

APPENDIX 3

DATA-BASE DOCUMENTATION

The purpose of this appendix is to provide the reader with detailed information regarding the St. Louis health survey. Before doing so, however, note that these data together with the air quality data obtained from the RAPS, the city of St. Louis, the county of St. Louis, and the Illinois Environmental Protection Agency can be obtained from:

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Telephone (307) 766-4890

Data requests will be subject to a charge equal to the price of the computer tapes required.

The sections below reproduce word-for-word key material concerning the data base that was presented in Koontz (1981). A copy of the complete version of this volume may be obtained from Gerking at the above address at a price set equal to photoreproduction charges. Copies may also be available from Geomet Technologies, Inc., 1801 Research Boulevard, Rockville, Maryland 20850; (301) 424-9133.

The following section is reproduced verbatim from Koontz (1981).

Section 1.0

INTRODUCTION

This section describes the history of the study under which data described herein were collected, outlines the contents of this report, and notes a companion report which is forthcoming. In April of 1974, GEOMET, Incorporated contracted with the Environmental Protection Agency (EPA) under EPA Contract Number 68-01-2280 to perform a household interview survey intended to provide quantifications of air pollution-induced morbidity costs for individuals residing in the St. Louis Standard Metropolitan Statistical Area (SMSA). The study was intended to take advantage of comprehensive air quality data deriving from a network of 25 monitoring stations located throughout the SMSA and known as the Regional Air Monitoring System (RAMS).

During Phase I, Stage 1 of the study, GEOMET staff reviewed related literature and ongoing research and specified statistical models and an analytical plan for estimating relationships between human morbidity (and associated costs) and air pollution. In a Phase I, Stage 1 draft report dated September 1974, GEOMET staff concluded (and EPA staff subsequently concurred) that a formal procedural pretest of the instruments and study design was needed before undertaking the full-scale data collection effort in Phase II. GEOMET then began Phase I, Stage 2 of the contract by developing survey instruments and a sampling plan for collecting the requisite data in a representative fashion. Following approval of the pretest instruments and methodology by the Project Officer and clearance within EPA, the pretest family of forms and a supporting statement were submitted to the Office of Management and Budget (OMB) in March 1975; simultaneous clearance of the pretest and full-scale survey was sought. OMB reviewers initially disapproved the entire package but subsequently gave clearance for the pretest only in August 1975, with approval of the full-scale effort contingent upon pretest outcomes. During this period, a final version of the Phase I, Stage 1 report was prepared, which was dated July 1975 and which was included in a revised OMB submission package.

Phase I, Stage 2 continued with the administration of the pretest survey to 72 St. Louis households between November 1975 and January 1976. Air quality data for this time period were available by March 1976. Following the development, programming and application of comprehensive procedures for pollution exposure estimation, careful analysis of the pretest data, and questionnaire modifications based on the pretest experience, a new OMB package for the full-scale survey was sent to the Project Officer in draft form in May 1977 and in final form in July 1977. EPA approved and forwarded the package to OMB in November 1977. OMB clearance was ultimately obtained in January 1978.

Owing to the delays in receiving OMB clearance and the careful analysis and documentation required to secure such clearance, the RAMS network was no longer in operation by the time clearance was ultimately obtained. However, a network of monitoring stations operated by local agencies provided sufficient coverage of the St. Louis urbanized area to permit implementation of the survey within that subset of the SMSA. GEOMET staff submitted a Phase I, Stage 2 draft report to EPA in March 1978 which described the pretest materials, methods, and results and which outlined the plans for full-scale data collection during Phase II. Following selection of the household sample for Phase II, receipt of a letter of endorsement from the Missouri Governor's office (Appendix A), and conduct of an interviewer training session in St. Louis, data collection efforts commenced. Households were interviewed between June 1978 and July 1979.

Under EPA contract 68-01-5773, Task Order 8, GEOMET staff edited, coded, keyed, verified, and processed the data from the Phase II survey; this activity took place between November 1979 and July 1980. The EPA Project Officer also decided, on the basis of research conducted by a group of economists at the University of Wyoming, that additional information should be obtained from households completing all aspects of the Phase II (or basic) survey in order to enhance the analytic potential of the basic data base. GEOMET staff consulted in the design of a supplemental data form for this purpose and were responsible for coordinating field efforts, processing the resultant data, and merging it with the basic data. Supplemental data were collected between April and August, 1980. Editing, coding, and keying efforts were completed by the end of 1980. Final error resolution, merging, and documentation took place during the first half of 1981.

In January 1980, the research and development component of GEOMET became a subsidiary of the parent company under the name of GEOMET Technologies, Inc. (GTI). In subsequent references to the company authoring this report, the subsidiary name is utilized.

The purpose of this report is to provide potential users of the data base described herein with a sufficient understanding of the design aspects and information sources underlying the data to permit proper utility of all data elements during subsequent analyses. Section 2.0 of the report provides an overview of the survey design and a summary of the survey response rates. Section 3.0 outlines the general contents of all survey forms and the manner in which they were administered. Section 4.0 provides a detailed description of the data base organization and contents. Section 5.0 highlights additional factors to be considered in using the data base. Appendices to the report illustrate survey instruments and interviewing guidelines and list selected coding schemes which are too lengthy for inclusion in the main body of the report. A forthcoming report will describe the manner in which respondent activity patterns coded in the data base should be utilized in order to estimate exposure to ambient pollutant concentrations both prior to and contemporaneous with the time during which each respondent participated in the basic survey.

The following section is reproduced verbatim from Koontz (1981).

Section 2.0

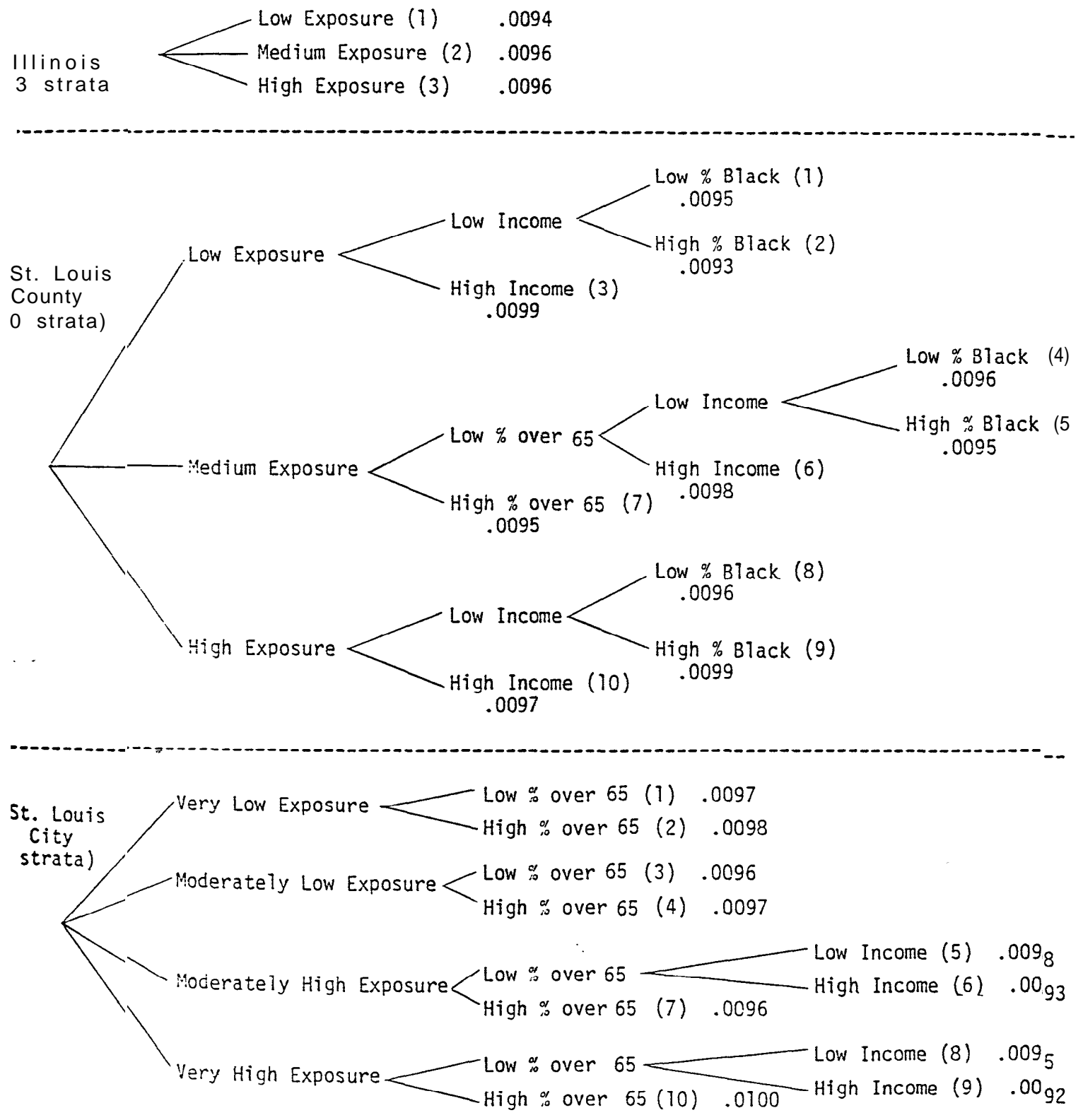
SURVEY DESIGN AND RESPONSE RATES

A stratified random sample of 4,160 households was solicited for the basic survey. The sampling frame from which these households were drawn is represented by 238 census tracts within the urbanized area of the St. Louis SMSA which were bounded by the network of continuous monitoring stations operating at the time during which the sample was drawn (Spring, 1978). According to 1970 census data, the 238 tracts collectively contain 432,162 households, or nearly 60 percent of the households within the entire SMSA. The overall sampling fraction for the study, then, was $4,160/432,162$ or approximately one percent.

