

# **2001 NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE**

## **INCENTIVE EXPERIMENT**

### **Combined Quarter 1 and Quarter 2 Analysis**

Contract No. 283-98-9008  
Project 7190 – 1999-2003 NHSDA

Prepared for:

Substance Abuse and Mental Health Services Administration  
Rockville, MD 20857

Prepared by:  
RTI

July 2002

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## **Acknowledgments**

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## Executive Summary

This report describes an experiment conducted to evaluate the effectiveness of respondent incentives in improving response rates in the National Household Survey on Drug Abuse (NHSDA). A randomized, split-sample, experimental design was included with the main study data collection of the NHSDA to compare the impact of \$20 and \$40 incentive treatments with a \$0 control group on measures of respondent cooperation, data quality, survey costs, and population substance use estimates.

### Summary of Weighted Response Rates and Cost Per Interview

Rate/Cost	Control	Treatment		Main Study
	\$0	\$20	\$40	
Screening Response Rate (Weighted)	91.4%	92.4%	91.1%	92.7%
Interview Response Rate (Weighted)	69.2%	78.8%	83.3%	73.7%
Overall Response Rate (Weighted)	63.3%	72.8%	75.8%	68.4%
Cost Per Interview (Unweighted)	\$178.55	\$169.66	\$171.55	\$172.89

### Overall Results

- The results indicate that the best incentive design is a \$40 payment to all persons selected to complete the NHSDA interview. This design is preferred to no payment, a \$20 payment, and a differential plan based on environmental characteristics and respondent age.
- The \$20 and \$40 incentive payments each produced about a 10-point gain in overall response rates when compared with the \$0 control group (see table).
- The \$20 incentive more than paid for itself. The cost per completed interview, including the payment, was nearly \$9 less than the cost per completed interview for the \$0 control group.
- The \$40 incentive more than paid for itself, also. The cost per completed interview, including the payment, was \$7 less than the cost per completed interview for the \$0 control group.
- Most respondents accepted the incentive payment (99.8 percent).
- The interview refusal rates were significantly lower for the incentive groups than for the control (12.8 percent for \$20 and 9.4 percent for \$40 vs. 19.6 percent for \$0).



- The interview noncontact rates were significantly lower for the \$40 incentive group than for the \$20 and the control (2.0 percent for \$40 vs. 4.5 percent for \$20 and 6.8 percent for \$0).
- In general, the prevalence rates for past month alcohol, cigarette, and marijuana use yielded by the treatment groups were not significantly different from those of the control group.
- The main study response rates were higher than the control group due to staffing constraints placed on the incentive experiment's control and treatment groups. The experimental design limited the ability of field staff to transfer cases among interviewers, a common practice used to convert refusals. This staffing constraint did not exist for the main study. As expected, the refusal rates for the main study were lower than the control group.

## Response Rates

- In general, the screening rate did not change with the incentive payment. The \$20 treatment's screening rate was not significantly different from the \$0 control in any of the historical response rate strata or population densities. The \$40 treatment yielded a significantly lower screening rate than the \$20 treatment in the historically average response rate segments and overall in the non-metropolitan statistical areas (non-MSAs). However, it was significantly better than the \$0 control in the historically good response rate segments with moderate population density (i.e., 50,000 to 999,999 population).
- The \$20 treatment yielded a significantly higher interview response rate than the \$0 control for the combined results. The \$20 treatment yielded a higher interview response rate in all but one of the combinations of population density and historical response rate categories. However, the improvement was not significant in many of the combinations.
- The \$20 treatment yielded the fewest significant differences in the large cities and the historically good response rate strata. Historically, respondents in large cities (1 million or more population) have been less cooperative. The historically good response rate strata provided the smallest opportunity for improvement.
- The \$40 treatment yielded a significantly higher interview response rate than the \$20 treatment and the \$0 control for the combined results.
- The \$40 treatment yielded a higher interview response rate than the \$20 payment in all but one of the combinations of population density and

historical response rate categories. However, the difference between the \$40 and the \$20 treatments was significant in only one of the combinations.

- The \$40 treatment yielded a higher interviewer response rate than the \$0 control in all but one of the combinations of population density and historical response rate categories. The difference was significant in all but two of the combinations.
- The \$40 treatment yielded the fewest significant differences in the large cities. As noted, respondents in large cities have been historically less cooperative.
- The \$20 treatment yielded a higher overall response rate than the \$0 control in all but one of the combinations of population density and historical response rate categories. The worst combination was large cities with historically good response rate segments (-2.6 points). The greatest gains were made in midsized cities with historically average rates (16.3 points).
- The \$40 treatment yielded a higher overall response rate than the \$0 control in all but one of the combinations of population density and historical response rate categories. The worst combination was historically good response rate segments in large cities (-1.4 points). The greatest gains were in midsized cities with historically good rates (20.5 points).

## **Cooperation**

- In general, there was little evidence of a relationship between the \$20 and \$40 treatments and the screening refusal rate and the screening noncontact rate.
- The \$20 and \$40 treatments yielded significantly lower interview refusal rates than the control. The rates for the \$20 and the \$40 treatments were not significantly different, in most cases.
- Overall, the interview noncontact rate for the \$20 treatment was not significantly different from the control's rate.
- Overall, the interview noncontact rate for the \$40 treatment was significantly better than the rates for the control and the \$20 treatment.
- The three most popular reasons for refusing the screening and the interview in all population densities and response rate strata were "Nothing in it for me," "Too busy," and "Surveys are too invasive."

- Field interviewers (FIs) believed that the incentive influenced the respondent's decision to cooperate and improved the chances of a successful interview.
- FIs reported that the incentive reduced the amount of effort required to complete each case.

### **Data Quality**

- There were very few cases of breakoffs, short interviews, or unusable cases in the treatment or control groups.
- Overall, the \$20 and \$40 incentive groups had lower breakoff rates than the control group. The difference was not significant.
- Overall, the \$20 and \$40 incentive groups had lower short interview rates than the control group. The difference was not significant for the \$20 treatment, but it was for the \$40 treatment.
- Overall, the \$20 and \$40 incentive groups had lower unusable case rates than the control group. The difference was not significant.

### **Prevalence Rates**

- In general, the prevalence rates for past month alcohol, cigarette, and marijuana use yielded by the treatment groups were not significantly different from those for the control group.
- There was no significant difference between the \$20 treatment and \$0 control for prevalence estimates of past month alcohol, cigarette, or marijuana use.
- There was no significant difference between the \$20 treatment and \$40 treatment for prevalence estimates of past month alcohol, cigarette, or marijuana use.
- The \$40 treatment and the \$0 control produced significantly different prevalence estimates for two of the age, race, and historical response rate comparisons on past month alcohol use. The \$40 estimate was greater than the \$0 control for blacks from the historically poor response rate strata and for persons aged 26 or older from the historically average strata.

- The \$40 treatment and the \$0 control produced different prevalence estimates for one of the historical response rate comparisons on past month cigarette use. The \$40 estimate was less than the \$0 control for all persons from the historically poor response rate strata.

## **Costs**

- The \$20 treatment yielded a lower overall cost per completed survey than the \$0 control, including the cost of the incentive payment.
- The \$20 treatment yielded a greater cost per completed survey in the historically good response rate strata and in the segments drawn from dense urban centers.
- The \$40 treatment yielded a lower overall cost per completed survey than the \$0 control, including the cost of the incentive payment.
- The \$40 treatment yielded a greater cost per completed survey in the historically average response rate strata and in the segments drawn from dense urban centers.

## **Sample Design**

- To control costs and achieve results that could be generalized to the full project, the incentive experiment was conducted within 251 main study FI regions during Quarters 1 and 2 of the 2001 NHSDA.
- The FI region frame was stratified in two dimensions: by historical response rate (poor, average, and good) and by regional prevalence rates of marijuana use in the past month. These measures are known to be associated with screening and interview response. In addition, the sampling frame was implicitly stratified by socioeconomic status (SES) by sorting by percent minority within strata before sample selection.
- Sample sizes in the poor, average, and good response rate strata were determined to be 1,458, 721, and 329, respectively. To provide valid comparisons of the effect of two incentive amounts (\$20 and \$40), the sample sizes were first determined by limiting the standard error of the difference in response rates to 5 percent of the base value. Then a factor for the effect of clustering the FI regions by marijuana use and historical response rate was applied. The targeted 2,508 interviews per treatment

would be obtained from 251 FI regions, assuming an average of 10 completed interviews per FI region. The FI region sample was allocated proportionally to the marijuana use strata within each of the defined response rate strata.

- Within each sampled FI region, each of the monetary incentive amounts was administered. The incentive amount to be given in Quarter 1 of the study was randomly assigned. Then the remaining incentive amount was administered in Quarter 2.
- To control interviewer effects, the same FIs were required to work all of the control and treatment cases in an FI region whenever possible. This limited the transfer of cases to refusal conversion experts and traveling interviewers. This constraint was not applied to the main study cases not included in the experiment. As a result, the control and treatment groups are not directly comparable with the main study.

# 1. Introduction

## 1.1 Overview

This report describes an experiment conducted to evaluate the effectiveness of respondent incentives in improving response rates in the National Household Survey on Drug Abuse (NHSDA). A randomized, split-sample, experimental design was included with the main study data collection of the NHSDA to compare the impact of \$20 and \$40 incentive treatments with a \$0 control group on measures of respondent cooperation, data quality, survey costs, and population substance use estimates. This report is the second of two. The first report describes the experimental design and the results from data collection in the first quarter of 2001 (Eyerman, Bowman, Odom, Vatalaro, & Chromy, 2001a). This second report provides combined findings for the full experiment for both quarters.

The NHSDA experienced a considerable decline in response rates in 1999 due in part to the transition from a national probability sample to a State probability sample designed to yield State-level estimates. The transition to the large State sample placed a greater time and resource burden on the field staff and required a larger number of interviews to be conducted in traditionally noncooperative areas of the country. This interacted with the national and international trend toward less cooperative populations and more resource-dependent field designs (Groves & Couper, 1998). A series of management adjustments were made to improve the response rates in 2000. In general, the adjustments were successful, and a recovery was made from the 1999 decline. However, the rates remained below the project target rate and the historical NHSDA average.

An incentive payment to respondents was considered as an option for addressing the downward trend in respondent cooperation. Recent research has demonstrated that cash incentives paid to respondents can help increase the level of cooperation, and therefore unit response rates, in sample surveys (Church, 1993; Singer, Van Hoewyk, Gebler, Raghunathan, & McGonagle, 1999). However, it has been noted that incentive payments may have a negative impact on areas of data quality other than unit response rates (Shettle & Mooney, 1999). In particular, incentives may produce lower quality data by encouraging respondents to report socially desirable answers. Furthermore, the incentives may convert hostile persons, who may rush the survey, provide incomplete answers, or deliberately falsify responses. Finally, the use of respondent incentives carries an additional cost burden on the survey sponsor. Although it may lead to better response rates, it is possible that the additional costs may exceed the constraints of the project budget.

In an effort to understand the risks and benefits associated with a respondent incentive, the NHSDA's sponsor, the Substance Abuse and Mental Health Services Administration (SAMHSA), requested that the NHSDA's contractor, Research Triangle Institute (RTI), conduct a special methodological field test in the form of an incentive experiment. The experiment was overlaid on the NHSDA main study data collection sample and scheduled during the first two quarters of 2001. This report describes the incentive experiment and summarizes the results of the NHSDA incentive experiment for both quarters of the experiment. The schedule for the incentive experiment and the analysis reports is presented in Table 1.

## **1.2 Organization of the Report**

The organization of this report is as follows. Chapter 2 describes the experimental design, Chapter 3 presents the analysis and results, and Chapter 4 concludes the report.

This document also contains six appendices:

- Appendix A - Revised Introduction to CAI and Study Description
- Appendix B - Revised Lead Letter
- Appendix C - Field Interviewer Debriefing Questions
- Appendix D - Revised Q & A Brochure
- Appendix E - Additional Verification Questions
- Appendix F - 1999 NHSDA Usable Case Analysis

**Table 1. Schedule of Major Incentive Experiment Activities**

Activity	Completion Date
Design Experiment and Sample	August 2000
Secure Office of Management and Budget (OMB) Clearance	October 2000
Prepare Training and Field Materials	November 2000
Conduct Master Training for Trainers, Regional Directors, and Regional Supervisors	December 2000
Conduct Field Supervisor / Field Interviewer / Traveling Field Interviewer Training	January 2001 (following Veteran FI training)
Conduct Replacement Field Interviewer Training	January 2001 (following NTP training)
Conduct Replacement Field Interviewer Training	February 2001 (following NTP training)
Conduct Replacement Field Interviewer Training	March 2001 (following NTP training)
Conduct Replacement Field Interviewer Training	May 2001 (following NTP training)
Prepare Quarter 1 Analysis Report	May 2001
Prepare Combined Quarter 1 and Quarter 2 Analysis Report	August and September 2001

NTP = New-to-Project



## 2. Experimental Design

### 2.1 Summary of the Design

The design for the incentive experiment was developed through the combined efforts of RTI and SAMHSA staff in order to provide the best evaluation of the effectiveness of different incentive amounts. The final design is based on a synthesis of the current state of knowledge in the literature, the opinions of external expert consultants, and the practical constraints of attaching experimental research to existing data collection efforts.

The experiment was designed to yield sufficient data to evaluate the effect of two monetary incentives (\$20, \$40) relative to a control (\$0) on measures of response rates, data quality, and data collection expense. The first quarter report compares the differences in these measures between the control and each of the treatments (Eyerman et al., 2001a). This combined report for both quarters provides the same analysis for the first and second quarters. It also combines the data collected in the first and second quarters to provide comparisons between each treatment level and the control, as well as comparisons between the treatment levels. The results of this report will be used to evaluate the effectiveness of incentives and to determine the appropriate dollar amount for future incentives.

### 2.2 Sample Design

The sample was designed to achieve three primary goals. First, to contain costs and achieve results that could be generalized to the full project, it was overlaid with the main study and selected from the NHSDA current sample for data collection in Quarters 1 and 2 in 2001. Second, to evaluate the effectiveness of the incentives, it was of sufficient size and design to yield reasonable estimates of change (i.e., with  $\geq 80$  percent power) in the measures of response rate, data quality, and data collection expense. Finally, to evaluate the relative impact of different treatment levels, the sample was designed to provide valid comparisons of the effect of each of the treatments (\$20, \$40) with the control group (\$0) and between each of the treatments (\$20, \$40). This last design feature was achieved by limiting the standard error of the difference in response rates to 5 percent of the base value.

#### Main Study Sample Design

The respondent universe for the incentive experiment is the same as the one used for the 2001 NHSDA study: namely, the civilian, noninstitutionalized population aged 12 years old or older within the 50 States and the District of Columbia (DC). Consistent with the NHSDA designs since 1991, the incentive experiment universe includes residents of noninstitutional group quarters (e.g., shelters, rooming houses, dormitories), residents of Alaska and Hawaii, and civilians residing on military bases. Persons excluded from the universe include those with no fixed household address (e.g., homeless transients *not* in shelters) and residents of institutional group quarters, such as jails and hospitals.

Within each State, field interviewer (FI) regions were formed. Based on a composited size measure, States were geographically partitioned into roughly equal size regions. In other words, regions were formed such that each area would yield, in expectation, roughly the same number of interviews during each data collection period, thus distributing the workload equally among NHSDA interviewers. The smaller States were partitioned into 12 FI regions, whereas the eight "large" States<sup>1</sup> were divided into 48 regions. Therefore, the partitioning of the United States resulted in the formation of a total of 900 FI regions.

Within each FI region, eight independent segments were selected, and two of these segments were randomly assigned to each of the four data collection quarters of the survey year. Thus, 7,200 segments were selected in the 900 FI regions with 1,800 assigned to each quarter.

### **Incentive Experiment Sample Design**

Rather than draw a separate sample for the incentive experiment with the additional costs and possible risks to the validity of the experiment that this would entail (e.g., the need to hire new, and possibly inexperienced, interviewers or to potentially overburden the field staff with an increased workload, the costs associated with drawing the sample), we conducted the experiment in a sample of 251 regular FI regions for the full duration of Quarters 1 and 2 of 2001. Therefore, the incentive experiment included 1,004 segments, 502 in each quarter.

The experimental design randomly assigned each selected FI region to a monetary treatment (either \$20 or \$40) in Quarter 1. The other monetary treatment was assigned in Quarter 2. Within each FI region and quarter, one segment was randomly assigned to the monetary treatment; the other segment in the pair received the control—the standard approach to gaining cooperation without any monetary incentives. We feel it was necessary to randomize at the FI region level in order to control for interviewer effects. Because both monetary treatments were assigned to each FI region, comparisons between the \$20 and \$40 incentives as well as individual comparisons with the control groups can be made.

To control for some factors known to be associated with screening and interview response, we drew a stratified sample of the Nation. The strata were defined by the regional prevalence rates of marijuana use in the past month. Using the lower limit of the 90 percent confidence interval (CI), the strata were defined as follows: no marijuana use, CI lower limit less than or equal to zero, CI lower limit greater than zero but less than or equal to .10, CI lower limit greater than .10, and Alaska and Hawaii. We also examined the overall response rate experience for Quarters 3 and 4 of 1999 and Quarter 1 of 2000 (the most current data available). By crossing the marijuana use strata with response rate strata defined as good (overall response rate  $\geq 75$  percent), average (overall response rate between 57 and 75 percent), and poor ( $< 57$  percent), 15 strata for the incentive experiment sample were defined. Tables 2 and 3 show the distribution of all NHSDA main study FI regions and the population, respectively, to these strata.

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<sup>1</sup>California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas.

For sample size computations, we used the response rate strata defined for the incentive experiment only. We determined that it would be inefficient to try to obtain the same difference in each of these strata (i.e., whereas an increase of 10 percent in the poor performing stratum would be welcomed, it is less critical to increase the response rate in the good performing stratum by that amount); therefore, we first determined the sample sizes by limiting the standard error of the difference to 5 percent of the base value. Using this criterion, we required effective sample sizes of 833, 412, and 188 in the poor, average, and good response rate strata, respectively, in each of the monetary treatment groups.

Next, we generated a set of power calculations using the fixed sample sizes of 833, 412, and 188. Using a one-tailed test and assuming an alpha of 0.05, the power was computed by first computing the critical point,  $c$ :

$$c = Z_{\alpha} \sqrt{\frac{2p(1-p)}{n}}$$

where  $p$  is the response rate under the null hypothesis. Then the power was defined as

$$power = 1 - NORM(c, \Delta, \sigma_a^2)$$

where  $NORM$  is the probability associated with the critical point  $c$  under the normal distribution with mean  $\Delta$  and variance  $\sigma_a^2$ .

As shown in Table 4, the recommended sample size provided power ( $\geq 80$  percent) to detect increases of 0.07, 0.09, and 0.10 for each of the monetary treatment groups in the poor, average, and good response rate strata, respectively. Realistically, we did not expect to show as large an increase in the average and good response strata, but we did want to obtain estimates of the increase in response rates. As noted by our criterion for determining sample size, we required that the standard error of estimated increase in response rate be less than 5 percent of the base value. Projected standard errors and CIs of the difference in response rates by strata and for the Nation are shown in Table 5.

A variance component analysis was also conducted in which we estimated a design effect of approximately 1.75 for the effect of clustering the FI regions by marijuana use and response rate. Therefore, by inflating the effective sample sizes by this factor, the required sample sizes become 1,458 in the poor response rate stratum, 721 in the average stratum, and 329 in the good stratum, or a total of 2,508 persons for each of the monetary incentive groups. Assuming an average of 10 completed interviews per FI region, we took a stratified sample of 251 FI regions in which both of the monetary incentives were administered. The FI region sample was allocated proportionally to the marijuana use strata within each of the defined response rate strata. In addition, implicit stratification by socioeconomic status (SES) was achieved by sorting within strata before sample selection. The SES measure used in the sorting was percentage minority, defined as the percentage of Hispanics plus the percentage of non-Hispanic blacks in the FI region. Sorting by this measure prior to sample selection ensured a sufficient number of high SES

segments in each monetary incentive group. The 200 FI regions sampled for another experiment (i.e., the validity study) were not included in this experiment.

Table 6 presents the expected response rates in each of the response rate strata for the \$0 control, \$20 incentive, and \$40 incentive groups. Assuming that we would achieve variable effects at both the stratum and incentive group level, various assumptions were made. Specifically, we assumed a decrease in nonresponse of 40 percent in the \$20 incentive group and a decrease of 50 percent in the \$40 incentive group for the poor response rate stratum, 30 and 40 percent in the average response rate stratum, and 25 and 35 percent in the good response rate stratum. Under these assumptions, the overall expected response rate was determined to be 66.8 percent, with an average rate of 75.6 percent in the segments receiving incentives.

### **2.3 Protocol Preparation and Training**

Although the sample design and the data collection efforts were overlaid on the NHSDA main study, some additional preparation and training were required for the experiment. A detailed protocol for the experiment was developed cooperatively by SAMHSA program staff and RTI personnel. The protocol was implemented at training and maintained throughout the study. The subset of FIs selected to work on the experiment received 5 hours of additional training to instruct them on the data collection protocols for the incentive cases. The interviewers received special training on the proper techniques for reporting cost data associated with the treatment and control cases. This was necessary to ensure the integrity of the experimental design and to accurately measure the impact of the treatments on the data collection expense. Supervisors were also trained on how to make interviewer assignments in the incentive experiment segment.

#### **Preparation**

RTI staff developed an alpha-prefix and color-coded system to help FIs identify the multiple types of cases associated with the incentive experiment. This system distinguished incentive experiment lines from main study lines and between incentive experiment levels.

To implement this alpha-prefix and color-coded system, changes were made to the printed materials, the Newton screening program, and the computer-assisted interviewing (CAI) manager and CAI instrument. The lead letter, study description, selected dwelling unit list, introduction and informed consent materials, and question-and-answer brochure were altered. These documents were color coded white, yellow, and green, and they included special text regarding \$20 and \$40 payments as appropriate. An interview payment receipt was created to document incentive payments and was also color coded consistent with the other materials.

The Newton was modified to make incentive experiment lines easily identifiable. For incentive experiment lines, a prefix of either (\$0), (\$20) or (\$40) was added in front of the address. Incentive experiment interview questionnaire identification numbers (QuestIDs) were altered to include an alpha prefix signifying that the interview was part of the incentive experiment. QuestIDs for \$0 incentive cases began with a W, QuestIDs for \$20 incentive cases

began with a Y, and QuestIDs for \$40 incentive cases began with a G. QuestIDs were assigned by the Newton and then entered into the CAI manager by the FI to begin an interview. The alpha prefix W, Y, or G in front of a QuestID triggered the presentation of the correct version of the CAI interview.

The CAI manager and CAI interview were also altered slightly (see Appendix A). A new column was added to the CAI manager to display the alpha prefix of the QuestID. The interview type "Incentive" was added to indicate the incentive version of the questionnaire. However, the computer-assisted personal interviewing (CAPI) and audio computer-assisted self-interviewing (ACASI) portions of the questionnaire did not change. The only changes between the main study questionnaire and the incentive experiment questionnaire were the addition of the instructions to the FI to pay the respondent the cash incentive and 17 additional FI observation questions concerning the incentive payment.

New administrative procedures were implemented for the incentive experiment. Three new project task account numbers were added to track the costs attributed to each level (\$0, \$20, and \$40) separately. The FIs were instructed to maintain separate records of time and expenses for each type of incentive case and to charge their hours and expenses to the appropriate task numbers. If FIs performed duties involving more than one type of incentive level during the same day, they were instructed to split equally the hours and expenses among the different incentive-level project task numbers. Costs for the regular main study data collection activities were captured under the original project task number.

