

VERSION A

INTERVIEWER NOTE: THE DOLLAR VALUES TO BE INSERTED IN QUESTIONS 30, 31, AND 32 ARE THE FINAL DOLLAR VALUES GIVEN BY THE RESPONDENT UP TO THIS POINT. THEREFORE, IF RESPONDENT CHANGED DOLLAR AMOUNTS ON QUESTION 29, USE THOSE FIGURES WHEN ASKING QUESTIONS 30, 31 AND 32.

30. You said that you would be willing to pay (READ TOTAL AMOUNT ON WORKSHEET OF Q. 24 AND Q. 26) to achieve the goal of a fishable level of water quality and (READ AMOUNT ON WORKSHEET AT 4.28) for a further improvement to swimmable.

Would you still be willing to pay (READ AMOUNT AT Q. 28) if the best we could do was to raise the minimum only halfway from fishable to swimmable? (POINT TO MIDWAY BETWEEN LEVELS B AND A ON WORKSHEET.) At halfway, more water bodies would be improved over the fishable level, and some additional, but not all, water bodies would even be improved to the swimmable level.

**Q30A**  
73% 1 Yes - b GO TO Q. 32  
27 2 No  
(16) 3 DON'T KNOW → GO TO Q. 32  
(4) 4 REFUSED

277

**WTPHALF** IF "NO" TO Q. 30, ASK:

31. In addition to (READ TOTAL AMOUNTS IN Q. 24 AND Q. 26), what is the most you (your household) would be willing to pay each year to raise the minimum halfway from fishable to swimmable?

ENTER DOLLAR AMOUNT  
000 Zero or "Nothing"  
998 DON'T KNOW  
999 REFUSED

IF ANY DOLLAR AMOUNTS IN 4.24, 26, OR 28, ASK:

32. You said that you (your household) would be willing to pay a total of (TOTAL AMOUNT FOR Q. 24, 26, 28) to reach the nation's water quality goals. Presuming that people in other states would also divide their money honestly, how many dollars or what percent of this amount would you give to (THIS STATE) and how many dollars or what percent to the rest of the nation for water improvement?

				DON'T KNOW	REFUSED	
THIS STATE	193	\$ <u>ISTD</u> DE (13) R (3)	440	<u>ISTP</u> % DE (13) R (3)	9998	9999
REST OF NATION	166	\$ <u>OSTD</u>	439	<u>OSTP</u> %	9998	9999

TDOL Sum in  
and out of state \$

PISTATE Percent in state for all respondents

POSTATE " out of state "

VERSION A

Please look at the water quality ladder again (Card 3). A major purpose of this survey is to learn the value people place on reaching the three national water pollution goals. Because so many people find it hard to say just how much these goals are worth to them in dollars, they sometimes ask us to tell them how much they are currently paying for water pollution control. We don't provide this information early in the interview because we want people to think about how much the goals are really worth to them without being influenced by information such as this.

Now that you have had a chance to think about this, we would like to tell you the dollar range paid for water pollution control by households in your income bracket and offer you the chance to revise your dollar amounts for water pollution, if you should wish to do so for any reason.

Before doing this, you need to know two things. First, the actual amount people pay varies according to the size of their household and other factors.

Second, it is uncertain whether paying this amount of money each year will provide enough money to reach any of the goals higher than boatable.

GIVE RESPONDENT APPROPRIATE CARD A9 FOR HIS/HER INCOME. Last year, households like yours paid between (READ RANGE FROM BELOW FOR RESPONDENT'S INCOME GROUP) for the nation's water pollution control programs.

<u>INCOME GROUP</u>	<u>COLOR CARD</u>	<u>WATER POLLUTION AMOUNT</u>
UNDER \$10,000	WHITE	\$10 to \$100
\$10,000 - \$19,999	YELLOW	\$70 to \$150
\$20,000 - \$29,999	BLUE	\$175 to \$300
\$30,000 - \$49,999	GREEN	\$400 to \$600
\$50,000 OR MORE	PINK	\$1,200 to \$1,500

## POINT TO WORKSHEET.

33. Here are the amounts you said you would be willing to pay for the three goals. Please feel free to change any of these amounts, up or down. Remember, what we want is your realistic estimate of the highest amount of money each of these goals is worth to you whether or not you are currently paying that amount. Would you like to make any changes? (PAUSE; IF RESPONDENT APPEARS HESITANT, ENCOURAGE RESPONDENT BY REPEATING RELEVANT PARTS OF THE QUESTION.)

**AID**

540

19% 1 Yes  
 81 2 No  
 (6) 3 DON'T KNOW  
 (1) 4 REFUSED

→ SKIP TO Q.35

IF "YES" ON Q.33, ASK:

- B4 What are the new amounts? (HELP RESPONDENT CHANGE THE AMOUNTS ON THE WORKSHEET INCLUDING TOTAL. RECORD THE NEW AMOUNTS ON FLAP.)

WTPBA

WTPFA

WTPSA

VERSION B

INTERVIEWER NOTE: THE DOLLAR VALUES TO BE INSERTED IN QUESTIONS 30, 31, AND 32 ARE THE FINAL DOLLAR VALUES GIVEN BY THE RESPONDENT UP TO THIS POINT. THEREFORE, IF RESPONDENT CHANGED DOLLAR AMOUNTS ON QUESTION 29, USE THOSE FIGURES WHEN ASKING QUESTIONS 30, 31 AND 32.

30. Now I would like to ask you about a slightly different situation. Please turn to Card 6a. You said you were willing to pay (READ TOTAL AMOUNT OF Q. 24 AND Q. 26 ON WORKSHEET) \$\_\_\_\_\_ to achieve the goal of having 99: or virtually all of the nation's water be at least at the fishable level. If that were not possible, would you still be willing to pay (READ AMOUNT AT Q. 28) to have five percent of the nation's water bodies remain at the boatable level while the other 95% improve to a fishable quality? (POINT TO PLACE ON LADDER WHERE THE 99% IS MARKED OUT AND 95% SUBSTITUTED.) The lakes, rivers and streams comprising this five percent would all be located in heavily industrial and/or urban locations where a lot of people live.

89% 1 Yes, worth the same amount → GO TO 4. 32  
 11 2 No, worth less  
 (11) 3 DON'T KNOW → GO TO Q. 32  
 4) 4 REFUSED

235  
 IF "NO" TO Q. 30, ASK:

31. How much less would it be worth each year to (you/your household)?

WTP 95  
 ENTER DOLLAR AMOUNT  
 998 DON'T KNOW  
 999 REFUSED

IF ANY DOLLAR AMOUNTS IN Q. 24, 26, OR 28, ASK:

32. You said that you (your household) would be willing to pay a total of (TOTAL AMOUNT FOR Q. 24, 26, 28) to reach the nation's water quality goals. Presuming that people in other states would also divide their money honestly, how many dollars or what percent of this amount would you give to (THIS STATE) and how many dollars or what percent to the rest of the nation for water improvement?

			DON'T KNOW	REFUSED
	See Version A			
THIS STATE	\$ _____ %	9998	9999	
REST OF NATION	\$ _____ %	9998	9999	

## VERSION B

Please look at the water quality ladder again (Card 3). A major purpose of this survey is to learn the value people place on reaching the three national water pollution goals. Because many people find it hard to say just how much these goals are worth to them in dollars, they sometimes ask us to tell them how much they are currently paying for water pollution control. We don't provide this information early in the interview because we want people to think about how much the goals are really worth to them without being influenced by information such as this.

Now that you have had a chance to think about this, we would like to tell you the dollar range paid for both water and air pollution control by households in your income bracket and offer you the chance to revise your dollar amounts for water pollution, if you should wish to do so for any reason.

Before doing this you need to know two things. First, the actual amount people pay varies according to the size of their household and other factors.

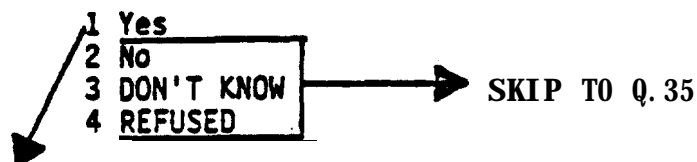
Second, it is uncertain whether paying this amount of money each year will provide enough money to reach any of the goals higher than boatable.