The multistage sampling strategy used for the study was designed to yield an ultimate sample of households with equal selection probabilities, so that subsequent analyses would not require any weighting. In general terms, the sampling strategy required: (1) stratification of census tracts and subsequent selection using the probability-proportional-to-size (PPS) technique; (2) selection of blocks within selected tracts, again using the technique; and (3) selection of 4 households per selected block to compensate for prior unequal selection probabilities and to facilitate survey logistics. During stages (1) and (2), it was necessary to combine selected tracts/blocks to ensure that a sufficient number of blocks/households would be available at subsequent sampling stages. A primary stratification of census tracts was made by geopolitical boundary (i.e., St. Louis City, St. Louis County, Illinois); a secondary stratification was made within the three primary strata according to historical pollution levels; where heterogeneity remained in any substrata with respect to income, age, or race, further stratification was made based on one or more of these variables. The ultimate number of strata which resulted from this process was 23; these strata and their respective sampling fractions (ranging from .0092 to .0100) are displayed in Figure 1.

In selecting census tracts for the survey, 1970 census counts of dwelling units were used as the measure of size for Illinois in applying the PPS technique. For St. Louis City and County, updated counts based on 1976 compilations by the Union Electric Company were utilized as the measure of size. In selecting blocks for St. Louis City and County, updated counts were made by visiting all blocks within tracts whose updated counts differed from 1970 census counts by more than 10 percent. In St. Louis County, where some significant areas of new home construction had emerged since 1970, it was necessary to add some newly created blocks to those listed in the U.S. Census Bureau Block Statistics publication for the St. Louis SMSA. Since updated counts were not obtained for all tracts and blocks, the measures of size doubtlessly differed from the actual sizes in many instances. Thus it is more proper to speak of individuals

Figure 1. Sampling Strata and Sampling Fractions for Basic Survey.



participating in the survey as having approximately equal selection probabilities.

The 4,160 households solicited for the study were enrolled on a weekly basis, at the rate of 80 per week over 52 weeks. The census blocks selected for the survey were systematically allocated across the 52 enrollment weeks so that the study sample would represent the universe both on an overall basis and at any particular point in time. Each household participating in the survey was administered a background interview and four biweekly followup interviews; thus each household participating in the survey to completion contributed eight weeks of followup information. Since the last group of households was enrolled in the survey during week 52 and was followed for eight weeks (including week 52), the actual duration of the survey was 59 weeks. The nature of the enrollment process was such that a maximum of 80 households would participate during the first and last weeks of the survey and a maximum of 640 households would participate during the central portion of the survey (see Figure 2). Another interesting feature of the sampling design is that enrollment weeks separated by one calendar year and having fewer than 640 solicited households each do represent 640 solicited households when paired (i.e., weeks 1 and 53, weeks 2 and 54, . . . , weeks 7 and 59). Households in pairs of enrollment weeks related in this manner could conceivably be treated as seasonally equivalent and grouped together at some analytical stage.

Only households which participated in the basic survey to completion were eligible for the supplemental data collection effort. Prior respondents were located on the basis of home/work addresses and home telephone numbers reported during the basic survey. If a respondent could not be located through the household's telephone number or through the employer of any household member, a letter was sent to the last reported address which was labeled "Do Not Forward -- Address Correction Requested". This approach identified many previously unlocated respondents as still at the same household address but with a new, unpublished phone number or as having moved, with the new address supplied by the U.S. Postal Service. For households which had moved but for which no forwarding address was available, neighbors and local social/religious organizations were contacted in a final effort to locate the respondent.

In Table 1, the response rates for the basic and supplemental surveys are listed both by enrollment week and in total. Basic survey respondents are segregated as "Background Interview Only", "Partial Followup", or "Complete Followup", with the latter group eligible for supplemental data collection. The summary figures at the bottom of the table indicate that 3,063 or 73.63 percent of the 4,160 solicited households participated in the basic survey to completion, with an additional 93 households (2.24 percent) providing partial followup information. A total of 3,256 (78.27 percent) of the households participated in the background interview portion of the survey. The 2,594 households providing supplemental information represent 62.36 percent of the 4,160 households solicited for the basic survey or 84.69 percent of those eligible for the supplemental data collection effort. The major reasons for nonresponse during the background interview were outright refusal, vacant dwelling unit, or not-at-home

Figure 2. Household Enrollment Process for Basic Survey.

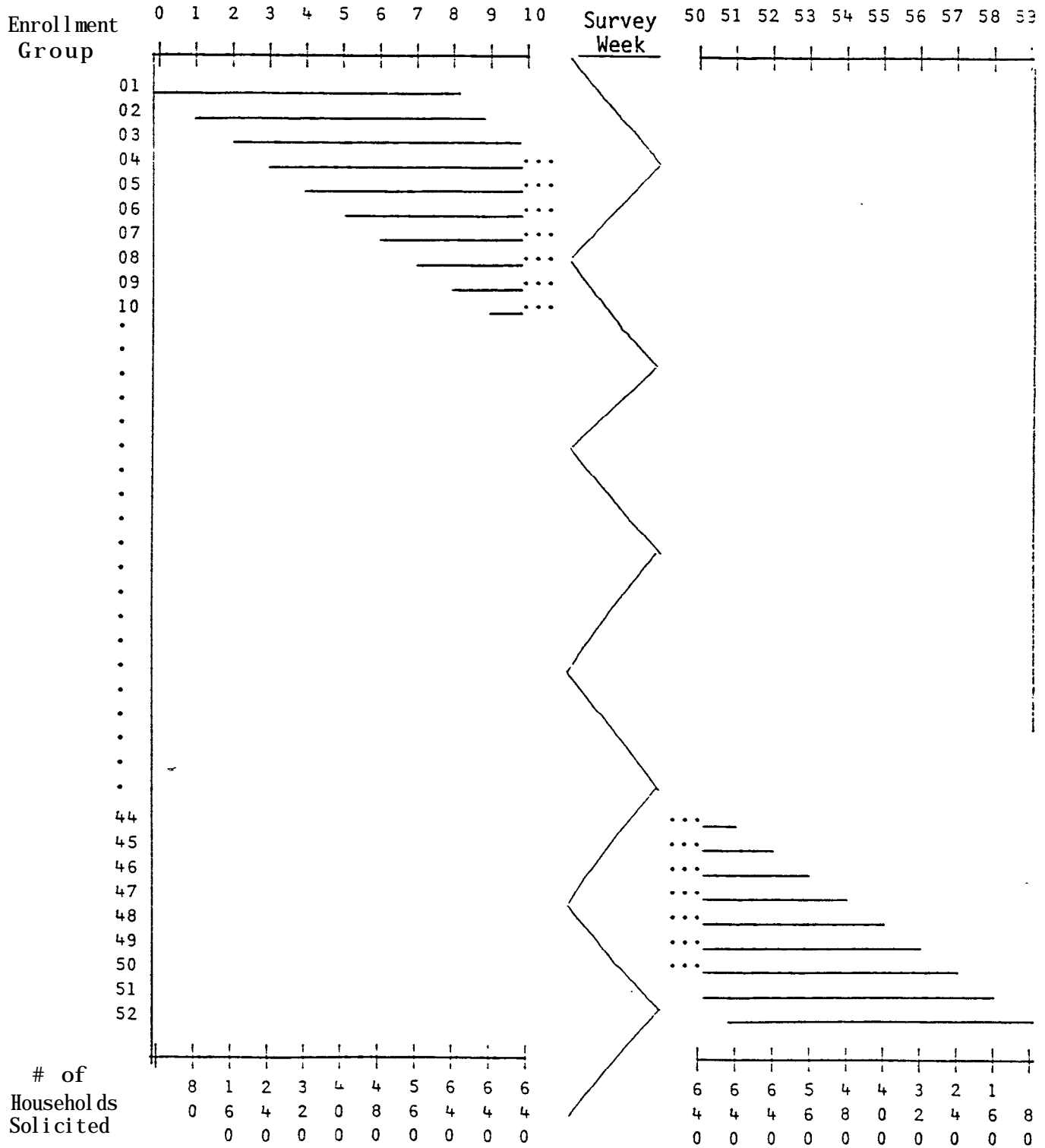


Table 1. Response Rates for Basic and Supplemental Surveys.

<u>Week Number</u>	<u>No. Interview</u>	<u>Background Interview Only</u>	<u>Partial Follow-up</u>	<u>Complete Follow-up*</u>	<u>Supplemental Interview</u>
1	14	3	-	63	51
2	23	10	2	45	37
3	13	-	6	61	57
4	23	2	1	54	49
5	25	5	3	47	43
6	15	1	2	62	50
7	16	1	1	62	49
8	22	3	4	51	45
9	19	3	3	55	46
10	18	3	6	53	48
11	23	4	2	51	47
12	15	3	1	60	52
13	18	2	-	60	56
14	15	3	3	59	51
15	25	1	-	53	49
16	15	1	3	61	56
17	21	-	1	58	48
18	19	4	-	57	36
19	18	1	1	60	49
20	14	2	1	63	57
21	17	3	2	58	51
22	21	-	-	59	52
23	12	3	1	64	55
23	12	1	-	67	47
25	22	-	1	57	45
26	19	1	-	60	58
27	16	-	-	64	55
28	16	3	1	60	47
29	13	1	-	66	54
30	23	-	3	54	46
31	16	-	4	60	52
32	15	2	1	62	50
33	19	2	-	59	51
34	20	-	1	59	52
35	18	2	2	58	44
36	11	1	-	68	59
37	19	2	1	58	52
38	14	1	2	63	51
39	20	-	3	57	51
40	13	2	3	62	50
41	11	-	1	68	57
42	18	3	3	56	48
43	17	3	2	58	48
44	10	1	3	66	53
45	17	4	1	58	44
46	14	-	6	60	52
47	21	1	-	58	56
48	14	3	2	61	47
49	15	3	-	62	51
50	19	-	2	69	45
51	19	4	7	50	45
52	20	2	1	57	50
TOTAL ALL WEEKS	904	100	93	3,063	2,594
% OF SOLICITED HOUSEHOLDS(4,160)	21.73	2.40	2.24	73.63	62.36 (84.69**)

* Eligible for Supplemental Interview

** % of Households Eligible for Supplemental Interview

during any of three attempted contacts. The major reasons for nonresponse during followup were outright refusal or relocation outside the St. Louis area. The major reasons for nonresponse during supplemental data collection were outright refusal or failure to locate/contact.