## **Training**

An incentive experiment FI manual, set of home study questions, training guide, and training workbook were developed in November 2000. In December 2000, about 30 trainers were taught how to train interviewers on the incentive experiment. At the January 2001 veteran training sessions conducted in eight locations across the country, the trainers from the December session taught all field supervisors (FSs) and 400 FIs the steps involved in administering the incentive experiment. All traveling FIs (24) were also trained on the incentive experiment. The training lasted approximately 5 hours and covered the differences between the main study and the incentive experiment. Trainers taught the changes made in the printed materials, the Newton, the CAI interview, and new administrative tasks. Trainers focused on organizing printed materials, using the correct QuestID, and accurately capturing hours and expenses incurred in the field.

## **Case Management**

FSs were instructed to manage incentive experiment cases in a very similar manner as main study cases. To limit interviewer bias, FSs were expected to follow the guidelines below when assigning cases to FIs.

- Choose FIs based on geographic proximity, experience in that type of segment, and dependability.

- Incentive assignments should be divided so that an FI works both the \$0 and \$20 segments or the \$0 segment and a \$40 segment in a given FI region.
- Assign the fewest FIs possible to each incentive region (preferably one FI per incentive experiment region).
- If multiple FIs must work the same incentive experiment region, each FI should be assigned approximately equal numbers of the \$0 sample lines and the \$20 / \$40 sample lines in the FI region.
- Avoid assigning extra FIs to incentive experiment regions at the end of the quarter for refusal conversion attempts.

### **Payment Process for \$20 and \$40 Segments**

The selected dwelling units located in the \$20 and \$40 segments were initially informed of the possible incentive payment in the lead letter sent to the household by the FI (see Appendix B). FIs were given cash advances from Headway Corporate Staffing to cover incentive costs before going into the field. During the screening process, screened respondents were informed of the incentive payment when they read the study description given to them by the FI. Interview respondents were informed of the incentive payment when the FI read the CAI introduction and informed consent to the respondent. At the end of the interview, the FI was instructed by the computer to show the respondent the interview payment receipt and pay the respondent the appropriate incentive in cash.<sup>2</sup> The FI marked the appropriate box on the interview payment receipt (either accepted or declined cash payment), entered the case ID, then signed and dated the form. The original was given to the respondent, and the copy was mailed to the FS by the FI. The FIs were asked a series of debriefing questions about the payment process as part of the case-closing process for each interview (see Appendix C).

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<sup>2</sup>We considered pre-paying the respondents but found that approach cost-prohibitive because we screen nearly three times as many dwelling units as we interview. In addition, the person completing the screener might not be the person selected for the interview.

**Table 2. Field Interviewer Regions, by Marijuana Use, and Incentive Experiment Response Rate Strata for Main Study**

Marijuana Use Strata	Historical Response Rate Strata							
	Good		Average		Poor		Total	
	Freq. (n)	%	Freq. (n)	%	Freq. (n)	%	Freq. (n)	%
<b>No Mj Use</b>	54	6.00	86	9.56	54	6.00	194	21.56
<b>Mj CI &lt;=0</b>	45	5.00	112	12.44	51	5.67	208	23.11
<b>Mj CI &gt;0,&lt;=.10</b>	98	10.89	212	23.56	86	9.56	396	44.00
<b>Mj CI &gt;.10</b>	20	2.22	37	4.11	21	2.33	78	8.67
<b>AK/HI</b>	8	0.89	12	1.33	4	0.44	24	2.67
<b>Total</b>	225	25.00	459	51.00	216	24.00	900	100.00

Mj = marijuana.  
 CI = confidence interval lower limit.  
 AK/HI = Alaska/Hawaii.

**Table 3. Population Proportions, by Marijuana Use, and Incentive Experiment Response Rate Strata for Main Study**

	Frequency, by Strata			
	Good	Average	Poor	Total
<b>No Mj Use</b>	0.0626	0.0948	0.0530	0.2103
<b>Mj CI &lt;=0</b>	0.0570	0.1494	0.0614	0.2678
<b>Mj CI &gt;0,&lt;=.10</b>	0.1032	0.2388	0.0911	0.4331
<b>Mj CI &gt;.10</b>	0.0209	0.0406	0.0208	0.0822
<b>AK/HI</b>	0.0017	0.0040	0.0009	0.0066
<b>Total</b>	0.2452	0.5276	0.2272	1.0000

Mj = marijuana.  
 CI = confidence interval lower limit.  
 AK/HI = Alaska/Hawaii.

**Table 4. Power Analysis for Incentive Experiment**

	Poor Response Rate Stratum					
Initial Overall RR	0.49	0.49	0.49	0.49	0.49	0.49
Sample Size	833	833	833	833	833	833
Expected Increase	0.05	0.06	0.07	0.08	0.09	0.1
Variance – null	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
SE – null	0.024494897	0.024495	0.024495	0.024495	0.024495	0.024495
Variance – alt	0.000598199	0.000597	0.000596	0.000594	0.000592	0.00059
SE– alt	0.024458113	0.024436	0.024409	0.024377	0.02434	0.024298
Power =	0.654310551	0.790045	0.888227	0.948341	0.979439	0.993002
	Average Response Rate Stratum					
Initial Overall RR	0.66	0.66	0.66	0.66	0.66	0.66
Sample Size	412	412	412	412	412	412
Expected Increase	0.05	0.06	0.07	0.08	0.09	0.1
Variance – null	0.00108932	0.001089	0.001089	0.001089	0.001089	0.001089
SE – null	0.033004854	0.033005	0.033005	0.033005	0.033005	0.033005
Variance – alt	0.001044417	0.001034	0.001023	0.001012	0.001	0.000987
SE – alt	0.032317448	0.032156	0.031985	0.031806	0.031619	0.031423
Power =	0.447220087	0.570494	0.688365	0.790566	0.870645	0.92713
	Good Response Rate Stratum					
Initial Overall RR	0.81	0.81	0.81	0.81	0.81	0.81
Sample Size	188	188	188	188	188	188
Expected Increase	0.05	0.06	0.07	0.08	0.09	0.1
Variance – null	0.001637234	0.001637	0.001637	0.001637	0.001637	0.001637
SE – null	0.040462749	0.040463	0.040463	0.040463	0.040463	0.040463
Variance – alt	0.001459043	0.00142	0.00138	0.001339	0.001297	0.001254
SE – alt	0.038197416	0.037686	0.037153	0.036597	0.036019	0.035415
Power =	0.332357243	0.430954	0.536936	0.643328	0.742446	0.827506

RR = response rate; SE = standard error.  
alpha = 0.05.  
Z(1-alpha) = 1.644853.



**Table 5. Projected Standard Errors and Confidence Interval Half-Widths**

Stratum	SE of the Difference (Null)	95% CI Half-Width
Poor	0.024495	0.048009
Average	0.033005	0.064688
Good	0.040463	0.079305
Total	0.020800	0.040766

SE = standard error; CI = confidence interval.

**Table 6. Expected Overall Response Rates for Control and Incentive Groups**

Stratum	Number of FI Regions	Expected Response Rates						
		Control	\$20 Incentive	Increase (\$0 – \$20)	\$40 Incentive	Increase (\$0 – \$40)	Incentives Only	Controls + Incentives
Poor	146	0.49	0.69	0.20	0.75	0.26	N/A	N/A
Average	72	0.66	0.76	0.10	0.80	0.14	N/A	N/A
Good	33	0.80	0.86	0.05	0.88	0.07	N/A	N/A
Total	251	0.58	0.74	0.15	0.78	0.20	0.7560	0.6684

FI = field interviewer.

N/A = not applicable.

### 3. Analysis and Results

#### 3.1 Analysis

The experiment was designed to provide a comparative analysis between the treatment levels and the control group and between each of the treatment groups. Comparisons are made on measures of respondent cooperation, data quality, population estimates, and data collection costs. These concepts were chosen to best assess the impact of the incentive amounts on the critical issues of nonresponse error and survey costs. The analysis can help determine if incentives should be used in future studies. It can also determine the appropriate amount for future incentives.

Nonresponse error results from the failure to collect complete information about the sampled units, population elements, or data items in the survey (Lessler & Kalsbeek, 1992). Nonresponse error can introduce inefficiency into the population estimates by reducing the number of completed interviews. It can introduce bias by excluding population elements with non-ignorable differences from those surveyed.

The survey costs of data collection limit the range of possible solutions to the threats of nonresponse error. Surveys are generally designed to minimize the threat of error within the constraints of the project budget. This is an important consideration for an incentive experiment because of the additional cost associated with each payment. It is possible that the reductions in error will never be realized because the project budget cannot absorb the additional cost of an incentive. However, research has demonstrated that incentive payments improve the cooperation of the respondents and reduce the effort required to collect each completed interview, and that the reduced effort translates into a lower cost per completed interview (Mosher, Pratt, & Duffer, 1994). In some cases, the reduction in data collection costs is greater than the cost of the incentive payment.

As shown in subsequent sections of this chapter, Tables 7 to 21 assess the effectiveness of the experiment on measures of unit nonresponse, respondent cooperation, data quality, population estimates, and data collection costs. In most cases, standard errors and significant differences between the treatments and the control and between the two treatments are reported. The analysis includes the following features:

- comparison of overall response rates across the three groups (no incentive, \$20, \$40) in Tables 7 to 10;
- comparison of refusal and noncontact rates across the three groups in Table 11;
- comparison of the reasons given for refusing by sample members in the three groups in Table 12;
- comparisons of FI observations between the two treatment levels in Table 14;

- comparison of the data quality measures (breakoffs, extremely short interviews, cases that fail the "usable case" rule) for the three groups in Table 15;
- comparison of substance use prevalence rates and basic demographic characteristics for the three groups in Tables 16 to 19; and
- comparison of the costs associated with completing interviews for the three groups in Tables 20 and 21.

### 3.2 Nonresponse

The primary goal of the incentive experiment was to assess the impact of payments on the unit response rates. It was expected that the impact of the treatment would vary by the amount of the treatment, historical response rates in the region, population density of the region, and age of the selected person. Table 7 contains the screening, interview, and overall response rates for each of the treatment levels, historical response rate strata, and population density categories.<sup>3</sup> Table 9 contains the interview response rates for each of the treatment levels, historical response rate strata, and age group of the selected person.

The NHSDA data collection has a screening stage and an interview stage. This analysis focuses on the interview response rates. We expected that the incentive payment would have the greatest impact on the interview response rate because the payment was administered after the survey was completed. No payment was offered to the member of the household contacted for the screening. The incentive may have indirectly encouraged screening participation, but the impact on interview response was more direct. The incentive payment was described in a lead letter, which may have improved screening cooperation once contact was made with the dwelling unit.

#### Interview Response Rates

The response rates in Table 7 are categorized by treatment level (\$0, \$20, \$40), historical response rate of the segment (poor, average, good), and population density. The table includes the results of difference tests between each payment amount and the control and between the two treatments. This information can be used to answer two key questions about incentive payments:

- *Do the incentive payments provide better response rates than the control?*
- *Does the \$40 payment provide better response rates than the \$20 payment?*

These questions can be answered by using the results in the "Combined Poor, Average, and Good Response" section on the second page of Table 7. The table shows that both payment

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<sup>3</sup>The rates in Table 7 were computed by matching the questionnaire data to screener data and applying the usable case rule. Thus, the completed interviews will not match the totals in Table 11, which were defined using questionnaire data only.

amounts yielded significantly higher interviewer response rates than the control (78.8 and 83.3 percent vs. 69.2 percent). In addition, the \$40 payment yielded significantly higher interview response rates than the \$20 payment. This suggests that the \$40 payment is the best option if the goal is to improve interview response rates.

### Differential Incentive Amounts

Tables 7 and 9 can be used to assess the potential for differential payments allocated based on the characteristics of the region or the selected person. These tables combine the historical performance of a segment with two known correlates of response rates—population density and respondent age. Significant differences in response rates yielded by treatment amounts can be examined across the cells in the tables to determine which areas and persons are most responsive to a \$20 or a \$40 treatment.

The historical performance of a segment reflects the opportunity for change in that segment. A historically poor segment has the greatest opportunity for improvement, and the historically good segments have the least opportunity for improvement. The historical response rate strata were defined in Tables 2 and 3 using the overall response rate for the segment for the last half of 1999 and the first quarter of 2000. Good segments had an average overall response rate greater than or equal to 75 percent, average segments fell between 57 and 75 percent, and poor was less than 57 percent.

Population density and age of the selected person have been demonstrated to be significant predictors of response rates on the NHSDA and can be used to measure the expected level of cooperation. Previous research has shown a negative relationship between population density and response rates and a negative relationship between age and response rates (Eyerman, Odom, Butler, Wu, & Caspar, 2001b).

Table 10 summarizes the results from Tables 7 and 9. It identifies the sufficient incentive (i.e., the minimum amount required to demonstrate the greatest significant difference in the interview response rates). The sufficiency decision combines the significant difference test between each payment amount and the control and between the two payment amounts. The combination decision is summarized below; all inequalities represent significant differences, and equalities represent not significant differences.

$$\$40_{IRR} > \$20_{IRR} > \$0_{IRR} \rightarrow \$40 \text{ sufficient}$$

$$\$40_{IRR} > \$20_{IRR} \leq \$0_{IRR} \rightarrow \$40 \text{ sufficient}$$

$$\$40_{IRR} \leq \$20_{IRR} > \$0_{IRR} \rightarrow \$20 \text{ sufficient}$$

$$\$40_{IRR} \leq \$20_{IRR} \leq \$0_{IRR} \rightarrow \$ \text{ not sufficient (NS)}$$

By this definition, the \$40 payment is sufficient for a segment if it produces significantly better rates than the \$20 payment and the control, or if it is significantly better than the control and the \$20 payment is not. The \$20 payment is sufficient for a segment if it produces significantly better response rates than the control, but not significantly worse than the \$40 payment. Both amounts are insufficient if neither the \$20 nor the \$40 payment is significantly better than the control.

It should be noted that Table 10 is based only on significant differences at the  $p < .05$  level. The relationships in Table 10 are sensitive to changes in the significance threshold and may exclude substantively important differences. For example, the \$40 treatment yields higher interview response rates than both the control and the \$20 treatment in all but two cells in Table 7 (average and good strata with 1,000,000+). The standard errors and probabilities are given in Table 7SE.

The final row of Table 10 represents the sufficient incentive amounts if the differential allocation is based only on the historical performance of a segment. The \$20 payment is sufficient in the segments with an historically average response rate. The \$40 payment is sufficient in the segments with historically poor and historically good response rates.

The top half of the last column of the table represents the sufficient incentive amount if the differential allocation is based only on the population density of the segment, or age of the respondent. The \$20 payment is sufficient in the segments with moderate population density (50K to 999,999). The \$40 payment is sufficient in the segments with low and high population density (non-metropolitan statistical area [MSA] and 1,000,000+). The \$20 payment is sufficient for persons in the 18- to 25-year-old and 26 or older age groups. The \$40 payment is sufficient for persons in the 12- to 17-year-old age group.

The top half of Table 10 represents the sufficient incentive amounts if the differential allocation is based on the combination of historical response rates and population density. This demonstrates the combined effect of the response rate strata (opportunity for change) and population density (expected level of cooperation). The least difficult area to demonstrate significant change should be in the bottom left corner—poor historical response rate and low population density. The most difficult area should be in the top right—good historical response rate and high population density.

This expectation is supported by the results in Table 10. The \$20 payment is sufficient in the cells in the lower left section of the table, while the \$40 is sufficient in the cells up and to the right. Neither payment amount was sufficient in the most difficult cells. This suggests that a differential incentive payment could be designed to yield significant changes based on the combination of historical response rate strata and population density. However, it should provide a payment greater than \$40 for large cities in the historically average and good strata.

The bottom half of Table 10 represents the sufficient incentive amounts if the differential allocation is based on the combination of historical response rates and the age of the selected person. This demonstrates the combined effect of the response rate strata (opportunity for change) and age (expected level of cooperation). The least difficult area to demonstrate significant change should be in the top left corner—poor historical response rate and

youngest selected persons. The most difficult area should be the bottom right corner—high historical response rate and oldest selected persons.

This expectation is partially supported by the results in Table 10. The \$20 payment is sufficient in the cells in the upper left section of the table, while the \$40 is sufficient in the cells below. However, the relationship is not constant; the \$20 payment is sufficient in the historically good strata among older persons. Finally, the most difficult cell produced no significant differences. The relationship between the treatment and the interaction of age and historical response rate was less clear and less promising than using population density data as a means to guide the differential incentive allocation.

### **Screening Rates**

We did not expect to see much of an impact on screening rates because the incentive payment was only made to persons who completed the interview. However, we did expect a slight positive indirect effect as a result of the potential incentive if the screened person was selected for the interview because the incentive was introduced in the lead letter. The screening response rates are presented in Table 7. There were only two significant differences in screening rates across strata. The \$40 treatment for the historically average response rate strata was significantly less than the \$20 strata, but not different from the control. However, the \$40 treatment produced a screening rate that was significantly higher than the control in the historically good response rate strata with moderate population density scores.

### **Main Study**

The main study response rates were higher than the control group due to staffing constraints placed on the control and treatment groups. The experimental design limited the ability of field staff to transfer cases among interviewers, a common practice used to convert refusals. This constraint did not exist for the main study. It should be noted that the main study results are not directly comparable with the control or treatment groups due to the staffing constraints.

The staffing constraint was imposed on the control and treatment groups in order to minimize bias that may be introduced by FI characteristics. It has been established that FI characteristics are correlated with respondent cooperation, data quality, and population estimates on the NHSDA (Eyerma et al., 2001b; Hughes, Chromy, Giacoletti, & Odom, 2001b). The experimental design required that the same interviewers work the control and each of the treatments in order to keep the impact of interviewer characteristics constant in each group. In practice, the same FI did not work all cases in a segment due to practical problems in the field. However, an effort was made to minimize the situation whenever possible.

The staffing constraints should have had the greatest impact on refusal conversion. It has been common practice in the main study for an interviewer to transfer a refusal to a supervisor or a specialist in refusal conversion. This practice was limited in the control and treatment segments due to the experimental design. For this reason, the main study refusal rates should be lower and the response rates should be higher than the control group. As expected, the refusal rates for the main study were lower and the response rates were higher than the control group. The impact on refusals is discussed in detail in Section 3.3.

The staffing constraints are artifacts of the experimental design that artificially lower the response rates for the control and the treatments. This will not occur if an incentive is applied to the entire study in future years because the staffing constraints will not be necessary without an experimental design.

The difference between the control and the main study response rates may also be attributed to workload management techniques employed by the FIs (Creighton, King, & Martin, 2001). It is possible that interviewers who were assigned to the incentive group focused more of their efforts on the dwelling units that were scheduled to receive a payment than on the dwelling units in the control in order to maximize response rates. However, the cost data reported in Section 3.7 show that the control group had a higher cost per completed interview than the main study. This suggests that interviewers exerted more effort to complete the cases in the control segment than in the main study.

It is also possible that interviewers expected less cooperation from the control group, and that this expectation was indirectly communicated to the persons selected for the survey, which may have led to a less successful interaction (Singer, Van Hoewyk, & Maher, 2000). This question requires additional research beyond the scope of the current report. However, it suggests caution in any future application of a differential incentive payment amount for the NHSDA.

### **3.3 Refusals and Noncontacts**

One source of bias in population estimates from sample surveys is the difference between the respondents and the nonrespondents. Bias will be introduced into the NHSDA population estimates if the difference between the respondents and nonrespondents is correlated with self-reported substance use. Nonrespondents can be grouped into two categories—refusals and noncontacts.

There is a known difference between people who refuse and people who respond on at least one dimension—willingness to complete the NHSDA. People who refuse probably place a different salience on the topic of the survey or on the survey process itself than those who participate. Bias will be introduced if this difference is correlated with self-reported substance use. Because they have a known and measured difference from those who complete the survey, persons who refuse to be interviewed represent a greater threat of bias than other sources of nonresponse.

There is an indeterminate difference between people who are selected but never contacted and those who complete the survey. The noncontacts are likely to have different characteristics from those who are more readily available. However, we do not have evidence to demonstrate that they are different. Noncontacts may include people who are too busy to complete the survey or who work unusual hours. They may also include people who do not want to complete the survey but prefer to avoid the confrontation of a refusal (passive refusals). Noncontacts may also include people who are the same on all relevant measures as people who completed the survey.

Table 11 contains refusal and noncontact rates for the screening and interview, with data presented by treatment level, historical response rate strata, and population density. For refusals, FIs were asked to record the reason provided by the respondent. The three most frequently used reasons for refusal are listed in Table 12 by treatment level, historical response rate strata, and population density.<sup>4</sup>

## Refusals

The incentive payment reduced the threat of refusals as a component of nonresponse bias. The relationship is demonstrated with the combined results on the second page of Table 11. Overall, both the \$20 and the \$40 payments yielded interview refusal rates that were significantly lower than the control (12.8 and 9.4 percent vs. 19.6 percent).<sup>5</sup> However, the \$40 incentive did not show significant improvement over the \$20 payment. This suggests that a \$20 incentive is adequate if the primary goal of the incentive application is to reduce interview refusal rates in the main study.

Table 11 can be used to assess the potential for differential payments allocated based on the characteristics of the region by examining the refusal rates by historical response rate strata and population density. As with response rates, the significant differences can be summarized using the sufficient payment concept introduced in Section 3.2.

Table 13 summarizes the results presented in Table 11. It identifies the sufficient incentive (i.e., the minimum amount required to demonstrate the greatest significant difference in the interview refusal rates). The sufficiency decision combines the significant difference test between each payment amount and the control and between the two payment amounts.

As shown in Table 13, the \$20 payment is sufficient for the historically average and historically good areas, while the \$40 is sufficient for the historically poor, when considering only the historical response rate strata. When considering population density, the \$20 treatment is sufficient for the segments drawn from highly dense areas and the moderately dense, but the

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<sup>4</sup>As in Table 7, completed cases were defined by first merging questionnaire data to screener data and then applying the usable case rule for Table 11. Because Table 12 uses screener data only and because only the three most frequently used reasons for refusal are listed, the number of refusals in Table 12 will not match those in Table 11.

<sup>5</sup>As with response rates, we did not expect to see much relationship between the incentive amount and the screening refusal rates.



\$40 treatment is sufficient for the low population density areas. When considering both historical response rate strata and population density, we see that the denser areas generally required a greater payment to reduce refusal rates than the moderately dense areas. The non-MSA areas were less responsive, showing a significant reduction in refusal rates for only the average strata at the \$40 level.

## **Noncontacts**

The incentive payment had less of an impact on the noncontact rate, as seen on the second page of Table 11. Overall, only the \$40 payment yielded interview noncontact rates that were significantly lower than the control (2.0 and 4.5 percent vs. 6.8 percent).<sup>6</sup> This suggests that a \$40 incentive is required if the primary goal of the incentive application is to reduce interview noncontact rates in the main study.

The noncontact category is comprised of two types of nonrespondents: no contact made with the dwelling unit, and contact made with dwelling unit but no contact made with the sampled person. We did not expect to see a relationship between the first type of noncontact and the treatment amount due to the design of the incentive experiment. The incentive payment was made only to persons who completed the interview. In many cases, this was not the person who received the lead letter with an initial offer of payment or the person who completed the screening. So there was not a direct relationship between the payment and the initial contact with the dwelling unit. We did anticipate a small impact of the payment on the second type of noncontacts. We expected that the person who received the lead letter or the person who was screened would communicate the potential incentive payment to the selected person.

### **3.4 Summary of Field Interviewer Experiences**

The main study data collection design for the NHSDA requires that the interviewer complete a series of debriefing questions about each interview event before the case can be finalized as a completed interview. A series of questions was added to the debriefing section for the \$20 and \$40 interviews to gather additional information on the effect of the incentive payment on the interaction between the respondent and the interviewer (see Appendix C). The results of these questions are summarized in Table 14.

