.

⁷⁰ Yanhong Zhang carried out all the statistical analysis reported in this section. His participation in the project is deeply appreciated and gratefully acknowledged.

B.1. Respondents' Primary Economic Activities

As just noted, fewer than half the women in our panel (322 out of 786, or 41.0%) reported that own-account microenterprise was their primary economic activity in Round 1 of the survey (Table 5-1). Another large group (283, or 36.0%) did sub-contracting (piece rate) work of the sort described in Sections 2 and 6. A smaller but still substantial number (163, or 20.7% of the panel) worked as wage laborers in their primary economic role. Only twelve of the women in the sample were fortunate enough to have salaried employment.

Own-account activity was more common among borrowers than among savers or non-members of SEWA. In Round 1, 123 borrowers (46.6% of the total) reported that microenterprises were their primary income sources. This compared with 110 savers (42.3%) and 89 controls (34.0%). Savers and controls were both more likely than borrowers to be sub-contract workers, and control group members were more active in casual labor than either borrowers or savers.

Two years later, when Round 2 of the survey was conducted, 103 women, 13.1 per cent of the sample, had ceased to be economically active. Many of them had formerly been sub-contract workers, but significant numbers of microentrepreneurs and casual laborers also became economically inactive. Average age and household income were both slightly lower among those who became economically inactive than among those who continued to be economically active.⁷¹

B.2. Patterns and Trends in Household Income

In both rounds of the survey, conscientious efforts were made to measure household income in the preceding week, month, and year. In Round 1, households in the panel reported average annual income of 42,557 rupees (\$1,166; see Table 5-2). Borrowers averaged 51,384 rupees (\$1,408), followed by savers (40,401 rupees or \$1,107) and non-members of SEWA (35,803 rupees or \$981 on average). Average incomes for the previous month and week were generally consistent with these annual figures.

Household income sources were diversified, with microenterprise playing an important part. In 1997, the year covered by Round 1, sample households received 39.9 per cent of their income from microenterprises, 10.0 per cent from sub-contracting, and 20.6 per cent from casual labor. The remainder came from salaries (11.5%), semi-permanent employment (17.5%), and miscellaneous sources such as pensions, remittances, rental income, gifts, interest and dividends. Patterns were similar across the three participation groups, but borrowers earned a somewhat larger share of their income (42.8%) from microenterprise and a somewhat smaller share (19.7%) from casual labor.

⁷¹ The average age of those who left the labor force was 33 years, compared to 36 for those who continued to be economically active. Average household income was 40,277 rupees for those who stopped working and 41,729 rupees for those who continued to work.

Table 5-1: Primary Economic Activities of Respondents, Survey Rounds 1 and 2

	Round 1								Round 2							
	Borrowers		Savers		Controls		All		Borrowers		Savers		Controls		All	
	Number	% of total	Number	% of total	Number	% of total	Number	% of total	Number	% of total	Number	% of total	Number	% of total	Number	% of total
Microenterprise	126	47.7	108	41.5	88	33.6	322	41.0	130	49.2	103	39.6	84	32.1	317	40.3
Manufacturing	29	11.0	14	5.4	12	4.6	55	7.0	45	17.0	24	9.2	22	8.4	91	11.6
Trade	56	21.2	48	18.5	43	16.4	147	18.7	54	20.5	42	16.2	35	13.4	131	16.7
Service	41	15.5	46	17.7	33	12.6	120	15.3	31	11.7	37	14.2	27	10.3	95	12.1
Sub-contracting	78	29.5	97	37.3	108	41.2	283	36.0	40	15.2	65	25.0	79	30.2	184	23.4
Labor	51	19.3	50	19.2	62	23.7	163	20.7	46	17.4	52	20.0	66	25.2	164	20.9
Salaried Work	7	2.7	3	1.2	2	0.8	12	1.5	7	2.7	3	1.2	1	0.4	11	1.4
Others/Unknown	2	0.8	2	0.8	2	0.8	6	0.8	3	1.1	2	0.8	2	0.8	7	0.9
Not Working	0	0	0	0	0	0	0	–	38	14.4	35	13.5	30	11.5	103	13.1
TOTAL	264	100	260	100	262	100	786	100	264	100	260	100	262	100	786	100

Table 5-2: Average Annual Real Household Income by Source, Rounds 1 and 2

	Round 1								Round 2							
	Borrowers		Savers		Controls		All		Borrowers		Savers		Controls		All	
	Rupees	% of total	Rupees	% of total	Rupees	% of total	Rupees	% of total	Rupees	% of total	Rupees	% of total	Rupees	% of total	Rupees	% of total
Microenterprise	22,004	42.8	15,422	38.2	13,397	37.4	16,964	39.9	26,820	44.9	17,079	36.0	10,831	28.3	18,268	37.7
Manufacturing	4,990	9.7	3,288	8.1	4,521	12.6	4,270	10.0	4,493	7.5	2,392	5.0	2,021	5.3	2,974	6.1
Trade	8,932	17.4	6,057	15.0	4,906	13.7	6,639	15.6	11,216	18.8	7,664	16.2	4,069	10.6	7,659	15.8
Service	8,082	15.7	6,098	15.1	3,970	11.1	6,055	14.2	11,111	18.6	7,023	14.8	4,741	12.4	7,636	15.8
Sub-contracting	4,245	8.3	5,561	13.8	2,938	8.2	4,244	10.0	3,685	6.2	4,224	8.9	3,083	8.1	3,663	7.6
Casual Labor	10,128	19.7	7,010	17.4	9,112	25.5	8,758	20.6	10,121	17.0	8,722	18.4	10,282	26.9	9,712	20.0
Semi-permanent employment	8,511	16.6	6,919	17.1	6,870	19.2	7,437	17.5	10,393	17.4	9,043	19.1	8,402	22.0	9,282	19.1
Salaries	6,434	12.5	5,297	13.1	2,906	8.1	4,882	11.5	8,302	13.9	7,998	16.9	4,552	11.9	6,951	14.3
Other Sources	63	0.1	171	0.4	580	1.6	271	0.6	382	0.6	322	0.7	1,094	2.9	602	1.2
TOTAL	51,385	100	40,401	100	35,803	100	42,557	100	59,704	100	47,388	100	38,244	100	48,477	100

All income figures reported in Round 2 of the survey were deflated to January 1998 prices by dividing by 1.156. This was the value of the Ahmedabad consumer price index for laborers in January 2000, expressed on a base of January 1998. After this deflation, the average income of households in the sample was found to have increased substantially in the two years between survey rounds. For the sample as a whole, average annual household income in base year prices rose from 42,557 rupees in 1997 to 48,477 in 1999 (from \$1,166 to \$1,328), a rise of 13.9 per cent.⁷² The increase was uneven across participation groups, however. Borrower households were able to raise their average incomes from 51,384 rupees per annum to 59,704 rupees in base year prices (from \$1,408 to \$1,636), an increase of 16.2 per cent. Savers managed an even larger increase: from 40,401 rupees to 47,388 (from \$1,107 to \$1,298) in base year prices (17.3%). Control group households also raised their income, but by a smaller amount. Their average rose in real terms from 35,803 rupees a year to 38,244 rupees (from \$981 to \$1,048), a 6.8 per cent increase.

Table 5-3 shows how different economic activities contributed to the rise in average household income over the two-year period. Income from microenterprise rose modestly, with trade and service activities providing growing income flows while earnings from microenterprises in manufacturing declined. Income from sub-contracting also fell between the two dates as employment and average income in both garment and bidi subcontracting declined. The largest contributors to rising average household income were salaries and semi-permanent employment. These are primarily male activities, so the question arises of how much the earnings of our female respondents contributed to the overall increase in average household income.

We are also able to calculate income from the respondents' primary economic activities, as listed in Table 5-1. In Round 1 of the survey, these activities contributed an average of 12,727 rupees (\$349) to household income, 29.9 per cent of the total (Table 5-4). More than half of this amount came from microenterprise activities. Women contributed 40.2 per cent of the microenterprise income earned by households in the panel. The other important female activities, as we know, were sub-contracting and casual labor. Sub-contracting was primarily women's work, while both men and women did a lot of casual labor. Nearly 90 per cent of the income that sample households received from permanent and semi-permanent employment was earned by men.

The most important specific trade in Round 1 in terms of income generation by respondents' microenterprises was street vending, which accounted for 36.9 per cent of the income generated by respondents' primary own-account enterprises. Garment making, the second most important trade, generated 17.4 per cent of total income from respondents' primary enterprises. The balance of own-account income was generated by a wide range of trades.

In the sub-contracting category, the most important income earner in Round 1 was garment making, with 41.4 per cent of total income. Bidi rolling was the second most important source of sub-contracting income (18.4% of the total) and incense making the third most important (8.1%).

⁷² Converted to dollars at the 1997 exchange rate, the rise was from \$ 1,166 to \$1,328.

In Round 2, income from the respondents' primary economic activities increased to 13,410 rupees (\$367) in real terms (Table 5-4). This represented only a small rise (5.4%) over the two years between surveys. Income from the women's primary microenterprises rose by a healthy 17.3 per cent, but income from sub-contracting fell. As income from the women's primary economic activities rose more slowly than total household income (5.4 per cent versus 13.9 per cent), the share of household income contributed by the women's activities fell slightly (from 29.9 to 27.7 per cent).

Decomposing these changes by specific trades, we see that income from street vending rose strongly (by 27.8%) while income from garment making and bidi rolling both declined slightly (by 1.2% and 3.1% respectively).⁷³ Microenterprise income from sources other than these three major trades also fell (by 1.9%), as did sub-contracting income from other sources (by 16.2%).

In summary, the largest contributions to rising household incomes over this two-year period were made by microenterprises in trade and services (an increase of 2,601 rupees for the average household), salaries (2,069 rupees), and semi-permanent employment (1,845 rupees). By contrast, income from the respondents' primary activities rose by only 718 rupees for the average household as rising income from microenterprise was partially offset by falling income from sub-contracting activities (see Table 5-4).

Table 5-3: Sources of Growth in Average Annual Real Household Income

	Between Round 1 and Round 2							
	Borrowers		Savers		Controls		All	
	Change	% of total	Change	% of total	Change	% of total	Change	% of total
Microenterprise	4,816	57.9	1,637	23.4	-2,566	-105.1	1,304	22.0
Manufacturing	-497	-6.0	-896	-12.8	2,500	-102.4	-1,296	-21.9
Trade	2,284	27.5	1,607	23.0	-837	-34.3	1,020	17.2
Service	3,029	36.4	925	13.2	771	31.6	1,581	26.9
Sub-contracting	-560	-6.7	-1,337	-19.1	145	5.9	-581	-9.8
Casual Labor	-7	-0.1	1,712	24.5	1,170	47.9	954	16.1
Semi-permanent employment	1,882	22.6	2,124	30.4	1,532	62.8	1,845	31.2
Salaries	1,868	22.5	2,701	38.7	1,646	67.4	2,069	34.9
Other Sources	319	3.8	151	2.2	514	21.1	331	5.6
TOTAL	8,320	100	6,987	100	2,441	100	5,920	100

⁷³ Comparisons made in this paragraph are based on total income from both own-account microenterprises and sub-contracting activities. As discussed in the text, street vending is almost exclusively carried out through own-account trading and bidi rolling is done primarily through sub-contracting. Garment making is done both through own-account enterprises and through sub-contracting.

Table 5-4: Average Annual Real Household Income from Respondents' Primary

Economic Activities by Source, Round 1 and 2								
	Borrowers		Savers		Controls		All	
	Rupees	Share*	Rupees	Share	Rupees	Share	Rupees	Share
Microenterprise	9,941	45.2	5,540	35.9	4,923	36.7	6,813	40.2
Manufacturing	2,480	49.7	1,444	43.9	1,421	31.4	1,784	41.8
Trade	4,831	54.1	2,798	46.2	2,737	55.8	3,460	52.1
Service	2,630	32.5	1,298	21.3	766	19.3	1,568	25.9
Sub-contracting	3,230	76.1	3,994	71.8	2,407	81.9	3,208	75.6
Casual labor	1,121	10.2	1,480	21.1	1,422	15.6	1,340	15.3
Semi-permanent employment	782	12.2	894	12.9	822	12.0	832	11.2
Salaried work	930	10.9	252	4.8	298	10.3	495	10.1
TOTAL	16,003	31.1	12,159	30.1	9,872	27.6	12,692	29.8

Round 2								
	Borrowers		Savers		Controls		All	
	Rupees	Share*	Rupees	Share	Rupees	Share	Rupees	Share
Microenterprise	11,876	44.3	7,156	41.9	4,915	45.4	7,995	43.8
Manufacturing	3,146	70.0	1,697	70.9	1,129	55.9	1,994	67.0
Trade	6,233	55.6	3,620	47.2	2,789	68.5	4,221	55.1
Service	2,498	22.5	1,839	26.2	997	21.0	1,780	23.3
Sub-contracting	1,845	50.1	2,773	65.6	2,707	87.8	2,439	66.6
Casual labor	1,471	14.5	1,205	13.8	1,719	16.7	1,466	15.1
Semi-permanent Employment	971	9.3	873	9.7	1,021	12.2	955	10.3
Salaried work	1,018	12.3	600	7.5	46	1.0	556	8.0
TOTAL	17,182	28.8	12,606	26.6	10,408	27.2	13,410	27.7

*Share of total household income in the activity as shown in Table 5-2.

B.3. Credit and Savings in Sample Households

Credit: Households in the sample reported nearly nine million rupees of debt (\$231,000) in Round 1 of our sample survey (Table 5-5). This was equivalent to 11,411 rupees (\$294) per household, or 26.8 per cent of annual household income. Informal borrowing from friends, relatives, and moneylenders accounted for more than half of this credit for all households taken together and for more than two-thirds of the total for savers and controls, who by definition had no SEWA loans outstanding in Round 1.⁷⁴ Borrowers, on the other hand, owed one-half of their

⁷⁴ Disaggregating further, control households obtained more than three-quarters of their credit from friends and relatives while saver households received just over 60 per cent from this source and borrowed more from miscellaneous sources.

debt to SEWA Bank. Access to SEWA Bank credit seems to have permitted borrower households to take on more total debt than savers or controls. Borrowers averaged 16,034 rupees of debt per household in Round 1, versus 9,208 rupees for savers and 8,943 rupees for controls. Borrowers, in fact, had just about as much non-SEWA debt as members of the other two groups. This strongly suggests that they used loans from SEWA Bank primarily to expand their assets, not to pay down other loans.⁷⁵ No one in the sample seems to have had much access to credit from banks other than SEWA Bank, which therefore provided “additionality” in access to institutional credit for households in the sample.

Table 5-5: Total Credit by Source
(000 rupees in current prices)

Round 1					Round 2				
Source	Borrowers	Savers	Controls	All	Source	Borrowers	Savers	Controls	All
SEWA	2,124	0	0	0	SEWA	1,559	332	8	1,899
Non-SEWA					Non-SEWA				
Friends & relatives	1,281	1,467	1,799	4,547	Friends & relatives	2,509	1,715	1,941	6,164
Other banks	5	30	40	75	Other banks	23	44	88	155
Moneylenders	481	257	248	986	Moneylenders	472	610	137	1,220
Merchants/traders	180	197	176	552	Merchants/traders	195	309	205	709
Credit societies	105	13	1	119	Credit societies	12	132	33	176
Other sources	58	430	79	567	Other sources	188	469	216	872
Total	2,109	2,394	2,343	6,845	Total	3,398	3,279	2,625	9,302
GRAND TOTAL	4,233	2,394	2,343	8,969	GRAND TOTAL	4,957	3,611	2,633	11,201

Table 5-6: Total Savings by Type
(000 rupees in current prices)

Round 1					Round 2				
Source	Borrowers	Savers	Controls	All	Source	Borrowers	Savers	Controls	All
SEWA					SEWA				
Savings account	463	214	0	677	Savings account	394	302	33	729
Recurring account	64	18	0	82	Recurring account	42	12	0	55
Fixed/term deposit	46	5	0	51	Fixed/term deposit	98	25	20	142
Others	39	36	0	75	Others	74	29	2	105
Total	612	274	0	885	Total	607	369	55	1,031
Non-SEWA					Non-SEWA				
Money at home	12	24	11	47	Money at home	27	16	16	59
Saving/credit groups	21	31	53	104	Saving/credit groups	49	35	41	125
VCs/chit funds	38	29	115		VCs/chit groups	81	146	21	248
Private company	9	23	0	32	Private company	0	1	10	11
Post Office savings	16	11	6	33	Post Office savings	11	19	11	41
Saving certificates	0	0	32	32	Saving Certificates	?	?	?	?
Stocks & bonds	4	10	10	24	Stocks & bonds	27	7	10	44
Other banks	68	17	2	87	Other banks	84	44	227	356
Others	0	0	0	0	Others	5	7	7	19
Total	176	145	228	1,435	Total	284	275	344	904
GRAND TOTAL	787	419	228	1,435	GRAND TOTAL	891	644	399	1,935

⁷⁵ The case study households used only 10 per cent of what they borrowed from SEWA Bank to repay old debt and 70 per cent of what they borrowed to invest in business or housing (see Table 6-2).

By early 2000, when Round 2 of the survey was taken, the volume of credit outstanding to households in our panel had risen to 11.2 million rupees (\$257,000) or 14,251 rupees (\$327) per household on average. This increase of 24.9 per cent, however, is smaller than the measured rise in average household income (31.7% in current prices). Accordingly, debt as a fraction of income declined slightly to 25.4 per cent. The amount owed to SEWA Bank also fell as borrowers paid back the loans that had been outstanding two years earlier and only 83 of 264 borrowers took out new loans.⁷⁶

Savings: At the time of the Round 1 survey, the financial savings of households in our panel averaged only 1,826 rupees (\$47) per household (Table 5-6). SEWA Bank was far more important as a depository for savings in early 1998 than it was as a source of credit, holding 62 per cent of the panel's total financial savings.⁷⁷ Among SEWA members, nearly three-fourths of the household's total financial savings were held in a SEWA Bank account. Borrowers had considerably more savings (2,981 rupees or \$77 on average) than savers (1,612 rupees or \$42), who in turn had much larger savings than controls (only 870 rupees or \$22 per household on average). Various forms of informal savings were also popular with households in the panel, but there was little saving in other banks or in securities.⁷⁸

In Round 2, average savings rose to 2,471 rupees (now worth \$57). The averages for savers and non-clients went up sharply (by 53.7% and 75.1% respectively) in rupee terms, but the average for borrowers rose only 13.2 per cent in rupee terms and was unchanged in dollar terms (at \$77). The share of the total financial savings of sample households held in SEWA Bank declined from 61.7 per cent in Round 1 to 53.3 percent in Round 2, largely because non-member households started to save more in other commercial banks.⁷⁹

B.4. Poverty Levels in Sample Households

Although the households in our sample are generally not destitute, they are quite poor. To determine the pervasiveness of poverty within the sample, the income levels measured in our survey can be compared to a relevant poverty line. The Government of India has defined various poverty lines and monitors progress in reducing poverty relative to these lines (see Section 2, above). To facilitate comparison with the other two countries studied in the AIMS project,

⁷⁶ Total credit outstanding from SEWA Bank rose over this period, so the experience of our panel is atypical. It must be remembered that borrowers in the panel were not eligible to borrow again until they paid off their existing loans. Of the 264 borrowers in the panel, 168 were still repaying the loans listed in Round 1 at the time of the Round 2 survey. Of the 96 who had finished repaying those loans and become eligible to borrow again, 83 (86%) had taken out new loans. As Table 5-5 suggests, a few savers and even one control (a non-member of SEWA in early 1998) also took out SEWA loans in the period between the surveys.

⁷⁷ Borrowers, of course, borrowed far more from SEWA Bank than they had on deposit in the Bank.

⁷⁸ Note, however, that among control households the amounts saved in saving/credit groups and VCs/chit funds (rotating credit societies) declined between rounds of the survey, while the amount saved in banks more than doubled. Borrowers and savers also saved increasing amounts in non-SEWA banks. This suggests that access to banks for the urban poor may be increasing in Ahmedabad.

⁷⁹ In Round 1, other commercial banks accounted for only 6% of savings and held less than one-tenth as much money from on behalf of sample households as SEWA Bank. In Round 2, their share of the total tripled, becoming more than one-third as great as that of SEWA Bank.

however, we calculated two internationally comparable poverty lines, drawing on the work of the World Bank (World Bank 1990, 2000a and 2000b).

In its *World Development Report 2000/2001: Attacking Poverty* (World Bank 2000a), the Bank uses two global poverty lines, called “\$1 a day poverty” and “\$2 a day poverty.” The lower poverty line is equivalent to the mean national poverty line of ten low-income countries, while the higher line matches average national poverty lines in lower middle income countries. The Bank’s new estimates are based on the latest available household surveys and on the International Comparison Project of the United Nations, which estimated purchasing power parity in 1993 for 110 countries. Poverty is measured using consumption per capita.

The “\$1 a day” poverty line is actually equivalent to US\$1.08 in 1993 purchasing power. For those unfamiliar with the term, purchasing power parity (PPP) adjusts the dollar values found through conversion from local currency to dollars at the prevailing exchange rate to reflect differences in price structure among countries. Goods and services not traded internationally are typically much cheaper in a low-income country like India than they would be in the United States. A given number of rupees thus can buy more goods and services in India than it would if the same amount were converted to dollars and spent in the U.S.

A five-step process is used to express the two poverty lines in rupees for the two time periods for which we have data:

1. Define appropriate equivalents for 1997 and 1999 to US\$1.08 in 1993. We do this by multiplying \$1.08 by the rise in consumer prices in Ahmedabad between 1993 and the two survey dates; this works out to US\$1.64 for Round 1 and US\$1.90 for Round 2.
2. Convert these dollar figures to rupees using prevailing exchange rates.
3. Adjust for international price differences. To express the dollar’s higher purchasing power in India, we divide by 4.68, which is India’s dollar per capita GNP in PPP terms divided by its dollar per capita GNP in exchange rate terms.
4. Convert from income to consumption. The World Bank poverty lines are expressed in terms of consumption per capita, but our data are for household income. We do not know the savings rate among sample households, but for the Indian economy as a whole it is 20 per cent. We therefore divide the poverty lines calculated in the previous steps by .80 to express them in income terms. This gives a \$1 a day poverty line of 6,388 rupees per capita per annum for Round 1 and 7,384 rupees per capita in Round 2.
5. Calculate the \$2 a day poverty line by doubling the \$1 a day poverty line. It is therefore 12,776 per person per year for Round 1 and 14,768 rupees per person per year for Round 2.

Application of these poverty lines to data from our survey indicates that over half of our sample households are poor by the \$1 a day standard while most of the rest are poor by the \$2 a day standard (Table 5-7). In Round 1 of the survey, based on reported annual income, 53.1 per cent of all households had daily purchasing power of less than \$1 per day per family member. The great majority of those who were not poor by this measure, 34.1 per cent of the total sample,

consumed goods and services worth less than \$2 a day. Only 12.8 per cent of households were non-poor by the \$2 a day standard.

Poverty was most prevalent among control households and least prevalent in borrower households. In Round 1, 39 per cent of borrower households were below the \$1 a day line, compared to 53 per cent of saver households and 67 per cent of control households. By the same token, nearly 19 per cent of borrower households were above the \$2 a day line, versus only 12 per cent of savers and 8 per cent of controls.

Round 2 showed very modest improvement, on average, in these poverty measures. The percentage of households below the \$1 a day line fell by less than one percentage point and the percentage above \$2 rose by less than one percentage point (see Table 5-7). Differences among the three participation groups were interesting. The number of borrower households above the \$2 line increased by eight, but the number below \$1 also increased – by five households. Among saver households, progress was steadier: the numbers between \$1 and \$2 a day and above \$2 both increased (by three and two respectively) while the number below \$1 fell. Control households, meanwhile, experienced declines both in the number of very poor (four households) and the number of non-poor (six). There was thus divergence among borrowers and convergence among controls.

Underlying these relatively small net changes, however, is a good deal of change in the poverty status of particular households. Nearly half of the 264 borrower households, for example (122), changed their poverty status between the two rounds of the survey. Slightly more of those who changed (62) fell to a lower category than managed to rise to a higher category (60). Of the 62 households that dropped to a lower poverty category, 52 fell to the next lower category (either from non-poverty to moderate poverty or from moderate to severe poverty), but ten dropped all the way from non-poverty to severe poverty during this two-year interval. Similarly, among 260 saver households, 58 fell to a lower category and 52 rose to a higher one. Control households experienced only slightly less volatility. Forty-two of them rose to a higher category while 44 fell to a lower one.

Table 5-7: Share of Households Above and Below Two International Poverty Lines by Participation Status, Rounds 1 and 2

(% of Total)			
Participation Status	Below \$1 per day	\$1–2 per day	Above \$2 per day
<i>Round 1</i>			
Borrower	39.0	42.4	18.6
Saver	53.1	35.0	11.9
Control	67.2	24.8	8.0
Total	53.1	34.1	12.8
<i>Round 2</i>			
Borrower	40.9	37.5	21.6
Saver	51.2	36.2	12.7
Control	65.6	28.6	5.7
Total	52.5	34.1	13.4

Overall, therefore, borrowers had the largest share of non-poor households in Round 1 and experienced the largest increase in the number of non-poor households between rounds. Yet they also had the most households that slipped to a lower poverty category between rounds. This suggests that while all who borrow hope to use credit to improve their lot, only some succeed. Others may learn that borrowing does not solve their problems.

We have seen that over half the women in our sample live in households that are below the \$1 a day global poverty line. More than one-third live in households that are just above that line, consuming between \$1 and \$2 worth of goods and services per capita daily. Such poverty is hard to escape. During our two-year study period (that is, between 1997 and 1999), while GNP per capita was growing rapidly in both India and Gujarat, households in our sample were able to raise their average real incomes by nearly 14 per cent. Yet few escaped from poverty during this period, while some that had been above the \$1 and \$2 poverty lines slipped back below them. In general, the households of women who were clients of SEWA Bank did better than households of women who were not members of SEWA. It is thus time to see whether formal hypothesis testing indicates that participation in the microfinancial services offered by SEWA Bank may have helped raise the household income of participating women.

C. Results of Hypothesis Tests

C.1. Household Level Impacts

As explained in Section 4, six separate hypotheses were tested at the household level. Results of these tests are summarized in Table 5-8, below. The first hypothesis relates to household income.

Hypothesis H1: Participation in microfinancial services leads to an increase in household income

Findings: Household income appears to be significantly impacted by participation in the financial services of SEWA Bank. This is true both for aggregate income and for income per capita.

a. Total household income: As noted earlier, mean household annual income in Round 1 is highest for borrowers and lowest for non-members of SEWA, with savers in between. ANOVA shows these differences to be statistically significant at the .01 level. Both borrowers and all program clients (borrowers plus savers) had significantly higher average incomes in Round 1 than the control group (see Table 5-2, above). The income advantage enjoyed by savers over non-members, however, did not prove to be significant statistically.

Between survey rounds, as we have seen, the mean annual real income of the entire panel rose from 42,557 rupees to 48,477 rupees (from \$1,166 to \$1,328), an increase of 13.9 per cent. All three participation groups raised their annual mean incomes, but the increase was far larger for borrowers (8,320 rupees, or 16.2%) and savers (6,987 rupees or 17.3%) than for controls (2,441 rupees or 6.8%). These increases were statistically significant, but the significance of inter-group differences in amount of change could not be demonstrated.

All four specifications of the ANCOVA, which brought several moderating variables into play, produced significant results. Participation in SEWA Bank's financial services was positively related to household income for borrowers, for savers, and for clients as a whole. Several moderating variables also proved significant. All of the following were positively related to total household income:

- ◆ The respondent's educational attainment.
- ◆ The respondent's participation in vegetable or fruit trading.
- ◆ Household size.
- ◆ The number of economically active household members.
- ◆ The presence of at least one salary earner.

In addition to the significance of these moderating variables, there is strong indication that borrowing from SEWA Bank and saving at the Bank both raise household income. There are impacts both from current participation in SEWA Bank and from repeated borrowing over a period of time. Of the 786 respondents in the panel, 466 had never borrowed from SEWA Bank, while 107 respondents had taken one loan, 202 had taken two to four loans, and 11 respondents had taken five or more loans. Those who borrowed more times had higher average household incomes than those who borrowed fewer times.⁸⁰

b. Household income per capita: Participation in SEWA Bank is also strongly associated with higher household income per capita. In Round 1, annual income per household member averaged 9,184 rupees (\$252) for borrowers, 7,803 rupees (\$214) for savers, and 6,430 rupees (\$176) for non-members. The ANOVA showed that borrowers, savers, and clients all had significantly more income in Round 1 than non-members of SEWA.

Why and how did incomes rise for borrowers who did not borrow for their enterprises? For savers? For sub-contract workers?

Borrowers in our sample and case studies borrow for a variety of purposes that are consistent with the goals and purposes of SEWA Bank. Fewer than half the borrowers are microentrepreneurs (see Table 5-1, above). Many do sub-contract work, while a significant minority work as laborers in their primary economic activity. Sub-contract workers have relatively little need for enterprise capital because they are dependent producers with no control over their raw materials, products, or prices. They do, however, own their own equipment and must purchase certain inputs. Laborers have no need at all for enterprise capital. Despite these differences related to the form of economic activity a woman pursues, all households may need to borrow sometimes to meet household financial needs, such as housing improvement, life cycle events, and emergencies. Our study finds that, even among the microentrepreneurs, much of the borrowing from SEWA Bank was intended to meet such needs, not to expand the microenterprise.

⁸⁰ The moderating variables listed in the previous paragraph were also significant in the long-run impact analysis.

Given this general orientation, saving is an important alternative mechanism to borrowing for meeting household financial needs. SEWA Bank expands the available options for SEWA members to save and borrow. Although other saving and borrowing mechanisms are available to these women, they are exclusively informal in nature and often have characteristics that limit their usefulness.

Table 5-8: Summary of Statistical Results for Household-level Hypotheses

Hypothesis	Round 1 Cross Section		Change Over Time		Gain Score Test	Significance of Participation			
	Expected Differential?	Significant Difference?	Expected Direction?	Significant Change?		ANCOVA			
						#1	#2	#3	#4
H- Household Income									
1.									
a. Total	Yes	Yes	Yes	Yes	Insig.	.01(B) .02(S)	.01(C)	.01(B) .02(C)	.01
b. Per capita	Yes	Yes	Yes	Yes	Insig.	.01(B) .04(S)	.01(C)	.01(B) .04(C)	.01-.05
H- Income Diversification									
2.	Yes	Yes	Yes	No	Insig.	Insig.	Insig.	.05(B)	Insig.
H- Household Assets									
3.									
a. Housing Improvements	Yes	Yes	Yes	No (B) Yes (S)	Insig.	.05(B)	Insig.	Insig.	0.01
b. Consumer durables	Yes	Yes	Yes	No (B) Yes (S)	.10	Insig.	Insig.	Insig.	.01-.02
H- School enrollment									
4.									
a. Girls: Primary	No	No	No	No	Insig.	Insig.	Insig.	Insig.	.09-.13
b. Girls: Secondary	Yes	No	No	Yes (B) No (S)	.05	Insig.	Insig.	Insig.	Insig.
c. Boys: Primary	No	No	No	No	Insig.	.06(S)	Insig.	.06(C)	Insig.
d. Boys: Secondary	No	No	Yes	Yes	.04	.01(S)	.02(C)	.03(B) .01(C)	Insig.
H- Food expenditure									
5.	Yes	Yes	No	Yes	Insig.	Insig.	Insig.	Insig.	.06-.16
H- Ability to cope with									
6.									
financial shocks	No	Yes	Yes	Yes (B) No (S)	.01	Insig.	Insig.	Insig.	Insig.

- Notes: (1) Definitions on column headings:
 Expected differential: Ranking of the groups in Round 1 is Borrowers-Savers-Controls.
 Significant difference: Group means for both borrowers and savers in Round 1 differs significantly according to ANOVA.
 Expected direction: Mean values rise in Round 2 for both borrowers and savers.
 Significant change: Round 2 means differ significantly from Round 1 for both borrowers and savers according to ANOVA.
- (2) ANCOVA specifications as follows:
 #1: Borrowers vs. savers vs. controls.
 2. Client (borrowers + savers) vs. controls.
 3. Borrowers vs. non-borrowers with clients vs. controls as a moderating variable.
 4. Numbers of times ever borrowed from SEWA Bank (never, once, 2-4 times, 5 or more times).
- (3) B=borrowers
 S=savers
 C=client (borrower or saver)

Another implication of this pattern of household finance is that the *a priori* expectation that the impact of borrowing should be greater than the impact of saving may not apply. Given similar household financial needs, the household that is able to anticipate its needs and save to meet them might be expected to do better than the one that was unable or unwilling to save and is thus forced to meet its financial needs by borrowing. Thus, borrowing may indicate financial stress. Conversely saving, especially regular voluntary deposits, may indicate financial stability.

The statistical tests reported so far show that being a client of SEWA Bank is associated with higher household income in Round 1 and faster income growth between the two rounds, both in the aggregate and per household member. Although the analysis cannot conclusively establish that these differences are caused by participation in the Bank's activities, the results are strongly suggestive and invite further analysis to determine how participation in SEWA Bank raises household income.

Hypothesis H2: Participation in microfinancial services leads to diversification of income sources

Findings: There is weak evidence favoring this hypothesis.

In Round 1, sampled households had 2.63 income sources on average. Borrowers had slightly more income sources than the other two groups (2.75 on average, versus 2.58 income sources for savers and 2.57 for controls. Although small, intergroup differences in income diversification proved significant in the ANOVA at the .01 level.⁸¹ Between survey rounds, the average number of income sources rose to 3.16 for the panel. The averages for all three participation groups also increased. Borrowing from SEWA Bank had a statistically significant effect on income diversification according to one of our specifications but was insignificant in other specifications.⁸² None of the moderating variables seemed to make much difference. We conclude that borrowing from SEWA Bank may promote income diversification but the evidence is weak. There is no indication that saving has any such effect.

Why did access to microfinance not induce households to diversify their sources of income? The short answer to this question is that the households were already diversified to smooth income across the year. We encountered many examples of this in the case study households (see Section 6, below).

In the microfinancial field, there is a common perception that the willingness or ability to diversify income sources is a positive sign of entrepreneurship. Our survey found that most households in the sample have multiple sources of income and that there is no significant difference in this measure among borrower, saver, and control households. Our analysis of the case study households (see Section 6, below) suggests why these patterns obtain. First, many

⁸¹ Our measure is the inverse Simpson index, which takes account of amounts of income earned as well as number of income source.

⁸² The significance appears when borrower status is taken as the participation variable and client/non-client status is included as a moderating variable. It is absent in the other three specifications (see p. 59, above, for descriptions of these specifications).

households have multiple sources of income because the income from any one source would not be enough to sustain the household. Second, many households shift or diversify income sources across the year to take advantage of seasonal peaks and to compensate for seasonal troughs. Third, some households diversify income sources to compensate for chronic shortfalls in other income sources. Finally, few households diversify voluntarily. In brief, more of the case study households diversified their income sources out of necessity – in response to fluctuations in existing sources of income – than did so out of an interest or ability to add income sources.

Hypothesis H3: Participation in microfinancial service leads to increased expenditure on household assets

Findings: The hypothesis is that participation in microfinancial services leads to increases in household assets, including improvements in housing and increased ownership of major household appliances and transport vehicles. There is some evidence that this is so. Borrowers seem to spend more on housing improvements and repeat borrowers spend more on consumer durables as well as housing improvements.

a. Expenditure on Housing Improvements: In both rounds of the survey, respondents were asked how much they had spent on housing improvements over the previous two years. Borrowers consistently reported much larger expenditures than savers, who in turn spent much more than controls. In Round 1, for example, the average borrower reported spending 7,386 rupees (\$205) on housing improvements over the past two years, compared to 4,094 rupees (\$114) for the average saver and 1,992 rupees (\$55) for the average non-member. These differences are highly significant, according to ANOVA. Increases in spending on housing improvements between the two rounds of the survey also favored borrowers in absolute terms, but were quite similar across the three groups in percentage terms. Borrowers increased their spending by 4,429 rupees (\$12 or 60.0%) in real terms, while spending by savers went up 4,026 rupees (\$11 or 98.3%) and controls raised their expenditure on household improvements by 2,105 rupees (\$6 or 105.6%). Expenditure by savers in Round 2 was significantly greater than in Round 1, but the increase for borrowers failed the significance test. Inter-group differences in the absolute amount of increase were also insignificant. When the ANCOVA test was performed, introducing the form of housing tenure and the number of loans received from SEWA as moderating variables, only one moderating variable (household size) proved significant in itself,⁸³ but borrower status was elevated to significance at the .05 level. Repeat borrowing from SEWA Bank also raised expenditure on housing improvements, especially by respondents who had borrowed five or more times. We conclude, therefore, that borrowing from SEWA Bank does indeed increase household expenditure on housing improvements.

b. Expenditure on Appliances and Transport Equipment: Respondents were asked how much the household had spent in the past two years on major consumer durables, jewelry, and transport equipment (bicycles, mopeds, and scooters), sewing machines, and livestock. In Round 1, respondents reported average expenditure of 1,671 rupees (\$46) on these items. This average rose to 2,486 rupees or \$69 (in real terms) in Round 2. In Round 1, borrowers reported considerably higher expenditure than savers or controls, while in Round 2 both borrowers and

⁸³ As might be expected, households with more members spent more to improve (probably expand) their houses.

savers enjoyed a margin over controls. Differences among groups were significant in Round 1, but became insignificant as the differentials narrowed in Round 2. The rise in expenditure between the two rounds of the survey was statistically significant for savers, but not for borrowers.

In the ANCOVA, purchases of appliances and transport equipment in Round 2 were strongly associated with purchases in Round 1 as well as with a number of moderating variables.⁸⁴ The association with current participation in SEWA Bank was weak, but repeat borrowing from SEWA Bank did have a significant impact. Those who had borrowed five or more times spent 4,000–5,000 rupees more on consumer durables on average, taking other factors into account, than those who had taken fewer loans or never borrowed from the Bank.

Why did households in the survey invest in housing? Over the past decade, the case study households spent more money on housing than on emergencies and life cycle events. The fact that SEWA Bank makes housing loans may help explain this pattern. But our analysis of the case study households (below) suggests that several other factors are also influential. First, many houses in poorer neighborhoods of Ahmedabad city are in need of repair and renovation. Second, as their members grow in numbers or age, families often need additional space. The reason is that parents want to secure old age support by providing a home – within or adjacent to their own home – to at least one married son and his family. Third, and very important in the context of this study, a woman’s home is often her workplace. Eight of the 12 case study respondents and a high percentage of survey respondents work from their homes. Finally, many families build additional rooms or buy separate houses as rental units. In sum, people invest in housing as their own home, their children’s home, their workplace, or a rental unit.

Hypothesis H4: Participation in microfinancial services leads to increased school enrollment

Findings: While school enrollment among working class children in Ahmedabad is gradually increasing, the relationship to participation in SEWA appears to be relatively weak where the education of girls is concerned. There is more indication that borrowing from SEWA increases enrollment ratios for boys, especially at the secondary level.

According to our informants, large numbers of children from households in the survey sample are enrolled in school. Although boys were more likely to be enrolled than girls, the net enrollment ratio⁸⁵ for girls was also relatively high.

⁸⁴ The following moderating variables were consistently related to expenditure on appliances, etc.: respondent age 31–45; secondary or higher educational attainment; number of economically active household members; and presence of a salary earner.

⁸⁵ The net enrollment ratio is defined as the percentage of children in the normal age range for a given level of schooling who are in fact enrolled in school. It differs from the gross enrollment ratio, which relates total enrollment of children of all ages to the population in the normal age range. While the gross enrollment ratio can exceed 100 per cent because of enrollment of over-age and under-age children, the net enrollment ratio has a maximum value of 100 per cent. The age ranges used in our study are 5 through 10 years (the normal age range for primary schooling) and 11–17 years (the normal age range for secondary schooling).

a. Education of girls: In Round 1, 84 per cent of the 5–10 year old girls in sample households were reported to be enrolled in school. This percentage differed very little among participation groups. It was 83 per cent for borrowers, 84 per cent for savers, and 85 per cent for controls. Needless to say, these small differences are statistically insignificant. In the 11–17 year group, enrollment ratios were lower, but once more there is no significant difference among the groups. Fifty–five per cent of girls in the normal age range for secondary schooling were enrolled at the time of the Round 1 survey. Differences among groups are again slight, but in this case they marginally favor borrowers, who had a net enrollment ratio of 58 per cent. Savers and controls both enrolled 54 per cent of their girls of secondary–school age in Round 1. Again, however, the differences among groups are statistically insignificant.

In Round 2 of the survey, enrollment rates for girls rose modestly at the primary level but declined slightly at the secondary level. For the entire sample, the rise for 5–10 year olds was from 84 to 86 per cent, but not all groups shared in the increase. Borrowers actually reported a small decline in the percentage of 5–10 year olds enrolled, from 83 per cent to 81 per cent. For the other two groups, the enrollment ratio rose. Eighty–six per cent of children from saver households were enrolled in Round 2, compared to 84 per cent in Round 1. Similarly, 89 per cent of children from control households were enrolled in Round 2, an increase from the 85 per cent rate recorded in Round 1. At the secondary level, average enrollment for the whole sample slipped from 55 per cent to 54 per cent, but the decline was limited to borrower households, which experienced a drop from 58 per cent to 51 per cent. Very small increases were reported for saver and control households (from 54% to 55% in both cases). The gain score analysis registered a significant difference among groups (.05), which favored savers and controls over borrowers.

The ANCOVA suggested that few moderating variables significantly influence primary–level enrollment rates for girls, but several are significant at the secondary level. Higher secondary–level enrollment of girls appears to be promoted by higher educational attainment on the part of the respondent (usually the mother), by her participation in piece rate sub–contract activities, and by the number of economically active household members.⁸⁶ Borrowing from, or saving in, SEWA Bank did not have a significant effect on girls’ enrollment in either age group, according to the ANCOVA.⁸⁷

b. Education of boys: Determinants of boys’ education are somewhat different. In the base year, 88 per cent of boys in the 5–10 year age range were reported as enrolled. The highest ratio was for savers (93%) and the lowest for controls (83%). The enrollment ratio for 5–10 year old boys from borrower households was 87 per cent. At the secondary level, 65 per cent of boys were enrolled, compared to 55 per cent of girls. Gender bias is thus present, although less extreme than in some parts of the Sub–Continent. In Round 1, the highest percentage of 11–17 year old

⁸⁶ Presumably the fact that sub–contracted piece rate workers typically work from their home “frees” their daughters from child care and other domestic responsibilities.

⁸⁷ Noting the significant differential in changes in enrollment rates for secondary–school girls that was detected by the gain score analysis, one reviewer of an earlier draft of this report read the evidence as suggesting that borrowing from SEWA Bank reduces the enrollment of girls in secondary school. Since no version of the ANCOVA supports this finding, we reject the inference. It is logically possible, however, that demand for labor in microenterprises could cause parents to keep older girls out of school in some cases.

boys enrolled was among control households (72%), while borrowers and savers reported slightly lower enrollment ratios (61% and 64% respectively).

The two-year interval between rounds of the survey saw a small (statistically insignificant) increase in the enrollment ratio for boys at the primary level and a larger (significant) one at the secondary level. Among 5–10 year olds, enrollment inched up from 88 per cent to 89 per cent. For 11–17 year olds, it rose from 65 to 70 per cent. The increase at the primary level was limited to boys from control households, who experienced a rise from 83 to 91 per cent. Borrowers retained a constant 87 per cent enrollment ratio, while the enrollment of boys from saver households declined from 93 per cent to 89 per cent. At the secondary school level, by contrast, all three groups shared in the improvement in the enrollment ratio, with each experiencing a rise of 3–5 points.

The gain score test suggests that participation in the financial services of SEWA Bank has a negligible influence on primary enrollment but a significant one at the secondary level (.04). The ANCOVA reinforces this conclusion, consistently registering significant results, especially for 11–17 year old boys. Several moderating variables are also significant in some versions (see Appendix), notably status as an upper-caste Hindu where secondary enrollment is concerned.

Our inquiry focused on enrollment, so we cannot describe the relationship between household expenditure on children's schooling and participation in SEWA. In the net enrollment ratios presented above, one sees little rise between the survey rounds for girls at either level of schooling or for boys at the primary level. The only marked enrollment increase between the survey rounds is for boys at the secondary level. The gender disparity in enrollment ratios fell slightly (from four to three percentage points) at the primary level, but it rose from 10 to 16 points at the secondary level. It appears, therefore, that while the enrollment pattern in Ahmedabad is not particularly adverse, it is also not improving.

Why did investment in education not go up, except for boys in secondary school? Why did the families in our study not invest more in education? Enrollment ratios were already relatively high at the time of the Round 1 survey, but incentives to invest marginal income gains in children's education are weak for most members of this group.

Households in our survey had relatively high enrollment rates in primary and secondary school, compared to other parts of India. There were no significant differences among borrower, saver, and control households in this regard. Why didn't SEWA members invest more in education than their non-member sisters? What are the returns to investing in education? Our analysis of the case study households (below) shows that educating a child beyond Standard 9 involves significant costs – examination fees, tutoring costs, and opportunity costs – and has few returns.

There are both market and social constraints to realizing returns on investments in education. A major economic constraint is that the labor market offers remarkably few regular or salaried job opportunities for those who complete secondary education or even college. In our sample, 384 men above the age of 25 had completed high school and 33 men had completed at least one year of college, but only 104 men had salaried jobs in Round 1. There are even fewer regular salaried jobs for women. In the total sample, 174 women 25 or older had completed high school and 14

had completed at least one year of college, but only 16 women had salaried jobs in Round 1.⁸⁸ An important social constraint is the tendency among many castes and communities, particularly Muslims and upper caste Hindus, to discourage women from working outside the home. In sum, there are few incentives – either market or social incentives – for working class people to educate children, especially girls, through or beyond high school.⁸⁹

Hypothesis H5: Participation in microfinancial services leads to increased expenditure on food, especially for the poor

Findings: For no apparent reason, our survey results register a decline in per capita expenditure on food between the two rounds of the survey. Since we know of no plausible reason why this should have happened in fact, we suspect the data. Based on these questionable data, however, there is some slight indication that participation in SEWA raises expenditure on food.

In Round 1, households reported average daily food expenditure of 11.06 rupees (\$0.30) per household member. Borrower households averaged 11.96 rupees (\$0.33), saver households 11.01 rupees (\$0.30), and control households 10.19 rupees (\$0.28). Although these differences seem small, they were highly significant in the ANOVA, especially the gap in per capita consumption between borrower households and control households. Borrower households spent more on meat and fish (although consumption of these items was very low for everyone), on beverages, and on food eaten away from home.

When reported food expenditures in Round 2 were deflated to base year prices, we were surprised to observe an apparent decline in food expenditure per capita. The average reported for the entire sample went down from 11.06 rupees to 9.94 rupees (from \$0.30 to \$0.27, or by 10.1%). This finding is puzzling, since real household income rose by 13.9 per cent over the interval between surveys, as reported earlier. Poor families spend a large share of their income on food, so household income and food consumption normally move together. It is not logical that food expenditure should have fallen, as the data suggest. That it fell less for client households than for non-client households may be attributable to the stronger income growth in the client households, but it is illogical that expenditure on food should have fallen for any of these groups. We did not collect information on physical quantities of various food items consumed. It is hard to see how the price deflator could distort the result, since our deflator (the cost of living index for laborers in Ahmedabad) must be heavily weighted toward food consumption.⁹⁰ None of our local informants has been able to suggest an explanation for this surprising finding.

There is only limited evidence that expenditure on food is related to participation in the financial services of SEWA Bank. As noted, borrowers spend significantly more on food than savers, who in turn outspend control households. Neither gain score analysis nor ANCOVA revealed

⁸⁸ The number of men and women with salaried jobs declined in Round 2, to 89 and 13 respectively.

⁸⁹ The statistical results cited earlier suggest that boys from upper caste households are the sole exception to this generalization.

⁹⁰ The poor commonly spend half their budget or more on food. The price index for food in Ahmedabad rose 13 per cent between the dates of our two survey rounds, about the same as the rise in the general price index for laborers.

much connection between program participation and expenditure on food, however. Rather, daily expenditure on food appears to be explained by a range of moderating variables. Higher food consumption in Round 1, higher household income per capita, the presence of one or more salary earners, secondary education, and Muslim identity all make a positive contributions to per capita expenditure on food.⁹¹ On the other hand, younger respondents (age 30 or below), sub-contract workers, and respondents from larger households all tended to spend less on food per household member.

Hypothesis H6: Participation in microfinancial services leads to improved ability to cope with financial shocks

Findings: There is some indication that borrowing from SEWA Bank improves a client's ability to cope with financial crises, which are common in the environment in which SEWA Bank clients live and work, but the evidence is not robust.

The urban working class population in our sample frequently experiences financial shocks of several kinds. These include deaths of family earners, theft loss, fire loss, flood loss, job loss, business failure, serious injury or illness, civil unrest, births, marriages, and other events that either interrupt normal income flows or necessitate extraordinary expenditures. In Round 1 of the survey, 70.9 per cent of respondents reported having experienced at least one significant financial shock during the past two years. One fifth of the sample had experienced two or more shocks during that period. The incidence of shocks was somewhat higher for borrowers than for others. Among borrowers, 76.1 per cent had experienced at least one financial shock during the previous two years and 25 per cent had experienced more than one shock. For savers, the comparable figures were 67.7 per cent with at least one shock in the past two years and 19.2 per cent with more than one shock. Among control households, the frequencies were 68.7 per cent for one or more shock and 15.6 per cent for two or more. The positive association between number of shocks experienced and borrower status could be explained by the fact that financial shocks constitute one important motivation for borrowing.

Respondents were asked to say which of the shocks that their household had experienced over the two years prior to the survey was most costly. Then they were asked how the household dealt financially with its most costly shock. Households can choose among several possible methods of coping with financial setbacks. They can reduce food consumption, work longer hours, put their children to work, borrow money, mortgage or sell assets, use savings, and so on. Multiple answers were permitted to the question of how they coped with their worst shock. To analyze household responses to financial shocks, we divided these strategies into two groups: those that involve the household in the loss of productive assets (known as Stage 2 strategies) and those that do not (Stage 1 strategies). Improvement in households' ability to cope with shocks was defined as an increase in the percentage of households that relied entirely on Stage 1 strategies and did not have to resort to Stage 2 strategies.

In Round 1, the great majority of respondents in all three groups stated that they were able to cope with their worst financial crisis through the use of Stage 1 strategies alone. The percentage of households giving this answer was higher for savers (95%) and controls (96%) than for

⁹¹ Muslims eat fish and meat (more costly food items) whereas most Hindus in Gujarat are vegetarian.

borrowers (88%). These differences, which were significant in a chi-squared test, left 55 households that needed to employ at least one Stage 2 strategy, 31 of which were borrowers. In Round 2, the overall percentage of households using Stage 1 strategies only rose from 93 per cent to 96 per cent. There was a considerable rise for borrowers (from 88% to 97%), a small rise for savers, and a small decline for controls. These are statistically significant improvements, and gain score analysis indicates that these inter-group differences in the ability to cope with financial crises are also statistically significant. In particular, borrowers gained significantly more than either savers or controls. In the ANCOVA, however, borrower and saver status proved to be statistically insignificant explanations of the ability to cope in Round 2, once inter-household differences in coping mechanisms used in Round 1, household income per capita in Round 1, and other moderating variables are introduced.

Why was the difference between clients and non-clients in ability to cope with shocks so modest? The extent of risk is quite high in the urban informal economy of Ahmedabad City for a number of reasons. To begin with, those who work in the informal economy have a high exposure to risks, given the conditions under which they live and work. Second, their low income levels make it hard to save for contingencies. This means that, for them, predictable financial needs – such as expenditures on life cycle events and education – often become financial risks or, at least, a source of financial stress. Third, they have little or no access to formal means of handling risks (e.g., insurance, pensions, and social assistance) or paying for housing and education (e.g., mortgages, scholarships, and loans).

There are various ways to think about and classify risks: whether they are idiosyncratic or covariate; micro-meso, or macro; whether they are predictable or unpredictable; whether they arise from man-made or natural factors; and more. Another way to classify risks is by *who* is exposed to them, as follows:

- ◆ Common risks: those contingencies that *virtually all households* face, or at least fear: illness; maternity; disability; old age; death; loss of assets; loss of income.
- ◆ Social risks: those social expenditures that cause financial stress in *poor or disadvantaged households*: life-cycle events (birth, puberty, marriage); festivals and rituals; education.
- ◆ Work-related risks: those risks that are associated with *specific occupational groups*: price fluctuations caused by fluctuations in demand or production; lack of access or control; transaction costs or failures.

During the two years prior to the 1988 survey of 900 households, 71 per cent of the households experienced at least one financial stress event and 21 per cent suffered two or more stress events. Sixty-six per cent of the households incurred expenses on at least one acute illness episode and 20 per cent incurred expenses on at least one marriage in their immediate or extended families. The most expensive, common, and devastating financial stress events were, respectively, marriages, serious illnesses, and deaths of breadwinners. Marriages were the most expensive event, costing an average of three times average annual per capita income. Acute illness was the most common, however, and involved average expenditure equal to average annual per capita income in direct cost, plus a temporary loss of an income source in most cases. Most devastating of all was the death of the breadwinner, which typically involved not only direct expenditure on

death ceremonies of two times average annual income per capita but also permanent loss of an income source, often the household's principal income source (see Section 6).

The sample households cope with risks through combinations of saving, borrowing, and insuring. Not only their sources of income but also their sources of saving, borrowing, and insurance are predominantly informal. They save through rotating savings and credit associations and, increasingly, through SEWA Bank. They have very little access to other formal financial institutions. They borrow from family and friends as well as from moneylenders, employers, and traders. Increasingly, they also borrow from SEWA Bank. They insure through informal, usually reciprocal, schemes, notably to cover costs associated with death ceremonies and marriages.

The current risk management instruments of these households are clearly inadequate. No amount of borrowing on unfavorable terms or insuring through reciprocal systems can compensate for the lack of access to formal sources of insurance, mortgages, education loans, pensions, and more. As a result, many of the sample households, including some SEWA Bank client households, remain in debt.

Summary of findings for household-level impact hypotheses (see Table 5-8): Substantial evidence was found that participation in the microfinancial services of SEWA Bank has impact at the household level. The tests suggest that use of the credit and savings services of SEWA Bank raises household income, both total and per capita. Current use of SEWA Bank's financial services also raises boys' enrollment in secondary school. It may also favorably affect income diversification, expenditure on housing improvements, expenditure on consumer durables, girls' enrollment in secondary school, boys' enrollment in primary school, and the ability to cope with financial shocks, but the evidence is mixed. Long-term participation in SEWA Bank through repeated borrowing has several positive impacts. Compared to one-time borrowers, repeat borrowers enjoy greater increases in income, spend more on household improvements and consumer durables, are more likely to have girls enrolled in primary school, and have higher expenditures on food.

C.2. Enterprise-level Impacts

The AIMS research agenda hypothesizes that microfinancial services have impacts on the revenues, fixed assets, employment, and transactional relationships (with both suppliers and customers) or enterprises within the household. We tested all these hypotheses, with results that are summarized in Table 5-9.

For most microfinancial programs, the first place one would expect to find impact is in the primary microenterprise operated by the borrower. It would normally be expected that an effective microfinancial program would raise the revenues, fixed assets, and employment of that particular microenterprise. Indeed, some impact studies look no further than the primary enterprise for impact. There are, however, three important reasons for searching more widely. The first argument, which is general, is fungibility. Although loans are taken for particular stated purposes, by enlarging the pool of resources available to the household they can lead to increased expenditure on any of a number of potential uses. Borrowers often have more than one microenterprise, and they may choose to invest in an enterprise other than the one for which the

loan was nominally taken. Further, they may not invest in a microenterprise at all. As assumed in the intellectual framework of the AIMS project, additional resources may flow into household uses as well as enterprise uses.⁹²

The other two reasons for looking beyond the respondent's primary microenterprise relate to differences between SEWA Bank and the common type of microenterprise credit program. SEWA Bank is more interested in promoting saving than in making loans. For this reason, as well as because we believe that savings are as important as credit in general, this study evaluates the impact of SEWA Bank's savings services as well as its loan services. Also, as discussed in Section 3 the Bank lends for a number of different purposes. Enterprise development is not the sole, or even the primary, justification for lending. Accordingly, we should be less inclined to find impact on the respondents' microenterprise and more inclined to find it elsewhere than would be the case with many other microfinancial programs.

Hypothesis E1: Participation in microfinancial services leads to increased microenterprise revenue and informal sector income

Findings: The total informal sector earnings of respondents and their households (that is, income from microenterprise, sub-contracting, and casual labor) appear to benefit from participation in SEWA Bank. Total household income from microenterprise is also positively impacted. There is no evidence, however, that participation as a borrower or saver raises the revenues of the specific microenterprises operated by survey respondents. These results may strike some as counterintuitive, but they make sense in the context of SEWA.

a. Microenterprise revenues of the respondent. In the month before the Round 1 survey, borrowers who operated microenterprises had average revenues of 8,580 rupees (\$221). This exceeded comparable figures for savers (5,554 rupees or \$143) and controls (6,060 rupees or \$156). Variation within each group was so large, however, that these differences in means were not statistically significant. In Round 2, average revenues (measured in constant prices) fell for borrowers and controls while rising for savers. The Round 2 averages were 7,430 rupees (\$191) for borrowers, 7,912 rupees (\$204) for savers, and 3,897 rupees (\$100) for controls. These changes were not statistically significant, and neither gain score analysis or ANCOVA attributed any significant impact to participation in the financial services of SEWA Bank. The main point brought out by the moderating variables in the ANCOVA was that being a vegetable or fruit seller was beneficial: other things equal, women who pursued that trade earned far more per month than those in other trades.

⁹² In the past, this prospect was often regarded with horror. Enterprise uses were equated with investment, while household uses were regarded as consumption. The fear was that if loan proceeds were not invested, then they would not generate the means for repayment and the micro-credit program would falter. Yet not all investments yield high returns, or any returns at all, while some household uses, for example spending to improve the education and health of children in the household, are appropriately regarded as investment. For these reasons, the issue is less clear-cut than once believed.

Table 5-9: Summary of Statistical Results for Enterprise-level Hypotheses

Hypothesis	Round 1 Cross Section		Change Over Time		Significance of Participation				
	Expected Differential?	Significant Difference?	Expected Direction?	Significant Change?	Gain Score Test	ANCOVA			
						#1	#2	#3	#4
E-1a. Microenterprise revenues of respondent	No	No	No	No	Insig.	Insig.	Insig.	Insig.	Insig.
E-1b. Informal sector earnings of respondent	Yes	Yes	Yes	No	Insig.	.07(B)	.04(C)	.08(C)	Insig.
						.08(S)			
E-1c. Microenterprise revenues of household	No	No	Yes	No	Insig.	.03(B)	.03(C)	Insig.	Insig.
E-1d. Informal sector earnings of household	Yes	No	Yes	No	.06	.01(B)	.01(C)	.07(C)	Insig.
						.07(S)			
E-2a. Microenterprise fixed assets of respondent	No	No	Yes	No	Insig.	Insig.	Insig.	Insig.	Insig.
E-2b. Microenterprise fixed assets of household	No	No	No	No	Insig.	Insig.	Insig.	Insig.	Insig.
E-3a. Microenterprise employment (hours)	No	No	Yes	Yes	.04	.03(B)	.07(C)	Insig.	Insig.
E-3b. Microenterprise employment (days)	Yes	.07	Yes	No	Insig.	.06(B)	.07(C)	Insig.	Insig.
E-4a. Transactional relationships in household microenterprises (suppliers)	Yes	No	Yes	Yes	Insig.	.02(B)	.05(C)	Insig.	Insig.
E-4b. Transactional relationships in household microenterprises (customers)	Yes	No	No	No(B)	Insig.	Insig.	Insig.	Insig.	Insig.
				Yes (S)					

b. Informal sector earnings of the respondent. A second test for impact on the economic activities of SEWA Bank clients considered the total informal sector earnings of borrowers and savers, including earnings from sub-contracting and casual labor as well as microenterprise.⁹³ This produced more positive results than the test for impact on microenterprise revenues alone. Bank clients earned substantially more, on average, from all informal sector sources in the month preceding the Round 1 survey than did control group members. Borrowers averaged 4,764 rupees (\$123), savers 2,924 rupees (\$75), and controls 2,590 rupees (\$67). These cross-section differences are statistically significant. In Round 2, average informal sector earnings were higher in real terms for borrowers and savers, but lower for controls. Although these changes were in the expected direction for Bank clients, they are statistically insignificant, both relative to Round 1 values and compared to the small decline registered by control group members. In all specifications of the hypothesis that participation in SEWA Bank services raises the informal sector income of participants, however, significant impact was detected. When moderating variables were brought into the equation, borrowers, savers, and clients as a group all did significantly better than those who did not participate (see Table 5-9). As in the previous test, women who worked in vegetable and fruit vending earned far more than other SEWA Bank clients.

c. Microenterprise revenues of the household. Borrowing from the Bank also increased the total microenterprise revenues of participants' households. In Round 1 borrower households had higher microenterprise enterprise revenues than control households, but saver households had the lowest average revenues. Borrowers and savers both experienced rising microenterprise revenues between rounds of the survey, however, while those of control group households fell. This moved savers up into second place. While the trends for borrowers and savers were thus in the expected direction, the changes were not statistically significant. In the ANCOVA, however, both borrowers and clients in general did significantly better than control group households. The households of fruit and vegetable vendors also had significantly higher microenterprise revenues than other households.

d. Informal sector earnings of the household. Finally, we analyzed the monthly informal sector earnings of respondents' households. In Round 1, these averaged 9,060 rupees (\$234) for borrower households, 7,358 rupees (\$190) for saver households, and 6,628 rupees (\$171) for control group households. These differences were not statistically significant. In Round 2, household informal sector earnings rose for borrowers and savers, but fell for control group households. Gain score analysis finds that clients barely missed doing significantly better than controls at the .05 level. According to the ANCOVA, borrowers, savers, and all clients enjoyed significant advantages over controls, at least in some specifications.

Long-term participation in SEWA Bank, measured by the number of loans ever taken, had no significant impact on any of the variables examined under this hypothesis (see Table 5-9). This again points up the important differences between SEWA Bank and microfinancial institutions that put primary emphasis on enterprise development.

⁹³ Earnings from salaried jobs, semi-permanent employment, and other sources were not included in informal sector earnings.

Hypothesis E-2: Participation in microfinancial services leads to increases in the value of microenterprise fixed assets

Findings: In general, the primary microenterprises and sub-contracting operations of women in our sample use very little fixed capital. Somewhat larger amounts were evidently employed by other microenterprises within the household, perhaps operated by men. No definite impact of participation in SEWA Bank services on the microenterprise fixed assets used in the respondents' primary microenterprises was discerned. The lack of results may be partly attributable to questionable data.

a. Value of Fixed Assets in Respondent's Microenterprises: Respondents whose main economic activity was running a microenterprise used only tiny quantities of fixed capital in those microenterprises. In Round 1 of the survey, these fixed assets averaged only 268 rupees (\$7) in value. While borrowers had more fixed assets than the other two categories of respondents: 491 rupees (\$13), compared to 99 rupees (\$2.55) for savers and 165 rupees (\$4.25) for controls, the differences are not statistically significant. By Round 2, fixed assets averaged 314 rupees (\$8) in real terms. The average values reported by borrowers and savers increased, while the real value of fixed assets reported by controls declined. These differences also failed the tests of statistical significance, even when moderating variables were taken into account. Nor were any significant moderating variables detected.

a. Value of Fixed Assets Used in Household Microenterprises: In Round 1, while the fixed assets used in the respondents' microenterprises averaged only 268 rupees (\$7), the average for all the microenterprises in a sample household was much larger: 1,960 rupees (\$51). Control group households reported the highest figure, but differences among group means were insignificant statistically. Data from Round 2 indicate a sharp decline to 913 rupees (\$24) in real terms. This apparent decline applied to all three categories and may well be a surveying flaw, although its origin has not been identified. No statistically significant relationships were detected.

Hypothesis E-3: Participation in microfinancial services leads to increases in microenterprise employment

Findings: The tiny own-account enterprises and sub-contracting operations of women in our survey employ very little labor beyond the respondent herself. Nevertheless, participation in SEWA Bank's financial services does seem to have led to some modest employment creation.