The following section is reproduced verbatim from Koontz (1981).

SECTION 3.0

ADMINISTRATION AND GENERAL CONTENTS OF SURVEY FORMS

Three forms - a "Household Background Questionnaire," an "Individual Background Interview," and a "Telephone Interview Form" - were designed to meet the basic survey requirements. The first two instruments were to be utilized during the initial interview with each household agreeing to participate in the survey. The third instrument was to be administered during each of four biweekly follow-up periods for each family agreeing to continue participation in the survey. A two-day training session was held prior to conduct of the survey during which the Interviewers' Manual (Appendix B) was reviewed and mock interviews were conducted. The basic role and contents of each form are discussed below.

The Household Background Questionnaire (Appendix C) was designed to identify all household members, their basic demographic characteristics, and the socioeconomic status (SES) of the household. The demographic characteristics included age, sex, race, and education. The presence or absence of 3 types of health insurance (medicare, medicaid, private) was asked for each individual. A categorical question was phrased concerning overall income. The final questions elicited responses which enable the calculation of the number of persons per room for the household.

The Individual Background Interview (Appendix D) was designed to identify baseline health levels, chief activities and commuting routines, and smoking habits of each individual in participating households. The respondent was asked to reply to questions on behalf of each household member. To measure baseline health levels, questions were formulated concerning (1) the respondent's subjective appraisal of each individual's health status, (2) chronic conditions suffered by individuals, and (3) the approximate number of contacts with the health delivery system by each individual during the past year. A subsequent series of questions concerned typical commuting and waiting times associated with a doctor visit.

To ascertain individuals' major activities and usual commuting routines, a series of questions were posed which (1) established each individual's major activity and (2) provided skip patterns (based on the major activity and age of each individual) aimed at determining the typical locations, hours, and days for activities away from the home. For individuals whose hours at a given activity might not be known in advance, provision was made to record those hours during the followup telephone interviews. For individuals who worked full-time or part-time, questions were formed to identify (1) the nature of the job, (2) the extent of work outdoors, and (3) vacation/sick leave policies. The final questions comprising the Individual Background Interview concerned the extent and duration of cigarette smoking, as well as the extent of pipe and cigar

smoking, for individuals of age 14 years or older who were smoking at the time the survey was administered. At the conclusion of the background interview, the respondent was asked to participate in the followup portion of the basic survey and was offered a "Major Activity and Illness Calendar" (Appendix E) as a memory aid for subsequent callbacks.

The Telephone Interview Form (Appendix F) was designed to elicit followup morbidity data and changes in normal routines for members of participating households. The following health consequences were examined during the followup interview:

- Disability
 - Days confined to bed
 - Days confined to the house
 - Days of restricted activity.
- Absenteeism
 - Days of absence from work (including work around the house for housewives)
 - Days of absence from school.
- Contacts with the Health Delivery System
 - Days in a hospital
 - Days in a nursing home
 - Days on which a physician was seen or phoned for advice.
- Receipt of Ancillary Services
 - Shots, x-rays, or lab tests associated with physician visits
 - Prescriptions.

The chief health problem associated with each type of health consequence was also sought during each telephone interview. The basic activity changes examined were:

- Changes from Normal Routine
 - Days out of town
 - Days at home for vacation or holiday from work/school
- Changes in Job Status (finding a job, changing jobs, or losing a job)
- Hour Updates for Selected Activities (for individuals whose usual hours at such activities could not be ascertained during the background interview).

A form (Appendix G) was subsequently designed to supplement the information obtained during the background portion of the survey. This form was administered to households who participated in the background portion of the survey and who remained in the survey throughout their four biweekly followup periods. Prior to administration of the supplemental data form, a one-day training session was held during which written instructions (Appendix H) were reviewed and mock interviews were conducted. The basic contents of the form are as follows:

- Part A - Residence Questions
 - Presence of air conditioning and type of heating/cooking fuel for residence at time of background survey
 - Residential history.
- Part B - Work Questions
 - Length of employment, exposure to irritants, membership in labor union, vacation/sick leave availability, and salary for jobs held at time of background survey
 - Description and length of major occupation, including indoor vs. outdoor work and exposure to irritants, for retired individuals.
- Part C - Income and Health Insurance Questions
 - Proportion of income not related to jobs and sources of that income
 - Usual charge for doctor visit and portion covered by insurance.
- Part D - General Health Questions
 - Height, current vs. maximum weight, exercise patterns, and time spent outdoors/watching TV
 - Length of long-term health problems identified in background survey
 - Smoking history for individuals 14 years or older who were nonsmokers at time of background survey.
- Part E - Diet Questions
 - Average number of hot meals per day and frequency of dieting
 - Consumption of cured meats, sweets, salty snacks, caffeinated drinks, and drinks with sugar
 - Alcohol consumption for individuals 14 years or older.

The following section is reproduced verbatim from Koontz (1981).

Section 4.0

DATA BASE ORGANIZATION AND CONTENTS

The magnetic tape supplied by GTI to EPA together with this report has the following general specifications:

- IBM standard label
- EBCDIC character code
- 9 - track
- 6250 bpi
- odd parity.

The tape contains 52 files, one for each enrollment week. The files are labeled as follows:

- STLOUIS.WEEK01 (households enrolled during week 01 of the basic survey)
- STLOUIS.WEEK02 (households enrolled during week 02)

- STLOUIS.WEEK52 (households enrolled during week 52).

Each file contains one record for each individual participating in the background portion of the survey, whether or not he/she participated in subsequent portions of the study. Each record consists of 2007 numeric characters (i.e., LRECL = 2007); each block contains six records (i.e., BLKSIZE = 12,042). Files are in numerical order, with a primary sort by household number and a secondary sort by person number. No information is contained in the data base which permits identification of particular households or individuals. Only the individual given custody of the survey data forms and control cards/sheets is capable of linking numerical identifiers to their respective households/individuals. The forms and control cards/sheets should be kept in a locked room/file, with access given only to EPA researchers/contractors using the data base who wish to verify information as needed or resolve questions arising from the data.

Each record can be segregated according to the following general components:

- Identifiers - columns 1 - 7
- Background interview information - columns 8 - 101
- Location information for use in exposure estimation - columns 102 - 1490
- Followup interview information - columns 1491 - 1886
- Supplemental information - columns 1887 - 2007

An important link between the basic survey and the supplemental survey is column 1887, which identifies whether or not households were eligible for the supplemental survey and whether or not they participated in it. Individuals in households either not eligible for or not participating in the supplemental effort have blanks throughout columns 1888 - 2007 of their respective records.

A detailed description of the data base contents constitutes the remainder of this section. For each item in the data base, its location in the record (column number or numbers) is provided together with the source of the information (form and question number or numbers), codes applied to the item and comments (where applicable).

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1-2	<p>1. Week Number</p> <p><u>Source:</u> Face sheet (p.1) of Household Background Questionnaire (HBQ)</p> <p><u>Codes:</u> 01 to 52</p> <p><u>Comments:</u> Refers to week during which household was enrolled in the basic survey; '01' refers to households enrolled during week beginning June 4, 1978; '02' refers to households enrolled during week beginning June 11, 1973; . . . '52' refers to households enrolled during week beginning May 27, 1979.</p>
3-5	<p>2. Household Number (Family Number)</p> <p><u>Source:</u> Face sheet of HBQ</p> <p><u>Codes:</u> 001 to 080</p> <p><u>Comments:</u> Maximum of 80 households enrolled per week; column 3 always zero; only columns 4-5 need be accessed.</p>
6-7	<p>3. Person Number</p> <p><u>Source:</u> Table below question A5 on p.3 of HBQ</p> <p><u>Codes:</u> 01 to 14</p> <p><u>Comments:</u> 14 believed to be upper bound, but may be higher: can be ascertained by generating frequency distribution.</p>
8-9	<p>4. Age (at time of HBQ)</p> <p><u>Source:</u> Table below question A5 on p.3 of HBQ</p> <p><u>Codes:</u> 00 - less than 1 year of age 01 to 96 - age in years 97 - 97 years of age or older 98 - refused 99 - don't know</p>
10-11	<p>5. Education (last year completed at time of HBQ)</p> <p><u>Source:</u> Table below question A5 on p.3 of HBQ</p> <p><u>Codes:</u> 01 to 20 - years of education completed 97 - special education 98 - refused 99 - don't know</p> <p><u>Comments:</u> Question asked only for individuals of age 14 years or older; 20 believed to be upper bound, but may be higher; can be ascertained by generating frequency distribution.</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
12	<p>6. Medicare Insurance Coverage</p> <p><u>Source:</u> Question C1 on p.6 of HBQ; table below question A5 on p.3 of HBQ</p> <p><u>Codes:</u> 0 - no 1 - yes 8 - refused 9 - don't know</p>
13	<p>7. Medicaid Insurance Coverage</p> <p><u>source:</u> Question C2 on p.6 of HBQ; table below question A5 on p.3 of HBQ</p> <p><u>Codes:</u> 0 - no 1 - yes 8 - refused 9 - don't know</p>
14	<p>8. Private Insurance Coverage</p> <p><u>Source:</u> Question C3 on p.6 of HBQ; table below question A5 on p.3 of HBQ</p> <p><u>Codes:</u> 0 - no 1 - yes 8 - refused 9 - don't know</p>
15	<p>9. Sex</p> <p><u>Source:</u> Table below question A5 on p.3 of HBQ</p> <p><u>Codes:</u> 1 - male 2 - female</p>
16-17	<p>10. Total Number of Persons in the Household</p> <p><u>Source:</u> Question A6 on p.4 of HBQ</p> <p><u>Codes:</u> 01 to 14</p> <p><u>Comments:</u> Should generally be equal to highest person number in household; 14 believed to be upper bound, but may be higher.</p>
18	<p>11. State of Respondent</p> <p><u>Source:</u> Question A7 on p.4 of HBQ</p> <p><u>Codes:</u> 1 - white 2 - black 3 - Asian or Pacific-islander 4 - Alaskan native or American Indian 9 - don't know</p> <p><u>Comments:</u> Response categories per OMB requirements.</p>