As expected, the FIs reported that the incentive payments were helpful in gaining the cooperation of the respondents. Interviewers stated that the incentive helped a little or a lot in the majority of the completed interviews for both the \$20 and the \$40 treatments (89.7 percent). Perhaps more importantly, interviewers stated that in 28.3 percent of their completed interviews, they probably or definitely would not have completed the interview without the payment. They also noted that about a quarter of the respondents demonstrated reluctance to participate before a payment was mentioned (28.4 percent). Finally, the interviewers felt that the payment allowed

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<sup>6</sup>As with response rates, we did not expect to see much of a relationship between the incentive amount and the screening noncontact rates.

them to work the case more efficiently by making fewer calls and spending less time gaining cooperation for the majority of the completed cases (83.6 percent).

The interviewers also reported that the respondents were comfortable with the incentive payment. Nearly all of the respondents accepted the payment (99.8 percent), and very few felt that a payment was inappropriate (1.1 percent). Finally, most of the respondents felt that the amount of the incentive was about right for both the \$20 and the \$40 payment (84.0 and 88.3 percent).

### **3.5 Data Quality**

It is possible that persons who have a disposition against the survey process or are generally too busy to participate, but are converted to completion by the incentive payment, may provide low quality data. Three measures of data quality were considered to evaluate this possibility: breakoffs after the interview has begun, short interviews, and unusable cases.

Short interviews were measured using built-in time stamps from the CAI instrument. The average interview lasted about 1 hour; a short interview was defined as equal to or fewer than 30 minutes. Unusable cases measure the item nonresponse on a series of critical gate questions that address substance use. A case was considered usable if the respondent answered "yes" or "no" to at least 10 of the possible 14 gate questions, including the cigarette gate question. The gate questions established whether the respondent was a lifetime user or nonuser of a drug.

Table 15 contains breakoffs, short interviews, and unusable cases, by treatment level, historical response rate strata, and population density. Breakoffs are defined among all selected persons; short interviews are among all final respondents; and unusable cases are among all persons with questionnaire data. Thus, the "eligible cases" are not the same for these three data quality measures.

Overall, the data quality measures were excellent across all treatment groups. There were very few breakoffs, short interviews, and unusable cases for the \$0, \$20, and \$40 treatment groups. Although the data quality measures were good across all treatment groups, in some instances there were fewer short interviews in the \$20 and \$40 treatments than in the \$0 treatment.

For example, the short interviews for the 1,000,000+ population density group in the historically poor response rate areas were significantly higher in the \$0 (1.0 percent) treatment than in the \$40 (0.1 percent) treatment. Respondents living in urban areas may be less likely to rush through the interview if they are receiving a \$40 incentive, thus improving the quality of data collected during that interview. In the historically good response rate segments, the total number of short interviews was significantly greater in the \$0 (2.1 percent) treatment than in the \$20 and \$40 (0.0 percent) treatment groups.

When the number of breakoffs were collapsed across response rate strata and population density, there were fewer breakoffs in the \$20 ( $N=2$ ) and \$40 ( $N=2$ ) treatment groups than in the \$0 ( $N=7$ ) treatment group. However, the total number of completed interviews was greater in the

\$0 treatment group. The same case was true when the unusable cases were collapsed across response rate strata and population density. There were more unusable cases in the \$0 treatment ( $N=8$ ) as opposed to the \$20 ( $N=2$ ) and \$40 ( $N=3$ ) treatments. Again, the number of completed interviews was greater in the \$0 treatment.

The data clearly indicate that a reluctant respondent who was persuaded to complete the survey by an incentive payment did not provide lower quality data. Generally, when respondents received an incentive for completing the survey, they were less likely to complete short interviews, break off the interview, or present unusable cases. However, it is apparent that even in the \$0 treatment groups, FIs were working hard to gather quality data.

### **3.6 Population Estimates**

The final product of the NHSDA data collection effort is the generation of population prevalence estimates. Any bias introduced by the treatment, nonresponse error, or other aspects of the data collection process will appear in the population estimates. The incentive payment may reduce or increase the amount of bias in the prevalence rates. The additional completed surveys realized in the treatment groups may reduce the bias by including individuals who would not have participated without the treatment. However, the treatment may increase bias if it causes a change in response patterns that is correlated with the population estimates. The most likely source of this bias in the NHSDA would come from hostile respondents providing insincere responses or from the desire of the respondent to please the interviewer in exchange for the payment (Kulka, 1995).

The presence of bias in overall population estimates is difficult to evaluate. However, any bias associated with the incentive payment should be revealed through comparisons of prevalence rates between the control and the treatment groups. The population prevalence estimates for past month use of alcohol, cigarettes, and marijuana by treatment group, historical response rate strata, age, and race of the respondent are shown in Tables 16, 17, and 18, respectively.

In general, the prevalence rates yielded by the treatment groups were not significantly different from those yielded by the control group. This suggests that the incentive treatments did not affect the amount of bias in the prevalence estimates for the NHSDA. This is a desirable result from a design standpoint because it demonstrates that the use of incentive payments did not change the substantive outcome of the data collection.

A common practice in the NHSDA is to suppress the publication of survey estimates considered to be unreliable. Thus, prevalence estimates, their standard errors, and tests of significant differences were suppressed in Tables 16, 17, and 18. These results have been replaced by asterisks (\*). Similar to the 2000 NHSDA, the criteria used for suppression in this report were unacceptably large sampling error, small design effects, and small nominal sample sizes. Prevalence estimates were also suppressed if they were close to zero or 100 percent.

This general result holds for most of the subgroup analyses as well. The prevalence rates from the \$20 treatment group were not significantly different from the control for alcohol,

cigarettes, and marijuana for all combinations of historical response rate strata, age, and race of the respondents. In addition, the \$20 rates were not significantly different from the \$40 prevalence rates.

However, the \$40 rates were different from the control's in three comparisons on alcohol use and one on cigarettes. The \$40 treatment group had higher past month alcohol use than the control for blacks from historically poor response rate strata and for persons aged 26 or older from the historically average strata and overall for the historically average strata. The \$40 treatment group also had lower prevalence estimates for past month cigarette use for persons from the historically poor response rate strata. It should also be noted that overall the \$40 treatment yielded a significantly higher estimate of past month alcohol use than the control.

It is difficult to isolate the source of the differences in prevalence rates for these groups without an extended analysis. However, a simple evaluation of the change in response rates and refusal rates may lend some context to the results. Two of the significant differences in prevalence rates were observed in the historically poor response rate strata, which showed with the \$40 treatment an improvement in interview response rates of 16.1 points and in overall response rates of 14.6 points (see Table 7). In addition, as shown in Table 11, the interview refusal rate for the \$40 treatment in the historically poor response rate strata was nearly half that of the control (10.1 vs. 20.6 percent). It is possible that the change in the prevalence estimates between the control and treatment were a result of the additional completed surveys realized with the incentive payment. That is, the people who were not surveyed without the incentive were different from those surveyed with the incentive. If this is true, the \$40 incentive payment reduced the amount of bias in the population estimates by reducing nonresponse bias.

Additional evidence about the relationship between the incentive payments and the prevalence estimates can be found in Table 19. It combines the information from the FI observations discussed in Section 3.4 with the prevalence rates for past month use of alcohol, cigarettes, and marijuana. The FIs were asked if they thought they would have been successful without the payment in securing participation with each respondent. The responses were grouped into two categories: probably or definitely "yes," and probably or definitely "no."

The differences between the two categories were not significant in any of the comparisons. However, the probably or definitely "yes" group reported higher alcohol rates and lower cigarette and marijuana rates for both the \$20 and the \$40 payments. Although not significant, this pattern does suggest that there may be a difference between the cooperative and more difficult respondents. This pattern should be explored with more sensitive multivariate techniques to determine if the incentive payment reduces nonresponse bias.

### **3.7 Survey Costs**

Survey costs are directly related to the reduction of error in data collection because they constrain the sample size and the set of design alternatives available to the researcher (Groves, 1989). This relationship is particularly important for an incentive experiment because the additional cost associated with each payment may move the survey costs beyond the budget and require the researcher to choose between incentives and other error-reducing design components.

However, the incentive payments may lead to improved response rates, which may reduce the effort and costs required to collect the data. Table 20 evaluates the changes in the cost per completed interview by treatment level, historical response rate strata, and population density.

When comparing the cost data, it is important to understand that they are sensitive to small changes in sample characteristics. Such changes as the location of the selected dwelling unit or the residence of the interviewer can affect the labor hours spent traveling to the segment and the mileage expense. It is also important to note that the data are measured using cost per completed interview by segment. Because we do not have a total cost for each case, we cannot directly determine the standard error or the correct weights.

### **Costs Per Completed Case**

The unweighted data collection costs per completed case, including the incentive payment, were lower for both the \$20 treatment and the \$40 treatment than the control by about \$10 (\$169.66 and \$171.55 vs. \$178.55). This is due to the improved response rate and reduction in the number of visits required to complete interviews, both of which can be attributed to the incentive payment.

In general, this relationship held for all three historical response rate strata, with the incentive payments providing a lower cost per completed interview than the control in all strata, except the \$20 treatment in the historically good strata and the \$40 treatment in the historically average strata. The exception could be due to the decreased opportunity for change in the better strata. The gains in the response rates were less in the historically good and average regions because they were already closer to peak performance without the treatments. Therefore, the additional costs of the treatments were less likely to be offset by a reduction in data collection efforts.

The relationship generally held for all population densities as well, with the exception of the very dense segments (1,000,000+). The exception was probably due to the combined influences of greater travel distances in rural areas and decreased cooperation in urban areas. The less dense areas required more travel expense per case due to distance between dwelling units.<sup>7</sup> As a result, a small savings in the number of trips per completed case can result in a large savings in the cost per case. This will not occur in the denser areas.

The decreased cooperation generally associated with urban areas will also decrease the gains realized by the treatment. Denser areas showed a smaller gain in response rates than other areas, making it more difficult to offset the additional treatment costs through a reduction in data collection efforts.

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<sup>7</sup>For example, the very dense areas averaged 79 miles per completed interview, the moderately dense averaged 88, and the non-MSA averaged 101 miles per completed interview. The travel expense also includes labor hours for the time traveled and hotel and per diem costs, which should also be higher in the less dense areas.

More support for the relationship between response rates and costs can be seen by combining Tables 7 and 20. Of the 18 comparisons between the control and the treatments in Table 20, 8 showed a greater cost per completed interview for the treatment than the control.<sup>8</sup> Six of these eight comparisons also failed to show significant differences in response rates in Table 7. That is, the comparisons that did not show significant improvement in response rates also did not show improvements in costs per completed interview.

It should be noted that the cost-per-interview numbers reported in this section include only the costs of data collection by the FIs. That is, these costs reflect FI time, travel, and miscellaneous expenses incurred to complete the data collection. The actual costs for data collection include professional labor to manage the survey, time and expense to recruit and train the field staff, and interviewing materials and supplies. The incentive payment is expected to reduce the costs in these areas in several ways. First, the improved response rates should reduce the size of the initial sample dwelling units selected to yield the targeted number of interviews. This smaller sample will result in additional savings associated with fewer screenings. Second, the incentive will improve relations with respondents, which should improve interviewer morale and decrease staff attrition. This should reduce recruiting and training costs incurred after the survey has been put in the field. Finally, a smaller field staff who are satisfied with their jobs should require less professional labor to manage.

### **Differential Incentive Amounts**

The cost per completed interview data in Table 20 and the response rate data in Table 7 can be combined to describe the costs and benefits associated with different incentive allocation plans. Four plans are considered in Table 21:

- *No incentive.* The projections for this plan are taken from the weighted interview response rates provided in the MS column of Table 7 and the cost per completed interview from the MS column from Table 20.
- *All \$20.* The projections for this plan are taken from the weighted interview response rates provided in Table 7 and the cost per completed interview from Table 20.
- *All \$40.* The projections for this plan are taken from the weighted interview response rates provided in Table 7 and the cost per completed interview from Table 20.

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<sup>8</sup>The 18 comparisons are as follows: 2 treatments × 3 population density × 3 historical strata.

- *Sufficient*. The projections for this plan are taken from the weighted interview response rates provided in Table 7 and the cost per completed interview from Table 20, using the selection criteria for a sufficient response rate defined in Section 3.2 based on the historical response rate strata and population density. The sufficiency decision combines the significant difference test between each payment amount and the control and between the two payment amounts. The combination decision is summarized as follows (all inequalities represent significant differences, and equalities represent not significant differences):

$$\$40_{IRR} > \$20_{IRR} > \$0_{IRR} \rightarrow \$40 \text{ sufficient,}$$

$$\$40_{IRR} > \$20_{IRR} \leq \$0_{IRR} \rightarrow \$40 \text{ sufficient,}$$

$$\$40_{IRR} \leq \$20_{IRR} > \$0_{IRR} \rightarrow \$20 \text{ sufficient,}$$

$$\$40_{IRR} \leq \$20_{IRR} \leq \$0_{IRR} \rightarrow \$ \text{ not sufficient (NS).}$$

The unweighted cost per completed interview data reported in Table 20 does not account for the sample design used in the experiment. As discussed in Section 2.2, an oversample of the historically poor response rate segments was included in the control and treatment groups. As a result, the main study group had fewer historically poor response rate segments than the control or the treatment groups. This caused the main study costs to be lower than the control and treatment groups because data collection costs are a function of the response rates in a segment. The projected data collection costs in Table 21 account for the unequal distribution by including the sample design in the cost per complete projections. The total completed cases for Quarters 1 and 2 within each cell defined by population density and historical response rate strata were multiplied by the corresponding cost per completed interview cell in Table 20; this was summed and multiplied by 2 to provide an annual projection for 2002.

As demonstrated by Table 21, the optimal incentive amount to improve response rates and decrease costs is the \$40 payment. Although the *sufficient* plan selects the minimum payment value associated with the greatest significant change, it does not necessarily select the highest response rate or the lowest data collection costs. This is due to two reasons. First, the *sufficient* plan only considers significant differences at the  $p < .05$  level. This ignores the marginally significant cases and suppresses the total gains realized by the \$40 payment, which yields a greater response rate than the \$20 payment in all but one comparison. Second, the *sufficient* plan ignores the data collection savings that are realized by the reduction in the required data collection effort on both the significant and nonsignificant difference.

The results in Table 20 clearly favor the use of an incentive payment to reduce data collection costs for the NHSDA. The results in Table 21 are somewhat mixed. The all \$20 plan yields the lowest cost per completed survey but not the highest interview response rate. The all \$40 plan maximizes response rates, but costs an estimated \$729,440 more per year than the all \$20 plan.

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**Table 7. Comparison of Weighted Response Rates, by Treatment, Strata, and (Q1/Q2) Population Density - Unweighted Counts**

	Historically Poor Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Screening</b>												
1,000,000+	3,155	3,715	85.1	1,615	1,908	85.4	1,724	2,058	83.3	2,757	3,079	90.3
50K - 999,999	2,281	2,483	92.1	1,204	1,317	90.8	1,417	1,539	93.9	2,504	2,721	91.4
Non-MSA	800	864	93.0	476	510	94.0	322	358	90.5	793	827	95.7
Total	6,236	7,062	88.3	3,295	3,735	88.3	3,463	3,955	88.7	6,054	6,627	91.3
<b>Interview</b>												
1,000,000+	1,127	1,629	65.9	659	865	71.3	839	981	80.3 <sup>a,b</sup>	1,083	1,504	67.5
50K - 999,999	885	1,269	67.3	544	658	79.3 <sup>a</sup>	733	824	83.5 <sup>a</sup>	1,019	1,405	69.0
Non-MSA	308	438	62.8	212	259	77.3 <sup>a</sup>	209	233	84.4 <sup>a</sup>	325	413	74.8
Total	2,320	3,336	66.0	1,415	1,782	74.8 <sup>a</sup>	1,781	2,038	82.1 <sup>a,b</sup>	2,427	3,322	68.9
<b>Overall</b>												
1,000,000+			56.0			60.9			66.9			60.9
50K - 999,999			62.0			72.0			78.4			63.0
Non-MSA			58.4			72.6			76.4			71.6
Total			58.2			66.1			72.8			62.9
	Historically Average Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Screening</b>												
1,000,000+	737	817	89.9	363	398	92.2	373	415	88.8	12,129	13,194	91.9
50K - 999,999	1,087	1,192	91.5	554	604	92.0	558	607	91.3	12,072	13,025	92.8
Non-MSA	1,088	1,150	94.3	598	630	94.9	482	513	93.0	9,510	10,031	95.1
Total	2,912	3,159	91.6	1,515	1,632	93.1	1,413	1,535	91.0 <sup>b</sup>	33,711	36,250	92.9
<b>Interview</b>												
1,000,000+	376	510	66.8	192	236	77.1	204	235	74.3	5,267	6,921	73.4
50K - 999,999	458	623	66.7	258	302	84.2 <sup>a</sup>	295	326	86.8 <sup>a</sup>	5,418	7,025	76.9
Non-MSA	437	596	69.2	268	315	75.6	237	266	83.7 <sup>a</sup>	4,208	5,342	76.8
Total	1,271	1,729	67.4	718	853	78.9 <sup>a</sup>	736	827	81.6 <sup>a</sup>	14,893	19,288	75.3
<b>Overall</b>												
1,000,000+			60.0			71.0			66.0			67.4
50K - 999,999			61.1			77.4			79.2			71.3
Non-MSA			65.2			71.8			77.8			73.0
Total			61.8			73.4			74.2			69.9

(Continued)

**Table 7. Comparison of Weighted Response Rates, by Treatment, Strata, and Population Density - Unweighted Counts (Continued)**

	Historically Good Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Screening</b>												
1,000,000+	466	504	93.0	258	273	94.3	162	179	93.8	4,109	4,441	92.6
50K - 999,999	415	439	95.2	264	271	97.4	170	174	98.8 <sup>a</sup>	5,315	5,593	94.8
Non-MSA	577	598	96.6	270	278	96.6	373	398	95.0	6,640	6,982	94.8
Total	1,458	1,541	95.0	792	822	96.5	705	751	95.8	16,064	17,016	94.1
<b>Interview</b>												
1,000,000+	196	255	74.9	92	110	71.2	43	49	72.8	1,708	2,132	74.7
50K - 999,999	192	255	75.3	137	151	85.8	77	84	93.3 <sup>a</sup>	2,521	3,150	77.1
Non-MSA	254	329	82.2	127	146	87.3	241	263	90.7 <sup>a</sup>	2,940	3,652	76.0
Total	642	839	77.5	356	407	83.6	361	396	88.8 <sup>a</sup>	7,169	8,934	76.0
<b>Overall</b>												
1,000,000+			69.7			67.1			68.3			69.1
50K - 999,999			71.7			83.6			92.2			73.1
Non-MSA			79.3			84.3			86.2			72.1
Total			73.6			80.7			85.1			71.6
	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Screening</b>												
1,000,000+	4,358	5,036	88.7	2,236	2,579	89.4	2,259	2,652	86.5	18,995	20,714	91.4
50K - 999,999	3,783	4,114	92.5	2,022	2,192	93.2	2,145	2,320	93.5	19,891	21,339	92.9
Non-MSA	2,465	2,612	94.8	1,344	1,418	95.2	1,177	1,269	93.6 <sup>b</sup>	16,943	17,840	95.1
Total	10,606	11,762	91.4	5,602	6,189	92.4	5,581	6,241	91.1	55,829	59,893	92.7
<b>Interview</b>												
1,000,000+	1,699	2,394	67.7	943	1,211	74.1	1,086	1,265	77.0 <sup>a</sup>	8,058	10,557	71.7
50K - 999,999	1,535	2,147	69.1	939	1,111	83.4 <sup>a</sup>	1,105	1,234	86.2 <sup>a</sup>	8,958	11,580	74.7
Non-MSA	999	1,363	72.0	607	720	79.0	687	762	87.0 <sup>a</sup>	7,473	9,407	76.3
Total	4,233	5,904	69.2	2,489	3,042	78.8 <sup>a</sup>	2,878	3,261	83.3 <sup>a,b</sup>	24,489	31,544	73.7
<b>Overall</b>												
1,000,000+			60.1			66.2			66.6			65.5
50K - 999,999			63.9			77.7			80.6			69.4
Non-MSA			68.3			75.2			81.4			72.5
Total			63.3			72.8			75.8			68.4

Note: Overall response rate is calculated as Screening rate × Interview rate. "Sampled" is defined as sampled and eligible for screening response rates and as selected for Interview response rates. The overall response rate is the product of two rates from two different datasets; thus, standard errors and significance tests are not provided. The main study (MS) column represents the 649 FI regions excluded from the experiment.

MSA = metropolitan statistical area.

<sup>a</sup> Significantly different from \$0 at the 0.05 level.

<sup>b</sup> Significantly different from \$20 at the 0.05 level.

**Table 7SE. Standard Errors of Weighted Response Rates, by Treatment, Strata, and Population Density (Q1/Q2)**

	Historically Poor Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
1,000,000+	1.7	1.7	2.9	0.8374	0.5302	0.4251
50K - 999,999	1.0	1.5	1.4	0.4774	0.3081	0.1236
Non-MSA	1.3	1.4	1.9	0.5109	0.2596	0.1412
Total	1.1	1.1	2.2	0.9842	0.8662	0.8716
<b>Interview</b>						
1,000,000+	1.9	2.8	2.0	0.0661	0.0000	0.0043
50K - 999,999	2.2	3.0	2.5	0.0021	0.0000	0.2651
Non-MSA	3.7	4.0	3.3	0.0002	0.0001	0.1906
Total	1.3	2.0	1.4	0.0001	0.0000	0.0008
	Historically Average Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
1,000,000+	0.9	1.7	1.6	0.2144	0.6224	0.1674
50K - 999,999	0.9	1.4	2.0	0.7826	0.9010	0.6892
Non-MSA	0.9	0.9	1.3	0.4891	0.3682	0.0847
Total	0.7	0.8	0.9	0.1163	0.5329	0.0265
<b>Interview</b>						
1,000,000+	4.6	4.1	6.4	0.0936	0.3560	0.7059
50K - 999,999	3.1	3.5	3.9	0.0001	0.0000	0.6428
Non-MSA	4.3	6.6	3.5	0.3045	0.0098	0.2999
Total	2.7	3.2	2.6	0.0022	0.0003	0.4708
	Historically Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
1,000,000+	1.3	2.2	3.3	0.6298	0.8080	0.9234
50K - 999,999	1.4	1.8	0.7	0.0688	0.0233	0.5116
Non-MSA	1.0	1.4	1.1	0.9879	0.3103	0.2808
Total	0.8	1.2	0.9	0.1342	0.3788	0.6772
<b>Interview</b>						
1,000,000+	6.0	10.2	7.4	0.7607	0.8565	0.8942
50K - 999,999	4.5	2.7	4.2	0.0689	0.0174	0.1164
Non-MSA	3.7	5.9	2.7	0.2524	0.0076	0.5626
Total	2.7	4.1	2.2	0.1778	0.0033	0.1839

(Continued)

**Table 7SE. Standard Errors of Weighted Response Rates, by Treatment, Strata, and Population Density (Continued)**

	Combined Poor, Average, and Good					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
1,000,000+	0.8	1.2	1.8	0.5665	0.2401	0.1210
50K - 999,999	0.7	1.0	1.2	0.4902	0.4203	0.8070
Non-MSA	0.6	0.7	0.9	0.5421	0.2293	0.0499
Total	0.5	0.6	0.9	0.1040	0.7087	0.1487
<b>Interview</b>						
1,000,000+	2.9	2.5	3.1	0.0933	0.0383	0.4210
50K - 999,999	2.1	1.9	2.1	0.0000	0.0000	0.3319
Non-MSA	2.9	4.5	2.1	0.0890	0.0000	0.1081
Total	1.7	2.0	1.4	0.0000	0.0000	0.0324

Note: The overall response rates is the product of two rates from two different datasets; thus, standard errors and significance tests are not provided.

MSA = metropolitan statistical area.