GIVE RESPONDENT APPROPRIATE CARD B9 FOR HIS/HER INCOME. Last year, households like yours paid between (READ RANGE FROM BELOW FOR RESPONDENT'S INCOME GROUP) for the nation's water pollution control programs. In addition, last year you also paid between (READ RANGE FROM BELOW FOR RESPONDENT'S INCOME GROUP) in higher prices and taxes for air pollution control programs for the entire country, including this state. This amount of money will be enough to maintain-present air quality in the country or perhaps slightly improve it.

<u>INCOME GROUP</u>	<u>COLOR CARD</u>	<u>WATER POLLUTION</u>	<u>AIR POLLUTION</u>
UNDER \$10,000	WHITE	\$10 to \$100 +	\$15 to \$150
\$10,000 - \$19,999	YELLOW	\$70 to \$150 +	\$100 to \$195
\$20,000 - \$29,999	BLUE	\$175 to \$300 +	\$265 to \$420
\$30,000 - \$29,999	GREEN	\$400 to \$600 +	\$650 to \$850
\$50,000 OR MORE	PINK	\$1200 to \$1500 +	\$1775 to \$2200

### POINT TO WORKSHEET.

33. Here are the amounts you said you would be willing to pay for the three goals. Please feel free to change any of the amounts you gave for the three water quality goals, up or down. Remember, what we want is your realistic estimate of the highest amount of money each of these water quality goals is worth to you whether or not you are currently paying that amount. Would you like to make any changes? (PAUSE; IF RESPONDENT APPEARS HESITANT, ENCOURAGE RESPONDENT BY REPEATING RELEVANT PARTS OF THE QUESTION.)



IF "YES" ON 4. 33, ASK:

- 34 What are the new amounts? (HELP RESPONDENT CHANGE THE AMOUNTS ON THE WORKSHEET INCLUDING TOTAL. RECORD THE NEW AMOUNTS ON FLAP.)

VERSION B

INTERVIEWER NOTE: THE DOLLAR VALUES TO BE INSERTED IN QUESTIONS 23, 31, AND 32 ARE THE FINAL DOLLAR VALUES GIVEN BY THE RESPONDENT UP TO THIS POINT. THEREFORE, IF RESPONDENT CHANGED DOLLAR AMOUNTS ON QUESTION 29, USE THOSE FIGURES WHEN ASKING QUESTIONS 30, 31 AND 32.

30. Now I would like to ask you about a slightly different situation. Please turn to Card 6a. You said you were willing to pay (READ TOTAL AMOUNT OF Q. 24 AND Q. 26 ON WORKSHEET) \$ \_\_\_\_\_ to achieve the goal of having 99% or virtually all of the nation's water be at least at the fishable level. If that were not possible, would you still be willing to pay (READ AMOUNT AT Q. 28) to have five percent of the nation's water bodies remain at the boatable level while the other 95% improve to a fishable quality? (POINT TO PLACE ON LADDER WHERE THE 99% IS MARKED OUT AND 95% SUBSTITUTED.) The lakes, rivers and streams comprising this five percent would all be located in heavily industrial and/or urban locations where a lot of people live.

- 89% 1 Yes, worth the same amount → GO TO Q. 32  
 11 2 No, worth less  
 (11) 3 DON'T KNOW → GO TO Q. 32  
 (4) 4 REFUSED

IF "NO" TO Q. 30, ASK:

31. How much less would it be worth each year to (you/your household)?

ENTER DOLLAR AMOUNT

998 DON'T KNOW

999 REFUSED

IF ANY DOLLAR AMOUNTS IN Q. 24, 26, OR 28, ASK:

32. You said that you (your household) would be willing to pay a total of (TOTAL AMOUNT FOR Q. 24, 26, 28) to reach the nation's water quality goals. Presuming that people in other states would also divide their money honestly, how many dollars or what percent of this amount would you give to (THIS STATE) and how many dollars or what percent to the rest of the nation for water improvement?

	See Version A	DON'T KNOW	REFUSED
THIS STATE	\$ _____ %	9998	9999
REST OF NATION	\$ _____ %	9998	9999

A-17  
VERSION B

Please look at the water quality ladder again (Card 3). A major purpose of this survey is to learn the value people place on reaching the three national water pollution goals. Because many people find it hard to say just how much these goals are worth to them in dollars, they sometimes ask us to tell them how much they are currently paying for water pollution control. We don't provide this information early in the interview because we want people to think about how much the goals are really worth to them without being influenced by information such as this.

Now that you have had a chance to think about this, we would like to tell you the dollar range paid for both water and air pollution control by households in your income bracket and offer you the chance to revise your dollar amounts for water pollution, if you should wish to do so for any reason.

Before doing this you need to know two things. First, the actual amount people pay varies according to the site of their household and other factors.

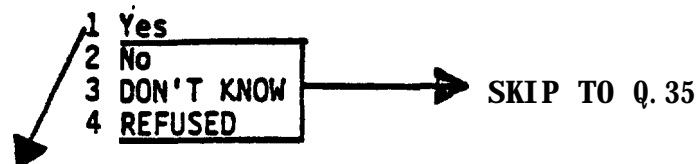
Second, it is uncertain whether paying this amount of money each year will provide enough money to reach any of the goals higher than boatable.

GIVE RESPONDENT APPROPRIATE CARD B9 FOR HIS/HER INCOME. Last year, households like yours paid between (READ RANGE FROM BELOW FOR RESPONDENT'S INCOME GROUP) for the nation's water pollution control programs. In addition, last year you also paid between (READ RANGE FROM BELOW FOR RESPONDENT'S INCOME GROUP) in higher prices and taxes for air pollution control programs for the entire country, including this state. This amount of money will be enough to maintain present air quality in the country or perhaps slightly improve it.

<u>INCOME GROUP</u>	<u>COLOR CARD</u>	<u>WATER POLLUTION</u>	<u>AIR POLLUTION</u>
UNDER \$10,000	WHITE	\$10 to \$100 +	\$15 to \$150
\$10,000 - \$19,999	YELLOW	\$70 to \$150 +	\$100 to \$195
\$20,000 - \$29,999	BLUE	\$175 to \$300 +	\$265 to \$420
\$30,000 - \$49,999	GREEN	\$400 to \$600 +	\$650 to \$850
\$50,000 OR MORE	PINK	\$1200 to \$1500 +	\$1775 to \$2203

POINT TO WORKSHEET.

33. Here are the amounts you said you would be willing to pay for the three goals. Please feel free to change any of the amounts you gave for the three water quality goals, up or down. Remember, what we want is your realistic estimate of the highest amount of money each of these water quality goals is worth to you whether or not you are currently paying that amount. Would you like to make any changes? (PAUSE; IF RESPONDENT APPEARS HESITANT, ENCOURAGE RESPONDENT BY REPEATING RELEVANT PARTS OF THE QUESTION.)



IF "YES" ON Q. 33, ASK:

- 34 What are the new amounts? (HELP RESPONDENT CHANGE THE AMOUNTS ON THE WORKSHEET INCLUDING TOTAL. RECORD THE NEW AMOUNTS ON FLAP.)

ASK EVERYONE:

35. **One last** question about the amounts you gave on the worksheet. What if the **amounts** you gave here were not enough to reach any of these three goals, including goal C, the boatable level where we are now. Would you (your household) be willing to pay anything more to try to reach any or all of these goals or are these amounts the **most** you (your household) would realistically give to reach each of them? (PAUSE, IF RESPONDENT APPEARS HESITANT ENCOURAGE RESPONDENT BY REPEATING RELEVANT PARTS OF THE QUESTION.)