<u>Column Number (s)</u>	<u>Item Number and Description</u>
19	<p>12. Hispanic (or Spanish) Origin of Respondent</p> <p><u>Source:</u> Question A3 on p.4 of HBQ</p> <p><u>Codes:</u> 1 - yes 2 - no 9 - don't know</p> <p><u>Comments:</u> Question required by OMB.</p>
20-22	<p>13. Number of Rooms (Including Bathrooms) in the Household's Dwelling Unit</p> <p><u>Source:</u> Question C4 on p.7 of HBQ</p> <p><u>Codes:</u> 010 to 200</p> <p><u>Comments:</u> 3-digit code with implicit decimal point between 2nd and 3rd digits; e.g., 8 rooms coded as 080, 10-1/2 rooms coded as 105; 200 (20 rooms) believed to be upper bound.</p>
23-24	<p>14. Number of Bathrooms in the Household's Dwelling Unit</p> <p><u>Source:</u> Question C5 on p.7 of HBQ</p> <p><u>Codes:</u> 00 to 50</p> <p><u>Comments:</u> 2-digit code with implicit decimal point between 1st and 2nd digits; e.g., 2 bathrooms coded as 20, 1-1/2 bathrooms coded as 15; 50 (5 bathrooms) believed to be upper bound.</p>
25	<p>15. Total Combined Family Income</p> <p><u>Source:</u> Question C5 on p.7 of HBQ</p> <p><u>Codes:</u> 0 - refused 1 - under \$2,000 per year 2 - \$2,000 to \$2,999 per year 3 - \$3,000 to \$5,999 per year 4 - \$6,000 to \$9,999 per year 5 - \$10,000 to \$14,999 per year 6 - \$15,000 to \$19,999 per year 7 - \$20,000 to \$29,999 per year 8 - \$30,000 and over per year 9 - don't know</p> <p><u>Comments:</u> Includes income from wages, salaries, social security or retirement benefits, help from relatives, rent from property, etc.</p>
26	<p>16. Estimated Family Income</p> <p><u>Source:</u> Entered in red by coder opposite question C6 on p.7 of HBQ</p> <p><u>Codes:</u> 1 to 8 - same as for item 15 9 - no estimate needed (code 1-8 applied for item 15) or no estimate possible</p> <p><u>Comments:</u> 'Guesstimate' by coder on basis of information supplied by other households in same census block; no estimate needed if response to item 15 received; no estimate possible if no other households in census block reported income.</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
27-28	<p>17. Perceived Health Status</p> <p><u>Source:</u> Question B1 on p.1 of Individual Background Interview (IBI)</p> <p><u>Codes:</u> 01 - very good 02 - good 03 - fair 04 - poor</p> <p><u>Comments:</u> Column 27 always zero; only column 28 need be accessed.</p>
29-33	<p>18. Long-term Health Problem or Handicap #1</p> <p><u>Source:</u> Questions B2 and B3 on p.1 of IBI</p> <p><u>Codes:</u> 00000 - no problem or handicap 10050 to 99990 - see Comments</p> <p><u>Comments:</u> Coded according to "A Reason for Visit Classification for Ambulatory Care" developed by National Center for Health Statistics (see Appendix I); 5-digit code with implicit decimal point between 4th and 5th digits; 1st digit, originally alpha, recoded to numeric as follows: 1=S, 2=D, 3=X, 4=T, 5=J, 6=R, 7=A, 9=U; thus a problem reported as "shortness of breath" would have been initially coded as "S415.0" and would appear in the data base as "14150"; if reported as "asthma", the problem would have been initially coded as "D625.0" and would appear in the data base as "26250".</p>
34-33	<p>19. Long-term Health Problem or Handicap #2</p> <p><u>source:</u> Questions B2 and B3 on p.1 of IBI</p> <p><u>Codes:</u> 00000 - no problem or handicap 10050 to 99990 - see Comments</p> <p><u>Comments:</u> Coded in same manner as item 18; if more than 2 problems or handicaps, priority was given to problems associated with the respiratory or circulatory systems.</p>
39-41	<p>20. Number of Visits to Physician or Health Care Facility in Past Year</p> <p><u>Source:</u> Question B4 on p.2 of IBI</p> <p><u>Codes:</u> 000 to 097 - number of visits 098 - 98 or more visits 099 - don't know</p> <p><u>Comments:</u> Includes maternity or preventive visits, visits to eye doctors, psychiatrists, chiropractors; excludes visits to dentists; column 38 always zero; only columns 40-41 need be accessed.</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
42-44	<p>21. Usual Commuting Time to Usual Source of Medical Care</p> <p><u>Source:</u> Question B5 on p. 2 of IBI</p> <p><u>Codes:</u> 000 to 998 - commuting time in minutes 999 - don't know</p>
45-47	<p>22. Usual Waiting Time at Usual Source of Medical Care</p> <p><u>Source:</u> Question B6 on p. 2 of IBI</p> <p><u>Codes:</u> 000 to 998 - waiting time in minutes 999 - don't know</p>
48	<p>23. Major Activity</p> <p><u>SOURCE:</u> Question B7 on p. 3 of IBI</p> <p><u>Codes:</u> 1 - employed 2 - keeps house 3 - goes to school 4 - pre-school play 5 - retired 6 - unemployed 7 - other</p> <p><u>Comments:</u> "Other" category often used as activity category for children on vacation from school, e.g., when background interviews were administered during summer months.</p>
49-50	<p>24. Current Tobacco Smoking Status</p> <p><u>Source:</u> Question B37 on p. 15 of IBI</p> <p><u>Codes:</u> 00 - not applicable 01 - yes 02 - no 09 - don't know</p> <p><u>Comments:</u> Smoking questions asked only for individuals of age 14 years or older; column 49 always zero; only column 50 need be accessed.</p>
51	<p>25. Current Cigarette Smoking Status</p> <p><u>Source:</u> Question B38 on p. 15 of IBI</p> <p><u>Codes:</u> 0 - not applicable 1 - yes 2 - no 9 - don't know</p> <p><u>Comments:</u> Question asked Only for current tobacco smokers.</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
52	<p>26. Number of Cigarettes Currently Smoked Per Day</p> <p><u>Source:</u> Question B39 on p.15 of 131</p> <p><u>Codes:</u> 0 - not applicable 1 - under 10 (less than 1/2 pack) 2 - 10 to 15 (between 1/2 and one pack) 3 - 16 to 25 (one pack) 4 - 26 to 35 (1-1/2 packs) 5 - 36 to 45 (two packs) 6 - 46 or more (more than two packs) 9 - don't know</p> <p><u>Comments:</u> Question asked only for current cigarette smokers</p>
53	<p>27. Length of Time Smoking</p> <p><u>Source:</u> Question B40 on p.15 of IBI</p> <p><u>Codes:</u> 0 - not applicable 1 - less than one year 2 - 1 to 3 years 3 - 4 to 5 years 4 - 6 to 10 years 5 - 11 to 20 years 6 - over 20 years 9 - don't know</p> <p><u>Comments:</u> Question asked only for current cigarette smokers.</p>
54	<p>28. Current Pipe Smoking Status</p> <p><u>Source:</u> Question B41 on p.16 of IBI</p> <p><u>Codes:</u> 0 - not applicable 1 - yes 2 - no 9 - don't know</p> <p><u>Comments:</u> Question asked only for current tobacco smokers.</p>
55-56	<p>29. Number of Pipefuls Currently Smoked Per Day</p> <p><u>Source:</u> Question B42 on p.16 of IBI</p> <p><u>Codes:</u> 00 - not applicable (less than one per day if response to question B41 is "yes.") 01 to 98 - number per day 99 - don't know</p> <p><u>Comments:</u> Question asked only for current pipe smokers.</p>
57	<p>30. Current Cigar/Cigarillo Smoking Status</p> <p><u>Source:</u> Question B43 on p.16 of IBI</p> <p><u>Codes:</u> 0 - not applicable 1 - yes 2 - no 9 - don't know</p> <p><u>Comments:</u> Question asked only for current tobacco smokers.</p>

<u>Column Number(s)</u>	<u>Item: Number and Description</u>
58-59	<p>31. Number of Cigars/Cigarillos Currently Smoked Per Day</p> <p><u>Source:</u> Question B44 on p.16 of IBI</p> <p><u>Codes:</u> 00 - not applicable (less than one per day if response to question 343 is "yes") 01 to 98 - number per day 99 - don't know</p> <p><u>Comments:</u> Question asked only for current cigar/cigarillo smokers.</p>
60-62	<p>32. Full-time (or Primary) Occupation</p> <p><u>Source:</u> Question B15 on p.7 of IBI</p> <p><u>Codes:</u> Per U.S. Census Bureau Index of Occupations (Appendix J) 000 - not applicable 995 or higher - don't know</p>
63-66	<p>33. Full-time (or Primary) Industry</p> <p><u>Source:</u> Question B17 on p.7 of IBI</p> <p><u>Codes:</u> Per Office of Management and Budget Standard Industrial Classification Manual (Appendix K) 0000 - not applicable 9999 - don't know</p>
67	<p>34. Full-time Occupation - Mostly Indoors, Outdoors, or in Vehicle?</p> <p><u>Source:</u> Question B18 on p.7 of IBI</p> <p><u>Codes:</u> 0 - not applicable 1 - inside 2 - outdoors 3 - combination inside/outdoors 4 - riding in vehicle 9 - don't know</p>
68	<p>35. Full-time Occupation - Paid Sick Leave Days Allowed Per Year</p> <p><u>Source:</u> Question B21 on p.8 of IBI</p> <p><u>Codes:</u> 0 - not applicable 1 - none 2 - 5 days or less (one week) 3 - 5 to 10 days (two weeks) 4 - 11 to 15 days (three weeks) 5 - 6 to 22 days (one month) 6 - over 23 days or more than one month (no limit) 9 - don't know</p>