**Table 8. Comparison of Weighted Response Rates by Treatment, Strata, and Marijuana Strata**

	Historically Poor Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Screening</b>												
No Mj Use	1,424	1,615	88.4	738	864	85.9	783	915	86.8	1,819	1,987	92.1
Mj CI <=0	1,426	1,602	88.9	828	943	88.7	824	947	84.4	1,198	1,310	91.5
Mj CI >0,<=.10	2,831	3,168	89.1	1,345	1,514	88.4	1,555	1,755	91.5	2,072	2,302	90.3
Mj CI >.10	512	633	80.9	355	383	92.7	285	321	87.6	740	789	93.4
AK/HI	43	44	97.6	29	31	93.6	16	17	94.1	225	239	94.0
Total	6,236	7,062	88.3	3,295	3,735	88.3	3,463	3,955	88.7	6,054	6,627	91.3
<b>Interview</b>												
No Mj Use	564	800	67.3	323	396	79.7 <sup>a</sup>	380	443	81.5 <sup>a</sup>	679	922	66.1
Mj CI <=0	545	773	69.7	365	458	74.2	408	464	82.9 <sup>a</sup>	494	671	68.6
Mj CI >0,<=.10	1,013	1,452	64.5	574	731	73.1 <sup>a</sup>	830	935	83.0 <sup>a,b</sup>	871	1,240	69.5
Mj CI >.10	180	281	63.0	143	186	72.7	154	184	80.7 <sup>a</sup>	284	358	75.1
AK/HI	18	30	46.9	10	11	95.7	9	12	36.4	99	131	73.4
Total	2,320	3,336	66.0	1,415	1,782	74.8 <sup>a</sup>	1,781	2,038	82.1 <sup>a,b</sup>	2,427	3,322	68.9
<b>Overall</b>												
No Mj Use			59.5			68.5			70.7			60.9
Mj CI <=0			62.0			65.8			70.0			62.8
Mj CI >0,<=.10			57.4			64.6			75.9			62.7
Mj CI >.10			50.9			67.4			70.6			70.2
AK/HI			45.8			89.5			34.3			69.0
Total			58.2			66.1			72.8			62.9
	Historically Average Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Screening</b>												
No Mj Use	551	602	90.9	318	341	93.8	276	290	93.7	6,199	6,641	93.5
Mj CI <=0	712	781	90.5	401	431	92.1	416	457	89.2 <sup>b</sup>	7,675	8,271	92.6
Mj CI >0,<=.10	1,440	1,536	92.6	711	772	92.8	607	663	90.6	15,932	17,115	92.9
Mj CI >.10	209	240	89.3	85	88	98.3 <sup>a</sup>	114	125	92.8 <sup>a,b</sup>	2,945	3,194	92.7
AK/HI	0	0	0.0	0	0	0.0	0	0	0.0	960	1,029	92.6
Total	2,912	3,159	91.6	1,515	1,632	93.1	1,413	1,535	91.0 <sup>b</sup>	33,711	36,250	92.9
<b>Interview</b>												
No Mj Use	232	311	70.3	143	166	76.9	123	142	79.2	2,673	3,483	74.3
Mj CI <=0	315	434	69.2	194	225	83.3 <sup>a</sup>	253	275	86.1 <sup>a</sup>	3,478	4,500	75.0
Mj CI >0,<=.10	624	856	64.5	335	407	77.2 <sup>a</sup>	288	330	77.7 <sup>a</sup>	6,927	8,906	75.3
Mj CI >.10	100	128	83.8	46	55	76.6	72	80	86.1	1,360	1,797	78.0
AK/HI	0	0	0.0	0	0	0.0	0	0	0.0	455	602	71.7
Total	1,271	1,729	67.4	718	853	78.9 <sup>a</sup>	736	827	81.6 <sup>a</sup>	14,893	19,288	75.3
<b>Overall</b>												
No Mj Use			63.9			72.1			74.2			69.4
Mj CI <=0			62.6			76.7			76.7			69.4
Mj CI >0,<=.10			59.7			71.6			70.4			70.0
Mj CI >.10			74.8			75.3			79.9			72.3
AK/HI			0.0			0.0			0.0			66.3
Total			61.8			73.4			74.2			69.9

(Continued)

**Table 8. Comparison of Weighted Response Rates by Treatment, Strata, and Marijuana Strata (Continued)**

	Historically Good Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Screening</b>												
No Mj Use	415	439	94.8	203	215	95.7	158	171	93.0	3,697	3,942	93.9
Mj CI <=0	328	350	93.5	155	162	95.5	172	182	96.8	3,065	3,196	95.4
Mj CI >0,<=.10	557	581	96.4	366	375	97.2	324	346	96.7	7,212	7,645	93.9
Mj CI >.10	144	154	94.3	54	56	97.7 <sup>a</sup>	45	46	97.9 <sup>a</sup>	1,483	1,596	92.9
AK/HI	14	17	82.4	14	14	100.0	6	6	100.0	607	637	95.3
Total	1,458	1,541	95.0	792	822	96.5	705	751	95.8	16,064	17,016	94.1
<b>Interview</b>												
No Mj Use	212	267	79.5	66	79	81.2	74	80	92.6	1,686	2,163	74.8
Mj CI <=0	133	190	69.1	83	101	80.5	89	104	77.7	1,414	1,739	77.6
Mj CI >0,<=.10	232	291	80.9	163	179	85.2	161	173	92.2 <sup>a</sup>	3,106	3,837	75.4
Mj CI >.10	60	81	80.3	33	37	84.9	36	37	95.8	683	867	77.9
AK/HI	5	10	23.1	11	11	100.0	1	2	13.2	280	328	81.3
Total	642	839	77.5	356	407	83.6	361	396	88.8 <sup>a</sup>	7,169	8,934	76.0
<b>Overall</b>												
No Mj Use			75.4			77.7			86.1			70.2
Mj CI <=0			64.6			76.9			75.2			74.0
Mj CI >0,<=.10			78.0			82.8			89.2			70.8
Mj CI >.10			75.7			82.9			93.7			72.3
AK/HI			19.0			100.0			13.2			77.4
Total			73.6			80.7			85.1			71.6
	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Screening</b>												
No Mj Use	2,390	2,656	91.4	1,259	1,420	92.1	1,217	1,376	91.1	11,715	12,570	93.2
Mj CI <=0	2,466	2,733	90.7	1,384	1,536	91.7	1,412	1,586	88.9	11,938	12,777	92.8
Mj CI >0,<=.10	4,828	5,285	92.3	2,422	2,661	92.5	2,486	2,764	92.3	25,216	27,062	92.5
Mj CI >.10	865	1,027	88.1	494	527	95.6 <sup>a</sup>	444	492	91.5 <sup>b</sup>	5,168	5,579	92.9
AK/HI	57	61	90.8	43	45	96.9	22	23	95.6	1,792	1,905	93.3
Total	10,606	11,762	91.4	5,602	6,189	92.4	5,581	6,241	91.1	55,829	59,893	92.7
<b>Interview</b>												
No Mj Use	1,008	1,378	72.2	532	641	78.4	577	665	83.3 <sup>a</sup>	5,038	6,568	72.1
Mj CI <=0	993	1,397	69.3	642	784	80.3 <sup>a</sup>	750	843	83.8 <sup>a</sup>	5,386	6,910	73.8
Mj CI >0,<=.10	1,869	2,599	67.1	1,072	1,317	78.2 <sup>a</sup>	1,279	1,438	83.0 <sup>a</sup>	10,904	13,983	73.7
Mj CI >.10	340	490	75.7	222	278	76.2	262	301	85.0	2,327	3,022	77.4
AK/HI	23	40	41.4	21	22	98.9 <sup>a</sup>	10	14	33.0 <sup>a,b</sup>	834	1,061	73.8
Total	4,233	5,904	69.2	2,489	3,042	78.8 <sup>a</sup>	2,878	3,261	83.3 <sup>a,b</sup>	24,489	31,544	73.7
<b>Overall</b>												
No Mj Use			66.0			72.2			75.9			67.2
Mj CI <=0			62.9			73.7			74.5			68.5
Mj CI >0,<=.10			62.0			72.3			76.6			68.2
Mj CI >.10			66.6			72.9			77.8			71.9
AK/HI			37.5			95.8			31.5			68.8
Total			63.3			72.8			75.8			68.4

Note: Overall response rate is calculated as Screening rate × Interview rate. "Sampled" is defined as sampled and eligible for screening response rates and as selected for Interview response rates. The overall response rate is the product of two rates from two different datasets; thus, standard errors and significance tests are not provided. The main study (MS) column represents the 649 FI regions excluded from the experiment.

<sup>a</sup> Significantly different from \$0 at the 0.05 level.

<sup>b</sup> Significantly different from \$20 at the 0.05 level.

**Table 8SE. Standard Errors of Weighted Response Rates by Treatment, Strata, and Marijuana Strata (Q1/Q2)**

	Historically Poor Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
No Mj Use	2.2	3.4	3.7	0.2459	0.6373	0.8301
Mj CI <=0	1.2	1.6	4.9	0.8533	0.3011	0.2932
Mj CI >0,<=.10	1.4	1.4	2.3	0.6344	0.3456	0.2130
Mj CI >.10	7.7	1.4	2.5	0.1066	0.3204	0.0657
AK/HI	0.0	0.0	0.0	*	*	*
Total	1.1	1.1	2.2	0.9842	0.8662	0.8716
<b>Interview</b>						
No Mj Use	3.1	4.0	2.8	0.0012	0.0004	0.6702
Mj CI <=0	2.2	4.6	2.4	0.3444	0.0000	0.1226
Mj CI >0,<=.10	1.8	2.7	2.6	0.0046	0.0000	0.0017
Mj CI >.10	4.5	6.5	3.7	0.2688	0.0000	0.2688
AK/HI	0.0	0.0	0.0	*	*	*
Total	1.3	2.0	1.4	0.0001	0.0000	0.0008
	Historically Average Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
No Mj Use	2.3	1.5	1.7	0.2720	0.2964	0.9641
Mj CI <=0	0.8	1.6	1.6	0.3200	0.3891	0.0205
Mj CI >0,<=.10	0.9	1.4	1.8	0.8724	0.2696	0.2182
Mj CI >.10	2.6	1.8	2.3	0.0000	0.0000	0.0001
AK/HI	0.0	0.0	0.0	*	*	*
Total	0.7	0.8	0.9	0.1163	0.5329	0.0265
<b>Interview</b>						
No Mj Use	5.6	8.1	5.9	0.2343	0.3484	0.8029
Mj CI <=0	3.8	3.7	5.3	0.0348	0.0491	0.6560
Mj CI >0,<=.10	3.6	4.6	4.1	0.0177	0.0009	0.9206
Mj CI >.10	3.9	8.6	3.1	0.5522	0.7125	0.2442
AK/HI	0.0	0.0	0.0	*	*	*
Total	2.7	3.2	2.6	0.0022	0.0003	0.4708

(Continued)

**Table 8SE. Standard Errors of Weighted Response Rates by Treatment, Strata, and Marijuana Strata (Continued)**

	Historically Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
No Mj Use	0.8	2.1	2.7	0.7365	0.3989	0.4727
Mj CI <=0	2.1	2.2	1.2	0.4072	0.0994	0.6715
Mj CI >0,<=.10	1.5	2.1	1.1	0.3774	0.8173	0.8229
Mj CI >.10	1.2	2.2	1.7	0.0123	0.0497	0.8778
AK/HI	0.0	0.0	0.0	*	*	*
Total	0.8	1.2	0.9	0.1342	0.3788	0.6772
<b>Interview</b>						
No Mj Use	3.1	1.1	5.5	0.6108	0.0673	0.0611
Mj CI <=0	7.1	13.8	2.9	0.3230	0.3372	0.8377
Mj CI >0,<=.10	4.1	4.9	2.7	0.5718	0.0437	0.0828
Mj CI >.10	8.4	11.9	3.7	0.5414	0.1106	0.4664
AK/HI	0.0	0.0	0.0	*	*	*
Total	2.7	4.1	2.2	0.1778	0.0033	0.1839
	Combined Poor, Average, and Good					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
No Mj Use	1.2	1.4	1.5	0.6399	0.8835	0.6050
Mj CI <=0	0.7	1.1	1.9	0.2931	0.3069	0.0827
Mj CI >0,<=.10	0.7	1.0	1.1	0.8141	1.0000	0.8753
Mj CI >.10	3.1	1.1	1.6	0.0060	0.2104	0.0105
AK/HI	7.5	3.2	2.2	0.5695	0.6191	0.1995
Total	0.5	0.6	0.9	0.1040	0.7087	0.1487
<b>Interview</b>						
No Mj Use	2.9	4.8	3.2	0.0863	0.0214	0.3392
Mj CI <=0	2.6	3.5	3.0	0.0156	0.0042	0.4374
Mj CI >0,<=.10	2.8	2.8	2.2	0.0023	0.0000	0.0837
Mj CI >.10	4.6	5.0	2.0	0.9291	0.0943	0.1251
AK/HI	8.6	1.6	5.8	0.0000	0.0024	0.0000
Total	1.7	2.0	1.4	0.0000	0.0000	0.0324

Note: The overall response rates is the product of two rates from two different datasets; thus, standard errors and significance tests are not provided.

\* = p-value cannot be computed.



**Table 9. Comparison of Weighted Interview Response Rates, by Treatment, Strata, and Age - Unweighted Counts**

	Historically Poor Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Interview</b>												
12-17	810	1,039	77.7	487	551	88.9 <sup>a</sup>	599	653	92.2 <sup>a</sup>	809	1,014	79.6
18-25	750	1,137	67.3	450	571	80.7 <sup>a</sup>	649	716	93.9 <sup>a,b</sup>	790	1,085	73.7
26+	760	1,160	64.4	478	660	72.5 <sup>a</sup>	533	669	78.1 <sup>a,b</sup>	828	1,223	67.0
Total	2,320	3,336	66.0	1,415	1,782	74.8 <sup>a</sup>	1,781	2,038	82.1 <sup>a,b</sup>	2,427	3,322	68.9
	Historically Average Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Interview</b>												
12-17	449	560	78.4	243	266	92.2 <sup>a</sup>	231	245	95.4 <sup>a</sup>	4,987	6,152	81.6
18-25	405	549	76.6	245	290	85.5	289	320	89.9 <sup>a</sup>	4,962	6,511	76.5
26+	417	620	64.7	230	297	76.2 <sup>a</sup>	216	262	78.2 <sup>a</sup>	4,944	6,625	74.3
Total	1,271	1,729	67.4	718	853	78.9 <sup>a</sup>	736	827	81.6 <sup>a</sup>	14,893	19,288	75.3
	Historically Good Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Interview</b>												
12-17	241	298	80.2	138	153	91.5 <sup>a</sup>	130	133	98.4 <sup>a,b</sup>	2,357	2,795	84.1
18-25	187	256	70.3	106	117	93.2 <sup>a</sup>	124	136	87.1 <sup>a</sup>	2,490	3,094	79.7
26+	214	285	78.0	112	137	81.0	107	127	87.5	2,322	3,045	74.4
Total	642	839	77.5	356	407	83.6	361	396	88.8 <sup>a</sup>	7,169	8,934	76.0
	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)	Complete	Sampled	(%)
<b>Interview</b>												
12-17	1,500	1,897	78.7	868	970	91.1 <sup>a</sup>	960	1,031	95.1 <sup>a,b</sup>	8,153	9,961	81.6
18-25	1,342	1,942	72.9	801	978	86.1 <sup>a</sup>	1,062	1,172	91.0 <sup>a</sup>	8,242	10,690	76.5
26+	1,391	2,065	67.4	820	1,094	76.1 <sup>a</sup>	856	1,058	80.1 <sup>a</sup>	8,094	10,893	72.3
Total	4,233	5,904	69.2	2,489	3,042	78.8 <sup>a</sup>	2,878	3,261	83.3 <sup>a,b</sup>	24,489	31,544	73.7

Note: The main study (MS) column represents the 649 FI regions excluded from the experiment.

<sup>a</sup> Significantly different from \$0 at the 0.05 level.

<sup>b</sup> Significantly different from \$20 at the 0.05 level.

**Table 9SE. Standard Errors of Weighted Interview Response Rates, by Treatment, Strata, and Age (Q1/Q2)**

		Historically Poor Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Interview</b>							
	12-17	2.2	1.6	1.5	0.0001	0.0000	0.1078
	18-25	2.0	2.0	2.3	0.0000	0.0000	0.0000
	26+	1.5	2.4	1.5	0.0017	0.0000	0.0340
	Total	1.3	2.0	1.4	0.0001	0.0000	0.0008
		Historically Average Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Interview</b>							
	12-17	2.6	1.7	1.5	0.0000	0.0000	0.1014
	18-25	2.9	3.5	2.5	0.0505	0.0014	0.3348
	26+	3.3	3.8	3.4	0.0139	0.0046	0.6672
	Total	2.7	3.2	2.6	0.0022	0.0003	0.4708
		Historically Good Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Interview</b>							
	12-17	3.2	3.1	1.0	0.0062	0.0000	0.0344
	18-25	4.4	2.9	3.7	0.0000	0.0051	0.2939
	26+	3.6	5.1	3.1	0.6119	0.0849	0.1770
	Total	2.7	4.1	2.2	0.1778	0.0033	0.1839
		Combined Poor, Average, and Good					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Interview</b>							
	12-17	1.7	1.2	0.8	0.0000	0.0000	0.0041
	18-25	2.0	2.1	1.8	0.0000	0.0000	0.0969
	26+	2.2	2.3	1.8	0.0031	0.0000	0.1312
	Total	1.7	2.0	1.4	0.0000	0.0000	0.0324

Note: The overall response rates is the product of two rates from two different data sets; thus, standard errors and significance tests are not provided.

**Table 10. Sufficient Incentive Amounts, by Historical Response Rate Strata, (Q1/Q2) Population Density, and Age, Using Significant Differences in Weighted Interview Response Rates**

		Historical Response Rate Strata			
		Poor	Average	Good	Combined
<b>Population Density</b>	1,000,000+	\$40	NS	NS	\$40
	50K to 999,999	\$20	\$20	\$40	\$20
	Non-MSA	\$20	\$40	\$40	\$40
<b>Age in Years</b>	12-17	\$20	\$20	\$40	\$40
	18-25	\$40	\$40	\$20	\$20
	26+	\$40	\$20	NS	\$20
<b>Total</b>		\$40	\$20	\$40	\$40

Note: Information based on significant differences at the  $p < .05$  level.

NS = not sufficient.

MSA = metropolitan statistical area.

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**Table 11. Comparison of Weighted Refusal and Noncontact Rates, by Treatment, (Q1/Q2) Strata, and Population Density - Unweighted Counts**

	Historically Poor Response											
	\$0			\$20			\$40			MS		
	#	Sampled	(%)	#	Sampled	(%)	#	Sampled	(%)	#	Sampled	(%)
<b>Screening Refusal</b>												
1,000,000+	317	3,715	8.6	174	1,908	8.7	188	2,058	9.6	184	3,079	5.6
50K - 999,999	137	2,483	5.4	84	1,317	7.0	93	1,539	5.0	162	2,721	6.6
Non-MSA	40	864	4.4	21	510	3.6	27	358	7.0	21	827	2.8
Total	494	7,062	7.1	279	3,735	7.5	308	3,955	7.3	367	6,627	5.6
<b>Screening Noncontact</b>												
1,000,000+	143	3,715	3.7	88	1,908	4.3	80	2,058	4.2	77	3,079	2.3
50K - 999,999	49	2,483	1.8	11	1,317	0.9	24	1,539	0.9	44	2,721	1.5
Non-MSA	22	864	2.3	12	510	2.3	7	358	1.9	9	827	1.0
Total	214	7,062	2.9	111	3,735	2.9	111	3,955	2.5	130	6,627	1.9
<b>Interview Refusal</b>												
1,000,000+	287	1,629	19.8	116	865	14.5	85	981	9.4 <sup>ab</sup>	249	1,504	18.0
50K - 999,999	268	1,269	23.0	76	658	12.2 <sup>a</sup>	67	824	10.6 <sup>a</sup>	268	1,405	20.0
Non-MSA	70	438	18.0	31	259	16.3	18	233	10.9	64	413	17.6
Total	625	3,336	20.6	223	1,782	14.0 <sup>a</sup>	170	2,038	10.1 <sup>ab</sup>	581	3,322	18.7
<b>Interview Noncontact</b>												
1,000,000+	141	1,629	7.7	44	865	4.4 <sup>a</sup>	28	981	3.4 <sup>a</sup>	108	1,504	6.4
50K - 999,999	68	1,269	4.8	13	658	2.4	11	824	1.3 <sup>a</sup>	72	1,405	5.0
Non-MSA	37	438	11.0	12	259	5.1 <sup>a</sup>	2	233	2.0 <sup>a</sup>	11	413	2.5
Total	246	3,336	7.1	69	1,782	3.8 <sup>a</sup>	41	2,038	2.3 <sup>a</sup>	191	3,322	5.5
	Historically Average Response											
	\$0			\$20			\$40			MS		
	#	Sampled	(%)	#	Sampled	(%)	#	Sampled	(%)	#	Sampled	(%)
<b>Screening Refusal</b>												
1,000,000+	56	817	7.8	21	398	5.2	33	415	8.6	637	13,194	4.8
50K - 999,999	68	1,192	5.1	42	604	6.5	39	607	6.3	676	13,025	4.9
Non-MSA	30	1,150	2.1	24	630	3.9	16	513	3.3	358	10,031	3.3
Total	154	3,159	5.4	87	1,632	5.2	88	1,535	6.2	1,671	36,250	4.5
<b>Screening Noncontact</b>												
1,000,000+	13	817	1.3	13	398	2.1	6	415	1.6	287	13,194	2.2
50K - 999,999	30	1,192	2.6	5	604	0.9 <sup>a</sup>	7	607	2.0	181	13,025	1.3
Non-MSA	30	1,150	3.3	4	630	0.7 <sup>a</sup>	11	513	2.5	115	10,031	1.2
Total	73	3,159	2.2	22	1,632	1.2	24	1,535	2.0	583	36,250	1.7
<b>Interview Refusal</b>												
1,000,000+	83	510	22.2	23	236	10.6 <sup>a</sup>	19	235	13.4	1,026	6,921	16.0
50K - 999,999	104	623	18.9	34	302	12.4 <sup>a</sup>	22	326	10.0 <sup>a</sup>	1,137	7,025	15.8
Non-MSA	102	596	19.3	32	315	18.4	14	266	8.2 <sup>a</sup>	789	5,342	15.9
Total	289	1,729	20.5	89	853	13.7 <sup>a</sup>	55	827	10.7 <sup>a</sup>	2,952	19,288	15.9
<b>Interview Noncontact</b>												
1,000,000+	39	510	6.4	19	236	10.2	4	235	2.1 <sup>b</sup>	404	6,921	5.0
50K - 999,999	39	623	10.0	5	302	2.6 <sup>a</sup>	6	326	0.6 <sup>a</sup>	283	7,025	3.5
Non-MSA	41	596	7.3	6	315	4.3	8	266	4.6	209	5,342	4.0
Total	119	1,729	7.6	30	853	5.9	18	827	2.2 <sup>a</sup>	896	19,288	4.3

(Continued)

**Table 11. Comparison of Weighted Refusal and Noncontact Rates, by Treatment, Strata, and Population Density - Unweighted Counts (Continued)**