Two measures of employment were used in the survey: person-hours worked in the previous week and person-days worked in the previous month. Analytical results for both measures at the level of the household are reported in this section.

a. Hours Worked in Household Microenterprises in the Previous Week: In the week preceding the Round 1 survey, the respondent, family members, and others worked 37.6 person-hours on average in the each of the microenterprises of sample households. This average differed little among borrower, saver, and control households. In Round 2, much larger average person-hours of employment were reported for all three groups: 80.6 person-hours for the entire sample, 86.6 for borrowers, 81.9 for savers, and 70.1 for controls. These increases appear too large to

represent a trend, so one or both of the two weeks involved in the comparison must have been atypical. The ANCOVA suggests, however, that being a client of SEWA Bank boosted employment creation.

b. Days Worked in Household Microenterprises in the Previous Month. Person–days worked in the month preceding the survey is undoubtedly a more stable measure of employment. In Round 1, an average of 45.2 person–days was recorded, with borrowers showing the highest total, 49.7 person–days. The difference between this figure and the 41.2 person–day average reported by control group households was almost statistically significant at the .05 level. In Round 2, average days worked rose to 48.5, a smaller increase than that reported in the previous paragraph and not a statistically significant one. In the ANCOVA, borrowing from SEWA Bank had a nearly significant impact on employment, according to two test specifications (see Table 5-9). The tests also indicate that households in which the respondent was either a microentrepreneur or a sub–contract worker raised employment more than those in which the respondent was a casual laborer.

Hypothesis E–4: Participation in microfinancial services leads to improvement in transactional relationships

Findings: There are several dimensions to the transactional relationships referred to in this hypothesis. Our tests were able to establish that use of SEWA Bank’s financial services leads to superior transactional relationships with suppliers, but they were unable to show any impact on transactional relationships with customers. The tests were somewhat rough, and the actual impact may be greater than indicated.

Microentrepreneurs can obtain inputs from several different sources and sell outputs to several different kinds of customers. In general, certain types of suppliers and markets are likely to offer more favorable prices to the microentrepreneurs than others. In testing the hypothesis that access to microfinancial services improves transactional relationships, we defined wholesalers, factories/manufacturers, and middlemen/intermediaries as superior sources of supplies, relative to individuals or households and retailers. Similarly, retailers, wholesalers, middlemen or intermediaries, government offices, and private offices were defined as superior customers, relative to individuals. The test of whether access to financial services from SEWA Bank improved transactional relationships was then taken to be whether the percentage of microentrepreneurs buying from superior suppliers and selling to superior customers increased.

a. Suppliers: In Round 1, 35.3 per cent of microentrepreneurs (respondents who reported that microenterprise was their primary economic activity) obtained their supplies from superior sources, while the remaining 64.7 per cent dealt with inferior sources. Borrowers were more likely to have superior transactional relationships than savers or controls, but not significantly so. In Round 2, the percentage of respondents using superior suppliers soared to 84.8 per cent. All groups went up, but borrowers continued to have the highest rating. Two specifications of the ANCOVA suggested that borrowing from SEWA Bank helped to develop improved transactional relationships. Among the moderating variables, membership in a Hindu upper

caste significantly improved a respondent's supplier relationships, as did primary education and (almost) participation in the vegetable/fruit trade.

b. Customer: In Round 1, only 12.3 per cent of own-account respondents dealt with superior forms of customer (retailers and wholesalers, rather than individual members of the public). This percentage was low for all three groups, but lowest of all for borrowers. In Round 2, however, it fell to 8.6 per cent on average. SEWA Bank borrowers were able to improve their transactional relationships slightly by this measure, rising from 8.3 per cent reliance on superior customers to 8.9 per cent. For savers and controls, the situation seems to have deteriorated. No significant relationships with participation in SEWA Bank were detected by the ANCOVA. However, several moderating variables had significant effects on this relationship. Participation in the bidi trade and a larger number of economically active family members were both positively related to the quality of transactional relationships, while membership in either an upper or a backward caste and larger household size both had negative associations.

Summary of findings for enterprise-level impact hypotheses (see Table 5-9): Summarizing all these results, we can say that impact is generally less evident at the enterprise level than at the household level. Current participation in SEWA Bank through borrowing and/or saving did have a clear impact, however, on the informal sector earnings of respondents (including income from sub-contracting and casual labor as well as microenterprise revenue). It also raised the total microenterprise revenues and informal sector earnings of the household as a whole. There is also some indication of a significant impact on employment, but average employment in these microenterprises is very small (about two workers including the proprietor). Notably absent in our quantitative findings is any apparent impact on the principal microenterprise (if any) of the client herself. Nor did we find any significant impact on the fixed assets of microenterprises anywhere in the household. Finally, as noted earlier, we saw no significant impact at the enterprise level from long-term participation in SEWA Bank as a repeat borrower. Our interpretation of these findings relies on several contextual factors.

First, there is severe over-crowding and keen competition in the informal sector in Ahmedabad. Although the income level of the society, and even of the sample households, is rising, there is little scope for an individual microentrepreneur to expand her or his enterprise because others are likely to compete away any gains.

Second, in addition to this general constraint, specific constraints apply to all the principal trades in which the women in our sample engage. Street vendors face constant conflict with the police and the municipality. Bidi rollers have been locked in a long-running struggle with the employer/traders and may also be facing a decline in the demand for their product. Garment makers are in a more promising field but face competition from ready-made clothing and may have difficulty in acquiring the skills and market knowledge needed to capitalize on demand growth.

Third, the SEWA Union engages in "struggle" (trade union and lobbying activities) on behalf of all women engaged in some of the major trades in which women in our sample participate. They have, for example, fought for higher piece rates in bidi rolling, garment sub-contracting, and incense making. Similarly, they have pushed for improved government services and benefits

such as those provided for under the Bidi Workers Welfare Act. They have tried to get the municipal government to provide better infrastructure and services in the neighborhoods in which their members live. They have also worked to reduce police harassment of street vendors and obtain better market space allocations for vendors. Another campaign has been aimed at obtaining official identity cards for bidi rollers and street vendors.

The impact of these activities is not easy to identify or measure. Some of the “struggle” activities clearly benefit all women within a given trade or occupation, not just SEWA members. An example would be successful lobbying for higher piece rates in a particular trade. In such instances, there may be no measurable differences between clients and non-clients in terms of impact. Other “struggle” activities may have more targeted impacts on only SEWA-organized women within a given trade or occupation. In such cases, if the potential benefits could have been clearly identified and measured, differences between clients and non-clients might have been tested.

C.3. Individual-level Impacts

Four hypotheses were tested at the individual level. All of these hypotheses relate to the expectation that participation in microfinancial services can enhance the economic functioning of the individual client and improve her position within the household. Given the all-female nature of SEWA’s clientele and the gender bias traditional in Indian society, these are all gender issues. The first of these hypotheses concerned a woman’s autonomy in economic decision making. The second dealt with respondents’ perceptions of their contributions to the household and the respect that they command from other household members. The third hypothesis relates to one of SEWA Bank’s primary objectives, whether the respondent has a savings account in her own name. The final hypothesis concerns the respondent’s perceived ability to deal with future challenges and the concrete steps that she has taken to prepare for the future.

Results of these hypothesis tests are reported in Table 5-10 and discussed below.

Hypothesis I-1: Participation in microfinancial services leads to greater influence over the household’s economic decisions

Findings: AIMS posed three questions that were intended to measure control over household economic resources: What role did respondents play in deciding whether to take a loan, how best to use the loan’s proceeds, and how to spend microenterprise profits? All three questions were relevant only to borrowers and the third question applied only to those who had microenterprises, borrowed for microenterprise purposes, and received additional profit as a result. In general, we found that the participation of SEWA members in all three decisions was already high at the time of Round 1 and was not significantly altered by participation in microfinancial services between the survey rounds.

a. Decision to take the last loan. SEWA tries to help its members increase their autonomy in matters of household finances and build a stronger personal financial base. Progress in this regard might be measured by the percentage of women who made a decision to borrow on their

own, as opposed to borrowing from SEWA at the behest of their husbands or others. Alternatively, one might regard the percentage who at least participated in the decision to borrow, making their decision either solely or jointly with a spouse or other family member, as the appropriate measure. Borrowers were asked who made this decision in the case of their last loan from SEWA. They could answer that they did it themselves, that they did it jointly with a spouse or someone else, or that they took no part in the decision, leaving it to a spouse or someone else. To determine whether change had occurred between rounds of our survey, we looked at the responses of those borrowers who repaid their loans and borrowed again between Round 1 and Round 2 (N=83). In Round 1, 33.3 per cent of these borrowers said that they themselves made the decision and 63.0 per cent reported that they made the decision jointly with someone else, usually a spouse. Thus, nearly all at least took some part in the decision although most made the decision jointly, usually with a spouse. In Round 2, 29.9 per cent said that they had made the last borrowing decision on their own and 68.7 per cent reported having made the loan decision jointly with someone else. There was thus little change in the degree of respondents' participation between the two rounds. Although the percentage of those answering that they made the decision to borrow on their own declined slightly, the percentage making the decision on a sole or joint basis rose, approaching 100 per cent. Little significance can be attributed to these small changes, especially considering that the number of non-responses rose between rounds.⁹⁴ The more important point is that nearly all the repeat borrowers participated in the decision to take a loan in both rounds of the survey. As might be expected, no statistical significance can be attributed to the small changes in response between rounds. Cross-section comparison is of course impossible because the question was relevant only to borrowers and only the answers given by those who borrowed twice could be analyzed formally.

a. Decision on how to spend the last loan. The next question asked was who made the decision on how to spend the proceeds of the last loan taken. Again, the most useful answers were those given by first-round borrowers who borrowed again between rounds of the survey. In Round 1, 23 respondents (31.5% of those who replied) stated that they made the decision alone. Another 43 (58.9%) said they made the decision jointly with someone else, usually a spouse. Only seven respondents reported that they left this decision entirely to others.

In Round 2, the non-response rate rose from ten to 21. Of the 62 respondents who did in fact respond to the question in Round 2, 16 (25.8%) said they made the decision themselves and 45 (72.6%) said they made it jointly with others (a spouse in all but one case). The pattern of replies was thus similar to the replies to the previous question about the decision to take the loan. There was a small decline in the number of respondents who said they took the decision on their own and a rise both in the percentage taking the decision jointly with others and in the number who at least participated in decision making. The other change between rounds was an increase in the number who did not respond to the question. As in the prior case, the number of respondents taking part in the decision was high in both rounds and did not really change significantly from one loan to the next.

c. Decision on how to use microenterprise profits. The third question asked in the individual portion of the survey was who makes the decision on how to spend profits earned by the microenterprise. In Round 1, fewer than half the 83 respondents in our panel answered this

⁹⁴ Non-responses to this question rose from two in Round 1 to 16 in Round 2.

question. Much of this non–response is probably attributable to the irrelevance of the question to those who did not have microenterprises and/or borrowed for purposes other than enterprise development. Of the 37 who did reply, 16 (43.2%) said that they made the decision themselves while 19 (51.4%) said they made it jointly with a spouse. One left it to a spouse, one other to someone else.

In Round 2 the number of non–responses fell to 39. Of the 44 respondents who replied in this round, 18 (40.9%) said they made the decision themselves and the remaining 26 (59.1%) said they participated in joint decision making. No one reported leaving the decision to others in Round 2. In general, the pattern of responses was similar to those given to the other two questions on decision making.

Hypothesis I–2: Participation in microfinancial services leads to enhanced perceptions of the importance of the respondent’s contribution to the household and the respect received from other household members

Findings: The survey posed two questions about the value of respondents’ perceived economic contributions to the household, first as seen by themselves and second as they think other household members view them. Although borrowers generally report more positive perceptions than savers or controls, the statistical tests do not attach any definite significance to this relationship.

a. Respondent’s self–perception of the importance of her economic contribution to the household. In Round 1, 70.8 per cent of borrowers stated that they made an important economic contribution to their households. This was a higher percentage of positive answers than was given by savers (61.5%) or controls (63.7%). The difference, however, was not significant statistically, and in the responses given in Round 2 of the survey inter–group differences narrowed. In Round 2, 68.5 per cent of borrowers said they made an important contribution, compared to 62.7 per cent of savers and 63.0 per cent of controls. These Round 2 responses were not significantly different from those given in Round 1. Although a higher percentage of borrowers consistently answered in the affirmative, none of the statistical tests performed provided a viable basis for asserting that participation in SEWA Bank improves the clients’ perceptions of the importance of their economic contributions to their households.

b. Perceived respect of other household members for the respondent’s contribution. A second test of the hypothesis involved asking respondents whether other household members respect them for the economic contributions that they make. In Round 1, 92.6 per cent said yes. Borrowers commanded slightly more (self–perceived) respect than savers, who in turn ranked slightly higher than controls. But the inter–group differences did not pass the ANOVA test. In Round 2 the percentage of positive answers rose to 95.6. Again, borrowers perceived the highest levels of respect and controls the lowest, but differences were small. Since all groups achieved the same increment between survey rounds, the gain score analysis showed no significant differences. ANCOVA also revealed little statistical significance, although in one specification borrower status had an almost significant impact on the answers received (see Appendix).

Table 5-10: Summary of Statistical Results for Individual-level Hypotheses

Hypothesis	Round 1 Cross Section		Change Over Time		Significance of Participation				
	Expected Differential?	Significant Difference?	Expected Direction?	Significant Change?	Gain Score Test	ANCOVA			
						#1	#2	#3	#4
I- 1a. Decision to take last loan*	-	-	No (sole) Yes (joint)	No	No	-	-	-	-
I- 1b. Decision how to spend last loan*	-	-	No (sole) Yes (joint)	No	.01	-	-	-	-
I- 1c. Decision how to spend microenterprise revenue	-	-	No (sole) Yes (joint)	No	No	-	-	-	-
I- 2a. Important contribution to household	No	No	No (B) Yes (S)	No	No	Insig.	Insig.	Insig.	Insig.
I- 2b. Respect of other household members	Yes	No	Yes	No	Insig.	.09 (B)	Insig.	Insig.	Insig.
I-3. Personal Savings**	Yes	Yes	-	-	Insig.	-	-	-	-
I- 4a. Prepared to deal with future?	Yes	No	No	No	Insig.	Insig.	Insig.	Insig.	Insig.
I- 4b. Steps to prepare for future	Yes	Yes	No	No	Insig.	.01 (B)	.09 (C)	.05 (B)	Insig.

*These questions were only asked of borrowers. The analysis concerns a panel of 83 borrowers who took another loan between survey rounds.

**SEWA clients all had personal savings accounts and few control group respondents did. Data for formal hypothesis testing are not available.

Hypothesis I-3: Participation in microfinancial services leads to increased personal savings

An important measure of individual financial control is whether a woman has savings in her own name. SEWA Bank clients can be clearly distinguished from other working class women in Ahmedabad in this regard, since all of them, whether they borrow or not, have savings accounts in the Bank.⁹⁵ By contrast, few members of the control group had individual savings accounts.⁹⁶ Instead, they kept their savings in traditional forms such as cash hoards and rotating credit societies.

Hypothesis I-4: Participation in microfinancial services leads to increased ability to deal with the future

Findings: Although most SEWA members are fairly confident and prepared to deal with the future, events in Ahmedabad between our two surveys seem to have led to a loss of self-confidence that was shared by SEWA members and non-members alike. Borrowers were more likely to judge themselves prepared for the future than savers or non-members, but the relationship is not statistically significant. Actions to prepare for the future are more clearly influenced by participation in SEWA Bank, particularly as a borrower. Although the inclination to make preparations is apparently influenced by several moderating variables, borrowing from SEWA Bank significantly enhanced this tendency.

a. Feeling of preparedness to deal with the future. Respondents were asked whether they felt prepared to deal with the future. In Round 1, 88.2 per cent responded positively. Borrowers had the highest percentage of positive answers (90.5%) and controls the lowest (86.3%), but the inter-group differences were not statistically significant. The self-confidence of the respondents declined in Round 2, however, as the overall average number of positive responses fell to 81.7 per cent. The amount of decline was similar for all three groups, so no significant differences were noted, either in the gain score analysis or in the ANCOVA.

Women with secondary education were significantly more likely to feel prepared to deal with the future, while those in trades other than garment making, vegetable and fruit selling, and bidi rolling were significantly less likely to feel adequately prepared.

b. Number of things done to prepare for the future. To supplement the attitudinal question about preparedness to deal with the future, respondents were asked what specific steps they had taken to prepare for the future. Possible responses included preventive health measures, education of children, economic investments, expansion of business, diversification of enterprises, savings, and others. We tallied the responses by simply adding up the number of preparatory actions mentioned by the respondent.

The number of preparatory actions cited was low. In Round 1 of the survey, respondents reported an average of 1.53 actions to prepare for the future. The highest average number of

⁹⁵ According to SEWA Bank officials, few of the Bank's accounts are joint.

⁹⁶ We do not have precise information on how many non-members of SEWA had personal bank accounts, but we know that the number was very small.

preparatory actions (1.57) was reported by savers, while the lowest average number (1.27) was for borrowers. In Round 2, the overall average was slightly lower (1.49) and only borrowers increased their number of provisions for the future (to 1.58), becoming the highest-ranking group in Round 2. The gain score analysis failed to reveal a relationship to participation status, but in the ANCOVA borrower status emerged as significant after account had been taken of the usual moderating variables, several of which were significantly related to preparation for the future. Those with positive impacts included post-secondary education, membership in a backward caste, participation in bidi rolling, household size, and household income per capita. On the other hand, the number of steps taken to prepare for the future was negatively related to the number of economically active household members.

On balance, there is some evidence that being a SEWA borrower is related, perhaps causally, to the number of actions taken to prepare for the future.

Summary of findings at the individual level: Survey findings indicate some impact at the individual level. Analysis of these findings indicates that women who borrow from SEWA Bank participate actively, usually on a joint basis with a husband or other household member, in decisions on whether to borrow, how to use the loan proceeds, and how to use the resulting increases in microenterprise revenues, if any. This kind of participation was already high prior to our surveys. We did find that clients increased their participation in decision making on how to spend the proceeds of the last loan significantly more than non-members. Participants in SEWA Bank do not appear to have more positive images of themselves than other working class women or to be more positive about the future. They are, however, far more likely to have savings accounts and to be taking specific steps to deal with the future.

SEWA Bank clients do not participate equally in SEWA. Not all SEWA union members make use of SEWA Bank's financial services. Of those who do, some have savings accounts only, while others borrow and purchase insurance coverage. Not all SEWA Bank clients receive or take advantage of SEWA's non-financial services – health care, childcare, legal aid, training – or take part in SEWA Union's organizing efforts. In fact, not all SEWA Union members are members of SEWA-organized local trade groups and cooperatives. Among those who are, some are more active than others. The degree to which clients participate in the various components of SEWA's overall program, and not just the financial services of SEWA Bank, will affect impacts at the individual, enterprise, and household levels.

Other benefits that accrue to individual women appear to depend on the extent of their participation in SEWA. We can identify three concentric circles of participation. The inner circle consists of women who are leaders in different areas of SEWA activity. The two middle circles are made up of women who are active members of SEWA Union or beneficiaries of various SEWA non-financial services in addition to being clients of SEWA Bank. They participate in training SEWA-sponsored cooperatives and trade groups and are often active in SEWA's service or training programs. The outer circle is composed of women who are clients of SEWA Bank but are not otherwise active in SEWA, even though they are formally members. If this is correct, then the mere fact of being a SEWA Bank client may be less significant than the depth of participation in SEWA. We have not, however, tested this hypothesis formally other

than comparing one-time and long-term borrowers. See Section 7 for an elaboration of this point.

Finally, we note that many working class women in Ahmedabad were already in the labor force when SEWA began in the early 1970s. Recalling that there are strong social constraints on women's mobility and power in India, we can identify benefits to being economically active that are common to all sample groups. In our sample, women contribute about 40 per cent of household income through their economic activities. The largest part of this contribution comes from their microenterprises. One reason that we find low impacts on matters such as female mobility and participation in household decision making may be that these characteristics were already present and did not need to be induced by SEWA Bank's financial services.

D. Conclusions and Indications for Further Analysis

The quantitative results reported in this section are available in detail in the Appendix. They suggest that participation in SEWA Bank as a borrower or saver has a number of significant impacts on the economic position of SEWA's members. Impacts were found at all three of the levels examined. Members' households appeared to benefit from higher income, improved housing, greater expenditure on food, and improved ability to deal with financial shocks. Interestingly, impacts were less evident at the enterprise level, but there was evidence that participants gained larger revenues from their primary own-account or sub-contracting enterprise and expanded employment in such enterprises. Women who worked as laborers as their primary economic activity, by contrast, seem to have derived little income benefit from association with SEWA Bank. At the individual level, finally, borrowing from the Bank is statistically associated with increasing respect from household members and a greater tendency to make financial preparations for the future.

In general, however, the statistically verifiable impacts of SEWA Bank's financial services can fairly be characterized as modest. Access to these services did raise household income, but many other expected impacts could not be established by rigorous statistical methods. There are several reasons, we believe, for this pattern of findings. They relate both to the nature of the program operated by SEWA Bank (see Section 3, above) and to the challenging economic environment in which these services are offered and utilized (see Section 2, above).

First, SEWA Bank is not a classic microfinancial program aimed at the development of microenterprise. While it does offer credit that can be used for microenterprise development, that is not the main focus of the program. Savings are emphasized over credit, and the Bank is also anxious to develop forms of insurance that can be self-sustaining while serving important needs of SEWA members. Even among borrowers, microenterprise development is not the only, or even the principal, purpose for which members borrow. SEWA gives equal or greater emphasis to debt reduction, the establishment of clear title over housing and other assets, and housing improvements. It also permits members to borrow for social purposes such as weddings and death ceremonies, as well as health needs. In sum, since the program is not primarily intended to develop microenterprises, it is not surprising that it does not always lead to this result.

Second, SEWA Bank is of, by, and for working class women. For a combination of economic and social reasons that have been discussed in this report, these women have very low income levels and are subject to a number of binding constraints in their search for economic welfare and enhanced economic security for themselves and their families. We have discussed the problems they face in economic endeavors such as garment making, bidi rolling, and street vending. These constraints limit their ability to make productive use of credit and other resources. Given the circumstances in which they live, their achievements are indeed remarkable.

Third, SEWA Bank is merely one institution within the overall SEWA movement. Moreover, our sample survey focused on use of its services over a relatively short period of time. Both the case studies and some of the quantitative analysis suggest that greater benefits are likely to be realized by members who borrow from SEWA Bank repeatedly over a long period and take an active part in other SEWA activities, such as the cooperatives and trade groups. Further evidence on this point is introduced in Sections 6 and 7.

In conclusion, SEWA Bank occupies an important part of its clients' financial landscape but it does not offer a ready means of escape from their poverty. Although SEWA Bank clients have other sources of credit and other means of saving, the Bank represents virtually the only means of access to institutional financial services available to them. As such, it plays a limited but important role in helping them to cope with their myriad and daunting economic challenges. Its impacts are clearly discernible, but they are limited by the many social and economic constraints that impinge upon the lives and work of SEWA members.

Section 6 – Case Study Households: Managing Resources, Activities, and Risk

To better understand the impact of the SEWA Bank on its clients and their households, particularly on their financial and risk management strategies, we carried out in-depth case studies of twelve SEWA Bank borrowers. We interviewed each of the twelve women – sometimes in the presence of other household members – a total of six times: three times in early 1999; twice in early 2000; and once in early 2001.⁹⁷ The insights gained from these in-depth interviews have contributed significantly to our interpretation of the survey findings (see Sections 5 and 8). In this section, we present a composite picture of the case study households, their economic portfolios, and their financial and risk management strategies; and highlight some of the broader themes that emerge from this analysis (see Section 8 for an elaboration of these themes). In Section 7, we present our case study findings regarding several key dimensions of impact at the individual level.

A. Case Study Households

The twelve case study households represent a purposive random sub-sample of SEWA Bank borrowers. We selected four borrowers from each of the dominant trades in which SEWA Bank borrowers are concentrated: namely, vegetable or fruit vending, hand-made cigarette (bidi) rolling, and garment making. As described in Section 4, after drawing up the full list of borrowers within each trade, we did a purposive random draw to include: respondents who had taken single and multiple loans from the SEWA Bank; households above and below the poverty line, and households with and without retrenched mill workers. Although they were randomly selected, the case study respondents and their households are reasonably comparable to the total borrower sample in terms of key demographic variables (see Table 4-4).

To capture both the real-life situation of – and the variability among – SEWA clients, we begin this section with brief sketches of the twelve case study households. It is our intention that these sketches will provide a glimpse into the complex realities of life and work in poor neighborhoods of Ahmedabad city and, thereby, serve as a backdrop to the analysis in this section and in Sections 5, 7, and 8.⁹⁸

SANGEETA: WIDOWED AT A YOUNG AGE, RETIRED AS A COMMUNITY LEADER (Vegetable Vendor)

“If you suffer pain, you have to learn to cope. When my husband died, I had to learn how to earn two rupees more per day in order to survive.”

Widowed at a young age with nine young children to raise and marry off, Sangeeta is now retired, supported by one son and his second wife, and surrounded by two other married sons and

⁹⁷ To determine how they had fared during 2000, we revisited the 12 households in early 2001 on the eve, it turned out, of the major earthquake that shook Ahmedabad City and many parts of Gujarat State.

⁹⁸ The reader who is interested in a fuller picture of each household can request a copy of the longer case studies from the AIMS office.

their families. Part of her success in life can be attributed to her long association with SEWA. Twenty-five years ago she took her first loan – for 500 rupees – from SEWA Bank to expand her vegetable vending business. Twenty years ago she and 140 other members of SEWA obtained contracts to sell vegetables or other goods to local government institutions. With these two lines of business, eleven loans from SEWA, and her own strength and resilience, Sangeeta managed not only to support her family until her sons began to earn but also to flourish. She is a landlady of sorts, having built five one-room residential units – two in her backyard and three on top of her original three-room home. Two of her married sons live in two of these units; she rents out three others and uses the sixth as a storeroom. Her eldest son, whom she arranged to have trained to be a policeman, lives in police quarters elsewhere in Ahmedabad. Another son recently moved from one of his mother’s residential units to his own separate home. Her youngest son and his second wife live with her in the original three-room house that she and her husband bought before he died. That son continues his mother’s hospital supply business in the morning and works in his father-in-law’s fruit shop in the afternoon. His wife joins her mother in the afternoons to sell fruit. They also raise goats for sale: they once sold two or three goats to redeem 2500 rupees worth of jewelry that Sangeeta’s daughter-in-law had pawned to cover medical expenses. Sangeeta is the unchallenged head of her extended family – five sons and their families – even though they do not all earn and eat together. She is also a leader in her own neighborhood and in the SEWA Union.⁹⁹

PUSHPA: FORMER VEGETABLE VENDOR MARRIED TO SALARIED WORKER FROM LARGE JOINT HOUSEHOLD (Vegetable Vendor)

“My mother-in-law manages our large joint family. She assumes most of the responsibility for – and the associated ‘tension’ – of managing the family businesses and the household budget.”¹⁰⁰

Pushpa, her husband, and their two young children live in a large joint household headed and managed by her mother-in-law, Hansa, who is a founding member and trade group leader of SEWA. Thanks to Hansa’s enterprising nature and her long association with SEWA, the family has two traditional lines of business: selling fish from their own store in a wholesale market and supplying eggs (under a SEWA-negotiated contract) to a local hospital. Two of the three sons in the family have salaried jobs: one in a bank, the other in the police force. The third son helps his parents run the fish and egg businesses. Since the three sons started earning and their wives joined SEWA Bank, the family has been able to save and prosper. After the family’s fortune began to rise, two of the daughters-in-law – including Pushpa – were discouraged from continuing to work. The third daughter-in-law assists her husband at their fish store, cooking their mid-day meal and performing other chores. The joint family recently built a well-furnished three-storied house worth about 400,000 rupees. Each of the three sons occupies one floor – two rooms – of the house. Hansa and her husband continue to live in the one-room house they have lived in since their sons were married but join their three sons, three daughters-in-law, and ten grandchildren for dinner most nights in the new house.

⁹⁹ The value of the Indian rupee vis-a-vis the US dollar has steadily declined from 12 rupees to the dollar in 1985, to 35 to the dollar in 1995, to 41 in 1998, to 45 in 2000. In this and the following section, we provide dollar equivalents for rupee amounts when we know which year a specific transaction was made.

¹⁰⁰ Words that appear in single quotation marks (‘’) are English words that were used by the respondents.

DIVI: BREADWINNER FOR THREE UNRELIABLE MEN (Vegetable Vendor)

“You cannot work as a vegetable vendor – or deal with the wholesale traders – without having courage. It is good that my husband and I run our businesses independently. This way we both know how much I earn independently and I can control my earnings. His drinking is his own business.”

Divi’s life is quite uncertain and unhappy. Both she and her husband are vegetable vendors, but he spends most of what he earns on drink. Their eldest son used to live off her earnings until she forced him to move out, using 10,000 rupees from her one loan of 15,000 rupees from SEWA Bank to build him a separate house. Their two younger sons work together, transporting loads of goods for others on their bicycle cart. They find work only 4–5 days a week and, when they do, earn only 60 rupees between them. “They are lazy,” Divi complained to us, “Why don’t you take them to America?” The whole household depends on what she earns, about 60–80 rupees per day. Over a five–year period, in the late 1990s, Divi had to buy her eldest son a house (Rs. 10,000), marry off her youngest daughter (Rs. 18,000), pay for the treatment of their second son who came down with typhoid (Rs. 2–3,000), buy a bicycle cart for her two younger sons, and purchase and repair a new house for her family (Rs. 100,000). In addition to the loans she took to cover these expenses, Divi is indebted to several wholesale traders in the Jamalpur vegetable market. In early 2000, she owed about 80,000 rupees, including 10,000 rupees on her first and only SEWA Bank loan. Given that she earns less than 2,000 rupees per month, that her two sons together earn less than 1,000 rupees per month, and that her husband does not pool his income, it is hard to imagine when – or how – Divi will ever get out of debt.

JYOTI: RISK TAKER AND BIG SPENDER PLAN THEIR FUTURE (Vegetable Vendor turned Construction Worker)

“If it was left to me, we would not have all of the things we have now.”

“If my sons had been born first, I would not have had these girls.”

Jyoti is a construction worker. Her husband is a supervisor–cum–printer in a screen–printing factory. During the monsoon season, when the screen printing units close down, he works as a casual laborer or drives a rented auto rickshaw. They each make about 60–80 rupees per day on average; their joint monthly income is about 3,500 rupees. When their five children were very young, Jyoti gave up construction work for vegetable vending near their home. Once her older children could take care of their younger siblings, she resumed construction work. In 1999, she took a training course in diamond polishing with the hope of earning more from less arduous work. However, she did not develop enough proficiency – ‘speed’ – to get a job in the diamond–polishing factory and has returned to construction work.¹⁰¹ Despite her husband’s expensive habits – he regularly buys things for the house on credit – Jyoti and her husband appear to be good financial planners. They repay their loans on time and try to save. They have opened a savings account at SEWA Bank earmarked for their eldest daughter’s wedding; and taken out

¹⁰¹ For six months in 1999, while she was being trained in diamond–polishing, Jyoti did not earn any income. This temporary loss of income brought their household income level down from moderately poor to extremely poor.

several life insurance policies – both at SEWA Bank and with a life insurance company – for themselves and their three sons.

NIRMALA: FOUR WORKING ADULTS TRAPPED IN A CYCLE OF DEBT (Bidi–Roller)

“I participated in a protest march organized by SEWA in front of government offices in Gandhinagar (the state capital) to demand higher piece–rates for bidi–rollers. We carried banners and shouted our demands. Eventually, an official came out to meet us.”

Nirmala and her husband have three sons and two daughters. Nirmala is a bidi–roller like most of the women in their caste (originally from Andhra Pradesh). Having worked for 18 years in a textile mill until it closed in 1992, her husband became an itinerant salesman who bicycled around different neighborhoods selling incense sticks in the morning and bags of different shapes and sizes in the afternoon. Three of their children are still in school. Their eldest daughter rolls bidis with her mother; their eldest son works in a diamond–polishing factory. Nirmala is a local leader in the SEWA Union who organizes meetings of bidi–rollers in her area. Although they received 115,000 rupees in worker’s compensation from the mill where he used to work, Nirmala and her husband have faced substantial financial difficulties. His father died prematurely, leaving them responsible for marrying off his younger siblings and caring for his mother. Then, a friend left Ahmedabad without repaying 10,000 rupees that he owed to Nirmala’s husband or repaying another 30,000 rupee loan for which Nirmala’s husband had stood as guarantor. Later, Nirmala and her husband faced a number of unexpected emergencies: his mother accidentally started a small fire in their home (Rs. 10,000 worth of goods were damaged); and he came down with cerebral malaria (which cost them Rs. 10–12,000 in medical bills and over two months of lost income).

Over time, their debt just kept growing. In late 1999, just after they decided to sell their house in order to repay their debt, two friends came to the rescue with interest–free loans of 50,000 rupees each. Nirmala’s husband planned to join a rotating savings and credit scheme in order to be able to repay his friends.

GAYATRI: FORMER BREADWINNER WITH UNRELIABLE HUSBAND BUT, NOW, WORKING SONS (Bidi–Roller)

“If he had saved all of the money he spent on gambling, we could have owned a bungalow.”

“If he does not give us money for food, he will not give us money for an operation.”

Gayatri’s husband gambles away most of what he earns in his embroidery business. She earns only 450–500 rupees per month rolling bidis, hardly enough to feed herself and her four children. To help make ends meet, her three sons had to start earning from a young age. Initially, they all worked part–time when they were in school. After dropping out of school after class 9 or 10, her three older sons began working full time in, respectively, an advertising firm, an embroidery workshop, and a brokerage firm. Even after her three sons began earning, however, Gayatri’s worries did not end. Her oldest son, who had been diagnosed with a heart condition when he

was thirteen, needed a heart operation. Knowing that the operation plus hospitalization would cost about 70,000 rupees at a government hospital, Gayatri's son raised 40,000 rupees worth of donations from local charities. Meanwhile, Gayatri took a loan of 25,000 rupees from the SEWA Bank, borrowed 5,000 from her sister, and borrowed 5,000 from a moneylender (at 60% interest per annum). Her son has fully recovered from his operation and is back at work, but Gayatri's worries are still not over. She worries about how to pay for her daughter's wedding and whether all three of her sons will establish separate households once they marry. Their present home – one windowless room plus a separate bathroom – is simply too small to accommodate another married couple. At a more personal level, she is concerned about living with her husband, given his gambling addiction, without the financial and emotional support of her children.

HEMLATA: SUPPLEMENTAL EARNER TURNED BREADWINNER (Bidi-Roller)

“What is there to worry about except running our onion business and eating and drinking?”

Hemlata and her husband live with their four children – aged 4 to 14 – in a compact but well-built house in a quiet neighborhood. They were able to purchase the house some years ago when he received workers' compensation (about 32,000 rupees) from the textile mill where he used to work. Their four children – one daughter and three sons – are in school. Their eldest child, the only daughter, does well in school and, in early 20001, was studying for her Class 12 examinations. After the textile mill where he worked closed in 1986, Hemlata's husband shifted from job to job in search of one that would pay enough for him to support the family. In early 1996, Hemlata used her first loan from the SEWA Bank to buy a push-cart and a set of scales and weights so that her husband could start selling onions. In mid-1999, Hemlata's husband developed a growth in his throat that compromised his speech and taxed his strength. Six months later, he had to undergo throat surgery. For nearly 18 months, the family had to subsist on Hemlata's meager earnings from bidi-rolling. In the best of times, this would have been difficult. With the additional burden of paying for her husband's medicines and repaying the money they borrowed to pay for his surgery, her income was clearly not enough. The family had to deplete all of their savings and to borrow extensively. By late 2000, Hemlata's husband had recovered enough strength to get a job as a night watchman.

RADHIKA: SUPPLEMENTAL EARNER – AND COMMUNITY LEADER – IN A WORKING FAMILY (Bidi-Roller)

“I go to the monthly meetings for local area leaders (**agewan**) at SEWA. I have participated in SEWA's negotiations with the Jivraj Bidi Works company and took part in a protest march to Lal Darwaza where, outside the courthouse, we shouted our demands. Some of us who used to work directly for the Jivraj Bidi Works company received our welfare benefits. I received 600 rupees for six years of work.”

Radhika and her husband lived with their three unmarried children (one son and two daughters) in a one-room house with attached bath and toilet. Radhika is a bidi roller. Her husband ran a small tailoring shop near the main road in their neighborhood; their only son, who works as a

tailor in another shop, regularly helped his father complete orders; one of their unmarried daughters stitched garments at home; the other rolled incense sticks in a small workshop nearby. A local leader for the SEWA Union, Radhika has participated actively in the Union's negotiations with the Jivraj Bidi Works company to raise the piece-rate for bidi rolling and to secure back pay and worker benefits due to 150 bidi-rollers, including herself, who used to work directly for the company. Since she joined SEWA in the mid-1980s, she has taken five loans from the SEWA Bank: two to repair and improve their house; two to repay old debts; and one to help finance the purchase of her husband's tailoring shop. When we first met them in early 1999, Radhika and her husband had three major concerns: the recent drop in demand for tailor-made clothes, pending costs of marrying their two unmarried daughters, and uncertainty whether their one son would establish a separate residence when he got married. During 1999, they addressed two of these concerns by arranging a joint wedding celebration for their older son and their second daughter and by building a second-floor apartment above their home for their son and his bride. In late 1999, Radhika's husband suffered a heart attack. He died a year later after a second heart attack. Radhika's married son and daughter-in-law now help her provide for her two unmarried children.

ANITA: FORMER GARMENT MAKER, NOW CHRONICALLY ILL (Garment Maker)

“We make joint decisions. We discuss the matter between us and take a decision. For instance, because of our financial difficulties, we recently decided to use fuel wood – rather than kerosene – to cook.”

Anita and her husband lead an unsettled and uncertain life. When we first met them in early 1999, they were living in a rented home having been forced to leave their own home due to a protracted and, occasionally, violent conflict with one of their neighbors. To rent the temporary home, they had to make an initial deposit of 10,000 rupees and monthly payments of 200 rupees. At that time, Anita, a garment maker, complained that she had lost her customers in their old neighborhood and had not been able to find any customers in the new neighborhood. When we met them again a year later, they had moved back into their own home. But their fortunes had not reversed. During the previous year, Anita had developed an undiagnosed and debilitating abdominal pain that prevents her from working. Their household – comprised of themselves, their married son and his wife, their newborn grandchild, and their unmarried son – now depends on two, rather than three, earning members. Anita's husband sells mangoes for two months each summer, sells vegetables for nine months a year, and sells rubber sandals or incense sticks for one month during the wedding season. Their married son works as an assistant in a metal valve workshop: he hands over half of what he owns to Anita towards household expenses, and keeps the other half to spend on films, restaurants, and other personal needs. Since joining SEWA in the mid-1980s, Anita has taken six loans from the SEWA Bank. Two loans were to make improvements on their house; one was for their son's wedding; one to repay an old debt; another to make a deposit on their rented home; and the most recent loan helped pay for their daughter's wedding. As she explained, “The loans from the SEWA Bank have helped to ‘distance’ our problems.” Also, Anita and her husband have been able to save a not-insignificant amount at SEWA Bank.

AYESHA: SUPPLEMENTAL EARNER WITH WORKING HUSBAND AND SON (Garment Maker)

“His business is my business. After all, what we eat and drink comes from the store.”

“I was raised in an orthodox Muslim family. But, after I got married, I began to think: ‘Why should I stay in purdah? How long should I stay secluded? Why should I ask others to do my outside chores for me? Why don’t I learn to do things for myself?’ Now I go out to buy vegetables, fruit, and milk. I go on my own to the SEWA Bank.”

Ayesha and her husband live with their five children – three sons and two daughters – in a three-room store-cum-residence. Ayesha’s husband and their eldest son run the provision store; Ayesha and their eldest daughter sew garments on sub-contract in the rear living room. Their middle son works as an auto rickshaw mechanic in a garage. Their youngest son and daughter help around the house and store after school. Ayesha’s husband worked in a textile mill for 12 years after they were married. After he lost his job in 1986, he opened a provision store in a small hut in their original neighborhood. But that business failed: in part because he sold goods on credit to many of his customers. For several years, he worked as an itinerant salesman bicycling around different neighborhoods peddling soap powder and detergents. In 1994, with the compensation of 22,000 rupees that he received from the textile mill, a 20,000-rupee loan from his father, and 18,000 loan from an unreported source, they bought their current home-cum-store from a Muslim friend. Since purchasing the store, their situation has improved. Ayesha invested both of her SEWA Bank loans – totaling 30,000 rupees – in stock for the store. But their financial worries are not over. They have five children to marry. In Muslim communities, the bride’s family pays a dowry while the groom’s family commits to paying an agreed-upon amount – called a **mehr** – in the event that the couple is divorced or the husband dies before his wife. When each of their daughters get married, they anticipate that they will have to spend 40,000 to 50,000 rupees on the dowry and wedding costs. When each of their sons get married, they will have to negotiate the mehr, in the presence of a presiding lawyer, with the bride’s family. In addition, they will have to cover the costs of the groom’s party plus buy gifts for the bride and groom.

RAJESHRI: MIDDLE-AGED WIDOW WITH UNCERTAIN FUTURE (Garment Maker)

“My business is suffering because of the drought. If agricultural production is good, the whole economy benefits. If the price of grains goes up, the demand for other goods goes down as people do not have cash to spend.”

Rajeshri’s past is difficult to piece together. Originally from Rajasthan, she was married at 12 years of age to a sandal maker from her own community, a cobbler caste. They lived for seven years in Bombay until he died of cancer. Rajeshri had two daughters from her first marriage. Three years after her first husband died, when she was 22, she was remarried to a widower with three young sons. She and her two daughters moved to Ahmedabad, where her new husband worked in a textile mill. For the next ten years, Rajeshri kept busy at home bearing three children – two sons and a daughter – by her second husband and raising a total of eight children (his three sons from his first marriage, her two daughters from her first marriage, and their three children). In 1995, Rajeshri’s second husband suffered an accident at the mill that left him

paralyzed on one side. In 1996, about a year after the accident, he died. Before her second husband died, her two daughters by her first marriage had been married; and her two eldest stepsons had begun working. But she was left with four young children to educate and six children still to marry. Two years later, Rajeshri's daughter and youngest stepson accidentally poisoned themselves. About this time, her eldest stepson was married. Within a matter of three years, Rajeshri had lost three close relatives and had to pay for three death ceremonies and one marriage. She used her husband's provident fund and life insurance – about 60,000 rupees – to help pay for the death ceremonies and marriage. Rajeshri has never fully recovered, either financially or emotionally, from this chain of events. Since then, she has struggled to piece together a livelihood stitching quilts and cushion covers and selling provisions from her house. In 1999, her middle stepson migrated to Mumbai (formerly Bombay) in search of a better job. Rajeshri now lives with her two sons from her second marriage. Both sons work in a leather sandal workshop where they earn about 750 rupees per month plus one meal a day. She worries about how to pay for her sons' weddings and that, once they get married, one or both will move out. Uncertain about her future, she finds solace in religion.

SHAHEEN: SUB-CONTRACT WORKER TURNED OWN ACCOUNT PRODUCER
(Garment Maker)

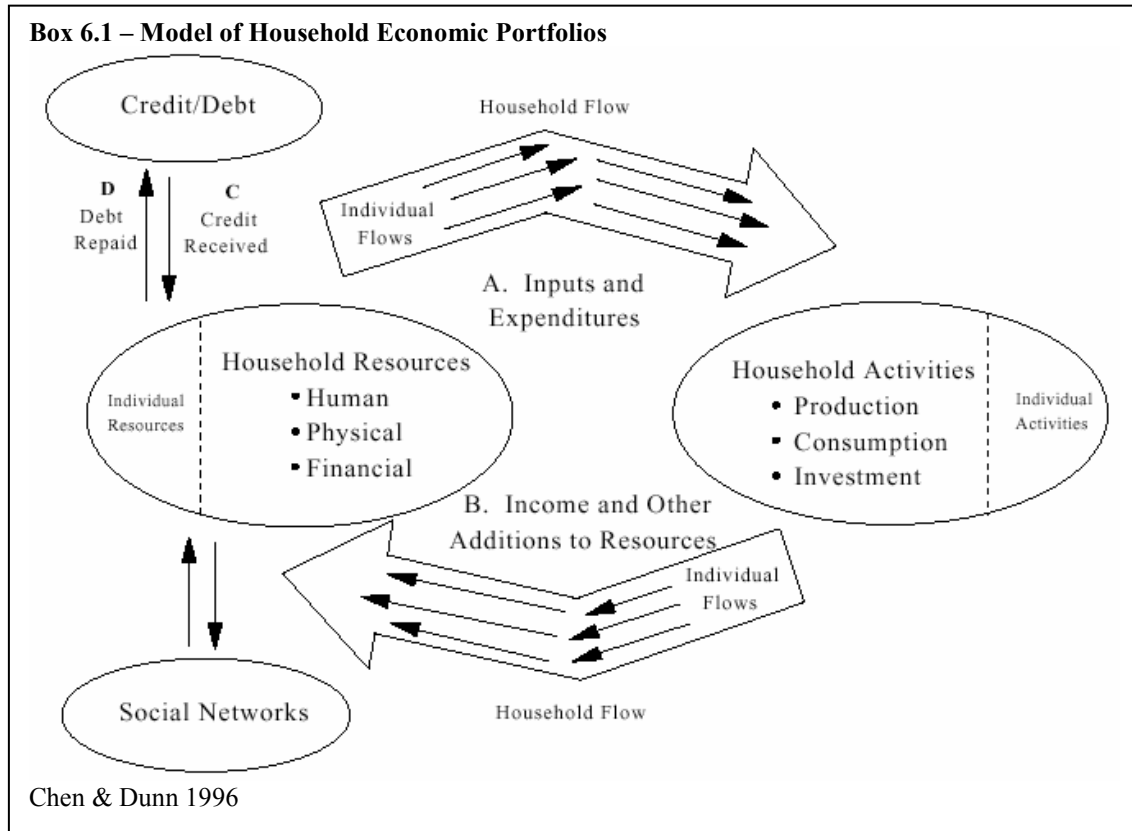
“I am in charge of finances in our household.”

“Our son, Sadiq, is the ‘number one’ embroiderer in Bapunagar. He has a special gift for embroidery.”

Shaheen and her husband, when we first met them, were the most prosperous couple in the case study sample. Shaheen's husband inherited money, a workshop, and experience in the used tire business from his father. Before their marriage, Shaheen took a one-year tailoring course. Once they moved out of his joint household, about ten years after their marriage, she was able to supplement what her husband earned from his tire business, the most lucrative business by far in the case study sample. More recently, all three of their sons have begun earning. One son works with his father in the tire business; another works in another tire workshop; and a third ran an embroidery business. For many years, Shaheen stitched traditional **kurta-salwar** (tunic-pant) sets under a sub-contract to a trader earning a net profit of about 15 rupees per set. In 1998, she began selling more fashionable kurta-salwar sets on consignment at her son's embroidery workshop for a net profit of about 200 rupees per set. But, in 1999, their fortunes began to change. Their son, who ran the embroidery business, was cheated by a trader who took an order for 20–25,000 worth of goods but never paid for them. Shaheen gave up her tailoring business as her diabetes was debilitating her and her husband and their son reported a downturn in the used tire business. While their income is on the decline, their expenditures are likely to grow as they have three sons and a daughter to marry. Shaheen believes that buying their new home was somehow inauspicious and has led to their recent financial worries.

B. Household Economic Portfolios

As discussed earlier, the three AIMS studies applied a common model of household economic behavior. This household economic portfolio model assumes a mix of resources (human, physical, financial, and social) and activities (consumption, production, and investment) and constituent groups (by age and gender) in any given household; and postulates a circular flow of



interaction between various resources and activities and across the different constituent groups.¹⁰² Refer to Box 1 for a figure depicting this model. What follows is a composite picture of the economic portfolios, including the financial and risk management strategies, of the case study households.

B.1. Resources

The financial resources of the case study households are discussed at some length below (see sub-section C). What follows here is a discussion of the human, physical, and social resources or assets of the case study households.

Human Resources: The main resource or asset of poor households in Ahmedabad city is their labor power. This is measured in terms of the absolute number of household members, the ratio

¹⁰² See Chen and Dunn 1998 for an elaboration of the model of the household economic portfolio used by each of the three studies under the AIMS project.

of earning members to dependent members, and the composition (by age, gender, education, and skill levels) of household members. The average size of the case study households, as with the sample households overall, is between six and seven members. But this average masks a wide range of household size and composition. Two of the 12 case study households, both headed by widows, have only three members. At the other extreme, there are 18 members in one joint household comprised of an elderly couple, their three married sons, their three daughters-in-law, and ten grandchildren. Eight case study households are nuclear households comprised of the borrower, her husband, and their unmarried children. One is a sub-nuclear household comprised of the younger widow and her unmarried children. Two are joint households comprised of two or more married couples and their unmarried children, including the large joint household described above. And one is a sub-joint household comprised of the older widow, one of her married sons, and his second wife.

Women head seven of the twelve households. The two widows – Sangeeta and Rajeshri – are the de facto heads of their households although both live with adult sons. In four of the nuclear households, the respondents are the de facto household heads, in two cases – Divi and Gayatri – because their husbands are addicted to drink or gambling and in the other two cases – Shaheen and Anita – because they are more decisive and determined than their husbands. The de facto head of the large joint household is Pushpa's mother-in-law, a founding member of the SEWA Union.

Of the twelve case study households, two have no dependents, seven have more earners than dependents, and three have more dependents than earners. All but one of the dependents are young children. Only one household – that of Nirmala – has an elderly dependent: her mother-in-law.¹⁰³ Both households that have no dependents are nuclear households in which all of the unmarried children are working. One is extremely poor because the husband is an alcoholic and the two sons are not hard working (Divi's). The other is less poor because all members of the household – the couple, their unmarried daughter, one married son, and his wife – work hard (Radhika's). All three of the households with more dependents than earners have young school-going children. These include the large joint household in which there are multiple earners, including two salaried workers (Pushpa's), a nuclear household in which both the husband and wife do casual work outside the home (Jyoti's), and a nuclear household in which the wife is a bidi-roller and the husband was an onion-vender until he fell ill in mid-1999 (Hemlata's). Of the seven households that have more earners than dependents, four have at least twice as many earners as dependents. These include, as might be expected, the most prosperous nuclear household (Radhika's) but also, as might not be expected, one of the least prosperous nuclear households (Rajeshri's) and the two households headed by widows. The other three households that have more earners than dependents include one secure nuclear household (Ayesha's) and two vulnerable nuclear households (Anita's and Nirmala's).

There are a total of 75 persons in the case-study households, of whom only two are below school age. Of the others, 34 have never gone to school, 17 have completed or are currently enrolled in primary school, 23 have completed or are enrolled in secondary school, and one attended college. The one who went to college is from the prosperous Muslim family. Although he once

¹⁰³ Ayesha's mother-in-law rotates between the households of her married sons, eating and sleeping where she (or they) want.

worked briefly as a teller in a bank, he now works in a tire repair workshop where he earns 2,000 rupees per month. The two who now have salaried jobs are brothers from the same large extended family. Both completed Class 10 and earn 3000 per month each. One person each from three households, one woman and two men, have taken training in diamond polishing. Only one of them secured a job in a diamond polishing factory where, in early 2000, he could earn up to 3,500 rupees per month, depending on how many diamonds he polished each day. Four of the case study respondents and three of their daughters have taken tailoring classes. None of the garment makers earn more than 2,500 rupees per month. Those who work on a sub-contract basis earn less than 1,000 rupees per month.

The survey findings indicate that education levels do have an impact on household income (see Section 5). For instance, if the respondent has been to school, especially if she has gone beyond secondary school, household income is typically higher. However, as these cases illustrate, households that have better educated earners or more earners than dependents do not necessarily enjoy higher per capita income, at least in the poorer neighborhoods of Ahmedabad city. Since the dependency ratio and the education level of these households do not appear to be the only determinants of their relative poverty or prosperity, some other factors or processes are at work. We will return to this issue when we look at the mix of household activities below.

Physical Resources: The main physical resource in poorer neighborhoods of Ahmedabad city is housing stock. Whereas the houses in these neighborhoods differ by size and amenities (notably, whether they have a separate kitchen or private toilet), there is less difference than was expected in terms of construction materials. None of the families live in makeshift huts, although one family (Gayatri's) lives in a single room. Except for the two most prosperous families, the others live in 2–3 room single-story houses made out of plastered brick or cement. One of the most prosperous households lives in a four-room ground-floor apartment in a multi-story building. The most substantial home of all – a three-storied residence with carved wooden doors, built-in wooden cupboards, and tile floors – belongs to the one large joint family in the sample, comprised of eight adults and ten children (Pushpa's). Each of the three sons and his family occupies only one floor (two rooms) of the three-storied residence; and their parents – who share meals with the extended family – live in a one-room house down the road.

The other most common physical assets are household durables. In addition to varying quantities of brass and stainless steel utensils, which each household displays proudly on open shelves, most households aspire to certain common consumer items: a kerosene stove; one or more fans, some metal chairs, a steel storage cupboard (almirah), a radio, and a (preferably color) TV. All own at least one kerosene stove and one fan, all but one own a clock and nine own a black-and-white or color TV. Nine households own bicycles – the most common private mode of personal transport. Six households own one bicycle each, two (Rajeshri's and Ayesha's) own two bicycles each, and one (Nirmala's) owns three bicycles.¹⁰⁴ Only Nirmala's husband uses his bicycle in his street vending trade; the other men in these families use their bicycles to get to and from work. Finally, two households own a moped or small motor scooter.

¹⁰⁴ A sizable number of individuals in Ahmedabad – not represented in the case study sample – transport goods on two-wheel wooden carts, often laden with large unwieldy loads, which they pull. Another sizeable number of individuals or households – also not represented in the case study sample – own donkeys or camels to transport goods.

In addition to household durables, most households own some productive assets specific to the economic activities of their members (refer to Box 6.2). Other than garment makers who own sewing machines, women use few assets of any real monetary value in their work. During the course of our research, SEWA Bank mounted an exhibit in its lobby of photographs of working women in Ahmedabad dating from the early 1900s. The photographs provide visual proof that many occupations of low-income working women in Ahmedabad – including the tools that they use – have not changed significantly over the past century.¹⁰⁵

Social Resources: There are two sets of social resources or assets that the case study households can draw upon: horizontal ties between members of the same joint family or kinship groups and vertical ties between employers–employees, wholesalers–retailers, retailers–customers, moneylenders–borrowers, and political patrons–clients. In India, as in many societies, there is a tradition of giving gifts to mark births, deaths, and weddings: who gives what to whom, and when, varies across communities. Although gift giving usually takes place within extended family or kinship groups, it may be reciprocal or non-reciprocal in nature. Across India in most patrilineal communities, as a means of sharing their inherited wealth, brothers are expected to look after married sisters and their children: by presenting non-reciprocal gifts when their sisters’ children are born, reach puberty, or marry. They are also expected to provide non-reciprocal support when their sisters face difficulties, such as the premature death of their husbands.¹⁰⁶

Most informal gift or transfer systems are reciprocal. In the poorer neighborhoods of Ahmedabad, two types of reciprocal transfers were reported: contributions to marriage or death rituals and emergency loans with or without interest. Under the informal systems of marriage and death insurance, each household in the same extended family or kinship group makes contributions towards marriages or deaths in other households in the group. When such events occur among its own members, each household receives the amount it contributed – plus a stipulated mark-up – from the other households in the group (see Box 6.3).

¹⁰⁵ Only a few of these photos showed women using expensive machinery: notably a set of photographs of women working in the spinning section of a textile mill. By the early 1920s, before the demise of the textile industry and the retrenchment of mill workers, men had begun to displace women workers in the mills.

¹⁰⁶ In her study of 570 widows in 14 villages in seven states of India, Martha Chen found that brothers often do not live up to their obligations towards their sisters. Fewer than 2% of the widows in her sample lived with a brother (Chen 2000).

BOX 6.2 – PRODUCTIVE ASSETS BY OCCUPATION

Street Vending: Eight persons from six households are engaged in street vending. Five of them own or rent a push cart; two sell from baskets or a cloth laid out on the pavement; and one bicycles around different neighborhoods to sell his wares. All those who sell goods by the weight own balance scales, a set of weights, a knife, and one or two baskets.

Trading: Shaheen’s husband owns a tire repair shop and another workshop; Ayesha’s husband owns a provision store (a sales counter and store room at the front of their one-room residence).

Tailoring: Radhika’s husband owns a small tailoring shop.

Embroidery: Gayatri’s husband and Shaheen’s son own embroidery frames; Gayatri’s husband also owns an electric embroidery machine.

Handkerchief-Making: Rajeshri bought an electric hemming machine for her stepson to make handkerchiefs.

Garment-Making: The four female garment-makers, all of whom work from their homes, own at least one sewing machine. Three own electric machines, only one sews on a manual machine.

Bidi-Rolling: All of the bidi-rollers own scissors to cut the tendu leaves, a basket or two to store the leaves, and small metal pieces to use as patterns when cutting the leaves.

Transport: Two of Divi’s sons jointly own a bicycle cart to transport vegetables and other goods for others; Sangeeta took a loan to buy an auto rickshaw for her youngest son but he used the funds to invest in his father-in-law’s watermelon business where he works half-day.

Livestock: Sangeeta and her married son, who lives with her, own goats that they rear and sell.

Even when those who join these systems are related by kinship or marriage, the richer the households involved in these reciprocal systems the more effective they are likely to be. This is because households that live at the subsistence level often have little to share with others, especially during widespread crises. Also, the more homogeneous the households involved in these systems the more effective they are likely to be. When the group is not homogeneous, the richer participants “find themselves giving relatively more than they receive back on average” (Morduch 1999: 194). In such instances, richer households typically form a new group with other richer households or decide to fend for themselves (Ibid.).

BOX 6.3 – INFORMAL MARRIAGE AND DEATH INSURANCE SYSTEMS

“About two months ago, my uncle’s daughter got married. We purchased clothes for the bride and groom. Now, our neighbor’s son is getting married. So we will spend 1000 rupees. If we give them 1000 rupees, our gift is noted and, when our son gets married, they will give a gift in return. If we give 100 rupees, they are expected to give 200 rupees – this system is called **hathganu** in our community. There are two upcoming marriages in our community. We will have to make gifts of 100 rupees for each marriage.”–Jyoti

“All the relatives, kin, and caste neighbors are expected to contribute to both marriage and death ceremonies. In the case of weddings, whoever receives a wedding invitation has to contribute. The amount of contribution may range from 500 to 1000 rupees and depends on the nature of the relationship between the contributor and those who are getting married. The closer the relationship, the more people have to give. The contributions are largest for the first wedding in a family and get smaller over subsequent weddings. I received about 20,000 rupees in contributions for the remarriage of my youngest son. In the case of death ceremonies, all those who attend are expected to contribute to the costs. My son and I received about 10,000 rupees in contributions to cover the costs of his first wife’s death ceremonies.”–Suraj

“For the upcoming wedding in our family, we will receive the amount we contributed to other households plus fifty rupees”–Anita

For these reasons, poorer households often cannot depend entirely on traditional reciprocal systems and have to negotiate patron–client relationships with richer relatives or with persons not related by blood or marriage, such as employers, shopkeepers, or moneylenders. In such relationships, the richer person or household may offer loans, gifts, or other forms of support to poorer households in exchange for high interest payments, future services, or political loyalty. Whereas the husbands or sons of several of the case study households have taken loans from their employers, few of the women have regular employers to whom they can turn. Many of the street vendors in the case study households, both men and women, regularly purchase goods on credit from traders in the wholesale markets. As needed, some of the case study households buy staples and other food on credit from shopkeepers. Such patron–client relationships usually, but not necessarily, work to the advantage of the patron. In the early 1990s, Ayesha’s husband went broke selling groceries on credit. Now that his business has expanded, he sells goods on credit without too much concern. As he noted, “When my customers pay me, I use that capital to invest in the store.”

B.2. Productive Activities

In India, as described in Section 2, a person’s occupation or trade is determined partly – if not largely – by her or his religion, caste, and gender. There are two kinds of social rules relating to work: the rules regarding what kind of work particular social groups should and should not do. The reality is often quite complex. Take the trading sector, for example. Two social groups are associated with shop keeping (the Hindu trader castes and Muslims) while another social group is associated with street trading (the Patni Vagri, a Backward Caste).¹⁰⁷ Within street trading, further differentiation is possible between those who sell perishables and non–perishables and

¹⁰⁷ The Patni Vagri caste, a Backward Caste, has an ambivalent social status. Considered a “criminal tribe” by the British colonial government, the Patni Vagris still have a poor public image and a reputation for being thieves.

between those who sell from pushcarts or bicycles and those who sell from baskets or pieces of cloth on the pavement. Other Backward Caste castes are more likely than the Patni Vagris or Scheduled Castes to sell non-perishables; and men are more likely than women to sell non-perishables. Scheduled Castes and Patni Vagris are more likely than other Backward Castes to sell from the pavement; and women are more likely than men to sell from the pavement.

The social rules regarding what work is appropriate for whom are reflected in the distribution of male members of the case study household across occupations and employment statuses (see Box 6.4).

Whereas religious community and caste, within Hindu communities, tend to be the major determinant of which sub-sector of the economy individuals are engaged in, gender is a major determinant of their employment status and the location of their work. In the case study households, all the salaried workers, owner operators, and semi-permanent employees are men, while all the sub-contract workers are women. Own

account activities are more evenly divided between the men and women, but women tend to be concentrated in the less remunerative own account activities: street vending of perishable goods and home-based production. Three-quarters of the economically active women in the case study households work from their home, whereas none of the men work from their home.¹⁰⁸

There are also significant differences between women in which caste and community play a major role (see Box 6.5). Among the case study households, all the bidi-rollers are from Hindu castes in which women have traditionally specialized in bidi-rolling as an alternative to working outside the home. The three vegetable vendors are from castes that allow women to work outside the home: one is a Vankar, a Scheduled Caste, and two are Patni Vagris, a Backward Caste in which both men and women commonly engage in street vending. All of the garment-makers work from their homes. Four are Muslim women who do not deal directly with customers or leave their house on business; the other two – one Patni Vagri, the other a Scheduled Caste –

BOX 6.4 – MALE OCCUPATIONS BY CASTE AND COMMUNITY

Owner Operators: Two Muslim men – a father and his son – run a tire repair and sales shop that they own. One Backward Caste man, husband of a bidi-roller, runs his own tailoring shop. One Backward Caste and 1 Muslim man, both sons of respondents, run their own embroidery businesses. Neither owns the premise in which he works but both hire workers and own the requisite equipment.

Own Account Street Vending: Three Patni Vagri men sell perishables on the streets – namely, vegetables and fruit. Four men sell non-perishables from their bicycles: two are from the Patni Vagri caste; the other two are from other Backward Castes. All four used to work in the textile mills, whereas none of the men who sell perishables on the streets ever worked in the mills.

Own Account Trade: Two Muslim men – a father and his son – run a provision store that they own. A Patni Vagri woman and her husband sell fish from a small stall in a wholesale market shop while their son runs the fish shop that they own in a more prosperous part of the city on the other side of the river.¹

Semi-Permanent Wage: Nine men in the case study households work as semi-permanent employees for a regular employer. Five of the seven Backward Caste men work in, respectively, tailoring, embroidery, diamond-polishing, bicycle repair, and metal valve workshops. A sixth works as an office boy in a brokerage firm and the seventh works as a marketing assistant in a computer graphics shop. Two Scheduled Caste men work, respectively, in leather sandal-making and screen-printing workshops.

Salaried Jobs: Two Patni Vagri men – brothers from the large joint family – hold salaried jobs. One works as an attendant (peon) in a bank, the other in the police force. One son in the relatively prosperous Muslim household once worked as a temporary employee in a bank.

¹⁰⁸ In Round 1 of our sample survey, 52 percent of self-employed women and 99 percent of female sub-contractors worked from home. By contrast, only 13 percent of self-employed men worked from home; the majority (66%) worked on the street. Another survey in Ahmedabad City found that 52 percent of women and 8 percent of men worked from their own homes (Unni 2000). See Section 2.C above for a discussion of and statistics on (Table 2-1) the location of work by gender in Ahmedabad City.

deal directly with their customers in their neighborhood or sell their goods at a weekly city market.

Notably, none of the Muslim women or the Backward Caste Hindu women, other than the Patni Vagri vendors, work outside their home, and only two Scheduled Caste Hindu women work from their home. A related fact is that none of the Muslim or Backward Caste women, other than the Patni Vagri vendors, are self-employed or casual wagers; and none of the Scheduled Caste women are sub-contract workers. One Muslim woman, Shaheen, was briefly self-employed. When one of her sons became a partner in an embroidery business, he secured direct orders for her. Earlier she had always worked for a contractor. Given this new opportunity, she used a 25,000-rupee loan from SEWA Bank to buy electric motors for two sewing machines (one for herself, and one for her unmarried daughter) and to invest in cloth and thread. However, she could not keep pace with the workload as she suffers from chronic diabetes that is slowly depleting her energy and strength. In early 2001, she reverted to stitching part-time under a sub-contract.

BOX 6.5 – FEMALE OCCUPATIONS BY CASTE OR COMMUNITY

Sub-Contract Bidi-Rolling: Five women from Backward Castes originally from Andhra Pradesh or Maharashtra (including daughter of one respondent)¹

Sub-Contract Incense Stick-Rolling: One Backward Caste woman (daughter of bidi-roller)

Sub-Contract Garment-Making: One Backward Caste woman (daughter of bidi-roller); four Muslim women (2 mothers and their daughters)

Own Account Garment-Making: Two Scheduled Caste women

Own Account Vegetable or Fruit Vending: Two Patni Vagri women; one Scheduled Caste woman

Casual Wage: One Scheduled Caste woman in construction.