<u>Column Number (s)</u>	<u>Item Number and Description</u>
69-71	36. Part-time (or Second) Occupation <u>Source:</u> Question B27 on p.11 of IBI <u>Codes:</u> Same as item 32
72-75	37. Part-time (or Second) Industry <u>Source:</u> Question B29 on p.11 of IBI <u>Codes:</u> Same as item 33
76	38. Part-time Occupation - Mostly Indoors, Outdoors, or in Vehicle? <u>Source:</u> Question B30 on p.11 of IBI <u>Codes:</u> Same as item 34
77	39. Part-time Occupation - Paid Sick Leave Days Allowed Per Year <u>Source:</u> Question B33 on p.12 of IBI <u>Codes:</u> Same as item 35
78-80	40. Last Occupation for Unemployed Individuals <u>Source:</u> Question B22 on p.9 of IBI <u>Codes:</u> Same as item 32
81-84	41. Last Industry for Unemployed Individuals <u>Source:</u> Question B23 on p.9 of IBI <u>Codes:</u> Same as item 33
85	42. Last Occupation - Mostly Indoors, Outdoors, or in Vehicle? <u>Source:</u> Question B24 on p.9 of IBI <u>Codes:</u> Same as item 34
86	43. Last Occupation - Paid Sick Leave Days Allowed Per Year <u>Source:</u> Question B25 on p.9 of IBI <u>Codes:</u> Same as item 35
87-89	44. Usual Travel Time for Other Activity (Usually Babysitter) <u>Source:</u> Question B11 on p.4 of IBI <u>Codes:</u> 000 - not applicable 001 to 998 - travel time in minutes 999 - don't know <u>Comments:</u> Has already been utilized in making hour-by-hour location assignments (see item 59); no further use anticipated.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
90-92	45. Usual Travel Time for Full-time (of Primary) School <u>Source:</u> Question B14 on p.5 of IBI <u>Codes and</u> <u>Comments:</u> Same as item 44.
93-95	46. Usual Travel Time for Full-time (or Primary) Occupation <u>Source:</u> Question B20 on p.8 of IBI <u>Codes and</u> <u>Comments:</u> Same as item 42.
96-98	47. Usual Travel Time for Part-time (or Second) Occupation <u>Source:</u> Question B32 on p.12 of IBI <u>Codes and</u> <u>Comments:</u> Same as item 44.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
99-101	48. Usual Travel Time for Part-time (or Second) School <u>Source:</u> Question B35 on p.13 of IBI <u>Codes and</u> <u>Comments:</u> Same as item 44.
102-104	49. Home Location Code <u>Source:</u> Face sheet (p.1) of HBQ <u>Codes:</u> 001 to 336 - legitimate codes (see Appendix L for coordinates) 340 - Background interview only (no followup information) <u>Comments:</u> Should always be equal to 340 or a number between 001 and 336; if not, treat location as unknown; if equal to 340, all hour-by-hour location assignments (item 59) have been set to zero.
105-107	50. Location Code for Other Activities <u>Source:</u> Question B9 on p.4 of IBI <u>Codes:</u> 000 - not applicable 001 to 336 - legitimate codes (see Appendix L for coordinates) 337 - outside the St. Louis urbanized area 333 - location varies 339 - location unknown or refused 340 - background interview only (even though location may be known) <u>Comments:</u> Codes 337, 338, 339 should be treated as unknown for purposes of exposure estimation.
108-110	51. Location Code for Full-time (or Primary) School <u>Source:</u> Question B12 on p.5 of IBI <u>Codes and</u> <u>Comments:</u> Same as item 50.
111-113	52. Location Code for Full-time (or Primary) Occupation <u>Source:</u> Question B16 on p.7 of IBI <u>Codes and</u> <u>Comments:</u> Same as item 50.
114-116	53. Location Code for Part-time (or Second) Occupation <u>Source:</u> Question B23 on p.11 of IBI <u>Codes and</u> <u>Comments:</u> Same as item 50.
117-119	54. Location Code for Part-time (or Second) School <u>Source:</u> Question B34 on p.13 of IBI <u>Codes and</u> <u>Comments:</u> Same as item 50.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
120-122	55. Dummy Location Code <u>Source:</u> None <u>Codes:</u> Always equal to 000
123-125	56. Location Code for New Work Address (if Changed Jobs) <u>Source:</u> Question I on pp.2-3 of TIF <u>Codes and</u> <u>Comments:</u> Same as item 50.
126-128	57. Location Code for New School Address (if Changed Schools) <u>Source:</u> Question I on pp.2-3 of TIF <u>Codes and</u> <u>Comments:</u> Same as item 50; most frequently used for children going to camp during summer.
129-131	58. Location Code for New Home Address (if Moved) <u>Source:</u> Face sheet of HBQ, Telephone Interview Form (TIF), or Family Control Sheet <u>Codes and</u> <u>Comments:</u> Same as item 50.
132-1475	59. Hour-by-Hour Location Assignments for Followup Period <u>Source:</u> Question B10 on p.4 of IBI, B13 on p.5 of IBI, B19 on p.8 of IBI, B31 on p.12 of IBI, B35 on p.13 of IBI, Questions E and I on pp.2-3 of TIF, Irregular Hours Update on p.4 of TIF <u>Codes:</u> 0 - Location unknown 1 - Use home location code (item 49) 2 - Use location code for other activities (item 50) 3 - Use location code for full-time school (item 51) 4 - Use location code for full-time occupation (item 52) 5 - Use location code for part-time occupation (item 53) 6 - Use location code for part-time school (item 54) 7 - Use location code for new home address (item 58) 8 - use location code for new occupation address (item 56) 9 - Use location code for new school address (item 57)

<u>Column Number(s)</u>	<u>Item Number and Description</u>
132-1475	<p>59. Hour-by-Hour Location Assignments (Cont'd)</p> <p><u>Comments:</u> This field contains 1344 characters, one for each hour during the followup period (8 weeks x 7 days/week x 24 hours/day); for households coded as week 01 (item 1), followup period began on June 4, 1978; for households coded as week 02, followup period began on June 11, 1978; ... for households coded as week 52, followup period began on May 27, 1979; this item, in combination with items 49-58, is all that is required for exposure estimation; individuals with background interviews only (home location code of 340) have already been set to code 0 for all 1344 hours; individuals out of town, in the hospital or nursing home, or not providing irregular hour updates have been set to code 0 for all 24 hours on days when such events occurred.</p>
1476	<p>60. Warning Flag for Irregular Hours</p> <p><u>Source:</u> Question B10 on p.4 of IBI, B13 on p.5 of IBI, B19 on p.8 of IBI, B31 on p.12 of IBI, B35 on p.13 of IBI, question I on pp.2-3 of TIF</p> <p><u>Codes:</u> 0 - regular hours for all activities 5 - irregular (variable) hours for one or more activity</p> <p><u>Comments:</u> Can be used to identify individuals with irregular hours.</p>
1477-1481	<p>61. Warning Flags Indicating Location Assignment Overlaps</p> <p><u>Source:</u> Same as item 60</p> <p><u>Codes:</u> Column (1477-1481) indicates the location overwritten; value of flag (2-6, 8, 9) indicates the location responsible for the overwrite and actually stored in the hour-by-hour location assignments (item 59); Column 1477 or flag value 2 - other activity location Column 1478 or flag value 3 - full-time school location Column 1479 or flag value 4 - full-time occupation location</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1477-1481	<p>61. Warning Flags Indicating Location Assignment Overlaps (Cont'd)</p> <p>Column 1480 or flag value 5 - part-time occupation location</p> <p>Column 1481 or flag value 6 - part-time school location</p> <p>Flag value 8 - new occupation location</p> <p>Flag value 9 - new school location</p> <p><u>Comments:</u> Can be used to access frequency of location assignment overlaps.</p>
1482	<p>62. Dummy Flag</p> <p><u>Source:</u> None</p> <p><u>Codes:</u> Always zero</p> <p><u>Comments:</u> Of no use.</p>
1483	<p>63. Warning Flag for Hours with Location Assignment Unknown</p> <p><u>Source:</u> Question E and I on pp.2-3 of TIF</p> <p><u>Codes:</u> 0 - location assignment known for all hours or background interview only</p> <p>1 - one or more hour with location assignment unknown</p> <p><u>Comments:</u> Can be used to identify individuals (other than those with background interview only) having one or more followup hours with location assignment unknown (code 0 for item 59).</p>
1484	<p>64. Warning Flag for Hours Approximated on Followup</p> <p><u>Source:</u> Question I on pp.2-3 of TIF</p> <p><u>Codes:</u> 0 - no hours approximated</p> <p>1 - one or more hour approximated</p> <p><u>Comments:</u> Can be used to identify individuals with irregular hours who did not report hours for selected weeks but whose hours were guessed by coder on the basis of information reported for other weeks; see item 76 for further details.</p>
1485	<p>65. Warning Flag for Lost to Followup</p> <p><u>Source:</u> Question I on pp.2-3 of TIF</p> <p><u>Codes:</u> 0 - followup completed or background interview only</p> <p>1 - lost to followup</p> <p><u>Comments:</u> Can be used to identify individuals (other than those with background interview only) lost to followup; see item 76 for further details.</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1486	<p>66. Warning Flag for Unknown Travel Time</p> <p><u>Source:</u> See items 44-43</p> <p><u>Codes:</u> 0 - all travel times known 2 - unknown travel time for other activity 3 - unknown travel time for full-time school 4 - unknown travel time for full-time occupation 5 - unknown travel time for part-time occupation 6 - unknown travel time for part-time school</p> <p><u>Comments:</u> Unknown travel times set to zero in calculation of hour-by-hour location assignments (item 59).</p>
1487	<p>67. Warning Flag for Saturday p.m. to Sunday a.m. Overlap</p> <p><u>Source:</u> Same as item 59</p> <p><u>Codes:</u> 0 - no overlap 1 - overlap</p> <p><u>Comments:</u> Individuals with activities on Saturday evenings and into Sunday mornings required special treatment since their such hours overlapped survey weeks; has already been utilized in making hour-by-hour location assignments (see item 59); no further use anticipated.</p>
1488	<p>68. Warning Flag for Approximated Location</p> <p><u>Source:</u> See items 49-58</p> <p><u>Codes:</u> 0 - no locations approximated 1 - one or more location approximated</p> <p><u>Comments:</u> Can be used to identify individuals with one or more activity outside the area covered by legitimate location codes; for each activity outside the coded area but within 5 miles of it, the activity was given the nearest code and the flag value was set to one.</p>
1489	<p>69. Warning Flag for Invalid Location</p> <p><u>Source:</u> See items 50-58</p> <p><u>Codes:</u> 0 - all locations valid 1 - one or more location invalid</p> <p><u>Comments:</u> Can be used to identify individuals with location code of 337, 338, or 339 (see item 50) for one or more activity; such location codes will result in unknown exposure estimates for associated activities; individuals with background interview only and having activities away from home also coded as "1".</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1490	70. Edit Field <u>Comments:</u> Of no use.
1491-1504	71. Activity Restrictions for Followup Period 1 (Days 1-14) <u>Source:</u> Questions E.1.a-d on pp.2-3 of TIF <u>Codes:</u> 0 - no activity restriction 1 - in hospital 2 - in nursing home 3 - in bed at home 4 - confined to the house 5 - cut down on usual activities <u>Comments:</u> This field contains 14 characters, one for each day of Followup Period 1; for households coded as week 01 (item 1), Followup Period 1 began on June 4, 1978; for households coded as week 02, Followup Period 1 began on June 11, 1978; . . . for households coded as week 52, Followup Period 1 began on May 27, 1979.