	Historically Good Response											
	\$0			\$20			\$40			MS		
	#	Sampled	(%)	#	Sampled	(%)	#	Sampled	(%)	#	Sampled	(%)
<b>Screening Refusal</b>												
1,000,000+	24	504	5.8	8	273	4.8	7	179	1.7 <sup>a</sup>	194	4,441	4.2
50K - 999,999	16	439	3.1	6	271	2.3	3	174	0.5 <sup>a</sup>	178	5,593	3.2
Non-MSA	13	598	1.7	5	278	2.4	21	398	4.5 <sup>a</sup>	199	6,982	2.9
Total	53	1,541	3.5	19	822	2.9	31	751	2.9	571	17,016	3.4
<b>Screening Noncontact</b>												
1,000,000+	9	504	0.6	5	273	0.8	7	179	4.3	99	4,441	2.0
50K - 999,999	4	439	1.2	1	271	0.3	1	174	0.7	81	5,593	1.6
Non-MSA	6	598	1.3	3	278	1.1	4	398	0.5	90	6,982	1.5
Total	19	1,541	1.0	9	822	0.6	12	751	1.2	270	17,016	1.7
<b>Interview Refusal</b>												
1,000,000+	39	255	17.6	12	110	14.9	0	49	0.0 <sup>a</sup>	248	2,132	14.8
50K - 999,999	44	255	18.5	8	151	6.9 <sup>a</sup>	3	84	2.9 <sup>a</sup>	393	3,150	14.4
Non-MSA	54	329	12.0	11	146	9.6	20	263	7.6	453	3,652	14.2
Total	137	839	16.1	31	407	9.2 <sup>a</sup>	23	396	5.5 <sup>a</sup>	1,094	8,934	14.5
<b>Interview Noncontact</b>												
1,000,000+	16	255	7.2	5	110	12.5	2	49	8.7	119	2,132	5.8
50K - 999,999	16	255	4.4	0	151	0.0	0	84	0.0	159	3,150	4.8
Non-MSA	14	329	2.0	2	146	0.3 <sup>a</sup>	0	263	0.0 <sup>a</sup>	186	3,652	5.6
Total	46	839	4.5	7	407	2.4	2	396	1.2	464	8,934	5.3
	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	#	Sampled	(%)	#	Sampled	(%)	#	Sampled	(%)	#	Sampled	(%)
<b>Screening Refusal</b>												
1,000,000+	397	5,036	7.8	203	2,579	6.7	228	2,652	8.4	1,015	20,714	5.0
50K - 999,999	221	4,114	4.7	132	2,192	5.4	135	2,320	4.9	1,016	21,339	5.0
Non-MSA	83	2,612	2.3	50	1,418	3.5	64	1,269	4.2 <sup>a</sup>	578	17,840	3.1
Total	701	11,762	5.4	385	6,189	5.4	427	6,241	6.0	2,609	59,893	4.5
<b>Screening Noncontact</b>												
1,000,000+	165	5,036	2.0	106	2,579	2.9	93	2,652	3.2	463	20,714	2.2
50K - 999,999	83	4,114	2.0	17	2,192	0.7 <sup>a</sup>	32	2,320	1.3	306	21,339	1.4
Non-MSA	58	2,612	2.6	19	1,418	1.0 <sup>a</sup>	22	1,269	1.6	214	17,840	1.2
Total	306	11,762	2.2	142	6,189	1.6	147	6,241	2.0	983	59,893	1.7
<b>Interview Refusal</b>												
1,000,000+	409	2,394	20.8	151	1,211	12.7 <sup>a</sup>	104	1,265	10.4 <sup>a</sup>	1,523	10,557	16.5
50K - 999,999	416	2,147	19.9	118	1,111	10.7 <sup>a</sup>	92	1,234	9.4 <sup>a</sup>	1,798	11,580	16.7
Non-MSA	226	1,363	17.1	74	720	15.7	52	762	8.2 <sup>a</sup>	1,306	9,407	15.6
Total	1,051	5,904	19.6	343	3,042	12.8 <sup>a</sup>	248	3,261	9.4 <sup>a</sup>	4,627	31,544	16.3
<b>Interview Noncontact</b>												
1,000,000+	196	2,394	6.9	68	1,211	8.1	34	1,265	3.2 <sup>a,b</sup>	631	10,557	5.6
50K - 999,999	123	2,147	7.1	18	1,111	1.8 <sup>a</sup>	17	1,234	0.8 <sup>a</sup>	514	11,580	4.2
Non-MSA	92	1,363	6.3	20	720	3.4	10	762	2.2 <sup>a</sup>	406	9,407	4.3
Total	411	5,904	6.8	106	3,042	4.5	61	3,261	2.0 <sup>a,b</sup>	1,551	31,544	4.8

Note: The main study (MS) column represents the 649 FI regions that were excluded from the experiment.

MSA = metropolitan statistical area.

<sup>a</sup> Significantly different from \$0 at the 0.05 level.

<sup>b</sup> Significantly different from \$20 at the 0.05 level.

**Table 11SE. Standard Errors of Weighted Refusal and Noncontact Rates, by Treatment, Strata, and Population Density (Q1/Q2)**

	Historically Poor Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening Refusal</b>						
1,000,000+	0.8	1.1	1.4	0.9463	0.5220	0.5510
50K - 999,999	0.8	1.2	1.1	0.2463	0.7896	0.1860
Non-MSA	0.7	1.1	1.6	0.5745	0.1194	0.0863
Total	0.6	0.8	1.2	0.6131	0.8444	0.8941
<b>Screening Noncontact</b>						
1,000,000+	0.6	0.6	0.9	0.1725	0.5539	0.8595
50K - 999,999	0.5	0.4	0.4	0.1652	0.1160	0.9662
Non-MSA	0.8	0.7	1.0	0.9321	0.7832	0.6449
Total	0.4	0.4	0.7	0.9595	0.5198	0.5169
<b>Interview Refusal</b>						
1,000,000+	2.0	2.1	1.4	0.0672	0.0000	0.0279
50K - 999,999	2.0	2.1	3.3	0.0005	0.0005	0.6646
Non-MSA	2.2	4.1	4.0	0.6405	0.0818	0.3531
Total	1.2	1.5	1.5	0.0005	0.0000	0.0341
<b>Interview Noncontact</b>						
1,000,000+	1.3	1.1	0.9	0.0253	0.0053	0.5236
50K - 999,999	0.9	0.9	0.7	0.0728	0.0004	0.3797
Non-MSA	2.7	2.4	1.4	0.0358	0.0002	0.2450
Total	0.8	0.7	0.6	0.0006	0.0000	0.1275
	Historically Average Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening Refusal</b>						
1,000,000+	0.8	1.9	1.4	0.1527	0.5743	0.2186
50K - 999,999	0.6	1.4	1.8	0.3734	0.4736	0.9246
Non-MSA	0.3	1.0	0.9	0.0730	0.1417	0.5645
Total	0.8	0.8	0.8	0.8367	0.3973	0.3268
<b>Screening Noncontact</b>						
1,000,000+	0.7	0.8	1.2	0.4251	0.7977	0.7708
50K - 999,999	0.7	0.4	1.1	0.0440	0.5666	0.3366
Non-MSA	0.7	0.4	0.9	0.0003	0.3634	0.0757
Total	0.5	0.4	0.6	0.0916	0.7055	0.2948
<b>Interview Refusal</b>						
1,000,000+	4.4	3.4	6.6	0.0080	0.3004	0.6990
50K - 999,999	2.9	2.7	2.6	0.0207	0.0144	0.5765
Non-MSA	3.4	6.0	3.6	0.8627	0.0236	0.1520
Total	2.7	2.7	2.6	0.0117	0.0083	0.3781
<b>Interview Noncontact</b>						
1,000,000+	1.7	3.4	1.4	0.1903	0.0532	0.0140
50K - 999,999	2.4	1.6	0.4	0.0227	0.0002	0.2092
Non-MSA	2.2	2.7	2.0	0.3999	0.3464	0.9556
Total	1.3	1.7	0.8	0.4200	0.0005	0.0767

(Continued)

**Table 11SE. Standard Errors of Weighted Refusal and Noncontact Rates, by Treatment, Strata, and Population Density (Continued)**

	Historically Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening Refusal</b>						
1,000,000+	1.4	2.2	1.1	0.7183	0.0425	0.2370
50K - 999,999	1.0	1.8	0.4	0.6721	0.0194	0.2745
Non-MSA	0.6	1.2	1.1	0.6385	0.0026	0.1616
Total	0.6	1.2	0.6	0.5872	0.4013	0.9761
<b>Screening Noncontact</b>						
1,000,000+	0.3	0.5	3.4	0.6960	0.2971	0.3314
50K - 999,999	0.7	0.3	0.6	0.2165	0.6712	0.5606
Non-MSA	0.9	0.6	0.3	0.7948	0.4548	0.4599
Total	0.5	0.3	0.8	0.4691	0.8526	0.5126
<b>Interview Refusal</b>						
1,000,000+	4.8	7.6	0.0	0.7844	0.0003	0.0522
50K - 999,999	3.7	2.9	1.2	0.0165	0.0000	0.2544
Non-MSA	2.6	4.5	2.9	0.6029	0.1242	0.6848
Total	1.6	2.8	2.1	0.0379	0.0000	0.3177
<b>Interview Noncontact</b>						
1,000,000+	3.6	6.9	8.2	0.5634	0.8791	0.7287
50K - 999,999	2.3	0.0	0.0	0.0563	0.0563	*
Non-MSA	0.7	0.3	0.0	0.0039	0.0031	0.1988
Total	1.3	2.0	1.2	0.4509	0.0682	0.5662
	Combined Poor, Average, and Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening Refusal</b>						
1,000,000+	0.5	1.0	1.0	0.3121	0.5441	0.2414
50K - 999,999	0.5	0.9	0.9	0.4451	0.8248	0.5832
Non-MSA	0.3	0.7	0.6	0.1119	0.0010	0.3975
Total	0.4	0.6	0.6	0.8817	0.4048	0.3766
<b>Screening Noncontact</b>						
1,000,000+	0.5	0.4	0.8	0.0868	0.1644	0.8053
50K - 999,999	0.4	0.2	0.5	0.0088	0.2405	0.3039
Non-MSA	0.5	0.3	0.5	0.0049	0.1330	0.3200
Total	0.3	0.2	0.4	0.0940	0.7682	0.3173
<b>Interview Refusal</b>						
1,000,000+	2.8	2.0	3.1	0.0064	0.0218	0.5152
50K - 999,999	1.7	1.6	1.8	0.0000	0.0000	0.6272
Non-MSA	2.2	3.9	2.1	0.6960	0.0026	0.0956
Total	1.6	1.6	1.4	0.0001	0.0000	0.0753
<b>Interview Noncontact</b>						
1,000,000+	1.2	1.9	1.0	0.5506	0.0220	0.0227
50K - 999,999	1.4	0.7	0.3	0.0013	0.0000	0.2606
Non-MSA	1.5	1.6	1.0	0.1738	0.0134	0.5428
Total	0.8	1.0	0.5	0.0701	0.0000	0.0360

MSA = metropolitan statistical area.

\* = p-value cannot be computed.



**Table 12. Reasons for Final Refusal, by Treatment, Strata, and Population Density - Unweighted Counts and Weighted Ratios (Q1/Q2)**

Reason Given	Historically Poor Response											
	\$0			\$20			\$40			MS		
	#	Refusal	R	#	Refusal	R	#	Refusal	R	#	Refusal	R
<b>Screening</b>												
<b>Nothing in it for me</b>												
1,000,000+	145	293	50.9	79	167	48.0	76	173	47.2	105	175	57.5
50K - 999,999	79	139	58.1	33	71	42.5	51	88	63.1	91	161	58.6
Non-MSA	21	40	56.4	6	20	23.3	22	31	64.9 <sup>b</sup>	10	22	37.0
Total	245	472	53.1	118	258	45.0	149	292	53.5	206	358	56.7
<b>Too busy</b>												
1,000,000+	61	293	19.7	37	167	22.7	39	173	20.1	27	175	17.4
50K - 999,999	26	139	18.5	14	71	26.3	17	88	16.6	24	161	14.4
Non-MSA	8	40	22.4	7	20	47.5	1	31	3.1 <sup>a,b</sup>	4	22	21.6
Total	95	472	19.6	58	258	25.2	57	292	17.6	55	358	16.5
<b>Surveys too invasive</b>												
1,000,000+	36	293	13.0	21	167	11.6	34	173	19.1	15	175	8.9
50K - 999,999	20	139	14.2	8	71	10.7	16	88	18.8	24	161	14.1
Non-MSA	5	40	10.5	5	20	25.0	6	31	22.7	7	22	29.8
Total	61	472	13.1	34	258	12.1	56	292	19.4	46	358	12.3
<b>Interview</b>												
<b>Nothing in it for me</b>												
1,000,000+	72	225	33.0	27	97	31.5	16	77	22.9	79	196	39.7
50K - 999,999	83	211	42.4	19	59	26.1 <sup>a</sup>	16	57	27.6 <sup>a</sup>	74	242	28.4
Non-MSA	15	62	23.3	13	35	35.7	5	20	20.2	15	61	30.0
Total	170	498	35.6	59	191	30.8	37	154	24.4 <sup>a</sup>	168	499	34.3
<b>Too busy</b>												
1,000,000+	71	225	32.2	31	97	32.5	25	77	29.8	43	196	22.3
50K - 999,999	56	211	27.1	18	59	33.9	20	57	36.1	86	242	36.6
Non-MSA	33	62	54.1	11	35	31.1	5	20	20.7 <sup>a</sup>	18	61	28.1
Total	160	498	32.8	60	191	32.6	50	154	31.1	147	499	28.5
<b>Surveys too invasive</b>												
1,000,000+	27	225	12.0	12	97	12.1	12	77	14.3	30	196	17.4
50K - 999,999	30	211	13.8	11	59	15.4	10	57	15.2	41	242	18.1
Non-MSA	6	62	6.2	6	35	17.4	5	20	20.2	7	61	15.4
Total	63	498	12.0	29	191	14.2	27	154	15.3	78	499	17.4

(Continued)

**Table 12. Reasons for Final Refusal, by Treatment, Strata, and Population Density - Unweighted Counts and Weighted Ratios (Continued)**

Reason Given	Historically Average Response											
	\$0			\$20			\$40			MS		
	#	Refusal	R	#	Refusal	R	#	Refusal	R	#	Refusal	R
<b>Screening</b>												
<b>Nothing in it for me</b>												
1,000,000+	30	53	55.5	12	21	47.4	18	32	52.4	351	648	53.9
50K - 999,999	29	67	40.1	18	43	40.8	18	38	41.7	342	660	49.1
Non-MSA	21	31	71.5	11	25	44.9	7	16	48.2	136	359	40.0
Total	80	151	52.9	41	89	43.9	43	86	47.6	829	1,667	49.8
<b>Too busy</b>												
1,000,000+	9	53	25.4	5	21	28.1	4	32	13.0 <sup>a</sup>	106	648	15.1
50K - 999,999	16	67	26.4	13	43	24.5	7	38	22.1	107	660	17.4
Non-MSA	3	31	9.8	2	25	8.2	2	16	13.8	91	359	23.8
Total	28	151	23.9	20	89	21.4	13	86	16.6	304	1,667	17.4
<b>Surveys too invasive</b>												
1,000,000+	8	53	11.3	3	21	17.0	6	32	24.0	88	648	14.7
50K - 999,999	11	67	15.7	7	43	21.1	6	38	16.2	113	660	20.2
Non-MSA	5	31	13.2	8	25	27.1	6	16	35.3	74	359	21.6
Total	24	151	12.8	18	89	21.4	18	86	22.9	275	1,667	17.8
<b>Interview</b>												
<b>Nothing in it for me</b>												
1,000,000+	33	72	44.2	6	18	34.3	7	13	56.6	338	913	36.9
50K - 999,999	34	91	37.4	13	26	49.1	6	21	31.9	362	988	35.8
Non-MSA	27	81	28.4	10	28	29.9	4	13	24.9	273	720	37.1
Total	94	244	37.9	29	72	35.8	17	47	37.3	973	2,621	36.6
<b>Too busy</b>												
1,000,000+	17	72	22.3	7	18	38.5	2	13	17.9	211	913	23.1
50K - 999,999	19	91	19.9	7	26	23.1	3	21	12.0	279	988	27.3
Non-MSA	30	81	37.7	6	28	20.2 <sup>a</sup>	5	13	39.6	194	720	24.7
Total	66	244	25.6	20	72	27.1	10	47	22.5	684	2,621	24.8
<b>Surveys too invasive</b>												
1,000,000+	8	72	14.1	2	18	10.3	2	13	5.5	130	913	14.0
50K - 999,999	8	91	9.2	2	26	10.5	7	21	30.7	145	988	16.0
Non-MSA	9	81	11.0	4	28	19.0	1	13	7.6	110	720	16.5
Total	25	244	11.7	8	72	14.1	10	47	15.7	385	2,621	15.2

(Continued)

**Table 12. Reasons for Final Refusal, by Treatment, Strata, and Population Density - Unweighted Counts and Weighted Ratios (Continued)**

Reason Given	Historically Good Response											
	\$0			\$20			\$40			MS		
	#	Refusal	R	#	Refusal	R	#	Refusal	R	#	Refusal	R
<b>Screening</b>												
<b>Nothing in it for me</b>												
1,000,000+	13	23	72.2	3	7	49.3	3	7	78.8	120	206	63.5
50K - 999,999	13	17	71.4	5	6	74.7	3	3	100.0 <sup>ab</sup>	90	179	47.0
Non-MSA	7	12	51.6	2	5	50.4	9	21	43.3	78	182	41.5
Total	33	52	68.5	10	18	59.4	15	31	49.9	288	567	51.9
<b>Too busy</b>												
1,000,000+	6	23	10.1	1	7	19.8	2	7	10.6	29	206	11.1
50K - 999,999	0	17	0.0	0	6	0.0	0	3	0.0	36	179	21.2
Non-MSA	2	12	30.0	0	5	0.0 <sup>a</sup>	3	21	6.9	27	182	16.2
Total	8	52	10.0	1	18	6.7	5	31	6.9	92	567	15.9
<b>Surveys too invasive</b>												
1,000,000+	1	23	5.4	0	7	0.0	1	7	5.3	21	206	7.9
50K - 999,999	3	17	24.4	1	6	25.3	0	3	0.0 <sup>b</sup>	33	179	19.8
Non-MSA	1	12	3.6	3	5	49.6	7	21	43.1 <sup>a</sup>	47	182	22.3
Total	5	52	11.5	4	18	23.4	8	31	37.0 <sup>a</sup>	101	567	15.9
<b>Interview</b>												
<b>Nothing in it for me</b>												
1,000,000+	9	36	20.5	0	8	0.0	0	0	0.0	81	216	35.1
50K - 999,999	12	37	35.6	5	8	69.8	3	3	100.0 <sup>a</sup>	135	371	34.7
Non-MSA	18	46	36.1	2	7	21.1	7	15	51.3	107	364	27.8
Total	39	119	30.3	7	23	32.4	10	18	62.1 <sup>a</sup>	323	951	32.7
<b>Too busy</b>												
1,000,000+	15	36	60.9	1	8	20.8	0	0	0.0	48	216	24.7
50K - 999,999	11	37	30.4	1	8	6.6	0	3	0.0 <sup>a</sup>	83	371	21.1
Non-MSA	9	46	24.9	1	7	6.7 <sup>a</sup>	2	15	13.2	100	364	25.6
Total	35	119	39.9	3	23	12.3 <sup>a</sup>	2	18	10.3 <sup>a</sup>	231	951	23.5
<b>Surveys too invasive</b>												
1,000,000+	7	36	12.0	3	8	52.1	0	0	0.0	28	216	12.3
50K - 999,999	3	37	5.5	2	8	23.6	0	3	0.0	71	371	21.4
Non-MSA	10	46	22.6	1	7	20.0	1	15	3.2 <sup>a</sup>	51	364	14.6
Total	20	119	12.4	6	23	34.4	1	18	2.5 <sup>a</sup>	150	951	16.6

(Continued)

**Table 12. Reasons for Final Refusal, by Treatment, Strata, and Population Density - Unweighted Counts and Weighted Ratios (Continued)**

Reason Given	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	#	Refusal	R	#	Refusal	R	#	Refusal	R	#	Refusal	R
<b>Screening</b>												
<b>Nothing in it for me</b>												
1,000,000+	188	369	55.7	94	195	47.9	97	212	50.1	576	1,029	56.4
50K - 999,999	121	223	51.2	56	120	45.5	72	129	51.6	523	1,000	52.2
Non-MSA	49	83	63.4	19	50	43.1	38	68	49.3	224	563	40.0
Total	358	675	55.2	169	365	46.2 <sup>a</sup>	207	409	50.4	1,323	2,592	52.3
<b>Too busy</b>												
1,000,000+	76	369	21.3	43	195	24.2	45	212	16.9	162	1,029	15.4
50K - 999,999	42	223	19.4	27	120	22.0	24	129	19.4	167	1,000	16.9
Non-MSA	13	83	17.3	9	50	11.7	6	68	8.8	122	563	21.4
Total	131	675	20.3	79	365	21.1	75	409	16.0	451	2,592	16.9
<b>Surveys too invasive</b>												
1,000,000+	45	369	11.3	24	195	12.3	41	212	20.9	124	1,029	11.9
50K - 999,999	34	223	16.7	16	120	18.5	22	129	17.0	170	1,000	18.0
Non-MSA	11	83	10.4	16	50	30.9 <sup>a</sup>	19	68	36.2 <sup>a</sup>	128	563	22.9
Total	90	675	12.7	56	365	17.9	82	409	22.8 <sup>a</sup>	422	2,592	15.7
<b>Interview</b>												
<b>Nothing in it for me</b>												
1,000,000+	114	333	36.2	33	123	28.2	23	90	37.9	498	1,325	37.6
50K - 999,999	129	339	38.3	37	93	44.4	25	81	36.3	571	1,601	33.3
Non-MSA	60	189	29.9	25	70	30.6	16	48	34.0	395	1,145	33.5
Total	303	861	35.5	95	286	33.5	64	219	36.1	1,464	4,071	35.2
<b>Too busy</b>												
1,000,000+	103	333	33.2	39	123	33.3	27	90	24.5	302	1,325	23.1
50K - 999,999	86	339	24.7	26	93	23.9	23	81	20.5	448	1,601	28.9
Non-MSA	72	189	36.1	18	70	21.6 <sup>a</sup>	12	48	27.2	312	1,145	25.4
Total	261	861	30.9	83	286	27.0	62	219	23.9	1,062	4,071	25.6
<b>Surveys too invasive</b>												
1,000,000+	42	333	13.1	17	123	17.0	14	90	10.4	188	1,325	14.9
50K - 999,999	41	339	9.5	15	93	15.1	17	81	21.8	257	1,601	17.7
Non-MSA	25	189	13.7	11	70	18.7	7	48	7.7	168	1,145	15.8
Total	108	861	12.0	43	286	17.0	38	219	13.6	613	4,071	16.1

Note: The main study (MS) column represents the 649 FI regions that were excluded from the experiment.

MSA = metropolitan statistical area.

<sup>a</sup> Significantly different from \$0 at the 0.05 level.

<sup>b</sup> Significantly different from \$20 at the 0.05 level.