MOST

514

- |      |   |                             |
|------|---|-----------------------------|
| 27%  | 1 | Yes, willing to pay more    |
| 73   | 2 | No, not willing to pay more |
| (31) | 3 | DON'T KNOW                  |
| (2)  | 4 | REFUSED                     |
- SKIP TO Q.37

IF "YES" ON Q. 35, ASK:

36. What is the most you (your household) would pay each year to reach each of goals C, B, and A before you feel you are spending more than it's really worth to you (all members of your household)?  
(HELP RESPONDENT CHANGE THE AMOUNTS ON THE WORKSHEET INCLUDING TOTAL. RECORD THE NEW AMOUNTS ON FLAP.)

WTP BMWTP FMWTP SM

## SECTION E: BACKGROUND INFORMATION

This last section asks a few questions about you.

37. What was the last grade of regular school that you completed?  
00 not include specialized schools like secretarial, art, or trade schools.

**EDUC**

- 11% 1 Grade school or less (0-8)  
14 2 Some high school (0-11)  
36 3 High school graduate (12)  
22 4 Some-college or junior college  
11 5 College graduate (4 or 5 year degree)  
7 6 Post graduate work or degree  
(0) 7 DON' T KNOW  
(3) 8 REFUSED

38. How many years have you lived in THIS STATE?  
(PROBE: Your best estimate will do. IF LESS THAN 1, ENTER 1.)

**YI STATE**

\_\_\_\_\_ Number of Years  
M 36 (2) 98 DON' T KNOW  
809 1- 86 (2) 99 REFUSED

39. ASK ONLY IF NOT OBVIOUS: How would you describe your racial or ethnic background? READ CHOICES.

**RACE**

- 85% 1 White  
9 2 Black  
4 3 Hispanic  
1 4 Asian or Pacific Islander  
1 5 Or some other race (SPECIFY)  
6 DON' T KNOW  
7 REFUSED

INTERVIEWER NOTE:

White & Black = Black  
White & Hispanic = Hispanic  
Black & Hispanic = Hispanic

**RACED**

1 = white



40. Please turn to the last card in the book -- Card 7. For classification purposes only, please tell me which category best describes the total income that you (and all other members of this household) earned during 1982 before taxes. Please be sure to include each member's wages and salaries, as well as net income from any business, pensions, dividends, interest, tips, or other income. Just tell me the number that best describes your household's income.

<b>INCAT</b>	6%	A	1	UNDER \$5,000
<b>= categories</b>	21	B	2	\$5,000 to less than \$10,000
	13	C	3	\$10,000 to less than \$15,000
<b>INCOME</b>	13	D	4	\$15,000 to less than \$20,000
<b>= continuous</b>	12	E	5	\$20,000 to less than \$25,000
over 100,000 = 150+	9	F	6	\$25,000 to less than \$30,000
under 5,000 = 5+	6	G	7	\$30,000 to less than \$35,000
other at mean	6	H	8	\$35,000 to less than \$40,000
757	3	I	9	\$40,000 to less than \$45,000
	2	J	10	\$45,000 to less than \$50,000
	6	K	11	\$50,000 to less than \$100,000
	1	L	12	\$100,000 and over (set to \$150,000)
<b>M=23,670</b>	(14)	13		DON'T KNOW
	(42)	14		REFUSED

IF THIS IS A RESPONDENT-ONLY HOUSEHOLD, SKIP TO Q. 42

41. How much of this total household income is income that you personally make? Is your share 75% or less of the total household income or is your share more than 75% of the total household income?

<b>PINC</b>	60%	1	75% (3/4) or less
	50	2	More than 75%
793	(13)	3	DON'T KNOW
	(7)	4	REFUSED

**ASK EVERYONE:**

- 42 I would like you to think back to the questions I asked you about how much your household is willing to pay to reach each of the three water quality goals, C, B, and A. We find that some people are more sure than others about the amounts they gave for Goals C, B, and A. How about yourself? Would you say you are very sure, somewhat sure, somewhat unsure or very unsure about the amounts you gave for these goals?

<b>HSURE</b>	52%	1	Very sure
	21	2	Somewhat sure
	12	3	Somewhat unsure
	4	4	Very unsure
775	(31)	5	DON'T KNOW
	(7)	6	REFUSED

CLOSING: Thank you for your time and cooperation.

## SECTION F: INTERVIEWER'S EVALUATION

INTERVIEWER: COMPLETE THESE QUESTIONS AS SOON AS POSSIBLE AFTER ME INTERVIEW

These two questions are only concerned with how the respondent answered Questions 24 - 29, which asked the respondent to value the three levels of water quality.'

43. Irrespective of whether or not the respondent answered Q. 24 - 29, in your judgment, how well did the respondent understand what he or she was asked to do in these questions?

**INTUND**

- 37% 1 Understood completely  
 32 2 Understood a great deal  
 19 3 Understood somewhat  
 5 4 Understood a little  
 4 5 Did not understand very much  
 1 6 Did not understand at all  
 1 7 Other (SPECIFY):

NR (4)

44. Which of the following descriptions best describe the degree of effort the respondent made to arrive at a value for the three-levels of water quality?

- 33% 1 Gave the questions prolonged consideration in an effort to arrive at the best possible value  
 40 2 Gave the questions careful consideration, -but the effort was not prolonged  
 19 3 Gave the questions some consideration  
 5 4 Gave the questions very little consideration  
 6 5 Other (SPECIFY):

NR 1%

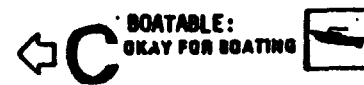
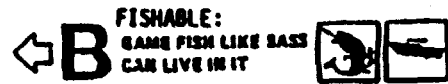
WORKSHEET  
(Reduced from Original)

PLEASE KEEP IN MIND

1. EVERY HOUSEHOLD IN THE COUNTRY HAS THE OPPORTUNITY TO SAY HOW MUCH THEY ARE WILLING TO PAY FOR WATER POLLUTION CONTROL.
2. YOU WILL CONTINUE TO PAY WHAT YOU ARE NOW PAYING FOR ALL OTHER ENVIRONMENTAL IMPROVEMENT PROGRAMS, AND THE AMOUNT YOU ARE WILLING TO PAY FOR WATER POLLUTION CONTROL IS IN ADDITION TO THESE OTHER AMOUNTS.

**DOLLARS PER YEAR  
IN TAXES AND PRICES**

BEST POSSIBLE WATER QUALITY	
10	
9	
8	
7	
6	
5	
4	
3	
2	
1	
0	
WORST POSSIBLE WATER QUALITY	



GOAL A.

To raise national minimum water quality so that no water bodies are less than swimmable in quality, the most my household is willing to add.....

\$ ..... .00

GOAL B

In order to raise national minimum water quality so that no water bodies are less than fishable in quality, the most my household is willing to add.....

\$ ..... .00

GOAL C

The most my household is willing to add to maintain national minimum water quality so that no lakes, rivers or streams are less than boatable in quality is.....

\$ ..... .00

TOTAL AMOUNT TO REACH GOAL .....

\$ ..... .00

**PAYMENT CARD**

ANNUAL HOUSEHOLD INCOME BEFORE TAXES

UNDER\$10,000

(AVERAGE ANNUAL AMOUNT IN 1982 TAXES AND PRICES  
PAID FOR SOME PUBLIC PROGRAMS)

\$ 0	\$ 45	\$120	\$270
	-POLICE		
1	AND FIRE		
	50 PROTECTION	130	280
2	55	140	290
3	60	150	300
4	65	160	320
5	70	170	340
10	75	180	360
-SPACE			
PROGRAM			
15	80	190	380
20	85	200	4000-DEFENSE
			PROGRAM
25	90	220	420
30	95	240-PUBIC	440
		EDUCATION	
35	<b>100—ROADS AND</b>	250	460
	<b>HIGHWAYS</b>		
40	110	260	480