Column
Number(s) Item Number and Description

- 1505-1518 72. Work/School Absenteeism for Followup Period 1
Source: Question E2 on pp.2-3 of TIF
Codes: 0 - no absenteeism
 1 - missed work
 2 - missed school
 3 - missed work around the house
 4 - missed work and school
 5 - missed work and work around the house
 6 - missed school and work around the house
 7 - missed work, school, and work around the house
Comments: Same as item 71; reporting of missed work around the house not considered reliable.
- 1519-1532 73. Physician Contacts for Followup Period 1
Source: Questions F.1.a-b on pp.2-3 of TIF
Codes: 0 - no physician contact
 1 - physician seen in office
 2 - physician seen in hospital outpatient department
 3 - physician seen in hospital emergency room
 4 - physician seen in private clinic
 5 - physician seen in neighborhood health center
 6 - physician seen in public health clinic
 7 - physician seen in own home
 8 - physician seen elsewhere
 9 - physician phoned for medical advice
Comments: Same as item 71.
- 1532-1546 74. Ancillary Services during Physician Visits for Followup Period 1
Sources: Question F2 on pp.2-3 of TIF
Codes: 0 - no ancillary services
 1 - shot
 2 - x-ray
 3 - test
 4 - shot and x-ray
 5 - shot and test
 6 - x-ray and test
 7 - shot, x-ray, and test
Comments: Same as item 71.
- 1547-1560 75. Prescriptions Filled or Renewed for Followup Period 1
Source: Question G.1.a on pp.2-3 of TIF
Codes: 0 - no prescription filled or renewed
 1 - prescription filled or renewed
Comments: Same as item 71.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1561-1574	<p>76. Activity Changes for Followup Period 1</p> <p><u>Source:</u> Question H.1.a-b on pp.2-3 of TIF</p> <p><u>Codes:</u></p> <ul style="list-style-type: none"> 0 - no activity changes 1 - out of town 2 - home from work for vacation or holiday 3 - home from school for vacation or holiday 4 - home from work and school for vacation or holiday 5 - individual lost to followup 6 - individual and rest of household lost to followup 7 - irregular hours not reported but guessed from other reported hours 8 - irregular hours not reported but guessed on basis of limited information 9 - irregular hours not reported and not guessed <p><u>Comments:</u> Same as item 71; has already been utilized in making hour-by-hour location assignments (see item 59); no further use anticipated.</p>
1575-1579	<p>77. Reason Associated with Items 71 and 72</p> <p><u>Source:</u> Question E.1.e on pp.2-3 of TIF</p> <p><u>Codes and</u></p> <p><u>Comments:</u> See item 18; only one reason coded for each followup period; priority given to problems associated with respiratory or circulatory systems if more than one reported.</p>
580-1584	<p>78. Reason Associated with Items 73 and 74</p> <p><u>Source:</u> Question F.1.c on pp.2-3 of TIF</p> <p><u>Codes and</u></p> <p><u>Comments:</u> Same as item 77.</p>
1585-1589	<p>79. Reason Associated with Item 75</p> <p><u>Source:</u> Question G.1.b on pp.2-3 of TIF</p> <p><u>Codes and</u></p> <p><u>Comments:</u> Same as item 77.</p>
1590-1603	<p>80. Activity Restrictions for Followup Period 2 (Days 15-28)</p> <p><u>Source and</u></p> <p><u>Codes:</u> Same as item 71</p> <p><u>Comments:</u> This field contains 14 characters, one for each day of Followup Period 2; for households coded as week 01 (item 1), Followup Period 2 began on June 18, 1978; for households coded as week 02, Followup Period 2 began on June 25, 1978; ... for households coded as week 52, Followup Period 2 began on June 10, 1979.</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1604-1617	81. Work/School Absenteeism for Followup Period 2 <u>Source and</u> <u>Codes:</u> Same as item 72 <u>Comments:</u> Same as item 80.
1618-1631	82. Physician Contacts for Followup Period 2 <u>Source and</u> <u>Codes:</u> Same as item 73 <u>Comments:</u> Same as item 80.
1632-1645	83. Ancillary Services during Physician Visits for Followup Period 2 <u>Source and</u> <u>Codes:</u> Same as item 74 <u>Comments:</u> Same as item 80.
1646-1659	84. Prescriptions Filled or Renewed for Followup Period 2 <u>Source and</u> <u>Codes:</u> Same as item 75 <u>Comments:</u> Same as item 80.
1660-1673	85. Activity Changes for Followup Period 2 <u>Source and</u> <u>Codes:</u> Same as item 76 <u>Comments:</u> Same as item 30.
1674-1678	86. Reason Associated with Items 80 and 81 <u>Source:</u> Same as item 77 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1679-1683	87. Reason Associated with Items 82 and 83 <u>Source:</u> Same as item 73 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1684-1688	88. Reason Associated with Item 84 <u>Source:</u> Same as item 79 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1689-1702	89. Activity Restrictions for Followup Period 3 (Days 29-42) <u>Source and</u> <u>Codes:</u> Same as item 71 <u>Comments:</u> This field contains 14 characters, one for each day of Followup Period 3; for households coded as week 01 (item 1), Followup Period 3 began on July 2, 1978; for households coded as week 02, Followup Period 3 began on July 9, 1978; ... for households coded as week 52, Followup Period 3 began on June 24, 1979.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1703-1716	90. Work/School Absenteeism for Followup Period 3 <u>Source and</u> <u>Codes:</u> Same as item 72 <u>Comments:</u> Same as item 89.
1717-1730	91. Physician Contacts for Followup Period 3 <u>Source and</u> <u>Codes:</u> Same as item 73 <u>Comments:</u> Same as item 89.
1731-1744	92. Ancillary Services during Physician Visits for Followup Period 3 <u>Source and</u> <u>Codes:</u> Same as item 74 <u>Comments:</u> Same as item 89.
1745-1758	93. Prescriptions Filled or Renewed for Followup Period 3 <u>Source and</u> <u>Codes:</u> Same as item 75 <u>Comments:</u> Same as item 89.
1759-1772	94. Activity Changes for Followup Period 3 <u>Source and</u> <u>Codes:</u> Same as item 76 <u>Comments:</u> Same as item 89.
1773-1777	95. Reason Associated with Items 89 and 90 <u>Source:</u> Same as item 77 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1778-1782	96. Reason Associated with Items 91 and 92 <u>Source:</u> Same as item 78 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1783-1787	97. Reason Associated with Item 93 <u>Source:</u> Same as item 79 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1788-1801	98. Activity Restrictions for Followup Period 4 (Days 43-56) <u>Source and</u> <u>Codes:</u> Same as item 71 <u>Comments:</u> This field contains 14 characters, one for each day of followup Period 4; for households coded as week 01 (item 1), Followup Period 4 began on July 16, 1978; for households coded as week 02, Followup Period 4 began on July 23, 1978; ... for households coded as week 52, Followup Period 4 began on July 8, 1979.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1802-1815	99. Work/School Absenteeism for Followup Period 4 <u>Source and</u> <u>Codes:</u> Same as item 72 <u>Comments:</u> Same as item 98.
1816-1829	100. Physician Contacts for Followup Period 4 <u>Source and</u> <u>Codes:</u> Same as item 73 <u>Comments:</u> Same as item 98.
1830-1843	101. Ancillary Services during Physician Visits for Followup Period 4 <u>Source and</u> <u>Codes:</u> Same as item 74 <u>Comments:</u> Same as item 98.
1844-1857	102. Prescriptions Filled or Renewed for Followup Period 4 <u>Source and</u> <u>Codes:</u> Same as item 75 <u>Comments:</u> Same as item 98.
1858-1871	103. Activity Changes for Followup Period 4 <u>Source and</u> <u>Codes:</u> Same as item 76 <u>Comments:</u> Same as item 98.
1872-1876	104. Reason Associated with Items 98 and 99 <u>Source:</u> Same as item 77 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1877-1881	105. Reason Associated with Items 100 and 101 <u>Source:</u> Same as item 78 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1882-1886	106. Reason Associated with Item 102 <u>Source:</u> Same as item 79 <u>Codes and</u> <u>Comments:</u> Same as item 77.
1887	107. Status Regarding Supplemental Data Collection <u>Source:</u> Various control cards/sheets <u>Codes:</u> 1 - household eligible for supplemental data collection (completed basic survey through all 4 followup periods), supplemental data collected 2 - household eligible for supplemental data collection, supplemental data not collected 3 - household not eligible for supplemental data collection <u>Comments:</u> All individuals with codes "2" or "3" will have blanks in subsequent columns.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1888	103. Type of Air Conditioning at Time of Basic Survey <u>Source:</u> Question A1 on Supplemental Data Form (SDF) <u>Codes:</u> 1 - central air conditioning 2 - window air conditioning 3 - both types 4 - neither type 9 - don't know/refused
1889	109. Fuel Used Most to Heat Home at Time of Basic Survey <u>Source:</u> Question A2 on SDF <u>Codes:</u> 1 - electricity 2 - oil 3 - gas 4 - other 9 - don't know/refused
1890	110. Fuel Used Most for Heating Water at Time of Basic Survey <u>Source:</u> Question A3 on SDF <u>Codes:</u> Same as item 109.
1891	111. Fuel Used Most for Cooking at Time of Basic Survey <u>Source:</u> Question A4 on SDF <u>Codes:</u> Same as item 109.
1892	112. Buying or Renting Home at Time of Basic Survey <u>Source:</u> Question AS on SDF <u>Codes:</u> 1 - buying 2 - renting 3 - other 9 - don't know/refused <u>Comments:</u> Some respondents whose homes were completely paid for were coded as "buying"; others were coded as "other"; codes 1 and 3 should be combined and treated as buying/bought home.
1893-1894	113. Years Living at Home at Time of Basic Survey <u>Source:</u> Question A6 on SDF <u>Codes:</u> 00 - less than one year 01 to 98 - number of years 99 - don't know/refused <u>Comments:</u> Can be used to determine individuals with stable residential histories for purposes of historical exposure estimation.
1895-1896	114. Years Living in St. Louis Metro Area at Time of Basic Survey <u>Source:</u> Question A7 on SDF <u>Codes:</u> Same as item 113.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1897	<p>115. Type of Place Lived Most Often Up to Age 14</p> <p><u>Source:</u> Question A8 on SDF</p> <p><u>Codes:</u> 1 - metropolitan area (over 1 million population) 2 - large city (over 100,000) 3 - smaller city (over 10,000) 4 - small town/rural area 9 - don't know/refused</p> <p><u>Comments:</u> Responses not considered reliable.</p>
1898	<p>116. Type of Place Lived Most Often Since Age 14</p> <p><u>Source:</u> Question A9 on SDF</p> <p><u>Codes and</u></p> <p><u>Comments:</u> Same as item 115; individuals of age 13 or under coded as blank.</p>
1899	<p>117. Questions B1-7 Asked Regarding Full-time (or Primary) Occupation</p> <p><u>Source:</u> Line labeled J1 Under Part B on SDF Answer Sheet</p> <p><u>Codes:</u> 0 - questions not asked (no full-time occupation) 1 - questions asked</p> <p><u>Comments:</u> Individuals with Code "0" Have Blank Responses for items 119-128.</p>
1900	<p>118. Questions B1-7 Asked Regarding Part-time (or Second) Occupation</p> <p><u>Source:</u> Line labeled J2 under Part B on SDF Answer Sheet</p> <p><u>Codes:</u> 0 - questions not asked (no part-time occupation) 1 - questions asked</p> <p><u>Comments:</u> Individuals with code "0" have blank responses for items 129-138.</p>
1901-1902	<p>119. Years Worked for Employer at Time of Basic Survey for Full-time Occupation</p> <p><u>Source:</u> Question B1 for J1 on SDF</p> <p><u>Codes:</u> 00 - less than 1 year 01 to 98 - number of years 99 - don't know/refused</p> <p><u>Comments:</u> Can be used to determine individuals with stable job histories for purposes of historical exposure estimation.</p>
1903	<p>120. Exposure to Irritants in Full-time Occupation</p> <p><u>Source:</u> Question 32 for J1 on SDF</p> <p><u>Codes:</u> 1 - all/most of the time 2 - sometimes/occasionally 3 - little/none of the time</p>
1904	<p>121. Membership in Labor Union at Time of Basic Survey for Full-time Occupation</p> <p><u>Source:</u> Question B3 for J1 on SDF</p> <p><u>Codes:</u> 1 - yes 2 - no 9 - don't know/refused</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1905	122. Paid Vacation Days Available at Time of Basic Survey for Full-time Occupation <u>Source:</u> Question B4 for J1 on SDF <u>Codes:</u> 1 - Yes 2 - no 9 - don't know/refused
1906	123. Paid Sick Leave Days Available at Time of Basic Survey for Full-time Occupation <u>Source:</u> Question B5 for J1 on SDF <u>Codes:</u> 1 - yes 2 - no 9 - don't know/refused
1907	124. Would Money Be lost from Missing Full-time Occupation at Time of Basic Survey? <u>Source:</u> Question B6 for J1 on SDF <u>Codes:</u> 1 - yes 2 - no 9 - don't know
1908-1910	125. Amount of Money Lost from Missing Full-time Occupation at Time of Basic Survey <u>Source:</u> Question B6 for J1 on SDF <u>Codes:</u> Blank - not applicable (item 124 coded 2 or 9) 001 to 998 - amount lost in dollars 999 - don't know/refused
1911-1914	126. Take-home Pay from Full-time Occupation at Time of Basic Survey <u>Source:</u> Question B7 for J1 on SDF <u>Codes:</u> 0000 - not paid (e.g., voluntary work) 0001 to 9998 - amount paid in dollars 9999 - don't know/refused
1915	127. Pay period corresponding to Item 126 <u>Source:</u> Question B7 for J1 on SDF <u>Codes:</u> 1 - daily 2 - weekly 3 - every 2 weeks 4 - twice a month 5 - monthly 6 - three times a month 7 - hourly 8 - other (usually commission or self-employed) 9 - don't know/refused