**Table 12SE. Standard Errors of Reasons for Final Refusal, by Treatment, Strata, and (Q1/Q2) Population Density**

Reason Given	Historically Poor Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
<b>Nothing in it for me</b>						
1,000,000+	4.6	5.6	5.6	0.6608	0.5662	0.9138
50K - 999,999	5.0	7.7	11.1	0.0558	0.6813	0.1471
Non-MSA	8.6	14.7	10.2	0.0528	0.5283	0.0029
Total	3.3	4.4	4.8	0.0924	0.9377	0.1624
<b>Too busy</b>						
1,000,000+	4.2	5.3	4.2	0.5360	0.9321	0.6871
50K - 999,999	4.3	6.7	5.3	0.3157	0.8054	0.3376
Non-MSA	6.8	21.1	2.8	0.2157	0.0041	0.0278
Total	3.1	4.1	3.1	0.1743	0.5910	0.1466
<b>Surveys too invasive</b>						
1,000,000+	2.2	3.4	4.1	0.7454	0.1644	0.1833
50K - 999,999	3.2	4.4	6.5	0.4640	0.4844	0.2498
Non-MSA	5.4	12.0	10.1	0.2345	0.1636	0.8932
Total	1.8	2.4	3.2	0.7465	0.0631	0.0783
<b>Interview</b>						
<b>Nothing in it for me</b>						
1,000,000+	3.9	6.0	5.7	0.8272	0.1731	0.2853
50K - 999,999	5.0	6.5	8.0	0.0375	0.0171	0.8858
Non-MSA	5.5	3.9	8.9	0.0517	0.7767	0.1111
Total	3.0	3.8	4.1	0.3035	0.0065	0.2652
<b>Too busy</b>						
1,000,000+	3.4	5.2	7.1	0.9698	0.7503	0.7700
50K - 999,999	4.1	8.6	7.2	0.4520	0.1920	0.8560
Non-MSA	9.7	11.2	12.3	0.1627	0.0033	0.5037
Total	3.1	4.2	4.7	0.9624	0.7276	0.8183
<b>Surveys too invasive</b>						
1,000,000+	2.8	3.3	4.0	0.9871	0.6161	0.6837
50K - 999,999	3.2	5.3	5.4	0.7770	0.8366	0.9775
Non-MSA	3.6	9.0	15.7	0.2047	0.3919	0.8757
Total	2.0	2.9	2.7	0.5365	0.2946	0.7663

(Continued)

**Table 12SE. Standard Errors of Reasons for Final Refusal, by Treatment, Strata, and Population Density (Continued)**

Reason Given	Historically Average Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
<b>Nothing in it for me</b>						
1,000,000+	5.9	9.9	11.7	0.4432	0.7824	0.7745
50K - 999,999	6.4	8.2	9.2	0.9270	0.8763	0.9417
Non-MSA	10.1	13.9	12.5	0.0707	0.1590	0.8636
Total	4.5	6.0	7.2	0.2025	0.4461	0.7176
<b>Too busy</b>						
1,000,000+	7.9	14.2	5.4	0.8578	0.0062	0.3228
50K - 999,999	7.9	5.8	9.2	0.8355	0.7215	0.8334
Non-MSA	7.0	7.5	9.6	0.7939	0.7482	0.6723
Total	5.7	5.6	4.8	0.7535	0.1967	0.5422
<b>Surveys too invasive</b>						
1,000,000+	6.1	8.6	10.4	0.5319	0.2777	0.6602
50K - 999,999	4.2	9.1	7.5	0.5070	0.9422	0.5586
Non-MSA	6.6	6.7	14.7	0.1634	0.2205	0.5871
Total	4.2	5.3	6.2	0.1509	0.1741	0.8544
<b>Interview</b>						
<b>Nothing in it for me</b>						
1,000,000+	6.8	12.1	9.5	0.5471	0.2620	0.1642
50K - 999,999	5.3	5.8	10.8	0.1409	0.6415	0.1814
Non-MSA	5.8	10.6	8.0	0.9067	0.7048	0.6986
Total	4.5	6.3	6.1	0.7989	0.9247	0.8610
<b>Too busy</b>						
1,000,000+	3.5	11.1	7.4	0.2330	0.5798	0.1542
50K - 999,999	6.3	10.4	6.9	0.7911	0.4386	0.3801
Non-MSA	4.4	6.2	8.1	0.0152	0.8547	0.0631
Total	3.4	5.3	5.3	0.8410	0.6311	0.5222
<b>Surveys too invasive</b>						
1,000,000+	2.4	5.3	5.4	0.5214	0.2293	0.5409
50K - 999,999	2.9	7.4	13.5	0.8906	0.0660	0.2768
Non-MSA	4.3	5.3	8.7	0.2924	0.7310	0.2564
Total	1.8	3.5	7.1	0.5844	0.5995	0.8491

(Continued)

**Table 12SE. Standard Errors of Reasons for Final Refusal, by Treatment, Strata, and Population Density (Continued)**

Reason Given	Historically Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
<b>Nothing in it for me</b>						
1,000,000+	8.0	17.6	20.3	0.3109	0.7549	0.3127
50K - 999,999	12.4	7.5	0.0	0.7538	0.0221	0.0010
Non-MSA	8.7	31.1	13.2	0.9698	0.5873	0.8111
Total	4.7	12.1	11.8	0.4891	0.1081	0.5676
<b>Too busy</b>						
1,000,000+	8.7	9.9	9.5	0.5556	0.9651	0.4741
50K - 999,999	0.0	0.0	0.0	*	*	*
Non-MSA	14.6	0.0	5.7	0.0426	0.1751	0.2307
Total	5.1	5.9	5.0	0.6964	0.6513	0.9735
<b>Surveys too invasive</b>						
1,000,000+	5.3	0.0	6.0	0.3100	0.9910	0.3744
50K - 999,999	12.6	7.5	0.0	0.9390	0.0556	0.0010
Non-MSA	5.0	31.1	18.4	0.1471	0.0245	0.8452
Total	6.0	12.3	16.1	0.4012	0.0426	0.4840
<b>Interview</b>						
<b>Nothing in it for me</b>						
1,000,000+	8.1	0.0	0.0	0.0128	*	*
50K - 999,999	8.9	17.2	0.0	0.0908	0.0000	0.0824
Non-MSA	8.0	15.0	17.1	0.3008	0.4020	0.1849
Total	5.4	16.9	15.8	0.9027	0.0487	0.1311
<b>Too busy</b>						
1,000,000+	13.3	20.2	0.0	0.1076	*	*
50K - 999,999	11.1	6.7	0.0	0.0841	0.0068	0.3227
Non-MSA	6.6	6.6	11.8	0.0337	0.4755	0.6608
Total	7.0	7.2	9.1	0.0002	0.0194	0.8680
<b>Surveys too invasive</b>						
1,000,000+	5.6	29.7	0.0	0.1940	*	*
50K - 999,999	4.2	17.8	0.0	0.2925	0.1898	0.1880
Non-MSA	8.0	18.1	3.3	0.9120	0.0425	0.3778
Total	3.2	19.2	2.6	0.2634	0.0341	0.1010

(Continued)

**Table 12SE. Standard Errors of Reasons for Final Refusal, by Treatment, Strata, and Population Density (Continued)**

Reason Given	Combined Poor, Average, and Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Screening</b>						
<b>Nothing in it for me</b>						
1,000,000+	3.7	4.9	5.8	0.1801	0.3501	0.7847
50K - 999,999	4.7	5.9	7.5	0.3477	0.9572	0.5300
Non-MSA	6.4	11.1	7.6	0.0774	0.1712	0.6273
Total	2.5	3.7	4.1	0.0355	0.2318	0.4684
<b>Too busy</b>						
1,000,000+	5.0	5.6	3.3	0.6693	0.2479	0.2457
50K - 999,999	4.6	4.4	5.9	0.6750	0.9963	0.7392
Non-MSA	5.9	6.4	4.7	0.4236	0.2744	0.7244
Total	3.4	3.3	2.7	0.8628	0.2060	0.2484
<b>Surveys too invasive</b>						
1,000,000+	3.2	3.6	5.1	0.8033	0.0970	0.2138
50K - 999,999	3.3	5.9	5.0	0.7568	0.9484	0.8106
Non-MSA	4.2	8.2	10.1	0.0318	0.0199	0.6660
Total	2.4	3.3	3.7	0.1604	0.0134	0.3101
<b>Interview</b>						
<b>Nothing in it for me</b>						
1,000,000+	5.0	6.1	6.8	0.3513	0.8352	0.3053
50K - 999,999	3.7	5.8	8.1	0.3759	0.8244	0.3403
Non-MSA	4.2	7.3	8.0	0.9443	0.6381	0.7479
Total	2.8	4.2	4.3	0.6957	0.8952	0.6164
<b>Too busy</b>						
1,000,000+	5.4	6.1	5.2	0.9897	0.2358	0.3064
50K - 999,999	4.1	6.0	5.1	0.9080	0.5540	0.6673
Non-MSA	3.6	5.1	7.6	0.0133	0.3303	0.5471
Total	2.7	3.2	3.5	0.3648	0.1244	0.5215
<b>Surveys too invasive</b>						
1,000,000+	1.9	6.5	3.8	0.5896	0.5765	0.3943
50K - 999,999	2.1	5.4	7.3	0.3493	0.0672	0.5105
Non-MSA	3.4	4.4	5.1	0.4201	0.3613	0.1037
Total	1.3	3.5	3.5	0.1999	0.6727	0.4982

MSA = metropolitan statistical area.

\* = p-value cannot be computed.



**Table 13. Sufficient Incentive Amounts, by Historical Response Rate Strata and (Q1/Q2) Population Density, Using Significant Differences in Weighted Refusal Rates**

		Historical Response Rate Strata			
		Poor	Average	Good	Combined
<b>Population Density</b>	1,000,000+	\$40	\$20	\$40	\$20
	50K - 999,999	\$20	\$20	\$20	\$20
	Non-MSA	NS	\$40	NS	\$40
<b>Total</b>		\$40	\$20	\$20	\$20

Note: Information based on significant differences at the  $p < .05$  level.

MSA = metropolitan statistical area.

NS = not sufficient.

**Table 14. Field Interviewer Observations, by Treatment Level - Unweighted (Q1/Q2)**

Answer	Incentive Amount				Total	
	\$20		\$40			
	#	%	#	%	#	%
<b>INCNT02 - Did this respondent accept the [\$20/\$40] incentive payment?</b>						
Yes	2,476	99.7	2,870	99.9	5,346	99.8
No	7	0.3	4	0.1	11	0.2
<b>Total</b>	<b>2,483</b>	<b>100.0</b>	<b>2,874</b>	<b>100.0</b>	<b>5,357</b>	<b>100.0</b>
<b>INCNT03 - Why didn't this respondent accept the incentive payment?</b>						
Didn't feel it was necessary (INCNT031)	3	42.9	3	75.0	6	54.6
Didn't need the money (INCNT033)	2	28.6	0	0.0	2	18.2
Felt it was inappropriate (INCNT034)	2	28.6	0	0.0	2	18.2
Some other reason (INCNT035)	0	0.0	1	25.0	1	9.1
<b>Total</b>	<b>7</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>
<b>INCNT05 - How much do you think the incentive payment influenced this respondent's decision to participate in the interview?</b>						
A lot	1,415	57.1	2,067	72.0	3,482	65.1
A little	721	29.1	596	20.8	1,317	24.6
Not at all	333	13.5	199	6.9	532	10.0
Don't know	7	0.3	8	0.3	15	0.3
<b>Total</b>	<b>2,476</b>	<b>100.0</b>	<b>2,870</b>	<b>100.0</b>	<b>5,346</b>	<b>99.9</b>
<b>INCNT06 - Do you think you would have been successful in convincing this respondent to participate if you had not been able to offer the incentive payment?</b>						
Definitely yes	402	16.2	446	15.5	848	15.8
Probably yes	1,120	45.1	1,286	44.7	2,406	44.9
Probably not	476	19.2	692	24.1	1,168	21.8
Definitely not	132	5.3	215	7.5	347	6.5
Don't know	6	0.2	24	0.8	30	0.6
Blank (no answer)	347	14.0	211	7.3	558	10.4
<b>Total</b>	<b>2,483</b>	<b>100.0</b>	<b>2,874</b>	<b>100.0</b>	<b>5,357</b>	<b>100.0</b>

(Continued)

**Table 14. Field Interviewer Observations, by Treatment Level - Unweighted (Q1/Q2) (Continued)**

Answer	Incentive Amount				Total	
	\$20		\$40		#	%
	#	%	#	%		
<b>INCNT07 - Do you think the incentive payment allowed you to work this case more efficiently, that is, make fewer visits to the household or spend less time gaining cooperation than you would have?</b>						
Yes	1,973	79.5	2,504	87.1	4,477	83.6
No	506	20.4	348	12.1	854	15.9
Don't know	4	0.2	22	0.8	26	0.5
<b>Total</b>	<b>2,483</b>	<b>100.0</b>	<b>2,874</b>	<b>100.0</b>	<b>5,357</b>	<b>100.0</b>
<b>INCNT08 - Did this respondent make any comments that suggested [he/she] would have participated in the survey without the incentive?</b>						
Yes	309	12.4	349	12.1	658	12.3
No	2,167	87.3	2,513	87.4	4,680	87.4
Don't know	0	0.0	8	0.3	8	0.1
Blank (no answer)	7	0.3	4	0.1	11	0.2
<b>Total</b>	<b>2,483</b>	<b>100.0</b>	<b>2,874</b>	<b>100.0</b>	<b>5,357</b>	<b>100.0</b>
<b>INCNT09 - Did this respondent make any comments that suggested [he/she] felt it was inappropriate to offer money in exchange for a person's participation in the NHSDA?</b>						
Yes (go to INCNT10)	33	1.3	28	1.0	61	1.1
No	2,443	98.4	2,842	98.9	5,285	98.7
Blank (no answer)	7	0.3	4	0.1	11	0.2
<b>Total</b>	<b>2,483</b>	<b>100.0</b>	<b>2,874</b>	<b>100.0</b>	<b>5,357</b>	<b>100.0</b>
<b>INCNT10 - Did this respondent make any comments about what [he/she] planned to do with the incentive payment?</b>						
Yes	8	24.2	9	32.1	17	27.9
No	25	75.8	19	67.9	44	72.1
<b>Total</b>	<b>33</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>	<b>61</b>	<b>100.0</b>
<b>INCNT12 - Did this respondent make any comments that indicated how [he/she] felt about the amount of the incentive payment?</b>						
Yes (go to INCNT13)	169	6.8	358	12.5	527	9.8
No	2,307	92.9	2,512	87.4	4,819	90.0
Blank (no answer)	7	0.3	4	0.1	11	0.2
<b>Total</b>	<b>2,483</b>	<b>100.0</b>	<b>2,874</b>	<b>100.0</b>	<b>5,357</b>	<b>100.0</b>

(Continued)

**Table 14. Field Interviewer Observations, by Treatment Level - Unweighted (Q1/Q2) (Continued)**

Answer	Incentive Amount				Total	
	\$20		\$40		#	%
	#	%	#	%		
<b>INCNT13 - Did this respondent's comments suggest [he/she] thought the amount of the incentive payment was too high, about right, or too low?</b>						
Too high	4	2.4	33	9.2	37	7.0
About right	142	84.0	316	88.3	458	86.9
Too low	21	12.4	2	0.6	23	4.4
Don't know	2	1.2	7	2.0	9	1.7
<b>Total</b>	169	100.0	358	100.0	527	100.0
<b>INCNT14 - Did the respondent already know about the incentive before you told [him/her]?</b>						
Yes	1,087	43.8	1,447	50.3	2,534	47.3
No	1,355	54.6	1,371	47.7	2,726	50.9
Don't know	41	1.7	56	1.9	97	1.8
<b>Total</b>	2,483	100.0	2,874	100.0	5,357	100.0
<b>INCNT15 - Did this respondent show any reluctance to participate in the interview before you mentioned the incentive payment to [him/her]?</b>						
Yes	366	27.0	408	29.8	774	28.4
No	986	72.8	960	70.0	1,946	71.4
Don't know	3	0.2	3	0.2	6	0.2
<b>Total</b>	1,355	100.0	1,371	100.0	2,726	100.0
<b>INCNT16 - How did this respondent find out about the incentive payment?</b>						
From the lead letter	611	54.6	770	52.1	1,381	53.2
From the Q&A brochure	13	1.2	27	1.8	40	1.5
From another member of the household	443	39.6	605	41.0	1,048	40.4
From a neighbor/building manager/etc.	4	0.4	18	1.2	22	0.9
From another interviewer	26	2.3	35	2.4	61	2.4
Some other way	23	2.1	22	1.5	45	1.7
<b>Total</b>	1,120	100.0	1,477	100.0	2,597	100.0

**Table 15. Comparison of Data Quality Measures, by Treatment, Strata, and Population Density - Weighted Percentages and Unweighted Counts**

	Historically Poor Response											
	\$0			\$20			\$40			MS		
	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)
<b>Breakoffs</b>												
1,000,000+	1	1,629	0.0	1	865	0.3	2	981	0.1	0	1,504	0.0
50K - 999,999	1	1,269	0.0	1	658	0.1	0	824	0.0	3	1,405	0.1
Non-MSA	0	438	0.0	0	259	0.0	0	233	0.0	2	413	1.2
Total	2	3,336	0.0	2	1,782	0.2	2	2,038	0.1	5	3,322	0.2
<b>Short Interviews</b>												
1,000,000+	22	1,127	1.0	5	659	1.4	3	839	0.1 <sup>a</sup>	11	1,083	0.4
50K - 999,999	7	885	0.3	1	544	0.5	4	733	0.3	4	1,019	0.4
Non-MSA	1	308	0.1	4	212	1.6	0	209	0.0	1	325	0.1
Total	30	2,320	0.6	10	1,415	1.2	7	1,781	0.2	16	2,427	0.4
<b>Unusable Cases</b>												
1,000,000+	1	1,128	0.0	2	661	0.7	1	840	0.0	0	1,083	0.0
50K - 999,999	2	887	0.1	0	544	0.0	1	734	0.0	0	1,019	0.0
Non-MSA	1	309	0.5	0	212	0.0	0	209	0.0	1	326	0.0
Total	4	2,324	0.1	2	1,417	0.4	2	1,783	0.0	1	2,428	0.0
	Historically Average Response											
	\$0			\$20			\$40			MS		
	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)
<b>Breakoffs</b>												
1,000,000+	1	510	0.6	0	236	0.0	0	235	0.0	14	6,921	0.2
50K - 999,999	1	623	0.0	0	302	0.0	0	326	0.0	9	7,025	0.2
Non-MSA	0	596	0.0	0	315	0.0	0	266	0.0	7	5,342	0.4
Total	2	1,729	0.3	0	853	0.0	0	827	0.0	30	19,288	0.2
<b>Short Interviews</b>												
1,000,000+	2	376	0.4	1	192	0.1	0	204	0.0	45	5,267	0.5
50K - 999,999	3	458	0.5	1	258	0.9	3	295	0.6	32	5,418	0.4
Non-MSA	5	437	0.6	2	268	0.2	0	237	0.0	13	4,208	0.1
Total	10	1,271	0.5	4	718	0.4	3	736	0.2	90	14,893	0.4
<b>Unusable Cases</b>												
1,000,000+	0	376	0.0	0	192	0.0	0	204	0.0	11	5,278	0.3
50K - 999,999	1	459	0.5	0	258	0.0	0	295	0.0	8	5,426	0.2
Non-MSA	2	439	1.0	0	268	0.0	1	238	1.0	5	4,213	0.3
Total	3	1,274	0.4	0	718	0.0	1	737	0.3	24	14,917	0.2

(Continued)

**Table 15. Comparison of Data Quality Measures, by Treatment, Strata, and Population Density - Weighted Percentages and Unweighted Counts (Continued)**

	Historically Good Response											
	\$0			\$20			\$40			MS		
	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)
<b>Breakoffs</b>												
1,000,000+	1	255	0.1	0	110	0.0	0	49	0.0	4	2,132	0.2
50K - 999,999	0	255	0.0	0	151	0.0	0	84	0.0	4	3,150	0.1
Non-MSA	2	329	0.4	0	146	0.0	0	263	0.0	7	3,652	0.3
Total	3	839	0.2	0	407	0.0	0	396	0.0	15	8,934	0.2
<b>Short Interviews</b>												
1,000,000+	8	196	2.1	0	92	0.0	0	43	0.0	19	1,708	0.7
50K - 999,999	3	192	2.5	0	137	0.0	0	77	0.0	15	2,521	0.1
Non-MSA	3	254	1.7	0	127	0.0	0	241	0.0	21	2,940	0.3
Total	14	642	2.1	0	356	0.0 <sup>a</sup>	0	361	0.0 <sup>a</sup>	55	7,169	0.4
<b>Unusable Cases</b>												
1,000,000+	1	197	0.1	0	92	0.0	0	43	0.0	1	1,709	0.0
50K - 999,999	0	192	0.0	0	137	0.0	0	77	0.0	7	2,528	0.3
Non-MSA	0	254	0.0	0	127	0.0	0	241	0.0	6	2,946	0.4
Total	1	643	0.0	0	356	0.0	0	361	0.0	14	7,183	0.3
	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)	#	Eligible Interviews	(%)
<b>Breakoffs</b>												
1,000,000+	3	2,394	0.4	1	1,211	0.1	2	1,265	0.1	18	10,557	0.1
50K - 999,999	2	2,147	0.0	1	1,111	0.0	0	1,234	0.0	16	11,580	0.2
Non-MSA	2	1,363	0.1	0	720	0.0	0	762	0.0	16	9,407	0.5
Total	7	5,904	0.2	2	3,042	0.0	2	3,261	0.0	50	31,544	0.2
<b>Short Interviews</b>												
1,000,000+	32	1,699	0.8	6	943	0.6	3	1,086	0.0 <sup>a</sup>	75	8,058	0.5
50K - 999,999	13	1,535	1.0	2	939	0.5	7	1,105	0.4	51	8,958	0.4
Non-MSA	9	999	0.9	6	607	0.4	0	687	0.0	35	7,473	0.2
Total	54	4,233	0.9	14	2,489	0.5	10	2,878	0.2 <sup>a</sup>	161	24,489	0.4
<b>Unusable Cases</b>												
1,000,000+	2	1,701	0.0	2	945	0.3	1	1,087	0.0	12	8,070	0.2
50K - 999,999	3	1,538	0.3	0	939	0.0	1	1,106	0.0	15	8,973	0.2
Non-MSA	3	1,002	0.7	0	607	0.0	1	688	0.4	12	7,485	0.3
Total	8	4,241	0.3	2	2,491	0.1	3	2,881	0.1	39	24,528	0.2

Note: The main study (MS) column represents the 649 FI Regions that were excluded from the experiment.

MSA = metropolitan statistical area.

<sup>a</sup> Significantly different from \$0 at the 0.05 level.

<sup>b</sup> Significantly different from \$20 at the 0.05 level.

**Table 15SE. Standard Errors of Data Quality Measures, by Treatment, Strata, and (Q1/Q2) Population Density**

	Historically Poor Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Breakoffs</b>						
1,000,000+	0.0	0.3	0.1	0.3517	0.3072	0.6504
50K - 999,999	0.0	0.1	0.0	0.7524	0.3145	0.3147
Non-MSA	0.0	0.0	0.0	-	-	-
Total	0.0	0.1	0.1	0.3406	0.4714	0.5268
<b>Short Interviews</b>						
1,000,000+	0.4	0.8	0.1	0.6172	0.0323	0.1093
50K - 999,999	0.2	0.5	0.3	0.6892	0.9497	0.7317
Non-MSA	0.1	1.1	0.0	0.1315	0.3235	0.1295
Total	0.2	0.5	0.1	0.3309	0.0849	0.0533
<b>Unusable Cases</b>						
1,000,000+	0.0	0.5	0.0	0.1818	0.9844	0.1824
50K - 999,999	0.1	0.0	0.0	0.1970	0.3024	0.3376
Non-MSA	0.5	0.0	0.0	0.3117	0.3117	-
Total	0.1	0.3	0.0	0.3421	0.2320	0.1909
	Historically Average Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Breakoffs</b>						
1,000,000+	0.6	0.0	0.0	0.3416	0.3416	-
50K - 999,999	0.0	0.0	0.0	0.3225	0.3225	-
Non-MSA	0.0	0.0	0.0	-	-	-
Total	0.3	0.0	0.0	0.3231	0.3231	-
<b>Short Interviews</b>						
1,000,000+	0.2	0.1	0.0	0.2646	0.0556	0.2964
50K - 999,999	0.5	0.7	0.5	0.6882	0.9609	0.7169
Non-MSA	0.4	0.2	0.0	0.4444	0.1635	0.1888
Total	0.2	0.3	0.2	0.8586	0.3679	0.6023
<b>Unusable Cases</b>						
1,000,000+	0.0	0.0	0.0	-	-	-
50K - 999,999	0.5	0.0	0.0	0.3020	0.3020	-
Non-MSA	0.9	0.0	1.0	0.2600	0.9810	0.2980
Total	0.3	0.0	0.3	0.1681	0.7573	0.3209

(Continued)

**Table 15SE. Standard Errors of Data Quality Measures, by Treatment, Strata, and Population Density (Continued)**

	Historically Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Breakoffs</b>						
1,000,000+	0.1	0.0	0.0	0.3242	0.3242	-
50K - 999,999	0.0	0.0	0.0	-	-	-
Non-MSA	0.3	0.0	0.0	0.1186	0.1186	-
Total	0.1	0.0	0.0	0.1133	0.1133	-
<b>Short Interviews</b>						
1,000,000+	1.1	0.0	0.0	0.0736	0.0736	-
50K - 999,999	1.6	0.0	0.0	0.1221	0.1221	-
Non-MSA	1.6	0.0	0.0	0.2662	0.2662	-
Total	0.8	0.0	0.0	0.0132	0.0132	-
<b>Unusable Cases</b>						
1,000,000+	0.1	0.0	0.0	0.3183	0.3183	-
50K - 999,999	0.0	0.0	0.0	-	-	-
Non-MSA	0.0	0.0	0.0	-	-	-
Total	0.0	0.0	0.0	0.3230	0.3230	-
	Combined Poor, Average, and Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Breakoffs</b>						
1,000,000+	0.3	0.1	0.1	0.4915	0.3975	0.7094
50K - 999,999	0.0	0.0	0.0	0.8324	0.1617	0.3248
Non-MSA	0.1	0.0	0.0	0.1491	0.1491	-
Total	0.2	0.0	0.0	0.3468	0.2650	0.5916
<b>Short Interviews</b>						
1,000,000+	0.2	0.3	0.0	0.6763	0.0010	0.0926
50K - 999,999	0.5	0.4	0.3	0.5006	0.3222	0.7846
Non-MSA	0.5	0.2	0.0	0.4017	0.1052	0.0522
Total	0.2	0.2	0.1	0.2409	0.0030	0.1007
<b>Unusable Cases</b>						
1,000,000+	0.0	0.2	0.0	0.2100	0.6133	0.1876
50K - 999,999	0.2	0.0	0.0	0.2725	0.2827	0.3252
Non-MSA	0.5	0.0	0.4	0.2260	0.7576	0.3099
Total	0.2	0.1	0.1	0.3720	0.5621	0.8044

- = Difference tests were not performed when both estimates equaled zero.