**PAYMENT CARD****ANNUAL HOUSEHOLD INCOME BEFORE TAXES**

\$10,000 - \$19,999

**(AVERAGE ANNUAL AMOUNT IN 1982 TAXES MD PRICES  
PAID FOR SOME PUBLIC PROGRAMS)**

\$ 0	\$ 90	<b>\$295</b>	\$550
5	100	-POLICE AND FIRE PROTECTION	565
10	110		580
15	120		595
20	130		615
<b>25</b>	<b>140</b>		635
- SPACE PROGRAM			
30	150		655
35	160		675
40	170		695
45	180		715
<b>50</b>	<b>190</b>	-ROADS MD HIGHWAYS	735
55	205		755
60	220		775
65	235		795
70	250	-PUBLIC EDUCATION	815
75	265		835
80	280		855
			—DEFENSE PROGRAM

**PAYMENT CARD****ANNUAL HOUSEHOLD INCOME BEFORE TAXES****\$20,000 - \$29,999****(AVERAGE ANNUAL AMOUNT IN 1982 TAXES AND PRICES  
PAID FOR SOME PUBLIC PROGRAMS)**

\$ 0	\$190	\$ 620	\$1140
10	210	650	1180
20	230	<b>680</b>	1220
30	250	710	1260
40	270	740	1300
<b>50</b>	<b>290</b>	770	1340
- SPACE			
60 <b>PROGRAM</b>	310	800	1380
70	330	830	1420
80	350	860	1460
<b>90</b>	380	<b>890</b>	1500
		-PUBLIC	
100	410	920 EDUCATION	1540
110	440	950	1580
120	470	980	1620
130	500	1010	1660
140	530	1040	1700
150	560	1070	1740--DEFENSE
170	590	1100	PROGRAM
			1780

**PAYMENT CARD****ANNUAL HOUSEHOLD INCOME BEFORE TAXES**

\$30,000    \$49,999

**(AVERAGE ANNUAL AMOUNT IN 1982 TAXES AND PRICES  
PAID FOR SOME PUBLIC PROGRAMS)**

\$ 0	\$ 450	<b>\$1445</b>	\$2720
15	480--POLICE	<b>1520</b>	2805
	<b>AND FIRE</b>		
30	510 PROTECTION	1595	2890
45	540	1670	2975
60	570	1745	3060
90	600	1820	3145
-SPACE			
120 <b>PROGRAM</b>	630	1895	3230
.			
<b>150</b>	695	1970	3315
	- - <b>ROADS AND</b>		
<b>180</b>	770 HIGHWAYS	2045	3400
<b>210</b>	845	2120	3485
240	920	2195	3570
270	995	2270	3655
300	1070	2345	3740
330	1145	2420	3825
		- <b>PUBLIC</b>	
360	1220	<b>2495 EDUCATION</b>	3910
390	1295	2570	3995
420	1370	2645	<b>4080 --DEFENSE PROGRAM</b>

PAYMENT CARD

## ANNUAL HOUSEHOLD INCOME BEFORE TAXES

## \$50,000 AND OVER

(AVERAGE ANNUAL AMOUNT IN 1982 TAXES AND PRICES  
PAID FOR SOME PUBLIC PROGRAMS)

\$ 0	\$1150	\$3860	\$ 7410
25	1250	4060	7660
50	1350	4260	7910
75	1450	4460	8160
100	1550	4660	8410
150	1660	4860	8660
200	1760	5060	8910
250	1860	5260	9160
300	2060	5460	9410
350	2260	5660	9660
450	2460	5860	9910
550	2660	6060	10160
650	2860	6260	10410
750	3060	6460	10660
850	3260	6660	10910
950	3460	6910	11160
1050	3660	7160	11410

POLICE  
AND FIRE  
PROTECTIONROADS AND  
HIGHWAYSSPACE  
PROGRAMPUBLIC  
EDUCATIONDEFENSE  
PROGRAM



**CARD B9****Annual Household Income Before Taxes****Under \$10,000****AMOUNT ACTUALLY PAID IN 1982 FOR WATER AND AIR QUALITY PROGRAMS**

In 1982, households in your income group paid the following amount in local, state and federal taxes and in higher prices for:

**All Water Pollution Control Programs**      **Between \$10 and \$100**

It is uncertain whether annual payments at this level will be enough to reach the fishable and swimmable water quality levels.

**In addition to this amount** households in your income group also paid the following amount in local, state and federal taxes and in higher prices for:

**All Air Pollution Control Programs**      **Between \$15 and \$150**

Payments at this level will be enough to maintain the present level of air quality across the nation or slightly improve it.

## CARD B9

## Annual Household Income Before Taxes

\$10,000 - \$19,999

## AMOUNT ACTUALLY PAID IN 1982 FOR WATER AND AIR QUALITY PROGRAMS

In 1982, households in your income group paid the following amount in local, state and federal taxes and in higher prices for:

All Water Pollution Control Programs      Between \$70 and \$150

It is uncertain whether annual payments at this level will be enough to reach the fishable and swimmable water quality levels.

In addition to this amount households in your income group also paid the following amount in local, state and federal taxes and in higher prices for:

All Air Pollution Control Programs      Between \$100 and \$195

Payments at this level will be enough to maintain the present level of air quality across the nation or slightly improve it.

## CARD B9

## Annual Household Income Before Taxes

\$20,000 - \$29,999

.

## AMOUNT ACTUALLY PAID IN 1982 FOR WATER AND AIR QUALITY PROGRAMS

In 1982, households in your income group paid the following amount in local, state and federal taxes and in higher prices for:

All Water Pollution Control Programs      Between \$175 and \$300

It is uncertain whether annual payments at this level will be enough to reach the fishable and swimmable water quality levels.

In addition to this amount households in your income group also paid the following amount in local, state and federal taxes and in higher prices for:

All Air Pollution Control Programs      Between \$265 and \$420

Payments at this level will be enough to maintain the present level of air quality across the nation or slightly improve it.

## CARD B9

## Annual Household Income Before Taxes

\$30,000 - \$49,999

## AMOUNT ACTUALLY PAID IN 1982 FOR WATER AND AIR QUALITY PROGRAM

In 1982, households in your income group paid the following amount in local, state and federal taxes and in higher prices for:

All Water Pollution Control Programs      Between \$400 and \$600

It is uncertain whether annual payments at this level will be enough to reach the fishable and swimmable water quality levels.

In addition to this amount households in your income group also paid the following amount in local, state and federal taxes and in higher prices for:

All Air Pollution Control Programs      Between \$650 and \$850

Payments at this level will be enough to maintain the present level of air quality across the nation or slightly improve it.

CARD B9

Annual Household Income Before Taxes

\$50,000 and Over

## AMOUNT ACTUALLY PAID IN 1982 FOR WATER AND AIR QUALITY PROGRAMS

In 1982, households in your income group paid the following amount in local, state and federal taxes and in higher prices for:

All Water Pollution Control Programs Between \$1,200 and \$1,500

It is uncertain whether annual payments at this level will be enough to reach the fishable and swimmable water quality levels.

In addition to this amount, households in your income group also paid the following amount in local, state and federal taxes and in higher prices for:

All Air Pollution Control Programs Between \$1,775 and \$2,000

Payments at this level will be enough to maintain the present level of air quality across the nation or slightly improve it.

LOCATION # \_\_\_\_\_

LINE # \_\_\_\_\_

FLAP

Q.24 - Q.28

Q.29  
CHANGES

Q.34  
AIDED

Q.36  
MOST

TOTAL AMOUNT

\$ _____ .00	\$ _____ .00	\$ _____ .00	\$ _____ .00
--------------	--------------	--------------	--------------

GOAL C  
BOATABLE  
Q.24

\$ _____ .00	\$ _____ .00	\$ _____ .00	\$ _____ .00
--------------	--------------	--------------	--------------

GOAL B  
FISHABLE  
Q.26

\$ _____ .00	\$ _____ .00	\$ _____ .00	\$ _____ .00
--------------	--------------	--------------	--------------

GOAL A  
SWIMMABLE  
Q.28

\$ _____ .00	\$ _____ .00	\$ _____ .00	\$ _____ .00
--------------	--------------	--------------	--------------

INTERVIEWER: THIS FLAP MUST BE ATTACHED TO THE FRONT OF EACH QUESTIONNAIRE !