What individuals earn varies not only by the trade or occupation in which they are engaged but also by their employment status – whether they are owner operators or self-employed or whether they are sub-contract, casual wage, semi-permanent, or permanent wage workers – and gender. The various employment statuses represented in the case study households, differentiated by gender, are grouped according to reported net earnings in early 2000 in Box 6.6.

The regularity of income from salaried work and the fact that it does not typically involve risk or investment makes it the most attractive option to most households even if running one's own business yields potentially higher earnings. The survey findings confirm that the moderating variable with the largest impact on household income was the presence of one or more salaried earners in the household (see Section 5). But because they are so attractive and there are so few of them, the competition for salaried jobs is quite fierce. To secure a salaried job, many of which are in the public sector, a person typically needs to have political connections and often has to pay a bribe.¹⁰⁹ It also helps to be a member of a Scheduled Caste or Tribe. Under a national affirmative action program, the Government of India “reserves” a sizeable quota of public sector jobs for persons from the Scheduled Castes and Tribes. As one Backward Caste woman, Nirmala, commented: “The Backward Castes are not getting jobs. How can we expect jobs for our children? As our caste is a Backward Caste, we won't be getting jobs easily. For getting jobs, a bribe has to be given and we are in a financial crisis. So we have sent our son to learn

¹⁰⁹ Under the current economic reforms in India, many formerly nationalized companies – including banks, insurance corporations, and utility companies – are being privatized. But many of the salaried wage opportunities are still in public enterprises or in the public sector, including municipal corporations in Ahmedabad and other large cities.

embroidery.” One Scheduled Caste woman, Divi, recently tried to get municipal jobs for her two sons – as street cleaners, sanitation workers, or construction workers – but was informed that she would need to pay 100,000 rupees in bribes for each job.

C. Financial and Risk Management

In most countries, but particularly in low-income countries, poor households have to develop coping strategies to deal with a variety of risks. This is not only because the poor face many risks but also because they have few mechanisms with which to deal with risks as they often fall in the gap between public social security programs and private insurance schemes. Some of these strategies involve individual or household actions such as drawing down savings, borrowing, selling physical assets, and diversifying or expanding sources of income. Other strategies include informal insurance arrangements with other individuals or households. Some of the informal arrangements are rooted in traditional social norms that prescribe mutual responsibilities within social groups: for instance, across India one function of extended kinship ties is to look after the wives and children of dead relatives (Chen 2000). Others have evolved more recently in response to new risks or circumstances.

During the two years prior to round 1 of our survey, 71 per cent of the sample households had experienced at least one significant financial shock and 21 per cent had experienced two or more shocks. The events that interrupted normal income flows or necessitated extraordinary expenditures – hence, causing financial shock to the household – included loss due to theft, fire, or flood; job losses or business failures; serious injury or illness; births, marriages, and deaths of family earners. Sixty-six per cent of the households incurred expenses on at least one serious illness episode and 20 per cent incurred expenses on at least one marriage in their immediate or extended families. The most expensive, common, and devastating financial stress events were, respectively, marriages, serious illnesses, and deaths of breadwinners (see Section 5).

BOX 6.6 – DAILY NET EARNINGS FROM COMMON OCCUPATIONS (January 2000)*

1. The least remunerative work was female sub-contract work as bidi-rollers, incense-stick rollers, and garment-makers:
 - Rs. 17– 30 per day, depending on output.
2. The moderately remunerative work included female own account vending, own account tailoring, and casual wage work; and male own account vending and semi-permanent wage work, as follows:
 - Own Account Vending – female:
 - Rs. 25–30 per day – inexperienced vegetable vendors
 - Rs. 60–100 per day – experienced vegetable vendors
 - Own Account Tailoring – female:
 - Rs. 85 per day
 - Casual Wage – female:
 - Rs. 60–80 per day – construction work
 - Own Account Vending – male:
 - Rs. 40–85 per day – soap, garlic, and onion vendors
 - Rs. 80–100 per day – vegetable and fruit vendors
 - Rs. 100–165 per day – incense sticks, bag, sandal vendors
 - Semi-Permanent Wage – male:
 - Rs. 40–45 per day – powerloom workshops
 - Rs. 65–85 per day – embroidery workshops
 - Rs. 100–140 per day – tailoring, metal valve, and screen printing workshops
 - Rs. 120–160 per day – diamond polishing workshops
3. The most remunerative work was male salaried work and male (or, in one case, joint female-male) own account businesses.
 - Salaried Work – male:
 - Rs. 125–210 per day
 - Own Account Tailoring – male:
 - Rs. 125–145 per day
 - Own Account Embroidery – male:
 - Rs. 165 per day
 - Own Account Trade:
 - Rs. 150 p.d. – father-son provision store**
 - Rs. 150 p.d. – wife-husband-son fish business
 - Own Account Tire Repair/Sales – male:
 - Rs. 350 per day***

Notes:* The average exchange rate in 2000 was Rs. 45.1 = US \$ 1

** The household that owns this store takes all of its staples from the store.

*** The father of the man who runs this business ran a used tire business. This man inherited know-how, customers, money, and a workshop from his father.

In the microfinance field, there has been a long-standing and widespread assumption that the main role of micro-credit was to promote microenterprise development: that clients would use their loans to invest in their enterprises and use the cash flow from their enterprises to repay their loans. This assumption has given way over time to the understanding that cash is fungible, that clients use their loans as they (or other members of their households) see fit, and that repayments may come from various financial sources within (or outside) the household (Sebstad and Cohen 2000).¹¹⁰ More recently, there has been growing recognition that clients often use credit to help reduce their exposure to risk. Whether to reduce risk or invest in opportunities, households need relatively large lump sums of money on a recurring basis (Rutherford 2000).¹¹¹

What follows is an analysis of the financial needs and risks of the case study households and their financial and risk management strategies in recent years.

C.1. Financial Needs or Risks

Like poor or near-poor households elsewhere in the developing world, the financial needs of the sample households – which become financial risks if the household cannot come up with the necessary lump sums of money on favorable terms – can usefully be grouped into four broad categories: life-cycle events, social and ritual obligations, emergencies, and investment opportunities.¹¹²

C.1.a. Life-Cycle Events

There is a series of life-cycle events for which most households in India, both rich and poor, need to amass relatively large lump sums of money. These include childbirth, puberty, marriage, old age, widowhood, and death. Some of these events require expenditures on ceremonies and gifts to mark the event, notably: childbirth, puberty, marriage, and death. Childbirth also entails expenditures on traditional birth attendants or doctors, and, relatively rarely in low-income communities, hospitalization. The awareness that large outlays of money will be needed for many of these events – notably, for marriages – is a source of anxiety for most low-income households. In communities that practice dowry, parents who have several daughters worry about marrying their daughters; while in communities that practice bride-price, parents who have several sons worry about marrying their sons.

Old age and widowhood represent life-cycle stages, rather than events per se, that require ongoing support or expenditures. Because sons are responsible for maintaining elderly parents in most communities, parents without sons to support them remain anxious about their old age. In communities that do not allow widows to remarry or women to work outside the home, the

¹¹⁰ The larger AIMS project – of which this study is one component – was based on the notion that cash is fungible within the household and that the impact of micro-finance would need, therefore, to be traced not only to the targeted enterprise but also through the household to the individual client.

¹¹¹ This section draws on three related bodies of literature: on risk management by the poor (see Sebstad and Cohen 2000); on financial management by the poor (see Rutherford 2000); and on informal insurance mechanisms (Morduch 1999).

¹¹² Rutherford (2000) classifies the financial needs of the poor into three categories: life cycle events, emergencies, and investment opportunities. In our analysis, we have separated recurring social and ritual obligations from life-cycle events.

predicament of widows without adult sons is particularly acute. On the other hand, sons worry about whether they will be able to support their elderly parents or widowed mothers (Chen 2000).

Over a five-year period, nine of the case study households incurred expenses on at least one major life-cycle ceremony – a marriage or death – in their immediate or extended families; and most of the case study household incurred expenses on at least one less costly life-cycle ceremony.

Births: As noted earlier, childbirth involves two types of expenditures: on the costs associated with the birth itself and on the ceremonies or gifts to mark the occasion. The rituals include notifying members of the extended families of both parents, ceremonial visits to both sides of the family, and gifts from both sides of the family. Brothers, for instance, are expected to give special gifts when their sisters – or their sisters’ children – have babies. The first birth anniversary and the first haircut are also celebrated with rituals. Because of the high value placed on sons in most communities, the births of sons, especially the first son, are typically more costly than the births of daughters. More has to be spent on the ritual celebrations and often more has to be paid to the traditional birth attendant.¹¹³ One of the case study respondents who is deeply in debt, Divi, spent 1,000 rupees on the delivery of her youngest grandson and another 1,000 rupees on the celebration of his birth.

Weddings: Seven of the households reported spending on weddings. Five households incurred expenses for one wedding each; two households incurred expenses on two weddings each. Not surprisingly, these households spent the most on the weddings of their own daughters or sons. Shaheen and her husband, once the richest couple in the case study sample, spent 250,000 rupees on the marriage of their daughter to a man from a wealthy family. Other than this outlier case, the amounts spent on the weddings of daughters or sons ranged from 18,000 to 50,000 rupees and averaged just over 30,000 rupees per wedding. Among communities that practice dowry, other than the rich Muslim couple, no household reported a recent wedding of a daughter. However, we asked several respondents that had daughters what they expected they would have to pay. The other Muslim couple – Ayesha and her husband – estimated that they would have to spend 30,000 to 40,000 rupees each on the weddings of their two daughters. One Backward Caste couple – Nirmala and her husband – reported that dowries in their community (the Nilghar Khoshti caste from Andhra Pradesh) range from 20,000 to 50,000 rupees depending on the groom and can go as high as 400,000 rupees for a man with a secure government job.

¹¹³ In 1994, Noponen and Kantor (n.d.) studied what they called “economic stress events” in 308 households belonging to SEWA Bank members (both borrowers and savers); 107 households (35% of the sample) were from rural areas; and 201 households (65% of the sample) were from Ahmedabad City. They gathered data on economic stress events during the previous month at four points during the study year and calculated the average monthly cost of stress events by type. The economic stress events they identified, listed in order of share of average total monthly amount spent, were: illnesses (48%), rituals (17%), marriages (13%), “other stresses” (8%), house repairs (5%), addictions (4%), deaths (3%), births (2%), flood and other property damage (less than 1%). Rituals, in this study, include annual festivals as well as rituals to mark birth and death anniversaries. Addictions include addiction to paan (chewing tobacco mixture), bidis (hand-rolled cigarettes), and snuff as well as addiction to alcohol. “Other stresses” include costs associated with treating sick cattle, settling land disputes, repairing equipment or machines, buying school supplies, dental treatment, installing TV cables, attending training courses, and more.

Anita and her husband, from the Patni Vagri caste that practices bride price, have recently married their eldest son and their only daughter. When they married their son in 1998, they paid a bride price of 10,000 rupees (\$242) and spent another 40,000 rupees (\$961) on wedding expenses. When they married their daughter in late 1999, they spent about 22,000 rupees (\$515) on wedding expenses and received 7,000 rupees (\$162) as a bride price.¹¹⁴ When we met Anita in January 2000, she readily itemized what they had spent on their daughter's wedding (see Box 6.6). In addition to these direct costs, Anita noted that her husband took about 25 days off from his work – vegetable vending – to finalize arrangements for the wedding. His time off, she calculated, cost them approximately 2,250 rupees (\$52) in lost earnings. To pay for their daughter's wedding, Anita and her husband used 10,000 rupees from a SEWA Bank loan, took out 5,000 rupees from their Post Office fixed deposit account, and borrowed 5,000 rupees (Rs. 2,500 at 120 % per annum and Rs. 2,500 at 96% per annum).

Radhika and her husband, from a Backward Caste that practices dowry, arranged to celebrate the marriages of their middle daughter and their only son at the same time. They spent about 50,000 rupees (\$1157) on the joint wedding celebrations (see Box 6.8). Their son received wedding gifts from the bride's family, including a gold chain (20 grams), a gold ring (4 grams), and a suit. In addition, the couple received 4,000 rupees (\$92) in cash and some utensils from family and friends. To pay for the two weddings, the construction of a home for their son and his new bride, and the medical treatment for his recent heart attack, Radhika and her husband borrowed 65,000 rupees (\$1505) from several moneylenders at 24% per annum, borrowed 20,000 rupees (\$463) from his sister (without interest), and used 20,000 rupees (\$463) from their savings. In early 2000, they were able to service only the interest payments on these debts. After paying off 4,000 rupees (\$89) outstanding on her current loan from SEWA Bank, Radhika and her husband planned to take out another loan of 25,000 rupees (\$554) from SEWA Bank to repay part of the capital on their outstanding loans from moneylenders.

The amounts spent on weddings in the extended family can also be quite high. Two couples had to pay for the wedding of the husband's sisters because his parents were no longer living or could not afford to pay. Nirmala and her husband spent 15,000 rupees on each of the weddings of his two sisters. Ayesha and her husband spent 40,000 rupees on the wedding of his sister.

¹¹⁴ Anita and her husband asked for a bride price of 10,000 rupees but the groom's family bargained them down to 7,000 rupees.

BOX 6.8 – COST OF MARRIAGE

Amount Spent by Anita and Her Husband – from a Caste that Practices Bride-Price – on Their Daughter's Wedding in 1999:

Gold Jewelry (5 grams): Rs. 7,800 – an armlet (10 grams) and a pair of earrings
 Silver Jewelry (100 grams): Rs. 6,150 – pair of anklets (600 grams), pair of bangles, and wedding pendant (called a mangalsutra)
 Clothing Gifts for Bride: Rs. 1,285 – 3 saris, 3 petticoats, 5 blouses
 Wedding Dress of Bride: Rs. 1,500 – traditional checked sari with gold thread (called a panetar)
 Wedding Clothes for Other Family Members: Rs. 3,200 – panetar (self), skirt-blouse set (called a chania-choli) (daughter-in-law), and 3 suits (husband and two sons)
 Wedding Dias and Decorations: Rs. 500
 Wedding Feast: Rs. 1,000
 Priest: Rs. 425
 Photographer: Rs. 400

TOTAL = Rs. 22,260

Amount Spent by Radhika and Her Husband – from a Caste that Practices Dowry – on the Joint Weddings of their Son and Daughter:

Gifts for Son-in-Law: Gold chain (10 grams): Rs. 4,400; Suit and Watch: Rs. 4,500
 Gifts for Daughter: Gold Earrings (5 grams): Rs. 2,200; Saris: Rs. 2,000
 Gifts for Daughter-in-Law: Glass Bangles: Rs. 7001; Gold Earrings and Silver Anklets: Rs. 4,700
 Wedding Feast: Rs. 18,000
 Food for Out-of-Town Visitors: Rs. 10,000
 Wedding Dias (Mandap): Rs. 3,500

TOTAL = Rs. 50,000

The two most prosperous couples contributed to the wedding costs of the husband's sister. Shaheen and her husband contributed 15,000 rupees to the wedding of his sister and Pushpa and her husband contributed 25,000 rupees to the wedding of his sister. Also, Jyoti and her husband spent 5,000 rupees on the wedding of his brother (Rs. 2,000 on a gift for the couple and Rs. 3,000 on new clothes to wear to the wedding).

Death Ceremonies: Four households spent money on death ceremonies in recent years. One respondent had to pay for the death ceremonies of three immediate members of her family. This was the widowed garment maker, Rajeshri, whose second husband died after suffering an accident at the textile mill where he worked and whose youngest daughter and eldest step-son accidentally poisoned themselves. She reportedly spent 30,000 rupees on her husband's death ceremonies and 25,000 rupees each on separate death ceremonies for her daughter and stepson. Two households reported paying for the death ceremonies of members of their extended families. Ayesha and her husband spent 6,000 rupees on the death ceremonies of his father and the large joint Patni Vagri household in which Pushpa lives spent 10–15,000 rupees on the death ceremonies of her grandmother-in-law. Shaheen and her husband contributed 2,000 rupees to the death ceremonies of his mother.

In addition to major expenditures to celebrate life-cycle events within their own families, households also have to spend money to attend funerals and weddings in other families: the costs of attending such events are especially high when they take place outside of Ahmedabad. Hemlata spent 3,000 rupees to travel to her natal village to attend the cremation of her parents; and Nirmala spent 5,000 rupees to travel to her natal village to attend a wedding. Both Hemlata and Nirmala, like many other bidi-rollers in Ahmedabad, are from families that migrated to Ahmedabad from other states when the men in the family found jobs in the local textile mills.

From a local perspective, all of these expenditures on life-cycle ceremonies – large expenditures on life-cycle ceremonies of close relatives as well as smaller expenditures on life-cycle ceremonies in other families – are seen as **social investments** that serve to build up a household's status and respect in the community as well as its reciprocal claims on other households. As noted earlier, when households make contributions to marriages and death ceremonies in other households, they anticipate that their contributions will be reciprocated in time with interest. Of course, these expenditures involve significant outlays of money on a recurring basis and are also, therefore, seen as costly **social obligations**. As Ayesha commented to us, "When my father-in-law died, we had to complete his funeral rites. Such obligations are always there. There was my husband's adopted 'mother'; we also carried out her funeral rites. And we paid for the funeral rites when my mother died. There are weddings and comings-and-goings to my native place. There is so much 'social work' to be done." Pushpa's sister-in-law estimated that their extended family spends 50,000 a year on social obligations.

Old Age and Widowhood: In addition to the one-time expenditures associated with most life-cycle events, there are on-going financial burdens associated with two life-cycle stages. Unless they are able to or are allowed to earn, widows and the elderly need to be supported by members of their extended families. Three of the twelve case study households support elderly widowed parents. Nirmala's widowed mother-in-law has lived with them since Nirmala and her husband were married. Ayesha's widowed mother-in-law rotates between the households of her two

married sons, who live in the same neighborhood, eating and sleeping where she (or they) want on any given day or week. Gayatri sends cooked food every day and provides other support to her widowed father who lives separately.

Widows head two of the twelve case study households. Both were widowed prematurely with young children to raise. Both now live with adult sons. The older widow, in her 60s, recently retired from her line of work, vegetable vending. She lives with one of her married sons and his wife, both of whom are economically active. None of her five other sons provide regular financial support but all, except her eldest most prosperous son, live nearby and provide emotional support. The younger widow, aged 50 or so, lives with her two youngest sons, neither of whom are married and both of whom work. Her constant worry is that one or both will move out, as her eldest stepson did when he married and her middle stepson did when he got a job in Mumbai. If he is able to do so, local social norms dictate that her youngest son should assume responsibility for his widowed mother.

C.1.b Festivals and Rituals

In addition to the rituals marking marriage and death, households need funds to celebrate annual festivals and other rituals. For Hindus, these include a number of less expensive festivals celebrated for one or two days each, two more expensive festivals celebrated for several days each – Diwali (6 days) and Navratri (9 days), the annual kite-flying festival called Uttarayan (1 day), and various monthly or less frequent rituals. Muslims observe one month of fasting (Ramazan), the Eid holiday that marks the end of Ramazan, and several other ritual holidays. While Muslims buy new clothes, exchange gifts, and cook special meals for each of these festivals, the Eid after Ramazan is the most expensive. The amount spent on rituals varies with the circumstances of each household.¹¹⁵

Reducing expenditures on rituals and festivals is a common risk management strategy. On the other hand, spending on rituals to seek god's blessing is a not uncommon response to crises. In 1999, Sangeeta conducted a special ritual ceremony (**puja**) to the Mother Goddess (Mataji) to ask for a blessing and cure for her granddaughter's leukemia.¹¹⁶ She spent about 5000 rupees on the ceremony that was held at a temple in her natal village, including the travel, food, and lodging of a dozen or so family members. In the mid-1990s, Gayatri and her sister-in-law conducted a special puja to Ganesh, the god of wealth, to help them find a solution to their husband's addictions: Gayatri's husband is a gambler; his brother is an alcoholic. They now celebrate the annual festival in honor of Ganesh to thank him for helping them identify a new source of income – paper bag making – to compensate for their husbands' compulsive spending habits. The two sisters-in-law together spend about 3,000 rupees per year on the celebration of Ganesh Puja. The night before we last met Rajeshri, in January 2001, she had held a special ritual ceremony – in which 15–20 women from her caste had participated – to seek god's blessing in finding a new line of work. She had given up her traditional line of work – tailoring cushion covers and quilts – as she no longer found it profitable. According to Rajeshri, the

¹¹⁵ Noponen and Kantor (n.d.) found that expenditures on rituals, other than marriage and death rituals, totaled 17 % of average total monthly expenditures in their sample of 308 SEWA Bank clients.

¹¹⁶ Sangeeta's granddaughter died of leukemia in late 2000.

demand for such items – and therefore the price – has dropped because of the prevailing drought conditions.

C.1.c. Emergencies

In the microfinance field, there is a growing understanding of the risks faced by clients, especially poorer clients. Most of the recent literature on risk, however, focuses on risks common to both rich and poor households and examines whether the poor, compared to the rich, are more vulnerable to these common risks or less able to respond to them. Less attention has been paid to the risks specific to the poor, especially those risks associated with the nature of their work. In what follows, we distinguish between common risks and risks specific to the occupations or work arrangements of the poor.

Common Risks: There are two sets of common risks for which most households in India and elsewhere, both rich and poor, need to prepare themselves. The first set includes less personal risks – what are called covariate risks – that affect whole neighborhoods or regions: such as floods, drought, cyclones, fires, civil unrest, and more. Ahmedabad is known for periodic outbursts of civil unrest. What is less well known is that these periods of civil unrest lead to temporary disruption or closure of many trades and occupations – notably street vending – in which large numbers of poor people are engaged. Also, periodically, the municipal government evicts or bulldozes whole slum neighborhoods.

Over the past several years, large parts of rural Gujarat have experienced drought. According to the case study respondents, the prevailing drought in rural areas has affected the urban economy in several ways: raising prices for basic food goods, reducing the purchasing power of the rural population, increasing migration into the city, and, thereby, increasing competition within the city. To make matters worse, in mid-2000, Ahmedabad suffered severe flooding. Four of the 12 case study households suffered loss of property due to the floods.¹¹⁷ Most recently, in January 2001, a severe earthquake shook Ahmedabad and many parts of rural Gujarat. The middle class suffered the greatest loss of life and property during the earthquake, as it was mainly new high rise office and apartment buildings on the western side of the Sabarmati River that collapsed. Nevertheless, the earthquake is likely to have severe consequences for the economy overall and the livelihoods of the poor.

The second set of common risks includes more personal emergencies – what are called idiosyncratic risks – which befall individuals or individual households: illness, injury, and death of a breadwinner, theft, fire, and more.¹¹⁸

Medical Emergencies: Like other personal risks, medical emergencies are generally unpredictable in terms of when they will occur and how much they will cost. Unlike other personal risks, which tend to fall into one or another of the following categories, medical

¹¹⁷ There was an unusually heavy monsoon in Ahmedabad city in 1994, the year of Nojonen and Kantor's study (n.d.) Many of the housing colonies in the city suffered water inundation: 30 households or 15% of their urban sample (201 households) reported flood damage. And the incidence of illnesses spiked from 120 episodes per 100 households in the pre-monsoon period to 180 episodes per 100 households in the post-monsoon period.

¹¹⁸ It should be noted that the death of a breadwinner involves both the permanent loss of earnings and the costs associated with death ceremonies (see Life Cycle Events above).

emergencies can represent minor setbacks, major crises, or chronic problems (Naponen and Kantor n.d.). This is because medical emergencies range from short bouts of flu or fever that require a dose of over-the-counter medicines, to severe episodes of illness or injuries that require medical examination or hospitalization, to severe conditions that require surgery, to chronic conditions that require routine check-ups and regular medications. The cumulated toll of medical emergencies on low-income households is often near catastrophic. Individual households, especially large multigenerational households, are likely to experience frequent episodes of illnesses or other medical emergencies.¹¹⁹ The net result is that the poor in India spend strikingly large shares of their household income on health care (Krishnan 1999). To make matters worse, given the nature of their work arrangements, the poor in India typically do not have health or disability insurance and are not entitled to paid sick leave. This means that illnesses, injuries, or operations of economically active members of the low-income households usually involve loss of income for the duration of the episode. In brief, medical emergencies often represent a “double jeopardy” to the household economy.¹²⁰

Over a period of five years, five of the twelve case study households had to pay for a total of six episodes of acute illness. Three households had to pay for a total of four cases of accidents or injuries and two households had to pay for one surgery each.¹²¹ Expenditures on acute illness episodes ranged from 2,500 to 15,000 rupees (\$63–375) and averaged 7,500 rupees (\$188) per episode.¹²² Expenditures on accidental injuries ranged from 6,000 to 15,000 rupees (\$150–375) and averaged 10,250 rupees (\$256) per case. The two surgeries cost 70,000 rupees (\$1620) and 20,000 rupees (\$463), respectively. In addition, four households reported chronic illnesses – including diabetes, anemia, and TB – that cost as much as 1,000–1,500 rupees (\$25–38) per month to treat. For instance, Pushpa’s mother-in-law suffers from high blood pressure and diabetes. She is on medication and consults a doctor at least once a month. The doctor, a regular customer of hers, charges half of what he would normally charge for an appointment: 100 rupees, instead of 200 rupees. But she has to spend 40 rupees on transport each visit. In addition, she spends 500 rupees per month on medications.

In recent years, members of two case study households underwent surgery. Rajeshri’s eldest son, who had been suffering from a heart condition since he was thirteen, had to undergo open-heart surgery in 1999; and Hemlata’s husband had to be operated on to remove a growth in his throat in 2000. The throat operation cost about 20,000 rupees (\$463), including three visits to private hospitals (Rs. 1,000 per visit), multiple doctor’s appointments (Rs. 100 rupees per appointment), several blood tests (Rs. 250 per test), medicines (unspecified amount), x-rays and sonograms (unspecified amounts), and the operation itself, including four days of hospitalization

¹¹⁹ Naponen and Kantor found that “illness was the event which most disrupted the household economy” and that illnesses accounted for nearly half (48%) of the average total monthly expenditures on stress events in their sample (Naponen and Kantor n.d.: 7).

¹²⁰ It should be noted that medical emergencies in one household might lead to expenses in other households as well. One case study respondent, Pushpa, reported that she spent 200–250 rupees to travel to visit a sick relative in her natal village.

¹²¹ The period of time during which the financial and risk management of the case study households is tracked in any depth is 1996–2000: that is, from two years prior to Round I of the survey (1998) through to Round II of the survey (2000). The economic histories of the case study households often date back to when the primary respondent and her husband were married and include what work their parents did. But detailed information on borrowing and spending is typically provided for a shorter time period.

¹²² Over this five-year period (1996–2000), the average exchange rate was 40 rupees per 1 US dollar.

(Rs. 2,000). To cover these costs, they had to deplete their savings and borrow 12,000 or so rupees (at 36% per annum).¹²³ It took Hemlata's husband more than a year to recover enough strength to resume working. Because his voice was still weak, he took a job as a night watchman (earning Rs. 1000 per month) rather than returning to his previous work vending onions (from which he earned Rs.1, 250 per month).

The heart operation cost about 70,000 rupees (\$1620): Rajeshri's son was able to raise donations worth 40,000 rupees (\$425) from several local charities; and she took a loan of 25,000 rupees (\$575) from SEWA Bank to help cover the costs.

When we asked whether her husband would help cover the costs of the operation, Rajeshri noted sadly: "If he does not give us money for food, he will not give us money for an operation." Fortunately, her son appears to be fully recovered and has resumed work. For a picture of how average medical expenses compare to the average annual incomes of the case study households, refer to Box 6.8.

BOX 6.8 – COSTS OF MEDICAL EMERGENCIES¹

Average Expense on Acute Illness Episodes = 13% of average household annual income
 Average Expense on Acute Illness Episodes = 95% of average annual per capita income
 Average Expense on Injury Cases = 18% of average household annual income
 Average Expense on Injury Cases = 130% of average per capita annual income
 Average Expense on Operations = 66% of average household annual income
 Average Expense on Operations = 434% the average per capita annual income

In addition to the direct costs of illness, as noted earlier, there are opportunity costs when earning members of the household fall ill. Each time an earning member falls ill, except for the rare salaried worker who is entitled to sick leave, the household suffers a loss of income. The amount lost depends on who falls ill, how much they earn, and how long they remain sick. Hemlata's husband, who underwent throat surgery, was not able to work for nearly eighteen months. For a description of what this medical emergency meant for his family, see Box 6.9.

Other Idiosyncratic Risks: Other than illness and injury, which are the most common idiosyncratic risks, the case study households reported the following emergencies over the past five years: one case of **fire**, which destroyed the stock of bags that the husband sells (Rs. 10,000

BOX 6.9 – MEDICAL EMERGENCY TURNED ECONOMIC CRISIS

In January 1999, when asked whether she worried about the future, Hemalata responded:

"What is there to worry about except running our onion business and eating and drinking?"

"I don't have enough courage to face the future alone. I will continue to make bidis. But I can run the household effectively for only 15 days or a month through bidi rolling"

Little did Hemalata know, when she made these statements, that within months her husband would no longer be able to run their onion business and that she would have to assume responsibility for feeding their family. In mid-1999, Hemlata's husband lost his voice and strength and had to be operated on for a growth in his throat. For the next 18 months, Hemlata, her husband, and their three children had to subsist off Hemlata's earnings from bidi-rolling. She had to increase her working hours in order to raise her monthly earnings from 700 to 900 rupees. The situation went from bad to worse when Hemlata's work was disrupted during the bidi strike and lock-out in late 1999. During that period, Hemlata did not get work orders for two weeks. Fortunately, she had enough leaves and tobacco to continue working for one of those weeks. But they had to take out loans to cover their daily expenditures during that period. In total, her husband's illness and operation cost them roughly 20,000 rupees in medical expenses and about 22,500 rupees in lost income. They depleted all of their savings and borrowed more than 12,000 rupees (@ 36% per annum). Even before he had fully recovered from the operation, Hemlata's husband began looking for a job. Hemlata asked two men in their neighborhood to get him a job in the security guard company where they work. Her husband now works as a security guard: he works a night shift and earns less than he did from vending onions before his illness. The fact that Hemlata suffered from chronic TB was a lingering concern throughout her husband's illness. In the late 1990s, she suffered two relapses. Both episodes forced her to be hospitalized for one or two days and to suspend work for another 15 to 20 days. The last relapse, in late 1998, cost 800 rupees in medical expenses and 500 rupees (20 days) in lost earnings. Fortunately, Hemlata did not suffer a relapse while her husband was unwell. This led them to hope that she had been cured of TB.

¹²³ When he received worker's compensation from the textile mill where he used to work, Hemlata's husband deposited 20,000 rupees of that amount in a fixed deposit account at the Gujarat Lease Finance Corporation. In 1998, Hemlata and her husband withdrew 14,000 rupees from that account to pay for installing a bathroom and toilet and to cancel some earlier debt. To pay for his surgery and treatment they withdrew the balance of 6,000 rupees in that account.

loss); one case of **fraud** by a trader who promised to sell some embroidered garments but never paid for them (Rs. 25,000 loss); one case of **default** on two loans by a friend who left town (Rs. 20,000 loss); and two cases of **neighborhood conflicts** that escalated into costly court cases. Due to a protracted conflict with a quarrelsome neighbor, Anita's family had to move out of their neighborhood for one year. During that year alone, they spent 300 rupees in legal fees and 2,400 rupees in rent. Neither case had been resolved, either in or out of court, by January 2001.

Work Specific Risks: In addition to these common risks, the poor in Ahmedabad face risks specific to their work. Most of the working poor in Ahmedabad, as elsewhere in India, are not covered by labor legislation or unemployment insurance. As a result, they often require lump sums of money to see them through periods when their incomes fluctuate or when their income sources are temporarily disrupted or closed down. Most of the dominant occupations represented in the case study households undergo seasonal fluctuations and some experience periodic disturbances on a regular basis. For instance, street vendors in Ahmedabad face regular harassment by municipal authorities and the police, including payment of bribes, confiscation of their goods, or eviction from their premises.¹²⁴ Depending on the circumstances, these work-related risks are faced by all or most individuals in specific occupational groups.

In recent years, as described in Section 2, there have been major disturbances in two of the dominant trades. There was a temporary surge in the price of onions and a change in the management fee system of the wholesale vegetable market in 1998 and a lockout by traders followed by a strike by workers in the bidi industry in 1999. Among the case study households, one household reported business losses when the price of onions surged. Several households reported business losses when the responsibility for paying a management fee to the wholesale vegetable market was shifted from rural producers to urban traders. And two households reported income losses during the bidi strike and lockout (one household lost Rs. 3,000 in income).

The main seasons of the year are summer (April–June), monsoon (July–October), and winter (November–March). The main annual festivals are the Eid after Ramazan for Muslims and Diwali and Navratri for Hindus. Diwali is celebrated each year sometime in October or November. To get ready for Diwali, families clean, repair, or paint their houses, buy new clothing and household goods, and buy gifts for each other. The celebration itself includes setting off firecrackers, lighting up the house with small candles, holding special feasts, and carrying out special rituals. Navratri involves many of the same expenditures except the house painting, fireworks, and lights. Many Muslim households buy new clothes, slaughter a goat or cow, and eat special delicacies during Eid. Ramazan, the month of fasting that precedes Eid, has a mixed effect on the overall economy and the budgets of many Muslim households. During Ramazan, some households consume less while others consume more. This is because those who fast during the day often eat special meals before and after the fast. If they fast, many individuals work fewer hours and produce less. For instance, both Ayesha and her daughter fast and, therefore, shorten their workday during Ramazan. This means that their output drops just as the demand for garments peaks, in anticipation of the Eid celebration at the end of Ramazan.

¹²⁴ When SEWA won a high-court judgement in favor of street vendors in Ahmedabad, which included the stipulation that the street vendors could be represented by SEWA in court, they discovered that 900,000 cases instigated by the police and municipal authorities against the street vendors lay pending in the courts.

The impact of another annual festival – the festival of kites called Uttarayan celebrated at the winter solstice – is particularly noticeable across the city, not just on the festival day itself when thousands of kites are flown from roof-tops, playing fields, parks, and street corners around the city. For the month or two leading up to the festival, small shops all over the city make or sell paper kites and reels of glass-covered string. There are no estimates of how much seasonal employment is generated by this festival. The SEWA–GIDR survey, carried out in late 1998 and early 1999, found a significant number of women making kites in their homes. To help meet the demand, Muslim craftsmen from other states migrate to Ahmedabad each year to make kites and string.

Fluctuations in various occupations across these seasons and festival periods are due to some mix of changes in supply, demand, and working conditions, as below:

- ◆ **Changes in Supply:** There are marked seasonal fluctuations in the supply and price of different varieties of fruits, vegetables, and other fresh produce.
- ◆ **Changes in Demand:** The demand for garments typically falls in summer, rises in winter, peaks just before (and drops sharply after) the major annual festivals – notably Eid for Muslims and Diwali for Hindus – and the wedding season. During the month before Eid 1999, Shaheen, a Muslim garment maker, made a net profit of 10,000 rupees whereas her average monthly profit is 3000 rupees. To meet orders during peak periods, Radhika’s husband, a tailor, used to sub-contract out some of his work. Also, his son who works for a wage in another tailoring shop by day used to assist his father at night.

The demand for many fruits and vegetables rises in summer, falls during monsoon through winter, and peaks during the major festivals and the wedding season. However, not all vegetable or fruit vendors prosper during these peak periods. As Anita’s husband explained to us, households that organize feasts for weddings or other celebrations prefer to buy fruit, vegetables, and other items in bulk from wholesale traders and households that are invited to feasts during the wedding or festival seasons tend to buy less.

- ◆ **Changes in Working Conditions:** The lack of sun and dry spells during the monsoon season forces outdoor construction projects and several types of manufacturing units to close, including screen printing, block printing, and cloth dyeing units. The lack of sun and dry spells during the monsoon also disrupts many other occupations such as laundry services, pepper or spice drying, and incense stick rolling. Although few bidi-rollers suspend their work during the monsoon season, many complain that mildew grows on the tendu leaves that are used, instead of paper, to roll the bidis.

C.1.d. Investment Opportunities

Despite the widespread concern about how to raise lump sums of money to cover emergencies and life-cycle events, the case study households reported spending more on housing (1,046,000 rupees) than on emergencies and life-cycle events combined (912,000 rupees) over the past

several years.¹²⁵ Some observers classify housing costs as life-cycle expenditures rather than investments (for example, Rutherford 2000). We consider expenditures on housing – whether to buy, expand, or improve housing – as investments, given the fact that so many SEWA Bank clients and other low-income women in Ahmedabad work from their homes. An estimated 70 per cent of economically active women in Ahmedabad work from their own home or that of others (Unni 2000).¹²⁶ See the discussion below on housing investments.

We also prefer to classify expenditures on education as investments. The annual cost of sending children to government schools, which charge modest (if any) tuition, comes to about 1,000 rupees for textbooks and other supplies plus an unspecified amount on uniforms and food expenses. To educate a child beyond Class 9 involves spending an additional 1000 rupees per year on school board examinations in Classes 10 and 12 and hiring tutors to help prepare students for these exams. In early 2000, Rajeshri was preparing her younger son for his Class 10 board exams. She itemized what she would have to spend during the following year leading up to the exam – a total of 2,534 rupees (\$56) – as follows:

School Fees: Rs. 14
Text Books and Study Guides: Rs. 1,000
Typing Classes: Rs. 500
Typing Exam: Rs. 250
Tutor: Rs. 600 (6 months @ Rs. 100 p.m.)
Board Exam Fee: Rs. 170

If her son did well in his Class 10 board examination, Rajeshri planned to encourage him to continue his studies until, at least, Class 12. However, given the limited availability of jobs, she was uncertain whether to do so would be worth the investment. One of her stepsons completed his Class 12 board examinations. But he, like his younger brother who dropped out after Class 9, got a job in a handkerchief workshop. Both earn about 3,000 rupees per month. Her elder son, who studied up to Class 9, became a sandal-maker, earning about Rs. 850 per month. In January 2001 when we visited Rajeshri, her younger son had dropped out of school, despite doing reasonably well in his Class 10 board examinations, and was working in a sandal-making workshop. In the case study households, only one person – the second son of the once prosperous Muslim family – went to college. After getting a temporary job as a teller in a bank, he now works in a tire repair workshop. The two persons who have salaried jobs – two brothers in the large extended family – studied up to Class 10.

¹²⁵We have excluded unusually large expenditures by the most prosperous households from these estimates, as follows. The total spent on life-cycle and emergency needs excludes one outlier expenditure – Rs. 250,000 spent on one wedding by a relatively rich Muslim household; and the total spent on investments excludes two outlier expenditures – Rs. 350,000 spent to buy a new home by the same Muslim household and Rs. 350,000 spent to build a new three-story home by the other relatively prosperous case study household.

¹²⁶In their 1994 study of 308 SEWA Bank clients, Naponen and Kantor included expenses on house repairs as economic stress events and found that house repairs accounted for 5 % of average total monthly expenses on economic stress events by the sample households (Naponen and Kantor n.d.).

Several households discussed the dilemma of whether to educate their daughter to Class 12 or beyond. In many communities represented in the case study sample, women are not allowed or encouraged to seek jobs outside the home. Those communities that allow women to work outside – the Patni Vagris and Scheduled Castes – encourage them to take up traditional caste occupations: for example, selling vegetables or used clothes. The advantage of education in taking up traditional occupations is not clear. In all communities represented in the case study sample, daughters move upon marriage to live with or near their husband’s family. Once married, they are thought to belong to their husband’s family and are not supposed to support their parents, even in old age. So investing in daughters does not have the dividends – in terms of additional income and old age security – that investing in sons has (see Box 6.10).

BOX 6.10 – THE DILEMMA OF INVESTING IN A DAUGHTER’S EDUCATION

Several of the case study households faced the dilemma of how far to educate promising young daughters who did well in school.

“Although she always stood first in her class, we withdrew Leela from school when she reached puberty, after studying to class 7. This is because our community does not encourage or promote the education of girls. Until her marriage, she helped me around the house. She married a young man who completed Class 12. He works as a casual laborer.” – Anita (Patni Vagri)

“My daughter will study up to Class 10, not beyond. She will then learn tailoring so that she does not have to roll bidis like me. There is no profit in bidi work. Tailoring work is better. In our caste, men do not let the women work outside. Even if a girl studies up to college, later she will have to do only house work.” – Gayatri (Backward Caste)

“Indira is studying for her Class 12 board exams. She is a good student and did quite well in her Class 10 Boards – scoring 61%. But we could not afford to send her for tuition classes. A tutor in our neighborhood approached us saying: “Your daughter is smart (**hoshiar**), you should send her for tutorial classes.” When we explained our financial situation, he offered to tutor her for half of what he charges other students – for Rs. 1500 rather than Rs. 3000 for a year. My uncle thinks she should be encouraged to study medicine. We are leaving the decision to her. Few boys in our caste – much less girls – go to college.” – Hemlata (Backward Caste)

“Although she was a good student and did well on her Class 10 board examinations – she got 60 percent marks – we pulled Shehnaz out of school after Class 10. I need her to help me around the house. Her brothers want her to study and become independent. But once she gets married, she will not be able to go outside the home.” – Shaheen (Muslim)

“If girls have some skills, it will be useful for them. Some like to study. But in our families, girls do not go for ‘service’ (jobs). So, if they have some skill, it will be useful for them in case of need. If they do not stitch for others, at least they can do it for themselves. They will save 40 rupees time to time for themselves. Otherwise, girls spend as much as 60 to 90 rupees on dresses. Gradually she will learn to tailor well and to stitch for others. Then she will become like Munni-*ana* (a woman garment contractor in their neighborhood). Avesha (Muslim)

Several of the case study households have invested in skills training to help their members get jobs. Nirmala’s oldest son, Sanjiv, has taken two training courses: a one-month course in embroidery in 1996 that cost 1,000 rupees (\$28) and a two-month course in diamond polishing in 1999 that cost 2,000 rupees (\$44). After being trained in embroidery, Sanjiv worked for some time in an embroidery workshop where he earned 1,500 rupees (\$41) or so per month depending on how much he produced. But he left the workshop because his earnings were too low with plans to start his own embroidery business once he could raise the funds to buy several embroidery machines (for Rs. 6,000 each). After working for a couple of months with his father in the bag-vending business, he decided to take a two-month course in diamond polishing. After the course, Sanjiv got a job in a diamond-polishing factory near their home where he earned 3–4,000 rupees (about \$80) per month depending on how many diamonds he polished. In early 2001, when we last met him, Sanjiv reported that the wages or piece-rate for polishing diamonds – and hence his earnings – had fallen by half. In mid-1999, Gayatri’s youngest son, Dinesh, dropped out of school after Class 9 to take a two-month course in diamond polishing. In early 2000, he was working part-time as a painter earning 50 rupees a day while looking for work in a diamond-polishing factory. In early 2001, he was working as an office boy in a brokerage firm where he earns 1,000 rupees (\$22) per month.

Young women or girls are often sent for one- or two-month tailoring classes. In the case study households, four respondents and three of their daughters have taken tailoring classes. Only one woman has taken a training course other than in tailoring. In mid-1999, calculating that diamond polishing would be less physically demanding and more remunerative than construction work, Jyoti took a two-month course in diamond polishing that cost 1,500 rupees. After completing her training, she got a job as an apprentice trainee in a diamond-polishing factory in Bapunagar. However, she was fired after a month because she was not quick enough to polish the stipulated minimum of 25 diamonds a day. During that month, she had not been paid any wages and had spent 14 rupees a day on transport. After two months, she began working again as a construction laborer earning about 70 rupees per day. In January 2000, both Jyoti and her husband hoped to find work in diamond-polishing factories as the pay would be better than what she can earn as a construction worker (about 70 rupees per day) and what he can earn as a screen printer (from 60–75 rupees per day in winter to 120–150 rupees per day in summer). In January 2001, Jyoti was still working as a construction worker and her husband was still working in the screen-printing factory. Neither had given up hope of finding work in a diamond-polishing factory despite the recent downturn in the industry.

In addition to investments in housing, education, and skills training, the case study households reported making about 356,000 rupees worth of capital investments in their businesses. See subsection below called “Building Up Assets” for a description of these investments.

C.2. Financial and Risk Management Strategies

Many of the lump sum needs of the households – notably, for life cycle events and emergencies – expose them to the risk of financial loss if they are not able to mobilize the necessary funds. How did the sample households manage to raise the lump sums of money they needed over the past several years? Each household manages a diverse financial portfolio including several sources of loans and several types of savings, mainly informal.¹²⁷ The households in our survey sample had an average debt of just under \$300 or just under 30 per cent of average annual household income. Among the savers and controls, more than two-thirds of their total debt was from informal sources (friends, relatives, and moneylenders). Borrowers, on the other hand, owed one half of their total debt to SEWA Bank. Among SEWA members, nearly three-quarters of the household’s total financial savings were held in a SEWA Bank account. No one in the sample seemed to have much access to credit or savings services from banks other than SEWA Bank (see Section 5). A few households, some of those in which one or more male members used to work in the textile mills, have had access to lump sum worker’s compensation. What follows is an analysis of the strategies adopted by the case study households to reduce their exposure to financial risk: both preventive or ex ante strategies and response or ex post strategies.

Since borrowing and saving represent the most prominent strategies, we begin with a discussion of borrowing and saving by the case study households.

¹²⁷ Stuart Rutherford refers to loans and insurance as different forms of savings and calls them, respectively, “saving down” and “saving through”; what are commonly considered savings – sums of money that are stored at home or deposited in a bank for future use – he calls “saving up” (Rutherford 2000).

C.2.a Borrowing

Three of the case study households have taken one loan each from SEWA Bank. The other nine have taken two or more loans. Jyoti, Hemlata, and Divi have taken only one loan each of 2,500, 7,000, and 15,000 rupees, respectively. Gayatri, Rajeshri, and Ayesha have taken two loans each, totaling 17,000, 20,000 and 30,000 rupees, respectively. Six respondents have taken three or more loans from SEWA Bank. Sangeeta has taken 11 loans totaling nearly 90,000 rupees. Anita has taken six loans totaling nearly 60,000 rupees. Radhika has taken five loans totaling nearly 70,000 rupees. Shaheen, Nirmala, and Pushpa have taken three loans each totaling 55,000, 65,000, and 71,000 rupees, respectively.¹²⁸ Only three households reported taking loans from any other bank. All these loans were taken by men in the family. In one case, the man had to pay 10 percent of the loan as a fee to the commission agent who negotiated the loan for him.

The case study households took the majority of their loans from informal sources, those to whom the households are linked both horizontally (relatives and friends) and vertically (employers, traders, and moneylenders). The greatest number of loans was taken from relatives (17), followed by moneylenders (10), friends (6), and employers (4). The largest amount of loans was taken from relatives (Rs. 330,000), followed by friends (Rs. 250,000), moneylenders (nearly Rs. 155,000) and employers (nearly Rs. 40,000). In addition, many street vendors buy vegetables on credit from wholesale traders. The total borrowed from wholesale traders is not known because the street vendors take multiple small advances on an almost daily basis. When we interviewed her in early 2000, Divi owed a total of 8,300 rupees to several traders in the wholesale vegetable market.

Loans from these various sources differ in size and terms. Average loan sizes from the various informal sources were roughly as follows: friends 28,000 rupees, moneylenders 15,000 rupees, relatives 13,000 rupees (excluding one large loan), employers 10,000 rupees, and wholesaler traders 500 rupees. Many of the loans from friends and relatives were interest free. However, some were taken at informal market rates of 36 to 48 per cent per year and one 25,000-rupee loan from a relative was at 60 per cent interest per year. Even when they are interest free, the case study respondents reported several “costs” associated with loans from relatives and friends: the loss of face in having to borrow; the need to reciprocate the loan; and the fact that close family and friends can lean on the borrower to repay at any time. Virtually all of the loans from vertical ties – employers, traders, and moneylenders – were at interest rates ranging from 36 to 48 per cent per year.¹²⁹ However, Jyoti’s husband’s employer charged a lower interest rate, 24 per cent per annum, on a loan of 30,000 rupees; while two moneylenders charged Radhika and her husband higher interest rates, 96 per cent and 120 per cent per annum, on recent loans for their children’s joint wedding.

Why then did the case study households continue to borrow from informal sources? The main reason, as described above, is that low-income households such as those in the case studies have

¹²⁸ As these figures indicate, the average loan size from the SEWA Bank – both the first loan and subsequent loans – has increased over the years. This means that women who have taken 3–4 loans in recent years are likely to have borrowed as much or more as women who have taken 6 or more loans over a longer period.

¹²⁹ In an earlier study of a village in Ahmedabad district, Martha Chen found that nearly 20 per cent of the households were involved in moneylending. Loans were given under a variety of forms and conditions with interest rates ranging as high as 10% per month or 120% per annum (Chen 1999).

recurring needs for relatively large lump sums of money that three-year loans of a maximum of 25,000 rupees (the terms of SEWA Bank loans) cannot begin to satisfy. Given that these households have and will continue to borrow from informal sources, how does borrowing from informal sources compare with borrowing from SEWA Bank?

It is difficult to make a precise comparison of loans taken by the case study households from different sources and for different purposes. To begin with, the respondents are likely to under-report the number of loans they have taken, especially those taken from informal sources. Second, some of the loans were used for multiple purposes. Third, the reference period for the reported loans varies slightly. In our case study interviews, the reference period for SEWA Bank loans began with the year in which the individual women took their first loan from the Bank; while the reference period for non-SEWA loans began with the year in which each respondent began her oral history of the household. Nonetheless, because the average reference period for SEWA Bank loans (five years) and other loans (six years) turned out to be roughly the same, a rough comparison of reported borrowing from all sources during this period by the case study households is possible.¹³⁰

In terms of figures reported by the twelve case study households, the following picture emerges:

**Table 6-1: Comparison of Borrowing from SEWA Bank and Other Sources:
By Number, Total Amount, Average Size, and Stated Purpose of Loans**

	SEWA Bank	Informal Sources	Other Banks
Number of Loans	41	50	3
Total Amount (Rs.)	489,000	939,000	70,000
Average Size (Rs.)	11,926	18,780	23,333
Interest Rate	17%	24–60% p.a.	–
State Purpose:			
Business	13	6	1
Housing	15	22	2
Weddings	8	9	–
Repay Old Debt	4	3	–
Illness	1	5	–
Death	–	1	–
Other	–	4	–

¹³⁰ The tables in this section are based on figures reported by the twelve case study households. They are included in this report because similar figures from the survey data are not available. At best, they are indicative of a likely pattern of borrowing and spending in the total sample.

In terms of the volume borrowed by the twelve case study households, the amount borrowed from the SEWA Bank is less than half of the amount borrowed from other sources and one-third of the total amount borrowed.¹³¹ In terms of the number of loans taken by the case study households, SEWA Bank loans account for two-thirds of the business loans, half of the loans used for marriages and repaying old debt, over one-third of the housing loans, and one-sixth of the loans used to cover medical expenses. In sum, while there is some difference in the stated purposes of SEWA Bank loans and other loans, the real difference between SEWA Bank and informal sources of loans lies in the cost and terms of the loans, not in their use.

Table 6-2 compares borrowing by the twelve case study households from SEWA Bank and other sources for different purposes. The first column under each source presents the total amount borrowed from each source for each purpose (read down the column). The second column under each source presents the amount borrowed for specific purposes as a percentage of total borrowing from each source (read down the column). The third column under each source represents the amount borrowed from each source as a percentage of total amount borrowed for specific purposes (read across each row).

In terms of stated purposes, SEWA Bank loans account for 66 per cent of the total amount borrowed for business investments, 40 per cent of the amount borrowed for weddings, 28 per cent of the amount borrowed to repay old debts, 23 per cent of the amount borrowed to cover medical expenses, and 16 per cent of the amount borrowed for housing. Although SEWA Bank gives loans for housing and weddings, over three-quarters of the amount borrowed for housing and over half of the amount borrowed for weddings was from informal sources.

Table 6-2: Comparison of Borrowing from SEWA Bank and Other Sources

	SEWA Bank			Informal Sources			Other Banks			Total	
	Amount	% of Source	% of Purpose	Amount	% of Source	% of Purpose	Amount	% of Source	% of Purpose	Amount	%
Business	231,000	47%	66%	101,000	11%	29%	20,000	29%	5%	352,000	23%
Housing	111,000	23%	16%	521,000	55%	76%	50,000	71%	7%	682,000	46%
Weddings	90,000	18%	41%	128,000	14%	59%	–	–	–	218,000	15%
Old Debt	47,000	10%	28%	120,000	13%	72%	–	–	–	167,000	11%
Illness	10,000	2%	23%	34,000	4%	77%	–	–	–	44,000	3%
Death	–	–	–	20,000	2%	100%	–	–	–	20,000	1%
Other	–	–	–	15,000	1%	100%	–	–	–	15,000	1%
Total	498,000	100%	–	939,000	100%	–	70,000	100%	–	1,498,000	100%

One of the stated purposes of SEWA Bank is to reduce outside debt and redeem mortgaged or pawned property. Although individual households occasionally take SEWA Bank loans to repay debt or redeem property, one of the clear findings of this study is that loans from SEWA Bank do not substitute for, but rather supplement, outside debt. This is because borrowing is one of the few financial instruments available to low-income households in Ahmedabad city, and

¹³¹ Borrowing from SEWA Bank represented half of the total outstanding debt of all borrower households in our survey and less than one-third of the total outstanding debt of all saver and control households in our survey (Section 5).

elsewhere, to cover a range of contingencies as well as investments. It should be noted that, although nearly three-quarters of the amount borrowed to cover old debts came from informal sources, most of this borrowing was accounted for by one household (Nirmala's) that was lent 100,000 rupees by two friends to cancel their spiraling debt.

Significantly, loans from banks other than the SEWA Bank account for less than five percent of the total amount borrowed by the case study households. To underscore this point, only three of the case study households had taken loans from formal banks. In all three cases, a son in the family who had a salaried job had taken the loan.

Table 6-3 compares the reported amounts spent and borrowed by the case study households over a five-year period on average, by stated purpose and source. The first column under each source indicates the amount borrowed by purpose (read down the column). The second column under each source indicates what share of total borrowing for each purpose was from that particular source (read down the column).

It is important to note that, over this five-year period, reported borrowing from all sources by the case study households covered only slightly more than half of their reported expenditures on weddings, death ceremonies, other rituals or ceremonies, housing, skills training, and business investments. Forty-five per cent of all expenditures were covered by funds from other sources: 10 per cent of all expenditures were covered by workers' compensation or provident fund benefits; 4 per cent by pawning, mortgaging, or selling assets; 3 per cent by funds saved through rotating credit and savings associations (called VCs); and the remaining 28 per cent by drawing down other forms of savings.

Table 6-3: Comparison of Spending and Borrowing by Purpose and Source

	Amount Spent		Amount Borrowed						Total Borrowed	
	Amount Rs.	% of Expenditures	SEWA Bank Amount Rs.	% of Exp.	Informal Amount Rs.	% of Exp.	Other Banks Amount Rs.	% of Exp.	Amount Rs.	% of Expenditures
Business	353,000	15%	231,000	65%	101,000	28%	20,000	6%	352,000	101%
Housing	1,145,000	48%	111,000	10%	521,000	45%	50,000	4%	682,000	60%
Weddings	508,000	21%	90,000	18%	128,000	46%	–	–	218,000	43%
Medical Expenses	176,000	7%	10,000	7%	34,000	19%	–	–	44,000	25%
Death	103,000	4%	–	–	20,000	19%	–	–	20,000	19%
Rituals/ Celebrations	85,000	3%	–	–	–	–	–	–	–	–
Training	4,500	2%	–	–	2,000	44%	–	–	2,000	44%
Totals	2,347,500	100%	442,000	19%	705,000	30%	70,000	3%	1,318,000	55%

There are several ways to interpret these figures. First, one could surmise that the case study households have many sources of finance and take loans from SEWA Bank only because they are available. Second, one could surmise that the case study households have a greater demand for loans – or need for lump sums of money – than SEWA Bank is able to satisfy. SEWA Bank loans do not satisfy the existing demand for loans, even for the two non-business purposes,

housing and weddings, for which the SEWA Bank makes special provisions. Third, one could surmise that loans from SEWA Bank offer a welcome alternative to other sources of finance.

Why would households prefer loans from SEWA Bank to loans from informal sources? First, SEWA Bank charges 17 percent interest per annum while most informal sources charge more than twice as much, typically between 36 to 48 percent per annum, sometimes as high as 120 percent per annum. As several case study respondents reported, they are often barely able to pay the interest due each month on these loans, much less the capital. Second, SEWA Bank offers somewhat larger loans on average than most informal sources. Third, although relatives and friends sometimes offer relatively large loans with relatively low (if any) interest, several case study respondents reported that they prefer the anonymity of taking loans from SEWA Bank. Fourth, although the SEWA Bank requires timely and regular repayments, some of the case study respondents stated that they prefer the discipline of the SEWA Bank to the whims of their informal creditors.

However, two of the respondents had less favorable impressions of SEWA Bank. Both had defaulted on their loans and complained about the Bank's efforts to get them to repay their loans. Jyoti has taken only one loan of 3000 rupees. Because the Bank did not sanction the full amount she requested (10,000 rupees), she told us that she prefers to borrow from the moneylenders because they lend her whatever amount she needs whenever she needs it. Moreover, because they live in her neighborhood, she does not have to forego income or incur transport costs to borrow from moneylenders. A construction worker, Jyoti does not have time during the workday to go to the SEWA Bank. Also, she added, the moneylenders do not send overdue notices through the mail. Divi has also taken only one loan (of 15,000 rupees) from SEWA Bank. She used the loan to buy and repair a hut for her eldest son and to repay some old debts. Before taking more loans to buy a new house for herself, her husband, and her two younger sons, she had repaid 10,000 rupees of the SEWA Bank loan. Since she bought the new house, she had not been able to repay the SEWA Bank as she has so much debt to repay.

Most households, especially those who are familiar with its procedures, prefer to borrow from SEWA Bank to cover large expenditures. However, if they have not repaid a prior loan or they face some other constraint in dealing with the SEWA Bank, they have to borrow elsewhere. Also, if they need a lump sum that is greater than the maximum they can borrow from the SEWA Bank, they have to borrow from other sources as well. As noted earlier, the amount spent on weddings, medical emergencies, and housing or business investments often exceeds the current cap (25,000 rupees) on SEWA Bank loans. This means that often a SEWA Bank loan will not suffice to cover a single emergency or a single investment.

In the microfinance field, some observers believe that using one loan to pay off another leads to disaster. In real life, the situation is more complex. To begin with low-income households often borrow from multiple sources, borrow on unfavorable terms, or use one loan to pay off another to cope with or ward off disaster. Whether using one loan to pay off another makes the situation worse depends on whether the terms of the loan being used to pay off another are more favorable than those of the original loan. See Box 6.11 for the case of a long-time member of SEWA Bank who has used SEWA Bank loans to pay off other loans and used loans from other sources to supplement SEWA Bank loans. In this case, Radhika and her husband wanted to use a SEWA

Bank loan to pay off outstanding loans from moneylenders because at the interest rates charged by the moneylenders they had little hope of being able to repay more than the interest due.

C.2.b. Savings

Building up savings is another common financial strategy. As borrowers from SEWA Bank, all

of the case study households have savings accounts at the Bank, mostly current accounts but also a few fixed deposit accounts (usually earmarked for a daughter's wedding). Only two households reported having savings accounts at another bank. Each of these accounts was in the name of a male member of the household. Several respondents reported that they save 2–5 rupees per day in the local equivalent of “piggy banks” to cover sudden, unexpected contingencies. Anita and her husband reported that they saved up 15,000 rupees for their son's wedding in a trunk under their bed.

BOX 6.11 – MIXING AND MATCHING LOANS FROM DIFFERENT SOURCES

Radhika, a long-time member of the SEWA Bank and a local leader of the SEWA Union, who has taken two sets of loans – from SEWA Bank and other sources – to cover sizeable expenditures and used her subsequent loans from SEWA Bank to pay off the other loans. Since the mid-1980s, she has taken five loans from the SEWA Bank totaling 69,000 rupees. In 1984 she borrowed 1,000 rupees to make house repairs. Subsequently, she borrowed 8,000 rupees in 1990 for housing improvements, 10,000 rupees in 1992 to repay other debts, 25,000 rupees in 1996 towards the purchase of her husband's tailoring shop, and 25,000 in 1998 to pay off the other debts. When they borrowed 9,000 rupees from SEWA Bank in 1990 to make improvements on their house, they also had to borrow from other sources. Their next loan from SEWA Bank – taken in 1992 – was used to repay what they had borrowed elsewhere. When they purchased the tailoring shop in 1996, they had to borrow an additional 25,000 rupees from a moneylender at 36 per cent per annum. They used Radhika's next loan from the SEWA Bank, taken in 1998, to repay the amount owed to the moneylender.

In Ahmedabad, at least two types of rotating credit savings and credit schemes – called VCs – are in operation. In one, a lottery is drawn each month to see who gets the funds. In the other, the funds are auctioned off each month. Four households reported having joined VCs. All four seemed to prefer lottery VCs as being less risky. Sangeeta joined two VCs (for 2,000 and 4,000 rupees); Nirmala and her husband each joined one VC (for 2,000 and 10,000 rupees, respectively); Rajeshri joined one VC (for 1,800 rupees); and Ayesha's husband joined one VC (for 30,000 rupees). The amounts saved and realized over varying time periods ranged from 1,800 to 30,000 rupees and averaged 8,300 rupees per VC scheme. As noted earlier, the case study households drew down their savings or joined rotating savings and credit schemes to meet about 30 percent of their financial needs.

In brief, borrowing is both a common preventive and a common response strategy; and accumulating savings is a common preventive strategy and withdrawing savings is a common response strategy.

C.2.c. Other Preventive or Ex Ante Strategies

We turn now to the other strategies of the case study households. In addition to borrowing and accumulating savings, the most common preventive strategies include building up the physical assets, investing in existing economic activities, diversifying sources of income, taking out insurance policies, and joining informal insurance schemes.

Building Up Physical Assets: All of the case study households have invested in housing stock over the past several years, either by purchasing, expanding, or improving their homes. Seven have purchased new homes over the past decade. In the early 1990s, Ayesha and her husband purchased a shop-cum-residence consisting of a storefront, a storage room, and one large living

room (including a tiled kitchen area with a water tap) for 60,000 rupees. Nirmala and her husband purchased a solid four-room house in a quiet neighborhood for about 75,000 rupees. In the mid-1990s, two households (those of Hemlata and Jyoti) each purchased a two-room house for Rs. 30,000; and, in the late 1990s, Divi and her husband purchased a two-room unit for 30,000 rupees. In the late 1990s, the two most prosperous households spent upwards of 350,000 rupees each on new homes. Shaheen and her husband purchased a solid but modest six-room ground floor apartment in a quiet non-congested neighborhood; and the large joint family of Pushpa's husband built a three-floor, six-room relatively luxurious residence in a bustling, congested neighborhood.¹³²

These two households financed their new homes by selling their previous homes, borrowing large sums of money, or selling existing assets. Shaheen and her husband invested the 180,000 deposit or down payment from their previous home, borrowed 25,000 rupees from the SEWA Bank, and borrowed 145,000 (without interest) from family and friends. To pay for their expensive new home, the joint family of Pushpa's husband sold some land and jewelry, took out bank loans, took out several SEWA Bank loans (all of the women in the family are members of the SEWA Bank), and took loans from friends and relatives, as follows:

Sale of Father-in-law's Land (in natal village)	70,000
Sale of Mother-in-law's Jewelry	20,000
Bank Loans – 1 each by two sons	50,000
SEWA Bank Loans – 1 each by mother-in-law and 3 daughters-in-law	100,000
Loans from relatives and friends (@ 24% p.a.)	<u>125,000</u>
Total	Rs. 365,000 (\$8816)

Four households have bought or built one-room houses for their married sons or as rental units. Three households each bought separate one-room houses. Ayesha and her husband bought a one-room house across the lane from their house for 22,000; neither of their sons is married so they currently rent it out for 700 rupees per month. Rajeshri and her late husband bought a one-room house for 25,000; her married stepson lives in it and claims ownership of it. Divi bought a one-room house for 10,000; her married son lives in it. Over the past two decades, the older widow, Sangeeta, built three one-room huts in her backyard and three one-room apartments on the second floor above her own home. Two of her four married sons each live in one of the huts; the third hut is used for storage. A third married son used to live in one of the second-floor apartments. He recently purchased land elsewhere and built his own house and has shifted there. Sangeeta currently rents out the three upstairs units, one to her niece (brother's daughter) for an initial deposit of 10,000 rupees and a monthly rent of 150 rupees, the other two to outside tenants for, respectively, 2,000 rupee deposit plus 200 rupees per month and 1,000 rupee deposit and 300 rupees per month. Her youngest son and his second wife live with her in the original three-room house.

¹³² From these reported figures, without adjusting for whether the house has attached toilets or other amenities, the going price in the late 1990s for white-washed plastered brick houses with pucca floors (concrete or tile) and pucca roofs (tin or tile) appeared to be anywhere from Rs. 20,000–60,000 per room (which, at that time, represented 2.5 to 7.6 times the average per capita annual income).