MSA = metropolitan statistical area.



**Table 16. Comparison of Past Month Alcohol Use, by Treatment, Strata, Age, and Race - Weighted Prevalence Rates and Unweighted Counts**

	Historically Poor Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age in Years</b>												
12-17	136	812	16.2	101	488	20.2	123	597	18.2	129	803	14.7
18-25	460	739	62.3	273	440	61.2	401	648	58.0	490	781	59.6
26+	454	769	57.9	284	487	56.9	308	536	53.5	452	843	51.8
<b>Race</b>												
White	808	1,604	60.0	506	989	56.6	595	1,181	53.4	768	1,516	55.8
Black	86	295	32.2	58	162	*	110	278	46.4 <sup>a</sup>	94	295	35.4
Hispanic	102	257	46.8	69	198	*	71	200	*	132	371	38.6
Other	54	164	*	25	66	*	56	122	*	77	245	35.2
Total	1,050	2,320	54.3	658	1,415	53.8	832	1,781	50.8	1,071	2,427	49.2
	Historically Average Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age in Years</b>												
12-17	93	446	21.4	45	241	18.3	38	229	18.4	851	4,984	16.5
18-25	239	403	57.6	130	243	52.9	174	291	58.9	2,873	4,881	56.6
26+	219	422	45.5	124	234	47.0	127	216	55.1 <sup>a</sup>	2,645	5,028	49.0
<b>Race</b>												
White	432	916	48.5	230	523	47.5	281	544	56.2	4,877	10,386	51.2
Black	46	157	*	39	112	*	23	89	*	508	1,645	33.5
Hispanic	56	143	44.6	23	53	*	22	64	*	653	1,880	37.8
Other	17	55	*	7	30	*	13	39	*	331	982	34.8
Total	551	1,271	44.3	299	718	44.7	339	736	51.9 <sup>a</sup>	6,369	14,893	46.5
	Historically Good Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age in Years</b>												
12-17	47	239	18.0	18	138	9.8	27	130	*	407	2,355	16.8
18-25	93	189	*	49	104	*	72	123	*	1,445	2,461	56.7
26+	117	214	48.7	50	114	*	54	108	40.3	1,192	2,353	47.4
<b>Race</b>												
White	177	387	49.1	85	216	*	122	272	*	2,313	5,063	48.7
Black	38	139	32.5	12	68	*	8	31	*	281	865	31.1
Hispanic	28	74	*	15	41	*	9	26	*	318	863	41.7
Other	14	42	*	5	31	*	14	32	*	132	378	39.6
Total	257	642	44.4	117	356	40.9	153	361	39.3	3,044	7,169	45.6

(Continued)

**Table 16. Comparison of Past Month Alcohol Use, by Treatment, Strata, Age, and Race - Weighted Prevalence Rates and Unweighted Counts (Continued)**

	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age in Years</b>												
12-17	276	1,497	19.4	164	867	16.7	188	956	18.3	1,387	8,142	16.1
18-25	792	1,331	55.8	452	787	53.3	647	1,062	58.1	4,808	8,123	57.3
26+	790	1,405	49.3	458	835	49.3	489	860	51.5	4,289	8,224	49.4
<b>Race</b>												
White	1,417	2,907	51.7	821	1,728	50.8	998	1,997	52.2	7,958	16,965	51.8
Black	170	591	29.8	109	342	*	141	398	41.8 <sup>a</sup>	883	2,805	33.5
Hispanic	186	474	44.7	107	292	42.9	102	290	*	1,103	3,114	38.8
Other	85	261	21.8	37	127	*	83	193	44.2 <sup>a</sup>	540	1,605	35.5
Total	1,858	4,233	46.8	1,074	2,489	46.4	1,324	2,878	49.0	10,484	24,489	47.1

Note: The main study (MS) column represents the 649 FI regions that were excluded from the experiment.

\* Low precision; no estimate reported.

<sup>a</sup> Significantly different from \$0 at the 0.05 level.

<sup>b</sup> Significantly different from \$20 at the 0.05 level.

**Table 16SE. Standard Errors of Past Month Alcohol Use, by Treatment, Strata, Age, and Race (Q1/Q2)**

	Historically Poor Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>						
12-17	1.4	1.8	1.9	0.0810	0.4497	0.3997
18-25	2.0	2.9	2.8	0.7426	0.2076	0.4379
26+	2.4	3.2	2.9	0.7740	0.2255	0.3611
<b>Race</b>						
White	2.4	2.9	2.8	0.3220	0.0605	0.3730
Black	3.8	*	6.0	*	0.0406	*
Hispanic	4.5	*	*	*	*	*
Other	*	*	*	*	*	*
Total	1.9	2.6	2.3	0.8711	0.2303	0.3091
	Historically Average Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>						
12-17	2.6	2.7	4.5	0.4030	0.5173	0.9847
18-25	2.9	3.3	5.0	0.2275	0.8376	0.3511
26+	3.0	5.1	4.7	0.7504	0.0219	0.2336
<b>Race</b>						
White	2.9	4.8	4.2	0.8290	0.0817	0.1543
Black	*	*	*	*	*	*
Hispanic	4.5	*	*	*	*	*
Other	*	*	*	*	*	*
Total	2.4	4.0	4.2	0.9239	0.0407	0.2031
	Historically Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>						
12-17	3.4	3.6	*	0.1190	*	*
18-25	*	*	*	*	*	*
26+	4.0	*	5.6	*	0.1867	*
<b>Race</b>						
White	4.3	*	*	*	*	*
Black	3.2	*	*	*	*	*
Hispanic	*	*	*	*	*	*
Other	*	*	*	*	*	*
Total	2.9	5.9	4.8	0.5334	0.2776	0.7608

(Continued)

**Table 16SE. Standard Errors of Past Month Alcohol Use, by Treatment, Strata, Age, and Race (Continued)**

	Combined Poor, Average, and Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>						
12-17	1.7	1.8	2.4	0.2930	0.6987	0.6150
18-25	2.4	2.7	2.7	0.4339	0.5202	0.2101
26+	2.0	3.1	2.7	0.9922	0.4110	0.5736
<b>Race</b>						
White	1.9	2.9	2.7	0.7581	0.8404	0.6758
Black	2.9	*	4.8	*	0.0332	*
Hispanic	3.4	4.6	*	0.7330	*	*
Other	4.7	*	5.9	*	0.0054	*
Total	1.5	2.5	2.3	0.8849	0.3143	0.4164

\* Low precision; no estimate reported

**Table 17. Comparison of Past Month Cigarette Use, by Treatment, Strata, Age, and Race - Weighted Prevalence Rates and Unweighted Counts**

	Historically Poor Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age</b>												
12-17	113	812	13.8	77	488	15.0	88	597	13.3	89	803	9.8
18-25	290	739	38.0	183	440	39.5	237	648	*	298	781	33.6
26+	203	769	23.7	126	487	23.4	128	536	19.2	208	843	20.6
<b>Race</b>												
White	454	1,604	25.1	292	989	24.1	326	1,181	21.1	417	1,516	22.0
Black	61	295	*	27	162	*	56	278	15.1	57	295	20.0
Hispanic	60	257	*	46	198	24.0	39	200	14.4	76	371	21.8
Other	31	164	*	21	66	*	32	122	21.4	45	245	13.0
Total	606	2,320	24.2	386	1,415	24.2	453	1,781	19.3 <sup>a</sup>	595	2,427	21.0
	Historically Average Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age</b>												
12-17	53	446	12.6	40	241	15.2	20	229	9.8	716	4,984	13.5
18-25	159	403	34.6	100	243	41.6	115	291	39.5	2,005	4,881	39.0
26+	91	422	20.7	63	234	27.1	68	216	24.7	1,267	5,028	22.9
<b>Race</b>												
White	242	916	20.6	162	523	26.7	165	544	25.8	3,020	10,386	25.1
Black	25	157	15.2	24	112	*	12	89	*	313	1,645	21.4
Hispanic	26	143	*	10	53	*	16	64	*	408	1,880	19.5
Other	10	55	*	7	30	*	10	39	*	247	982	23.4
Total	303	1,271	21.4	203	718	27.5	203	736	25.3	3,988	14,893	23.8
	Historically Good Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age</b>												
12-17	42	239	13.1	20	138	13.1	22	130	*	314	2,355	12.6
18-25	60	189	*	33	104	*	39	123	34.2	961	2,461	36.5
26+	46	214	20.5	27	114	*	34	108	*	700	2,353	27.4
<b>Race</b>												
White	100	387	23.5	52	216	*	73	272	*	1,491	5,063	27.8
Black	21	139	11.0	10	68	*	8	31	*	172	865	25.8
Hispanic	18	74	*	8	41	*	7	26	*	190	863	24.6
Other	9	42	*	10	31	*	7	32	*	122	378	25.1
Total	148	642	20.8	80	356	22.9	95	361	*	1,975	7,169	27.1

(Continued)

**Table 17. Comparison of Past Month Cigarette Use, by Treatment, Strata, Age, and Race - Weighted Prevalence Rates and Unweighted Counts (Continued)**

	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age</b>												
12-17	208	1,497	13.0	137	867	14.7	130	956	11.5	1,119	8,142	12.4
18-25	509	1,331	34.8	316	787	38.3	391	1,062	32.2	3,264	8,123	37.1
26+	340	1,405	21.4	216	835	25.2	230	860	24.3	2,175	8,224	23.2
<b>Race</b>												
White	796	2,907	22.4	506	1,728	25.9	564	1,997	24.1	4,928	16,965	24.9
Black	107	591	15.5	61	342	*	76	398	*	542	2,805	21.9
Hispanic	104	474	25.8	64	292	20.0	62	290	19.3	674	3,114	21.2
Other	50	261	*	38	127	*	49	193	23.9	414	1,605	19.4
Total	1,057	4,233	21.9	669	2,489	25.6	751	2,878	24.1	6,558	24,489	23.8

Note: The main study (MS) column represents the 649 FI regions that were excluded from the experiment.

\* Low precision; no estimate reported.

<sup>a</sup> Significantly different from \$0 at the 0.05 level.

<sup>b</sup> Significantly different from \$20 at the 0.05 level.

**Table 17SE. Standard Errors of Past Month Cigarette Use, by Treatment, Strata, Age, and Race (Q1/Q2)**

		Historically Poor Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>							
	12-17	1.4	1.7	1.5	0.4802	0.8070	0.3732
	18-25	3.3	2.9	*	0.7259	*	*
	26+	1.9	2.4	2.0	0.9168	0.1061	0.1718
<b>Race</b>							
	White	1.8	2.3	2.1	0.7258	0.1560	0.3461
	Black	*	*	4.2	*	*	*
	Hispanic	*	4.7	4.2	*	*	0.0829
	Other	*	*	4.4	*	*	*
	Total	1.6	2.0	1.9	0.9969	0.0427	0.0714
		Historically Average Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>							
	12-17	1.6	2.0	3.1	0.3003	0.3907	0.1184
	18-25	3.2	3.7	3.7	0.1762	0.2939	0.6568
	26+	2.4	4.2	3.5	0.1830	0.4223	0.6902
<b>Race</b>							
	White	2.6	3.9	3.3	0.1737	0.2844	0.8673
	Black	2.4	*	*	*	*	*
	Hispanic	*	*	*	*	*	*
	Other	*	*	*	*	*	*
	Total	1.9	3.4	3.1	0.1176	0.3335	0.6755
		Historically Good Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>							
	12-17	4.0	3.0	*	0.9943	*	*
	18-25	*	*	5.5	*	*	*
	26+	2.8	0	*	*	*	*
<b>Race</b>							
	White	3.3	*	*	*	*	*
	Black	3.1	*	*	*	*	*
	Hispanic	*	*	*	*	*	*
	Other	*	*	*	*	*	*
	Total	2.5	4.9	*	0.6223	*	*

(Continued)

**Table 17SE. Standard Errors of Past Month Cigarette Use, by Treatment, Strata, Age, and Race (Continued)**

	Combined Poor, Average, and Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>						
12-17	1.4	1.3	1.8	0.3450	0.4922	0.0968
18-25	2.5	2.5	4.9	0.3324	0.6287	0.2961
26+	1.5	1.5	2.5	0.1834	0.3683	0.8136
<b>Race</b>						
White	1.6	2.5	2.1	0.1900	0.5750	0.5872
Black	2.0	*	*	*	*	*
Hispanic	4.9	4.2	4.3	0.3684	0.3063	0.9226
Other	*	*	5.1	*	*	*
Total	1.2	2.1	2.0	0.1122	0.4173	0.6468

\* Low precision; no estimate reported.



**Table 18. Comparison of Past Month Marijuana Use, by Treatment, Strata, Age, and Race - Weighted Prevalence Rates and Unweighted Counts**

	Historically Poor Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age in Years</b>												
12-17	67	812	7.8	42	488	8.4	60	597	9.8	64	803	7.3
18-25	137	739	16.6	67	440	14.3	116	648	13.7	139	781	16.2
26+	30	769	3.5	24	487	5.5	27	536	3.9	34	843	3.2
<b>Race</b>												
White	161	1,604	5.1	92	989	6.8	144	1,181	7.2	169	1,516	5.7
Black	36	295	5.8	17	162	6.5	31	278	4.0	28	295	4.1
Hispanic	25	257	6.5	18	198	6.4	16	200	5.2	26	371	2.8
Other	12	164	*	6	66	*	12	122	4.0	14	245	4.5
Total	234	2,320	5.3	133	1,415	6.7	203	1,781	6.1	237	2,427	5.0
	Historically Average Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age in Years</b>												
12-17	31	446	7.9	26	241	7.6	15	229	6.1	398	4,984	7.4
18-25	66	403	15.8	41	243	14.2	47	291	14.0	744	4,881	14.4
26+	15	422	2.1	14	234	4.8	16	216	5.1	188	5,028	2.6
<b>Race</b>												
White	90	916	4.9	56	523	5.9	58	544	5.9	1006	10,386	4.7
Black	8	157	2.3	20	112	*	12	89	*	137	1,645	4.9
Hispanic	10	143	2.5	2	53	*	6	64	*	111	1,880	3.0
Other	4	55	*	3	30	*	2	39	*	76	982	4.4
Total	112	1,271	4.2	81	718	6.1	78	736	6.4	1330	14,893	4.5
	Historically Good Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age in Years</b>												
12-17	20	239	4.8	13	138	8.6	13	130	9.6	190	2,355	7.6
18-25	22	189	11.3	12	104	9.1	18	123	*	337	2,461	13.4
26+	6	214	2.6	3	114	2.2	2	108	*	82	2,353	2.4
<b>Race</b>												
White	26	387	3.8	17	216	4.2	26	272	5.2	427	5,063	4.0
Black	12	139	3.7	5	68	*	2	31	*	83	865	5.2
Hispanic	6	74	*	3	41	*	3	26	*	56	863	4.7
Other	4	42	*	3	31	*	2	32	*	43	378	5.6
Total	48	642	3.8	28	356	3.8	33	361	4.6	609	7,169	4.3

(Continued)

**Table 18. Comparison of Past Month Marijuana Use, by Treatment, Strata, Age, and Race - Weighted Prevalence Rates and Unweighted Counts (Continued)**

	Combined Poor, Average, and Good Response											
	\$0			\$20			\$40			MS		
	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)	Yes	Completed Interviews	(%)
<b>Age in Years</b>												
12-17	118	1,497	7.1	81	867	8.0	88	956	8.2	652	8,142	7.4
18-25	225	1,331	15.0	120	787	12.9	181	1,062	14.6	1,220	8,123	14.6
26+	51	1,405	2.6	41	835	4.4	45	860	3.9	304	8,224	2.7
<b>Race</b>												
White	277	2,907	4.7	165	1,728	5.8	228	1,997	6.2	1,602	16,965	4.8
Black	56	591	3.6	42	342	*	45	398	6.2	248	2,805	4.7
Hispanic	41	474	3.4	23	292	3.1	25	290	4.3	193	3,114	3.3
Other	20	261	4.2	12	127	4.9	16	193	*	133	1,605	4.6
<b>Total</b>	<b>394</b>	<b>4,233</b>	<b>4.4</b>	<b>242</b>	<b>2,489</b>	<b>5.8</b>	<b>314</b>	<b>2,878</b>	<b>6.0</b>	<b>2,176</b>	<b>24,489</b>	<b>4.6</b>

Note: The main study (MS) column represents the 649 FI regions that were excluded from the experiment.

Note: No significant differences were observed.

\* Low precision; no estimate reported.

**Table 18SE. Standard Errors of Past Month Marijuana Use, by Treatment, Strata, Age, and Race (Q1/Q2)**

		Historically Poor Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>							
	12-17	1.05	1.45	1.28	0.6853	0.2249	0.4024
	18-25	1.48	1.95	3.43	0.3239	0.4334	0.8715
	26+	.67	1.33	.84	0.1493	0.6598	0.3715
<b>Race</b>							
	White	.68	1.28	.98	0.2121	0.0573	0.7828
	Black	1.33	2.53	1.17	0.8298	0.2845	0.3725
	Hispanic	1.95	2.39	1.77	0.9622	0.6317	0.7140
	Other	*	*	1.19	*	*	*
	Total	.61	1.04	.77	0.2166	0.3579	0.7050
		Historically Average Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>							
	12-17	2.27	1.84	1.88	0.9001	0.5428	0.5158
	18-25	3.17	2.60	2.21	0.6746	0.6556	0.9399
	26+	.81	1.57	1.91	0.1459	0.1323	0.9201
<b>Race</b>							
	White	1.02	1.50	1.71	0.5507	0.5909	1.0000
	Black	1.27	*	*	*	*	*
	Hispanic	.59	*	*	*	*	*
	Other	*	*	*	*	*	*
	Total	.73	1.42	1.61	0.2254	0.1907	0.8854
		Historically Good Response					
		Standard Errors			P-Values		
		\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>							
	12-17	1.94	2.86	3.47	0.2181	0.3177	0.7926
	18-25	3.40	2.60	*	0.5882	*	*
	26+	1.35	1.19	*	0.6757	*	*
<b>Race</b>							
	White	1.46	1.13	1.64	0.6545	0.6144	0.6997
	Black	1.69	*	*	*	*	*
	Hispanic	*	*	*	*	*	*
	Other	*	*	*	*	*	*
	Total	1.06	1.07	1.26	0.9610	0.6524	0.6446

(Continued)

**Table 18SE. Standard Errors of Past Month Marijuana Use, by Treatment, Strata, Age, and Race (Continued)**

	Combined Poor, Average, and Good Response					
	Standard Errors			P-Values		
	\$0	\$20	\$40	\$0 vs. \$20	\$0 vs. \$40	\$20 vs. \$40
<b>Age in Years</b>						
12-17	1.36	1.21	1.29	0.5876	0.5991	0.9253
18-25	1.91	1.57	1.99	0.3572	0.8851	0.5013
26+	.56	.89	.93	0.0715	0.1924	0.7156
<b>Race</b>						
White	.65	.88	.96	0.2539	0.2146	0.8171
Black	.88	*	1.86	*	0.1915	*
Hispanic	.73	1.36	1.26	0.8240	0.5258	0.4956
Other	2.16	2.23	*	0.8112	*	*
Total	.48	.79	.81	0.1129	0.0871	0.8582

\* Low precision; no estimate reported.

**Table 19. Comparison of Weighted Past Month Alcohol, Cigarette, and Marijuana (Q1/Q2) Use, by Treatment and INCNT06**

	Alcohol								
	INCNT06: Do you think you would have been successful in convincing this respondent to participate if you had not been able to offer the incentive payment?								
	\$20 (%)	\$40 (%)	Combined	Standard Errors			P-Values Yes vs. No		
\$20				\$40	Combined	\$20	\$40	Combined	
Definitely / Probably "Yes"	45.4	49.1	47.2	2.8	2.7	2.2	0.815	0.7040	0.7589
Definitely / Probably "No"	44.0	47.6	46.1	5.1	3.6	2.9			
	Cigarette								
	\$20 (%)	\$40 (%)	Combined	Standard Errors			P-Values Yes vs. No		
				\$20	\$40	Combined	\$20	\$40	Combined
Definitely / Probably "Yes"	26.4	24.7	25.6	2.3	2.6	1.7	0.825	0.9059	0.8671
Definitely / Probably "No"	27.2	25.2	26.0	3.6	2.8	2.1			
	Marijuana								
	\$20 (%)	\$40 (%)	Combined	Standard Errors			P-Values Yes vs. No		
				\$20	\$40	Combined	\$20	\$40	Combined
Definitely / Probably "Yes"	5.2	6.1	5.6	1.1	0.9	0.7	0.142	0.5583	0.1456
Definitely / Probably "No"	8.8	6.9	7.7	2.1	1.5	1.3			

Note: FI debriefing questions were only completed after a \$20 or \$40 incentive case was completed.

**Table 20. Combined Comparison of Unweighted Costs Per Interview, Including (Q1/Q2) Incentive Payment, by Treatment, Strata, and Population Density**

Population Density	Historically Poor Response				Historically Average Response			
	\$0	\$20	\$40	MS	\$0	\$20	\$40	MS
1,000,000+	211.52	218.60	199.36	226.88	152.10	165.36	177.73	193.82
50K - 999,999	176.41	156.40	161.57	185.80	161.42	141.32	153.45	159.73
Non-MSA	220.73	170.35	163.82	213.29	171.76	145.34	188.07	159.13
<b>Total</b>	199.30	187.51	179.61	207.87	162.25	149.25	171.35	171.62

Population Density	Historically Good Response				Combined Poor, Average, and Good Response			
	\$0	\$20	\$40	MS	\$0	\$20	\$40	MS
1,000,000+	146.74	160.73	221.38	173.06	190.92	202.15	196.17	193.88
50K - 999,999	128.37	120.96	131.81	161.08	165.97	147.08	157.34	163.07
Non-MSA	132.79	144.86	116.32	160.46	176.93	154.00	155.57	162.00
<b>Total</b>	135.72	139.77	132.14	163.68	178.55	169.66	171.55	172.89

Note: The main study (MS) column represents the 649 FI regions that were excluded from the experiment.