A-35

## Appendix B    DESIGN AND EXECUTION OF THE SAMPLING PLAN.

The sampling plan for this study was designed by the Opinion Research Corporation (ORC) using standard area probability sampling procedures which ensure that every household in the contiguous United States has a known or knowable probability of selection. The sampling procedures are described in materials prepared by ORC which begin on page B-3. They describe the multistage sampling process where (for this study) 63 primary sampling units were first selected. These were stratified by the four census regions and each is a large geographical unit or population center. At the next stage, a total 185 secondary sampling units were drawn using probability sampling, the number being proportional to the population of the primary unit. The interviewers were assigned a designated starting point in each secondary unit and given explicit instructions as to which households were to be interviewed. The ORC sample is based on 1980 census data.

At the household level up to four attempts were made to obtain information about the composition of the household. If, after four visits, no one was home or if a refusal to be interviewed occurred no replacement was allowed. Sufficient assignments of households were made to ensure that the target number of interviews, 800, would be conducted.

Upon making the initial contact with the household, the interviewer obtained information from a household spokesman about the "heads of household" resident in the household. The interviewers were told there is no set definition of this concept and that anyone so designated by the respondents should be listed, in a set order, on the Face Sheet. The instructions make clear that multiple heads of household are acceptable. This designation is in

conformance with current Census Bureau procedure. Beginning with the 1980 census, the Bureau no longer automatically considered the husband the "householder" in married couple households.<sup>1</sup> The final selection of which household head to Interview (if there was more than one) was made by a prespecified procedure which ensured that each household head, whether present at the time of the initial contact or not, has an equal chance of being selected. Once designated, no substitutions were allowed. The Interviewers made up to four attempts to Interview the selected respondent. The sampling instructions used by the Interviewers are included in this appendix beginning on page B-11.

The response rates are described in the following materials. They are 78 percent of the eligible respondents and 56 percent of the eligible households. These rates are comparable with other studies using the 4 callback rate.

---

1. The Bureau no longer uses the term, "head of household," because "recent social changes have resulted in greater sharing of household responsibilities among adult members..." (Bureau of the Census, 1984). Instead it prefers "householder." In cases where adults are roommates, the Bureau counts as householder the person in whose name the dwelling unit is rented or owned. This differs somewhat from ORC's practice of listing all such adults and sampling from the list.



## DESCRIPTION OF THE SAMPLE PREPARED BY THE ORC

### The Sample

Area probability sampling is a procedure which produces an accurate, current, and convenient sampling frame. All households in the study area have a known probability of selection and individual people can be identified as members of only one household. ORC's national frame is generated through a multistage area probability process, where primary sampling units (PSU's), secondary selection units (SSU's), and starting locations are defined and selected.

Primary sampling units are the first stage of sampling. They broadly define where the sample is located, and are the source from which all subsequent selections are made. In most cases, they are individual counties or groups of adjacent counties. Once PSU's have been selected, a smaller and more finely defined sample area is selected. These secondary selection units are smaller clusters of households, consisting of all housing units located in phone book areas. From these SSU's, starting locations are selected, defining the actual cluster of households from which the interviews are obtained.

ORC's National Sampling Frame. The selection of the new national sampling frame has been completed by ORC. Using 1980 Census figures and growth rates from 1970 to 1980, population projections were made for all counties in the contiguous United States for 1985. Population as well as housing unit projections were calculated. These projections are taken as the measure of size (MDS) for each county, and determine its selection probability. Thus, the actual MDS assigned to a county is:

$$\text{MDS}_{1985} = 1980 \text{ Population} + 1/2(1980 \text{ Population} - 1970 \text{ Population}).$$

The measure of size is based on 1980 projections, as opposed to 1980 Census figures, to provide the most usable frame. The national frame will be used from 1982 to 1992, when data from the 1990 Census should be available. We believe that the assumption of a constant growth rate from 1980 to 1990 is more accurate than a measure of size based on the 1980 Census, which would require updating the probabilities each year.

-2-

As a first step, the 1970 and 1980 Census files, containing figures for all counties, were merged, yielding ORC's 1985 projections. The rounded 1985 number of housing units was 84 million. Once these projections were finished, the counties were stratified in order to minimize sampling variances. Although counties are stratified on some key variables, no elaborate stratification scheme was used. This is consistent with the conclusion reached by the Census Bureau in the sample selection of the Current Population Survey:

"The strata were . . . defined on the basis of available objective measures, supplemented by expert judgment, in an effort to maximize the heterogeneity between and homogeneity within strata. A great many professional man-hours were spent in the stratification process. However, it is questionable whether the amount of time devoted to reviews and refinements paid off in appreciable reductions in sampling variances. Intuitive notions about gains from stratification can be misleading. Methods of stratification that appear to be different often lead to about the same variances. (U.S. Bureau of the Census, Technical Paper No. 7, [1963] p.6)."

Selection of Primary Sampling Units. Counties were stratified on a limited number of key variables -- for example: the four Census regions, level of growth, metro/non-metro, and in the South and West, percent non-white. Thus, within each of the four Census regions, many strata were created. Counties with extremely small measures of size were grouped with adjacent counties, such that a minimum measure of size exists.

It should be noted that some counties or groups of counties had sufficient population to be selected with certainty, forming self-representing areas.

Self-representing areas were defined as those CMSA's (Consolidated Metropolitan Statistical Areas) or MSA's (Metropolitan Statistical Areas) with up to 80% of the size of a stratum. In total, the projected number of housing units for 1985 was 84,000,000. In a 100 PSU design, a stratum had 840,000 (84,000,000/100) housing units; in a 50 PSU design, a stratum is twice this size, 1,680,000 (84,000,000/50) housing units.

MSA's and CMSA's not having enough housing units to be self representing, as well as all non-MSA counties, were grouped into 60 non-self-representing stratum. In a 50 PSU design, those CMSA's or MSA's which were large enough to be self-representing in a 100 design but not in a 50 PSU design, each formed a non-self-representing stratum. When only 50 PSU's are used, 1/2 of the non-self-representing stratum are selected.

### Selection of Secondary Selection Units

Each of the non-self-representing counties and self-representing areas are selected with known probabilities. The selection of the starting locations on the current study were obtained from an outside supplier, since all work was not complete on ORC's frame. Using the selection probabilities, the number of starting locations from each non-self-representing county or self-representing area were calculated. Those locations were then obtained from a source which combines a cross-listing of listed phone numbers (phone books) as well as motor vehicle registrations and other independent listings.

### Size of Sample

To determine the number of housing units needed to complete 800 interviews certain assumptions were made regarding the coverage, occupancy, and response rates. Previous data indicated that those rates would be 92% coverage, 95% occupancy, and 45% response. To complete 800 interviews, 2034 ( $800 / (.92 \times .95 \times .45)$ ) housing units had to be assigned, distributed evenly over the starting indicators.

It is important to distribute the sample across as many sampling points within a PSU as possible. This limits the number of interviews obtained from any one starting indicator, which in turn reduces clustering effects. On average, it is desirable to complete 4 or 5 interviews per starting indicator; for 800 interviews, between 160 to 200 starting indicators would be needed. We decided to select 200 starting indicators but assign 180, each with 11 housing units. The remaining 20 were held in reserve to be used only if 800 interviews were not completed. 1

1 It should be noted here that there was one error made in assigning the location number to two starting indicators; each was given the same number. Seven interviews were completed in one of the locations and, five were completed in the other location.

-4-

### Sample Disposition

After initially assigning 180 starting indicators, 5 more were added, for a total of 2035 housing units (185x11). Of these, 3 listing areas were not worked on, due to lack of field interviewing availability. Table 1 and Table 2 show the final disposition of the sample; Table 1 presents the final result of calls for all 2035 assigned housing units while Table 2 has a reduced base, of those forms keypunched and on the screening file. The complete disposition, Table 1, includes the 33 housing units with no field attempt, 11 households where the wrong respondent was interviewed, and 8 forms not returned from the field services.

As can be seen from Table 1, 4% of the housing units assigned were vacant. Of the remaining 1952 housing units, there was no contact at 487 (24.9%). Household screening data was not obtained for 21.0% (409/1952), and no information was available for 1% of the housing units. Eligible respondents were identified in the remaining 53.4% (1042/1952) of housing units, while completes were obtained in 41.6% (813/1952) of the housing units. This calculation assumes all non-vacant housing units are eligible.