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1916	128. Weekly Take-home Pay Categories For full-time Occupation at Time of Basic Survey <u>Source:</u> Question B7 for J1 on SDF <u>Codes:</u> 0 - not applicable (response given for Items 126 and 127) 1 - under \$50 2 - \$50 to \$99 3 - \$100 to \$199 4 - \$200 to \$299 5 - \$300 to \$399 6 - \$400 and over 9 - don't know/refused
1917-1918	129. Years Worked for Employer at Time of Basic Survey for Part-time Occupation <u>Source:</u> Question B1 for J2 on SDF <u>Codes and Comments:</u> Same as item 119.
1919	130. Exposure to Irritants in Part-time Occupation <u>Source:</u> Question B2 for J2 on SDF <u>Codes:</u> Same as item 120
1920	131. Membership in Labor Union at Time of Basic Survey for Part-time Occupation <u>Source:</u> Question B3 for J2 on SDF <u>Codes:</u> Same as item 121
1921	132. Paid Vacation Days Available at Time of Basic Survey for Part-time Occupation <u>Source:</u> Question B4 for J2 on SDF <u>Codes:</u> Same as item 122
1922	133. Paid Sick Leave Days Available at Time of Basic Survey for Part-time Occupation <u>Source:</u> Question B5 for J2 on SDF <u>Codes:</u> Same as item 123
1923	134. Would Money Be Lost from Missing Part-time Occupation at Time of Basic Survey? <u>Source:</u> Question B6 for J2 on SDF <u>Codes:</u> Same as item 124
1924-1926	135. Amount of Money Lost from Missing Part-time Occupation at Time of Basic Survey <u>Source:</u> Question B6 for J2 on SDF <u>Codes:</u> Same as item 125; blank if item 134 coded 2 or 9

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1927-1930	136. Take-home Pay from Part-time Occupation at Time of Basic Survey <u>Source:</u> Question B7 for J2 on SDF <u>Codes:</u> Same as item 126
1931	137. Pay Period Corresponding to Item 134 <u>Source:</u> Question B7 for J2 on SDF <u>Codes:</u> Same as item 127
1932	138. Weekly Take-home Pay Categories for Part-time Occupation at Time of Basic Survey <u>Source:</u> Question B7 for J2 on SDF <u>Codes:</u> Same as item 128
1933	139. Questions B8-11 Asked Regarding Principal Occupation Prior to Retirement <u>Source:</u> Item B8 on SDF answer sheet--whether circled or not <u>Codes:</u> 0 - item not circled, questions not asked (not retired) 1 - item circled, questions asked <u>Comments:</u> Questions asked for individuals indicating "Retired" as major activity at time of basic survey (item 23) or age 65 years and over and not working at time of basic survey; individuals with code "0" have blank responses to items 140-144.
1934-1936	140. Principal Occupation Prior to Retirement <u>Source:</u> Question B8 on SDF <u>Codes:</u> Per U.S. Census Bureau Index of Occupations (Appendix J1 blank - not applicable 995 or higher - don't know/refused
1937-1940	141. Principal Industry Prior to Retirement <u>Source:</u> Question B8 on SDF <u>Codes:</u> Per Office of Management and Budget Standard Industrial Classification Manual (Appendix K) blank - not applicable 9999 - don't know/refused
1941-1942	142. Years in Principal Occupation Prior to Retirement <u>Source:</u> Question B9 on SDF <u>Codes:</u> blank - not applicable 00 - less than one year 01 to 98 - number of years 99 - don't know/refused