In 1996, Rajeshri spent about 10,000 rupees (\$282) to add a detached room at the back of her house. For two years, she rented the room to a couple for 300 rupees (\$8) per month. However, as neither of her tenants had steady work, they did not pay their rent on a regular basis. In early 1999, they moved in with one of Rajeshri's neighbors to whom they also owe money on the condition that they work for him making leather sandals until they have repaid both him and Rajeshri, to whom they owe 900 rupees (\$24) in unpaid rent.

In the early 1990s, the SEWA Union successfully negotiated with the government to allocate public housing units on the outskirts of Ahmedabad to bidi-rollers in the Union who needed housing. The SEWA Union organized a lottery to determine which bidi-rollers would be allocated houses under this scheme. Gayatri and Radhika were two of 150 bidi-rollers whose names were picked. SEWA Bank gave each of the "winners" a housing loan. As of January 2000, Gayatri was still making monthly installments of 150 rupees to repay her loan. She and her family are reluctant to move into this house because it is located so far from where her husband and sons work. Although she is not supposed to do so under the terms of the agreement with SEWA, Gayatri has rented out the unit for about 200 rupees per month for several years. Radhika's married daughter and son-in-law live in the house that Radhika "won" in the SEWA lottery.

Seven households, including three of those who recently purchased their homes, have made improvements to their homes over the past decade. This includes tiling the floors (for about Rs. 6,000), replacing existing walls with bricks, plastering brick walls, replacing existing roofs with tin or asbestos sheets (for Rs. 2,000 and 7,000), and installing a toilet (for Rs. 1,500 to 2,000). In early 1999, Jyoti and her husband spent 12,000 rupees (\$278) – using 5,000 from their savings and borrowing 5,000 from a moneylender and 2,000 from her husband's employer – to add a large kitchen to their home. By early 2000, they had repaid these loans and were saving up to install kitchen cabinets (for about Rs. 10,000) as well as a bathroom and toilet (for about Rs. 7,000). For most households, as they cannot afford to make all improvements at once, repairing and improving their homes is an on-going process as funds become available (Nojonen and Kantor n.d.).

Since 1996, most of the households have invested in one or more household durables. Three of the case study households have bought fans; two each bought gas stoves, tape recorders, clocks, gold jewelry, bicycles; one each bought a kerosene stove, a pressure cooker, a watch, a sewing machine, and some silver jewelry; and three bought unspecified assets.

Investing in Businesses: Over the past decade, case study households invested over 350,000 rupees in businesses run by various members of their households. While business loans represented less than half of the amount borrowed from the SEWA Bank, loans from the SEWA Bank represented two-thirds of the total amount borrowed for business purposes (see Table 6-2).

Two households invested over 100,000 rupees in purchasing shops or workshops and five households invested over 180,000 rupees in stock for businesses. As Ayesha's husband, who runs a provisions store, explained: "If we can buy goods on a larger scale, we get bigger profits. Take sugar, for example. If we purchase only two or three gunny bags of sugar, our margins are very small. If we can purchase 10 or 20 bags, then we get much more." Eight households

invested over 60,000 rupees in equipment needed for the economic activities of various members of the household. All four of the bidi-rollers and their husbands purchased equipment for enterprises run by other members of the household: push carts for Nirmala and Hemlata's husbands who are street vendors (for Rs. 1,500 each); balance scales and weights for Hemlata's husband (for Rs. 1,000); an electric embroidery machine for Gayatri's husband (for Rs. 15,000); an electric sewing machine for Radhika's daughter (for Rs. 1,800); and electric motors for two sewing machines for Shaheen and her daughter. One street vendor – Divi – purchased a bicycle cart for her two sons who transport goods for others (for Rs. 3,500). And two of the garment makers and their husbands purchased assets for enterprises run by other members of the household: an embroidery frame for Shaheen's son (for Rs. 2,400) and a hemming machine for Rajeshri's stepson (for Rs. 10,000).

As this summary suggests, most of the business investments made by the case study households were in businesses run by men. There are several fundamental reasons for this. To begin with, all of the case study respondents were economically active before they took their first SEWA Bank loan, and therefore did not need or use SEWA Bank loans to start their own businesses. Second, none of the women in the case study households are owner operators who run businesses of any size in which they hire others. Six women are self-employed vegetable vendors or garment makers. Of the other economically active women in the case study households, eleven are sub-contractors (five bidi-rollers, one incense stick-roller, and five garment makers) and one is a construction worker. Although the sub-contract garment workers have to buy their own thread, needles, and machine oil, only the six self-employed women – the vegetable vendors and garment makers – need sizable amounts of working capital. In any case, the data presented here does not include investments in working capital. Third, other than the garment makers who need to own their own (preferably electric) sewing machines, most of the women use simple low-cost tools and equipment in their work.

Fourth, there are structural limitations to how much women can invest productively in their existing economic activities or how easily they can switch to other more lucrative activities. While owning an electric sewing machine helps to increase the output of garment makers and having some working capital might help them switch to own account production, no amount of credit will help raise the earnings of women who roll bidis or incense sticks, given the monopoly control of a relatively few traders over the bidi and incense stick industries.¹³³ Since they do not typically buy raw materials and all use the same rudimentary equipment, their piece-rate earnings depend upon their output. This in turn is determined by the amount of time they and other family members have available and the speed at which they can roll bidis or incense sticks. While street vendors might be able to use short-term working capital loans productively, they are constrained by competition from other vendors, including men, who have the physical capacity to carry more goods from the wholesale markets to their points of sale and the “social mobility” to move about the city with push carts or on bicycles.

Diversifying Income Sources: Some households diversify or shift their income sources to take advantage of the seasonal fluctuations in their main occupations. Several vegetable vendors

¹³³ In Jabalpur, Madhya Pradesh, SEWA tried to help women bidi-rollers establish an independent bidi-making cooperative. Although they were able to register the cooperative and get a license for the brand, the cooperative was never able to compete effectively in the bidi market.

reported that they sell fruit – notably, melons and mangoes – during the summer months when these items become readily available. For instance, Anita’s husband sells mangoes for one or two months each summer, earning 150–200 rupees per day, but resumes selling vegetables as soon as the peak mango season is over, as his net profit from selling vegetables is highest in summer (Rs. 180–200 per day). Sangeeta’s daughter-in-law sells watermelons during summer and vegetables during other seasons.

Other households shift occupations to compensate for seasonal fluctuations in, or closures of, their main occupations. At least one vegetable vendor, Anita’s husband, does not sell vegetables during the peak wedding season (January–February), when he says the competition from wholesale traders is too high. During this season, he sells other items such as incense sticks or rubber sandals from which his net profit is far lower. All that he earns from selling incense sticks or sandals, roughly 80 rupees per day, is spent on food and other daily necessities. As he observed, “There is no ‘balance’ left”. During the summer months, when demand for her garments and bedcovers tapers off, Rajeshri used to trim leather–sandals under a sub–contract for a cobbler in her neighborhood. Jyoti’s husband has a semi–permanent job as a supervisor in a screen–printing unit. However, the unit closes for four months each year during the monsoon. During these four months, he either operates an auto–rickshaw that he rents for 70 rupees per day or works as a casual laborer.

Several households have had long–standing plans to increase their incomes by diversifying their income sources but have not been able to realize their plans. Until he had to undergo throat surgery, Hemlata’s husband planned to start selling bed sheets and towels to augment what he earned from selling onions. When we interviewed her in early 1999 and early 2000, Rajeshri told us that she planned to start selling the garments and bedcovers that she sews in a monthly rural market in her home state of Rajasthan and continue to sell them in a weekly city market in Ahmedabad. When we visited them in early 2000, both sets of plans had fallen through. Hemlata and her husband had used up all of their savings to pay for his operations and he had taken a job as a night watchman. Rajeshri had given up tailoring all together because she could no longer get a good enough price for her goods in the weekly city market in Ahmedabad.

Taking Out Insurance: As current borrowers from the SEWA Bank, the case study respondents are entitled to insurance coverage of various kinds through the Bank although few know what premiums cost or what risks are covered.¹³⁴ Refer to Section 3 for a description of the insurance provisions of the SEWA Bank. Only two respondents have taken out life insurance policies at the SEWA Bank for household members other than themselves. Jyoti took out separate life insurance policies for her husband and their eldest son, while Radhika took out a life insurance policy for her husband. Jyoti and her husband are the only couple that has taken out formal insurance policies other than at SEWA Bank: they took out a joint life insurance policy for the husband and wife plus separate life insurance policies for their two younger sons with an insurance company.

Joining Informal Insurance Arrangements: Most of the case study households have participated in informal marriage and death insurance schemes, described above (see Box 6.1), whereby each

¹³⁴ Prompted in part by feedback from the current study, the SEWA Bank staff are considering ways to better inform their clients about the details of the insurance program that was started in 1992.

household gets back (with interest) what they contribute to marriages and death ceremonies in other households when such events occur in their own household. Unless there is great inequality or some bad blood between them, most households prefer to turn to family, kin, and caste neighbors for emergency loans. While they may claim reciprocal loans from each other, relatives and kin often charge little or no interest to each other, especially to those in dire conditions.

C.2.d. Other Response or Ex Post Strategies

In addition to taking loans and withdrawing savings, the most common response strategies include: drawing down other funds; reducing household expenditures; increasing workloads, mobilizing family labor, or diversifying income sources; and pawning, mortgaging, or selling assets.

Drawing Down Other Funds: The husbands of three respondents – Ayesha, Hemlata, and Nirmala – received workers’ compensation from the mills where they used to work. These totaled 22,000, 32,000, and 115,000 rupees, respectively. Rajeshri received a provident fund payment of 60,000 rupees after her second husband died from an accident suffered at the mill where he used to work. These lump sum payments have helped position these households to cover immediate expenses, to make business investments, or to prepare for future financial needs, as follows.

Ayesha and her husband used his worker’s compensation of 22,000 rupees, together with loans totaling 35,000 rupees, to purchase their store–cum–residence. Hemlata and her husband deposited most of his worker’s compensation – 28,000 out of a total of 32,000 rupees – in fixed deposit accounts at two different banks. They invested the balance, 4,000 rupees, in his business, which at the time was selling soap powders and detergents. In 1998, they withdrew 8,000 rupees from one of their fixed deposit accounts to install a toilet and bathroom next to their home. More recently, in late 1999, they had to withdraw another 6,000 rupees and take a loan of 12,000 rupees (at 6% per annum) to pay for his throat surgery and medical treatment. Nirmala and her husband had to spend nearly half (50,000 rupees) of his worker’s compensation to marry his two sisters but were able to invest the rest (65,000 rupees), together with a loan of 20,000 rupees, to buy their four–room house. Rajeshri used half of her husband’s provident fund to pay for death ceremonies and the other half to pay for the marriage of her eldest stepson. Without the provident fund payment, she might have had to go seriously into debt to meet these expenses.

Reducing Expenditures: Although none of the case study households have had to make drastic cuts in food consumption or drastic changes in diet in recent years, several have had to reduce food consumption when they suffered a temporary loss of income. For instance, at least two bidi–rollers (Hemlata and Nirmala) had to reduce their household’s food consumption when their work was suspended or disrupted during the bidi strike and lock–out in late 1999. Also, several street vendors had to reduce their food consumption when their work was suspended or disrupted during the price hikes and market disturbances in late 1998 (see Sections 2 and 3 for details of the recent disturbances in the bidi rolling and vegetable vending sectors).

Increasing Workload or Mobilizing Family Labor: Increasing earnings or output – by working longer hours or putting children to work – does not seem possible in all trades. Some of the bidi-rollers have been able to increase their earnings by increasing their own hours of work or having their children join them in production. Given the prevailing competition in street vending, it is not clear whether increasing selling hours would lead to increased sales. Given that work orders appear to be so irregular and uncertain in sub-contract garment making, there seems to be limited scope to get additional work.

Diversifying Income Sources: Diversifying income sources is a common household strategy both to smooth income and to smooth consumption. Whereas several of the case study households have developed a diversified income portfolio to compensate for seasonal fluctuations in their main occupations, at least one household was forced to diversify their income sources in order to repay outstanding debts (see Box 6.12).

Pawning, Mortgaging, or Selling Assets: To cope with financial crises, households often have to pawn, mortgage, or sell assets. One case study household mortgaged assets shortly before the Round 1 survey; while another mortgaged assets and two households sold assets between the two survey rounds. In 1997, Jyoti had to mortgage a gold bangle and a pair of gold earrings to cover the emergency medical bill (Rs. 6000) when her husband met with an accident. In early 2001, the last time we met her, Jyoti had still not redeemed the jewelry. Sangeeta's daughter-in-law mortgaged a gold armlet (weighing 1 tola of gold) to buy a pushcart. The police had confiscated her old pushcart, which she used in her fruit vending business.

BOX 6.12 – TRYING TO COPE WITH ACCUMULATED DEBT

In 1992, Nirmala's husband lost his job at a textile mill. Since then, he has struggled to earn a living. Initially he worked in several powerloom factories. Then he started selling bags of various kinds – hand bags, school bags, briefcases – in different neighborhoods. Due to increasing competition in his line of trade, his earnings began to decrease from 3,000 rupees per month in 1998 to 1,000 rupees per month in 2000. Meanwhile, since 1996, they had accumulated significant debt having taken out several loans totaling 115,000 rupees: including loans to replace a stock of bags burnt in a small fire at their home, to pay for his medical bills and lost income when he fell ill with cerebral malaria, to pay for food when Nirmala's work was suspended during the bidi lockout and strike, to repay a loan taken by a friend for whom they had stood guarantee, and to cover the travel costs and lost income during an unsuccessful match-making trip to Andhra Pradesh (their natal home) to find a groom for their daughter.

In late 1999, Nirmala's husband began selling incense sticks to supplement what he earned from selling bags. He would sell expensive varieties of incense-sticks every morning to supplement what he earns from selling bags every evening. Over a two-week period in early 2000, he averaged a net profit of only 50 rupees per day (or Rs. 1,250 per month) from selling incense sticks. But he was confident that he would be able to earn about 3,000 rupees per month in this new line of trade. "If God is good," he commented, "we will buy an auto-rickshaw for me to use in selling incense-sticks." In late 1999, he also tried his hand at selling machine-knit sweaters. But he was only able to break even selling the 25,000 rupees worth of sweaters that he had purchased and decided not to reinvest in that line of trade.

Despite his efforts to diversify and expand his trade, and despite the fact that their son recently got a job in a diamond-polishing factory where he earns 3–4,000 rupees per month, Nirmala and her husband were unable to get out of their spiraling burden of debt and were forced to put their house up for sale in mid-1999. When they got an offer of only 175,000 rupees for the house, they had to reconsider whether to sell. They felt that their house was worth more than 175,000 rupees and knew that they would not be able to find a decent place for a family of six to live for that amount. When a friend of theirs came to visit and noticed the "for sale" sign, he offered to lend them some money without interest. He was returning an earlier favor as Nirmala's husband had helped him out when he was quite poor. Another friend also offered to loan them some money without interest.

The two friends loaned them a total of 100,000 rupees without interest. As collateral, Nirmala's husband gave them each a signed blank check. When we interviewed Nirmala in early 2000, he proudly showed us the two blank check stubs in his check book. In order to be able to repay his friends, Nirmala's husband planned to join a 40-person rotating savings and loan scheme with shares worth 2,500 rupees each. As he related to us why they nearly sold their house and how their friends had come to their rescue, there were tears in his eyes. A devout Hindu, Nirmala's husband planned to go on pilgrimage to Tirupathi, a famous temple site in South India, to pay homage to his favorite god Venkateshwar (an avatar of Vishnu). Several times during our interview with them, he commented: "God has been good to us. God saved us." We left that interview with Nirmala and her husband feeling worried that the rotating savings and loan scheme might fail or that his friends might misuse the trust he placed in them and encash the signed blank checks. But they were optimistic. He hoped they would be able to buy him an auto rickshaw from which to peddle his wares. He had an even bigger dream: to migrate to South Africa to work in a textile mill. He has applied for a job there and spent 500 rupees to get a passport.

Pushpa's extended family sold some gold jewelry to pay for their fancy new home, while Hemalata sold a pair of gold earrings to cover medical expenses.¹³⁵

What are the implications of the case study findings for our understanding of the resources and activities – and the interactive flows between them – of low-income households in this setting? In terms of financial assets, formal sources of financial services are extremely rare and informal sources, although common, are expensive or risky. In terms of human assets, the education levels of household members, the dependency ratio of the households, and the presence (or absence) of adult male earners are important variables. In terms of physical assets, housing stock – as a workplace, a rental unit, and a residence – appears to be as or more important than enterprise assets. Other than sewing machines, women own very few costly enterprise assets. The men of the case study households own a narrow range of equipment – notably, embroidery and hemming machines – and means of transport – bicycles, push carts, and (rarely) auto rickshaws. In terms of social assets, non-reciprocal support is not guaranteed and reciprocal support is inadequate.

More critically, social assets come at a heavy price: namely, restrictive social rules and norms that govern what individual behavior, including what types of work they can do. For this reason, and given recent economic trends in Ahmedabad city, the sample respondents and the other members of their households face a narrow choice of occupations and limited mobility between or beyond them. The members of the sample household are concentrated in the following occupations: self-employment in trade (mainly street trade and some storefront trade); self-employment and sub-contract work in garment and textile manufacturing; transport services (ranging from auto rickshaws to pull carts to head loading); and construction work. Within these occupations, as noted earlier, women are concentrated in the less remunerative employment statuses (own account, sub-contracting, and casual wage work).

On the one hand, investment opportunities are limited. This is because competition and crowding in most occupations limits how much a person can grow her or his business. This is also because the tools and equipment used in most occupations are rudimentary. A great deal of investment, therefore, goes into housing stock. On the other hand, the pressure to use loans and savings to smooth consumption is unlimited. This is because low-income households face a significant exposure to risk and have little access to public social protection, private insurance, or other mechanisms to deal with risks and financial needs. Given these constraints, the income and other financial resources available to the household – whether from earnings, loans, or savings – are used interchangeably for both production and consumption activities and, in response to risk, as both preventive and response strategies.

D. A Virtuous or Vicious Cycle?

As the case study findings suggest, the level of resources and range of opportunities available to low-income working families in Ahmedabad makes earning a decent living quite difficult. Compounding their day-to-day struggle to secure livelihoods, the case study households have to face numerous risks or contingencies with few financial resources. They have little access to formal institutional sources of credit, savings, and insurance and existing informal systems for

¹³⁵ In Round 1 of the survey, 62 out of 900 households (6.8%) reported pawning, renting, or selling assets as a means of coping with financial crises during the prior two-year period.

credit, savings, and insurance, both individual and collective, are simply not adequate to meet their needs.

The case study households manage as best they can: saving in different ways or places; taking loans as needed from multiple informal sources; and joining informal insurance schemes as needed or available.¹³⁶ Because they repeatedly need lump sums of money – of different sizes and for different purposes – in excess of what they are able to save up, they borrow money on a regular basis from different sources. They use some loans to pay for emergencies or life cycle events, use other loans to make investments; and use still other loans to repay previous loans. Some observers view this continuous cycle of saving, borrowing, spending, and repaying as a **vicious cycle** that demonstrates how poor households cope with risk; other observers view this cycle as a **virtuous circle** that demonstrates how poor households manage their money (Rutherford 2000).

Our analysis of financial and risk management by the case study households suggests that reality, at least in poorer neighborhoods of Ahmedabad, is more complex than either of these perspectives would suggest. We found that most of the case study households managed their cycle of saving, borrowing, and spending quite well, displaying either **discipline** in planning for predictable expenses or **resilience** in responding to unexpected emergencies. However, two of the households were not able to control the cycle and veered into a spiral of indebtedness. Refer to Box 6.13 (on the next page) for a summary of what happened to each of the twelve case study households just before and during the period covered by this study (1998–2000).

¹³⁶ Or, to use Rutherford's terminology, the case study households save down, save up, and save through (Rutherford 2000).

BOX 6.13 – VIRTUOUS OR VICIOUS CYCLE?

All of the case study households have to manage a cycle of saving, borrowing, and spending to meet their daily needs and to face periodic contingencies. Whether this cycle turns out to be vicious or virtuous depends on the particular mix of resource and activities available to each household and the particular mix of risks and contingencies they face, as follows:

Virtuous Cycle –

Two households – those of Sangeeta and Pushpa – managed to turn the cycle of saving, borrowing, and spending into a virtuous circle. Both Sangeeta and Pushpa’s mother-in-law are long-time members of SEWA who have taken multiple loans from SEWA Bank. Sangeeta used her initial loans to expand her vegetable vending business and some of her later loans to build six one-room residential units on her property. Pushpa’s mother-in-law invested her loans from the SEWA Bank – as well as those taken by her daughters-in-law – in the family’s fish business, eventually acquiring a second shop on the western side of the city. More recently, they used SEWA Bank loans to help finance the construction of a large house for their large extended family. Both profited over the years from separate contracts negotiated in the mid-1980s by SEWA Union to supply vegetables and eggs, respectively, to local government hospitals.

Two other households – those of Ayesha and Radhika – managed to make the cycle work to their advantage. Ayesha and her husband used his worker’s compensation and two large loans to invest in a provision store-cum-residence and two loans from SEWA Bank to invest in stock for the store. Radhika and her husband were able to save and borrow enough to buy a tailoring shop, to build an addition to their home, and to marry three children in the past several years. They had a modest head start as they inherited their own one-room house from his family and he worked as a semi-permanent employee in a garment factory for some years, earning reasonably good wages and some benefits.

Jyoti and her husband appeared likely to make the cycle work to their advantage, especially if she could secure steady work in construction or diamond-polishing. Although he has steady earnings only eight months a year and she was an unpaid trainee in a diamond factory for six months in 1999, they managed to spend quite a bit to improve their house and invest in household appliances without going into severe debt. Although he buys a lot on credit, Jyoti’s husband never buys a second item until he has paid for the first. They appear to be good financial planners. When Jyoti is working, they try to save what he earns. They have put some of their savings in a fixed deposit account that will be worth 45,000 rupees in ten years and has been earmarked for their eldest daughter’s wedding. They have recently taken out five life insurance policies, one for each of them at the SEWA Bank and one for each of their three sons, with an insurance company.

Once Virtuous Cycle –

Although their future prospects remain uncertain, two other households – those of Shaheen and Anita – made the cycle work to their advantage in the past. Although his earnings vary significantly across any given year and her garment business has been disrupted in recent years due to a temporary move and a recent health condition, Anita and her husband have managed to save reasonably well. Despite spending 50,000 rupees on the marriage of their elder son two years ago, they have saved 15,000 rupees in two fixed deposit accounts – one at SEWA Bank, the other through the Post Office – and 3,500 rupees in a current account at SEWA Bank. To pay for their daughter’s wedding in early 2000, they borrowed 20,000 rupees (Rs. 15,000 from SEWA Bank and 5,000 rupees from moneylenders) and withdrew 5,000 rupees from their Post Office account. But they redeposited the balance of that account – another 5,000 rupees – in a new fixed deposit account with a 6.5 year term. In addition, they have two fixed deposit accounts – totaling 18,000 rupees – at SEWA Bank, which will mature in 2002. Through all of 2000, their main worry and a major drain on the household budget was Anita’s undiagnosed and debilitating stomach ailment. By early 2001, Anita had resumed housework and was hoping to resume tailoring. Shaheen and her husband have also saved, borrowed, and invested wisely. Unlike the other case study families, they had a head start: Shaheen’s husband inherited his used tire business, including know-how and contacts, as well as a substantial amount of money (over 150,000 rupees) from his father. However, their luck seems to have run out: Shaheen’s husband and their elder son, who jointly run the used tire business, report a recession in the used tire industry. Their second son, who had a temporary job in a bank, now works in a tire repair workshop. Their third son, who ran a gold embroidery business, was cheated by a wholesale trader, who took 20,000 rupees worth of goods without paying for them, and was forced to close his business due to changing tastes and demand in the garment market. Finally, Shaheen had to give up her garment-making business due to failing health (she has diabetes).

Two other households – those of Rajeshri and Hemlata – appeared to be losing control over the cycle of saving, borrowing, and spending. Rajeshri had been emotionally and financially drained by the premature deaths of her second husband, a stepson, and a daughter; the marriage of one stepson who lives separately; and the migration to Mumbai of the other step-son who used to provide support. Then, around 1999, her tailoring business began to falter. By late 2000, she had stopped tailoring and was living off what her son and step-son earned and what little she could earn by selling provisions from her house and embroidering leather sandals for a neighborhood cobbler. Unless she can revitalize her tailoring business, her future seems uncertain. She faces the costs of marrying her son and stepson and the worry of whether one or both will move out once they are married. Hemlata and her husband were doing modestly well, having invested in his onion vending business. But then he developed a growth on his throat that gradually debilitated him and eventually required surgery. For eighteen months, their family had to live off Hemlata’s meagre earnings from rolling bidis. During that time, they had to use all of their savings and go into debt to cover his medical bills. In late 2000, having resumed most of his strength but not all of his voice, Hemlata’s husband took a job as a night watchman. He earns less now than he did before his surgery.

BOX 6.13 (cont'd)

Once Vicious Cycle –

One household – that of Gayatri – almost lost control over the cycle of saving, borrowing, and spending due to her husband's addiction gambles away most of what he earns. Once her three sons began to earn, however, Gayatri's fortune took a turn for the better. But then she her eldest son had to face the anxiety and costs associated with his heart surgery. Because they were able to raise 40,000 rupees in donations; the hospital waived 10,000 rupees off its bill, they were able to weather that crisis without going significantly into debt. Once her eldest recovered from his surgery and returned to work in a computer firm and her youngest son found a semi-permanent job as a message boy brokerage firm, Gayatri's prospects, and those of her children, looked more hopeful.

Vicious Cycle –

Finally, two households – those of Divi and Nirmala – have fallen into a vicious cycle of indebtedness, albeit for quite different reasons and with quite different prospects of getting out of debt. Nirmala, her husband, and their eldest son all earn. They fell into debt because of unexpected emergencies that cost them 30,000 rupees in total: a fire in their house destroyed 10,000 rupees worth of goods; and a friend absconded without repaying the 10,000 rupees he owed them and leaving them responsible for paying another loan of 10,000 rupees. According to Nirmala's husband, it was this friend's action that started them down the slippery slope of indebtedness. Fortunately, two other friends may help them get out of the debt trap: each of them has given interest free loans of 50,000 rupees to Nirmala and her husband 50,000 rupees. Divi, on other hand, has no such hopes. Her husband spends all that he earns on drink; their two unmarried sons earn very little. To buy and repair their house and to buy a bicycle cart for her sons, Divi has accumulated over 70,000 rupees debt in recent years: this amount is more than what she and her sons can earn in two years. In addition, she owes more than 8,000 rupees to several traders in the wholesale vegetable market.

In sum, the case study households demonstrate that the common cycle of saving, borrowing, spending, and repaying may be either vicious or virtuous. None of the case study households appear particularly prone to risks, except the two in which the husbands are addicted to, respectively, drink and gambling. The expenses for which all of the households saved or had to borrow are fairly common ones: housing, schooling, medical, wedding, and business expenses. Whether the households were able to respond effectively – to either common expenditures or unexpected crises – depended largely on whether they had sufficient income or resources.

However, a few households suffered crises that drained their resources: notably, loss of income earners due to premature death, chronic illness, or migration; loss of physical resources to fire; and loss of financial resources to fraud. Also, most of the case study households have experienced disruptions, downturns, or closures of one or more of their income sources. There are retrenched mill workers in three of the case study households; all of them have suffered a decrease in wages since losing their jobs in the mills. There are street vendors in six of the case study households; most of them suffer periodic disruptions in their work due to harassment by the police or municipal authorities. After a change in the market fee structure of the wholesale markets, all of the vegetable and fruit vendors had to absorb a 10 per cent mark-up on the goods they purchased from the wholesale traders unless (and until) they were able to charge higher prices to their customers. During the lockout and strike in the bidi industry in 1999, three of the four bidi workers suffered temporary closures of their bidi-rolling: the fourth worked for a contractor who continued to provide work during the lockout and strike. Finally, sub-contract garment-makers in two households had experienced a slowdown in work orders and self-employed garment-makers in two other households had to close their businesses altogether due, they said, to changing tastes and demand in the garment industry.

Ultimately, given that they all face a common set of risks and a common lack of access to formal financial instruments, the prospects of low-income working households in Ahmedabad are tied to the dynamics and trends in the occupations or trades from which they earn their livelihood. Before the textile mills for which Ahmedabad was once famous began to close, many working class households enjoyed at least one source of permanent salaried work with benefits. In many

of the textile mill worker households, the women rolled bidis or incense sticks or stitched garments to supplement what the men earned in the mills. Once the mills started closing, the once-supplemental activities of the woman became the one steady source of income in many of these households while the retrenched mill workers tried to find alternative sources of income. To do so, the 100,000 or so retrenched mill workers in Ahmedabad have had to compete for semi-permanent jobs in various other industries, for casual wage work in construction or other labor-intensive occupations, or for their market share in street vending or trade. In early 2001, as we completed this study, the prospects for the retrenched mill workers and those they have had to compete with for wage work or self-employment remained uncertain. In the short-run, many of their occupations were experiencing downturns that were attributed, in part, to three years of widespread drought in many parts of Gujarat (1998–2001). This situation was expected to be exacerbated by the economic toll of the massive earthquake that shook Ahmedabad, several other cities and towns, and countless villages in Gujarat in January 2001.

In Ahmedabad, the largest losses of property and life were suffered by middle class families on the western side of the city, where many new high-rise buildings collapsed. About one month after the earthquake, our research colleagues from the Taleem Foundation revisited the case study households. None of them had suffered property damage or loss of life, but all of them had suffered economically. For three to four days after the earthquake, virtually all economic activities had ceased. One month after the quake, many economic units had not yet reopened due to structural damage to the buildings in which they were housed and many individuals whose workplaces had not been affected continued to work shorter hours in order to return home before nightfall. Some of the sub-contract workers, both bidi and garment workers, reported that they had received fewer or smaller work orders because their contractors had lost stock (stored in the basements of high-rise buildings that collapsed) or were unwilling to replenish stock (due to repeated aftershocks). The transport of goods had also slowed because many trucks were diverted to the relief effort and the convoys of relief trucks slowed traffic on the roads.

Many of the case study households expressed concern that the economic downturn (**mandi**) in their occupations that they had experienced in the past several years, which they attributed in part to the prevailing drought conditions in rural Gujarat, would only get worse in the aftermath of the earthquake. SEWA staff, among the first to mount relief efforts in the rural areas, documented the impact of the earthquake in three rural districts of Gujarat. The earthquake shook about 140 or so villages where SEWA works. In those villages, there was little loss of life, as villagers were able to rush out of their simple single-story houses, but massive loss of property. Having watched their houses collapse in front of their eyes, burying all of their household goods and the fodder and other stock stored in their homes, many of the rural SEWA members soon discovered that they had lost other productive assets as well. Irrigation wells had caved in and tools and equipment had been damaged. In the desert area where SEWA works, two sources of livelihood were badly damaged: salt pans had cracked, damaging the salt crystals, and brine wells had caved in.

The economic toll of the earthquake on rural and urban livelihoods in Gujarat, particularly of low-income households, will continue to be experienced in various direct and indirect ways over the next several years. Clearly, there are limitations to the financial strategies and mechanisms available to the sample households, and other low-income households, in coping with

widespread co-variate risks such as earthquakes. Because it is a multi-faceted and multi-service organization, SEWA has begun to provide a range of financial and non-financial services to help its members cope with the earthquake and its aftermath.

Section 7 – Case Study Respondents: Balancing Household Needs, Individual Self-Interest, and Worker Solidarity

Most proponents of microfinance make one or both of the following claims about the efficacy of microfinancial services: that they help to alleviate poverty or that they help to empower women. So far in this report, we have detailed our findings in regard to the first claim. In what follows, we discuss what our findings suggest about the second claim and about women’s empowerment more generally. The questions we address are what kinds of changes in their lives do the case study respondents want and whether the microfinancial services of SEWA Bank serve to empower women both economically and socio-politically. To set the stage for this discussion, we begin with a brief summary of the debate and literature on the links between microfinance and women’s empowerment and a brief description of SEWA’s approach to women’s empowerment. We then present what the case study respondents had to say about the role of SEWA in their lives and about several key dimensions of women’s empowerment, including material wellbeing and economic security, individual voice and agency within family and community, and collective voice and agency in the wider environment.

A. Microfinance, Poverty Alleviation, and Women’s Empowerment

A.1. Alternative Schools of Thought

In the international development community, there are three basic schools of thought regarding the links between microfinance and women’s empowerment: what we call the poverty reduction school, the women’s empowerment school, and the feminist critique school.¹³⁷ According to the poverty reduction school, poverty reduction and women’s empowerment are the twin outcomes of targeting microfinancial services to women. Those who subscribe to this school believe that microfinancial services serve to increase women’s income and wellbeing, and thereby to enable women to negotiate more equitable relationships within their families and communities. According to the women’s empowerment school, microfinancial services are an entry point into a wider strategy for women’s economic and socio-political empowerment. Those who subscribe to this model, including SEWA, argue that microfinancial services should be complemented by – but also can serve to reinforce – wider strategies to organize, support, and promote women. According to many feminist critics, microfinancial services may force women into unwanted debt or reinforce existing inequalities between men and women unless fundamental structural inequalities between women and men are addressed. Some of the feminist critics also argue that microfinancial services often distract funds and attention from, and thereby undermine, other efforts to empower women.

¹³⁷ Our formulation of opposing schools of thought draws on but differs from Linda Mayoux’s typology of three different microfinance paradigms: financial self-sustainability; poverty alleviation; and feminist empowerment (Mayoux 2000). To begin with, we acknowledge but do not discuss here the financial self-sustainability school of thought. This is because we want to focus attention on different ways of thinking about the links between microfinance, poverty alleviation, and women’s empowerment. Second, we draw what we consider to be an important distinction between a women’s empowerment approach to microfinance (as in the case of SEWA) and the feminist critique of microfinance.

A.2. SEWA's Empowerment Approach

What is SEWA's approach to women's empowerment? SEWA is first and foremost a trade union that engages in collective bargaining and other union-type strategies – what SEWA calls “struggles”. While organizing for collective strength and bargaining power is the central strategy of SEWA, the sister institutions in SEWA serve to provide essential support services – what it calls “development” – to its members. The savings, credit, and insurance services offered by SEWA Bank are seen by SEWA as an essential part of its integrated strategy to create assets for, build the capacity of, and provide social security to its members.

Another feature of SEWA, one that distinguishes it from many non-governmental organizations, is that SEWA is a membership organization. While the SEWA Union is a registered trade union, SEWA Bank is a registered cooperative bank. The shareholders of SEWA Bank are its borrowers and savers; the staff of SEWA Bank are women, both middle class women and low-income women chosen from among the Union members; and 9 out of 15 trustees of the SEWA Bank are elected representatives of the member-shareholders. Unlike many microfinance programs targeted at women, SEWA Bank does not use a group mechanism for loan disbursement and repayment in Ahmedabad.¹³⁸ The organizing of SEWA Bank's urban clients – all of whom are also members of the SEWA Union – is done by the Union.

In brief, SEWA's approach to women's empowerment includes organizing and collective bargaining supported by the delivery of essential support services. Because SEWA is a membership organization, the needs and priorities of its members shape the direction and goals of the organization. What then are the overall goals or objectives of SEWA's members? The SEWA members have identified ten goals – what SEWA calls “Ten Points or Questions” – for the organization (see Box 7.1). Five of these goals relate to basic economic security: increased employment, increased income, adequate food and nutrition, health care, and child care. Three relate to individual or collective voice and agency: strong worker's organizations, increased workers' leadership, and increased collective and individual self-reliance. One relates to gender equity: assets in women's own names. SEWA groups these ten goals under two overarching goals: what it calls “full employment” (goals 1–7) and “self-reliance” (goals 8–10). What

BOX 7.1 – SEWA'S TEN POINTS

The following ten concerns have emerged from the members of SEWA and continue to serve as SEWA's goals and, in the form of questions, as benchmarks of SEWA's work:

1. Increased Employment – have more members obtained more employment?
2. Increased Income – has their income increased?
3. Improved Food and Nutrition – have they obtained adequate food and nutrition?
4. Improved Health – has their health been safeguarded?
5. Improved Child Care – have they obtained child care?
6. Improved Housing – have they obtained or improved their housing?
7. Increased Assets – have the assets in their own names – savings, land, house, cattle, workspace, tools, licenses, identity cards, cooperative shares – increased?
8. Strong Workers' Organizations – has the workers' organizational strength increased?
9. Strong Workers' Leadership – has workers' leadership increased?
10. Increased Self-Reliance – have they become self-reliant both individually and collectively?

¹³⁸ In the rural areas of Gujarat, the SEWA Bank operates through local savings and credit groups.

distinguishes SEWA's approach to women's empowerment is that it focuses primarily on women's identity, roles, and relationships as workers in the economic sphere of their lives.

B. Measuring Women's Empowerment

The alternative assessments of the empowerment potential of microfinance, described briefly above, are based not only on ideological perspectives but also on empirical studies. This is not the time or place to present a review of these studies. Refer to Naila Kabeer (1998) for an insightful review of selected negative and positive assessments of microfinancial services in Bangladesh. Kabeer argues that the contradictory conclusions of these studies reflect a variety of factors, including "conflicting empirical findings" and "conflicting interpretations given to often similar evidence" (Kabeer 1998: 12–13). What accounts for the differing judgements embodied in the two sets of evaluations? Kabeer argues that very different underlying models of power largely account for this difference. According to Kabeer, the negative evaluations tend to base their analysis on "the processes of loan use and management" and to equate women's empowerment with individualized forms of control: notably, control over the decisions of whether to take a loan, how to use the loan, and what to do with the proceeds (Ibid.: 13). Whereas the positive studies tend to focus on "outcomes associated with, and attributable to, loan access" and incorporate forms of joint decisions within the home with husbands or other members of the family and joint actions outside the home with other women as indicators of empowerment (Ibid.:13). Staking a middle ground between the positive and negative assessments of the relationship between microfinance and women's empowerment, Kabeer recommends using empowerment indicators that are derived from the lived experiences of the women who are being studied and incorporate their voices and perspectives on impact and empowerment (Ibid.).

Because our study was designed to measure impact at the household, enterprise, and individual levels, we could not devote sufficient time in either the survey questionnaires or the case study interviews to a proper understanding of women's empowerment. Our efforts to get a quantitative indication of the extent of different "empowerment" impacts of the SEWA Bank through our survey questionnaire were only modestly successful. We included three sets of individual-level questions in the survey. The first set of questions relates to the processes of loan use and management. Who took the decisions – the borrower herself, the borrower jointly with others, or others – whether to apply for the loan, how to use the loan, and how to use the profits, if any, from the loan utilization? These questions were asked only of borrowers from the Bank (not the other sample groups). In Round 1 of the survey, they were asked of all borrowers. In Round 2, they were asked of those who had taken a second loan since the Round 1 survey. The other two sets of questions related to possible outcomes of taking loans from the SEWA Bank. Do the women receive increased respect from other members of their households and communities? Do Bank clients take more future oriented actions and have greater confidence in their ability to deal with the future? We were able to ask these questions of all three sample groups – borrowers, savers, and controls – in both rounds of the survey.

Our efforts to get a qualitative indication of the extent of different empowerment impacts through our case studies proved somewhat more successful. In our interviews with the case study respondents, we focused on three sets of issues: the economic history of the household; the

financial and risk management strategies of the household, including crisis events and coping strategies; and the respondent's individual perspective on changes in her own life, and that of her family, and the role of SEWA Bank and SEWA more generally in her life and work. Most of the case study respondents were able to report the net monthly earnings from all sources of income in the household over the past year and detail expenditures, including the sources of financing, on major events or crisis over the past several years. A few did not know the exact details of their husband's or their son's enterprises, but they did have a sense of what proportion of total earnings their husband or son contributed to the household budget. Virtually all the respondents were able to readily calculate the average daily or monthly living costs of their household and the majority managed the daily cash flow in their households. For instance, Jyoti manages their daily needs from her earnings while her husband uses his earnings to buy luxury items for the house:

“We spend about 60 rupees per day on perishables. I keep money in the house to cover these expenses. In the morning, the milk pouch costs Rs. 6.50. In the evening, I buy 250 grams of oil for Rs. 12, 500 grams of sugar for Rs. 8, 50 grams of tea for Rs. 8, and about 500 grams of vegetables. These often do not last until the next evening. Then, the children want things when they get home from school. These days, what can you buy for one rupee? Their father gives them some money – 5 rupees or so – in the morning. Then, when I get home I have to buy them something for 2–5 rupees. It is something different every day – berries, guavas, a balloon. Since I leave our small son at home all day, I have to purchase milk for him. If I earn 60 rupees, I save 1–2 rupees in a piggy bank – otherwise that will also get spent. If I make regular deposits, I can save 50 rupees or so a month. I have broken the piggy bank three times so far. Once when I needed money to go to my home village. Another time when our son was sick with a fever – I had to stay home from work so I broke the piggy bank to have money to pay for our expenses. Another time I broke the piggy bank just to have more money to spend. Since I keep the money at home, I am tempted to take it out to run the house. I will ask the Ben (“sister”, term used for SEWA organizers) about depositing the savings in my name at the Bank.”

When we asked the women about changes in their lives, it proved difficult to isolate whether these changes were due to their involvement with SEWA Bank per se. This is partly because all of the case study respondents, like all of the SEWA Bank clients, were economically active before joining SEWA Bank. Some of the changes associated with being economically active and contributing to the household budget may have begun before the case study respondent opened her savings account or took her first loan from the SEWA Bank. This is also because, many of the case study respondents, like many women in the total sample, have benefited from the “struggles” of the SEWA Union on behalf of various occupation groups in Ahmedabad, whether or not they participated in these “struggles”. Nonetheless, our findings offer some insights on what empowerment means in the lives of low-income working women in Ahmedabad city; how such women view empowerment; and the role of SEWA Bank and the SEWA Union in this process.

One final introductory comment before we present our findings on women’s empowerment. The members of SEWA, including the Bank clients, do not participate equally in the SEWA Union. As noted earlier, it is useful to think of the members of the SEWA Union as belonging to four concentric circles, depending on the intensity of their participation in the SEWA Union. In the inner circle are the elected members of the Trade Council and Executive Committee, the local leaders and organizers, and the older founding members of the SEWA Union.¹³⁹ In the second circle are the active members in the SEWA Union – women who attend monthly trade group meetings, take part in various SEWA-led protests and negotiations, and take advantage of SEWA’s various support services. In the third circle are women who take advantage of various support services offered by SEWA – including child care, health care, and skill or awareness training – and participate periodically in SEWA Union meetings. In the outer circle are women who have opened savings accounts and may have taken loans from the SEWA Bank but have not participated in other activities or services of SEWA.

BOX 7.2 – CASE STUDY RESPONDENTS BY INTENSITY OF PARTICIPATION IN SEWA

NUMBER OF LOANS FROM SEWA BANK:

- 1 = Divi, Hemlata, and Jyoti
- 2 = Ayesha, Gayatri, and Rajeshri
- 3 = Nirmala, Pushpa, and Shaheen
- 5 = Radhika
- 6 = Anita
- 11 = Sangeeta
- 12 = Pushpa’s mother-in-law

DEGREE OF PARTICIPATION IN SEWA:

- Leadership roles: Pushpa’s mother-in-law, Radhika, and Sangeeta
- Union participation: Anita, Hemlata, Nirmala, and Shaheen
- Non-Financial services: Ayesha, Gayatri, and Pushpa
- Bank services only: Jyoti, Divi, Rajeshri

When we designed this study, we did not have a clear understanding of these categories of membership and, in any case, had no way of establishing how many or which of the SEWA Bank clients fell into which circle. In our survey questionnaire, however, we asked the SEWA Bank clients which other support services or programs of SEWA they had participated in, whether they were members of the Union-organized trade groups or cooperatives, and whether they played leadership roles in the organization. Among our SEWA Bank sample, in the first round of the survey, only 1 per cent belonged to the inner circle, just over 2 per cent belonged to the middle two circles, and nearly 97 per cent belonged in the outer circle. By the second round of the survey, another 25 or so women had taken advantage of other SEWA services leaving 92 per cent in the outer circle. Among the case study respondents, the following pattern of participation emerged: two belong to the inner circle, four belong to the second circle, three belong to the third circle, and three belong to the outer circle. See Box 7.2 for the distribution of case study respondents by number of loans taken from the SEWA Bank and degree of participation in SEWA. When we discuss how the case study respondents view and experience empowerment, it is important to consider the intensity of each woman’s participation in the SEWA Bank and SEWA more generally.

¹³⁹ The structure of the SEWA Union is as follows: The general members of SEWA, who pay an annual membership fee of 5 rupees, are organized into trade groups that meet several times a year in different urban neighborhoods or rural villages. The leaders of the trade groups from different areas meet once a month at the SEWA head office or at a SEWA rural branch office. Every three years, the trade groups elect representatives to a Trade Council that, in 1999, was comprised of 393 elected leaders. This Trade Council then elects a 25-member Executive Committee.

C. Women's Economic Empowerment

What follows is what we heard from the case study respondents and found in the survey data in regard to several dimensions of women's empowerment: increased income and wellbeing, economic security, individual voice and agency, perceived contribution and respect, female mobility and social status, collective voice and agency. As noted earlier, we collected survey data on three dimensions of women's empowerment: individual agency and voice, perceived contribution or respect, and future-oriented activities and perceived capacity to deal with the future. We have qualitative findings from the case study interviews on all of the dimensions of empowerment listed above. Of course, the case study respondents do not parse their lives into discrete dimensions or talk about changes in their lives in abstract terms. Rather, they talk about concrete circumstances and changes and whether these are desirable or not. In what follows, we have included a number of direct quotations by the case study respondents in an attempt to capture what they had to say about the circumstances of – and changes in – their lives.

C.1. Increased Income and Wellbeing

“If you suffer pain, you have to learn how to cope. When my husband died, I had to learn how to earn two rupees more per day in order to survive.” – Sangeeta

“ Our life is such that we work and we eat, it is like that.” – Divi

“Our onion business earns us enough to eat and drink. Life is peaceful. My husband does not bother me to demand money. We have a good business. It runs well enough for the house. We do not have to beg for food and drink.” – Hemlata

“It is better now. When my husband used to work in the mill, then too we ate and drank easily enough. But now we can save. When he worked in the mill, we had to buy our provisions every month. But now we take our provisions from the store. In this business, we don't have to think about spending on provisions. We simply take them from the store. The difference is that now we can save. Now, if the children ask for anything, they can have it.” – Ayesha

These quotations reflect four different levels of income and wellbeing: financial crisis; bare survival; stable subsistence; and comfortable surplus. Widowed at a young age with nine young children to feed, Sangeeta took charge of her life and became a founding member of SEWA. Divi's family is the poorest and the most indebted of the case study households. Until her husband fell ill and had to give up vending onions, Hemalata and her family's life seemed quite secure. Although they are worried about paying for the marriages of their children, Ayesha and her husband are better off than when their children were young.

Clearly, all of the case study households aspire to increasing their income and improving their material wellbeing. The survey data suggest that borrower households were able to raise their average incomes more than the saver and control groups between the two rounds of the survey. However, not all of the borrower households enjoyed increased income. In terms of poverty status, one quarter of the SEWA Bank borrower households rose to a higher status between the two rounds of the survey, another quarter fell to a lower status, while half remained at the same level. Among the case study households, nine have been able to improve their economic status over the past decade or before. In six of these cases, the respondents credited SEWA Bank loans with helping them improve their situation. As Hemlata

explained to us: “We took the loan and then started our onion business. That is a gain, isn’t it? Since the business is running well, our household is also running well. By taking the loan, we have gained.” The survey data also suggest that borrowers who have taken multiple loans have been able to improve their economic situation more than those who have taken only one or two loans. In our case study sample, there are two founding members of SEWA: Sangeeta and Hansa (Pushpa’s mother-in-law). Their life stories illustrate the potential benefits of multiple loans from the SEWA Bank and active engagement in the SEWA Union (see Box 7.3).

BOX 7.3 – TWO SUCCESS STORIES

Widowed at a young age with nine young children to raise and marry off, Sangeeta took her first loan (500 rupees) from SEWA more than 25 years ago – before the Bank was formally established – to expand her vegetable vending business. She and Pushpa’s mother-in-law are the oldest members – and the only founding members – of SEWA in the case study households. Twenty-five years ago, the SEWA Union negotiated contracts for 140 women – including both Sangeeta and Hansa – to supply goods to government hospitals. Since then, Sangeeta and her family have supplied vegetables and Hansa and her family have supplied eggs to a government hospital on a daily basis. There is little doubt that the income from these supply contracts negotiated by the SEWA Union, multiple loans from SEWA Bank, and active participation in the SEWA Union have fundamentally shaped the lives of Sangeeta and Hansa (and their families). Both have prospered and built homes for their children. Both are known leaders within SEWA and within their communities. Each evening, after they return from their fish shop, Hansa and her husband “hold court” on the front stoop of their house that abuts a busy thoroughfare: a constant stream of neighbors and passers-by stop off to talk. Now retired from vegetable vending, Sangeeta remains an active organizer and recruiter for the SEWA Union.

Not all of the households have been able to hold onto past gains (see Box 6.13). Hemlata’s husband fell ill and needed an operation. Anita had to give up tailoring due to chronic stomach pain. Nirmala and her husband fell into debt because of several unexpected emergencies. Shaheen’s son had to give up his embroidery business due to fraud and competition in the market. Shaheen herself had to give up tailoring due to severe diabetes, and Shaheen’s husband faced a downturn in his line of work. In December 2000, Radhika’s husband died. These events or circumstances confirm what the case study households have long recognized: namely, that increased security of work is often as important as increased income.

C.2. Economic Security

While increases in income and wellbeing are desirable, what the case study respondents appeared to want above all was economic security for themselves and their families. From their perspective, economic security has several dimensions, including secure or regular work, freedom from unwanted debt, good health, and support in widowhood or old age.

C.2.a. Secure or Regular Work

“I can earn 70 rupees per day – less 8 rupees that I spend on transport – as a construction laborer. There would be no problem even at this wage, if the work were permanent. I have been working as a construction worker for 5 years. If work is there, then I work, otherwise not. Five days I get work, four days I have to sit at home. But daily I have to go to the recruitment point (**mandi**) to see whether there is work. I go at 6 in the morning and return by noon if there is no work. I would prefer to be at home than to sit idle at the mandi. Construction work is very demanding. I have to lift and carry heavy loads up ladders. My body gets tired as I have had a tubectomy. Also, I have five children to look after. I would like to get a job in a diamond–polishing factory where the work is more secure and less physically demanding.” – Jyoti

“My son used to work in another workshop where he earned higher wages. But the owner of that workshop had a reputation for firing workers at will. Where my son now works, this is not the case. They do not fire anyone. The factory is working well. They pay according to the output of each worker.” – Anita

“My sisters’ husbands are better placed. The husbands of both my sisters are working in a bank. So they have no worries.” – Gayatri

“Many of our distant relatives have jobs in the electricity board, the municipality, or in the Public Works Department. Regular jobs with the municipality are called ‘service’. My son-in-law works in a tea stall. This is not a regular job: they hire you for one month and then fire you. This cannot be called ‘service’. It is said: “First money, then ‘service’.” However, even if we pay money in advance, we do not necessarily get a ‘service’ job. In such cases, we lose both the money and the service. We may have had to borrow money on interest – that too will involve loss. I spoke to someone about getting a ‘service’ job for my sons. They demanded 10,000 rupees without guaranteeing a job.” – Divi

These quotations reflect the hierarchy of work opportunities in Ahmedabad by increasing degrees of security: from casual wage work to semi–permanent wage work to salaried jobs in the private sector and, finally, to salaried jobs in the public sector. Our survey data confirm that households that have at least one salaried worker enjoy higher average household incomes than households that have no salaried workers.

C.2.b. Freedom from Debt

“What to think about the future? We eat–drink, we earn money to meet the households expenses. If we have borrowed money from someone else, then we have to return that – even for that there is tension. Whatever we get from our labor, we have to spend.” – Divi

“Our household cannot run if we have to borrow money. If we are forced to borrow money from anybody, it will not work. We will not be able to sustain ourselves. From

what we get from my husband's vegetable vending business, we will have to meet our expenses." – Anita

"We are satisfied that we do not have any debt – even a single paisa (penny) worth – on our heads. We earn our own livelihood peacefully, eat and drink. We have that much peace." – Ayesha

These quotations reflect three levels of indebtedness. Divi and her family are the most indebted of the case study households. They owe more in outstanding loans to various creditors that they earn jointly in a year (see Box 7.4). When she gave up her tailoring business due to chronic illness, Anita recognized that they could not afford to go into debt as her husband's earnings from selling vegetables were barely enough to meet their expenses. Although Anita's married son and his family still live with them, they cannot count on his earnings. Ayesha and her husband are pleased to have repaid all of their outstanding debts. When we last met them, however, they planned to take another SEWA Bank loan to invest in stock for the store. They view business loans as capital, not debt. The survey data suggest that SEWA Bank loans are not used as substitutes for – but rather to supplement – loans from other sources. So long as borrowing remains the main financial instrument available to cover contingencies and investments, most of the case study households will remain indebted to multiple creditors. The real question, then, is whether they are free from unwanted debt.

C.2.c. Good Health

"It is God's mercy that I have not fallen sick so far. If I begin to feel unwell, then I get medicine – I take some pills." – Rajeshri

"Those of us who live off our labor cannot fall ill." – Divi's neighbor, a headloader in the wholesale vegetable market

As detailed in Section 6, illnesses and injuries often represent a "double jeopardy" to low-income working households. This is because the costs of medical care often prove to be

BOX 7.4 - IN DEBT OVER HER HEAD

For years, Divi and her family have been in debt over their heads. As of January 2001, they owed more than what they could jointly earn in a year. Because she is trapped in debt that she probably will never be able to pay off, Divi has to calculate which creditor to repay, how much, and when. In her calculation, the wholesale traders in the vegetable market can be played off against each other; her repayments to SEWA Bank can be postponed; but repayments to the moneylenders cannot be avoided:

"I owe money to so many big traders. I have to pay all of them. I owe one trader 2500-3000 rupees, twelve months have passed. I owe another trader 600 rupees. There are two or three others. When they demand repayment, I say: "I will pay, I will. What else can I say? This time I don't have money, then how can I pay? If I earn enough, only then I can pay. They approached me during Diwali and demanded repayment. I told them that I do not have money. They said: "Repay some amount." I told them I have no money and cannot pay. If I had money, I would have paid something back. For the last six months, they are regularly demanding repayment."

"One has to be bold to do this work. If one is not bold enough and defeated by poverty, then nobody will help. We have to live boldly with courage, otherwise these businessmen would not keep their money pending for even six months. They generally advance money for one week only, then submit a bill. Some businessmen demand payment in three days. They will not sell goods unless we repay the previous bill. We buy goods from other suppliers. In this way, we carry on our work."

"We pay or do not pay the wholesale traders. But the moneylender's interest has to be paid without fail."

disastrously high for such households. This is also because when breadwinners stop working due to illness or injury they also stop earning. Other than the few persons with salaried jobs, most of the working poor in Ahmedabad city are not entitled to paid sick leave or medical benefits – even those who work in semi-permanent jobs for single firms or units. Finally, this is because, as Divi’s neighbor implied in her statement, manual laborers depend upon the health of their bodies more than other workers. Refer to Box 6.9 for the impact of a medical emergency on one household that was doing reasonably well.

C.2.d. Support in Widowhood and Old Age

Except for two men in one family who have salaried jobs, none of the earning members of case study households have jobs or occupations that provide pensions or other forms of old age security. Except for the two most successful women (see Box 7.3), none of the working women in the case study sample earn enough to support their families in the event that their husbands died or left them. And yet the likelihood of widowhood is quite high: 50 per cent of women over 50 in India are widowed (Chen 2000). Under traditional social norms across many communities in India, sons are supposed to support elderly parents and widowed mothers. For these reasons, the premium placed on having sons is very high.

When asked who would support her when she is no longer able to work, Divi stated:

“I have two unmarried sons. Their wives will come, at least one of them will be good – not all daughters-in-law are bad. The younger son will live with me, I will stay with him. If my second son moves out, like his older brother, the younger one will be there with me. I’ll continue to work as long as I can. Then my sons might feel – or someone will scold them – that their mother cannot run her business anymore.”

When asked the same question, Jyoti said that her sons would support her and then, as if to reassure herself, noted how she and her husband were supporting his parents even though they live separately:

“They may not have us live with them but they will still be ours. Girls leave their homes when they marry. We stay separately from my in-laws but we are still repaying their debts. If we incur any debts, our sons will have to pay. And, in the future, if we are not around, they will look after their sisters also. The cousins will not. It makes a difference. When I go to my parents’ house, my brother looks after me better than my cousins do. So even if you have only one son, a son is a must.”

Given the likelihood of having to face one or more of these contingencies during their lifetimes, the case study respondents and their families do what they can to protect themselves. They might, we assumed, save, take preventive health measures, educate their children, make investments in their businesses, diversify their income sources, or take out insurance policies. They might also, we learned, build houses adjacent to their own for their married sons to live in. In our survey, we found that a high percentage of all respondents had taken one or two future-oriented activities and that the borrowers increased their number of provisions for the future between the two rounds of survey (see Section 5). We also found that a higher percentage of all respondents had taken future-oriented activities than felt they had the capacity to face the future

and that their self-confidence in regard to the future declined between rounds. Again, the borrowers were more confident of their ability to face the future than the other two groups.

C.3. Individual Voice and Agency

Some of the feminist critics of microfinance have focused on the degree of control that women clients have over the decisions regarding whether to take a loan, how to utilize the loan, and how to use the proceeds from the loan investment. In our survey, roughly one-third of the borrowers reported that they personally took the decision whether to take the last SEWA Bank loan and how to

BOX 7.5 – CASE STUDY HOUSEHOLDS BY MARITAL ARRANGEMENT

Two Widow-Headed Households: Rajeshri and Sangeeta

Two Conflictual Households: Divi and Gayatri

Eight Cooperative Households:

Male-headed: Ayesha, Hemlata, Jyoti, and Radhika

Female-headed: Pushpa (by her mother-in-law) and Shaheen

Jointly Run: Anita and Nirmala

use the loan. Another 60 percent or more said that they made these decisions jointly with others, usually their husband. Less than half of the borrowers did not respond to the question regarding who took the decision on how to use the proceeds or profits from the loan investment. The question was irrelevant to their situation for several reasons. First, less than half of the total amount borrowed from the SEWA Bank loans is for business purposes. Second, the profits (if any) from many of the business loans may not have been realized by the time of the survey. Finally, not all business investments are profitable. Of those who did respond to the question regarding the utilization of profits from the loan, over 40 per cent said they personally took the decision and the others said they made it jointly with others.

When we asked questions related to decision-making in the case study interviews, we got a nuanced picture of household decision-making. To begin with, it is important to distinguish how decision-making takes place within conflictual marriages and cooperative marriages (Kabeer 1998). In our case study sample, there are two conflictual marriages. In both cases, the husband is addicted (to drink and gambling respectively) and the wife has claimed a separate life for herself and her children within marriage. There are eight cooperative households, half headed de facto by the respondent herself and half headed by her husband.¹⁴⁰ In addition, there are two widows living with sons in the case study sample; both widows are the acknowledged heads and chief decision-makers of their households (see Box 7.5).

In both of the conflictual households, the wives have negotiated separate lives – managing on their own – for themselves and their children. In both cases, the sons have begun to earn in recent years. However, Gayatri’s three sons have better jobs and are generally more reliable than Divi’s two sons. Due to his addiction and behavior, the husband in each case has been somewhat marginalized. Both Gayatri and Divi have had to come to terms with their husband’s behavior: not to count on him, not to fret about his behavior, and, in an important sense, to move on (see Box 7.6).

¹⁴⁰ Some of these may represent what Amartya Sen has called “cooperative conflict” households in which the household members cooperate in taking decisions regarding household production or allocation of labor but may differ over – even contest – decisions regarding the distribution or allocation of resources within the household (Sen 1990).

C.3.a. Household Decision-Making

What is the pattern of decision-making in the cooperative households? Before we explore the qualitative evidence to answer this question, it is important to remember that slightly less than half of the total amount borrowed from SEWA Bank by the case study households was invested in (mainly male) businesses. One-quarter was spent on housing; and the other quarter was used to cover wedding expenses and repay old debt.

Loan Transfers to Male Enterprises: Among the women who live in cooperative households, the transfer of loans from the SEWA Bank to a husband's or a son's

business is not seen necessarily as a loss of control. Two of the women – Shaheen and Anita – are the acknowledged heads of their households. Since they control the finances in the household, both were less worried about where the income comes from than whether the men in the family pool all or most of their income. As Shaheen proudly stated, “I am in charge of finances in our household.” In her case, this status was earned over time only after she and her husband separated from her in-laws.

“My husband – my sons – they all listen to me. Now their father too listens to me. Now at this age, he listens to me. If he does not listen now, where will he go? All the household matters are in my hands – everything – even for weddings. It is all my responsibility. I tell my husband what is to be done and take his permission. He does not question my decisions. He is very good. He knows that his wife will not do anything wrong. And I still take his advice, I do not go out without his permission. I seek his advice before undertaking any work and I seek his permission before going out. Thank god there are no problems in the family; everything is fine. Their father is very good, so my sons are also good.”

BOX 7.6 – LIVING WITH ADDICTED HUSBANDS

Gayatri's husband is addicted to gambling; Divi's is addicted to alcohol. Neither husband can be counted on to contribute to the household. Fortunately, neither appears to be violent. However, both Gayatri and Divi have had to come to terms with their husband's addiction and to move on for their own sake and that of their children.

“He earns more but doesn't give the full amount. He drinks every evening. Why should I say “no” to his drinking? If a man has become addicted, then what should we do? Do we look good fighting every day? And yet he won't contribute to the household unless I fight with him. If he gave us his earnings, then what would we need. Fortunately, he doesn't get violent.” – Divi

“Sometimes he gives us 300–400 rupees in a week; sometimes only 200 rupees; sometimes nothing at all. The children get angry. But what can we do? We can survive because my sons are earning. There is now no worry as such. But I feel that the children have not progressed as far as they might have.” – Gayatri

“If I criticize him, he gets angry. He does not beat me. He is not that type. Outwardly, he is very soft and gentle. Nobody would guess that he is a gambler. No would realize what kind of man he is. He gives the impression of being a very straightforward man.” – Gayatri

“What is the point of telling him anything, when he does not listen to me? When a person has become addicted to gambling, he does not listen to anyone. How much can we scold him? Now that the children have grown up, what if the quarrel between my sons and their father turned violent? It is also a matter of prestige in our community. It is for the sake of our prestige that we do not fight in public. The anger of young sons can be bad and can lead to extreme circumstances. So we do not speak to him much. I also don't discuss the matter much with other people. My sisters know about his gambling ways and get very angry. But scolding a brother-in-law is not a good thing, so I don't tell them everything that happens. We have to live in our community.” – Gayatri

“He comes home when he does not have money to gamble away. Once he joins a VC and gets some funds, he will not come. When he goes away, we do not call the police. We know that as soon as he has spent all of his money, he will return on his own. Earlier, I didn't know what he was up to. Then, once when he did not pay his share in a VC scheme, some people came to us to demand the money. This is how we came to know about his gambling. He must have joined 5 or 6 VC schemes but has never given his family even five paisa (pennies) of what he got.” – Gayatri

Nirmala and her husband take joint decisions on virtually all household matters. Since she does not need a loan to invest in her bidi-rolling, Nirmala was pleased to be able to invest her loans in her husband's business vending bags and incense sticks.

“Why should I feel badly handing over my loan to my husband for his business? Both my husband and I do what we can to benefit our family. A household can run only if the husband and wife work together. I use my income to pay for our daily expenses. He gives me 50 rupees per day for other household expenditures. I save what he gives me to buy basic staples once a month – each month I have about 1500 rupees saved up. He uses his income to pay the loan interest, the electricity bill, our clothes, the children's medicines when they fall ill, and even for houseguests. He has no bad spending habits, he does not even chew beetlenut. I sometimes chew beetlenut but he never does. He saves what he can in SEWA Bank. I persuaded him that we should save in the Bank rather than take loans at 3 per cent interest per month. I told him that I would go to the Bank to withdraw the money whenever he needs it for purchasing goods for his business. I explained how this would be beneficial to us. He now deposits whatever he can save from his business in SEWA Bank.”

Pushpa hands over SEWA Bank loans to her mother-in-law to invest in the family fish business. As Pushpa no longer vends vegetables on a regular basis and her husband works in a bank, they do not need business loans themselves. Pushpa's mother-in-law Hansa, a founding member of SEWA, is the acknowledged head of their large extended family (see Box 7.3). The other four women – Jyoti, Hemlata, Radhika, and Ayesha – live in cooperative households run by their husbands. Jyoti manages the family's daily expenses from her earnings while her husband uses his earnings to spend on things for the house or to save. Over the past several years, he has bought a number of things for the house on credit: color TV, plastic chairs, steel cupboard, and, recently, a telephone. Jyoti seemed genuinely pleased with his spending habits. “If it were left to me,” she noted, “we would not have all of the things we have now.” Before her husband fell ill and had to give up vending onions, Hemlata used to assist him in the business, sorting onions at home. She always referred to the business as “our onion business”. Because she did not need to invest in the bidi-rolling, she invested her loan in “their” business. Radhika, another bidi-roller, invested her loan in her husband's tailoring business; and Ayesha, a sub-contract garment maker, invested her loan in the family store. As Ayesha put it, “His business is my business.”