Using the punched dispositions (n=1983), interviews can be tracked as to completion by call. Table 3 presents the data, and indicates that male/female completion is almost identical. This shows that males did not need more calls to complete the same percentage of interviews as the females.

Finally, Table 4 presents the disposition of the sample by the results of call. Although the data is incomplete, it does show the trend of result by call. The percent of completes is relatively constant by call. Decreasing relationships are present in the percentage of respondents not at, busy, and vacant. Increasing trends were present for refused interviews and refused screens. Most interesting, the data indicate that additional calls yield interviews and information on housing units, although refusals increase.

### Weights

The data for the current study were weighted using ORC's weighting program. Targets for 5 demographic variables were obtained from 1980 Census data, and from more current data available from the Census population surveys. The five variables were: race, region, education of head, household income, and number of people in the household. The weighting program at ORC inputs the target percentages then goes through a series of calculations until the lowest deviation from any one target is achieved.

TABLE 1  
FINAL DISPOSITION

Eligible Respondents	(1,042)
Complete	813
Refused interview	171
Respondent not home	33
Other reason not completed	14
Interviewed wrong respondent	11
 Housing Unit Not Contacted	 ( 487)
No one home	454
Listing areas not assigned	33
 Housing Unit Contacted	 ( 409)
Busy	27
Refused screen	356
Language barrier	26
 No Information	 ( 14)
No code	6
Forms not returned	8
 Vacant Housing Unit	 ( 83)
 TOTAL	 2035

TABLE 2  
FINAL DISPOSITION

Eligible Respondents	(1,031)
Complete	813
Refused interview	171
Respondent not home	33
Other reason not completed	14
 Housing Unit Not Contacted	 ( 454)
No one home	454
 Housing Unit Contacted	 ( 409)
Busy	27
Refused screen	356
Language barrier	26
 No Information	 ( 6)
No Code	6
 Vacant Housing Unit	 ( 83)
 <b>TOTAL</b>	 1983

TABLE 3  
INTERVIEWS COMPLETED BY CALL

Result of Call	Male		Female		Total	
	Number	%	Number	%	Number	%
1	124	.353	162	.351	286	.352
2	102	.291	130	.281	232	.285
3	72	.205	98	.212	170	.209
4	52	.148	70	.152	122	.150
5	1	.003	2	.004	3	.004
Total	(351)		(462)		(813)	

TABLE 4  
DISPOSITION BY RESULT OF CALL

	1		2		3		4		5
	Number	%	Number	%	Number	%	Number	%	Number
Comp. Female	124	.063	102	.071	72	.070	52	.074	1
Comp. Male	162	.082	130	.090	98	.095	70	.100	2
(Total Comp.)*	(286)	.144	(232)	.161	(170)	.165	(122)	.174	(3)
Refused Int.*	57	.029	45	.031	34	.033	35	.050	1
Respondent not home	142	.072	94	.065	58	.056	17	.024	
Other reason not completed	11	.006	4	.003	1	--	1	.001	
No one home	1076	.543	801	.557	571	.554	374	.534	14
No code	48	.024	29	.020	19	.018	9	.013	
Busy	161	.081	103	.072	52	.050	14	.020	1
Refused screen*	126	.064	71	.049	74	.072	86	.122	
Language barrier*	13	.007	4	.003	8	.008	2	.003	
Vacant*	63	.032	14	.010	9	.009	4	.006	
Total	(1983)		(1397)		(996)		(664)		
Discrepancy**			41	.029	35	.034	37	.053	
Base 1	1983		1438		1031		701		

\*Final disposition

Disposition code unknown. The base on each call should equal the number of housing units without a final disposition from prior calls. The bases are now equal to the number without a final disposition plus the discrepancy. For example, on result call #3, the base is equal to 1498 - (366 + 41).



## WATER BENEFITS SURVEY

B- 11

## SAMPLING INSTRUCTIONS

**WHAT IS A HOUSING UNIT?**

Once you have located the starting indicator, the next step is to identify the housing units that are eligible for the sample.

In general, a housing unit is a room or group of rooms occupied or intended for occupancy by one family or other small group of persons, or a person living alone. It has at least one of the following distinguishing characteristics:

1. Direct access from the outside, or, as in most apartment houses, through a shared entrance hall.

AND/OR

2. A kitchen, or cooking equipment for the exclusive use of its occupants.

Most housing units are in structures thht are used entirely as living quarters --in one-family houses or in buildings that contain two or more apartments, flats, or tenements. Remember, too, that housing units may be found behind stores, over garages, and in converted garages and converted barns.

**Some special situations**

Hotel accommodations are housing units if they are the usual residences of the occupants.

Separate living quarters of staff and supervisory personnel in institutions are considered to be housing units. (See rule on following page about the exclusion of other persons living in institutions.)

Trailers, tents, boats and railroad cars are housing units if occupied as regular living quarters. They are not considered as housing units if they are vacant, used only for extra sleeping space of vacationers, or used only for business.

Group quarters

Quarters shared by 10 or more unrelated adults are considered to be group quarters and are excluded from the sample.

Group quarters are found in institutions, dormitories, barracks, convents, nursing homes, and other places where the occupants do not have separate living arrangements.

Rooming house or boarding house

When there are nine or more roomers or boarders, not related to the landlord or person in charge, their living arrangements are considered to be group quarters and are excluded from the sample. (Note, however, that the living arrangements of the landlord or person in charge qualify as a housing unit.)

When there are eight or fewer roomers or boarders, not related to the person in charge or persons sharing living quarters, their living arrangements qualify as a housing unit.

Structures not considered to be housing units

Structures under construction, being used for nonresidential purposes, unfit for human habitation, condemned, or scheduled for demolition are not to be considered as housing units and are excluded from our sample. Vacant housing units should be listed, as they are intended for occupancy and are therefore housing units.

## HOW TO LIST HOUSING UNITS (GENERAL INSTRUCTIONS)

The listing of housing units is an important step in the execution of our sample plans.

THE HOUSING UNIT LISTING SHEET, the address of the starting indicator is given. You are to start listing with the housing unit located to the left of the starting indicator (left as you face it) For this study, list 11 housing units and complete as many interview; as possible. Each address is to be contacted 4 times, the original call and up to 3 callbacks.

You will be sent a starting indicator which locates your assignment (or a map identifying the block or blocks, in which the listing is to be done). Your instructions will tell you whether you are to list all housing units in succession, or only a certain part of them. However, the important rules which follow apply to all the listings that you will be asked to make.

1. List the housing units on your route whether they are occupied or vacant.
2. Be especially on the lookout for buildings which may include more than one housing unit (e.g., single-family residences converted to two or more apartments). In most cases it will be fairly easy to determine the number of housing units in a building without knocking on people's doors for that purpose. Separate house numbers, entrances and mail boxes will provide valuable clues. Take special care to find apartments in the basement, attic dwellings, occupied trailers, etc.
3. Listings are to be made on a form (see Housing Unit Listing Sheet). This is the form you will be using when you are listing housing units and conducting interviews at the same time. On the first page of the Housing Unit Listing Sheet we have included space to insert the Postal and residence address. Please complete this information, as well as verifying the zip code shown. for the starting indicator.

List one housing unit per line.

List the address accurately and add any additional descriptive information which would be useful in locating the housing unit. (The description is not necessary if there is a complete address, that is-- street number and street name.) This address must be clear enough for another interviewer to locate it at a later time and also for us to reach the housing unit by mail.

This double requirement means that sometimes you may have to both describe the structure and furnish us with a rural route number and/or box number as well.

The respondent's name and phone number are to be entered after completing the interview.