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1943	<p>143. Principal Occupation Prior to Retirement - Mostly Indoors, Outdoors, or in Vehicle?</p> <p><u>Source:</u> Question B10 on SDF</p> <p><u>Codes:</u> blank - not applicable 1 - inside 2 - outdoors 3 - combination inside/outdoors 4 - riding in vehicle 9 - don't know/refused</p>
1944	<p>144. Exposure to Irritants in Principal Occupation Prior to Retirement</p> <p><u>Source:</u> Question B11 on SDF</p> <p><u>Codes:</u> blank - not applicable 1 - all/most of the time 2 - sometimes/occasionally 3 - little/none of the time 9 - don't know/refused</p>
1945	<p>145. Portion of Family Income During Year of Basic Survey from Sources Other than Jobs</p> <p><u>Source:</u> Question C1 on SDF</p> <p><u>Codes:</u> 1 - less than 2% 2 - 2 to 10% 3 - 10 to 25% 4 - 25 to 50% 5 - over 50% 9 - don't know/refused</p>
1946	<p>146. Portion of Family Income from Retirement Benefits</p> <p><u>Source:</u> Question C2a on SDF</p> <p><u>Codes:</u> 0 - None 1 - less than 2% 2 - 2 to 10% 3 - 10 to 25% 4 - 25 to 50% 5 - over 50% 6 - portion greater than zero but not known/refused 9 - don't know/refused</p>
1947	<p>147. Portion of Family Income from Interest, Dividends, Rent, Estates, Trusts, or Capital Gains</p> <p><u>Source:</u> Question C2b on SDF</p> <p><u>Codes:</u> Same as item 146</p>
1943	<p>148. Portion of Family Income from Unemployment or Strike Benefits</p> <p><u>Source:</u> Question C2c on SDF</p> <p><u>Codes:</u> Same as item 146</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1949	149. Portion of Family Income from Disability Benefits <u>Source:</u> Question C2d on SDF <u>Codes:</u> Same as item 146
1950	150. Portion of Family Income from Welfare Payments or other Public Assistance <u>Source:</u> Question C2e on SDF <u>Codes:</u> Same as item 146
1951	151. Portion of Family Income from Alimony, Child Support, or Regular Contributions from Persons Not Part of Household <u>Source:</u> Question C2f on SDF <u>Codes:</u> Same as item 146
1952-1953	152. Usual Charge by Doctor for Office Visit <u>Source:</u> Question C3 on SDF <u>Codes:</u> 00 to 98 - amount charged in dollars 99 - don't know/refused
1954	153. Portion of Office Visit Charge Usually Paid by Any Health Insurance <u>Source:</u> Question C4 on SDF <u>Codes:</u> 1 - all or most 2 - some or about half 3 - little or none 4 - never been to doctor/not applicable 9 - don't know/refused
1955-1957	154. Current Height Without Shoes <u>Source:</u> Question D1 on SDF <u>Codes:</u> 000 to 998 - height in feet (column 1955) and inches (columns 1956-1957) 999 - don't know/refused
1959-1960	155. Current Weight Without Shoes and Clothes (Normal Weight if Pregnant) <u>Source:</u> Question D2 on SDF <u>Codes:</u> 000 to 998 - weight in pounds 999 - don't know/refused
1961-1963	156. Most Ever Weighed (Not Counting Pregnancies) <u>Source:</u> Question D3 on SDF <u>Codes:</u> Same as item 155
1964-1965	157. Years between Current and Maximum Weight (if Different) <u>Source:</u> Question D3 on SDF <u>Codes:</u> blank - not applicable 00 - less than one year 01 to 98 - number of years 99 - don't know/refused

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1966	158. Doctor Usually Seen at Least Once a Year <u>Source:</u> Question D4 on SDF <u>Codes:</u> 1 - yes 2 - no 9 - don't know/refused
1967	159. Regular Program of Physical Exercise Followed <u>Source:</u> Question D5 on SDF <u>Codes:</u> 1 - yes 2 - no 9 - don't know/refused <u>Comments:</u> Regular program of exercise is considered to be one which an individual follows at least 3 days per week throughout the year.
1968-1969	160. Years Following Regular Program of Physical Exercise <u>Source:</u> Question D5 on SDF <u>Codes:</u> blank - not applicable 00 - less than one year 01 to 98 - number of years 99 - don't know/refused
1970	161. Frequency of Strenuous Activities (Outside of Any Job) <u>Source:</u> Question D6 on SDF <u>Codes:</u> 1 - frequently 2 - occasionally 3 - rarely 9 - don't know/refused
1971-1972	162. Hours Spent Outdoors in a Typical Summer Week (Outside of Any Job) <u>Source:</u> Question D7 on SDF <u>Codes:</u> 00 to 98 - number of hours 99 - don't know/refused
1973-1974	163. Hours Spent Watching or Sitting in Front of the TV in a Typical Summer Week <u>Source:</u> Question D3 on SDF <u>Codes:</u> Same as item 162
1375	164. Question Asked Regarding Length of Long-term Health Problem(s) <u>Source:</u> Lines labeled P1/P2 Opposite Question D9 on SDF Answer Sheet <u>Codes:</u> 0 - no questions asked (no long-term health problems) 1 - questions asked <u>Comments:</u> Individuals with code "0" have blank responses for item 165; long-term health problems are those coded as items 8-19.

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1976-1977	<p>165. Years with Long-term Health Problem at Time of Basic Survey</p> <p><u>Source:</u> Question D9 on SDF</p> <p><u>Codes:</u> blank - not applicable 00 - less than one year 01 to 98 - number of years 99 - don't know/refused</p>
1978	<p>166. Questions Asked Regarding Past Cigarette Smoking</p> <p><u>Source:</u> Item D10 on SDF answer sheet--whether circled or not</p> <p><u>Codes:</u> 0 - item not circled, questions not asked (current cigarette smoker) 1 - item circled, questions asked</p> <p><u>Comments:</u> Questions asked for individuals aged 14 years or over who were not smoking cigarettes at time of the basic survey; individuals with code "0" have blank responses to items 167-169.</p>
1979-1980	<p>167. Number of Cigarettes Usually Smoked Per Day</p> <p><u>Source:</u> Question D13 on SDF</p> <p><u>Codes:</u> blank - none 00 - less than one cigarette 01 to 98 - number of cigarettes 99 - don't know/refused</p>
1981-1982	<p>168. Age Started Smoking Cigarettes</p> <p><u>Source:</u> Question D10 on SDF</p> <p><u>Codes:</u> blank - never smoked cigarettes 01 to 98 - age in years 99 - don't know/refused</p>
1983-1984	<p>169. Age Stopped Smoking Cigarettes</p> <p><u>Source:</u> Question D10 on SDF</p> <p><u>Codes:</u> Same as item 168</p>
1985	<p>170. Questions Asked Regarding Past Cigar/Pipe Smoking</p> <p><u>Source:</u> Question D11 on SDF answer sheet--whether circled or not</p> <p><u>Codes:</u> 0 - item not circled, questions not asked (current cigar/pipe smoker) 1 - item circled, questions asked</p> <p><u>Comments:</u> Questions asked for individuals aged 14 years or over who were not smoking cigars or pipes at the time of the basic survey; individuals with code "0" have blank responses to items 171-174.</p>

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1986-1987	171. Number of Cigars Usually Smoked Per Day <u>Source:</u> Question D11 on SDF <u>Codes:</u> blank - none 00 - less than one cigar 01 to 98 - number of cigars 99 - don't know/refused
1988-1989	172. Number of Pipefuls Usually Smoked Per Day <u>Source:</u> Question D11 on SDF <u>Codes:</u> blank - none 00 - less than one pipeful 01 to 98 - number of pipefuls 99 - don't know/refused
1990-1991	173. Age Started Smoking Cigars/Pipes <u>Source:</u> Question D11 on SDF <u>Codes:</u> blank - never smoked cigars or pipes 01 to 98 - age in years 99 - don't know/refused
1992-1993	174. Age Stopped Smoking Cigars/Pipes <u>Source:</u> Question D11 on SDF <u>Codes:</u> Same as item 173
1994	175. Average Number of Hot Meals Eaten Per Day <u>Source:</u> Question E1 on SDF <u>Codes:</u> 0 to 8 - number of meals 9 - don't know/refused
1995	176. Frequency of Dieting to Keep Weight Down <u>Source:</u> Question E2 on SDF <u>Codes:</u> 1 - regularly/often 2 - sometimes/occasionally 3 - rarely/never 9 - don't know/refused
1996	177. Frequency of Eating Cured Meats <u>Source:</u> Question E3a on SDF <u>Codes:</u> 1 - almost daily 2 - one to three times a week 3 - one to three times a month 4 - less often 9 - don't know/refused
1997	178. Frequency of Eating Candies, Pastries, or Other Sweets <u>Source:</u> Question E3b on SDF <u>Codes:</u> Same as item 177
1998	179. Frequency of Eating Salty Snacks <u>Source:</u> Question E3c on SDF <u>Codes:</u> Same as item 177

<u>Column Number(s)</u>	<u>Item Number and Description</u>
1999-2000	180. Frequency of Drinking Caffeinated Drinks <u>Source:</u> Question E4a on SDF <u>Codes:</u> 00 to 98 - number of times per day 99 - don't know/refused
2001-2002	181. Frequency of Drinking Drinks with Sugar <u>Source:</u> Question E4b on SDF <u>Codes:</u> Same as item 180
2003	182. Frequency of Drinking Alcoholic Beverages <u>Source:</u> Question E5 on SDF <u>Codes:</u> blank - not applicable (less than 14 years of age) 1 - almost daily 2 - several times a week 3 - several times a month 4 - several times a year 5 - less often 9 - don't know/refused <u>Comments:</u> Items 182-185 asked only for individuals aged 14 years or over; individuals reporting that they never drink coded as "5" for item 182 and blanks for items 183-185.
2004	183. Type of Alcoholic Beverage Drank Most Frequently <u>Source:</u> Question E6 on SDF <u>Codes:</u> blank - not applicable (less than 14 years of age or never drinks) 1 - beer 2 - wine 3 - liquor 9 - don't know/refused <u>Comments:</u> Response used in forming questions for items 184-185.
2005-2006	184. Number of Alcoholic Beverages Drank Per 24 Hours <u>Source:</u> Question E7 on SDF <u>Codes:</u> blank - not applicable (less than 14 years of age or never drinks) 01 to 98 - number of beverages per 24 hours 99 - don't know/refused
2007	185. Frequency of Drinking Enough to Become Intoxicated <u>Source:</u> Question E8 on SDF <u>Codes:</u> blank - not applicable (less than 14 years of age or never drinks) 1 - almost daily 2 - weekly 3 - monthly 4 - less often 5 - never 9 - don't know/refused