The transfer of SEWA Bank loans to male businesses by the case study respondents is quite rational for several reasons. To begin with, all of the women were economically active before they joined the SEWA Bank, so they did not require start-up loans. Second, the terms of the SEWA Bank loans – medium size, with a three-year repayment schedule – precludes their effective use for small amounts of working capital. Third, there are few opportunities to invest significant amounts of money in existing female enterprises. As noted above, three of the women in cooperative households roll bidis on a sub-contract basis. They do not need capital to invest except when the contractors provide low-quality leaves and they have to buy replacement leaves on the open market to meet their quotas. Another three stitch garments. They need some capital to invest in electric sewing machines and to buy threads, needles, and machine oil. But they do not need recurring capital for stock as their contractors or their customers supply the cloth. One sells vegetables but not on a regular basis: when she does she takes the cash she

needs from her mother-in-law. The wife in the last of the eight cooperative households works as a construction worker. Finally, as described in Sections 2 and 6, there are few opportunities and too many constraints for women to switch to higher-return activities. Credit alone cannot overturn social norms that dictate who does what as reflected in the segmentation of labor markets by caste and gender.

Loan Transfers to Household Consumption: As noted earlier, over half of the loan amount taken from the SEWA Bank by the case study households was used for non-business purposes: 23 per cent for housing, 18 per cent for weddings, 10 per cent for repaying old debt, and 2 per cent to cover medical expenses. SEWA Bank endorses the use of loans for these purposes and has special loan products for housing and wedding expenses. The transfer of SEWA Bank loans to household needs is a rational decision on the part of the household given the cycle of saving, borrowing, and spending detailed in Section 6 and given the fact that SEWA Bank loans are less costly, at least in terms of interest rate, than other loans.

C.3.b. Joint Decision-Making, Loan Transfers, and Control

The question, then, is whether the women exercise control over the decision to invest their loans in household expenditures. In virtually all instances, the women indicated that they transferred the loan voluntarily after taking a joint decision with their husband. They simply did not draw a distinction between their own interests and the household's interests. However, several of the respondents did draw a line between the interests of their own nuclear family and that of their husband's or their own extended families. For instance, two respondents begrudged the fact that their husbands had to arrange and pay for the weddings of his younger siblings; and one respondent begrudged the fact that her sisters did not help her in providing food and other care to their elderly widowed father. Finally, as noted earlier, the case study respondents could readily recall how much was spent, including the source of financing, on major events or crises in their households over a 5–10 year period. They seemed to be both well-informed and directly involved in the decisions surrounding recent major events or crises in their households that had led to significant financial outlays. Most importantly, many of them expressed pride in being able to contribute to the family.

C.4. Perceived Contributions and Respect

C.4.a. Respect from Others

In our survey, we asked all of the respondents in the three sample groups whether other members of their households recognized and respected their economic contributions (see Section 5). In both rounds, the vast majority said yes. And, in both rounds, borrowers commanded slightly more self-perceived respect than savers, who in turn ranked slightly higher than controls. Most of the case study respondents also reported that their husbands or other members of the family respected their contributions to the household. Four case study respondents reported that they were respected in the wider community: the three women who play leadership roles in SEWA – Sangeeta, Pushpa's mother-in-law, and Radhika – as well as Hemalata. In her quiet unassuming way, Hemlata has acquired respect in her community.

“Everyone – in both my own and my husband’s family – thinks that I am straightforward (**siddha**). Our neighbors say: ‘Straightforward people like you are rare. When we arise in the morning, we should greet (**namaste**) you.’”

When the heavy monsoon rain led to widespread flooding in Ahmedabad in July 2000, the flood waters entered Hemlata’s home but did not cause any major damage. A lawyer (**vakil**) in the next neighborhood (**challi**) tried to interest her and other neighbors in paying him ten rupees as commission and two rupees to photocopy their ration cards to collect flood relief funds on their behalf. Every household with a ration card was entitled to flood relief: Rs. 400 for households with less than 5 members and Rs. 500 for households with five or more members. Hemlata challenged him saying: “I don’t have Rs. 10 to spare. If you can get us Rs. 500, I’ll give you Rs. 100”. At the time, her neighbors criticized her for speaking to him so sharply. When he didn’t come through with his promise, the same neighbors congratulated her on being so wise.

Although she recognizes that she has an innate sense of dignity and common sense, Hemlata attributes some of her awareness of issues outside her home and neighborhood to her exposure to SEWA. For instance, by attending SEWA meetings on bidi-rolling, she has become aware of a gender bias in the provisions of the Bidi Welfare Act. The Act stipulates benefits for bidi-rollers and their children but not for the spouses of bidi rollers. As Hemlata commented the last time we met her: “Why should men in regular jobs get benefits for themselves, their wives, and their children while women who roll bidis only get benefits for themselves and their children?”

C.4.b. Individual Awareness and Confidence

All of the respondents talked about how their awareness, confidence, or self-respect had increased over the years. All but Divi, Jyoti, and Rajeshri attributed some of these changes to their interactions with SEWA. Take, for instance, the following statements by Nirmala who is an active member of the SEWA Union and Hemlata who has participated in only a few SEWA meetings and trainings:

“Since joining SEWA, I have learned how to talk with people, how to deal with them, how to understand different types of people. Before, I did not know much about the bidi-making business, about taking loans, or about SEWA. If I attend a meeting for two hours, then I roll bidis for two hours in the evening. This way, I gather information and carry out my work.” – Nirmala

“I attended a SEWA health training in my neighborhood. Chandra, Kamla, and Saraswati from SEWA explained what happens when different diseases occur. I learned ways to take care of children, about medicines, what to do when certain illnesses occur – things I did not know. The training was for eight days. We used to sit and listen but continue rolling our bidis. One day they showed a video about children. All this is good, isn’t it? – Hemalata

All four of the women who had experienced difficult marital situations – due to the premature death of their husbands or the costly addictions of their husbands – expressed a sense of pride or self-worth in their ability to cope. As reported earlier, Sangeeta takes pride in having expanded

her vegetable vending business and raising several young children after the premature death of her husband.

“I did have problems. But what is there to do? If god gives us problems, then we have to bear them. What to do? We have to have will power. If our will power shatters, then what? My neighbors came and said: “Keep your will strong. If god has given sorrows, then bear them.” Everything is according to his grace.” – Rajeshri

“My sons do not go regularly to earn money for their marriages. I have to do this with courage. If I had not worked hard, no one else would have paid for my daughter’s wedding. Who will offer their daughter to those who do not have their own house and who do not earn their daily bread?” – Divi

“Before my sons started earning, I raised my children single-handed from my earnings from bidi rolling. I deposited 500 rupees in a fixed deposit account at the SEWA Bank in 1996. When that account matures in 2001, I will use the money to repay my loans.” – Gayatri

They all recognized, to paraphrase the adage, that “disaster is the mother of courage”. Whereas all four have taken loans from the SEWA Bank, only Sangeeta is actively involved in the SEWA Union.

C.5. Female Mobility and Social Status

In many communities in India and elsewhere in South Asia social norms regarding gender roles dictate a trade-off between female mobility and social status. Most upper caste Hindu and Muslim communities enforce the custom of female seclusion (**purdah**) that restricts female mobility outside the home whether or not women are expected to veil themselves. In such communities, if women move about or work outside the home, both the woman herself and her family lose social status. Many Hindu Backward Castes, even if they do not restrict women from moving about outside their homes, remain ambivalent about the social connotation of women in the marketplace. This ambivalence is reflected in the fact that among the case study households, no Backward Caste women, other than Patni Vagri women, work outside their homes. By contrast, among the Scheduled Castes, both men and women engage in work outside the home. This is partly because the Scheduled Castes have little social status to lose in the eyes of other caste groups. Historically, the Scheduled Castes have been expected to carry out the more manual forms of wage work, including those that are perceived to be demeaning and polluting.

These differences in social norms by community are reflected in the patterns of female work within the case study households. As detailed in Section 6, none of the Muslim or Backward Caste Hindu women, other than the Patni Vagri women, work outside their homes; and only two Scheduled Caste Hindu women work from their homes. A related fact is that no Muslim or Backward Caste Hindu women, other than the Patni Vagri women, are self-employed or casual wage workers; and none of the Scheduled Caste Hindu women are sub-contract workers. One Muslim woman (Shaheen) was briefly self-employed: she stitched fashionable traditional garments from her home which her son sold in the market. However, her failing health forced her to revert to stitching garments for a contractor.

Although there has been limited female mobility in terms of type or location of work, the two Muslim women reported a relaxation of the norms of female seclusion in their households and communities. This relaxation of the rules was due more to changing times or personal circumstances than to SEWA. Also, the rules have been eased mainly for unmarried daughters but not for married women until they have born children and proved obedient to their mothers-in-law (see Box 7.7).

BOX 7.7 – CHANGING NORMS OF PURDAH IN MUSLIM FAMILIES

“When I was first married, I was expected to observe purdah – to keep the veil. My in-laws allowed their daughters to go out but not their daughters-in-law. Ten years after my marriage, after three of my children had been born, I began leaving the house. If my children fell sick and there was no one at home to go buy medicines, my mother-in-law would tell me: “Go buy them yourself. Don’t just sit at home.” If my children asked for something – for biscuits, etc. – and my sisters-in-law had gone out, she would say: “Don’t allow the children to cross the road alone. Go with them.” That is how I started going out, but only after covering my face.” – Shaheen

“Oh! It felt very good when I saw the outside world. When you are shut up in the house, it feels good to be outside. Thank god, there are no restrictions on me now.” – Shaheen

“We will not allow our daughters-in-law out – only after five years or so. When the right time comes. The daughters-in-law have to be kept under control.” – Shaheen

“My husband was under his mother’s thumb, so he did not listen to me. Who would get his seven sisters married? That is why she kept so much control – she didn’t allow my husband to really meet me. We would go to sleep at midnight and wake up at 5. The shop was on the ground floor and the house was on the upper floor. He did not come up to eat during the day. He did not ask whether I was happy or sad – nothing. I went on as long as I could.” – Shaheen

“My daughters do not wear **burqas** (veils) when they go out. Only married girls and women have to observe purdah (seclusion) and wear burqas when they go out. They have to wear burqas when they go to the market to shop, when they walk on the streets. Once my daughters marry, they will have to observe purdah in their marital homes. If their in-laws are liberal – as these are modern times – they may not be required to do so.” – Ayesha

“Of yes! I will have to wear a burqa. Of course, my in-laws cannot force me to do so. But I cannot refuse if they ask me. I will have to own at least one burqa.” – Ayesha’s daughter

“If the girls have some tailoring skills, it will be useful to them. Some like to study. But in our community, girls do not go for jobs – for ‘service’. So if they have some tailoring skills, it will be useful for them in case of need.” – Ayesha

C.6. Collective Voice and Agency

Most of the debate on the impact of microfinance on women's empowerment has focused on gender relations within the household and individual power or agency. This is partly because the debate has been sparked by feminist critics who have focused primarily on gender relations to the relative neglect of class relations, market forces, and the wider policy environment. This is also because microfinancial services are targeted at individuals and seen to have impact on individuals, their enterprises, or their households. Since many microfinance institutions use group mechanisms for loan disbursements and repayments, however, part of the debate has focused on the role of loan groups in empowering women either individually or collectively. Again, both the evidence itself and the interpretation of the evidence regarding the relationship of loan groups to women's empowerment is mixed. Some view the loan groups as effective organizations for socio-political empowerment. Others view the loan groups as potential organizations for socio-political empowerment, provided the microfinance institutions adapt their organizing strategy accordingly. Still others see the loan groups as functioning exclusively as a loan repayment mechanism.

In Ahmedabad, as noted earlier, SEWA Bank does not operate through loan groups but makes loans directly to individuals. However, the SEWA Union organizes interested members, including Bank clients, into trade groups and cooperatives. Also many of the collective bargaining "struggles" by the Union on behalf of specific trade groups have had leveraged impacts on all of its members and, even, on non-members in those trade groups. For this reason, we tried to understand the impact of collective bargaining by the SEWA Union on individual women as well as on the wider environment in Ahmedabad. (Refer to Section 3 for a discussion of SEWA Union organizing in the three major trade groups in which SEWA Bank members are concentrated: bidi rolling, street vending, and garment making.) In brief, the SEWA Union has been able to raise the piece-rate wages for bidi-rolling throughout Ahmedabad city; to leverage social welfare benefits for many bidi rollers; and to establish the rights of bidi-rollers to provident fund contributions from the traders. As Radhika reported:

"Most of the women from my caste in this neighborhood are bidi-rollers and members of SEWA. They have opened savings accounts at the Bank. With the help of SEWA, we get maternity benefits, school scholarships, and free medicines from the government. From the SEWA Bank, we get insurance coverage."

The SEWA Union has also been able to establish the rights of street vendors to vend through precedent-setting court cases, including the rights to space and to freedom from harassment by the police and municipality. It has raised the piece-rate wages of garment makers throughout the city and organized some garment makers into producer cooperatives that sell their products through SEWA-run stores. This is not the time or place to list the impacts of the SEWA Union on other trade groups in the city: but, as one of many examples, they have organized women garbage pickers into service cooperatives and negotiated contracts for these cooperatives to clean office buildings.

What follows here are the expressed views of several case study respondents on the collective bargaining efforts, including protest marches and demonstration, by the SEWA Union. Two case

study respondents and the mother-in-law of a third are leaders in the SEWA Union; four of the respondents participate actively in SEWA Union meetings. Four of the others have gone to the occasional SEWA Union meeting. Only two – Jyoti and Divi – have not gone to any SEWA meetings. Jyoti reported that she had never been informed about or invited to attend a SEWA meeting. “If Ben (“sister”; term used for SEWA organizers) does not come to tell me, how can I go? If I am told, I would go anywhere. If we attend meetings, we would come to know about many things. We should go out.” At the time, it should be noted, Jyoti was a relative new member to SEWA Bank who had been avoiding the Bank staff when they came to ask her to repay her first loan. Although Divi had also defaulted on her SEWA Bank loan and complained of being pestered by the Bank staff to repay, she acknowledged that being a member of the SEWA Union (albeit a passive one) had served to protect her as a street vendor:

“The police used to harass us a lot. They would take away our vegetables. They would take away our bundles. Since we joined SEWA, they have stopped harassing us. It stopped when we joined SEWA. Raju-ben (SEWA Union organizer) informs SEWA that these people are being harassed. Then, the people stop harassing us. No police or anyone else harasses us now.”

Several of the respondents had been to one or more meetings but, for different reasons, did not go again. Ayesha did not find the discussions at the meetings to be of interest or relevance to her. As a garment maker, she was not interested in the Union discussions on bidi-rolling and street vending: “They discuss what happens in various businesses – those businesses that other women do. I am not interested in activities or issues other than home-based work.” Rajeshri went to one meeting with women from her neighborhood but felt too shy to go again on her own.

“I went with two women from my neighborhood to a SEWA meeting. But I felt shy. I am uneducated, how will I go on my own? I haven’t gone again because I am uneducated. One of my aunts has become a member. Jivi-ben from SEWA has encouraged me to take a SEWA training. I now plan to go.”

Gayatri had attended only two or three SEWA meetings due to pressures on her time. Until her son started working, she and her children had to live off what she earned for bidi-rolling and what her children earned from making paper bags before and after school. But Gayatri acknowledged the role of the SEWA Union in raising the piece-rates for bidi-rolling throughout Ahmedabad.

“More than ten years ago, a SEWA organizer named Sharda-ben Koshti used to visit us. She advised us to join SEWA, to save money in the SEWA Bank. She told us that we would benefit from joining SEWA – that we would get outside help as needed. She advised us that if we gradually saved up money in SEWA Bank, it would come in handy in the future. That is how she had achieved success. I joined SEWA in 1987 or ’88. I went to 2–3 meetings where we talked about bidi-rolling. We were told that if we began talking to and negotiating with the contractors, they might increase our piece-rates. They told us how to talk to the contractors about raising the piece-rate. Earlier the rates were quite low. Since then, everything has become very costly. The rates have gone up in the past 8–10 years.

They also told us about the case against Jivraj Bidi. We were told that the case was about the workers' right to proper wages and provident fund contributions. "

"I used to go to SEWA meetings. I went to 2–3 meetings. One was at the museum in Paldi. It was a good meeting. I liked it. So many sisters had assembled there and discussed issues together. So I felt good. Some politicians came to address the meeting. We demanded an increase in wages for bidi-rolling. I stayed for the whole day from 11 in the morning until 7 in the evening. I felt good but lost a day's earnings. It is important to go because we get knowledge and get well informed."

Since the mid-1990s, Nirmala has participated regularly and actively in SEWA Union meetings and demonstrations.

"Previously, I did not visit SEWA very often. But for the last 5–6 years, I have been going regularly. I never miss a meeting. After taking the loan from the SEWA Bank, I have never missed a single meeting. In every meeting, we have benefited. From both loans, we have benefited. We used the first loan to pay for my sister-in-law's marriage. Because my father-in-law died before we got married, my husband and I had to raise his younger siblings and arrange their marriages. By borrowing from SEWA for the wedding, we did not incur as much loss as we would have if we borrowed from other sources. We used the second loan to start my husband's bag business."

"We went to Gandhinagar to demand an increase in the wages for bidi-rolling. All of the women who participate in our neighborhood meeting went. We joined others in a big rally. We covered half of the distance in a car, then we got out and walked. We shouted slogans – demanding an increase in wages – and waved flags. At first, no one responded to our shouts and slogans. Eventually, someone came out of the government building to address us. Our wages were Rs. 25 per 1000 bidis at that time. The rate has been increased since then to Rs. 30 and, since Diwali 1999, Rs. 34."

As noted earlier, Nirmala says that being an active member of SEWA has helped her be better informed, gain confidence, and talk freely to people from various walks of life. It has also empowered her to negotiate or bargain with the bidi contractor on behalf of herself and other bidi-rollers:

"Now, I can do everything, even quarrel with the bidi contractor. If he gives us rotten leaves, no one complains except me. I tell him: "If you give us rotten leaves, we have to purchase more from outside. So you should get good leaves for us." Nobody used to say such things to the contractor. Since I quarreled with him, the contractor has started to give us 100 grams more leaves to all of the women. I didn't have much confidence or power before."

Nirmala also reported that both her husband and her mother-in-law respected her new-found confidence and assertiveness:

“My husband does not mind. He respects me. By going here and there, I have become intelligent and have gotten loans to invest in the business which is profitable for us. We are saving 50 rupees per month in the SEWA Bank for our children’s education. I tell him that I have become intelligent by talking to other people and by going outside. Yesterday, I went to my sister’s place. She was upset because some women from the Bank came to inquire about her while she was out. I told her not to panic: “By moving about and talking to people, you will become smart.”

“My mother-in-law now encourages me to go out. She agrees that belonging to SEWA is beneficial. Just yesterday, when some people from the Bank came to our neighborhood, she encouraged me to go meet them.”

Although she is not sure what she needs to do to be selected, Nirmala would like to become a local organizer in the SEWA Union.

D. Lived Experiences and Voiced Perspectives

The lived experiences and voiced perspectives of the case study respondents, presented in this and the preceding section, illustrate how difficult it is to alleviate the poverty or increase the power of low-income working women (and their families) in Ahmedabad City. This is because powerful social, economic, and political forces condition their lives and work. Consider the case of the home-based sub-contract workers who are paid far below the minimum wage yet have to absorb most of the non-wage costs (for space, utilities, and equipment). Or the street vendors who are prevented from vending in the more lucrative parts of the city by the police and municipal officials. Or the Muslim and Hindu upper caste women who are prevented from working outside their homes by local social norms even if their husbands are disabled, unreliable, or dead.

The lived experiences and voiced perspectives of the case study respondents also illustrate that these powerful social, economic, and political forces are being contested and transformed over time. Consider, for example, the changing norms of purdah in Muslim families. According to the two Muslim case study respondents, the relaxation of the norms of female seclusion is due to changing times and personal circumstances (see Box 7.7). The impact of SEWA in a context of changing social norms is hard to isolate and measure. Yet it is clear that SEWA offers an important social and political “space” within which Muslim women can exercise their new-found freedom. Consider the case of the Muslim woman – a member of the SEWA Union and a shareholder of the SEWA Bank – who is an elected trustee of the Bank. At the SEWA Bank board meetings, she sheds her veil, and the norms of female modesty associated with it, and assumes a powerful identity and voice.

There is little doubt that SEWA Bank and its sister institutions have been able to improve the lives and work of countless women in Ahmedabad in ways that our survey did not capture or measure. Consider the case of Gayatri, who has taken two loans from the SEWA Bank and attended 2–3 SEWA Union meetings. When asked about the impact of SEWA on her life, Gayatri readily listed several impacts. To begin with, SEWA has helped raise the piece-rate for bidi-rolling. As Gayatri noted, “A bidi-roller cannot bargain on her own. Bidi-rollers need to

join together to bargain effectively.” Second, SEWA helped Gayatri secure a scholarship for her daughter, the only one of her children who scored high enough on school tests to be eligible for a scholarship under the Bidi and Cigar Workers Act. Over a 7–8 year period, Gayatri’s daughter received 450 rupees per year in school scholarship and 170 rupees per year as food allowance. Third, Gayatri has benefited from the financial services of SEWA Bank. She was particularly grateful to have a secure place to save money out of the reach of her husband. Finally, Gayatri was one of 150 or so bidi–rollers who, in a lottery draw, “won” a house in a SEWA–sponsored subsidized housing project. Only one of these impacts – the beneficial impact of financial services – is due to SEWA Bank and would have been captured in our survey. The other impacts – increased piece–rates, school scholarship, and subsidized housing – are due to the SEWA Union and would not have been captured in our survey.

Having observed the lives and heard the voices of the case study respondents and their families, we were better able to interpret our survey findings. Clearly, microfinancial services alone – much less a few small loans – will not alleviate poverty. Poverty alleviation requires a multi–dimensional strategy, including: providing additional services such as health, education, child care, social protection, and business development services; building and strengthening organizations of the poor; promoting representation of the poor in relevant policy–making bodies; and negotiating structural changes to create a more supportive social, political, and economic environment. However, if properly designed and targeted, microfinancial services can help to raise household incomes and, as such, represent an important component of such a multi–dimensional strategy.

Equally clearly, microfinancial services alone – much less a few small loans – will not empower women. Women’s empowerment also requires a multi–dimensional strategy, including: building and strengthening women’s organizations; increasing their representation and voice; and promoting structural change in both gender and class relationships. However, targeted microfinancial services can help women to increase the income and well–being of their families and after, thereby, to negotiate a stronger bargaining position within their households. From the perspective of the case study respondents, empowerment means being able to increase the material well–being and economic security of their families; having the ability and choice to exercise voice and agency, both individual and joint, within their families; and having the ability and choice to exercise voice and agency, both individual and collective, in the wider environment.

In the concluding section, we summarize our survey findings and discuss the wider themes and lessons that have emerged from both our qualitative and quantitative analysis.

Section 8 – Conclusion: Emerging Themes and Lessons

A. Summary of Findings

The women in our study are very poor. Half of them live in households where income per capita is below the World Bank's dollar-a-day global poverty line. More than one-third (37%) live in households that are just above that line, where the per capita income is below two dollars a day. The rest (13%) are only slightly better off. They live in a country whose low economic growth (until recently), regulatory environment, and traditional social structures have made it hard for low-income individuals or families to improve their living standard. Their city, moreover, has experienced the collapse of its principal industry, textile mills, and is known for periodic civil unrest, slum evictions, floods, drought, and recently a major earthquake. As working-class members of Backward or Scheduled Castes (and tribes), the women in our study suffer severe discrimination based on gender, caste, and social class. SEWA works in various ways to help these women gain a collective voice and use it to improve the welfare of their families as well as their personal economic and social positions. While the financial services of SEWA Bank (credit, savings, and insurance) benefit individual SEWA members who use these services, the organizing and advocacy efforts of the SEWA Union help masses of women, including non-members, by increasing wages, negotiating rights, and leveraging services. Comparison between members and non-members is thus not always a satisfactory measure of impact.

The study shows that the urban poor earn their living primarily through their labor power. Their main physical asset is their housing stock, which often serves as a place of business as well as abode. Social relations – including both social claims and social obligations – are important and intimately tied to the provision of informal financial services. Other than through SEWA Bank, few poor households have access to formal financial services. Informal borrowing, saving, mortgaging or pawning of assets, and insurance (for marriages and deaths), drawing on both vertical and horizontal social ties, are the only financial services available to poor households. Social norms relating to caste and gender also matter. The elaborate social system that confers advantage or disadvantage based on a person's gender and caste is still pervasive in both urban and rural India.

Our study establishes that the financial services of SEWA Bank have led to several of the social impacts postulated by the AIMS project but fails to demonstrate certain other hypothesized impacts. Statistical tests of the survey data establish that use of the credit and savings services of SEWA Bank raises household income, both total and per capita. Sample households need both credit and savings for many different reasons on an on-going basis, and SEWA Bank provides an important supplement to the informal mechanisms upon which they would otherwise have to rely. Besides raising household income, SEWA Bank's financial services are also strongly associated with spending on housing improvements, expenditure on consumer durables, and school enrollment, especially for boys. There was at least some suggestion that participation in SEWA Bank enhances all the remaining hypothesized impact variables: income diversification, expenditure on food, and the ability to deal with the financial shocks that are common in this environment.

Forty-one per cent of the women in our sample operate microenterprises as their principal economic activity. Others work as dependent sub-contractors (36%) or laborers (22%). Very few of these women hold salaried jobs. Microenterprises operated by women in the panel generally increased their revenues by the second round of our sample survey, but the increase was smaller than the rise in household income and less clearly linked to SEWA Bank's financial services. The clearest finding is that the informal sector earnings of respondents and both the microenterprise revenues and informal sector earnings of respondents' households are positively impacted by participation in SEWA Bank. There also appears to be some significant impact on employment, although the total amount of employment created by these microenterprises is very small. Notably absent in our quantitative findings is any apparent impact on the principal microenterprise (if any) of the client herself. Nor did we find any significant impact on the fixed assets of microenterprises anywhere in the household. Finally, it should be noted that we saw no significant impact at the enterprise level from long-term participation in SEWA Bank as a repeat borrower. Our interpretation of these findings relies on several contextual factors:

- ◆ There is severe overcrowding and keen competition in the informal sector in Ahmedabad. Although the income level is rising, even among the poor, scope for an individual entrepreneur to expand his or her microenterprise is limited because any gains will swiftly be competed away.
- ◆ Specific constraints apply to all of the principal trades in which women in our sample engage. These are discussed later in this section.
- ◆ SEWA Union engages in "struggle" (trade union and lobbying activities) on behalf of all women engaged in some of the major trades in which women in our sample participate. They have fought for higher piece rates in bidi rolling, garment sub-contracting, and incense making. They have pushed for improved government services and benefits such as those provided under the Bidi Workers Welfare Act. They have tried to get the municipal government to provide better infrastructure and services in the neighborhoods in which their members live. They have worked to reduce police harassment of street vendors and obtain better market space allocations for vendors. The impact of these and other struggle activities is not easy to identify or measure. To the extent that non-members of SEWA share in the benefits, however, differences between members and non-members fail to provide an adequate measure of impact.

The survey findings indicate some impact at the individual level and that the women who benefit most are those who borrow repeatedly over an extended period. The case studies also suggest that women who participate more extensively in a range of SEWA activities benefit more extensively. Analysis of the quantitative survey findings indicates that women who borrow from SEWA Bank participate actively in the decisions regarding whether to borrow, how to use the loan proceeds, and how to use the resulting increases in microenterprise revenues, if any. Participants in SEWA Bank do not appear to have more positive images of themselves than other working-class women or to be more optimistic about the future. They are, however, far more likely to have personal savings accounts and to be taking specific steps to prepare for the future. One important reason why more significant individual-level impacts were not detected in our study is that many working class women in Ahmedabad entered the labor force by the 1970s (if not earlier) and were already economically mobile and participating in household economic

decision making long before our Round 1 survey. They did not have to be induced to such behavior by SEWA Bank.

In summary, we find that:

- ◆ Use of financial services is associated with larger increases in household income, both total and per capita.
- ◆ Use of financial services is associated with significant housing improvements and durable goods purchases.
- ◆ Borrowing and saving increases school enrollment, especially of boys of all ages.
- ◆ Repeated borrowing from SEWA Bank is associated with increased expenditure on food.
- ◆ Use of loans is associated with improved ability to cope with economic shocks.
- ◆ Borrowing and saving are associated with larger increases in microenterprise revenues and informal earnings generally.
- ◆ Borrowing is associated with increases in employment, although the clients' enterprises remain tiny.
- ◆ Borrowing is associated with improved transactional relationships with suppliers.

B. Emerging Themes

B.1. Significance of Context and Program Characteristics

The context in which microfinancial institutions operate has an important bearing on their impact. Whereas Gujarat state is known for its rapid recent economic growth, Ahmedabad City is still struggling to adapt to the closing of its primary industry, textile mills. The most significant measure of economic growth or slowdown for India's poor is the amount of productive and remunerative employment generated. Historically, the large textile mills were a good source of secure, adequately remunerated jobs in Ahmedabad. With the closing of their mills, many former mill owners have invested in capital-intensive industries, mainly chemicals and pharmaceuticals, outside the city. The decentralized powerloom units that have replaced the large composite textile mills are concentrated more in Surat City than in Ahmedabad and offer semi-permanent jobs with low wages and no benefits. New growth industries in the city are either high skill-based (financial services), physically demanding (construction), or volatile (diamond polishing and export garment making). The net result of these structural shifts in the economy is competition and overcrowding in the informal sector. This is particularly true in the older parts of the city where the women in our sample live and (mainly) work.

In India today, even in urban settings, local social norms and institutions still govern many aspects of economic and political life. So much so that a person's occupation or trade is still determined largely by her or his religion, caste, and gender. Religion and caste still dictate what kinds of work particular communities or individuals do and whether women can work outside the home. Moreover, norms of female seclusion and dependence govern the location of woman's work and their employment status (owner operator, self-employed, sub-contract, or casual wage). These social norms constrain the ability of individuals, especially women, to expand their enterprises or pursue more productive lines of work.

As noted above, Ahmedabad is known for periodic civil unrest, floods, drought, and now earthquake. These common risks have particular consequences for those who work in the informal economy without insurance to compensate for losses of work, income, or property. It is also known for periodic evictions of slum dwellers and street vendors.

The nature of the services provided by microfinancial institutions also has a bearing on the impact of their services. SEWA Bank's financial services have several notable features. First, and foremost, the Bank puts more emphasis on savings than on credit and offers insurance services in addition. Second, the Bank offers a range of savings products (current, monthly, fixed term, and recurring) and several savings collection mechanisms (at home, in the neighborhood, at the Bank). Saving is encouraged for all SEWA members and required for borrowers. Third, whereas it gives loans for various purposes including housing, SEWA Bank offers one relatively inflexible and long-term (two years at the minimum) loan product. Further, although loan repayments can be made from home or neighborhood to mobile SEWA Bank staff, all loan applications and disbursements are made at the Bank's head office in the newer, western side of the city. In short, although SEWA Bank is an important source of credit for its client, who usually cannot borrow similar relatively large amounts elsewhere without incurring significant transaction costs, the existing loan product is not well suited either to meet emergencies or to provide working capital. New loan products that target specific groups, such as flexible, short-term working capital loans for street vendors, might help meet additional client needs and expand the Bank's lending portfolio.

B.2. Household Financial Portfolio

Borrowing: The households in both our survey and case study samples reported high levels of debt. In early 2000, when Round 2 of the survey was taken, the volume of credit outstanding averaged just under 15,000 rupees (\$330) per household. The twelve case study households reported having borrowed an average of about 110,000 rupees (\$2,750) during the 1990s. SEWA Bank accounted for less than half of the total amount borrowed by all three sample groups and half of the total amount borrowed by borrowers. No one in the sample seems to have had much access to credit from banks other than SEWA Bank. Less than 5 per cent of the total amount borrowed by the case study households was from other banks. Informal borrowing from friends, relatives, and moneylenders accounted for more than two-thirds of the credit taken by savers and controls and half of the credit taken by borrowers. In absolute terms, among the total sample, the borrowers had just about as much non-SEWA debt as members of the other two groups. This strongly suggests that borrowers used loans from SEWA Bank primarily to top up – not to pay down – other loans. Our case study findings confirm this assumption. The case study households used only 10 per cent to pay off old debt, 70 per cent of what they borrowed to invest in businesses and housing, 18 per cent to pay for weddings, and 2 per cent to cover medical expenses.

Savings: Whereas most households try to save, and all SEWA Bank clients have at least one savings account, total reported savings were quite small. At the time of the Round 1 survey, the financial savings of all households in our panel averaged less than 2,000 rupees (\$50) per household. By design, SEWA Bank is far more important as a depository for savings than as a source of credit. This is because the original shareholders of SEWA Bank had told the SEWA

staff that they needed a safe place to deposit their savings. In early 1998, at the time of the Round 1 survey, the Bank held two-thirds of the panel's total savings. Among SEWA Bank borrowers, nearly three-fourths of total household savings were held in a SEWA Bank account. Outside of SEWA Bank there was little saving in other banks or in securities. However, various forms of informal savings – including rotating savings and credit associations (called VCs in Ahmedabad) – are popular. Among the case study households, 10 per cent of total reported savings was through VCs.

Cycle of Saving and Borrowing: The level of resources and the range of opportunities available to low-income working families in Ahmedabad make earning a decent living quite difficult. Compounding their day-to-day struggle to secure livelihoods, the poor have to face numerous risks or contingencies with few financial resources. They have to save as best they can or borrow to meet household financial needs, including housing improvement, life cycle events, and emergencies. Because they repeatedly need lump sums of money in excess of what they are able to save up, they borrow money on a regular basis from different informal sources. Each household, therefore, manages a diverse financial portfolio including loans from several informal sources and several types of informal savings. Some observers view this continuous cycle of saving, borrowing, spending, and repaying as a vicious circle that demonstrates how poor households try to cope with risk; others view this cycle as a virtuous circle that demonstrates how poor households manage their money. Our findings suggest a mixed picture, in that some households are able to manage this cycle with discipline or resilience while others are not able to control the cycle and fall into a spiral of indebtedness (see Box 6.13).

Given that informal savings and borrowing are the only financial services available to most poor households in Ahmedabad, SEWA Bank expands the available options for SEWA members to save and borrow. As noted in Section 5, SEWA Bank deposits represent more than one-half of the total savings of all households in our sample and two-thirds of the total savings of all borrowers in our sample (see Table 5-6). And SEWA Bank provided more than one-half of the total amount borrowed by borrowers at the time of our Round 1 sample survey.

Considering the situations in which low-income households take out loans, the impact of borrowing from SEWA Bank is not necessarily greater than the impact of saving. Given similar household financial needs, the household that is able to save to meet anticipated needs might do better than the one that is unable or unwilling to save and is forced to borrow to meet its financial needs. Clearly, financial shocks constitute one important motive for borrowing. Thus borrowing is a “double-edged sword” that may indicate either financial stress or financial stability. The same can be said for forced saving such as the minimum saving required in order to borrow from SEWA Bank. Voluntary saving – particularly repeated deposits or earmarked fixed deposits – is more likely to indicate the ability to save or financial stability. There were several impacts measured in the statistical analysis for which being a saver was at least as important – or more important – than being a borrower. For instance, the savers enjoyed a greater increase in income between survey rounds than the borrowers.

Fungibility: This brings us to another important theme that emerged from both the survey data and the case studies, namely the fungibility of loans. Credit is clearly used for many purposes and individual loans are used interchangeably with other loans and with savings. To begin with

loans were used for various enterprises in the household, not just in the respondent's enterprise or other economic activity. Contrary to the orthodox understanding of how microfinance works, we found that borrowing from SEWA Bank had impact on different enterprises in the household but not on the respondent's own primary enterprise. Second, loans were used for both fixed and working capital, even for the same enterprise. Third, loans were used interchangeably for production and consumption purposes. Even among microentrepreneurs who run their own businesses, borrowing from SEWA Bank was often intended to meet household needs or to invest in other enterprises, not to expand their own businesses. Finally, we found fungibility among various sources of debt, including the following patterns: two or more loans being used for a single purpose, one loan being split for different uses, and one loan being used to repay other loans.

While we found significant evidence of the fungibility of loans, we saw little to indicate that Bank borrowers deliberately "divert" credit away from the stated purpose. An important reason for this is that SEWA Bank allows its members to borrow for different purposes. Also, borrowers see no reason to deliberately "divert" funds from one purpose to another as they use loans and savings interchangeably. Moreover, there was little evidence to suggest that the case study respondents view the transfer of a loan from SEWA Bank to a husband's or a son's business as a loss of control (see Section 7).

B.3. Expansion, Diversification, or Patching Together a Livelihood

In the microfinancial field, there is a common perception that the willingness or ability to diversify income sources or to expand existing enterprises is a sign of entrepreneurship. In Ahmedabad, there is little scope for an individual microentrepreneur to expand her or his enterprises because others are likely to compete away any gains. This is because there is severe over-crowding and keen competition in the informal sector in Ahmedabad. There is particularly limited scope for women to expand their enterprises. Due largely to social constraints, most women work from their homes and few women run enterprises in which they hire others. Further, specific constraints apply to all of the principal trades in which the women in our sample engage. Street vendors face constant conflict with the policy and the municipality. Bidi rollers have been locked in a long-running struggle with the employer-traders and may also be facing a decline in the demand for their product. Garment makers are in a more promising field but face competition from ready-made clothing and may have difficulty in acquiring the skills needed to capitalize on new patterns in domestic demand or to secure jobs in export garment factories.

Our survey found that most households in the sample – borrowers, savers, and controls alike – have multiple sources of income. Our analysis of the case study households (see Section 6) suggests why this is so. First, many households have multiple sources of income because the income from one source would not be enough to sustain the household. That is, some households diversify income sources to compensate for chronic shortfalls in other income sources. Second, many households shift or diversify income sources across the year to take advantage of seasonal peaks and to compensate for seasonal troughs. In sum, many household diversify but few do so voluntarily.

Unable to expand their income sources, most households in our sample struggle to patch together a livelihood. To do so, they seek to increase their physical, financial, human, and social assets and to decrease their liabilities, including uninsured risks, outstanding debt, and insecure work arrangements. To do so, those who are not members of SEWA have to rely on informal sources of savings, borrowing, and insurance that are seldom adequate, much less perfect.

B.4. Importance of Institutional Finance

In Ahmedabad City, the financial needs of low-income households are greater than the financial resources available to them. Moreover, the financial resources available to the poor are virtually all from informal sources. Only a few men in our sample households had access to formal banks. To make up for absence of bank loans, insurance coverage, mortgages, education loans, worker benefits, and more, the poor try to save or have to borrow from informal sources. In such a context, the credit, savings, and insurance services offered by SEWA Bank expand the financial options of its members.

Why would low-income working women (or their households) want to borrow from SEWA Bank, rather than from informal sources? First, SEWA Bank charges 17 percent per annum while most informal lenders charge more than twice as much, sometimes four times as much. In addition to higher interest rates, there are other costs of informal loans. Several case study respondents reported that they prefer the anonymity of taking loans from SEWA Bank, compared to the shame associated with borrowing from family, friends, and neighborhood moneylenders, and the disciplined regularity of repayments to SEWA Bank, compared to the whims of their informal creditors.

Why would low-income working women (or their families) want to save at the SEWA Bank? There is little doubt that low-income working women want a safe place to save. They want a safe savings facility to protect their financial savings not only from theft or fire but also from unwanted claims by their husbands, children, or other relatives and from unnecessary withdrawals by themselves for their own or their families' spending needs. Why should low-income working women (or their families) want insurance coverage from the SEWA Bank? The only informal insurance schemes that we were told about were those for two major life-cycle events, marriage and death. But these are not adequate to cover the amounts spent on marriages and death ceremonies.

We found substantial evidence that participation in the financial services offered by SEWA Bank has positive impact, especially at the household level. Our survey data show positive impact on household income, expenditure on housing improvements, expenditure on consumer durables, and school enrollment, especially for boys. Our survey data also show some impact in the desired direction on income diversification, expenditure on food, and the ability to cope with shocks. The number of loans ever taken from the SEWA Bank is strongly related to the degree of impact. Compared to one-time borrowers, repeat borrowers enjoy greater increases in income, report greater expenditure on household improvements and consumer durables, are more likely to have girls enrolled in primary school, and spend more on food.

C. Implications of Findings

C.1. For Research

One of the distinguishing features of our study and the other two AIMS studies is the mix of methods used. The core method involved two rounds of a sample survey that collected information on 786 working class women and their households. Several statistical analyses were run on the survey data. A second key method involved two rounds of in-depth interviews with 12 case study respondents and their households. Our interpretation of the descriptive information collected in the surveys and the analytical results derived from the statistical tests was greatly enhanced by the understanding we gained from the case studies (Sections 6 and 7) and by two additional types of analyses. The first of these was our overview of the economic, social, and political setting in which SEWA Bank's financial services are provided and the women in our sample make their living (Section 2). The second was our overview of the nature of the services provided by the SEWA Bank and its sister institutions (Section 3).

The mix of core quantitative and qualitative methods allowed for both statistical validation of impact and qualitative interpretation of impact. The additional analyses of context and program helped us interpret the findings further and to provide program-related feedback to SEWA Bank. Several implications or lessons for future assessments of – or future research on – microfinancial institutions emerged. The first, and foremost, lesson is that future research or assessments need to be guided by a core set of research questions or hypotheses and a clear understanding of the strengths and weaknesses of different methods. The AIMS team, in consultation with a number of microfinancial practitioners and research scholars, spent 18 months developing the research hypotheses and investigating methodological options before starting the three impact assessments.

A second, and equally important, lesson is the need to modify and test hypotheses, measures, indicator variables, and survey questionnaires to “fit” the characteristics of the local context and the specific program. We had to develop local data categories for most of the household variables, including alternative sources of income, varieties of housing tenure and housing materials, different kinds of savings and sources of loans, range of crises and coping strategies, and more. We had to list the different savings and loan products offered by the SEWA Bank and the different services and activities offered by the SEWA Union. We had to develop separate survey questionnaires and local data categories for the different kinds of work women in our sample are engaged in: by employment status (self-employment, sub-contract work, and casual wage work) and by industry or trade (street vending, bidi rolling, garment making, and more).

The third lesson relates to the difficulty of capturing or measuring change. We found it was less difficult to measure change at the household level than at the individual and enterprise level. We faced several problems relating to the individual-level variables and indicators. To begin with our sample, by definition, including women who were already actively engaged in the market and contributing to their households. That is, all of the women in our study were actively involved in earning income and contributing to their households. So we found little difference between clients and controls in regard to decision-making in the household and perceived contributions to the household. Secondly, answers to questions regarding cognition and perceptions are hard to quantify. Third, powerful social forces constrain the ability of women to

take decisions on their own or to control resources on their own and powerful economic forces constrain the ability of low-income women (and their households) to prepare for the future. Finally, we found that positive impact at the individual level is a long-term process. One or two loans alone are not sufficient to empower a woman to improve her social and economic prospects. However, the two women in our case study sample who have taken multiple loans from the SEWA Bank and participated actively in the SEWA Union have substantially improved their lives and become leaders in their communities (see Box 7.3).

At the enterprise level we faced, first of all, the complication that only a minority (albeit a large minority) of the members of our panel actually had microenterprises. The remainder were dependent sub-contractors with little or no need or use for microenterprise capital. Moreover, the lending program of SEWA Bank accommodated several loan purposes and did not put primary emphasis on loans for enterprise development. Accordingly, it was perhaps not surprising that impacts at the enterprise level were less pronounced than impacts at the household level. Access to SEWA Bank's financial services did boost the household earnings from microenterprise and other forms of informal sector activity, but it had no visible impact on the primary microenterprise of the respondent (when she had one). Rather, its impact was more diffuse, perhaps working in part through the investment aspects of expenditure on housing improvement.

C.2. For Practice

Several important lessons for the field of microfinancial practice emerge from our study or, rather, from the experience of the SEWA Bank. These lessons call for a broadening of the common conceptions of microfinance, of microenterprise development, of women's empowerment, and of poverty alleviation.

Towards A Broader Conception of Microfinance: In the microfinancial field, there has been a longstanding and widespread assumption that the role of microcredit was to promote microenterprise development, that clients would use their loans to invest in their enterprises and use the cash flow from their enterprises to repay their loans. Our findings and the experience of SEWA Bank support an increasingly popular alternative conception: namely, that clients use their loans as they (or other members of their households) see fit, and that repayments may come from various financial sources within or outside the household (Sebstad and Cohen). Our findings suggest two primary reasons for the fungible use of loans. First, it is hard to grow enterprises, particularly female enterprises in Ahmedabad. Second, low-income households face a range of competing demands on their financial resources, including housing improvements, life-cycle events, and emergencies.

We argue that microfinancial institutions need to respond, as SEWA Bank has tried to do, to the array of financial needs that all low-income people face. We also contend that microfinancial institutions, including SEWA Bank, need to develop loan and savings products to meet the specific needs of different occupational groups among their clients. For instance, we would recommend that SEWA Bank consider developing a loan product for street vendors. Their current loan product is too inflexible and too long-term for street vendors to use effectively as working capital.

The field of microfinance started or emerged with the provision of microcredit. Over the past decade, there has been a growing commitment to savings as well. SEWA Bank's experience and our findings suggest that a safe savings facility is as, or more, important to many clients as a reliable lending facility. The SEWA Bank experience and our findings also suggest that low-income households have little (if any) access to formal insurance coverage and that informal insurance systems often cover only one or two contingencies and are seldom adequate to the need.

Towards A Broader Conception of Microenterprise Development: Microfinance has long dominated the wider field of microenterprise development. Recently there has been renewed interest in non-financial services or business development services. The SEWA Union experience and our findings suggest a need for sector-specific business development services that address as many backward and forward linkages – and constraints – as possible.

The field of microfinancial practice has focused increasing attention on institutions and policies. The institutional focus has been on the microfinancial institutions themselves to the neglect of local institutions or organizations of the clients themselves. SEWA Union's experience and our findings suggest that microfinancial clients benefit from belonging to their own local organizations through which they acquire individual and collective voice. They need the solid backing of local organizations in their daily negotiations or struggles with traders, middlemen, moneylenders, and their own men-folk. The policy focus has been on financial policies that promote the ability of microfinancial institutions to grow and provide loans to the poor. For instance, SEWA Bank, together with other microfinancial institutions in India, has made the case in various policy fora against subsidies to the poor, unrealistic caps on interest spreads, inflexible utilization norms, and procedural bottlenecks.

Because of the work of its sister institutions, SEWA Bank is one of the few microfinancial institutions that recognizes the influence of economic policies on the abilities of microenterprises to prosper and grow. Many of the “struggle” activities of the SEWA Union are directed at promoting an enabling policy or regulatory environment for its members.

Towards a Broader Conception of Women's Empowerment: Having worked for thirty years with low-income women in Ahmedabad City, rural Gujarat, and other states of India, SEWA has developed a three-dimensional model of women's empowerment based on the needs and priorities of its members. The first dimension of SEWA's model of empowerment relates to basic economic security, including secure employment, increased income, adequate food and nutrition, health care, and childcare. The second dimension relates to individual and collective voice and agency, including strong women's organizations, strong women's leadership, and increased individual and collective self-reliance. It should be added that SEWA organizes women around their identity as workers, not as clients of microfinancial services. Depending on their occupation, members of the SEWA Union are encouraged to join, depending on their occupation, specific sub-groups of the Union, producer cooperatives, or service cooperatives. The third dimension relates to gender equity, notably assets in women's own names.

The SEWA model of empowerment focuses on women's identity as workers or economic agents and, therefore, addresses both class and gender relations. The underlying model of power that

dominates the SEWA model relates to the power relationships that women experience in their work lives. SEWA's understanding of how these power relations work poses a challenge to conventional trade union concepts of collective bargaining. Who do the self-employed, the casual workers, and the sub-contract workers bargain with? Who is the equivalent of the employer? The different categories of its membership face different power imbalances. Street vendors have to deal with the police, the municipality, big traders, and the transport lobby. Sub-contract workers have to deal with contractors and traders. Own account producers have to deal with market forces. Casual wage workers have to deal with a series of employers. SEWA's understanding of the importance of class-based power relations poses a challenge to conventional feminist understanding of the primacy of gender relations.

Towards A Broader Conception of Poverty Alleviation: Poor working families like those in our study face difficult problems of household financial management. They must augment their meager incomes as best they can through microenterprise and other forms of informal economic activity to deal with the unremitting problems of feeding, clothing, and housing family members. At the same time, they must try to help their children get ahead by providing for their health, educational, and other needs. Besides offering severely limited income earning opportunities, the environment in which the poor live periodically presents them with financial crises. These events, which are sometimes predictable but are often unexpected, involve either one-time expenditures or interruptions of normal income flows that are large relative to the total financial resources available to the household. Insurance, pensions, social welfare programs, and other institutionalized mechanisms that help families in developed countries cope with poverty and financial crises are generally unavailable in developing countries. Borrowing and saving must therefore carry more of the load. Poor people who need credit generally rely on family, friends, and business associates, but these sources have their limitations. Programs like SEWA Bank give people expanded access to credit (often their first contact with formal financial institutions) and help them to save. These programs may also offer better lending terms and credit and savings instruments that better fit clients' needs. When they do so, they strengthen the ability of the working poor to use finance to cope with financial crises and improve the welfare of their families.

D. Important Lessons

The working poor women in our study sample members are not prototypical clients of microfinancial institutions. Few of them are microentrepreneurs who hire others. Many are self-employed who work on their own account or in family businesses; others are wage workers of different kinds. Yet all of them need financial services – credit, savings, and insurance – and most of them use these services responsibly. Our findings suggest three important lessons regarding potential clients or so-called “markets” for microfinancial institutions.

D.1. Who Needs Financial Services?

Our findings show that the self-employed, not just microentrepreneurs who hire others, invest business loans productively. Our findings also show that loans that are taken by individuals who do not run enterprises or are taken for non-enterprise purposes may go to enterprises run by other members of the household. The third lesson is for microfinancial institutions that are prepared to give non-business loans or assume that all loans are fungible. Our findings show that credit is indeed fungible within the household, that it is used as needed for life-cycle events, emergencies, housing, education, and business investments. If a microfinancial institution accepts this fact, the potential client pool – or market – for its services expands. It can now deal, as in the SEWA Bank case, not just with microentrepreneurs who want to expand their businesses, but also with other individuals or households that want to invest in housing, smooth consumption, or reduce risk.

D.2. What Do They Need Money For?

The financial needs of working poor households are not dissimilar from the financial needs of most other households around the world. The poor need funds to cover medical expenses; to purchase, renovate, or make an addition to a house; to educate their children; to celebrate birthdays, festivals, and rituals; to arrange weddings; to provide old age security; and to arrange funerals or cremations. However, for them, predictable financial needs – such as expenditures on life cycle events and education – often become sources of financial stress.

Most working poor households face a high level of risk, for a number of reasons. To begin with, those who work in the informal economy have a high exposure to risks given the conditions under which they live and work. Second, they tend to have low levels of income, and are therefore less likely to be able to save for contingencies. Third, they tend to have little or no access to formal means of handling risks (e.g., insurance, pensions, and social assistance) or paying for housing and education (e.g., mortgages, scholarships, and loans).

Working poor households cope with risks through some combination of saving, borrowing, and insuring. Not only their sources of income but also their sources of savings, borrowing, and insuring are mainly informal. They save at home or through rotating savings and credit associations, and, increasingly, through micro-finance institutions. They borrow from family and friends; from moneylenders, employers, and traders; and, increasingly, from micro-finance institutions. They insure through informal – usually reciprocal – schemes, notably to cover costs associated with death ceremonies and marriages. Their current risk management instruments are usually not adequate. No amount of borrowing on unfavorable terms or insuring under reciprocal systems can compensate for the lack of access to formal sources of insurance, mortgages, education loans, pensions, and more.

As discussed in Section 5, there are two growing bodies of literature relating to microfinance, one on risk management by the poor (see Sebstad and Cohen 2000) and the other on money management by the poor (see Rutherford 2000). The literature on risk management tends to conflate all of the financial needs of poor households into risks and all strategies of the poor into coping strategies. On the other hand, the literature on money management tends to treat all of

the financial needs of poor household as planned expenditures and to consider all borrowing and saving by the poor as disciplined behavior reflecting an ability to save.

The reality for working poor households is more complex than either of these perspectives would suggest. As illustrated in Section 5, households manage money and risk through a complex mix of preventive and responsive strategies, driven by both necessity and opportunity. Their strategies include: building up and drawing down their financial, physical, human, and social assets on an on-going basis; investing in housing, education, and businesses when resources and circumstances allow them to do so; and weathering unexpected emergencies or shortfalls in income as best they can.

D.3. What Do They Need Beyond Credit?

Our study, particularly the case study findings, illustrates how and why financial needs – even anticipated needs – become financial risks for the poor and why the poor have to save even when they have little surplus with which to do so. The common understanding is that the poor save and borrow because, periodically, they need “to be able to get their hands on sums of money which are much bigger than the amounts of cash which are normally found in their household” (Rutherford 2000, p. 4). For some types of expenditures – such as weddings and rituals – this is true. For other types of expenditures – such as illness, death, old age, housing, education – a more accurate formulation would be that, periodically, the poor need lump sums of money to cover costs that less disadvantaged households, especially in more developed countries, would cover through insurance, pensions, mortgages, scholarships, or education loans.

The real difference between households is not their financial needs but their financial resources, namely how much money they have and how easily (and on what terms) they can get additional funds as needed. Less disadvantaged households have a wide range of mechanisms and sources to draw on to get additional funds when they need them. They can resort to: credit, savings, mortgages, and insurance (health, property, life, maternity, and life) from formal financial institutions; insurance, pensions, social security, or safety nets from statutory schemes: life insurance, pensions, and credit from private companies; and education scholarships or loans from private educational institutions. It would be unreasonable to expect credit and savings services to make up for the lack of access to all these other mechanisms.

In developing countries such as India, poor households typically do not have maternity benefits, education loans or scholarships, health insurance, sick leave, property insurance, old age pensions, or life insurance. In industrialized countries, most households have access to some of these schemes or benefits. Those that do not – particularly those that do not have health or property insurance – are seen to be at very high risk. The common understanding in industrialized countries that there are significant risks associated with not being covered by labor legislation, statutory welfare schemes, or private insurance needs to be extended to developing countries, where few poor households are covered by any of these measures. The increased emphasis in the field of microfinance on whether and how financial services can help poor households cope with risk, albeit welcome, should not distract our attention from the wider development failures that contribute to or exacerbate their exposure to risk. This is because no

amount of credit – or only a very large volume of credit – can make up for the lack of insurance, worker benefits, pensions, mortgages, and other provisions.

The types of instruments and policies needed to prevent and mitigate the risks faced by those in the informal economy can be usefully classified into four groups, as follows. First, pensions, insurance, and safety nets to cover the common risks of illness, maternity, disability, old age, death, unemployment, loss of assets, and loss of income. Second, special savings and loan products to cover social expenditures on life-cycle events (birth, marriage, death ceremonies), festivals and rituals, and education. Third, business development services to increase skills, improve products, and access markets. And, finally, policy, regulatory, and institutional reforms to address price, demand, and supply fluctuations, to address transaction failures, and to increase market access.

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APPENDIX: STATISTICAL TABLES

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Part I: Analysis of Household-Level Hypotheses

Common moderating variables used in all ANCOVA analysis
<ul style="list-style-type: none">• Age of respondent• Marital status of respondent• Educational attainment of respondent• Religion/caste• Employment status/main work of respondent• Trade of respondent• Household size• Number of economically active household members• Presence of male earner in the household• Presence of salary earner in the household

Note: Where additional moderating variables were used, they would be noted throughout this appendix.