STUDY #: 65460

LOCATION #: \_\_\_\_\_

INTERVIEWER: \_\_\_\_\_

COUNTY: \_\_\_\_\_

SUPERVISOR: \_\_\_\_\_

**STARTING INDICATOR**

INTERVIEWER:

FILL IN AND VERIFY ZIP CODE

1) POSTAL ADDRESS: \_\_\_\_\_  
CITY - ST2) RESIDENCE ADDRESS: \_\_\_\_\_  
(IF DIFFERENT) CITY

START WITH THE HOUSEHOLD TO THE LEFT OF THE STARTING INDICATOR..  
--LIST, IN A CLOCKWISE MANNER AROUND THE BLOCK, 11 HOUSING UNITS  
FOR THIS LOCATION.

LINE #	STREET ADDRESS	RESPONDENT'S NAME	PHONE #	"X" COMPLETE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				

4. In listing housing units and in an apartment building, start with the lowest number and list apartments in numerical order (alphabetical order if apartments are designated by letter). If there are neither numbers nor letters, start listing with the basement and work-up to the top floor. For uniformity, where there are no numbers or letters, and more than one housing unit to a floor, list each floor in a counter-clockwise direction.
5. List a housing unit in back of another building before going on to the next building.

### Listino and Contacting Housing Units

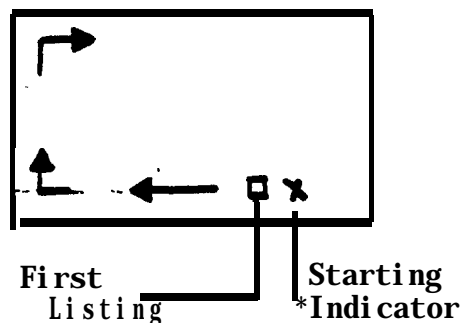
Remember:

1. Start to the-left of the starting indicator.
2. List 11 housing units. Make up to 4 calls at each address.

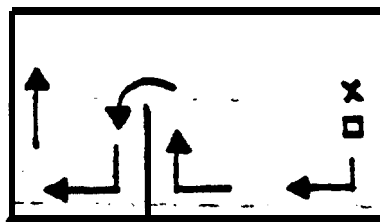
### Method of Listing

For this study, housing units will be listed by going around a block, rather than down a street. Beginning with 'the housing unit to the left of the starting indicator, list and contact housing units in a clockwise manner. If you come back to the starting indicator before completing your assignment, cross the street and continue your listing around that block. Several examples are shown below. (Remember: List in a clockwise manner, listing housing units on your right.)

Single Block



Block with dead end or other non-intersecting road



## FACE SHEETS

This study requires respondent selection when more than one eligible resides in a household, as well as keeping a hard copy callback log for each address listed. The Face Sheets incorporate both of these requirements.

The top half of the Face Sheet is for respondent selection. When screening the household, it will be necessary to determine how many \*heads of households" reside at the address who are 18 or older, and then list them in the Resident Box on the Face Sheet. Respondents are to self-identify who is (are) the "head(s)"; there is no set definition of this concept. Males are listed first, then females; and within each sex,, oldest to youngest. If only one head of household is identified, then that person should be interviewed. If more than one head resides in the household, then list the eligibles in the prescribed order. The Respondent Selection Table on the back of the Housing Unit Listing Sheet provides instructions for selecting which eligible to interview.

The bottom of the Face Sheet has the Call Report Form. Each time you go to an address, fill out the information requested.

1. Date/WD, WE

Put in the date and circle whether it is a weekday (WD) or weekend (WE).

2. Time

Put in the time and circle whether am or pm

3. Completed, M-H/H, male head of house or F-H/H, female head of house.

When you complete the interview mark an "X" in the appropriate box. Remember, there are no sex quotas; this is for ORC information only.

4. Not Complete - Specify Reason

If the call does not result in a completed interview, enter the reason. why.

5. Best Time to Reach Respondent:

If the selected respondent is not home, enter when the best time is to contact the person. Or, if no one is home and you can determine from a neighbor when the best time is to contact the household, enter the time here.

Remember, the call log provides you the information to make efficient callbacks and maximize coverage of the address. Fill in all the information. If you need more space, use the back of the form

LOCATION #: \_\_\_\_\_

LINE #: \_\_\_\_\_

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COUNTY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

LIST ALL "HEAD OF HOUSEHOLD," 18 AND OLDER (LIST MALES FIRST, OLDEST TO YOUNGEST, THEN FEMALES, OLDEST TO YOUNGEST ALLOW SELF-IDENTIFICATION OF "HEAD". IF ROOMATES, LIST ALL 18 AND OLDER. FILL IN RELATIONSHIP TO FIRST LISTED.)

## RESIDENT BOX

RESIDENT #	RELATIONSHIP	SEX	AG
1			
2			
3			
4			
5			
6+			

TOTAL IN HU3 \_\_\_\_\_

SELECTED RESPONDENT \_\_\_\_\_  
(USE SELECTION TABLE ON BACK 0 LISTING SHEET)

## CALL REPORT FORM -- FILL OUT FOR EVERY ADDRESS

CALL #	DATE/WE /WD	TIME	COMPLETED		NOT COMPLETED -- SPECIFY REASON	BEST TIME TO REACH RESPONDER
			M-H/H	F-H/H		
1	WD WE	AM PM				
2	WD WE	AM PM				
3	WD WE	AM PM				
4	WD WE	AM PM				

WD-WEEEXDAY  
WE-WEEKEND

---

## **Appendix C      INTERVIEWER INSTRUCTIONS**

**In addition to the materials included In this appendix, each interviewer was supplied with a cassette tape which reviewed those sections of the instrument where the, pretest indicated the Interviewer might experience problems.**

**The interviewers selected for this project were experienced In working on social science projects and had demonstrated, in past work, the ability to work on complex questionnaires. Field supervisors trained the interviewers on a personal basis. This Included having the Interviewers go through a questionnaire and recording answers as if they themselves were conducting an interview. The field supervisors conducted a 100 percent edit of each completed questionnaire before shipping them to ORC. They also validated 10 percent of all interviews' work by calling respondents to verify that the Interview was completed in the manner specified In training.**

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Interviewer Instruction

Water Benefits Survey

ORC Study 165450

November' 1983

About the Study

This survey seeks to measure the dollar benefits of the national water pollution control programs. It is being conducted by Opinion Research Corporation for Resources for the Future. Resources for the Future is a nonprofit research organization located in Washington D.C. This information will be helpful to the Environmental Protection Agency when it undertakes benefit/cost analysis of these programs.

Extensive pretesting has shown that the subject is of interest to many people, so hopefully you should not encounter any major problems in recruiting respondents.

Materials Enclosed

Questionnaires: Form A and Form B - Alternate as you conduct interviews

Exhibit Booklet

Other loose exhibits - there are 5 versions of exhibits a, b, & c one for each of 5 incomes.

A. Payment Cards

B. Cards A9 - To be used with Form A of the questionnaire

C. Cards B9 - To be used with Form B of the questionnaire

Respondent "Worksheet"

Interviewer Questionnaire "Flap"

Interviewer Help Sheet

Face Sheets

Housing Unit Listing Sheet

Time Sheets

Return Envelopes

Deadline Date - will be provided by your supervisor

### The Sample

The sample for this study is a strict probability sample. Please review the sampling instructions thoroughly for the correct procedures to be followed in the selection of housing units and respondents.

### About the Questionnaire

In addition to the following text in which I will attempt to clarify specific areas in the questionnaire a short cassette tape has been provided for this purpose.

- Q.4: Pretesting has indicated that many respondents will be torn between answer category "1" & "2" if this is the case, code them as "4".
- Q.7: Choices are limited to the 6 shown.
- Q.8 - 17: It is essential you ask this question series as I have laid it out. Please record your answers carefully on the Activities Grid.

The information presented on pages 7, 9, & 10 must be clearly understood by respondents in order for them to answer questions 24 thru 32. These questions are the most important questions in the questionnaire, therefore, please read the information presented on these pages slowly and clearly, Use the exhibits and cues (i.e. pointing to points on the ladder, etc.) as instructed.