Table H-1a Total Household Income

Measure: Income received by all HOUSEHOLD members in previous year from all sources

1. ANOVA Analysis: comparing Borrower, Saver and Control

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	264	51,384	40,034	2,464
	Savers	260	40,401	28,531	1,769
	Control	262	35,803	35,734	2,208
	Total	786	42,557	35,680	1,273
Round 2	Borrowers	264	59,704	42,561	2,619
	Savers	260	47,388	36,536	2,266
	Control	262	38,244	26,665	1,647
	Total	786	48,477	36,898	1,316

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	33,729,170,590.56	2	16,864,585,295	13.68	0.00
	Within Groups	965,622,551,079.21	783	1,233,234,420		
	Total	999,351,721,669.78	785			
Round 2	Between Groups	61,015,988,603.11	2	30,507,994,302	23.70	0.00
	Within Groups	1,007,737,790,628.00	783	1,287,021,444		
	Total	1,068,753,779,231.11	785			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

	Borrower/saver		Control		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Round 1	45,934	35,204	35,803	35,734	42,557	35,680
Round 2	53,593	40,125	38,244	26,665	48,477	36,898

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	(Combined)	17,927,243,510	1	17,927,243,510	14.32	0.00
	Within Groups		981,424,478,160	784	1,251,816,936		
	Total		999,351,721,670	785			
Round 2	Between Groups	(Combined)	41,146,340,460	1	41,146,340,460	31.39	0.00
	Within Groups		1,027,607,438,771	784	1,310,723,774		
	Total		1,068,753,779,231	785			

3. Gain Score Analysis

Descriptives

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	264	8,320	47,124	2,900
	Savers	260	6,987	32,630	2,024
	Control	262	2,441	31,632	1,954
	Total	786	5,919	37,872	1,351

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	4,987,194,646.40	2	2,493,597,323	1.74	0.18
	Within Groups	1,120,947,069,106.85	783	1,431,605,452		
	Total	1,125,934,263,753.25	785			

4. Standardized Gain Score Analysis

Descriptives

		N	Mean	Std. Deviation	Std. Error
Standardized gain score	Borrowers	264	6,565	47,867	2,946
	Savers	260	5,608	32,928	2,042
	Control	262	1,219	32,489	2,007
	Total	786	4,466	38,493	1,373

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Standardized gain score	Between Groups	4,265,183,524.36	2	2,132,591,762	1.44	0.24
	Within Groups	1,158,904,698,593.91	783	1,480,082,629		
	Total	1,163,169,882,118.27	785			

5. ANCOVA ANALYSIS

Dependent Variable: Total annual income-R2

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	486.54	6,974.04	0.07	0.94
Total household income-R1	0.34	0.03	9.72	0.00
Age group (base: 55+)				
AGE30	-3,368.14	3,831.84	-0.88	0.38
AGE31-45	1,662.63	3,574.15	0.47	0.64
Marital status (base: other)				
MARRIED	-1,567.91	3,483.48	-0.45	0.65
Schooling (base: no schooling)				
Primary	7,691.67	2,674.95	2.88	0.00
Secondary	8,348.17	3,527.13	2.37	0.02
High school and beyond	13,164.22	5,782.87	2.28	0.02
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	3,086.44	2,862.83	1.08	0.28
Hindu-upper caste	1,850.20	4,320.93	0.43	0.67
MUSLIM	3,883.52	3,211.02	1.21	0.23
Christian	2,789.10	22,476.67	0.12	0.90
Employment status/work type (Base: Self-employed)				
Piece rate	1,111.52	2,957.40	0.38	0.71
Wage/salaried work	-412.24	3,226.97	-0.13	0.90
Not gainfully employed	13,479.85	18,029.32	0.75	0.45
Trade (Base: Garment)				
Veggie/fruit vending	13,004.62	5,143.79	2.53	0.01
Bidi roller	-104.23	5,173.01	-0.02	0.98
Other	-2,689.63	3,068.51	-0.88	0.38
Household size	1,768.05	660.83	2.68	0.01
# of economically active household member	2,839.61	1,134.56	2.50	0.01
Presence of male earner	978.42	4,870.29	0.20	0.84
Presence of salaried income	20,174.51	3,477.89	5.80	0.00
Participation (Base: Control)				
Borrower	13,654.23	2,863.31	4.77	0.00
Saver	6,518.72	2,794.49	2.33	0.02

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	30.23	6,997.06	0.00	1.00
Total household income-R1	0.35	0.03	10.03	0.00
Age group (base: 55+)				
AGE30	-4,363.39	3,825.88	-1.14	0.25
AGE31-45	1,070.51	3,579.60	0.30	0.76
Marital status (base: other)				
MARRIED	-1,241.84	3,493.78	-0.36	0.72
Schooling (base: no schooling)				
Primary	8,096.91	2,679.95	3.02	0.00
Secondary	7,818.30	3,533.83	2.21	0.03
High school and beyond	13,431.92	5,802.91	2.31	0.02
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	3,332.52	2,871.59	1.16	0.25
Hindu-upper caste	2,268.69	4,333.50	0.52	0.60
MUSLIM	4,459.07	3,214.76	1.39	0.17
Christian	4,532.59	22,547.88	0.20	0.84
Employment status/work type (Base: Self-employed)				
Piece rate	498.89	2,958.39	0.17	0.87
Wage/salaried work	-463.25	3,238.62	-0.14	0.89
Not gainfully employed	13,135.95	18,094.25	0.73	0.47
Trade (Base: Garment)				
Vegie/fruit vending	13,073.91	5,162.39	2.53	0.01
Bidi roller	667.15	5,182.96	0.13	0.90
Other	-2,342.80	3,076.64	-0.76	0.45
household size	1,803.24	663.09	2.72	0.01
# of economically active household member	2,859.17	1,138.65	2.51	0.01
Presence of male earner	915.29	4,887.90	0.19	0.85
Presence of salaried income	19,950.24	3,489.40	5.72	0.00
Participation (Base: Control)				
Borrower &Saver	9,907.82	2,469.66	4.01	0.00

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	486.54	6,974.04	0.07	0.94
Total household income-R1	0.34	0.03	9.72	0.00
Age group (base: 55+)				
AGE30	-3,368.14	3,831.84	-0.88	0.38
AGE31-45	1,662.63	3,574.15	0.47	0.64
Marital status (base: other)				
MARRIED	-1,567.91	3,483.48	-0.45	0.65
Schooling (base: no schooling)				
Primary	7,691.67	2,674.95	2.88	0.00
Secondary	8,348.17	3,527.13	2.37	0.02
High school and beyond	13,164.22	5,782.87	2.28	0.02
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	3,086.44	2,862.83	1.08	0.28
Hindu-upper caste	1,850.20	4,320.93	0.43	0.67
MUSLIM	3,883.52	3,211.02	1.21	0.23
Christian	2,789.10	22,476.67	0.12	0.90
Employment status/work type (Base: Self-employed)				
Piece rate	1,111.52	2,957.40	0.38	0.71
Wage/salaried work	-412.24	3,226.97	-0.13	0.90
Not gainfully employed	13,479.85	18,029.32	0.75	0.45
Trade (Base: Garment)				
Vegie/fruit vending	13,004.62	5,143.79	2.53	0.01
Bidi roller	-104.23	5,173.01	-0.02	0.98
Other	-2,689.63	3,068.51	-0.88	0.38
household size	1,768.05	660.83	2.68	0.01
# of economically active household member	2,839.61	1,134.56	2.50	0.01
Presence of male earner	978.42	4,870.29	0.20	0.84
Presence of salaried income	20,174.51	3,477.89	5.80	0.00
Participation				
Borrower/saver (vs. control)	6,518.72	2,794.49	2.33	0.02
Borrower (vs. Saver/control)	7,135.51	2,788.42	2.56	0.01

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	47,057.83	11,599.02	4.06	0.00
HINCP_R1	0.33	0.03	9.66	0.00
Age group (base: 55+)				
AGE30	-2,363.91	3,814.58	-0.62	0.54
AGE31-45	2,663.99	3,560.79	0.75	0.45
Marital status (base: other)				
MARRIED	-1,552.25	3,461.72	-0.45	0.65
Schooling (base: no schooling)				
Primary	7,156.17	2,666.95	2.68	0.01
Secondary	7,447.94	3,512.09	2.12	0.03
High school and beyond	12,557.43	5,762.63	2.18	0.03
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	2,981.39	2,844.78	1.05	0.29
Hindu-upper caste	1,422.84	4,271.20	0.33	0.74
MUSLIM	2,863.54	3,198.54	0.90	0.37
Christian	2,280.86	22,341.87	0.10	0.92
Employment status/work type (Base: Self-employed)				
Piece rate	1,123.70	2,936.94	0.38	0.70
Wage/salaried work	-432.39	3,207.09	-0.13	0.89
Not gainfully employed	15,911.83	17,949.76	0.89	0.38
Trade (Base: Garment)				
Vegie/fruit vending	12,247.59	5,099.92	2.40	0.02
Bidi roller	153.04	5,144.71	0.03	0.98
Other	-3,539.27	3,034.61	-1.17	0.24
household size	1,523.29	655.32	2.32	0.02
# of economically active household member	3,201.11	1,127.19	2.84	0.00
Presence of male earner	1,141.05	4,865.26	0.23	0.81
Presence of salaried income	20,145.91	3,458.63	5.82	0.00
Participation (Base: Taken 5 or more loans)				
No loan	-43,185.53	9,568.97	-4.51	0.00
One loan	-38,298.46	9,900.57	-3.87	0.00
2-4 loans	-32,211.85	9,687.94	-3.32	0.00

Table H-1b Per capita household Income

Measure: Income received by all HOUSEHOLD members in previous year from all sources divided by total number of people living in HOUSEHOLD

1. ANOVA Analysis: comparing Borrower, Saver and Control

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	264	9,184	8,769	540
	Savers	260	7,803	6,918	429
	Control	262	6,430	5,580	345
	Total	786	7,809	7,292	260
Round 2	Borrowers	264	10,522	7,164	441
	Savers	260	8,902	7,074	439
	Control	262	7,025	4,761	294
	Total	786	8,820	6,580	235

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	997,131,613	2	498,565,807	9.58	0.00
	Within Groups	40,743,368,372	783	52,034,953		
	Total	41,740,499,985	785			
Round 2	Between Groups	1,610,341,786	2	805,170,893	19.47	0.00
	Within Groups	32,374,225,647	783	41,346,393		
	Total	33,984,567,433	785			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

	Borrower/saver		Control		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Round 1	8,499	7,927	6,430	5,580	7,809	7,292
Round 2	9,718	7,159	7,025	4,761	8,820	6,580

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups (Combined)	747,196,351	1	747,196,351	14.29	0.00
	Within Groups	40,993,303,634	784	52,287,377		
	Total	41,740,499,985	785			
Round 2	Between Groups (Combined)	1,266,398,140	1	1,266,398,140	30.35	0.00
	Within Groups	32,718,169,293	784	41,732,359		
	Total	33,984,567,433	785			

3. GAIN SCORE ANALYSIS

Descriptives

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	264	1,338	10,038	618
	Savers	260	1,099	7,182	445
	Control	262	595	5,816	359
	Total	786	1,011	7,882	281

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	75,576,588	2	37,788,294	0.61	0.54
	Within Groups	48,689,880,326	783	62,183,755		
	Total	48,765,456,914	785			

4. Standardized gain score analysis

Descriptives

		N	Mean	Std. Deviation	Std. Error
Standardized gain score	Borrowers	264	2,235	9,442	581
	Savers	260	1,861	6,871	426
	Control	262	1,223	5,477	338
	Total	786	1,774	7,456	266

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Standardized gain score	Between Groups	137,604,777	2	68,802,388	1.24	0.29
	Within Groups	43,505,228,609	783	55,562,233		
	Total	43,642,833,386	785			

5. ANCOVA ANALYSIS

Dependent Variable: Percapita household income-R2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	7,510.51	1,297.92	5.79	0.00
HINCP_R1	0.21	0.03	7.11	0.00
Age group (base: 55+)				
AGE30	-641.24	701.21	-0.91	0.36
AGE31-45	548.15	654.95	0.84	0.40
Marital status (base: other)				
MARRIED	-1,218.83	637.80	-1.91	0.06
Schooling (base: no schooling)				
Primary	1,653.22	490.28	3.37	0.00
Secondary	1,474.44	646.71	2.28	0.02
High school and beyond	3,697.64	1,058.90	3.49	0.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	405.83	524.33	0.77	0.44
Hindu-upper caste	-50.54	791.75	-0.06	0.95
MUSLIM	574.31	587.21	0.98	0.33
Christian	1,531.53	4,117.14	0.37	0.71
Employment status/work type (Base: Self-employed)				
Piece rate	-933.66	542.47	-1.72	0.09
Wage/salaried work	-733.91	592.11	-1.24	0.22
Not gainfully employed	496.00	3,301.99	0.15	0.88
Trade (Base: Garment)				
Vegie/fruit vending	1,315.23	942.18	1.40	0.16
Bidi roller	103.92	947.47	0.11	0.91
Other	-755.10	562.31	-1.34	0.18
household size	-570.30	123.44	-4.62	0.00
# of economically active household member	672.15	206.51	3.25	0.00
Presence of male earner	-150.67	891.77	-0.17	0.87
Presence of salaried income	4,796.36	635.31	7.55	0.00
Participation (Base: Control)				
Borrower	2,346.85	524.40	4.48	0.00
Saver	1,052.26	512.25	2.05	0.04

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	7,356.17	1,301.11	5.65	0.00
HINCP_R1	0.22	0.03	7.34	0.00
Age group (base: 55+)				
AGE30	-817.63	700.25	-1.17	0.24
AGE31-45	440.74	655.92	0.67	0.50
Marital status (base: other)				
MARRIED	-1,153.87	639.55	-1.80	0.07
Schooling (base: no schooling)				
Primary	1,726.16	491.19	3.51	0.00
Secondary	1,378.21	647.90	2.13	0.03
High school and beyond	3,751.94	1,062.46	3.53	0.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	452.22	525.88	0.86	0.39
Hindu-upper caste	23.93	794.03	0.03	0.98
MUSLIM	685.84	587.65	1.17	0.24
Christian	1,852.49	4,129.87	0.45	0.65
Employment status/work type (Base: Self-employed)				
Piece rate	-1,045.54	542.60	-1.93	0.05
Wage/salaried work	-740.65	594.22	-1.25	0.21
Not gainfully employed	444.48	3,313.70	0.13	0.89
Trade (Base: Garment)				
Vegie/fruit vending	1,325.40	945.53	1.40	0.16
Bidi roller	242.09	949.28	0.26	0.80
Other	-697.40	563.85	-1.24	0.22
household size	-552.43	123.67	-4.47	0.00
# of economically active household member	679.39	207.23	3.28	0.00
Presence of male earner	-153.38	894.94	-0.17	0.86
Presence of salaried income	4,763.10	637.44	7.47	0.00
Participation (Base: Control)				
Borrower &Saver	1,668.17	452.80	3.68	0.00

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	7,510.51	1,297.92	5.79	0.00
HINCP_R1	0.21	0.03	7.11	0.00
Age group (base: 55+)				
AGE30	-641.24	701.21	-0.91	0.36
AGE31-45	548.15	654.95	0.84	0.40
Marital status (base: other)				
MARRIED	-1,218.83	637.80	-1.91	0.06
Schooling (base: no schooling)				
Primary	1,653.22	490.28	3.37	0.00
Secondary	1,474.44	646.71	2.28	0.02
High school and beyond	3,697.64	1,058.90	3.49	0.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	405.83	524.33	0.77	0.44
Hindu-upper caste	-50.54	791.75	-0.06	0.95
MUSLIM	574.31	587.21	0.98	0.33
Christian	1,531.53	4,117.14	0.37	0.71
Employment status/work type (Base: Self-employed)				
Piece rate	-933.66	542.47	-1.72	0.09
Wage/salaried work	-733.91	592.11	-1.24	0.22
Not gainfully employed	496.00	3,301.99	0.15	0.88
Trade (Base: Garment)				
Vegie/fruit vending	1,315.23	942.18	1.40	0.16
Bidi roller	103.92	947.47	0.11	0.91
Other	-755.10	562.31	-1.34	0.18
household size	-570.30	123.44	-4.62	0.00
# of economically active household member	672.15	206.51	3.25	0.00
Presence of male earner	-150.67	891.77	-0.17	0.87
Presence of salaried income	4,796.36	635.31	7.55	0.00
Participation				
Borrower/saver (vs. control)	1,052.26	512.25	2.05	0.04
Borrower (vs. Saver/control)	1,294.59	509.79	2.54	0.01

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	13,596.31	2,152.79	6.32	0.00
HINCP_R1	0.21	0.03	7.07	0.00
Age group (base: 55+)				
AGE30	-504.32	700.87	-0.72	0.47
AGE31-45	672.26	655.17	1.03	0.31
Marital status (base: other)				
MARRIED	-1,224.82	636.43	-1.92	0.05
Schooling (base: no schooling)				
Primary	1,576.55	490.74	3.21	0.00
Secondary	1,369.51	646.63	2.12	0.03
High school and beyond	3,563.69	1,059.50	3.36	0.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	400.51	523.12	0.77	0.44
Hindu-upper caste	-118.36	785.77	-0.15	0.88
MUSLIM	453.60	587.31	0.77	0.44
Christian	1,435.14	4,109.17	0.35	0.73
Employment status/work type (Base: Self-employed)				
Piece rate	-928.22	540.99	-1.72	0.09
Wage/salaried work	-733.12	590.92	-1.24	0.22
Not gainfully employed	869.24	3,300.60	0.26	0.79
Trade (Base: Garment)				
Vegie/fruit vending	1,177.89	937.91	1.26	0.21
Bidi roller	124.22	946.13	0.13	0.90
Other	-887.57	558.20	-1.59	0.11
household size	-605.87	123.35	-4.91	0.00
# of economically active household member	716.46	205.99	3.48	0.00
Presence of male earner	-114.65	894.18	-0.13	0.90
Presence of salaried income	4,828.18	634.53	7.61	0.00
Participation (Base: Taken 5 or more loans)				
No loan	-5,572.56	1,758.96	-3.17	0.00
One loan	-4,505.10	1,820.10	-2.48	0.01
2-4 loans	-3,563.98	1,782.25	-2.00	0.05

Table H-2 Diversification of income

Measure	Additional moderating variables
Inverse Simpson's Index	• Per capita household income

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	264	2.13	0.87	0.05
	Savers	260	1.95	0.83	0.05
	Control	262	1.93	0.85	0.05
	Total	786	2.00	0.85	0.03
Round 1	Borrowers	263	2.10	0.79	0.05
	Savers	260	1.87	0.79	0.05
	Control	262	1.90	0.80	0.05
	Total	785	1.96	0.80	0.03

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	6.59	2	3.29	4.55	0.01
	Within Groups	566.51	783	0.72		
	Total	573.10	785			
Round 2	Between Groups	7.93	2	3.96	6.29	0.00
	Within Groups	492.45	782	0.63		
	Total	500.37	784			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

	Borrower/saver		Control		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Round 1	2.04	0.85	1.93	0.85	2.00	0.85
Round 2	1.98	0.80	1.90	0.80	1.96	0.80

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	(Combined)	1.94	1	1.94	2.67	0.10
	Within Groups		571.16	784	0.73		
	Total		573.10	785			
Round 2	Between Groups	(Combined)	1.13	1	1.13	1.77	0.18
	Within Groups		499.25	783	0.64		
	Total		500.37	784			

3. GAIN SCORE ANALYSIS

Descriptives

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	263	-0.04	0.77	0.05
	Savers	260	-0.08	0.76	0.05
	Control	262	-0.03	0.81	0.05
	Total	785	-0.05	0.78	0.03

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	0.29	2.00	0.15	0.24	0.79
	Within Groups	477.68	782.00	0.61		
	Total	477.98	784.00			

4. ANCOVA ANALYSIS

Dependent Variable: Inverse Simpson index-R2

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.97	0.16	5.95	0.00
SINDEX1	0.51	0.03	18.05	0.00
Age group (base: 55+)				
AGE30	-0.12	0.08	-1.41	0.16
AGE31-45	-0.01	0.08	-0.18	0.86
Marital status (base: other)				
MARRIED	-0.07	0.07	-0.92	0.36
Schooling (base: no schooling)				
Primary	-0.11	0.06	-1.85	0.06
Secondary	-0.07	0.08	-0.90	0.37
High school and beyond	0.01	0.12	0.08	0.93
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.08	0.06	1.35	0.18
Hindu-upper caste	0.01	0.09	0.15	0.88
MUSLIM	0.09	0.07	1.27	0.20
Christian	0.92	0.48	1.92	0.06
Employment status/work type (Base: Self-employed)				
Piece rate	-0.04	0.06	-0.68	0.50
Wage/salaried work	0.08	0.07	1.14	0.26
Not gainfully employed	-0.20	0.39	-0.51	0.61
Trade (Base: Garment)				
Vegie/fruit vending	-0.05	0.11	-0.47	0.64
Bidi roller	-0.08	0.11	-0.76	0.45
Other	-0.16	0.07	-2.42	0.02
household size	0.00	0.01	-0.11	0.92
HOUSEHOLD income percapita r1	0.00	0.00	0.42	0.67
# of economically active household member	0.00	0.02	-0.09	0.93
Presence of male earner	-0.02	0.07	-0.29	0.77
Presence of salaried income	0.19	0.10	1.79	0.07
Participation (Base: Control)				
Borrower	0.07	0.06	1.07	0.29
Saver	-0.05	0.06	-0.83	0.41

B. Borrower/savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.95	0.16	5.82	0.00
SINDEX1	0.52	0.03	18.25	0.00
Age group (base: 55+)				
AGE30	-0.13	0.08	-1.61	0.11
AGE31-45	-0.02	0.08	-0.30	0.76
Marital status (base: other)				
MARRIED	-0.06	0.07	-0.84	0.40
Schooling (base: no schooling)				
Primary	-0.10	0.06	-1.74	0.08
Secondary	-0.08	0.08	-1.00	0.32
High school and beyond	0.02	0.12	0.13	0.90
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.09	0.06	1.42	0.16
Hindu-upper caste	0.02	0.09	0.22	0.83
MUSLIM	0.10	0.07	1.41	0.16
Christian	0.95	0.48	1.97	0.05
Employment status/work type (Base: Self-employed)				
Piece rate	-0.05	0.06	-0.84	0.40
Wage/salaried work	0.08	0.07	1.12	0.26
Not gainfully employed	-0.21	0.39	-0.54	0.59
Trade (Base: Garment)				
Vegie/fruit vending	-0.05	0.11	-0.45	0.65
Bidi roller	-0.07	0.11	-0.64	0.52
Other	-0.15	0.07	-2.33	0.02
household size	0.00	0.01	0.00	1.00
HOUSEHOLD income percapita r1	0.00	0.00	0.60	0.55
# of economically active household member	0.00	0.02	-0.06	0.95
Presence of male earner	-0.02	0.07	-0.33	0.74
Presence of salaried income	0.19	0.10	1.78	0.07
Participation (Base: Control)				
Borrower/saver	0.00	0.05	0.09	0.93

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	0.97	0.16	5.95	0.00
SINDEX1	0.51	0.03	18.05	0.00
Age group (base: 55+)				
AGE30	-0.12	0.08	-1.41	0.16
AGE31-45	-0.01	0.08	-0.18	0.86
Marital status (base: other)				
MARRIED	-0.07	0.07	-0.92	0.36
Schooling (base: no schooling)				
Primary	-0.11	0.06	-1.85	0.06
Secondary	-0.07	0.08	-0.90	0.37
High school and beyond	0.01	0.12	0.08	0.93
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.08	0.06	1.35	0.18
Hindu-upper caste	0.01	0.09	0.15	0.88
MUSLIM	0.09	0.07	1.27	0.20
Christian	0.92	0.48	1.92	0.06
Employment status/work type (Base: Self-employed)				
Piece rate	-0.04	0.06	-0.68	0.50
Wage/salaried work	0.08	0.07	1.14	0.26
Not gainfully employed	-0.20	0.39	-0.51	0.61
Trade (Base: Garment)				
Veggie/fruit vending	-0.05	0.11	-0.47	0.64
Bidi roller	-0.08	0.11	-0.76	0.45
Other	-0.16	0.07	-2.42	0.02
household size	0.00	0.01	-0.11	0.92
HOUSEHOLD income percapita r1	0.00	0.00	0.42	0.67
# of economically active household member	0.00	0.02	-0.09	0.93
Presence of male earner	-0.02	0.07	-0.29	0.77
Presence of salaried income	0.19	0.10	1.79	0.07
Participation				
Borrower/saver (vs. control)	-0.05	0.06	-0.83	0.41
Borrower (vs. Saver/control)	0.12	0.06	1.93	0.05

D. Number of SEWA Bank loans

Parameter	B	Std. Error	t	Sig.
Intercept	1.03	0.26	4.01	0.00
SINDEX1	0.51	0.03	18.04	0.00
Age group (base: 55+)				
AGE30	-0.12	0.08	-1.42	0.16
AGE31-45	-0.01	0.08	-0.18	0.86
Marital status (base: other)				
MARRIED	-0.07	0.07	-0.99	0.32
Schooling (base: no schooling)				
Primary	-0.11	0.06	-1.90	0.06
Secondary	-0.07	0.08	-0.95	0.34
High school and beyond	0.00	0.12	0.00	1.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.09	0.06	1.48	0.14
Hindu-upper caste	0.02	0.09	0.27	0.79
MUSLIM	0.09	0.07	1.34	0.18
Christian	0.93	0.48	1.94	0.05
Employment status/work type (Base: Self-employed)				
Piece rate	-0.04	0.06	-0.60	0.55
Wage/salaried work	0.08	0.07	1.17	0.24
Not gainfully employed	-0.17	0.39	-0.43	0.67
Trade (Base: Garment)				
Veggie/fruit vending	-0.05	0.11	-0.47	0.64
Bidi roller	-0.09	0.11	-0.77	0.44
Other	-0.16	0.07	-2.39	0.02
household size	0.00	0.01	-0.14	0.89
HOUSEHOLD income percapita r1	0.00	0.00	0.31	0.76
# of economically active household member	0.00	0.02	-0.11	0.91
Presence of male earner	-0.02	0.07	-0.30	0.77
Presence of salaried income	0.20	0.10	1.89	0.06
Participation (Base: Taken 5 or more loans)				
No loan	-0.09	0.21	-0.42	0.68
One loan	-0.11	0.21	-0.50	0.62
2-4 loans	0.01	0.21	0.06	0.95

Table H-3a. Housing Improvements

Measure	Moderating Variables
Expenditures on building materials (used and unused) and labor payments in previous 12 months for housing improvements, repairs, expansions and infrastructure connections	<ul style="list-style-type: none"> • Per capita income • Housing tenure • Whether respondent took a SEWA housing loan in the past 2 years

1. ANOVA Analysis: Comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	264	7,386	18,068	1,112
	Savers	260	4,094	14,532	901
	Control	262	1,992	6,701	414
	Total	786	4,499	14,104	503
Round 2	Borrowers	264	11,815	55,373	3,408
	Savers	260	8,121	26,147	1,622
	Control	262	4,097	13,752	850
	Total	786	8,020	36,410	1,299

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	3,888,322,480	2	1,944,161,240	10.00	0.00
	Within Groups	152,274,763,750	783	194,476,071		
	Total	156,163,086,230	785			
Round 2	Between Groups	7,835,885,517	2	3,917,942,759	2.97	0.05
	Within Groups	1,032,847,140,879	783	1,319,089,580		
	Total	1,040,683,026,396	785			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

	Borrower/saver		Control		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Round 1	5,752.51	16,476.13	1,992.48	6,700.66	4,499.17	14,104.39
Round 2	9,981.82	43,403.81	4,097.36	13,752.04	8,020.33	36,410.31

ANOVA test

			Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	(Combined)	2,469,407,573	1	2,469,407,573	12.60	0.00
	Within Groups		153,693,678,656	784	196,037,855		
	Total		156,163,086,230	785			
Round 2	Between Groups	(Combined)	6,048,159,714	1	6,048,159,714	4.58	0.03
	Within Groups		1,034,634,866,682	784	1,319,687,330		
	Total		1,040,683,026,396	785			

3. GAIN SCORE ANALYSIS

Descriptives

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	264	4,429	57,939	3,566
	Savers	260	4,026	30,023	1,862
	Control	262	2,105	14,871	919
	Total	786	3,521	38,687	1,380

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	809,585,591	2	404,792,796	0.27	0.76
	Within Groups	1,174,065,863,541	783	1,499,445,547		
	Total	1,174,875,449,132	785			

4. ANCOVA ANALYSIS

Dependent Variable: Expenditure on housing improvement-R2

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	-20,999.84	11,187.58	-1.88	0.06
Expenditure on housing improvement-r1	0.05	0.10	0.48	0.63
Age group (base: 55+)				
AGE30	353.87	4,513.11	0.08	0.94
AGE31-45	937.29	4,207.62	0.22	0.82
Marital status (base: other)				
MARRIED	2,818.23	4,108.34	0.69	0.49
Schooling (base: no schooling)				
Primary	1,771.81	3,153.22	0.56	0.57
Secondary	7,014.94	4,168.31	1.68	0.09
High school and beyond	3,141.18	6,840.56	0.46	0.65
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-2,005.20	3,368.43	-0.60	0.55
Hindu-upper caste	3,200.14	5,112.16	0.63	0.53
MUSLIM	5,028.76	3,813.63	1.32	0.19
Christian	306.92	26,390.17	0.01	0.99
Employment status/work type (Base: Self-employed)				
Piece rate	-4,004.75	3,480.18	-1.15	0.25
Wage/salaried work	-5,926.96	3,814.33	-1.55	0.12
Not gainfully employed	-10,191.93	21,154.88	-0.48	0.63
Trade (Base: Garment)				
Vegie/fruit vending	-1,406.01	6,063.61	-0.23	0.82
Bidi roller	8,990.37	6,133.12	1.47	0.14
Other	3,894.63	3,620.63	1.08	0.28
household size	2,197.01	790.95	2.78	0.01
# of economically active household member	-1,646.06	1,323.49	-1.24	0.21
Presence of salaried income	5,151.58	4,088.19	1.26	0.21
Presence of male earner	3,320.90	5,726.04	0.58	0.56
HOUSEHOLD income percapita r1	0.23	0.19	1.22	0.22
Housing tenure (Base: other)				
Owned	6,708.75	7,342.65	0.91	0.36
Rented	4,895.26	7,523.90	0.65	0.52
Number of house improvement loans taken	-2,685.56	3,093.42	-0.87	0.39
Participation (Base: Control)				
Borrower	7,455.43	3,727.24	2.00	0.05
Saver	3,153.28	3,292.06	0.96	0.34

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	-21,001.02	11,190.75	-1.88	0.06
Expenditure on housing improvement-r1	0.05	0.10	0.51	0.61
Age group (base: 55+)				
AGE30	-6.91	4,504.30	0.00	1.00
AGE31-45	709.72	4,204.51	0.17	0.87
Marital status (base: other)				
MARRIED	2,871.52	4,109.27	0.70	0.48
Schooling (base: no schooling)				
Primary	1,970.39	3,149.74	0.63	0.53
Secondary	6,686.34	4,160.43	1.61	0.11
High school and beyond	2,871.53	6,838.78	0.42	0.67
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,850.68	3,366.91	-0.55	0.58
Hindu-upper caste	3,550.67	5,105.20	0.70	0.49
MUSLIM	5,464.89	3,797.23	1.44	0.15
Christian	1,718.61	26,371.24	0.07	0.95
Employment status/work type (Base: Self-employed)				
Piece rate	-4,309.52	3,471.82	-1.24	0.21
Wage/salaried work	-6,076.99	3,813.35	-1.59	0.11
Not gainfully employed	-10,101.76	21,160.75	-0.48	0.63
Trade (Base: Garment)				
Vegie/fruit vending	-1,319.42	6,064.90	-0.22	0.83
Bidi roller	9,065.98	6,134.53	1.48	0.14
Other	4,073.63	3,618.56	1.13	0.26
household size	2,233.72	790.58	2.83	0.00
# of economically active household member	-1,626.39	1,323.76	-1.23	0.22
Presence of salaried income	5,123.06	4,089.28	1.25	0.21
Presence of male earner	3,427.46	5,726.98	0.60	0.55
HOUSEHOLD income percapita r1	0.25	0.19	1.31	0.19
Housing tenure (Base: other)				
Owned	6,210.18	7,332.89	0.85	0.40
Rented	4,560.11	7,520.81	0.61	0.54
Number of house improvement loans taken	-1,199.66	2,833.81	-0.42	0.67
Participation (Base: Control)				
Borrower/saver	4,796.46	2,992.56	1.60	0.11

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	-20,999.84	11,187.58	-1.88	0.06
Expenditure on housing improvement-r1	0.05	0.10	0.48	0.63
Age group (base: 55+)				
AGE30	353.87	4,513.11	0.08	0.94
AGE31-45	937.29	4,207.62	0.22	0.82
Marital status (base: other)				
MARRIED	2,818.23	4,108.34	0.69	0.49
Schooling (base: no schooling)				
Primary	1,771.81	3,153.22	0.56	0.57
Secondary	7,014.94	4,168.31	1.68	0.09
High school and beyond	3,141.18	6,840.56	0.46	0.65
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-2,005.20	3,368.43	-0.60	0.55
Hindu-upper caste	3,200.14	5,112.16	0.63	0.53
MUSLIM	5,028.76	3,813.63	1.32	0.19
Christian	306.92	26,390.17	0.01	0.99
Employment status/work type (Base: Self-employed)				
Piece rate	-4,004.75	3,480.18	-1.15	0.25
Wage/salaried work	-5,926.96	3,814.33	-1.55	0.12
Not gainfully employed	-10,191.93	21,154.88	-0.48	0.63
Trade (Base: Garment)				
Vegie/fruit vending	-1,406.01	6,063.61	-0.23	0.82
Bidi roller	8,990.37	6,133.12	1.47	0.14
Other	3,894.63	3,620.63	1.08	0.28
household size	2,197.01	790.95	2.78	0.01
# of economically active household member	-1,646.06	1,323.49	-1.24	0.21
Presence of salaried income	5,151.58	4,088.19	1.26	0.21
Presence of male earner	3,320.90	5,726.04	0.58	0.56
HOUSEHOLD income percapita r1	0.23	0.19	1.22	0.22
Housing tenure (Base: other)				
Owned	6,708.75	7,342.65	0.91	0.36
Rented	4,895.26	7,523.90	0.65	0.52
Number of house improvement loans taken	-2,685.56	3,093.42	-0.87	0.39
Participation				
Borrower/saver (vs. control)	3,153.28	3,292.06	0.96	0.34
Borrower (vs. Saver/control)	4,302.16	3,596.86	1.20	0.23

D. .Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	56,734.35	15,480.66	3.66	0.00
Expenditure on housing improvement-r1	0.08	0.09	0.82	0.41
Age group (base: 55+)				
AGE30	1,400.71	4,390.79	0.32	0.75
AGE31-45	2,409.73	4,097.57	0.59	0.56
Marital status (base: other)				
MARRIED	2,750.46	3,988.25	0.69	0.49
Schooling (base: no schooling)				
Primary	1,633.11	3,074.29	0.53	0.60
Secondary	5,524.65	4,057.18	1.36	0.17
High school and beyond	4,627.56	6,653.50	0.70	0.49
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-2,537.45	3,272.90	-0.78	0.44
Hindu-upper caste	3,151.72	4,935.21	0.64	0.52
MUSLIM	2,725.00	3,718.61	0.73	0.46
Christian	-700.79	25,655.85	-0.03	0.98
Employment status/work type (Base: Self-employed)				
Piece rate	-3,420.95	3,380.87	-1.01	0.31
Wage/salaried work	-5,329.61	3,710.16	-1.44	0.15
Not gainfully employed	-9,503.90	20,592.72	-0.46	0.64
Trade (Base: Garment)				
Vegie/fruit vending	-427.13	5,886.01	-0.07	0.94
Bidi roller	10,105.25	5,963.79	1.69	0.09
Other	3,808.69	3,504.07	1.09	0.28
household size	2,057.17	769.49	2.67	0.01
# of economically active household member	-1,214.04	1,285.95	-0.94	0.35
Presence of salaried income	3,289.80	3,977.91	0.83	0.41
Presence of male earner	1,593.46	5,588.93	0.29	0.78
HOUSEHOLD income percapita r1	0.27	0.19	1.44	0.15
Housing tenure (Base: other)				
Owned	8,312.26	7,134.14	1.17	0.24
Rented	6,495.03	7,319.01	0.89	0.38
Number of house improvement loans taken	-5,465.62	3,118.60	-1.75	0.08
Participation (Base: Taken 5 or more loans)				
No loan	-78,094.37	11,369.52	-6.87	0.00
One loan	-70,114.71	11,593.26	-6.05	0.00
2-4 loans	-73,498.96	11,186.22	-6.57	0.00

Table H-3b Appliances, transport and furniture

Measure	Moderating Variables
Expenditures on HOUSEHOLD appliances, vehicles and furniture in previous 24 months	<ul style="list-style-type: none"> Per capita income

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error	Maximum
Round 1	Borrowers	264	2,475	6,882	424	62,275
	Savers	260	1,363	3,538	219	21,500
	Control	262	1,167	4,496	278	52,300
	Total	786	1,671	5,201	186	62,275
Round 2	Borrowers	264	2,567	4,554	280	24,048
	Savers	260	2,771	6,376	395	56,488
	Control	262	2,124	5,332	329	41,522
	Total	786	2,486	5,467	195	56,488

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	261,885,486	2	130,942,743	4.89	0.01
	Within Groups	20,974,315,466	783	26,787,121		
	Total	21,236,200,951	785			
Round 2	Between Groups	57,196,148	2	28,598,074	0.96	0.38
	Within Groups	23,403,448,300	783	29,889,461		
	Total	23,460,644,448	785			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

	Borrower/saver		Control		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Round 1	1,923	5,507	1,167	4,496	1,671	5,201
Round 2	2,668	5,529	2,124	5,332	2,486	5,467

ANOVA test

			Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	(Combined)	99,830,304	1	99,830,304	3.70	0.05
	Within Groups		21,136,370,647	784	26,959,656		
	Total		21,236,200,951	785			
Round 2	Between Groups	(Combined)	51,743,572	1	51,743,572	1.73	0.19
	Within Groups		23,408,900,876	784	29,858,292		
	Total		23,460,644,448	785			

3. GAIN SCORE ANALYSIS

Descriptives

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	264	91	8,016	493
	Savers	260	1,408	7,222	448
	Control	262	956	6,132	379
	Total	786	815	7,179	256

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	234,789,173	2	117,394,586	2.29	0.10
	Within Groups	40,220,362,074	783	51,367,001		
	Total	40,455,151,247	785			

4. ANCOVA ANALYSIS

Dependent Variable: Total expenditure on appliances, vehicles and furniture-R2

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	-112.60	1,214.70	-0.09	0.93
Total exp on a&f&t-r1	0.08	0.04	2.00	0.05
Age group (base: 55+)				
AGE30	645.36	656.98	0.98	0.33
AGE31-45	1,361.85	612.72	2.22	0.03
Marital status (base: other)				
MARRIED	91.86	596.67	0.15	0.88
Schooling (base: no schooling)				
Primary	75.28	458.74	0.16	0.87
Secondary	1,640.96	605.50	2.71	0.01
High school and beyond	3,741.75	990.97	3.78	0.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-938.93	490.54	-1.91	0.06
Hindu-upper caste	-582.96	743.02	-0.78	0.43
MUSLIM	-966.26	549.37	-1.76	0.08
Christian	-659.27	3,851.69	-0.17	0.86
Employment status/work type (Base: Self-employed)				
Piece rate	-840.61	507.58	-1.66	0.10
Wage/salaried work	-935.14	553.95	-1.69	0.09
Not gainfully employed	-1,159.88	3,092.44	-0.38	0.71
Trade (Base: Garment)				
Vegie/fruit vending	905.26	881.43	1.03	0.30
Bidi roller	1,562.97	886.69	1.76	0.08
Other	350.66	526.26	0.67	0.51
household size	-42.55	115.68	-0.37	0.71
# of economically active household member	349.61	193.22	1.81	0.07
Presence of salaried income	1,775.84	594.59	2.99	0.00
Presence of male earner	293.15	834.69	0.35	0.73
HOUSEHOLD income percapita r1	0.05	0.03	1.60	0.11
Participation (Base: Control)				
Borrower	-49.23	492.11	-0.10	0.92
Saver	226.05	479.25	0.47	0.64

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	-81.27	1,212.94	-0.07	0.95
Total exp on a&f&t-r1	0.07	0.04	1.97	0.05
Age group (base: 55+)				
AGE30	684.11	653.24	1.05	0.30
AGE31-45	1,384.55	611.19	2.27	0.02
Marital status (base: other)				
MARRIED	78.17	595.94	0.13	0.90
Schooling (base: no schooling)				
Primary	59.54	457.72	0.13	0.90
Secondary	1,660.36	604.30	2.75	0.01
High school and beyond	3,731.30	990.37	3.77	0.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-948.58	490.04	-1.94	0.05
Hindu-upper caste	-596.40	742.33	-0.80	0.42
MUSLIM	-989.67	547.62	-1.81	0.07
Christian	-727.59	3,848.17	-0.19	0.85
Employment status/work type (Base: Self-employed)				
Piece rate	-817.31	505.74	-1.62	0.11
Wage/salaried work	-933.89	553.70	-1.69	0.09
Not gainfully employed	-1,143.27	3,090.95	-0.37	0.71
Trade (Base: Garment)				
Vegie/fruit vending	903.14	881.03	1.03	0.31
Bidi roller	1,534.66	884.94	1.73	0.08
Other	339.03	525.64	0.64	0.52
household size	-46.06	115.47	-0.40	0.69
# of economically active household member	348.19	193.11	1.80	0.07
Presence of salaried income	1,783.55	594.18	3.00	0.00
Presence of male earner	292.67	834.32	0.35	0.73
HOUSEHOLD income percapita r1	0.04	0.03	1.56	0.12
Participation (Base: Control)				
Borrower/saver	95.93	422.45	0.23	0.82

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	-112.60	1,214.70	-0.09	0.93
Total exp on a&f&t-r1	0.08	0.04	2.00	0.05
Age group (base: 55+)				
AGE30	645.36	656.98	0.98	0.33
AGE31-45	1,361.85	612.72	2.22	0.03
Marital status (base: other)				
MARRIED	91.86	596.67	0.15	0.88
Schooling (base: no schooling)				
Primary	75.28	458.74	0.16	0.87
Secondary	1,640.96	605.50	2.71	0.01
High school and beyond	3,741.75	990.97	3.78	0.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-938.93	490.54	-1.91	0.06
Hindu-upper caste	-582.96	743.02	-0.78	0.43
MUSLIM	-966.26	549.37	-1.76	0.08
Christian	-659.27	3,851.69	-0.17	0.86
Employment status/work type (Base: Self-employed)				
Piece rate	-840.61	507.58	-1.66	0.10
Wage/salaried work	-935.14	553.95	-1.69	0.09
Not gainfully employed	-1,159.88	3,092.44	-0.38	0.71
Trade (Base: Garment)				
Vegie/fruit vending	905.26	881.43	1.03	0.30
Bidi roller	1,562.97	886.69	1.76	0.08
Other	350.66	526.26	0.67	0.51
household size	-42.55	115.68	-0.37	0.71
# of economically active household member	349.61	193.22	1.81	0.07
Presence of salaried income	1,775.84	594.59	2.99	0.00
Presence of male earner	293.15	834.69	0.35	0.73
HOUSEHOLD income percapita r1	0.05	0.03	1.60	0.11
Participation				
Borrower/saver (vs. control)	226.05	479.25	0.47	0.64
Borrower (vs. Saver/control)	-275.28	478.05	-0.58	0.56

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	4,612.20	2,006.97	2.30	0.02
Total exp on a&f&t-r1	0.08	0.04	2.06	0.04
Age group (base: 55+)				
AGE30	755.14	653.99	1.15	0.25
AGE31-45	1,482.27	610.55	2.43	0.02
Marital status (base: other)				
MARRIED	51.68	593.09	0.09	0.93
Schooling (base: no schooling)				
Primary	76.17	457.37	0.17	0.87
Secondary	1,563.10	603.08	2.59	0.01
High school and beyond	3,839.21	987.63	3.89	0.00
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,002.16	487.51	-2.06	0.04
Hindu-upper caste	-564.94	734.53	-0.77	0.44
MUSLIM	-1,130.15	547.36	-2.06	0.04
Christian	-719.25	3,829.29	-0.19	0.85
Employment status/work type (Base: Self-employed)				
Piece rate	-776.00	504.27	-1.54	0.12
Wage/salaried work	-901.03	550.69	-1.64	0.10
Not gainfully employed	-1,248.46	3,079.20	-0.41	0.69
Trade (Base: Garment)				
Vegie/fruit vending	1,013.96	874.03	1.16	0.25
Bidi roller	1,565.81	882.02	1.78	0.08
Other	354.17	520.36	0.68	0.50
household size	-47.10	115.15	-0.41	0.68
# of economically active household member	372.04	191.98	1.94	0.05
Presence of salaried income	1,632.95	591.64	2.76	0.01
Presence of male earner	124.63	833.65	0.15	0.88
HOUSEHOLD income percapita r1	0.05	0.03	1.67	0.10
Participation (Base: Taken 5 or more loans)				
No loan	-4,680.92	1,639.38	-2.86	0.00
One loan	-4,035.82	1,696.80	-2.38	0.02
2-4 loans	-4,923.10	1,661.80	-2.96	0.00

Table H-4a Children’s Education—Girls ages 5-10

Percentage of girls ages 5-10 enrolled in school	• Per capita income
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1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N of households	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	85	0.83	0.36	0.04
	Savers	83	0.85	0.34	0.04
	Control	83	0.86	0.33	0.04
	Total	251	0.85	0.34	0.02
Round 2	Borrowers	75	0.84	0.34	0.04
	Savers	79	0.89	0.30	0.03
	Control	77	0.87	0.32	0.04
	Total	231	0.87	0.32	0.02

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	0.03	2	0.02	0.13	0.88
	Within Groups	29.35	248	0.12		
	Total	29.38	250			
Round 2	Between Groups	0.12	2	0.06	0.56	0.57
	Within Groups	23.41	228	0.10		
	Total	23.52	230			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	168	0.84	0.35	0.03
	Control	83	0.86	0.33	0.04
	Total	251	0.85	0.34	0.02
Round 2	Borrower/saver	154	0.87	0.32	0.03
	Control	77	0.87	0.32	0.04
	Total	231	0.87	0.32	0.02

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	0.02	1	0.02	0.16	0.69
	Within Groups	29.36	249	0.12		
	Total	29.38	250			
Round 2	Between Groups	0.00	1	0.00	0.00	0.96
	Within Groups	23.52	229	0.10		
	Total	23.52	230			

3. GAIN SCORE ANALYSIS**Descriptives**

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	57	0.03	0.33	0.04
	Savers	56	0.05	0.40	0.05
	Control	58	0.03	0.30	0.04
	Total	171	0.04	0.34	0.03

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	0.02	2	0.01	0.09	0.92
	Within Groups	19.79	168	0.12		
	Total	19.81	170			

4. ANCOVA ANALYSIS

Dependent Variable: % 5-10 yr old females enrolled-r2

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.39	0.21	1.80	0.07
% 5-10 yr old females enrolled-r1	0.39	0.07	6.01	0.00
Age group (base: 55+)				
AGE30	0.04	0.09	0.48	0.63
AGE31-45	0.04	0.09	0.45	0.65
Marital status (base: other)				
MARRIED	-0.10	0.10	-0.98	0.33
Schooling (base: no schooling)				
Primary	0.12	0.05	2.30	0.02
Secondary	0.02	0.08	0.25	0.80
High school and beyond	0.16	0.15	1.07	0.29
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.04	0.06	0.62	0.53
Hindu-upper caste	0.07	0.10	0.69	0.49
MUSLIM	-0.03	0.07	-0.40	0.69
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	0.05	0.06	0.76	0.45
Wage/salaried work	-0.03	0.06	-0.44	0.66
Not gainfully employed	0.02	0.21	0.09	0.93
Trade (Base: Garment)				
Vegie/fruit vending	-0.02	0.10	-0.25	0.81
Bidi roller	0.11	0.13	0.87	0.38
Other	0.09	0.07	1.20	0.23
household size	0.01	0.01	0.48	0.63
# of economically active household member	-0.04	0.02	-1.58	0.12
Presence of salaried income	-0.06	0.08	-0.81	0.42
Presence of male earner	0.15	0.12	1.28	0.20
HOUSEHOLD income percapita r1	0.00	0.00	0.25	0.80
Participation (Base: Control)				
Borrower	-0.03	0.06	-0.45	0.65
Saver	0.04	0.06	0.75	0.46

B. Borrower/savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.40	0.21	1.88	0.06
% 5-10 yr old females enrolled-r1	0.39	0.07	6.06	0.00
Age group (base: 55+)				
AGE30	0.04	0.09	0.45	0.65
AGE31-45	0.04	0.09	0.42	0.67
Marital status (base: other)				
MARRIED	-0.09	0.10	-0.89	0.37
Schooling (base: no schooling)				
Primary	0.11	0.05	2.19	0.03
Secondary	0.03	0.08	0.34	0.74
High school and beyond	0.15	0.15	0.98	0.33
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.03	0.06	0.50	0.61
Hindu-upper caste	0.05	0.10	0.56	0.58
MUSLIM	-0.04	0.07	-0.60	0.55
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	0.05	0.06	0.82	0.41
Wage/salaried work	-0.03	0.06	-0.41	0.68
Not gainfully employed	0.04	0.21	0.19	0.85
Trade (Base: Garment)				
Vegie/fruit vending	-0.03	0.10	-0.30	0.76
Bidi roller	0.10	0.13	0.74	0.46
Other	0.07	0.07	1.00	0.32
household size	0.00	0.01	0.32	0.75
# of economically active household member	-0.03	0.02	-1.46	0.15
Presence of salaried income	-0.04	0.08	-0.59	0.56
Presence of male earner	0.15	0.12	1.29	0.20
HOUSEHOLD income percapita r1	0.00	0.00	0.06	0.96
Participation (Base: Control)				
Borrower/saver	0.01	0.05	0.15	0.88

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	0.39	0.21	1.80	0.07
% 5-10 yr old females enrolled-r1	0.39	0.07	6.01	0.00
Age group (base: 55+)				
AGE30	0.04	0.09	0.48	0.63
AGE31-45	0.04	0.09	0.45	0.65
Marital status (base: other)				
MARRIED	-0.10	0.10	-0.98	0.33
Schooling (base: no schooling)				
Primary	0.12	0.05	2.30	0.02
Secondary	0.02	0.08	0.25	0.80
High school and beyond	0.16	0.15	1.07	0.29
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.04	0.06	0.62	0.53
Hindu-upper caste	0.07	0.10	0.69	0.49
MUSLIM	-0.03	0.07	-0.40	0.69
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	0.05	0.06	0.76	0.45
Wage/salaried work	-0.03	0.06	-0.44	0.66
Not gainfully employed	0.02	0.21	0.09	0.93
Trade (Base: Garment)				
Vegie/fruit vending	-0.02	0.10	-0.25	0.81
Bidi roller	0.11	0.13	0.87	0.38
Other	0.09	0.07	1.20	0.23
household size	0.01	0.01	0.48	0.63
# of economically active household member	-0.04	0.02	-1.58	0.12
Presence of salaried income	-0.06	0.08	-0.81	0.42
Presence of male earner	0.15	0.12	1.28	0.20
HOUSEHOLD income percapita r1	0.00	0.00	0.25	0.80
Participation				
Borrower/saver (vs. control)	0.04	0.06	0.75	0.46
Borrower (vs. Saver/control)	-0.07	0.06	-1.20	0.23

D. Number of SEWA Bank loans

Parameter	B	Std. Error	t	Sig.
Intercept	0.87	0.35	2.47	0.01
% 5-10 yr old females enrolled-r1	0.41	0.07	6.24	0.00
Age group (base: 55+)				
AGE30	0.05	0.09	0.52	0.61
AGE31-45	0.04	0.09	0.41	0.69
Marital status (base: other)				
MARRIED	-0.09	0.11	-0.80	0.43
Schooling (base: no schooling)				
Primary	0.12	0.05	2.28	0.02
Secondary	0.02	0.08	0.27	0.79
High school and beyond	0.15	0.15	1.02	0.31
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.02	0.06	0.34	0.74
Hindu-upper caste	0.05	0.10	0.49	0.62
MUSLIM	-0.05	0.07	-0.68	0.50
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	0.05	0.06	0.84	0.40
Wage/salaried work	-0.02	0.06	-0.32	0.75
Not gainfully employed	0.04	0.21	0.17	0.86
Trade (Base: Garment)				
Veggie/fruit vending	-0.03	0.09	-0.28	0.78
Bidi roller	0.11	0.13	0.80	0.42
Other	0.06	0.07	0.88	0.38
household size	0.00	0.01	0.35	0.73
# of economically active household member	-0.03	0.02	-1.37	0.17
Presence of salaried income	-0.04	0.07	-0.49	0.62
Presence of male earner	0.13	0.12	1.13	0.26
HOUSEHOLD income percapita r1	0.00	0.00	0.19	0.85
Participation (Base: Taken 5 or more loans)				
No loan	-0.47	0.29	-1.63	0.10
One loan	-0.45	0.29	-1.52	0.13
2-4 loans	-0.49	0.29	-1.68	0.09

Table H-4b Children’s Education—Girls ages 11-17

Percentage of girls ages 5-10 enrolled in school	• Per capita income
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1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N of households	Mean
Round 1	Borrowers	106	0.59
	Savers	110	0.56
	Control	104	0.56
	Total	320	0.57
Round 2	Borrowers	106	0.53
	Savers	105	0.58
	Control	105	0.57
	Total	316	0.56

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	0.06	2	0.03	0.14	0.87
	Within Groups	68.36	317	0.22		
	Total	68.42	319			
Round 2	Between Groups	0.14	2	0.07	0.33	0.72
	Within Groups	65.98	313	0.21		
	Total	66.12	315			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean
Round 1	Borrower/saver	216	0.57
	Control	104	0.56
	Total	320	0.57
Round 2	Borrower/saver	211	0.56
	Control	105	0.57
	Total	316	0.56

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	0.01	1	0.01	0.06	0.80
	Within Groups	68.40	318	0.22		
	Total	68.42	319			
Round 2	Between Groups	0.01	1	0.01	0.02	0.88
	Within Groups	66.11	314	0.21		
	Total	66.12	315			

3. GAIN SCORE ANALYSIS

Descriptives

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	83	-0.21	0.44	0.05
	Savers	88	-0.05	0.42	0.04
	Control	81	-0.09	0.40	0.04
	Total	252	-0.12	0.43	0.03

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	1.09	2	0.54	3.04	0.05
	Within Groups	44.49	249	0.18		
	Total	45.58	251			

4. ANCOVA ANALYSIS

Dependent Variable: 11-17 yr old females enrolled-R2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.34	0.20	1.70	0.09
% 11-17 yr old females enrolled-r1	0.45	0.06	7.49	0.00
Age group (base: 55+)				
AGE30	-0.33	0.12	-2.69	0.01
AGE31-45	-0.32	0.12	-2.69	0.01
Marital status (base: other)				
MARRIED	0.03	0.09	0.35	0.73
Schooling (base: no schooling)				
Primary	-0.02	0.06	-0.32	0.75
Secondary	0.18	0.08	2.20	0.03
High school and beyond	0.19	0.18	1.07	0.29
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.08	0.06	-1.24	0.22
Hindu-upper caste	0.06	0.10	0.56	0.58
MUSLIM	-0.01	0.07	-0.12	0.90
Christian	-0.56	0.39	-1.45	0.15
Employment status/work type (Base: Self-employed)				
Piece rate	0.14	0.06	2.16	0.03
Wage/salaried work	0.06	0.07	0.82	0.41
Not gainfully employed	0.22	0.38	0.59	0.55
Trade (Base: Garment)				
Vegie/fruit vending	0.00	0.11	0.01	1.00
Bidi roller	0.01	0.12	0.12	0.90
Other	0.02	0.07	0.25	0.80
household size	0.02	0.02	1.39	0.17
# of economically active household member	-0.09	0.02	-3.79	0.00
Presence of salaried income	0.08	0.07	1.10	0.27
Presence of male earner	0.19	0.11	1.71	0.09
HOUSEHOLD income percapita r1	0.00	0.00	1.00	0.32
Participation (Base: Control)				
Borrower	-0.08	0.06	-1.24	0.22
Saver	0.00	0.06	0.08	0.94

B. Borrower/savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.35	0.20	1.74	0.08
% 11-17 yr old females enrolled-r1	0.45	0.06	7.38	0.00
Age group (base: 55+)				
AGE30	-0.32	0.12	-2.61	0.01
AGE31-45	-0.31	0.12	-2.61	0.01
Marital status (base: other)				
MARRIED	0.02	0.09	0.19	0.85
Schooling (base: no schooling)				
Primary	-0.03	0.06	-0.46	0.64
Secondary	0.19	0.08	2.41	0.02
High school and beyond	0.17	0.18	0.94	0.35
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.08	0.06	-1.32	0.19
Hindu-upper caste	0.05	0.10	0.48	0.63
MUSLIM	-0.02	0.07	-0.24	0.81
Christian	-0.59	0.39	-1.53	0.13
Employment status/work type (Base: Self-employed)				
Piece rate	0.15	0.06	2.36	0.02
Wage/salaried work	0.06	0.07	0.82	0.41
Not gainfully employed	0.27	0.38	0.72	0.47
Trade (Base: Garment)				
Vegie/fruit vending	0.00	0.11	-0.04	0.97
Bidi roller	0.00	0.12	0.00	1.00
Other	0.01	0.07	0.19	0.85
household size	0.02	0.02	1.42	0.16
# of economically active household member	-0.09	0.02	-3.82	0.00
Presence of salaried income	0.09	0.07	1.29	0.20
Presence of male earner	0.19	0.11	1.74	0.08
HOUSEHOLD income percapita r1	0.00	0.00	0.98	0.33
Participation (Base: Control)				
Borrower/saver	-0.03	0.05	-0.64	0.53

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	0.34	0.20	1.70	0.09
% 11-17 yr old females enrolled-r1	0.45	0.06	7.49	0.00
Age group (base: 55+)				
AGE30	-0.33	0.12	-2.69	0.01
AGE31-45	-0.32	0.12	-2.69	0.01
Marital status (base: other)				
MARRIED	0.03	0.09	0.35	0.73
Schooling (base: no schooling)				
Primary	-0.02	0.06	-0.32	0.75
Secondary	0.18	0.08	2.20	0.03
High school and beyond	0.19	0.18	1.07	0.29
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.08	0.06	-1.24	0.22
Hindu-upper caste	0.06	0.10	0.56	0.58
MUSLIM	-0.01	0.07	-0.12	0.90
Christian	-0.56	0.39	-1.45	0.15
Employment status/work type (Base: Self-employed)				
Piece rate	0.14	0.06	2.16	0.03
Wage/salaried work	0.06	0.07	0.82	0.41
Not gainfully employed	0.22	0.38	0.59	0.55
Trade (Base: Garment)				
Vegie/fruit vending	0.00	0.11	0.01	1.00
Bidi roller	0.01	0.12	0.12	0.90
Other	0.02	0.07	0.25	0.80
household size	0.02	0.02	1.39	0.17
# of economically active household member	-0.09	0.02	-3.79	0.00
Presence of salaried income	0.08	0.07	1.10	0.27
Presence of male earner	0.19	0.11	1.71	0.09
HOUSEHOLD income percapita r1	0.00	0.00	1.00	0.32
Participation				
Borrower/saver (vs. control)	0.00	0.06	0.08	0.94
Borrower (vs. Saver/control)	-0.08	0.06	-1.35	0.18

D. Number of SEWA Bank loans

Parameter	B	Std. Error	t	Sig.
Intercept	0.41	0.30	1.38	0.17
% 11-17 yr old females enrolled-r1	0.45	0.06	7.53	0.00
Age group (base: 55+)				
AGE30	-0.34	0.12	-2.79	0.01
AGE31-45	-0.32	0.12	-2.75	0.01
Marital status (base: other)				
MARRIED	0.04	0.09	0.44	0.66
Schooling (base: no schooling)				
Primary	-0.01	0.05	-0.22	0.83
Secondary	0.17	0.08	2.22	0.03
High school and beyond	0.18	0.18	1.04	0.30
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.07	0.06	-1.20	0.23
Hindu-upper caste	0.04	0.10	0.38	0.71
MUSLIM	-0.01	0.07	-0.22	0.83
Christian	-0.53	0.38	-1.40	0.16
Employment status/work type (Base: Self-employed)				
Piece rate	0.14	0.06	2.16	0.03
Wage/salaried work	0.06	0.07	0.84	0.40
Not gainfully employed	0.24	0.37	0.64	0.52
Trade (Base: Garment)				
Vegie/fruit vending	-0.01	0.11	-0.07	0.94
Bidi roller	0.00	0.12	0.01	0.99
Other	0.01	0.07	0.12	0.90
household size	0.02	0.02	1.31	0.19
# of economically active household member	-0.08	0.02	-3.60	0.00
Presence of salaried income	0.08	0.07	1.13	0.26
Presence of male earner	0.15	0.11	1.32	0.19
HOUSEHOLD income percapita r1	0.00	0.00	1.33	0.19
Participation (Base: Taken 5 or more loans)				
No loan	-0.04	0.22	-0.19	0.85
One loan	0.04	0.22	0.19	0.85
2-4 loans	-0.17	0.22	-0.79	0.43

Table H-4c Children's Education—Boys ages 5-10

Percentage of girls ages 5-10 enrolled in school	• Per capita income
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1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean
Round 1	Borrowers	97	0.88
	Savers	98	0.93
	Control	106	0.84
	Total	301	0.88
Round 2	Borrowers	128	0.87
	Savers	140	0.90
	Control	123	0.88
	Total	391	0.88

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	0.42	2	0.21	2.26	0.11
	Within Groups	27.96	298	0.09		
	Total	28.39	300			
Round 2	Between Groups	0.03	2	0.02	0.21	0.81
	Within Groups	32.31	388	0.08		
	Total	32.34	390			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean
Round 1	Borrower/saver	195	0.91
	Control	106	0.84
	Total	301	0.88
Round 2	Borrower/saver	268	0.88
	Control	123	0.88
	Total	391	0.88

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	0.28	1	0.28	3.00	0.08
	Within Groups	28.10	299	0.09		
	Total	28.39	300			
Round 2	Between Groups	0.00	1	0.00	0.00	1.00
	Within Groups	32.34	389	0.08		
	Total	32.34	390			

3. GAIN SCORE ANALYSIS**Descriptives**

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	80	0.02	0.34	0.04
	Savers	76	0.02	0.21	0.02
	Control	76	0.04	0.33	0.04
	Total	232	0.02	0.30	0.02

ANOVA test of overall difference

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	0.03	2	0.01	0.14	0.87
	Within Groups	20.75	229	0.09		
	Total	20.77	231			

4. ANCOVA ANALYSIS

A. *Dependent Variable: % 5-10 year old males enrolled-r2 Borrower vs. savers vs. controls*

Parameter	B	Std. Error	t	Sig.
Intercept	0.68	0.13	5.35	0.00
% 5-10 yr old males enrolled-r1	0.28	0.05	5.51	0.00
Age group (base: 55+)				
AGE30	-0.07	0.06	-1.04	0.30
AGE31-45	-0.04	0.06	-0.63	0.53
Marital status (base: other)				
MARRIED	-0.06	0.07	-0.86	0.39
Schooling (base: no schooling)				
Primary	0.10	0.04	2.89	0.00
Secondary	0.08	0.05	1.70	0.09
High school and beyond	0.12	0.07	1.68	0.09
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.04	0.04	1.15	0.25
Hindu-upper caste	-0.03	0.06	-0.56	0.57
MUSLIM	-0.04	0.04	-0.80	0.42
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	-0.01	0.04	-0.21	0.83
Wage/salaried work	-0.04	0.04	-0.99	0.32
Not gainfully employed	0.06	0.22	0.27	0.79
Trade (Base: Garment)				
Vegie/fruit vending	-0.22	0.06	-3.77	0.00
Bidi roller	0.01	0.08	0.15	0.88
Other	-0.01	0.04	-0.34	0.73
household size	0.01	0.01	1.06	0.29
# of economically active household member	-0.01	0.02	-0.64	0.53
Presence of salaried income	-0.02	0.04	-0.55	0.59
Presence of male earner	0.00	0.08	-0.05	0.96
HOUSEHOLD income percapita r1	0.00	0.00	1.28	0.20
Participation (Base: Control)				
Borrower	0.02	0.04	0.48	0.63
Saver	0.07	0.04	1.91	0.06

B. Borrower/savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.69	0.13	5.43	0.00
% 5-10 yr old males enrolled-r1	0.29	0.05	5.61	0.00
Age group (base: 55+)				
AGE30	-0.06	0.06	-0.88	0.38
AGE31-45	-0.03	0.06	-0.50	0.62
Marital status (base: other)				
MARRIED	-0.06	0.07	-0.93	0.35
Schooling (base: no schooling)				
Primary	0.10	0.04	2.78	0.01
Secondary	0.09	0.05	1.99	0.05
High school and beyond	0.13	0.07	1.78	0.08
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.04	0.04	1.21	0.23
Hindu-upper caste	-0.04	0.06	-0.70	0.48
MUSLIM	-0.04	0.04	-0.90	0.37
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	0.00	0.04	0.08	0.94
Wage/salaried work	-0.04	0.04	-0.89	0.38
Not gainfully employed	0.09	0.22	0.43	0.67
Trade (Base: Garment)				
Vegie/fruit vending	-0.22	0.06	-3.75	0.00
Bidi roller	-0.01	0.08	-0.10	0.92
Other	-0.02	0.04	-0.46	0.64
household size	0.01	0.01	0.78	0.44
# of economically active household member	-0.01	0.02	-0.47	0.64
Presence of salaried income	-0.03	0.04	-0.67	0.50
Presence of male earner	-0.01	0.08	-0.13	0.90
HOUSEHOLD income percapita r1	0.00	0.00	1.06	0.29
Participation (Base: Control)				
Borrower/saver	0.05	0.03	1.42	0.16

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	0.68	0.13	5.35	0.00
% 5-10 yr old males enrolled-r1	0.28	0.05	5.51	0.00
Age group (base: 55+)				
AGE30	-0.07	0.06	-1.04	0.30
AGE31-45	-0.04	0.06	-0.63	0.53
Marital status (base: other)				
MARRIED	-0.06	0.07	-0.86	0.39
Schooling (base: no schooling)				
Primary	0.10	0.04	2.89	0.00
Secondary	0.08	0.05	1.70	0.09
High school and beyond	0.12	0.07	1.68	0.09
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.04	0.04	1.15	0.25
Hindu-upper caste	-0.03	0.06	-0.56	0.57
MUSLIM	-0.04	0.04	-0.80	0.42
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	-0.01	0.04	-0.21	0.83
Wage/salaried work	-0.04	0.04	-0.99	0.32
Not gainfully employed	0.06	0.22	0.27	0.79
Trade (Base: Garment)				
Vegie/fruit vending	-0.22	0.06	-3.77	0.00
Bidi roller	0.01	0.08	0.15	0.88
Other	-0.01	0.04	-0.34	0.73
household size	0.01	0.01	1.06	0.29
# of economically active household member	-0.01	0.02	-0.64	0.53
Presence of salaried income	-0.02	0.04	-0.55	0.59
Presence of male earner	0.00	0.08	-0.05	0.96
HOUSEHOLD income percapita r1	0.00	0.00	1.28	0.20
Participation				
Borrower/saver (vs. control)	0.07	0.04	1.91	0.06
Borrower (vs. Saver/control)	-0.05	0.04	-1.36	0.17

D. Number of SEWA Bank loans

Parameter	B	Std. Error	t	Sig.
Intercept	0.81	0.17	4.79	0.00
% 5-10 yr old males enrolled-r1	0.30	0.05	5.81	0.00
Age group (base: 55+)				
AGE30	-0.06	0.07	-0.85	0.40
AGE31-45	-0.03	0.07	-0.45	0.65
Marital status (base: other)				
MARRIED	-0.06	0.07	-0.91	0.37
Schooling (base: no schooling)				
Primary	0.10	0.04	2.79	0.01
Secondary	0.08	0.05	1.71	0.09
High school and beyond	0.13	0.07	1.74	0.08
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.03	0.04	0.91	0.36
Hindu-upper caste	-0.06	0.06	-0.97	0.33
MUSLIM	-0.05	0.05	-1.03	0.30
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	0.00	0.04	-0.05	0.96
Wage/salaried work	-0.04	0.04	-1.03	0.31
Not gainfully employed	0.11	0.22	0.47	0.64
Trade (Base: Garment)				
Vegie/fruit vending	-0.22	0.06	-3.71	0.00
Bidi roller	0.00	0.08	0.00	1.00
Other	-0.02	0.04	-0.49	0.62
household size	0.01	0.01	0.74	0.46
# of economically active household member	-0.01	0.02	-0.37	0.71
Presence of salaried income	-0.03	0.04	-0.63	0.53
Presence of male earner	-0.02	0.08	-0.26	0.79
HOUSEHOLD income percapita r1	0.00	0.00	1.45	0.15
Participation (Base: Taken 5 or more loans)				
No loan	-0.10	0.12	-0.82	0.41
One loan	-0.07	0.12	-0.57	0.57
2-4 loans	-0.12	0.12	-1.00	0.32

Table H-4d Children’s Education—Boys ages 11-17

Percentage of girls ages 5-10 enrolled in school	• Per capita income
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1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean
Round 1	Borrowers	113	0.62
	Savers	103	0.63
	Control	95	0.70
	Total	311	0.65
Round 2	Borrowers	153	0.58
	Savers	154	0.66
	Control	157	0.64
	Total	464	0.63

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	0.42	2	0.21	1.01	0.37
	Within Groups	63.94	308	0.21		
	Total	64.36	310			
Round 2	Between Groups	0.54	2	0.27	1.53	0.22
	Within Groups	80.80	461	0.18		
	Total	81.34	463			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean
Round 1	Borrower/saver	216	0.62
	Control	95	0.70
	Total	311	0.65
Round 2	Borrower/saver	307	0.62
	Control	157	0.64
	Total	464	0.63

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	0.41	1	0.41	1.98	0.16
	Within Groups	63.95	309	0.21		
	Total	64.36	310			
Round 2	Between Groups	0.03	1	0.03	0.14	0.71
	Within Groups	81.31	462	0.18		
	Total	81.34	463			

3. Gain score analysis

Descriptives

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	99	-0.11	0.35	0.04
	Savers	90	-0.01	0.39	0.04
	Control	89	-0.15	0.41	0.04
	Total	278	-0.09	0.39	0.02

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	0.95	2	0.48	3.20	0.04
	Within Groups	40.86	275	0.15		
	Total	41.81	277			

4. ANCOVA analysis

Dependent Variable: % 11-17 year old males enrolled-r2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.19	0.16	1.19	0.23
% 11-17 yr old males enrolled-r1	0.44	0.05	8.68	0.00
Age group (base: 55+)				
AGE30	-0.13	0.09	-1.41	0.16
AGE31-45	-0.15	0.08	-1.71	0.09
Marital status (base: other)				
MARRIED	0.05	0.07	0.73	0.47
Schooling (base: no schooling)				
Primary	-0.03	0.05	-0.75	0.46
Secondary	0.12	0.07	1.90	0.06
High school and beyond	0.02	0.12	0.18	0.86
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.00	0.05	0.01	0.99
Hindu-upper caste	0.19	0.08	2.23	0.03
MUSLIM	0.05	0.05	0.89	0.37
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	0.11	0.05	2.20	0.03
Wage/salaried work	-0.01	0.06	-0.15	0.88
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	-0.02	0.09	-0.26	0.79
Bidi roller	-0.11	0.10	-1.16	0.25
Other	-0.01	0.05	-0.13	0.90
household size	0.04	0.01	2.97	0.00
# of economically active household member	-0.09	0.02	-4.54	0.00
Presence of salaried income	0.09	0.06	1.50	0.13
Presence of male earner	0.07	0.11	0.67	0.50
HOUSEHOLD income percapita r1	0.00	0.00	1.00	0.32
Participation (Base: Control)				
Borrower	0.05	0.05	0.96	0.34
Saver	0.15	0.05	3.10	0.00

B. Borrower/savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.20	0.16	1.27	0.21
% 11-17 yr old males enrolled-r1	0.44	0.05	8.60	0.00
Age group (base: 55+)				
AGE30	-0.10	0.09	-1.09	0.27
AGE31-45	-0.12	0.08	-1.40	0.16
Marital status (base: other)				
MARRIED	0.04	0.07	0.50	0.62
Schooling (base: no schooling)				
Primary	-0.04	0.05	-0.87	0.39
Secondary	0.13	0.07	1.97	0.05
High school and beyond	0.02	0.12	0.16	0.87
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.00	0.05	0.04	0.97
Hindu-upper caste	0.18	0.08	2.11	0.04
MUSLIM	0.04	0.05	0.65	0.52
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	0.12	0.05	2.39	0.02
Wage/salaried work	-0.02	0.06	-0.32	0.75
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	-0.02	0.09	-0.20	0.84
Bidi roller	-0.13	0.10	-1.39	0.17
Other	-0.01	0.05	-0.15	0.88
household size	0.04	0.01	2.80	0.01
# of economically active household member	-0.10	0.02	-4.55	0.00
Presence of salaried income	0.10	0.06	1.68	0.09
Presence of male earner	0.07	0.11	0.66	0.51
HOUSEHOLD income percapita r1	0.00	0.00	0.80	0.42
Participation (Base: Control)				
Borrower/saver	0.10	0.04	2.33	0.02