- Q.24 - 25: As mentioned on the tape the skip patterns to be followed from these questions are rather difficult so the following example should help to clarify any difficulties:

24. First, Goal C. What amount on the payment card, or any amount in between, is the most you (your household)-would be willing to pay in taxes and higher prices for each year to continue to keep the nation's freshwater bodies from falling below the boatable level where they are now? In other words, what is the highest amount you (your household) would be willing to pay for Goal C each year before you would feel you are spending more than it's really worth to you (all members of your household)?

ENTER DOLLAR AMOUNT HERE, ON FLAP AND ON WORKSHEET  
 000 ZERO OR "NOTHING"  
 998. DON'T KNOW  
 999 REFUSED

25. Would it be worth anything (more) to you (your household) to achieve goal B, where 99 percent or more of the freshwater bodies are clean enough so game fish like bass can live in them?

1 Yes - - > SKIP TO Q. 26 PAGE 14

<p>2 No 3 DON'T KNOW 4 REFUSED</p>	<p>→</p>	<p>SEE Q. 24; IF DOLLAR AMOUNT GIVEN ON Q. 24 THEN SKIP TO Q. 27. IF "ZERO", "NOTHING" GIVEN ON Q. 24 AND "NO" ON Q. 25 THEN SKIP TO Y1; ALL OTHERS SKIP TO Y3.</p>
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### EXAMPLES OF POSSIBLE ANSWERS

The response to question 24 is a \$1 or MORE THEN:

- . If YES to 4. 25 → SKIP TO Q. @6  
OR
- . If NO or DON'T KNOW or REFUSED to Q. 25 → SKIP TO Q. 27

The response to question 24 is 000 ZERO or NOTHING THEN:

- . If YES to Q. 25 → SKIP TO Q. 26  
OR
- . If NO to Q. 25 → SKIP TO Q. Y1  
OR
- . If DON'T KNOW or REFUSED to Q. 25 → SKIP TO Y3

The response to question 24 is DON'T KNOW or REFUSED THEN:

- . If YES to Q. 25 → SKIP TO Q. 26  
OR
- . If NO or DON'T KNOW or REFUSED to Q. 25 → SKIP TO Y3

\* It is vital that you master the skip patterns for the situation where respondents say they are not willing to pay anything to the willingness-to-pay questions or where they say "don't know" or refuse to answer these questions (Q. 24 and 25). We have found that some respondents who would otherwise give a non-response for the willingness-to-pay items, are able to give values when they understand more about the survey.

However, we don't want to push people to answer 'the willingness-to-pay questions so that they try to please us by giving meaningless answers.

Q.Y Series: There are many skips in this section, they are clearly laid out. Please be very careful following these skip patterns. Notice that if certain responses are given you will be instructed to go back to question 24, this is correct ~~and~~ a very important instruction to be followed. If you are in the situation where you are instructed to go back do not erase the answers in the Y series.

Q. 26 - 28: Please review the tape which describes this section in more detail. BE VERY CAREFUL ABOUT RECORDING THE DOLLAR VALUES GIVEN IN THE APPROPRIATE SPACE ON THE QUESTIONNAIRE, THE WORKSHEET AND ESPECIALLY THE FLAP.

The following are some general points to keep in mind for this willingness-to-pay section questions 24 - 36.

The questionnaire is designed to communicate the following information to the respondent about the willingness-to-pay exercise. When you read through the questionnaire, you will see how this information is presented to the respondent. These explanations are given to you in the belief that if you understand the instrument, it will be easier for you to read the questions to respondents in a meaningful way and to repeat parts of questions in response to expressions of respondent uncertainty.

The respondents should give the maximum amount the goal is worth to them.

We want the highest amount they are personally willing to pay before the goal would not be worth achieving. Sometimes respondents don't understand this and give the amount they think is "fair" or "reasonable". This is not what we want. The analogy of an auction is appropriate here. We want the highest price people would be willing to pay, taking their financial resources into account.

The respondents should realize that they are already paying some amount for water quality in various taxes and prices.

Sometimes respondents mistakenly believe that the money they say they are willing to pay would be for additional taxes. This would only be the case if the values they give exceed what they are currently paying. On the other hand, if they value the goals at less than what they are now paying, they would theoretically receive a refund. Note that we don't tell them what they are currently paying until later in the interview because we don't want them to be influenced by this figure. This is because some people, when they really think about it, may really value the goals at a higher level than they are currently paying and others may value them at a lower level. However, once people are told what they are actually paying they might be tempted to react to that amount rather than step back and try to determine what the water quality goals are worth to their household.

- The respondents should understand that each goal involves a minimum water quality level.

This is an important concept. The boatable goal, for example, is where virtually no freshwater body is less than boatable in quality during the year. This is a present situation in the U.S. Certain water bodies such as Lake Erie near Cleveland, the lower Mississippi River Etc. are at this level and no higher. Of course many water bodies have higher than the

minimum water quality at the present time. As the minimum level moves from boatable to fishable Goal C to Goal B, some of the water bodies that are already fishable might be improved further in quality and of course all those that were only boatable would be improved to fishable;

- The respondents should understand that they will be valuing three water quality levels, each of which is more stringent than the other. They should understand that some of these levels may be worth more to them than others.

Because some respondents don't fully understand this when they first answer the questions and give all the money they want to give for water quality to the first goal, we offer them the opportunity to revise their answers when they see how they total. If they want to revise at this point, respondents should be encouraged to apportion the money between the three goals in any way they want. For some people, it may not be worth much extra to improve the present minimum level from boatable to fishable. For others, this improvement may be worth more to them than holding water quality at level C.

- Respondents should realize that they are also paying for other environmental programs such as air pollution.

Sometimes people don't realize this and use the opportunity to value water quality to say, in effect, what they would pay for all environmental programs. We specifically mention air pollution in the scenario and version B tells them what they are paying for air quality as well as water quality.

- Respondents should realize that they are not valuing drinking water or salt water; only freshwater lakes, streams, rivers, ponds and the like.

Drinking water sometimes originates in rivers or lakes, but it is treated before being piped to consumers. Because treatment plants can purify even relatively polluted water-improvement in freshwater quality will not improve the quality of drinking water in any way.

- Respondents should realize that they are giving an amount for their household.

For respondents whose household consists of more than one person, it is important that they realize we are interested in household income and household water quality values. The amounts we show to them on the payment cards are for average households (four people -- two adults and two children). If respondents are reluctant to speak for other household members, they should be encouraged to give their best guess, realizing that the money would come out of what the household is already paying or would pay if their willingness-to-pay amount is greater than their current payments.

- Respondents should realize that fishable water (level B) is where game fish like bass can live.

Other types of fish like sunfish or catfish can live in boatable water. Fish like bass require water of higher quality.

Your frank evaluation (questions 51 and 52) of the respondents answers to the willingness-to-pay questions will be helpful to us in assessing the information you gather.

### Return of Materials

As noted earlier please check with your supervisor as to your deadline dates and procedures to be followed in returning materials. The following materials must be returned to ORC:

- | Completed questionnaires; attached to the front of the questionnaire should be:

- | interviewer Questionnaire FLAP
  - Face Sheet for the household
- IN THIS ORDER

- | Housing Unit Listing Sheet
- | All Face sheets where a completed interview was not obtained
- Time Sheets
- Report to Study Director

If you have any questions that cannot be resolved by your supervisor, please feel free to call ORC Collect, person to person to Jean O'Brien, Leave your name and phone number and your call will be returned promptly.

Thank you for your assistance on this project.

/er

**WATER BENEFITS SURVEY**  
**INTERVIEWER HELP SHEET**

**HOW WILL MY INFORMATION BE USED?**

Your answers will be accumulated with the answers of all other respondents. The information obtained through the study will be used to assist people responsible for the quality of our environment in making informed policy decisions.

**HOW WAS I CHOSEN TO BE IN THIS STUDY?**  
**HOW DID YOU GET MY NAME?**

Your household has been randomly selected for this study. Because only a small number of households have been selected, the participation of each one is extremely important.

**WHO IS THIS STUDY FOR?**

It is being conducted for Resources for the Future, a nonprofit research organization in Washington D.C. Resources for the Future's study is sponsored by the Environmental Protection Agency (EPA).