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	0.19	0.16	1.19	0.23
% 11-17 yr old males enrolled-r1	0.44	0.05	8.68	0.00
Age group (base: 55+)				
AGE30	-0.13	0.09	-1.41	0.16
AGE31-45	-0.15	0.08	-1.71	0.09
Marital status (base: other)				
MARRIED	0.05	0.07	0.73	0.47
Schooling (base: no schooling)				
Primary	-0.03	0.05	-0.75	0.46
Secondary	0.12	0.07	1.90	0.06
High school and beyond	0.02	0.12	0.18	0.86
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.00	0.05	0.01	0.99
Hindu-upper caste	0.19	0.08	2.23	0.03
MUSLIM	0.05	0.05	0.89	0.37
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	0.11	0.05	2.20	0.03
Wage/salaried work	-0.01	0.06	-0.15	0.88
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	-0.02	0.09	-0.26	0.79
Bidi roller	-0.11	0.10	-1.16	0.25
Other	-0.01	0.05	-0.13	0.90
household size	0.04	0.01	2.97	0.00
# of economically active household member	-0.09	0.02	-4.54	0.00
Presence of salaried income	0.09	0.06	1.50	0.13
Presence of male earner	0.07	0.11	0.67	0.50
HOUSEHOLD income percapita r1	0.00	0.00	1.00	0.32
Participation				
Borrower/saver (vs. control)	0.15	0.05	3.10	0.00
Borrower (vs. Saver/control)	-0.10	0.05	-2.16	0.03

D. Number of SEWA Bank loans

Parameter	B	Std. Error	t	Sig.
Intercept	0.19	0.21	0.89	0.37
% 11-17 yr old males enrolled-r1	0.42	0.05	8.27	0.00
Age group (base: 55+)				
AGE30	-0.10	0.09	-1.04	0.30
AGE31-45	-0.12	0.09	-1.38	0.17
Marital status (base: other)				
MARRIED	0.05	0.07	0.67	0.51
Schooling (base: no schooling)				
Primary	-0.04	0.05	-0.85	0.40
Secondary	0.13	0.07	1.90	0.06
High school and beyond	0.03	0.12	0.23	0.82
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.00	0.05	0.03	0.98
Hindu-upper caste	0.16	0.08	1.93	0.05
MUSLIM	0.04	0.06	0.71	0.48
Christian	0.00			
Employment status/work type (Base: Self-employed)				
Piece rate	0.09	0.05	1.75	0.08
Wage/salaried work	-0.02	0.06	-0.38	0.71
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	-0.05	0.09	-0.61	0.54
Bidi roller	-0.11	0.10	-1.10	0.27
Other	-0.02	0.05	-0.44	0.66
household size	0.04	0.01	2.72	0.01
# of economically active household member	-0.09	0.02	-4.31	0.00
Presence of salaried income	0.10	0.06	1.58	0.12
Presence of male earner	0.08	0.11	0.71	0.48
HOUSEHOLD income percapita r1	0.00	0.00	1.10	0.27
Participation (Base: Taken 5 or more loans)				
No loan	0.09	0.13	0.69	0.49
One loan	0.10	0.14	0.70	0.49
2-4 loans	0.06	0.13	0.47	0.64

Table H-5 Daily per capita expenditure on food

Measure	Additional moderating variable
Daily per capita expenditures on food and beverages consumed in and out of the home	<ul style="list-style-type: none"> Per capita household income

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	262	11.96	6.09	0.38
	Savers	258	11.01	7.03	0.44
	Control	261	10.19	4.51	0.28
	Total	781	11.06	6.00	0.21
Round 2	Borrowers	264	10.54	3.91	0.24
	Savers	260	10.05	4.03	0.25
	Control	262	9.23	3.46	0.21
	Total	786	9.94	3.84	0.14

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	408.71	2	204.35	5.75	0.00
	Within Groups	27,663.98	778	35.56		
	Total	28,072.69	780			
Round 2	Between Groups	228.67	2	114.33	7.89	0.00
	Within Groups	11,343.49	783	14.49		
	Total	11,572.15	785			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

	Borrower/saver		Control		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Round 1	63.15	30.06	56.42	28.45	60.91	29.68
Round 2	57.64	27.07	51.31	26.74	55.53	27.11

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	(Combined)	7,923	1	7,923	9.08	0.00
	Within Groups		683,759	784	872		
	Total		691,682	785			
Round 2	Between Groups	(Combined)	7,019	1	7,019	9.66	0.00
	Within Groups		569,854	784	727		
	Total		576,872	785			

3. Gain score Analysis

Descriptives

		N	Mean	Std. Deviation	Std. Error
Gain score	Borrowers	262	-1.47	6.38	0.39
	Savers	258	-0.95	5.98	0.37
	Control	261	-0.94	4.58	0.28
	Total	781	-1.12	5.70	0.20

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Gain score	Between Groups	47.78	2.00	23.89	0.73	0.48
	Within Groups	25,292.65	778.00	32.51		
	Total	25,340.43	780.00			

4. ANCOVA Analysis

Dependent Variable: Per capita daily food expenditures-r2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	8.91	0.82	10.81	0.00
Percapita daily food exp-r1	0.19	0.02	8.47	0.00
Age group (base: 55+)				
AGE30	-1.03	0.42	-2.45	0.01
AGE31-45	-0.07	0.39	-0.17	0.87
Marital status (base: other)				
MARRIED	-0.55	0.38	-1.44	0.15
Schooling (base: no schooling)				
Primary	0.42	0.29	1.44	0.15
Secondary	0.80	0.39	2.06	0.04
High school and beyond	0.85	0.63	1.34	0.18
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.14	0.31	0.46	0.65
Hindu-upper caste	-0.43	0.47	-0.90	0.37
MUSLIM	0.86	0.35	2.42	0.02
Christian	-0.17	2.46	-0.07	0.95
Employment status/work type (Base: Self-employed)				
Piece rate	-0.80	0.33	-2.45	0.01
Wage/salaried work	-0.08	0.36	-0.22	0.83
Not gainfully employed	-0.61	1.97	-0.31	0.76
Trade (Base: Garment)				
Vegie/fruit vending	-0.19	0.57	-0.34	0.73
Bidi roller	0.64	0.57	1.13	0.26
Other	-0.52	0.34	-1.55	0.12
household size	-0.23	0.08	-3.03	0.00
# of economically active household member	0.16	0.12	1.32	0.19
Presence of salaried income	1.11	0.38	2.92	0.00
Presence of male earner	-0.07	0.53	-0.13	0.89
HOUSEHOLD income percapita r1	0.00	0.00	2.40	0.02
Participation (Base: Control)				
Borrower	0.48	0.31	1.53	0.13
Saver	0.35	0.31	1.14	0.26

B. Borrower/savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	8.88	0.82	10.81	0.00
Percapita daily food exp-r1	0.19	0.02	8.50	0.00
Age group (base: 55+)				
AGE30	-1.05	0.42	-2.51	0.01
AGE31-45	-0.08	0.39	-0.20	0.84
Marital status (base: other)				
MARRIED	-0.54	0.38	-1.42	0.16
Schooling (base: no schooling)				
Primary	0.43	0.29	1.47	0.14
Secondary	0.79	0.39	2.04	0.04
High school and beyond	0.85	0.63	1.35	0.18
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.15	0.31	0.48	0.63
Hindu-upper caste	-0.42	0.47	-0.88	0.38
MUSLIM	0.87	0.35	2.46	0.01
Christian	-0.14	2.46	-0.06	0.96
Employment status/work type (Base: Self-employed)				
Piece rate	-0.81	0.32	-2.50	0.01
Wage/salaried work	-0.08	0.36	-0.21	0.83
Not gainfully employed	-0.62	1.97	-0.31	0.75
Trade (Base: Garment)				
Vegie/fruit vending	-0.19	0.57	-0.34	0.73
Bidi roller	0.66	0.57	1.16	0.25
Other	-0.52	0.34	-1.53	0.13
household size	-0.23	0.08	-3.01	0.00
# of economically active household member	0.16	0.12	1.32	0.19
Presence of salaried income	1.11	0.38	2.91	0.00
Presence of male earner	-0.07	0.53	-0.14	0.89
HOUSEHOLD income percapita r1	0.00	0.00	2.44	0.02
Participation (Base: Control)				
Borrower/saver	0.41	0.27	1.52	0.13

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	8.91	0.82	10.81	0.00
Percapita daily food exp-r1	0.19	0.02	8.47	0.00
Age group (base: 55+)				
AGE30	-1.03	0.42	-2.45	0.01
AGE31-45	-0.07	0.39	-0.17	0.87
Marital status (base: other)				
MARRIED	-0.55	0.38	-1.44	0.15
Schooling (base: no schooling)				
Primary	0.42	0.29	1.44	0.15
Secondary	0.80	0.39	2.06	0.04
High school and beyond	0.85	0.63	1.34	0.18
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.14	0.31	0.46	0.65
Hindu-upper caste	-0.43	0.47	-0.90	0.37
MUSLIM	0.86	0.35	2.42	0.02
Christian	-0.17	2.46	-0.07	0.95
Employment status/work type (Base: Self-employed)				
Piece rate	-0.80	0.33	-2.45	0.01
Wage/salaried work	-0.08	0.36	-0.22	0.83
Not gainfully employed	-0.61	1.97	-0.31	0.76
Trade (Base: Garment)				
Vegie/fruit vending	-0.19	0.57	-0.34	0.73
Bidi roller	0.64	0.57	1.13	0.26
Other	-0.52	0.34	-1.55	0.12
household size	-0.23	0.08	-3.03	0.00
# of economically active household member	0.16	0.12	1.32	0.19
Presence of salaried income	1.11	0.38	2.92	0.00
Presence of male earner	-0.07	0.53	-0.13	0.89
HOUSEHOLD income percapita r1	0.00	0.00	2.40	0.02
Participation				
Borrower/saver (vs. control)	0.35	0.31	1.14	0.26
Borrower (vs. Saver/control)	0.13	0.31	0.43	0.66

D. Number of SEWA Bank loans

Parameter	B	Std. Error	t	Sig.
Intercept	11.04	1.34	8.23	0.00
Percapita daily food exp-r1	0.19	0.02	8.39	0.00
Age group (base: 55+)				
AGE30	-0.99	0.42	-2.35	0.02
AGE31-45	-0.02	0.39	-0.05	0.96
Marital status (base: other)				
MARRIED	-0.55	0.38	-1.44	0.15
Schooling (base: no schooling)				
Primary	0.41	0.29	1.41	0.16
Secondary	0.76	0.39	1.96	0.05
High school and beyond	0.85	0.63	1.35	0.18
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.12	0.31	0.39	0.70
Hindu-upper caste	-0.45	0.47	-0.95	0.34
MUSLIM	0.80	0.35	2.26	0.02
Christian	-0.19	2.46	-0.08	0.94
Employment status/work type (Base: Self-employed)				
Piece rate	-0.80	0.32	-2.46	0.01
Wage/salaried work	-0.08	0.36	-0.22	0.83
Not gainfully employed	-0.60	1.97	-0.31	0.76
Trade (Base: Garment)				
Vegie/fruit vending	-0.20	0.56	-0.36	0.72
Bidi roller	0.66	0.57	1.16	0.25
Other	-0.55	0.33	-1.65	0.10
household size	-0.24	0.08	-3.13	0.00
# of economically active household member	0.18	0.12	1.44	0.15
Presence of salaried income	1.10	0.38	2.88	0.00
Presence of male earner	-0.11	0.54	-0.21	0.83
HOUSEHOLD income percapita r1	0.00	0.00	2.48	0.01
Participation (Base: Taken 5 or more loans)				
No loan	-1.96	1.06	-1.86	0.06
One loan	-1.53	1.09	-1.40	0.16
2-4 loans	-1.68	1.07	-1.57	0.12

Table H-6 Coping with shocks

Measure
Types of coping mechanisms used in dealing with the most damaging shock in the previous 2 years (include only households that reported experiencing a shock on the past 2 years): =3 if “shifted resident” and/or “began begging/alms seeking” and/or “migrated” =2 if “mortgaged assets” and/or “sold assets” =1 if “took new work” and/or “put children to work” and/or rented out rooms or other assets” and/or “used savings” and/or “borrowed money with interests” and/or “obtained SEWA loan” =0 if none of the above strategies were used

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

3. Gain score Analysis

Descriptives

4. ANCOVA Analysis

Descriptives

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.867	0.052	16.742	0.000
SHLST_R1	0.039	0.028	1.424	0.155
Age group (base: 55+)				
AGE30	-0.028	0.024	-1.181	0.238
AGE31-45	-0.003	0.022	-0.147	0.883
Marital status (base: other)				
MARRIED	0.042	0.022	1.967	0.050
Schooling (base: no schooling)				
Primary	0.014	0.017	0.851	0.395
Secondary	0.017	0.022	0.777	0.437
High school and beyond	0.037	0.036	1.037	0.300
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.000	0.018	0.020	0.984
Hindu-upper caste	0.021	0.027	0.777	0.437
MUSLIM	0.021	0.020	1.063	0.288
Christian	0.050	0.139	0.358	0.720
Employment status/work type (Base: Self-employed)				
Piece rate	0.006	0.018	0.352	0.725
Wage/salaried work	-0.008	0.020	-0.388	0.698
Not gainfully employed	0.035	0.112	0.315	0.753
Trade (Base: Garment)				
Vegie/fruit vending	-0.017	0.032	-0.524	0.601
Bidi roller	0.037	0.032	1.147	0.252
Other	0.019	0.019	0.996	0.320
household size	-0.004	0.004	-1.068	0.286
# of economically active household member	0.000	0.007	-0.060	0.952
Presence of male earner	0.016	0.030	0.535	0.593
Presence of salaried income	0.008	0.022	0.371	0.711
HOUSEHOLD income percapita r1	0.000	0.000	1.118	0.264
Participation (Base: Control)				
Borrower	0.005	0.018	0.305	0.760
Saver	0.007	0.017	0.431	0.667

B. Borrower/savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.867	0.052	16.752	0.000
SHLST_R1	0.039	0.027	1.441	0.150
Age group (base: 55+)				
AGE30	-0.028	0.024	-1.176	0.240
AGE31-45	-0.003	0.022	-0.140	0.889
Marital status (base: other)				
MARRIED	0.042	0.022	1.965	0.050
Schooling (base: no schooling)				
Primary	0.014	0.017	0.847	0.397
Secondary	0.017	0.022	0.786	0.432
High school and beyond	0.037	0.036	1.035	0.301
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.000	0.018	0.016	0.987
Hindu-upper caste	0.021	0.027	0.774	0.439
MUSLIM	0.021	0.020	1.058	0.291
Christian	0.049	0.139	0.355	0.723
Employment status/work type (Base: Self-employed)				
Piece rate	0.007	0.018	0.362	0.718
Wage/salaried work	-0.008	0.020	-0.388	0.698
Not gainfully employed	0.035	0.112	0.316	0.752
Trade (Base: Garment)				
Vegie/fruit vending	-0.017	0.032	-0.524	0.600
Bidi roller	0.037	0.032	1.143	0.253
Other	0.019	0.019	0.993	0.321
household size	-0.004	0.004	-1.077	0.282
# of economically active household member	0.000	0.007	-0.062	0.950
Presence of male earner	0.016	0.030	0.536	0.592
Presence of salaried income	0.008	0.022	0.373	0.709
HOUSEHOLD income percapita r1	0.000	0.000	1.113	0.266
Participation (Base: Control)				
Borrower/saver	0.007	0.015	0.426	0.670

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	0.867	0.052	16.742	0.000
SHLST_R1	0.039	0.028	1.424	0.155
Age group (base: 55+)				
AGE30	-0.028	0.024	-1.181	0.238
AGE31-45	-0.003	0.022	-0.147	0.883
Marital status (base: other)				
MARRIED	0.042	0.022	1.967	0.050
Schooling (base: no schooling)				
Primary	0.014	0.017	0.851	0.395
Secondary	0.017	0.022	0.777	0.437
High school and beyond	0.037	0.036	1.037	0.300
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.000	0.018	0.020	0.984
Hindu-upper caste	0.021	0.027	0.777	0.437
MUSLIM	0.021	0.020	1.063	0.288
Christian	0.050	0.139	0.358	0.720
Employment status/work type (Base: Self-employed)				
Piece rate	0.006	0.018	0.352	0.725
Wage/salaried work	-0.008	0.020	-0.388	0.698
Not gainfully employed	0.035	0.112	0.315	0.753
Trade (Base: Garment)				
Vegie/fruit vending	-0.017	0.032	-0.524	0.601
Bidi roller	0.037	0.032	1.147	0.252
Other	0.019	0.019	0.996	0.320
household size	-0.004	0.004	-1.068	0.286
# of economically active household member	0.000	0.007	-0.060	0.952
Presence of salaried income	0.008	0.022	0.371	0.711
Presence of male earner	0.016	0.030	0.535	0.593
HOUSEHOLD income percapita r1	0.000	0.000	1.118	0.264
Participation				
Borrower/saver (vs. control)	0.007	0.017	0.431	0.667
Borrower (vs. Saver/control)	-0.002	0.017	-0.116	0.907

D. Number of SEWA Bank loans

Parameter	B	Std. Error	t	Sig.
Intercept	0.909	0.076	11.998	0.000
Percapita daily food exp-r1	0.042	0.028	1.511	0.131
Age group (base: 55+)				
AGE30	-0.025	0.024	-1.063	0.288
AGE31-45	-0.001	0.022	-0.045	0.964
Marital status (base: other)				
MARRIED	0.041	0.022	1.916	0.056
Schooling (base: no schooling)				
Primary	0.012	0.017	0.736	0.462
Secondary	0.017	0.022	0.771	0.441
High school and beyond	0.035	0.036	0.973	0.331
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.001	0.018	0.030	0.976
Hindu-upper caste	0.021	0.027	0.769	0.442
MUSLIM	0.019	0.020	0.974	0.330
Christian	0.046	0.139	0.334	0.739
Employment status/work type (Base: Self-employed)				
Piece rate	0.008	0.018	0.434	0.664
Wage/salaried work	-0.008	0.020	-0.382	0.703
Not gainfully employed	0.041	0.112	0.370	0.711
Trade (Base: Garment)				
Vegie/fruit vending	-0.018	0.032	-0.553	0.580
Bidi roller	0.035	0.032	1.106	0.269
Other	0.018	0.019	0.941	0.347
household size	-0.005	0.004	-1.199	0.231
# of economically active household member	0.000	0.007	-0.033	0.974
Presence of male earner	0.018	0.030	0.600	0.549
Presence of salaried income	0.008	0.022	0.383	0.702
HOUSEHOLD income percapita r1	0.000	0.000	0.978	0.328
Participation (Base: Taken 5 or more loans)				
No loan	-0.041	0.060	-0.682	0.496
One loan	-0.048	0.062	-0.771	0.441
2-4 loans	-0.026	0.061	-0.426	0.670

Part II: Analysis of Enterprise-Level Hypotheses

Table E-1a Microenterprise revenues of respondent

Measure	
Gross sales receipts in the previous month from all own-account enterprises in manufacturing, trade and services from which the respondent is primarily responsible for (include only households in which the respondent is primarily responsible for one or more won-account enterprises)	

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	120	8,580	13,232	1,208
	Savers	105	5,554	12,975	1,266
	Control	87	6,060	16,384	1,757
	Total	312	6,859	14,121	799
Round 2	Borrowers	126	7,430	17,423	1,552
	Savers	100	7,912	31,003	3,100
	Control	83	3,897	5,613	616
	Total	309	6,637	21,056	1,198

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	589,784,521	2	294,892,261	1.48	0.228
	Within Groups	61,427,288,469	309	198,793,814		
	Total	62,017,072,990	311			
Round 2	Between Groups	864,716,025	2	432,358,013	0.98	0.378
	Within Groups	135,685,941,976	306	443,418,111		
	Total	136,550,658,002	308			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	225	7,168	13,170	878
	Control	87	6,060	16,384	1,757
	Total	312	6,859	14,121	799
Round 2	Borrower/saver	226	7,643	24,323	1,618
	Control	83	3,897	5,613	616
	Total	309	6,637	21,056	1,198

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	77,022,769	1	77,022,769	0.39	0.535
	Within Groups	61,940,050,221	310	199,806,614		
	Total	62,017,072,990	311			
Round 2	Between Groups	851,792,616	1	851,792,616	1.93	0.166
	Within Groups	135,698,865,386	307	442,015,848		
	Total	136,550,658,002	308			

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrowers	86	1,713	21,006	2,265
Savers	71	3,823	37,111	4,404
Control	63	-2,021	17,117	2,157
Total	220	1,325	26,452	1,783

ANOVA test

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,161,334,555	2	580,667,278	0.83	0.438
Within Groups	152,077,333,779	217	700,817,206		
Total	153,238,668,334	219			

4. ANCOVA ANALYSIS

Dependent Variable: Total monthly receipts of respondents' microenterprises-r2

D. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	-1,874.17	9,252.75	-0.20	0.84
Q4BT	0.26	0.11	2.34	0.02
Age group (base: 55+)				
AGE30	-3,286.89	5,656.36	-0.58	0.56
AGE31-45	2,356.81	5,226.01	0.45	0.65
Marital status (base: other)				
MARRIED	1,706.32	4,959.06	0.34	0.73
Schooling (base: no schooling)				
Primary	-505.43	4,120.77	-0.12	0.90
Secondary	-1,255.43	5,324.78	-0.24	0.81
High school and beyond	12,806.00	7,911.04	1.62	0.11
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-3,471.03	4,030.48	-0.86	0.39
Hindu-upper caste	3,994.27	7,314.95	0.55	0.59
MUSLIM	-266.74	4,927.92	-0.05	0.96
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	-1,310.89	17,612.72	-0.07	0.94
Wage/salaried work	-17,310.50	13,831.55	-1.25	0.21
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Veggie/fruit vending	12,916.33	5,609.50	2.30	0.02
Bidi roller	0.00	.	.	.
Other	4,835.84	4,485.17	1.08	0.28
Household size	353.31	953.05	0.37	0.71
# of economically active household member	-1,460.98	1,684.80	-0.87	0.39
Participation status (Base: Control)				
Saver	5,449.51	4,312.10	1.26	0.21
Borrower	6,820.37	4,516.41	1.51	0.13

E. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	-1,527.77	9,173.71	-0.17	0.87
Q4BT	0.26	0.11	2.34	0.02
Age group (base: 55+)				
AGE30	-3,088.50	5,612.43	-0.55	0.58
AGE31-45	2,406.88	5,212.33	0.46	0.64
Marital status (base: other)				
MARRIED	1,684.36	4,947.69	0.34	0.73
Schooling (base: no schooling)				
Primary	-608.98	4,099.94	-0.15	0.88
Secondary	-1,206.37	5,311.00	-0.23	0.82
High school and beyond	12,784.40	7,893.34	1.62	0.11
Religion/caste (base: Scheduled caste/tribe Hindu)				
Hindu-backward caste	-3,477.98	4,021.54	-0.86	0.39
Hindu-upper caste	3,818.47	7,279.76	0.52	0.60
MUSLIM	-525.17	4,855.57	-0.11	0.91
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	-879.98	17,526.31	-0.05	0.96
Wage/salaried work	-17,531.65	13,785.12	-1.27	0.20
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Veggie/fruit vending	12,861.33	5,594.70	2.30	0.02
Bidi roller	0.00	.	.	.
Other	4,734.91	4,465.04	1.06	0.29
Household size	314.20	943.69	0.33	0.74
# of economically active household member	-1,463.52	1,681.07	-0.87	0.39
Participation status (Base: Control)				
Borrower/saver	6,062.13	3,890.51	1.56	0.12

F. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	-1,874.17	9,252.75	-0.20	0.84
Q4BT	0.26	0.11	2.34	0.02
Age group (base: 55+)				
AGE30	-3,286.89	5,656.36	-0.58	0.56
AGE31-45	2,356.81	5,226.01	0.45	0.65
Marital status (base: other)				
MARRIED	1,706.32	4,959.06	0.34	0.73
Schooling (base: no schooling)				
Primary	-505.43	4,120.77	-0.12	0.90
Secondary	-1,255.43	5,324.78	-0.24	0.81
High school and beyond	12,806.00	7,911.04	1.62	0.11
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-3,471.03	4,030.48	-0.86	0.39
Hindu-upper caste	3,994.27	7,314.95	0.55	0.59
MUSLIM	-266.74	4,927.92	-0.05	0.96
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	-1,310.89	17,612.72	-0.07	0.94
Wage/salaried work	-17,310.50	13,831.55	-1.25	0.21
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Veggie/fruit vending	12,916.33	5,609.50	2.30	0.02
Bidi roller	0.00	.	.	.
Other	4,835.84	4,485.17	1.08	0.28
Household size	353.31	953.05	0.37	0.71
# of economically active household member	-1,460.98	1,684.80	-0.87	0.39
Participation status				
Borrower/saver(vs.control)	6,820.37	4,516.41	1.51	0.13
Borrower (vs. Saver/control)	-1,370.86	4,120.76	-0.33	0.74

G. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	7,269.55	14,324.50	0.51	0.61
Q4BT	0.27	0.11	2.37	0.02
Age group (base: 55+)				
AGE30	-3,328.86	5,721.66	-0.58	0.56
AGE31-45	2,572.61	5,266.26	0.49	0.63
Marital status (base: other)				
MARRIED	3,063.09	4,961.36	0.62	0.54
Schooling (base: no schooling)				
Primary	-639.24	4,185.16	-0.15	0.88
Secondary	-2,039.67	5,365.21	-0.38	0.70
High school and beyond	12,972.65	8,002.09	1.62	0.11
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-3,904.88	4,064.79	-0.96	0.34
Hindu-upper caste	2,662.42	7,322.03	0.36	0.72
MUSLIM	-1,615.39	4,921.41	-0.33	0.74
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	-1,764.28	17,783.84	-0.10	0.92
Wage/salaried work	-19,162.00	13,910.10	-1.38	0.17
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Veggie/fruit vending	11,449.75	5,664.98	2.02	0.04
Bidi roller	0.00	.	.	.
Other	4,027.15	4,515.27	0.89	0.37
Household size	52.89	946.48	0.06	0.96
# of economically active household member	-1,158.43	1,697.51	-0.68	0.50
Participation status (Base: took 5 or more loans)				
No loan	-4,072.05	11,656.96	-0.35	0.73
One loan	-4,379.37	12,346.65	-0.35	0.72
2-4 loans	-2,936.90	11,839.73	-0.25	0.80

Table E-1b Informal sector earnings of respondent

Measure
Gross sale sales receipts in the previous month from all own-account enterprises, piece rate work and casual labor for which the respondent is primarily responsible for

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	246	4,764	9,993	637
	Savers	248	2,924	8,792	558
	Control	245	2,590	10,072	643
	Total	739	3,426	9,668	356
Round 2	Borrowers	210	5,016	13,824	954
	Savers	210	4,327	21,626	1,492
	Control	216	2,004	3,815	260
	Total	636	3,766	14,948	593

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	673,995,567	2	336,997,784	3.63	0.027
	Within Groups	68,310,114,324	736	92,812,655		
	Total	68,984,109,891	738			
Round 2	Between Groups	1,064,381,769	2	532,190,884	2.39	0.092
	Within Groups	140,818,383,899	633	222,461,902		
	Total	141,882,765,667	635			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	494	3,840	9,444	425
	Control	245	2,590	10,072	643
	Total	739	3,426	9,668	356
Round 2	Borrower/saver	420	4,671	18,131	885
	Control	216	2,004	3,815	260
	Total	636	3,766	14,948	593

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	256,008,523	1	256,008,523	2.75	0.098
	Within Groups	68,728,101,368	737	93,253,869		
	Total	68,984,109,891	738			
Round 2	Between Groups	1,014,575,947	1	1,014,575,947	4.57	0.033
	Within Groups	140,868,189,720	634	222,189,574		
	Total	141,882,765,667	635			

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrowers	194	750	14,484	1,040
Savers	199	1,336	22,227	1,576
Control	202	-637	9,696	682
Total	595	475	16,290	668

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	411,867,083.49	2	205,933,541.74	0.78	0.461
Within Groups	157,205,663,038.74	592	265,550,106.48		
Total	157,617,530,122.22	594			

4. ANCOVA ANALYSIS

Dependent Variable: Informal sector earnings of respondent-r2

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	1,245.42	3,551.60	0.35	0.73
Q4BT	0.27	0.06	4.23	0.00
Age group (base: 55+)				
AGE30	-803.10	2,136.72	-0.38	0.71
AGE31-45	1,267.69	2,002.05	0.63	0.53
Marital status (base: other)				
MARRIED	617.23	1,872.17	0.33	0.74
Schooling (base: no schooling)				
Primary	-512.77	1,463.70	-0.35	0.73
Secondary	-689.30	1,894.90	-0.36	0.72
High school and beyond	5,030.75	3,034.81	1.66	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,515.41	1,543.54	-0.98	0.33
Hindu-upper caste	1,001.62	2,462.61	0.41	0.68
MUSLIM	-576.45	1,766.80	-0.33	0.74
Christian	-1,134.06	15,118.77	-0.08	0.94
Employment status/work type (Base: Self-employed)				
Piece rate	-1,969.55	1,691.35	-1.16	0.24
Wage/salaried work	-4,538.29	1,793.91	-2.53	0.01
Not gainfully employed	-2,033.63	10,615.33	-0.19	0.85
Trade (Base: Garment)				
Veggie/fruit vending	10,618.97	2,846.88	3.73	0.00
Bidi roller	1,639.09	2,751.74	0.60	0.55
Other	2,759.74	1,741.38	1.58	0.11
Household size	-73.31	362.83	-0.20	0.84
# of economically active household member	-349.54	583.68	-0.60	0.55
Participation status (Base: Control)				
Saver	2,840.78	1,573.56	1.81	0.07
Borrower	2,644.92	1,516.61	1.74	0.08

B. Borrower/savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	1,231.64	3,546.91	0.35	0.73
Q4BT	0.27	0.06	4.24	0.00
Age group (base: 55+)				
AGE30	-836.07	2,119.15	-0.39	0.69
AGE31-45	1,253.85	1,997.38	0.63	0.53
Marital status (base: other)				
MARRIED	627.70	1,868.76	0.34	0.74
Schooling (base: no schooling)				
Primary	-497.00	1,457.19	-0.34	0.73
Secondary	-696.32	1,892.47	-0.37	0.71
High school and beyond	5,041.53	3,031.03	1.66	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,507.22	1,540.88	-0.98	0.33
Hindu-upper caste	1,013.58	2,458.70	0.41	0.68
MUSLIM	-554.90	1,757.16	-0.32	0.75
Christian	-1,125.13	15,105.65	-0.07	0.94
Employment status/work type (Base: Self-employed)				
Piece rate	-1,989.86	1,682.36	-1.18	0.24
Wage/salaried work	-4,545.80	1,791.40	-2.54	0.01
Not gainfully employed	-2,077.72	10,600.58	-0.20	0.84
Trade (Base: Garment)				
Veggie/fruit vending	10,609.26	2,843.42	3.73	0.00
Bidi roller	1,666.31	2,741.07	0.61	0.54
Other	2,766.37	1,739.11	1.59	0.11
Household size	-70.77	361.98	-0.20	0.85
# of economically active household member	-349.36	583.18	-0.60	0.55
Participation status (Base: Control)				
Borrower/saver	2,735.57	1,337.90	2.04	0.04

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	1,245.42	3,551.60	0.35	0.73
Q4BT	0.27	0.06	4.23	0.00
Age group (base: 55+)				
AGE30	-803.10	2,136.72	-0.38	0.71
AGE31-45	1,267.69	2,002.05	0.63	0.53
Marital status (base: other)				
MARRIED	617.23	1,872.17	0.33	0.74
Schooling (base: no schooling)				
Primary	-512.77	1,463.70	-0.35	0.73
Secondary	-689.30	1,894.90	-0.36	0.72
High school and beyond	5,030.75	3,034.81	1.66	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,515.41	1,543.54	-0.98	0.33
Hindu-upper caste	1,001.62	2,462.61	0.41	0.68
MUSLIM	-576.45	1,766.80	-0.33	0.74
Christian	-1,134.06	15,118.77	-0.08	0.94
Employment status/work type (Base: Self-employed)				
Piece rate	-1,969.55	1,691.35	-1.16	0.24
Wage/salaried work	-4,538.29	1,793.91	-2.53	0.01
Not gainfully employed	-2,033.63	10,615.33	-0.19	0.85
Trade (Base: Garment)				
Veggie/fruit vending	10,618.97	2,846.88	3.73	0.00
Bidi roller	1,639.09	2,751.74	0.60	0.55
Other	2,759.74	1,741.38	1.58	0.11
Household size	-73.31	362.83	-0.20	0.84
# of economically active household member	-349.54	583.68	-0.60	0.55
Participation status				
Borrower/saver(vs.control)	2,644.92	1,516.61	1.74	0.08
Borrower (vs. Saver/control)	195.87	1,538.51	0.13	0.90

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	5,101.99	5,963.27	0.86	0.39
Q4BT	0.28	0.06	4.29	0.00
Age group (base: 55+)				
AGE30	-742.07	2,146.17	-0.35	0.73
AGE31-45	1,288.06	2,021.50	0.64	0.52
Marital status (base: other)				
MARRIED	845.95	1,883.46	0.45	0.65
Schooling (base: no schooling)				
Primary	-567.20	1,470.65	-0.39	0.70
Secondary	-781.26	1,904.80	-0.41	0.68
High school and beyond	5,072.35	3,052.11	1.66	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,543.23	1,551.05	-0.99	0.32
Hindu-upper caste	586.47	2,459.24	0.24	0.81
MUSLIM	-643.18	1,776.96	-0.36	0.72
Christian	-2,227.32	15,163.16	-0.15	0.88
Employment status/work type (Base: Self-employed)				
Piece rate	-2,272.35	1,701.12	-1.34	0.18
Wage/salaried work	-4,592.69	1,800.99	-2.55	0.01
Not gainfully employed	-2,251.14	10,660.84	-0.21	0.83
Trade (Base: Garment)				
Veggie/fruit vending	10,139.81	2,856.50	3.55	0.00
Bidi roller	1,771.49	2,767.69	0.64	0.52
Other	2,401.14	1,740.94	1.38	0.17
Household size	-153.86	362.15	-0.42	0.67
# of economically active household member	-231.97	583.43	-0.40	0.69
Participation status (Base: took 5 or more loans)				
No loan	-2,085.13	5,108.16	-0.41	0.68
One loan	-2,016.57	5,332.63	-0.38	0.71
2-4 loans	-746.58	5,166.20	-0.14	0.89

Table E-1c Microenterprise revenues of household

Measure	
Gross sales receipts in the previous month from all the household's own-account enterprises in manufacturing, trade and services (include only households in which one or more own-account enterprises were reported)	

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	161	11,081	14,372	1,133
	Savers	146	9,394	23,675	1,959
	Control	125	10,277	22,471	2,010
	Total	432	10,278	20,274	975
Round 2	Borrowers	183	13,469	28,448	2,103
	Savers	141	12,121	33,500	2,821
	Control	122	7,030	11,850	1,073
	Total	446	11,282	27,007	1,279

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	217,868,460	2	108,934,230	0.26	0.768
	Within Groups	176,936,917,492	429	412,440,367		
	Total	177,154,785,952	431			
Round 2	Between Groups	3,180,456,087	2	1,590,228,044	2.19	0.113
	Within Groups	321,401,930,185	443	725,512,258		
	Total	324,582,386,272	445			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	307	10,279	19,347	1,104
	Control	125	10,277	22,471	2,010
	Total	432	10,278	20,274	975
Round 2	Borrower/saver	324	12,882	30,707	1,706
	Control	122	7,030	11,850	1,073
	Total	446	11,282	27,007	1,279

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	354	1	354	0.00	0.999
	Within Groups	177,154,785,598	430	411,987,873		
	Total	177,154,785,952	431			
Round 2	Between Groups	3,035,704,101	1	3,035,704,101	4.19	0.041
	Within Groups	321,546,682,170	444	724,204,239		
	Total	324,582,386,272	445			

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrowers	140	5,303	32,746	2,768
Savers	116	2,837	32,289	2,998
Control	99	-1,641	19,766	1,987
Total	355	2,560	29,595	1,571

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,809,844,948	2	1,404,922,474	1.61	0.201
Within Groups	307,239,177,111	352	872,838,571		
Total	310,049,022,059	354			

4. ANCOVA ANALYSIS

Dependent Variable: Microenterprise revenue of household-R2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	8,580.52	8,770.50	0.98	0.33
Q4BT	0.53	0.08	7.08	0.00
Age group (base: 55+)				
AGE30	-1,792.50	5,099.12	-0.35	0.73
AGE31-45	3,472.72	4,859.98	0.71	0.48
Marital status (base: other)				
MARRIED	-3,921.34	4,561.68	-0.86	0.39
Schooling (base: no schooling)				
Primary	1,605.78	3,762.35	0.43	0.67
Secondary	4,751.91	4,756.04	1.00	0.32
High school and beyond	8,782.23	7,253.16	1.21	0.23
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	2,038.99	3,784.46	0.54	0.59
Hindu-upper caste	5,746.79	6,407.25	0.90	0.37
MUSLIM	674.37	4,469.13	0.15	0.88
Christian	-5,918.57	20,678.90	-0.29	0.77
Employment status/work type (Base: Self-employed)				
Piece rate	1,050.22	4,609.72	0.23	0.82
Wage/salaried work	-2,800.13	5,965.95	-0.47	0.64
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	4,050.51	5,464.18	0.74	0.46
Bidi roller	-9,583.84	10,072.19	-0.95	0.34
Other	-3,944.74	4,027.45	-0.98	0.33
Household size	-423.69	875.67	-0.48	0.63
# of economically active household member	-957.09	1,474.84	-0.65	0.52
Participation status (Base: Control)				
Saver	9,044.00	3,909.93	2.31	0.02
Borrower	5,843.89	3,978.97	1.47	0.14

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	8,080.02	8,749.08	0.92	0.36
Q4BT	0.53	0.08	7.09	0.00
Age group (base: 55+)				
AGE30	-1,981.93	5,092.85	-0.39	0.70
AGE31-45	3,399.34	4,857.62	0.70	0.48
Marital status (base: other)				
MARRIED	-3,705.94	4,553.57	-0.81	0.42
Schooling (base: no schooling)				
Primary	1,880.39	3,748.11	0.50	0.62
Secondary	4,406.74	4,738.23	0.93	0.35
High school and beyond	9,151.58	7,238.55	1.26	0.21
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	1,968.28	3,782.33	0.52	0.60
Hindu-upper caste	5,882.55	6,403.23	0.92	0.36
MUSLIM	965.87	4,455.33	0.22	0.83
Christian	-5,273.32	20,658.92	-0.26	0.80
Employment status/work type (Base: Self-employed)				
Piece rate	684.57	4,589.39	0.15	0.88
Wage/salaried work	-2,508.82	5,954.75	-0.42	0.67
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	4,069.17	5,462.29	0.74	0.46
Bidi roller	-9,260.44	10,062.08	-0.92	0.36
Other	-3,829.00	4,023.94	-0.95	0.34
Household size	-378.20	873.85	-0.43	0.67
# of economically active household member	-940.31	1,474.22	-0.64	0.52
Participation status (Base: Control)				
Borrower/saver	7,509.81	3,498.31	2.15	0.03

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	8,580.52	8,770.50	0.98	0.33
Q4BT	0.53	0.08	7.08	0.00
Age group (base: 55+)				
AGE30	-1,792.50	5,099.12	-0.35	0.73
AGE31-45	3,472.72	4,859.98	0.71	0.48
Marital status (base: other)				
MARRIED	-3,921.34	4,561.68	-0.86	0.39
Schooling (base: no schooling)				
Primary	1,605.78	3,762.35	0.43	0.67
Secondary	4,751.91	4,756.04	1.00	0.32
High school and beyond	8,782.23	7,253.16	1.21	0.23
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	2,038.99	3,784.46	0.54	0.59
Hindu-upper caste	5,746.79	6,407.25	0.90	0.37
MUSLIM	674.37	4,469.13	0.15	0.88
Christian	-5,918.57	20,678.90	-0.29	0.77
Employment status/work type (Base: Self-employed)				
Piece rate	1,050.22	4,609.72	0.23	0.82
Wage/salaried work	-2,800.13	5,965.95	-0.47	0.64
Not gainfully employed	0.00			
Trade (Base: Garment)				
Veggie/fruit vending	4,050.51	5,464.18	0.74	0.46
Bidi roller	-9,583.84	10,072.19	-0.95	0.34
Other	-3,944.74	4,027.45	-0.98	0.33
Household size	-423.69	875.67	-0.48	0.63
# of economically active household member	-957.09	1,474.84	-0.65	0.52
Participation status				
Borrower/saver(vs.control)	5,843.89	3,978.97	1.47	0.14
Borrower (vs. Saver/control)	3,200.12	3,637.48	0.88	0.38

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	23,517.58	15,239.79	1.54	0.12
Q4BT	0.53	0.08	7.08	0.00
Age group (base: 55+)				
AGE30	-1,758.27	5,149.50	-0.34	0.73
AGE31-45	4,005.58	4,880.55	0.82	0.41
Marital status (base: other)				
MARRIED	-3,401.95	4,586.26	-0.74	0.46
Schooling (base: no schooling)				
Primary	1,518.10	3,816.16	0.40	0.69
Secondary	4,593.28	4,777.49	0.96	0.34
High school and beyond	8,330.50	7,295.04	1.14	0.25
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	2,042.85	3,806.99	0.54	0.59
Hindu-upper caste	5,116.72	6,415.21	0.80	0.43
MUSLIM	73.99	4,479.33	0.02	0.99
Christian	-7,147.96	20,736.58	-0.34	0.73
Employment status/work type (Base: Self-employed)				
Piece rate	1,413.16	4,646.13	0.30	0.76
Wage/salaried work	-3,676.93	5,961.45	-0.62	0.54
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	3,109.14	5,472.84	0.57	0.57
Bidi roller	-9,466.90	10,111.50	-0.94	0.35
Other	-4,523.76	4,029.37	-1.12	0.26
Household size	-643.38	877.18	-0.73	0.46
# of economically active household member	-585.00	1,478.55	-0.40	0.69
Participation status (Base: took 5 or more loans)				
No loan	-11,474.62	13,079.74	-0.88	0.38
One loan	-11,166.26	13,559.37	-0.82	0.41
2-4 loans	-5,103.03	13,224.60	-0.39	0.70

Table E-1d Informal sector earnings of household

Measure
Gross sales receipts in the previous month from all own-account enterprises, piece rate work and casual labor in the household

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	257	9,060	11,952	746
	Savers	258	7,358	18,109	1,127
	Control	259	6,628	16,268	1,011
	Total	774	7,679	15,675	563
Round 2	Borrowers	262	11,651	24,096	1,489
	Savers	260	8,751	25,041	1,553
	Control	257	5,235	8,706	543
	Total	779	8,567	20,865	748

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	802,758,981	2	401,379,490	1.64	0.195
	Within Groups	189,137,519,695	771	245,314,552		
	Total	189,940,278,676	773			
Round 2	Between Groups	5,354,234,706	2	2,677,117,353	6.23	0.002
	Within Groups	333,344,578,074	776	429,567,755		
	Total	338,698,812,780	778			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	515	8,207	15,357	677
	Control	259	6,628	16,268	1,011
	Total	774	7,679	15,675	563
Round 2	Borrower/saver	522	10,207	24,590	1,076
	Control	257	5,235	8,706	543
	Total	779	8,567	20,865	748

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	429,728,769	1	429,728,769	1.75	0.186
	Within Groups	189,510,549,907	772	245,479,987		
	Total	189,940,278,676	773			
Round 2	Between Groups	4,257,000,421	1	4,257,000,421	9.89	0.002
	Within Groups	334,441,812,358	777	430,427,043		
	Total	338,698,812,780	778			

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrowers	255	2,998	24,752	1,550
Savers	258	1,451	21,648	1,348
Control	254	-1,434	16,112	1,011
Total	767	1,010	21,201	766

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,575,906,024	2	1,287,953,012	2.88	0.057
Within Groups	341,735,052,265	764	447,297,189		
Total	344,310,958,289	766			

4. ANCOVA ANALYSIS

Dependent Variable: Informal sector earnings of household-r2

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	5,250.71	4,014.20	1.31	0.19
Q4BT	0.46	0.05	9.71	0.00
Age group (base: 55+)				
AGE30	-312.56	2,411.68	-0.13	0.90
AGE31-45	2,105.70	2,268.55	0.93	0.35
Marital status (base: other)				
MARRIED	-1,832.82	2,151.23	-0.85	0.39
Schooling (base: no schooling)				
Primary	1,076.89	1,694.26	0.64	0.53
Secondary	2,523.49	2,240.31	1.13	0.26
High school and beyond	5,849.19	3,595.75	1.63	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	1,262.41	1,823.88	0.69	0.49
Hindu-upper caste	1,903.55	2,753.06	0.69	0.49
MUSLIM	1,249.14	2,026.22	0.62	0.54
Christian	-1,976.78	13,949.70	-0.14	0.89
Employment status/work type (Base: Self-employed)				
Piece rate	-2,912.73	1,861.12	-1.57	0.12
Wage/salaried work	-3,927.00	2,081.56	-1.89	0.06
Not gainfully employed	-717.64	11,331.01	-0.06	0.95
Trade (Base: Garment)				
Vegie/fruit vending	4,640.47	3,242.89	1.43	0.15
Bidi roller	-1,925.71	3,237.32	-0.59	0.55
Other	-749.00	1,931.07	-0.39	0.70
Household size	-199.65	417.99	-0.48	0.63
# of economically active household member	-365.82	683.49	-0.54	0.59
Participation status (compared to Control)				
Saver	5,597.41	1,809.25	3.09	0.00
Borrower	3,201.48	1,764.85	1.81	0.07

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	5,060.11	4,014.03	1.26	0.21
Q4BT	0.46	0.05	9.73	0.00
Age group (base: 55+)				
AGE30	-620.98	2,402.35	-0.26	0.80
AGE31-45	1,917.18	2,265.60	0.85	0.40
Marital status (base: other)				
MARRIED	-1,706.27	2,150.44	-0.79	0.43
Schooling (base: no schooling)				
Primary	1,234.07	1,691.27	0.73	0.47
Secondary	2,353.19	2,238.08	1.05	0.29
High school and beyond	6,000.04	3,596.08	1.67	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	1,363.52	1,823.40	0.75	0.45
Hindu-upper caste	2,046.23	2,752.62	0.74	0.46
MUSLIM	1,474.10	2,020.60	0.73	0.47
Christian	-1,353.45	13,950.08	-0.10	0.92
Employment status/work type (Base: Self-employed)				
Piece rate	-3,137.61	1,854.81	-1.69	0.09
Wage/salaried work	-3,970.46	2,082.50	-1.91	0.06
Not gainfully employed	-787.49	11,337.33	-0.07	0.94
Trade (Base: Garment)				
Veggie/fruit vending	4,667.79	3,244.67	1.44	0.15
Bidi roller	-1,669.63	3,233.67	-0.52	0.61
Other	-640.26	1,930.51	-0.33	0.74
Household size	-185.26	418.10	-0.44	0.66
# of economically active household member	-332.66	683.44	-0.49	0.63
Participation status (Base: Control)				
Borrower/saver	4,338.25	1,555.07	2.79	0.01

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	5,250.71	4,014.20	1.31	0.19
Q4BT	0.46	0.05	9.71	0.00
Age group (base: 55+)				
AGE30	-312.56	2,411.68	-0.13	0.90
AGE31-45	2,105.70	2,268.55	0.93	0.35
Marital status (base: other)				
MARRIED	-1,832.82	2,151.23	-0.85	0.39
Schooling (base: no schooling)				
Primary	1,076.89	1,694.26	0.64	0.53
Secondary	2,523.49	2,240.31	1.13	0.26
High school and beyond	5,849.19	3,595.75	1.63	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	1,262.41	1,823.88	0.69	0.49
Hindu-upper caste	1,903.55	2,753.06	0.69	0.49
MUSLIM	1,249.14	2,026.22	0.62	0.54
Christian	-1,976.78	13,949.70	-0.14	0.89
Employment status/work type (Base: Self-employed)				
Piece rate	-2,912.73	1,861.12	-1.57	0.12
Wage/salaried work	-3,927.00	2,081.56	-1.89	0.06
Not gainfully employed	-717.64	11,331.01	-0.06	0.95
Trade (Base: Garment)				
Vegie/fruit vending	4,640.47	3,242.89	1.43	0.15
Bidi roller	-1,925.71	3,237.32	-0.59	0.55
Other	-749.00	1,931.07	-0.39	0.70
Household size	-199.65	417.99	-0.48	0.63
# of economically active household member	-365.82	683.49	-0.54	0.59
Participation status				
Borrower/saver(vs.control)	3,201.48	1,764.85	1.81	0.07
Borrower (vs. Saver/control)	2,395.93	1,762.40	1.36	0.17

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	14,758.42	7,202.00	2.05	0.04
Q4BT	0.46	0.05	9.69	0.00
Age group (base: 55+)				
AGE30	-116.20	2,418.46	-0.05	0.96
AGE31-45	2,283.31	2,278.26	1.00	0.32
Marital status (base: other)				
MARRIED	-1,617.53	2,154.46	-0.75	0.45
Schooling (base: no schooling)				
Primary	866.40	1,701.52	0.51	0.61
Secondary	2,452.32	2,245.94	1.09	0.28
High school and beyond	5,493.07	3,611.57	1.52	0.13
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	1,293.69	1,825.65	0.71	0.48
Hindu-upper caste	1,519.87	2,742.04	0.55	0.58
MUSLIM	1,103.57	2,029.53	0.54	0.59
Christian	-2,641.69	13,972.65	-0.19	0.85
Employment status/work type (Base: Self-employed)				
Piece rate	-3,072.43	1,863.39	-1.65	0.10
Wage/salaried work	-3,990.89	2,085.30	-1.91	0.06
Not gainfully employed	343.40	11,365.11	0.03	0.98
Trade (Base: Garment)				
Vegie/fruit vending	3,957.15	3,240.72	1.22	0.22
Bidi roller	-1,871.69	3,247.78	-0.58	0.56
Other	-1,256.04	1,923.77	-0.65	0.51
Household size	-292.06	417.77	-0.70	0.48
# of economically active household member	-249.73	683.35	-0.37	0.71
Participation status (Base: took 5 or more loans)				
No loan	-7,468.67	6,303.57	-1.18	0.24
One loan	-6,972.62	6,515.44	-1.07	0.28
2-4 loans	-2,848.51	6,385.33	-0.45	0.66

Table E-2a Microenterprise fixed assets of the respondent

Measure	
The current monetary value of all fixed assets in microenterprises for which the respondent is primarily responsible (include only households in which the respondent is primarily responsible for one or more won-account enterprises).	

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	120	491	1,992	182
	Savers	105	99	704	69
	Control	87	165	580	62
	Total	312	268	1,345	76
Round 2	Borrowers	126	627	5,440	485
	Savers	100	151	718	72
	Control	83	35	159	17
	Total	309	314	3,500	199

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	9,902,268	2	4,951,134	2.77	0.064
	Within Groups	552,646,316	309	1,788,499		
	Total	562,548,584	311			
Round 2	Between Groups	21,477,123	2	10,738,562	0.88	0.418
	Within Groups	3,752,540,942	306	12,263,206		
	Total	3,774,018,065	308			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	225	308	1,542	103
	Control	87	165	580	62
	Total	312	268	1,345	76
Round 2	Borrower/saver	226	416	4,090	272
	Control	83	35	159	17
	Total	309	314	3,500	199

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	1,275,484	1	1,275,484	0.70	0.402
	Within Groups	561,273,100	310	1,810,558		
	Total	562,548,584	311			
Round 2	Between Groups	8,832,623	1	8,832,623	0.72	0.397
	Within Groups	3,765,185,441	307	12,264,448		
	Total	3,774,018,065	308			

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrowers	86	431	6,750	728
Savers	71	44	598	71
Control	63	-129	579	73
Total	220	146	4,236	286

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12,477,353	2	6,238,677	0.35	0.708
Within Groups	3,918,085,545	217	18,055,694		
Total	3,930,562,898	219			

4. ANCOVA ANALYSIS

Dependent Variable: Total fixed assets of respondents' microenterprises-r2

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	-1,838.72	1,578.47	-1.16	0.25
Q4BT	0.30	0.20	1.48	0.14
Age group (base: 55+)				
AGE30	762.91	965.07	0.79	0.43
AGE31-45	943.55	891.53	1.06	0.29
Marital status (base: other)				
MARRIED	-85.27	843.59	-0.10	0.92
Schooling (base: no schooling)				
Primary	-486.08	700.41	-0.69	0.49
Secondary	136.26	908.72	0.15	0.88
High school and beyond	-554.21	1,380.84	-0.40	0.69
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,016.99	688.84	-1.48	0.14
Hindu-upper caste	-665.94	1,244.14	-0.54	0.59
MUSLIM	-839.05	841.72	-1.00	0.32
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	466.83	3,004.08	0.16	0.88
Wage/salaried work	-106.86	2,369.68	-0.05	0.96
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	-149.52	954.49	-0.16	0.88
Bidi roller	0.00	.	.	.
Other	91.96	754.15	0.12	0.90
Household size	109.32	162.56	0.67	0.50
# of economically active household member	483.72	287.52	1.68	0.09
Participation status (Base: Control)				
Saver	517.99	736.94	0.70	0.48
Borrower	30.22	771.25	0.04	0.97

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	-1,959.72	1,566.61	-1.25	0.21
Q4BT	0.32	0.20	1.59	0.11
Age group (base: 55+)				
AGE30	690.22	958.02	0.72	0.47
AGE31-45	923.62	889.90	1.04	0.30
Marital status (base: other)				
MARRIED	-79.33	842.45	-0.09	0.93
Schooling (base: no schooling)				
Primary	-450.66	697.61	-0.65	0.52
Secondary	113.64	906.94	0.13	0.90
High school and beyond	-575.77	1,378.69	-0.42	0.68
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,018.66	687.93	-1.48	0.14
Hindu-upper caste	-593.42	1,238.06	-0.48	0.63
MUSLIM	-742.65	828.91	-0.90	0.37
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	315.90	2,992.16	0.11	0.92
Wage/salaried work	-8.98	2,362.33	0.00	1.00
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	-122.89	952.47	-0.13	0.90
Bidi roller	0.00	.	.	.
Other	129.86	751.16	0.17	0.86
Household size	123.25	161.08	0.77	0.45
# of economically active household member	483.95	287.14	1.69	0.09
Participation status (Base: Control)				
Borrower/saver	299.24	664.04	0.45	0.65

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	-1,838.72	1,578.47	-1.16	0.25
Q4BT	0.30	0.20	1.48	0.14
Age group (base: 55+)				
AGE30	762.91	965.07	0.79	0.43
AGE31-45	943.55	891.53	1.06	0.29
Marital status (base: other)				
MARRIED	-85.27	843.59	-0.10	0.92
Schooling (base: no schooling)				
Primary	-486.08	700.41	-0.69	0.49
Secondary	136.26	908.72	0.15	0.88
High school and beyond	-554.21	1,380.84	-0.40	0.69
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-1,016.99	688.84	-1.48	0.14
Hindu-upper caste	-665.94	1,244.14	-0.54	0.59
MUSLIM	-839.05	841.72	-1.00	0.32
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	466.83	3,004.08	0.16	0.88
Wage/salaried work	-106.86	2,369.68	-0.05	0.96
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Veggie/fruit vending	-149.52	954.49	-0.16	0.88
Bidi roller	0.00	.	.	.
Other	91.96	754.15	0.12	0.90
Household size	109.32	162.56	0.67	0.50
# of economically active household member	483.72	287.52	1.68	0.09
Participation status				
Borrower/saver(vs.control)	30.22	771.25	0.04	0.97
Borrower (vs. Saver/control)	487.77	708.61	0.69	0.49

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	-1,746.05	2,430.26	-0.72	0.47
Q4BT	0.30	0.20	1.51	0.13
Age group (base: 55+)				
AGE30	766.55	970.47	0.79	0.43
AGE31-45	928.81	893.14	1.04	0.30
Marital status (base: other)				
MARRIED	-97.63	838.84	-0.12	0.91
Schooling (base: no schooling)				
Primary	-472.51	707.54	-0.67	0.51
Secondary	154.99	910.47	0.17	0.86
High school and beyond	-610.11	1,386.85	-0.44	0.66
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-996.22	691.05	-1.44	0.15
Hindu-upper caste	-607.48	1,237.09	-0.49	0.62
MUSLIM	-804.74	834.82	-0.96	0.34
Christian	0.00	.	.	.
Employment status/work type (Base: Self-employed)				
Piece rate	487.25	3,015.90	0.16	0.87
Wage/salaried work	-5.81	2,366.35	0.00	1.00
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	-127.73	958.19	-0.13	0.89
Bidi roller	0.00	.	.	.
Other	86.37	754.71	0.11	0.91
Household size	104.26	160.50	0.65	0.52
# of economically active household member	497.10	288.04	1.73	0.09
Participation status (Base: took 5 or more loans)				
No loan	-116.78	1,977.42	-0.06	0.95
One loan	191.90	2,093.98	0.09	0.93
2-4 loans	438.01	2,010.42	0.22	0.83

Table E-2b Microenterprise fixed assets of household

Measure	
The current monetary value of all fixed assets in the household's microenterprises (include only households in which one or more enterprises were reported).	

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	157	1,987	11,612	927
	Savers	144	1,267	8,021	668
	Control	119	2,762	19,486	1,786
	Total	420	1,960	13,395	654
Round 2	Borrowers	183	1,282	7,609	562
	Savers	141	832	5,835	491
	Control	122	451	4,388	397
	Total	446	913	6,304	299

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	145,735,471	2	72,867,736	0.40	0.667
	Within Groups	75,038,705,920	417	179,948,935		
	Total	75,184,441,392	419			
Round 2	Between Groups	51,846,357	2	25,923,178	0.65	0.522
	Within Groups	17,632,814,824	443	39,803,194		
	Total	17,684,661,181	445			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	301	1,643	10,045	579
	Control	119	2,762	19,486	1,786
	Total	420	1,960	13,395	654
Round 2	Borrower/saver	324	1,086	6,887	383
	Control	122	451	4,388	397
	Total	446	913	6,304	299

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	106,858,152	1	106,858,152	0.59	0.441
	Within Groups	75,077,583,240	418	179,611,443		
	Total	75,184,441,392	419			
Round 2	Between Groups	35,709,742	1	35,709,742	0.90	0.344
	Within Groups	17,648,951,438	444	39,749,891		
	Total	17,684,661,181	445			

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrowers	136	-708	13,990	1,200
Savers	114	11	8,574	803
Control	94	-2,878	21,474	2,215
Total	344	-1,063	15,087	813

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	458,372,043	2	229,186,022	1.01	0.366
Within Groups	77,615,261,094	341	227,610,736		
Total	78,073,633,137	343			

4. ANCOVA ANALYSIS

Dependent Variable: Total value of fixed assets of household's microenterprises-r2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	-1,822.51	2,107.53	-0.86	0.39
Q4BT	0.05	0.03	1.83	0.07
Age group (base: 55+)				
AGE30	-440.94	1,242.63	-0.35	0.72
AGE31-45	562.48	1,177.32	0.48	0.63
Marital status (base: other)				
MARRIED	1,088.39	1,121.41	0.97	0.33
Schooling (base: no schooling)				
Primary	633.27	919.37	0.69	0.49
Secondary	3,095.28	1,157.76	2.67	0.01
High school and beyond	3,948.28	1,790.61	2.20	0.03
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-36.75	916.99	-0.04	0.97
Hindu-upper caste	-2,344.72	1,551.16	-1.51	0.13
MUSLIM	-1,283.50	1,079.81	-1.19	0.24
Christian	787.05	4,949.45	0.16	0.87
Employment status/work type (Base: Self-employed)				
Piece rate	60.69	1,124.28	0.05	0.96
Wage/salaried work	-1,337.83	1,506.11	-0.89	0.38
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	2,176.46	1,312.39	1.66	0.10
Bidi roller	-773.13	2,414.62	-0.32	0.75
Other	150.61	974.07	0.15	0.88
Household size	-234.39	211.05	-1.11	0.27
# of economically active household member	653.49	361.05	1.81	0.07
Participation status (Base: Control)				
Saver	696.88	959.23	0.73	0.47
Borrower	292.06	975.96	0.30	0.76

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	-1,887.88	2,100.17	-0.90	0.37
Q4BT	0.05	0.03	1.85	0.07
Age group (base: 55+)				
AGE30	-460.01	1,240.43	-0.37	0.71
AGE31-45	559.80	1,175.88	0.48	0.63
Marital status (base: other)				
MARRIED	1,102.85	1,119.60	0.99	0.33
Schooling (base: no schooling)				
Primary	672.06	914.38	0.73	0.46
Secondary	3,050.72	1,152.29	2.65	0.01
High school and beyond	3,997.44	1,785.24	2.24	0.03
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-48.32	915.53	-0.05	0.96
Hindu-upper caste	-2,327.16	1,548.81	-1.50	0.13
MUSLIM	-1,251.17	1,076.21	-1.16	0.25
Christian	865.25	4,940.51	0.18	0.86
Employment status/work type (Base: Self-employed)				
Piece rate	14.32	1,118.39	0.01	0.99
Wage/salaried work	-1,304.91	1,502.58	-0.87	0.39
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	2,182.69	1,310.72	1.67	0.10
Bidi roller	-728.37	2,409.72	-0.30	0.76
Other	169.15	972.05	0.17	0.86
Household size	-228.07	210.35	-1.08	0.28
# of economically active household member	655.85	360.58	1.82	0.07
Participation status (Base: Control)				
Borrower/saver	502.93	860.61	0.58	0.56

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

Parameter	B	Std. Error	t	Sig.
Intercept	-1822.51	2107.53	-0.86	0.39
Q4BT	0.05	0.03	1.83	0.07
Age group (base: 55+)				
AGE30	-440.94	1242.63	-0.35	0.72
AGE31-45	562.48	1177.32	0.48	0.63
Marital status (base: other)				
MARRIED	1088.39	1121.41	0.97	0.33
Schooling (base: no schooling)				
Primary	633.27	919.37	0.69	0.49
Secondary	3095.28	1157.76	2.67	0.01
High school and beyond	3948.28	1790.61	2.20	0.03
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-36.75	916.99	-0.04	0.97
Hindu-upper caste	-2344.72	1551.16	-1.51	0.13
MUSLIM	-1283.50	1079.81	-1.19	0.24
Christian	787.05	4949.45	0.16	0.87
Employment status/work type (Base: Self-employed)				
Piece rate	60.69	1124.28	0.05	0.96
Wage/salaried work	-1337.83	1506.11	-0.89	0.38
Not gainfully employed	0.00			
Trade (Base: Garment)				
Veggie/fruit vending	2176.46	1312.39	1.66	0.10
Bidi roller	-773.13	2414.62	-0.32	0.75
Other	150.61	974.07	0.15	0.88
Household size	-234.39	211.05	-1.11	0.27
# of economically active household member	653.49	361.05	1.81	0.07
Participation status				
Borrower/saver(vs.control)	292.06	975.96	0.30	0.76
Borrower (vs. Saver/control)	404.82	879.80	0.46	0.65

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	-1,156.19	3,634.92	-0.32	0.75
Q4BT	0.05	0.03	1.79	0.07
Age group (base: 55+)				
AGE30	-449.98	1,251.18	-0.36	0.72
AGE31-45	604.58	1,177.58	0.51	0.61
Marital status (base: other)				
MARRIED	1,215.27	1,124.28	1.08	0.28
Schooling (base: no schooling)				
Primary	526.24	930.65	0.57	0.57
Secondary	3,048.22	1,158.63	2.63	0.01
High school and beyond	3,925.74	1,796.64	2.19	0.03
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-34.36	919.89	-0.04	0.97
Hindu-upper caste	-2,405.43	1,549.76	-1.55	0.12
MUSLIM	-1,274.86	1,080.64	-1.18	0.24
Christian	745.97	4,949.97	0.15	0.88
Employment status/work type (Base: Self-employed)				
Piece rate	109.06	1,129.92	0.10	0.92
Wage/salaried work	-1,468.26	1,498.44	-0.98	0.33
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	2,029.64	1,309.85	1.55	0.12
Bidi roller	-781.50	2,417.53	-0.32	0.75
Other	82.59	971.44	0.09	0.93
Household size	-256.61	210.77	-1.22	0.22
# of economically active household member	691.70	360.12	1.92	0.06
Participation status (Base: took 5 or more loans)				
No loan	-368.38	3,118.07	-0.12	0.91
One loan	-1,112.57	3,231.70	-0.34	0.73
2-4 loans	179.31	3,156.17	0.06	0.95

Table E-3a Microenterprise employment: Number of hours worked per week

Measure	
Total (aggregate) number of hours worked by paid and unpaid employees of own-account enterprises in previous week (include only households in which one or more own-account enterprises were reported)	

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	157	37.4	25.6	2.0
	Savers	144	38.2	24.1	2.0
	Control	119	37.0	28.5	2.6
	Total	420	37.6	25.9	1.3
Round 2	Borrowers	183	86.6	72.0	5.3
	Savers	141	81.9	73.6	6.2
	Control	122	70.1	62.9	5.7
	Total	446	80.6	70.3	3.3

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	111	2	55	0.1	0.921
	Within Groups	281,343	417	675		
	Total	281,454	419			
Round 2	Between Groups	20,392	2	10,196	2.1	0.127
	Within Groups	2,180,705	443	4,923		
	Total	2,201,097	445			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	301	37.8	24.9	1.4
	Control	119	37.0	28.5	2.6
	Total	420	37.6	25.9	1.3
Round 2	Borrower/saver	324	84.6	72.6	4.0
	Control	122	70.1	62.9	5.7
	Total	446	80.6	70.3	3.3

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	58	1	58	0.1	0.769
	Within Groups	281,396	418	673		
	Total	281,454	419			
Round 2	Between Groups	18,566	1	18,566	3.8	0.053
	Within Groups	2,182,531	444	4,916		
	Total	2,201,097	445			

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrowers	136	58.8	76.6	6.6
Savers	114	46.3	69.8	6.5
Control	94	34.6	66.0	6.8
Total	344	48.0	72.1	3.9

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	33,048	2	16,524	3.2	0.041
Within Groups	1,747,969	341	5,126		
Total	1,781,017	343			

4. ANCOVA ANALYSIS

Dependent Variable:

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	2.59	22.52	0.12	0.91
Q4BT	0.67	0.15	4.43	0.00
Age group (base: 55+)				
AGE30	-5.68	13.01	-0.44	0.66
AGE31-45	-2.80	12.34	-0.23	0.82
Marital status (base: other)				
MARRIED	12.71	11.76	1.08	0.28
Schooling (base: no schooling)				
Primary	-4.82	9.64	-0.50	0.62
Secondary	4.81	12.17	0.40	0.69
High school and beyond	-6.65	18.59	-0.36	0.72
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-3.82	9.62	-0.40	0.69
Hindu-upper caste	-1.84	16.20	-0.11	0.91
MUSLIM	-1.75	11.34	-0.15	0.88
Christian	39.24	51.93	0.76	0.45
Employment status/work type (Base: Self-employed)				
Piece rate	-3.98	11.78	-0.34	0.74
Wage/salaried work	-3.41	15.78	-0.22	0.83
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	9.29	13.92	0.67	0.51
Bidi roller	21.16	25.28	0.84	0.40
Other	-4.32	10.21	-0.42	0.67
Household size	3.40	2.23	1.52	0.13
# of economically active household member	8.11	3.81	2.13	0.03
Participation status (Base: Control)				
Saver	19.32	10.05	1.92	0.06
Borrower	10.27	10.23	1.00	0.32

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	1.35	22.48	0.06	0.95
Q4BT	0.66	0.15	4.39	0.00
Age group (base: 55+)				
AGE30	-6.08	13.00	-0.47	0.64
AGE31-45	-2.85	12.34	-0.23	0.82
Marital status (base: other)				
MARRIED	13.03	11.75	1.11	0.27
Schooling (base: no schooling)				
Primary	-3.96	9.60	-0.41	0.68
Secondary	3.76	12.12	0.31	0.76
High school and beyond	-5.46	18.55	-0.29	0.77
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-4.05	9.61	-0.42	0.67
Hindu-upper caste	-1.42	16.20	-0.09	0.93
MUSLIM	-1.00	11.31	-0.09	0.93
Christian	40.92	51.90	0.79	0.43
Employment status/work type (Base: Self-employed)				
Piece rate	-5.02	11.74	-0.43	0.67
Wage/salaried work	-2.67	15.76	-0.17	0.87
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	9.51	13.92	0.68	0.50
Bidi roller	22.13	25.26	0.88	0.38
Other	-3.90	10.20	-0.38	0.70
Household size	3.55	2.22	1.60	0.11
# of economically active household member	8.14	3.81	2.14	0.03
Participation status (Base: Control)				
Borrower/saver	14.99	9.03	1.66	0.10

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	2.59	22.52	0.12	0.91
Q4BT	0.67	0.15	4.43	0.00
Age group (base: 55+)				
AGE30	-5.68	13.01	-0.44	0.66
AGE31-45	-2.80	12.34	-0.23	0.82
Marital status (base: other)				
MARRIED	12.71	11.76	1.08	0.28
Schooling (base: no schooling)				
Primary	-4.82	9.64	-0.50	0.62
Secondary	4.81	12.17	0.40	0.69
High school and beyond	-6.65	18.59	-0.36	0.72
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-3.82	9.62	-0.40	0.69
Hindu-upper caste	-1.84	16.20	-0.11	0.91
MUSLIM	-1.75	11.34	-0.15	0.88
Christian	39.24	51.93	0.76	0.45
Employment status/work type (Base: Self-employed)				
Piece rate	-3.98	11.78	-0.34	0.74
Wage/salaried work	-3.41	15.78	-0.22	0.83
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	9.29	13.92	0.67	0.51
Bidi roller	21.16	25.28	0.84	0.40
Other	-4.32	10.21	-0.42	0.67
Household size	3.40	2.23	1.52	0.13
# of economically active household member	8.11	3.81	2.13	0.03
Participation status				
Borrower/saver(vs.control)	10.27	10.23	1.00	0.32
Borrower (vs. Saver/control)	9.05	9.23	0.98	0.33

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	49.93	38.42	1.30	0.19
Q4BT	0.66	0.15	4.37	0.00
Age group (base: 55+)				
AGE30	-6.04	13.09	-0.46	0.64
AGE31-45	-1.51	12.33	-0.12	0.90
Marital status (base: other)				
MARRIED	13.86	11.78	1.18	0.24
Schooling (base: no schooling)				
Primary	-5.55	9.76	-0.57	0.57
Secondary	4.35	12.17	0.36	0.72
High school and beyond	-7.22	18.64	-0.39	0.70
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-3.60	9.64	-0.37	0.71
Hindu-upper caste	-2.69	16.17	-0.17	0.87
MUSLIM	-2.96	11.34	-0.26	0.79
Christian	36.84	51.90	0.71	0.48
Employment status/work type (Base: Self-employed)				
Piece rate	-2.20	11.83	-0.19	0.85
Wage/salaried work	-5.37	15.69	-0.34	0.73
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	7.95	13.86	0.57	0.57
Bidi roller	20.86	25.29	0.83	0.41
Other	-5.23	10.18	-0.51	0.61
Household size	2.87	2.22	1.29	0.20
# of economically active household member	9.11	3.80	2.40	0.02
Participation status (Base: took 5 or more loans)				
No loan	-41.01	32.67	-1.26	0.21
One loan	-44.50	33.88	-1.31	0.19
2-4 loans	-25.85	33.07	-0.78	0.43

Table E-3b Microenterprise employment: days

Measure	
Total (aggregate) number of days worked by paid and unpaid employees of own-account enterprises in previous month (include only households in which one or more own-account enterprises were reported)	

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrowers	157	49.7	33.8	2.7
	Savers	144	43.7	33.1	2.8
	Control	119	41.2	25.7	2.4
	Total	420	45.2	31.6	1.5
Round 2	Borrowers	183	52.1	36.6	2.7
	Savers	141	49.6	40.0	3.4
	Control	122	41.9	29.1	2.6
	Total	446	48.5	36.0	1.7

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	5,385	2	2,692	2.7	0.067
	Within Groups	412,544	417	989		
	Total	417,929	419			
Round 2	Between Groups	7,801	2	3,901	3.0	0.049
	Within Groups	570,022	443	1,287		
	Total	577,823	445			

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		N	Mean	Std. Deviation	Std. Error
Round 1	Borrower/saver	301	46.8	33.5	1.9
	Control	119	41.2	25.7	2.4
	Total	420	45.2	31.6	1.5
Round 2	Borrower/saver	324	51.0	38.1	2.1
	Control	122	41.9	29.1	2.6
	Total	446	48.5	36.0	1.7

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Round 1	Between Groups	2,662	1	2,662	2.7	0.102
	Within Groups	415,266	418	993		
	Total	417,929	419			
Round 2	Between Groups	7,330	1	7,330	5.7	0.017
	Within Groups	570,493	444	1,285		
	Total	577,823	445			

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrowers	136	5.55	36.43	3.12
Savers	114	3.52	35.57	3.33
Control	94	-1.07	32.56	3.36
Total	344	3.07	35.13	1.89

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,475	2	1,237	1.0	0.368
Within Groups	420,743	341	1,234		
Total	423,217	343			

4. ANCOVA ANALYSIS

Dependent Variable: Microenterprise employment (days) – r²

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	3.21	10.11	0.32	0.75
Q4BT	0.53	0.06	9.35	0.00
Age group (base: 55+)				
AGE30	-8.24	5.93	-1.39	0.17
AGE31-45	-4.03	5.63	-0.72	0.47
Marital status (base: other)				
MARRIED	7.52	5.35	1.40	0.16
Schooling (base: no schooling)				
Primary	2.33	4.39	0.53	0.60
Secondary	2.88	5.53	0.52	0.60
High school and beyond	-2.10	8.46	-0.25	0.80
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	3.97	4.38	0.91	0.37
Hindu-upper caste	18.91	7.38	2.56	0.01
MUSLIM	4.25	5.15	0.82	0.41
Christian	20.76	23.63	0.88	0.38
Employment status/work type (Base: Self-employed)				
Piece rate	-1.02	5.41	-0.19	0.85
Wage/salaried work	-16.57	7.18	-2.31	0.02
Not gainfully employed	0.00	.	.	.
Trade (Base: Garment)				
Vegie/fruit vending	6.20	6.25	0.99	0.32
Bidi roller	-10.62	11.51	-0.92	0.36
Other	-0.34	4.64	-0.07	0.94
Household size	0.92	1.01	0.91	0.36
# of economically active household member	1.95	1.76	1.11	0.27
Participation status (Base: Control)				
Saver	8.12	4.58	1.77	0.08
Borrower	6.35	4.65	1.36	0.17

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	2.93	10.07	0.29	0.77
Q4BT	0.53	0.06	9.36	0.00
Age group (base: 55+)				
AGE30	-8.32	5.92	-1.41	0.16
AGE31-45	-4.04	5.62	-0.72	0.47
Marital status (base: other)				
MARRIED	7.59	5.35	1.42	0.16
Schooling (base: no schooling)				
Primary	2.50	4.37	0.57	0.57
Secondary	2.68	5.50	0.49	0.63
High school and beyond	-1.87	8.43	-0.22	0.82
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	3.92	4.37	0.90	0.37
Hindu-upper caste	18.99	7.36	2.58	0.01
MUSLIM	4.39	5.14	0.85	0.39
Christian	21.10	23.59	0.89	0.37
Employment status/work type (Base: Self-employed)				
Piece rate	-1.23	5.38	-0.23	0.82
Wage/salaried work	-16.43	7.16	-2.29	0.02
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	6.22	6.25	1.00	0.32
Bidi roller	-10.43	11.49	-0.91	0.36
Other	-0.26	4.63	-0.06	0.96
Household size	0.95	1.01	0.94	0.35
# of economically active household member	1.96	1.75	1.12	0.26
Participation status (Base: Control)				
Borrower/saver	7.27	4.10	1.77	0.08

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	3.21	10.11	0.32	0.75
Q4BT	0.53	0.06	9.35	0.00
Age group (base: 55+)				
AGE30	-8.24	5.93	-1.39	0.17
AGE31-45	-4.03	5.63	-0.72	0.47
Marital status (base: other)				
MARRIED	7.52	5.35	1.40	0.16
Schooling (base: no schooling)				
Primary	2.33	4.39	0.53	0.60
Secondary	2.88	5.53	0.52	0.60
High school and beyond	-2.10	8.46	-0.25	0.80
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	3.97	4.38	0.91	0.37
Hindu-upper caste	18.91	7.38	2.56	0.01
MUSLIM	4.25	5.15	0.82	0.41
Christian	20.76	23.63	0.88	0.38
Employment status/work type (Base: Self-employed)				
Piece rate	-1.02	5.41	-0.19	0.85
Wage/salaried work	-16.57	7.18	-2.31	0.02
Not gainfully employed	0.00			
Trade (Base: Garment)				
Veggie/fruit vending	6.20	6.25	0.99	0.32
Bidi roller	-10.62	11.51	-0.92	0.36
Other	-0.34	4.64	-0.07	0.94
Household size	0.92	1.01	0.91	0.36
# of economically active household member	1.95	1.76	1.11	0.27
Participation status				
Borrower/saver(vs.control)	6.35	4.65	1.36	0.17
Borrower (vs. Saver/control)	1.78	4.20	0.42	0.67

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	28.64	17.52	1.64	0.10
Q4BT	0.53	0.06	9.22	0.00
Age group (base: 55+)				
AGE30	-8.65	5.97	-1.45	0.15
AGE31-45	-3.47	5.64	-0.62	0.54
Marital status (base: other)				
MARRIED	8.08	5.38	1.50	0.13
Schooling (base: no schooling)				
Primary	2.41	4.45	0.54	0.59
Secondary	2.59	5.54	0.47	0.64
High school and beyond	-2.09	8.50	-0.25	0.81
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	3.79	4.39	0.86	0.39
Hindu-upper caste	18.23	7.37	2.47	0.01
MUSLIM	3.27	5.17	0.63	0.53
Christian	19.36	23.66	0.82	0.41
Employment status/work type (Base: Self-employed)				
Piece rate	-0.30	5.43	-0.05	0.96
Wage/salaried work	-17.64	7.16	-2.47	0.01
Not gainfully employed	0.00			
Trade (Base: Garment)				
Vegie/fruit vending	5.55	6.25	0.89	0.38
Bidi roller	-10.52	11.54	-0.91	0.36
Other	-0.75	4.64	-0.16	0.87
Household size	0.69	1.01	0.69	0.49
# of economically active household member	2.46	1.76	1.40	0.16
Participation status (Base: took 5 or more loans)				
No loan	-21.66	14.94	-1.45	0.15
One loan	-21.84	15.51	-1.41	0.16
2-4 loans	-17.35	15.12	-1.15	0.25

Table E-4a Transactional relationships in household enterprises: Main types of suppliers

Measure
Main type of suppliers in own-account enterprises of the household (0=individuals or retailers; 1=wholesalers, intermediaries or manufacturers)

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Round 1

Descriptives

		Borrower	Saver	Control	Total
Supplier: Individual households or retailers	Count	107	88	80	275
	%	60.1	66.7	69.6	64.7
Supplier: Wholesalers factories/manufacturers middlemen/intermediaries others	Count	71	44	35	150
	%	39.9	33.3	30.4	35.3
Total	Count	178	132	115	425
	%	100	100	100	100

Chi-square test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.06	2	0.22
Likelihood Ratio	3.06	2	0.22
Linear-by-Linear Association	2.92	1	0.09
N of Valid Cases	425		

Round 2

Descriptives

		Borrower	Saver	Control	Total
Supplier: Individual households or retailers	Count	27	31	29	87
	%	11.11	17.13	19.59	15.21
Supplier: Wholesalers factories/manufacturers middlemen/intermediaries others	Count	216	150	119	485
	%	88.89	82.87	80.41	84.79
Total	Count	243	181	148	572
	%	100	100	100	100

Chi-square test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.89	2	0.053
Likelihood Ratio	5.99	2	0.050
Linear-by-Linear Association	5.58	1	0.018
N of Valid Cases	572		

2. ANOVA Analysis: comparing Client and Control Groups**Round 1****Descriptives**

		Borrower/saver	Control	Total
Supplier: Individual households or retailers	Count	244	106	350
	%	62.89	67.52	64.22
Supplier: Wholesalers factories/manufacturers middlemen/intermediaries others	Count	144	51	195
	%	37.11	32.48	35.78
Total	Count	388	157	545
	%	100	100	100

Chi-square test

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.04	1	0.31		
Continuity Correction	0.85	1	0.36		
Likelihood Ratio	1.05	1	0.31		
Fisher's Exact Test				0.33	0.18
Linear-by-Linear Association	1.04	1	0.31		
N of Valid Cases	545				

Round 2**Descriptives**

		Borrower/saver	Control	Total
Supplier: Individual households or retailers	Count	58	29	87
	%	13.71	19.59	15.24
Supplier: Wholesalers factories/manufacturers middlemen/intermediaries others	Count	365	119	484
	%	86.29	80.41	84.76
Total	Count	423	148	571
	%	100	100	100

Chi-square test

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.94	1	0.09		
Continuity Correction	2.50	1	0.11		
Likelihood Ratio	2.81	1	0.09		

Fisher's Exact Test				0.110	0.059
Linear-by-Linear Association	2.93	1	0.09		
N of Valid Cases	571				

3. GAIN SCORE ANALYSIS

Descriptives

	N	Mean	Std. Deviation	Std. Error
Borrower	175	0.51	0.53	0.04
Saver	129	0.53	0.56	0.05
Control	111	0.49	0.52	0.05
Total	415	0.51	0.54	0.03

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.10	2	0.05	0.18	0.84
Within Groups	119.60	412	0.29		
Total	119.70	414			

4. ANCOVA ANALYSIS

Dependent Variable: Main suppliers of household enterprises being wholesalers factories/manufacturers middlemen/intermediaries others

A. Borrower vs. savers vs. controls

Parameter	B	Std. Error	t	Sig.
Intercept	0.759	0.097	7.860	0.000
Q4BT	0.123	0.037	3.369	0.001
Age group (base: 55+)				
AGE30	-0.075	0.057	-1.323	0.187
AGE31-45	-0.040	0.053	-0.761	0.447
Marital status (base: other)				
MARRIED	-0.036	0.051	-0.706	0.480
Schooling (base: no schooling)				
Primary	0.099	0.042	2.386	0.017
Secondary	0.020	0.054	0.381	0.704
High school and beyond	-0.092	0.073	-1.259	0.209
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.032	0.043	0.764	0.445
Hindu-upper caste	0.145	0.072	2.013	0.045
MUSLIM	0.004	0.048	0.092	0.927
Christian	-0.915	0.245	-3.736	0.000
Employment status/work type (Base: Self-employed)				
Piece rate	-0.006	0.053	-0.109	0.913
Wage/salaried work	-0.074	0.071	-1.043	0.298
Not gainfully employed	0.000			
Trade (Base: Garment)				
Vegie/fruit vending	0.106	0.059	1.807	0.072
Bidi roller	0.140	0.122	1.140	0.255
Other	0.029	0.044	0.660	0.509
Household size	-0.002	0.010	-0.183	0.855
# of economically active household member	0.002	0.016	0.116	0.907
Participation status (compared to Control)				
Saver	0.099	0.044	2.260	0.024
Borrower	0.052	0.045	1.144	0.253

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.753	0.097	7.806	0.000
Q4BT	0.126	0.036	3.441	0.001
Age group (base: 55+)				
AGE30	-0.079	0.057	-1.401	0.162
AGE31-45	-0.043	0.053	-0.810	0.419
Marital status (base: other)				
MARRIED	-0.033	0.051	-0.656	0.512
Schooling (base: no schooling)				
Primary	0.103	0.041	2.475	0.014
Secondary	0.016	0.054	0.290	0.772
High school and beyond	-0.087	0.073	-1.184	0.237
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.030	0.042	0.715	0.475
Hindu-upper caste	0.147	0.072	2.034	0.043
MUSLIM	0.008	0.048	0.158	0.874
Christian	-0.907	0.245	-3.703	0.000
Employment status/work type (Base: Self-employed)				
Piece rate	-0.013	0.053	-0.253	0.800
Wage/salaried work	-0.068	0.071	-0.961	0.337
Not gainfully employed	0.000	.	.	.
Trade (Base: Garment)				
Veggie/fruit vending	0.107	0.059	1.821	0.069
Bidi roller	0.144	0.122	1.178	0.239
Other	0.032	0.044	0.719	0.473
Household size	-0.001	0.010	-0.147	0.883
# of economically active household member	0.003	0.016	0.178	0.859
Participation status (Base: Control)				
Borrower/saver	0.077	0.040	1.947	0.052

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.759	0.097	7.860	0.000
Q4BT	0.123	0.037	3.369	0.001
Age group (base: 55+)				
AGE30	-0.075	0.057	-1.323	0.187
AGE31-45	-0.040	0.053	-0.761	0.447
Marital status (base: other)				
MARRIED	-0.036	0.051	-0.706	0.480
Schooling (base: no schooling)				
Primary	0.099	0.042	2.386	0.017
Secondary	0.020	0.054	0.381	0.704
High school and beyond	-0.092	0.073	-1.259	0.209
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.032	0.043	0.764	0.445
Hindu-upper caste	0.145	0.072	2.013	0.045
MUSLIM	0.004	0.048	0.092	0.927
Christian	-0.915	0.245	-3.736	0.000
Employment status/work type (Base: Self-employed)				
Piece rate	-0.006	0.053	-0.109	0.913
Wage/salaried work	-0.074	0.071	-1.043	0.298
Not gainfully employed	0.000	.	.	.
Trade (Base: Garment)				
Veggie/fruit vending	0.106	0.059	1.807	0.072
Bidi roller	0.140	0.122	1.140	0.255
Other	0.029	0.044	0.660	0.509
Household size	-0.002	0.010	-0.183	0.855
# of economically active household member	0.002	0.016	0.116	0.907
Participation status				
Borrower/saver(vs.control)	0.052	0.045	1.144	0.253
Borrower (vs. Saver/control)	0.047	0.040	1.169	0.243

D. Number of SEWA Bank loans

Parameter	B	Std. Error	t	Sig.
Intercept	0.894	0.165	5.411	0.000
Q4BT	0.134	0.037	3.628	0.000
Age group (base: 55+)				
AGE30	-0.071	0.057	-1.236	0.217
AGE31-45	-0.035	0.053	-0.665	0.507
Marital status (base: other)				
MARRIED	-0.040	0.051	-0.786	0.432
Schooling (base: no schooling)				
Primary	0.114	0.042	2.706	0.007
Secondary	0.020	0.054	0.370	0.712
High school and beyond	-0.090	0.073	-1.222	0.222
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.033	0.043	0.772	0.441
Hindu-upper caste	0.145	0.072	2.022	0.044
MUSLIM	-0.003	0.048	-0.056	0.955
Christian	-0.919	0.245	-3.757	0.000
Employment status/work type (Base: Self-employed)				
Piece rate	-0.011	0.053	-0.200	0.841
Wage/salaried work	-0.073	0.071	-1.027	0.305
Not gainfully employed	0.000			
Trade (Base: Garment)				
Vegie/fruit vending	0.104	0.058	1.789	0.074
Bidi roller	0.138	0.122	1.131	0.259
Other	0.023	0.044	0.522	0.602
Household size	-0.004	0.010	-0.375	0.708
# of economically active household member	0.006	0.016	0.366	0.715
Participation status (Base: took 5 or more loans)				
No loan	-0.120	0.141	-0.848	0.397
One loan	0.007	0.146	0.047	0.963
2-4 loans	-0.062	0.143	-0.432	0.666

Table E-4b Transactional relationships in household enterprises: Main customers

Measure
Main type of customers in own-account enterprises of the household (0=individuals, households; 1=retailers, wholesalers, intermediaries or manufacturers)

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Round 1

Descriptives

		Borrower	Saver	Control	Total
Customer: Individuals	Count	166	108	103	377
	%	91.71	81.20	88.79	87.67
Customer: Retailers, wholesalers, middlemen, intermediaries, etc.	Count	15	25	13	53
	%	8.29	18.80	11.21	12.33
Total	Count	181	133	116	430
	%	100	100	100	100

Chi-square test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.02	2	0.02
Likelihood Ratio	7.72	2	0.02
Linear-by-Linear Association	1.16	1	0.28
N of Valid Cases	430		

Round 2

Descriptives

		Borrower	Saver	Control	Total
Customer: Individuals	Count	226	163	146	535
	%	91.13	88.59	95.42	91.45
Customer: Retailers, wholesalers, middlemen, intermediaries, etc.	Count	22	21	7	50
	%	8.87	11.41	4.58	8.55
Total	Count	248	184	153	585
	%	100	100	100	100

Chi-square test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.05	2	0.080
Likelihood Ratio	5.46	2	0.065
Linear-by-Linear Association	1.57	1	0.210
N of Valid Cases	585		

2. ANOVA Analysis: comparing Client and Control Groups**Round 1****Descriptives**

		Borrower/saver	Control	Total
Customer: Individuals	Count	341	142	483
	%	86.55	89.87	87.50
Customer: Retailers, wholesalers, middlemen, intermediaries, etc.	Count	53	16	69
	%	13.45	10.13	12.50
Total	Count	394	158	552
	%	100	100	100

Chi-square test

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.14	1	0.29		
Continuity Correction	0.86	1	0.35		
Likelihood Ratio	1.18	1	0.28		
Fisher's Exact Test				0.321	0.178
Linear-by-Linear Association	1.14	1	0.29		
N of Valid Cases	552				

Round 2**Descriptives**

		Borrower/saver	Control	Total
Customer: Individuals	Count	388	146	534
	%	90.02	95.42	91.44
Customer: Retailers, wholesalers, middlemen, intermediaries, etc.	Count	43	7	50
	%	9.98	4.58	8.56
Total	Count	431	153	584
	%	100	100	100

Chi-square test

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.21	1	0.04		
Continuity Correction	3.55	1	0.06		
Likelihood Ratio	4.74	1	0.03		
Fisher's Exact Test				0.043	0.025
Linear-by-Linear Association	4.20	1	0.04		
N of Valid Cases	584				

3. GAIN SCORE ANALYSIS**Descriptives**

	N	Mean	Std. Deviation	Std. Error
Borrower	180	-0.03	0.29	0.02
Saver	133	-0.09	0.40	0.03
Control	116	-0.06	0.33	0.03
Total	429	-0.06	0.34	0.02

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.30	2	0.15	1.33	0.266
Within Groups	48.36	426	0.11		
Total	48.66	428			

4. ANCOVA ANALYSIS

Dependent Variable: Main customers of household enterprises being retailers, wholesalers, middlemen, intermediaries, etc.

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.001	0.065	0.013	0.990
Q4BT	0.263	0.035	7.513	0.000
Age group (base: 55+)				
AGE30	-0.002	0.038	-0.050	0.960
AGE31-45	0.004	0.036	0.118	0.906
Marital status (base: other)				
MARRIED	0.048	0.034	1.440	0.151
Schooling (base: no schooling)				
Primary	0.028	0.028	1.007	0.315
Secondary	0.037	0.036	1.016	0.310
High school and beyond	0.002	0.050	0.048	0.962
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.062	0.028	-2.183	0.030
Hindu-upper caste	-0.117	0.048	-2.468	0.014
MUSLIM	-0.033	0.032	-1.002	0.317
Christian	-0.036	0.167	-0.213	0.831
Employment status/work type (Base: Self-employed)				
Piece rate	-0.020	0.035	-0.552	0.581
Wage/salaried work	0.020	0.046	0.432	0.666
Not gainfully employed	0.000			
Trade (Base: Garment)				
Vegie/fruit vending	-0.007	0.039	-0.180	0.857
Bidi roller	0.457	0.083	5.508	0.000
Other	0.007	0.029	0.235	0.815
Household size	-0.011	0.006	-1.691	0.092
# of economically active household member	0.025	0.011	2.339	0.020
Participation status (compared to Control)				
Saver	-0.019	0.029	-0.651	0.516
Borrower	0.002	0.030	0.066	0.947

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.004	0.065	0.054	0.957
Q4BT	0.266	0.035	7.678	0.000
Age group (base: 55+)				
AGE30	0.000	0.038	-0.005	0.996
AGE31-45	0.005	0.036	0.148	0.882
Marital status (base: other)				
MARRIED	0.047	0.033	1.405	0.161
Schooling (base: no schooling)				
Primary	0.027	0.028	0.958	0.338
Secondary	0.039	0.036	1.077	0.282
High school and beyond	0.000	0.050	0.000	1.000
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.061	0.028	-2.146	0.032
Hindu-upper caste	-0.119	0.047	-2.503	0.013
MUSLIM	-0.034	0.032	-1.045	0.296
Christian	-0.039	0.166	-0.236	0.814
Employment status/work type (Base: Self-employed)				
Piece rate	-0.017	0.035	-0.479	0.632
Wage/salaried work	0.019	0.046	0.405	0.686
Not gainfully employed	0.000			
Trade (Base: Garment)				
Vegie/fruit vending	-0.008	0.039	-0.199	0.842
Bidi roller	0.453	0.083	5.474	0.000
Other	0.005	0.029	0.184	0.854
Household size	-0.011	0.006	-1.742	0.082
# of economically active household member	0.025	0.011	2.320	0.021
Participation status (Base: Control)				
Borrower/saver	-0.009	0.026	-0.359	0.720

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.001	0.065	0.013	0.990
Q4BT	0.263	0.035	7.513	0.000
Age group (base: 55+)				
AGE30	-0.002	0.038	-0.050	0.960
AGE31-45	0.004	0.036	0.118	0.906
Marital status (base: other)				
MARRIED	0.048	0.034	1.440	0.151
Schooling (base: no schooling)				
Primary	0.028	0.028	1.007	0.315
Secondary	0.037	0.036	1.016	0.310
High school and beyond	0.002	0.050	0.048	0.962
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.062	0.028	-2.183	0.030
Hindu-upper caste	-0.117	0.048	-2.468	0.014
MUSLIM	-0.033	0.032	-1.002	0.317
Christian	-0.036	0.167	-0.213	0.831
Employment status/work type (Base: Self-employed)				
Piece rate	-0.020	0.035	-0.552	0.581
Wage/salaried work	0.020	0.046	0.432	0.666
Not gainfully employed	0.000			
Trade (Base: Garment)				
Vegie/fruit vending	-0.007	0.039	-0.180	0.857
Bidi roller	0.457	0.083	5.508	0.000
Other	0.007	0.029	0.235	0.815
Household size	-0.011	0.006	-1.691	0.092
# of economically active household member	0.025	0.011	2.339	0.020
Participation status				
Borrower/saver(vs.control)	0.002	0.030	0.066	0.947
Borrower (vs. Saver/control)	-0.021	0.027	-0.766	0.444

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	-0.022	0.107	-0.208	0.835
Q4BT	0.261	0.035	7.495	0.000
Age group (base: 55+)				
AGE30	-0.003	0.038	-0.075	0.940
AGE31-45	0.003	0.036	0.077	0.939
Marital status (base: other)				
MARRIED	0.049	0.034	1.455	0.147
Schooling (base: no schooling)				
Primary	0.031	0.028	1.080	0.281
Secondary	0.034	0.036	0.940	0.348
High school and beyond	0.006	0.050	0.119	0.905
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.063	0.028	-2.228	0.026
Hindu-upper caste	-0.120	0.047	-2.542	0.011
MUSLIM	-0.033	0.032	-1.022	0.308
Christian	-0.033	0.166	-0.200	0.842
Employment status/work type (Base: Self-employed)				
Piece rate	-0.022	0.036	-0.627	0.531
Wage/salaried work	0.020	0.046	0.431	0.667
Not gainfully employed	0.000			
Trade (Base: Garment)				
Vegie/fruit vending	-0.007	0.039	-0.189	0.850
Bidi roller	0.459	0.083	5.531	0.000
Other	0.007	0.029	0.228	0.820
Household size	-0.011	0.006	-1.659	0.098
# of economically active household member	0.026	0.011	2.352	0.019
Participation status (Base: took 5 or more loans)				
No loan	0.026	0.090	0.291	0.771
One loan	0.033	0.093	0.351	0.726
2-4 loans	-0.006	0.090	-0.065	0.948

Part III: Analysis of Individual-Level Hypotheses

Table I-2a Self-esteem and Respect: Do you feel that you make an important contribution to the household?

Measure	Additional moderating variables
Do you feel that you make an important contribution to the household? (0=negative responses; 1=positive responses)	<ul style="list-style-type: none"> Household income percapita

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Descriptives

		Round 1				Round 2			
		Borrowers	Savers	Control	Total	Borrowers	Savers	Control	Total
No	Count	77	100	95	272	91	97	97	285
	%	29.17	38.46	36.26	34.61	34.47	37.31	37.02	36.26
Yes	Count	187.00	160.00	167.00	514.00	173	163	165	501
	%	70.83	61.54	63.74	65.39	65.53	62.69	62.98	63.74
Total	Count	264	260	262	786	264	260	262	786
	%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100

Chi-square tests conducted to test whether the groups are different:

	A. Round 1			B. Round 2		
	Value	df	Asymp. Sig. (2-sided)	Value	df	Asymp. Sig. (2-sided)
	5.48	2	0.06	0.56	2	0.76
Likelihood Ratio	5.54	2	0.06	0.56	2	0.76
Linear-by-Linear Association	2.93	1	0.09	0.37	1	0.54
N of Valid Cases	786			786		

2. ANOVA Analysis: comparing Client and Control Groups

Descriptives

		Round 1			Round 2		
		Borrower/saver	Control	Total	Borrower/save r	Control	Total
No	Count	177	95	272	188	97	285
	%	33.78	36.26	34.61	35.88	37.02	36.26
Yes	Count	347	167	514	336	165	501
	%	66.22	63.74	65.39	64.12	62.98	63.74
Total	Count	524	262	786	524	262	786
	%	100	100	100	100	100	100

Round 1

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	0.48	1	0.49		
Continuity Correction	0.37	1	0.54		
Likelihood Ratio	0.47	1	0.49		
Fisher's Exact Test				0.52	0.27
Linear-by-Linear Association	0.47	1	0.49		
N of Valid Cases	786				

Round 2

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	0.10	1	0.75		
Continuity Correction	0.06	1	0.81		
Likelihood Ratio	0.10	1	0.75		
Fisher's Exact Test				0.75	0.41
Linear-by-Linear Association	0.10	1	0.75		
N of Valid Cases	786				

3. GAIN SCORE ANALYSIS

	N	Mean	Std. Deviation	Std. Error
Borrowers	264	-0.053	0.650	0.040
Savers	260	0.012	0.649	0.040
Control	262	-0.008	0.678	0.042
Total	786	-0.017	0.659	0.024

Anova

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.58	2	0.29	0.664	0.515
Within Groups	340.21	783	0.43		
Total	340.78	785			

4. ANCOVA ANALYSIS

Dependent Variable: Do you feel you make an important contribution to the household-r2?

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.69	0.10	6.84	0.00
Q19AR	0.02	0.04	0.58	0.56
Age group (base: 55+)				
AGE30	-0.07	0.06	-1.24	0.22
AGE31-45	0.04	0.05	0.66	0.51
Marital status (base: other)				
MARRIED	0.09	0.05	1.74	0.08
Schooling (base: no schooling)				
Primary	0.07	0.04	1.65	0.10
Secondary	0.08	0.05	1.50	0.13
High school and beyond	0.06	0.09	0.65	0.52
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.02	0.04	-0.55	0.59
Hindu-upper caste	-0.04	0.07	-0.65	0.52
MUSLIM	-0.03	0.05	-0.52	0.60
Christian	-0.25	0.34	-0.73	0.46
Employment status/work type (Base: Self-employed)				
Piece rate	-0.15	0.05	-3.26	0.00
Wage/salaried work	-0.01	0.05	-0.18	0.86
Not gainfully employed	-0.01	0.28	-0.05	0.96
Trade (Base: Garment)				
Veggie/fruit vending	0.10	0.08	1.32	0.19
Bidi roller	0.14	0.08	1.76	0.08
Other	0.04	0.05	0.93	0.35
household size	0.00	0.01	-0.27	0.79
# of economically active household member	-0.05	0.02	-2.74	0.01
HOUSEHOLD income percapita r1	0.00	0.00	0.01	0.99
Participation (Base: Control)				
Borrower	0.00	0.04	0.08	0.94
Saver	-0.01	0.04	-0.31	0.76

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.68	0.10	6.83	0.00
RESP_R1	0.02	0.04	0.60	0.55
Age group (base: 55+)				
AGE30	-0.07	0.06	-1.28	0.20
AGE31-45	0.03	0.05	0.64	0.52
Marital status (base: other)				
MARRIED	0.09	0.05	1.75	0.08
Schooling (base: no schooling)				
Primary	0.07	0.04	1.68	0.09
Secondary	0.08	0.05	1.48	0.14
High school and beyond	0.06	0.09	0.65	0.51
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.02	0.04	-0.53	0.59
Hindu-upper caste	-0.04	0.07	-0.63	0.53
MUSLIM	-0.02	0.05	-0.49	0.62
Christian	-0.24	0.34	-0.72	0.47
Employment status/work type (Base: Self-employed)				
Piece rate	-0.15	0.04	-3.30	0.00
Wage/salaried work	-0.01	0.05	-0.18	0.85
Not gainfully employed	-0.01	0.28	-0.05	0.96
Trade (Base: Garment)				
Vegie/fruit vending	0.10	0.08	1.32	0.19
Bidi roller	0.14	0.08	1.79	0.07
Other	0.04	0.05	0.95	0.34
household size	0.00	0.01	-0.25	0.81
# of economically active household member	-0.05	0.02	-2.74	0.01
Presence of salaried income	0.00	0.00	0.05	0.96
Participation (Base: Control)				
Borrower/saver	-0.01	0.04	-0.14	0.89

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.69	0.10	6.84	0.00
RESP_R1	0.02	0.04	0.58	0.56
Age group (base: 55+)				
AGE30	-0.07	0.06	-1.24	0.22
AGE31-45	0.04	0.05	0.66	0.51
Marital status (base: other)				
MARRIED	0.09	0.05	1.74	0.08
Schooling (base: no schooling)				
Primary	0.07	0.04	1.65	0.10
Secondary	0.08	0.05	1.50	0.13
High school and beyond	0.06	0.09	0.65	0.52
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.02	0.04	-0.55	0.59
Hindu-upper caste	-0.04	0.07	-0.65	0.52
MUSLIM	-0.03	0.05	-0.52	0.60
Christian	-0.25	0.34	-0.73	0.46
Employment status/work type (Base: Self-employed)				
Piece rate	-0.15	0.05	-3.26	0.00
Wage/salaried work	-0.01	0.05	-0.18	0.86
Not gainfully employed	-0.01	0.28	-0.05	0.96
Trade (Base: Garment)				
Vegie/fruit vending	0.10	0.08	1.32	0.19
Bidi roller	0.14	0.08	1.76	0.08
Other	0.04	0.05	0.93	0.35
household size	0.00	0.01	-0.27	0.79
# of economically active household member	-0.05	0.02	-2.74	0.01
Presence of salaried income	0.00	0.00	0.01	0.99
Participation				
Borrower/saver (vs. control)	-0.01	0.04	-0.31	0.76
Borrower (vs. Saver/control)	0.02	0.04	0.39	0.70

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.88	0.17	5.08	0.00
RESP_R1	0.01	0.04	0.41	0.68
Age group (base: 55+)				
AGE30	-0.06	0.06	-1.07	0.28
AGE31-45	0.05	0.05	0.83	0.41
Marital status (base: other)				
MARRIED	0.09	0.05	1.70	0.09
Schooling (base: no schooling)				
Primary	0.06	0.04	1.46	0.15
Secondary	0.08	0.05	1.46	0.15
High school and beyond	0.05	0.09	0.54	0.59
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.02	0.04	-0.44	0.66
Hindu-upper caste	-0.04	0.07	-0.59	0.56
MUSLIM	-0.03	0.05	-0.63	0.53
Christian	-0.26	0.34	-0.77	0.44
Employment status/work type (Base: Self-employed)				
Piece rate	-0.14	0.04	-3.10	0.00
Wage/salaried work	-0.01	0.05	-0.16	0.87
Not gainfully employed	0.02	0.27	0.08	0.94
Trade (Base: Garment)				
Veggie/fruit vending	0.10	0.08	1.29	0.20
Bidi roller	0.13	0.08	1.68	0.09
Other	0.04	0.05	0.90	0.37
household size	0.00	0.01	-0.48	0.63
# of economically active household member	-0.04	0.02	-2.68	0.01
Presence of salaried income	0.00	0.00	-0.30	0.77
Participation (Base: Taken 5 or more loans)				
No loan	-0.19	0.15	-1.27	0.20
One loan	-0.27	0.15	-1.76	0.08
2-4 loans	-0.13	0.15	-0.86	0.39

Table I-2b. Self-Esteem and Respect: Do you feel that adult members of your household respect the contributions that you make to the household?

Measure	Additional moderating variable
Do you feel that the adult members of your household respect the contributions you make to the household? (0=negative responses; 1=positive responses)	<ul style="list-style-type: none"> Per capita household income

1. Descriptives

		Round 1				Round 2			
		Borrowers	Savers	Control	Total	Borrowers	Savers	Control	Total
No	Count	15	19	24	58	8	11	16	35
	%	5.68	7.31	9.16	7.38	3.03	4.23	6.11	4.45
Yes	Count	249	241	238	728	256	249	246	751
	%	94.32	92.69	90.84	92.62	96.97	95.77	93.89	95.55
Total	Count	264	260	262	786	264	260	262	786
	%	100	100	100	100	100	100	100	100

2. Chi-square tests conducted to test whether the three groups are different from each other in each round

	Round 1			Round 2		
	Value	df	Asymp. Sig. (2-sided)	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.33	2	0.31	2.97	2	0.23
Likelihood Ratio	2.34	2	0.31	2.96	2	0.23
Linear-by-Linear Association	2.32	1	0.13	2.92	1	0.09
N of Valid Cases	786			786		

3. GAIN SCORE ANALYSIS

Descriptives

	N	Mean	Std. Deviation	Std. Error
Borrowers	264	0.03	0.28	0.02
Savers	260	0.03	0.33	0.02
Control	262	0.03	0.38	0.02
Total	786	0.03	0.33	0.01

ANOVA test of overall difference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.00	2.00	0.00	0.01	0.99
Within Groups	86.32	783.00	0.11		
Total	86.33	785.00			

4. ANCOVA ANALYSIS

Dependent Variable: Feel respected by household members-r2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.92	0.05	18.68	0.00
RESP_R1	0.00	0.03	-0.17	0.86
Age group (base: 55+)				
AGE30	0.00	0.03	0.07	0.94
AGE31-45	0.02	0.02	0.88	0.38
Marital status (base: other)				
MARRIED	0.00	0.02	0.01	0.99
Schooling (base: no schooling)				
Primary	0.01	0.02	0.59	0.56
Secondary	0.00	0.02	-0.03	0.97
High school and beyond	0.07	0.04	1.75	0.08
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.02	0.02	-0.95	0.34
Hindu-upper caste	-0.04	0.03	-1.29	0.20
MUSLIM	-0.01	0.02	-0.33	0.75
Christian	0.04	0.15	0.29	0.77
Employment status/work type (Base: Self-employed)				
Piece rate	0.04	0.02	1.87	0.06
Wage/salaried work	-0.01	0.02	-0.31	0.75
Not gainfully employed	0.06	0.12	0.53	0.60
Trade (Base: Garment)				
Veggie/fruit vending	0.03	0.03	0.88	0.38
Bidi roller	-0.02	0.03	-0.51	0.61
Other	-0.02	0.02	-0.92	0.36
household size	0.00	0.00	0.67	0.50
# of economically active household member	0.00	0.01	0.07	0.94
HOUSEHOLD income percapita r1	0.00	0.00	-0.79	0.43
Participation (Base: Control)				
Borrower	0.03	0.02	1.69	0.09
Saver	0.02	0.02	0.97	0.33

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.92	0.05	18.67	0.00
RESP_R1	0.00	0.03	-0.17	0.87
Age group (base: 55+)				
AGE30	0.00	0.03	0.00	1.00
AGE31-45	0.02	0.02	0.83	0.41
Marital status (base: other)				
MARRIED	0.00	0.02	0.04	0.96
Schooling (base: no schooling)				
Primary	0.01	0.02	0.63	0.53
Secondary	0.00	0.02	-0.08	0.94
High school and beyond	0.07	0.04	1.77	0.08
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.02	0.02	-0.92	0.36
Hindu-upper caste	-0.04	0.03	-1.26	0.21
MUSLIM	-0.01	0.02	-0.27	0.79
Christian	0.05	0.15	0.32	0.75
Employment status/work type (Base: Self-employed)				
Piece rate	0.04	0.02	1.82	0.07
Wage/salaried work	-0.01	0.02	-0.32	0.75
Not gainfully employed	0.06	0.12	0.52	0.60
Trade (Base: Garment)				
Vegie/fruit vending	0.03	0.03	0.88	0.38
Bidi roller	-0.02	0.03	-0.46	0.64
Other	-0.02	0.02	-0.89	0.37
household size	0.00	0.00	0.71	0.48
# of economically active household member	0.00	0.01	0.08	0.93
Presence of salaried income	0.00	0.00	-0.72	0.47
Participation (Base: Control)				
Borrower/saver	0.02	0.02	1.51	0.13

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.92	0.05	18.68	0.00
RESP_R1	0.00	0.03	-0.17	0.86
Age group (base: 55+)				
AGE30	0.00	0.03	0.07	0.94
AGE31-45	0.02	0.02	0.88	0.38
Marital status (base: other)				
MARRIED	0.00	0.02	0.01	0.99
Schooling (base: no schooling)				
Primary	0.01	0.02	0.59	0.56
Secondary	0.00	0.02	-0.03	0.97
High school and beyond	0.07	0.04	1.75	0.08
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.02	0.02	-0.95	0.34
Hindu-upper caste	-0.04	0.03	-1.29	0.20
MUSLIM	-0.01	0.02	-0.33	0.75
Christian	0.04	0.15	0.29	0.77
Employment status/work type (Base: Self-employed)				
Piece rate	0.04	0.02	1.87	0.06
Wage/salaried work	-0.01	0.02	-0.31	0.75
Not gainfully employed	0.06	0.12	0.53	0.60
Trade (Base: Garment)				
Vegie/fruit vending	0.03	0.03	0.88	0.38
Bidi roller	-0.02	0.03	-0.51	0.61
Other	-0.02	0.02	-0.92	0.36
household size	0.00	0.00	0.67	0.50
# of economically active household member	0.00	0.01	0.07	0.94
Presence of salaried income	0.00	0.00	-0.79	0.43
Participation				
Borrower/saver (vs. control)	0.02	0.02	0.97	0.33
Borrower (vs. Saver/control)	0.01	0.02	0.77	0.44

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.99	0.08	12.45	0.00
RESP_R1	0.00	0.03	-0.11	0.91
Age group (base: 55+)				
AGE30	0.01	0.03	0.22	0.82
AGE31-45	0.02	0.02	0.99	0.32
Marital status (base: other)				
MARRIED	0.00	0.02	0.04	0.97
Schooling (base: no schooling)				
Primary	0.01	0.02	0.40	0.69
Secondary	0.00	0.02	-0.05	0.96
High school and beyond	0.06	0.04	1.63	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.02	0.02	-0.91	0.36
Hindu-upper caste	-0.04	0.03	-1.37	0.17
MUSLIM	-0.01	0.02	-0.42	0.67
Christian	0.04	0.15	0.24	0.81
Employment status/work type (Base: Self-employed)				
Piece rate	0.04	0.02	1.93	0.05
Wage/salaried work	-0.01	0.02	-0.33	0.75
Not gainfully employed	0.08	0.12	0.64	0.52
Trade (Base: Garment)				
Vegie/fruit vending	0.02	0.03	0.73	0.46
Bidi roller	-0.02	0.03	-0.56	0.57
Other	-0.02	0.02	-1.11	0.27
household size	0.00	0.00	0.43	0.67
# of economically active household member	0.00	0.01	0.18	0.86
Presence of salaried income	0.00	0.00	-0.96	0.34
Participation (Base: Taken 5 or more loans)				
No loan	-0.06	0.06	-0.97	0.33
One loan	-0.07	0.07	-1.11	0.27
2-4 loans	-0.02	0.06	-0.32	0.75

Table I-4a Position to Deal with Future: Do you feel you are prepared, or in a good position to deal with the future?

Measure	Moderating Variables
Do you feel you are prepared, or in a good position to deal with the future? (0=negative response; 1=positive response)	<ul style="list-style-type: none"> Per capita household income

1. Comparing Borrower, Saver and Control Groups

Descriptives

		Round 1				Round 2			
		Borrower	Saver	Control	Total	Borrower	Saver	Control	Total
No	Count	25	32	36	93	39	52	53	144
	%	9.47	12.31	13.74	11.83	14.77	20.00	20.23	18.32
Yes	Count	239	228	226	693	225	208	209	642
	%	90.53	87.69	86.26	88.17	85.23	80.00	79.77	81.68
Total	Count	264	260	262	786	264	260	262	786
	%	100	100	100	100	100	100	100	100

Chi-square tests conducted to test whether the three groups are different from each other in each round

	Round 1			Round 2		
	Value	df	Asymp. Sig. (2-sided)	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.38	2	0.30	3.35	2	0.19
Likelihood Ratio	2.43	2	0.30	3.45	2	0.18
Linear-by-Linear Association	2.30	1	0.13	2.62	1	0.11
N of Valid Cases	786			786		

2. Comparing Client and Control Groups

Descriptives

		Round 1			Round 2		
		Borrower/saver	Control	Total	Borrower/saver	Control	Total
No	Count	57	36	93	91	53	144
	%	10.88	13.74	11.83	17.37	20.23	18.32
Yes	Count	467	226	693	433	209	642
	%	89.12	86.26	88.17	82.63	79.77	81.68
Total	Count	524	262	786	524	262	786
	%	100.00	100.00	100.00	100.00	100.00	100.00

Chi-square tests conducted to test whether the two groups are different from each other in each round

Round 1

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.37	1	0.24		
Continuity Correction	1.11	1	0.29		
Likelihood Ratio	1.34	1	0.25		
Fisher's Exact Test				0.24	0.15
Linear-by-Linear Association	1.37	1	0.24		
N of Valid Cases	786				

Round 2

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	0.96	1	0.33		
Continuity Correction	0.77	1	0.38		
Likelihood Ratio	0.94	1	0.33		
Fisher's Exact Test				0.33	0.19
Linear-by-Linear Association	0.96	1	0.33		
N of Valid Cases	786				

3. GAIN SCORE ANALYSIS

Descriptives

	N	Mean	Std. Deviation	Std. Error
Borrowers	264	-0.05	0.44	0.03
Savers	260	-0.08	0.50	0.03
Control	262	-0.06	0.49	0.03
Total	786	-0.06	0.48	0.02

ANOVA test of overall difference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.07	2.00	0.04	0.16	0.85
Within Groups	179.62	783.00	0.23		
Total	179.69	785.00			

4. ANCOVA ANALYSIS

Dependent Variable: Feel prepared to deal with future-r2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.67	0.09	7.92	0.00
FUT_R1	0.10	0.04	2.29	0.02
Age group (base: 55+)				
AGE30	-0.02	0.05	-0.52	0.61
AGE31-45	0.05	0.04	1.18	0.24
Marital status (base: other)				
MARRIED	-0.04	0.04	-0.99	0.32
Schooling (base: no schooling)				
Primary	0.05	0.03	1.44	0.15
Secondary	0.10	0.04	2.39	0.02
High school and beyond	0.11	0.07	1.56	0.12
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.00	0.04	0.03	0.98
Hindu-upper caste	0.01	0.05	0.15	0.88
MUSLIM	0.01	0.04	0.14	0.89
Christian	-0.31	0.28	-1.13	0.26
Employment status/work type (Base: Self-employed)				
Piece rate	-0.01	0.04	-0.31	0.76
Wage/salaried work	0.01	0.04	0.31	0.76
Not gainfully employed	-0.09	0.22	-0.38	0.70
Trade (Base: Garment)				
Vegie/fruit vending	0.01	0.06	0.19	0.85
Bidi roller	0.02	0.06	0.31	0.76
Other	-0.07	0.04	-1.93	0.05
household size	0.01	0.01	0.72	0.47
# of economically active household member	0.01	0.01	0.46	0.65
HOUSEHOLD income percapita r1	0.00	0.00	0.48	0.63
Participation (Base: Control)				
Borrower	0.04	0.04	1.17	0.24
Saver	-0.01	0.03	-0.24	0.81

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.67	0.09	7.84	0.00
FUT_R1	0.10	0.04	2.35	0.02
Age group (base: 55+)				
AGE30	-0.03	0.05	-0.67	0.51
AGE31-45	0.05	0.04	1.08	0.28
Marital status (base: other)				
MARRIED	-0.04	0.04	-0.94	0.35
Schooling (base: no schooling)				
Primary	0.05	0.03	1.52	0.13
Secondary	0.10	0.04	2.30	0.02
High school and beyond	0.11	0.07	1.58	0.11
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.00	0.04	0.08	0.94
Hindu-upper caste	0.01	0.05	0.21	0.84
MUSLIM	0.01	0.04	0.25	0.80
Christian	-0.30	0.28	-1.09	0.28
Employment status/work type (Base: Self-employed)				
Piece rate	-0.02	0.04	-0.43	0.67
Wage/salaried work	0.01	0.04	0.30	0.76
Not gainfully employed	-0.09	0.22	-0.39	0.70
Trade (Base: Garment)				
Vegie/fruit vending	0.01	0.06	0.20	0.84
Bidi roller	0.03	0.06	0.39	0.69
Other	-0.07	0.04	-1.87	0.06
household size	0.01	0.01	0.80	0.43
# of economically active household member	0.01	0.01	0.48	0.63
HOUSEHOLD income percapita r1	0.00	0.00	0.60	0.55
Participation (Base: Control)				
Borrower/saver	0.02	0.03	0.50	0.62

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.67	0.09	7.92	0.00
FUT_R1	0.10	0.04	2.29	0.02
Age group (base: 55+)				
AGE30	-0.02	0.05	-0.52	0.61
AGE31-45	0.05	0.04	1.18	0.24
Marital status (base: other)				
MARRIED	-0.04	0.04	-0.99	0.32
Schooling (base: no schooling)				
Primary	0.05	0.03	1.44	0.15
Secondary	0.10	0.04	2.39	0.02
High school and beyond	0.11	0.07	1.56	0.12
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.00	0.04	0.03	0.98
Hindu-upper caste	0.01	0.05	0.15	0.88
MUSLIM	0.01	0.04	0.14	0.89
Christian	-0.31	0.28	-1.13	0.26
Employment status/work type (Base: Self-employed)				
Piece rate	-0.01	0.04	-0.31	0.76
Wage/salaried work	0.01	0.04	0.31	0.76
Not gainfully employed	-0.09	0.22	-0.38	0.70
Trade (Base: Garment)				
Vegie/fruit vending	0.01	0.06	0.19	0.85
Bidi roller	0.02	0.06	0.31	0.76
Other	-0.07	0.04	-1.93	0.05
household size	0.01	0.01	0.72	0.47
# of economically active household member	0.01	0.01	0.46	0.65
HOUSEHOLD income percapita r1	0.00	0.00	0.48	0.63
Participation				
Borrower/saver (vs. control)	-0.01	0.03	-0.24	0.81
Borrower (vs. Saver/control)	0.05	0.03	1.44	0.15

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	0.76	0.14	5.26	0.00
RESP_R1	0.10	0.04	2.38	0.02
Age group (base: 55+)				
AGE30	-0.02	0.05	-0.43	0.66
AGE31-45	0.06	0.04	1.24	0.22
Marital status (base: other)				
MARRIED	-0.04	0.04	-1.05	0.29
Schooling (base: no schooling)				
Primary	0.04	0.03	1.30	0.19
Secondary	0.10	0.04	2.37	0.02
High school and beyond	0.10	0.07	1.43	0.15
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	0.01	0.04	0.14	0.89
Hindu-upper caste	0.01	0.05	0.22	0.82
MUSLIM	0.00	0.04	0.12	0.90
Christian	-0.32	0.27	-1.17	0.24
Employment status/work type (Base: Self-employed)				
Piece rate	-0.01	0.04	-0.18	0.86
Wage/salaried work	0.01	0.04	0.34	0.73
Not gainfully employed	-0.06	0.22	-0.26	0.79
Trade (Base: Garment)				
Vegie/fruit vending	0.01	0.06	0.14	0.89
Bidi roller	0.02	0.06	0.24	0.81
Other	-0.07	0.04	-1.99	0.05
household size	0.00	0.01	0.59	0.56
# of economically active household member	0.01	0.01	0.49	0.63
HOUSEHOLD income percapita r1	0.00	0.00	0.26	0.79
Participation (Base: Taken 5 or more loans)				
No loan	-0.08	0.12	-0.71	0.48
One loan	-0.10	0.12	-0.84	0.40
2-4 loans	-0.01	0.12	-0.09	0.93

Table I-4b Position to deal with the future: Are you doing anything to prepare yourself for the future?

Measure	Moderating Variables
Number of things that were done to prepare for the future shocks	• Per capita household income

1. ANOVA Analysis: comparing Borrower, Saver and Control Groups

Round 1:

Descriptives

		N	Mean	Std. Deviation	Std. Error
Number of types of things to do to prepare for future	Borrowers	264	1.59	0.66	0.04
	Savers	260	1.57	0.65	0.04
	Control	262	1.42	0.59	0.04
	Total	786	1.53	0.64	0.02

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Number of types of things to do to prepare for future	Between Groups	4.55	2	2.27	5.69	0.00
	Within Groups	313.22	783	0.40		
	Total	317.77	785			

Round 2:

Descriptives

		N	Mean	Std. Deviation	Std. Error
Number of things to do to prepare for future-r2	Borrowers	264	1.58	0.67	0.04
	Savers	258	1.48	0.59	0.04
	Control	261	1.42	0.59	0.04
	Total	783	1.49	0.62	0.02

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Number of things to do to prepare for future-r2	Between Groups	3.53	2	1.76	4.64	0.01
	Within Groups	296.17	780	0.38		
	Total	299.70	782			

2. ANOVA Analysis: comparing Client and Control Groups

Round 1:

Descriptives

		N	Mean	Std. Deviation	Std. Error
Number of types of things to do to prepare for future-r1	Borrower	524	1.58	0.65	0.03
	Control	262	1.42	0.59	0.04
	Total	786	1.53	0.64	0.02

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Number of types of things to do to prepare for future-r1	Between Groups	4.49	1	4.49	11.23	0.00
	Within Groups	313.28	784	0.40		
	Total	317.77	785			

Round 2:

Descriptives

		N	Mean	Std. Deviation	Std. Error
Number of things to do to prepare for future-r2	Borrower	522	1.53	0.63	0.03
	Control	261	1.42	0.59	0.04
	Total	783	1.49	0.62	0.02

ANOVA test

		Sum of Squares	df	Mean Square	F	Sig.
Number of things to do to prepare for future-r2	Between Groups	2.15	1	2.15	5.64	0.02
	Within Groups	297.55	781	0.38		
	Total	299.70	782			

3. GAIN SCORE ANALYSIS

Descriptives

	N	Mean	Std. Deviation	Std. Error
Borrowers	264	-0.02	0.89	0.05
Savers	258	-0.10	0.88	0.06
Control	261	0.00	0.80	0.05
Total	783	-0.04	0.86	0.03

ANOVA test of overall difference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.34	2.00	0.67	0.91	0.40
Within Groups	575.51	780.00	0.74		
Total	576.85	782.00			

4. ANCOVA ANALYSIS

Dependent Variable: Number of things to do to prepare for future-r2

A. Borrower vs. savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	1.09	0.13	8.25	0.00
FTPRES_R1	0.03	0.04	0.88	0.38
Age group (base: 55+)				
AGE30	0.10	0.07	1.38	0.17
AGE31-45	0.14	0.07	2.04	0.04
Marital status (base: other)				
MARRIED	0.07	0.07	1.01	0.31
Schooling (base: no schooling)				
Primary	0.04	0.05	0.75	0.45
Secondary	0.11	0.07	1.54	0.12
High school and beyond	0.18	0.11	1.64	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.13	0.06	-2.39	0.02
Hindu-upper caste	-0.05	0.08	-0.61	0.54
MUSLIM	0.01	0.06	0.10	0.92
Christian	0.03	0.43	0.08	0.94
Employment status/work type (Base: Self-employed)				
Piece rate	0.01	0.06	0.22	0.82
Wage/salaried work	-0.07	0.06	-1.12	0.26
Not gainfully employed	0.16	0.35	0.46	0.65
Trade (Base: Garment)				
Veggie/fruit vending	0.06	0.10	0.59	0.56
Bidi roller	0.21	0.10	2.11	0.04
Other	-0.01	0.06	-0.15	0.88
household size	0.04	0.01	3.28	0.00
# of economically active household member	-0.07	0.02	-3.09	0.00
HOUSEHOLD income percapita r1	0.00	0.00	2.26	0.02
Participation (Base: Control)				
Borrower	0.14	0.06	2.47	0.01
Saver	0.03	0.05	0.58	0.56

B. Borrower/savers vs. controls

	B	Std. Error	t	Sig.
Parameter				
Intercept	1.08	0.13	8.15	0.00
FUT_R1	0.03	0.04	0.87	0.38
Age group (base: 55+)				
AGE30	0.09	0.07	1.19	0.23
AGE31-45	0.13	0.07	1.92	0.06
Marital status (base: other)				
MARRIED	0.07	0.07	1.09	0.28
Schooling (base: no schooling)				
Primary	0.05	0.05	0.87	0.39
Secondary	0.10	0.07	1.42	0.16
High school and beyond	0.19	0.11	1.67	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.13	0.06	-2.31	0.02
Hindu-upper caste	-0.05	0.08	-0.53	0.59
MUSLIM	0.02	0.06	0.26	0.80
Christian	0.06	0.43	0.14	0.89
Employment status/work type (Base: Self-employed)				
Piece rate	0.00	0.06	0.05	0.96
Wage/salaried work	-0.07	0.06	-1.14	0.25
Not gainfully employed	0.16	0.35	0.44	0.66
Trade (Base: Garment)				
Vegie/fruit vending	0.06	0.10	0.59	0.55
Bidi roller	0.22	0.10	2.23	0.03
Other	0.00	0.06	-0.06	0.95
household size	0.04	0.01	3.38	0.00
# of economically active household member	-0.07	0.02	-3.05	0.00
HOUSEHOLD income percapita r1	0.00	0.00	2.44	0.02
Participation (Base: Control)				
Borrower/saver	0.08	0.05	1.71	0.09

C. Borrowers vs. savers/controls, with borrowers/savers vs. controls as a moderating variable

	B	Std. Error	t	Sig.
Parameter				
Intercept	1.09	0.13	8.25	0.00
FTPRES_R1	0.03	0.04	0.88	0.38
Age group (base: 55+)				
AGE30	0.10	0.07	1.38	0.17
AGE31-45	0.14	0.07	2.04	0.04
Marital status (base: other)				
MARRIED	0.07	0.07	1.01	0.31
Schooling (base: no schooling)				
Primary	0.04	0.05	0.75	0.45
Secondary	0.11	0.07	1.54	0.12
High school and beyond	0.18	0.11	1.64	0.10
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.13	0.06	-2.39	0.02
Hindu-upper caste	-0.05	0.08	-0.61	0.54
MUSLIM	0.01	0.06	0.10	0.92
Christian	0.03	0.43	0.08	0.94
Employment status/work type (Base: Self-employed)				
Piece rate	0.01	0.06	0.22	0.82
Wage/salaried work	-0.07	0.06	-1.12	0.26
Not gainfully employed	0.16	0.35	0.46	0.65
Trade (Base: Garment)				
Veggie/fruit vending	0.06	0.10	0.59	0.56
Bidi roller	0.21	0.10	2.11	0.04
Other	-0.01	0.06	-0.15	0.88
household size	0.04	0.01	3.28	0.00
# of economically active household member	-0.07	0.02	-3.09	0.00
HOUSEHOLD income percapita r1	0.00	0.00	2.26	0.02
Participation				
Borrower/saver (vs. control)	0.03	0.05	0.58	0.56
Borrower (vs. Saver/control)	0.11	0.05	1.96	0.05

D. Number of SEWA Bank loans

	B	Std. Error	t	Sig.
Parameter				
Intercept	1.44	0.23	6.28	0.00
FTPRES_R1	0.03	0.04	0.77	0.44
Age group (base: 55+)				
AGE30	0.11	0.07	1.45	0.15
AGE31-45	0.15	0.07	2.11	0.04
Marital status (base: other)				
MARRIED	0.06	0.07	0.92	0.36
Schooling (base: no schooling)				
Primary	0.04	0.05	0.77	0.44
Secondary	0.10	0.07	1.47	0.14
High school and beyond	0.18	0.11	1.61	0.11
Religion/caste (base: Scheduled case/tribe Hindu)				
Hindu-backward caste	-0.13	0.06	-2.40	0.02
Hindu-upper caste	-0.05	0.08	-0.56	0.57
MUSLIM	0.00	0.06	0.02	0.99
Christian	0.04	0.43	0.09	0.93
Employment status/work type (Base: Self-employed)				
Piece rate	0.02	0.06	0.29	0.77
Wage/salaried work	-0.07	0.06	-1.07	0.28
Not gainfully employed	0.17	0.35	0.48	0.63
Trade (Base: Garment)				
Veggie/fruit vending	0.06	0.10	0.61	0.54
Bidi roller	0.21	0.10	2.11	0.04
Other	-0.01	0.06	-0.17	0.87
household size	0.04	0.01	3.26	0.00
# of economically active household member	-0.07	0.02	-3.07	0.00
HOUSEHOLD income percapita r1	0.00	0.00	2.32	0.02
Participation (Base: Taken 5 or more loans)				
No loan	-0.34	0.19	-1.80	0.07
One loan	-0.19	0.19	-0.99	0.32
2-4 loans	-0.22	0.19	-1.14	0.26