MSA = metropolitan statistical area.

**Table 21. Projected Interview Response Rates and Data Collection Costs for Differential Incentive Amounts for 2002**

Allocation Plan	Projected for 2002		Increase / (Decrease)	
	Interview Response Rates	Data Collection Costs	Interview Response Rates	Data Collection Costs
<b>No Incentive</b>	73.7	\$12,139,518	—	—
<b>All \$20</b>	78.8	\$10,681,862	5.1	(\$1,457,656)
<b>All \$40</b>	83.3	\$11,411,302	9.6	(\$728,216)
<b>Sufficient</b>	80.6	\$11,233,494	6.9	(\$906,024)

Note: The sufficient payment amount is defined as the smallest payment required to produce a significantly better interview response rate than the control. A more detailed discussion can be found in Section. 3.2.

The projected data collection costs are adjusted to reflect the actual distribution of cases by historical response rate strata and population density in Quarter 1 and Quarter 2. They will not match the unweighted costs in Table 20.

Data collection costs are calculated using the number of completed interviews from Table 7 and the cost per completed interview in Table 20.

## 4. Conclusion

The purpose of this report has been to summarize the results of the incentive experiment in the 2001 NHSDA and to evaluate the best treatment option for the use of monetary incentives in future NHSDAs. The results are very promising. The \$20 and the \$40 treatments produced significantly better interview response rates than the control for the combined results of both quarters of the experiment. This improvement led to a gain in overall response rates of about 10 points for each treatment. Furthermore, both the \$20 and the \$40 treatments more than paid for themselves, each resulting in a lower data collection cost per completed case, including incentive payment, than the control.

The incentive payments had a favorable impact on measures of respondent cooperation. Both treatments had significantly lower refusal rates than the control's rate, and the \$40 treatment had significantly lower noncontact rates than the control's. FIs reported that the incentives reduced the amount of effort required to complete a case and that the payments influenced the respondent's decision to cooperate.

Perhaps most importantly, the incentive payments had little impact on the population estimates of past month alcohol, cigarette, or marijuana use. The prevalence rates for past month use of these substances by respondents in the treatment groups were not significantly different from those reported by those in the control. This suggests that incentive payments encourage greater participation by respondents, but do not change their self-reported substance use. Incentives may thus improve estimates by reducing nonresponse bias without increasing response bias.

Taken together, the results clearly favor a \$40 incentive payment for all persons selected for the NHSDA. Subgroup analysis was performed to determine if the relationship between the incentives and the response rates, costs, and data quality remained constant when controlling for regional response rate history, population density, and respondent age. There were some instances in which the relationship found in the full sample did not hold in a subgroup. However, in general, the full sample results held in the subgroups. Furthermore, when differential payment options based on subgroup characteristics were considered, they yielded worse response rates and only moderately lower costs than those based on a universal \$40 payment.

The analysis presented in this report is intended to address the primary issues surrounding the use of incentives on future NHSDA data collection efforts. However, the data collected as part of the incentive experiment provide a rich foundation for future studies and warrant continued evaluation. Future studies should include multivariate analyses that allow us to control for covariates other than historical response rate, age, and population density. This could include a study of the relationship between interviewer characteristics and incentives in gaining cooperation.

## References

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## **Appendix A**

### **Revised Introduction to CAI and Study Description**

## **INTRODUCTION AND INFORMED CONSENT FOR SAMPLE MEMBERS AGE 18+**

IF INTERVIEW RESPONDENT IS NOT SCREENING RESPONDENT, INTRODUCE YOURSELF AND STUDY AS NECESSARY: Hello, I'm \_\_\_\_, and I'm working on a nationwide study sponsored by the U.S. Public Health Service. You should have received a letter about this study. (SHOW LETTER, IF NECESSARY.)

We are interviewing approximately 70,000 people across the nation. You have been selected to participate based on scientific sampling procedures. The answers you give to our questions will represent 3,100 other Americans similar to yourself. Your participation is voluntary, but we cannot substitute anyone if you decide not to participate.

This study collects information on tobacco, alcohol, and drug use; knowledge and attitudes about drugs; as well as mental health and other health related issues. The interview takes about 1 hour. You cannot be identified as the source of any information you provide in the interview because no personal information is attached to your responses. You will answer most of the questions directly into a computer and I will never know what answers you have given. We recontact by phone or mail a small number of those who complete the interview and ask just a few questions to verify the quality of our interviewer's work. For this reason, at the end of the interview, participants are asked to provide their telephone number and mailing address on a form separate from their responses. The confidentiality of the answers that you provide to the questions is protected under Federal law (Section 501 of the Public Health Service Act).

It is important to get the most accurate information possible and we hope that protecting your privacy will encourage you to provide careful answers. While some of the questions may be sensitive, your honest responses will be of great value. The answers you provide to the questions will only be used for research and analysis and cannot be used for any other purpose. You are free to withdraw from this survey at any time or to refuse to answer any question. In appreciation, you will receive a cash payment of \$\_\_\_\_\_ at the end of the interview.

We would like to conduct this interview in as private an area as possible. Can we find a reasonably private spot to complete the interview?

If it is alright with you, let's get started.

## **INTRODUCTION AND INFORMED CONSENT FOR SAMPLE MEMBERS AGE 12-17 YEARS OLD**

INTRODUCE YOURSELF TO THE PARENT IF NECESSARY: Hello, I'm \_\_\_\_, and I'm working on a nationwide study sponsored by the U.S. Public Health Service. You should have received a letter about this study. (SHOW LETTER, IF NECESSARY.)

OBTAIN PERMISSION FROM THE PARENT: Your (AGE) year-old child has been selected to participate. This selection is the result of scientific sampling procedures and the answers your child provides will represent approximately 1,000 other youths who are similar. Participation is voluntary, but no one can be substituted if your child does not participate. The study collects information about tobacco, alcohol, and drug use; knowledge and attitudes about drugs; mental health; and other health related issues. The answers your child provides will be kept strictly confidential. No names or personal identifiers are attached to the responses. Since your child will answer most of the questions directly into the computer, I will never see the answers, and you will not be permitted to see the completed survey. The answers your child provides will only be used for research and analysis and cannot be used for any other purpose. If it is all right with you, we could get started. We also like to conduct the interview in as private a place as possible. Can we find a reasonably private spot to complete the interview?

AFTER PARENTAL PERMISSION, OBTAIN PERMISSION FROM THE 12-17 YEAR-OLD SELECTED SAMPLE MEMBER: Hello, I'm \_\_\_\_, and I'm working on a nationwide study sponsored by the U.S. Public Health Service. Someone in your house should have received a letter about the study. (SHOW LEAD LETTER.)

We are interviewing approximately 70,000 people across the nation. You have been chosen to participate in the study at random. Your answers will represent the experiences and opinions of over 1,000 American youths. Your participation in this study is voluntary, but we cannot substitute anyone else if you decide not to participate.

This study collects information on tobacco, alcohol, and drug use, knowledge and attitudes; mental health and other health related issues. The interview takes about 1 hour. You will answer most of the questions directly into the computer and I will not know how you answered. Your parents and your school will never see your answers. We are only interested in the combination of responses nationwide—not in any one person's answers. For this reason, we never record your name and we keep your answers totally separate from your address. We recontact by phone or mail a small number of those who complete the interview and ask just a few questions to verify the quality of our interviewer's work. For this reason, at the end of the interview, participants are asked to provide their telephone number and mailing address on a form separate from their responses. The confidentiality of the answers that you provide to the questions is protected under Federal law (Section 501 of the Public Health Service Act).

It is important to get the most accurate information possible and we hope that protecting your privacy will encourage you to provide careful answers. While some of the questions may be sensitive, your honest responses will be of great value. The answers you provide will only be used for research and analysis and cannot be used for any other purpose. You are free to withdraw from this survey at any time or to refuse to answer any question. In appreciation, you will receive a cash payment of \$ \_\_\_\_ at the end of the interview.

If it is alright with you, let's get started.



## STUDY DESCRIPTION

Your residence is among several in this area randomly selected for the 2001 National Household Survey on Drug Abuse (NHSDA). This survey, sponsored by the United States Public Health Service, Substance Abuse and Mental Health Services Administration (SAMHSA), collects information about tobacco, alcohol, and drug use; knowledge and attitudes about drugs; mental health; and other health related issues. The study provides important statistics that are used for research and program development. You cannot be identified as the source of any information you provide because no identifying information, such as name and address, is attached to your responses. Additionally, the confidentiality of the answers you provide to the questions is protected under federal law (Section 501 of the Public Health Service Act). Your answers will only be used for research and analysis and cannot be used for any other purpose.

The average time required to participate in this survey varies. The screening questions take just a few minutes. If anyone in your household is selected for an interview, the time is approximately one hour. In appreciation, interview participants will receive a cash payment of \$\_\_\_\_ at the end of the interview. You are free to withdraw from this survey at any time or to refuse to answer any question.

If you have questions about the study, you may phone [NAME], the NHSDA Project Representative, at [TOLL-FREE NUMBER]. If you have questions related to your rights as a survey respondent, you may contact [NAME], the representative for the Committee for the Protection of Human Subjects, at [TOLL-FREE NUMBER]. You can also visit our project Website: <http://nhsdaweb.rti.org/> for more information.

We thank you for your cooperation and time.

[NAME], Director  
Office of Applied Studies, SAMHSA  
U.S. Public Health Service  
Department of Health and Human Services

**Appendix B**  
**Revised Lead Letter**



\_\_\_\_\_, 2001

Dear Resident:

To better serve all segments of the American population, the United States Department of Health and Human Services (DHHS), United States Public Health Service is conducting a national survey on health-related issues (OMB Approval No. 0930-0110). Along with more than 200,000 other residences, your household was randomly selected for participation in the study. Research Triangle Institute (RTI) is under contract with DHHS to conduct the survey, and soon one of their professional field interviewers will be in your neighborhood to provide you with more information.

When the RTI representative arrives, please ask to see his or her personal identification card. (An example of the ID card is shown below.) He or she will ask a few preliminary questions, and then may ask one or possibly two members of your household to participate in a voluntary interview. It is also possible that, following the initial questions, no one from your household will be asked to participate. If any members of your household are selected for the interview and choose to participate, they will receive a cash payment of \$ \_\_\_\_\_ at the end of the interview in appreciation of their time.

Feel free to ask the RTI representative any questions you may have about the study. This survey is authorized by Section 505 of the Public Health Service Act. The confidentiality of the information collected is protected under Section 501 of the Public Health Service Act. The information collected is confidential and will only be used for research and analysis and cannot be used for any other purpose. This letter is addressed to "Resident" because the initial selection is made by address, and we are unaware of your name.

Your help is extremely important to the success of this study, and we thank you in advance for your cooperation.

Sincerely yours,

[SIGNATURE]

[NAME]  
Assistant Project Officer, DHHS

[PICTURE OF IDENTIFICATION BADGE]

[SIGNATURE]

[NAME]  
National Field Director, RTI  
[TOLL-FREE NUMBER]

\_\_\_\_\_  
Assigned Field Representative

**Appendix C**  
**Field Interviewer Debriefing Questions**



**Additional Interviewer Debriefing Questions  
for the 2001 Q1-Q2 Incentive Experiment**

**INCENT01** INTERVIEWER: PAY RESPONDENT [DOLLAR AMOUNT FILL]  
INCENTIVE AND COMPLETE APPROPRIATE PAPERWORK.

**NOTE: Once final procedures are developed, this screen will more fully outline what “complete appropriate paperwork” entails.**

PRESS [ENTER] TO CONTINUE.

**INCENT02** Did this respondent accept the [DOLLAR AMOUNT FILL] incentive payment?

- 1 YES
- 2 NO

**INCENT03** [IF INCENT02 = 2] Why **didn't** this respondent accept the incentive payment?

TO SELECT MORE THAN ONE CATEGORY, PRESS THE SPACE BAR BETWEEN EACH CATEGORY YOU SELECT.

- 1 DIDN'T FEEL IT WAS NECESSARY
- 2 DIDN'T WANT TO ACCEPT MONEY FROM THE GOVERNMENT
- 3 DIDN'T NEED THE MONEY
- 4 FELT IT WAS INAPPROPRIATE TO OFFER MONEY IN EXCHANGE FOR PARTICIPATION
- 5 SOME OTHER REASON
- DK

**INCENT04** [IF INCENT03 = 5] Why didn't this respondent accept the incentive payment?

\_\_\_\_\_ [ALLOW 200 CHARACTERS]  
DK

**INCENT05** [IF INCENT02 = 1] How much do you think the incentive payment influenced this respondent's decision to participate in the interview?

- 1 A LOT
- 2 A LITTLE
- 3 NOT AT ALL
- DK

**INCENT06** [IF INCENT05 = 1 OR 2] Do you think you would have been successful in convincing this respondent to participate if you had **not** been able to offer the incentive payment?

- 1 DEFINITELY YES
- 2 PROBABLY YES
- 3 PROBABLY NOT
- 4 DEFINITELY NOT
- DK

**INCENT07** Do you think the incentive payment allowed you to work this case more efficiently, that is, make fewer visits to the household or spend less time gaining cooperation than you would have?

- 1 YES
- 2 NO
- DK

**INCENT08** [IF INCENT02 = 1] Did this respondent make any comments that suggested [he/she] would have participated in the survey without the incentive?

- 1 YES
- 2 NO
- DK

**INCENT09** [IF INCENT02 = 1] Did this respondent make any comments that suggested [he/she] felt it was **inappropriate** to offer money in exchange for a person's participation in the NHSDA?

- 1 YES
- 2 NO
- DK

**INCENT10** [IF INCENT02 = 1 AND INCENT09 = 1] Did this respondent make any comments about what [he/she] planned to do with the incentive payment?

- 1 YES
- 2 NO
- DK

**INCENT11** [IF INCENT10 = 1] What does this respondent plan to do with the incentive payment?

\_\_\_\_\_ [ALLOW 200 CHARACTERS]  
DK

**INCENT12** [IF INCENT2 = 1] Did this respondent make any comments that indicated how [he/she] felt about the **amount** of the incentive payment?

- 1 YES
- 2 NO
- DK/REF

**INCENT13** [IF INCENT12 = 1] Did this respondent's comments suggest [he/she] thought the amount of the incentive payment was too high, about right, or too low?

- 1 TOO HIGH
- 2 ABOUT RIGHT
- 3 TOO LOW
- DK/REF

**INCENT14** Did the respondent already know about the incentive before you told [him/her]?

- 1 YES
- 2 NO
- DK

**INCENT15** [IF INCENT14 = 2] Did this respondent show any reluctance to participate in the interview before you mentioned the incentive payment to [him/her]?

- 1 YES
- 2 NO
- DK

**INCENT16** [IF INCENT14 = 1] How did this respondent find out about the incentive payment?

TO SELECT MORE THAN ONE CATEGORY, PRESS THE SPACE BAR BETWEEN EACH CATEGORY YOU SELECT.

- 1 FROM THE LEAD LETTER
- 2 FROM THE Q & A BROCHURE
- 3 FROM ANOTHER MEMBER OF THE HOUSEHOLD
- 4 FROM A NEIGHBOR/BUILDING MANAGER/ETC.
- 5 FROM ANOTHER INTERVIEWER
- 6 SOME OTHER WAY
- DK

**INCENT17**

[IF INCENT16 = 6] From what source did this respondent find out about the incentive payment?

\_\_\_\_\_ [ALLOW 200 CHARACTERS]  
DK

**Appendix D**  
**Revised Q & A Brochure**

## QUESTIONS AND ANSWERS ABOUT THE 2001 NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE

### WHAT IS THE NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE (NHSDA)?

The National Household Survey on Drug Abuse (NHSDA) is the Federal Government's primary source of national data on the use of alcohol, tobacco, and illicit substances. The survey also contains questions on health, illegal behaviors, and other topics associated with substance use. The NHSDA was initiated in 1971 and currently is conducted on an annual basis. This year approximately 70,000 individuals, 12 years old and older, will be randomly selected and asked to voluntarily participate.

The primary objectives of the NHSDA are:

- to collect timely data on the magnitude and patterns of alcohol, tobacco, and illegal substance use and abuse,
- to assess the consequences of substance use and abuse, and
- to identify those groups at high risk for substance use and abuse.

### WHAT IS THE SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION (SAMHSA)?

The Substance Abuse and Mental Health Services Administration (SAMHSA) is an agency of the United States Department of Health and Human Services (DHHS). SAMHSA was created in 1992 to provide leadership and a Federal focus for the Nation's mental health and substance abuse treatment and prevention programs. The NHSDA is used to help facilitate this mission by monitoring the nature and extent of substance use in the United States, as well as the consequences of this use.

### HOW DOES THE GOVERNMENT CONDUCT THE SURVEY?

Under a competitive bidding process, SAMHSA selects a survey research organization to administer the NHSDA. Currently, Research Triangle Institute (RTI) is under contract to conduct the 2001 NHSDA. RTI, which is located in Research Triangle Park, North Carolina, and closely associated with the University of North Carolina, Duke University, and North Carolina State University, is a large, experienced research organization that has successfully conducted the NHSDA since 1988.

### HOW ARE PARTICIPANTS SELECTED?

A scientific random sample of households is selected throughout the United States. Once selected, no other residence can be substituted for any reason. A professional RTI interviewer makes a personal visit to each household to ask several initial questions. One or possibly two residents of the household may be asked to voluntarily participate in the survey. If an individual is selected, no other person can be substituted. Since the survey is based on a random sample, each selected individual represents approximately 3,100 other United States residents.

### WHY SHOULD I PARTICIPATE?

Individual residents of selected households who are randomly chosen and agree to take part in the NHSDA interview are given a cash payment of \$\_\_\_\_\_ at the end of the interview.

### WHAT IF A SELECTED INDIVIDUAL DOES NOT SMOKE, DRINK OR USE ILLEGAL DRUGS?

In order to know the percentage of people who do use these substances, we also have to know how many people do not. Therefore, the responses of people who do not use drugs are just as important as those of people who do. A participant need not know anything about drugs to answer the questions.

### HOW IS THE SURVEY ADMINISTERED?

NHSDA data are collected in the privacy of the participant's home. A professional RTI interviewer personally visits each selected household to administer the NHSDA questionnaire using a laptop computer. For some items, the interviewer reads questions and enters the responses into a computer; however, the participant privately enters most responses directly into the computer. The survey takes approximately 60 minutes to complete.

### WHAT ABOUT CONFIDENTIALITY?

Both SAMHSA and RTI are committed to assuring complete confidentiality of responses. Our interest is only in the combination of all responses nationwide—not anyone's individual answers. Participants' names are never recorded or associated with their answers. The information is only used for research and analysis and cannot be used for any other purpose. Lawful protection of all answers to questions in this survey is provided under federal law, Section 501 of the Public Health Service Act.

### WHAT HAPPENS TO THE INFORMATION?

Each computerized interview data file—which is identified only by a code number—is electronically transmitted to RTI on the same day the interview is conducted. The answers then are combined with all other participants' answers, and are coded, totaled, and turned into statistics for analysis. As a quality-control measure, participants may receive a telephone call or a letter from RTI to verify that the interviewer did complete the survey with them.

### HOW ARE THE DATA FROM THE SURVEY USED?

Government agencies, private organizations, individual researchers, and the public at large use the data for a number of purposes. For example, the United States Public Health Service and state health agencies use data from the NHSDA to estimate the need for drug treatment facilities. Other federal, state, and local agencies use the information to support their drug use prevention programs and to monitor drug control strategies.

#### *For more information on the NHSDA or SAMHSA, contact:*

NHSDA Project Officer  
SAMHSA, Office of Applied Studies  
Parklawn Building, Room 16C-06  
5600 Fishers Lane  
Rockville, MD 20857

**Internet Users:** You may access more information about SAMHSA on the World Wide Web at:

<http://www.samhsa.gov>

Additional information about RTI is available at:

<http://www.rti.org>

Additional information about the National Household Survey on Drug Abuse is available at:

<http://nhsdaweb.rti.org>

IE20/40

### QUESTIONS AND ANSWERS ABOUT THE 2001

# NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE



#### Sponsored by

Substance Abuse and Mental Health  
Services Administration

U.S. Public Health Service

U.S. Department of Health  
and Human Services

#### Conducted by

Research Triangle Institute  
3040 Cornwallis Road  
Research Triangle Park, NC 27709

**Appendix E**  
**Additional Verification Questions**



**Additional Verification Questions  
for the 2001 Q1-Q2 Incentive Experiment**

**IPAY**                      Were you offered or paid anything for your participation?

- 1      YES
- 2      NO
- DK

**IPAYAMT**                [If IPAY = 1] How much were you paid? INTERVIEWER: DO NOT READ AMOUNTS.

- 1      20
- 2      40
- 3      Other \_\_\_\_\_ [ENTER RESPONDENT'S ANSWER VERBATIM]
- DK

**IPAYCHG**                [If IPAY = 1] How much did the incentive payment influence your decision to participate?

- 1      A LOT
- 2      A LITTLE
- 3      NOT AT ALL
- DK

**Appendix F**  
**1999 NHSDA Usable Case Analysis**

# 1999 NHSDA Usable Case Analysis

## August 11, 2000

### 1. Background

This report explores the relationship between interviewer effort and data quality in the 1999 NHSDA. It is possible that exceptional efforts exerted by interviewers to convert reluctant respondents may yield low quality responses for two reasons. First, the additional efforts may convert respondents predisposed against surveys. For example, a respondent who has limited discretionary time may concede to the efforts of the Field Interviewer, but may provide poor data by rushing through the survey. Second, the additional effort to convert may generate feelings of hostility toward the project. For example, a respondent may become frustrated by repeated attempts at refusal conversion and may retaliate by providing poor data.

These expectations are evaluated using the results of the data cleaning procedure and the record of calls. The data cleaning procedure identifies cases that do not contain the minimum amount of information required to make prevalence estimates. The record of calls allows us to track the interview process from the initial attempt to complete the screening to the final disposition of the interview. This includes the number of calls to completion and an indicator for initial refusals.

This report is a preliminary analysis of the relationship between interviewer effort and data quality. The results demonstrate that interviewer effort does not explain all or most of the unusable cases. However, the cases with additional effort are more likely to be unusable than are cases without the additional effort. Opportunities to further explore this relationship in future research are discussed in the conclusion.

### 2. Usable Cases

A case is considered usable if the respondent answers yes or no to at least ten of the possible fourteen gate questions, including the cigarette section. The gate questions establish whether the respondent is a lifetime user or nonuser of a drug. The gate questions ask about lifetime use of the following substances: cigarettes, chewing tobacco, snuff, cigars, alcohol, marijuana, cocaine, heroin, hallucinogens, inhalants, pain relievers, tranquilizers, stimulants, and sedatives.

Substances that allow for multiple responses are coded as usable if at least one of the responses indicates lifetime use. These substances are hallucinogens, inhalants, pain relievers, tranquilizers, stimulants, and sedatives. For example, if a respondent answers yes or no to one type of hallucinogen and answers "don't know" or "refused" to all others, the response is still considered usable. This rule was established for simplicity and to conserve cases. More stringent rules with respect to these "multiple list" questions would place a greater burden on nonusers than on users for establishing usability.

Crack cocaine was not included in the usable case criteria because its skip logic is governed by the lifetime cocaine question. Similarly, we did not include LSD, PCP, or methamphetamine because these are drugs within a broader category. We did not include pipe tobacco in the criteria because there were only two questions on pipe use.

### 3. Record of Calls

The screening and interview process is recorded in the record of calls. This includes a count of the number of calls to completion made to each dwelling unit for screening and the interview. It also identifies any screenings or interviews that were ever listed as a refusal.

### 4. Analysis

The record of calls and usable case information can be used to evaluate the relationship between interviewer effort and data quality. We expect cases that require more screening or interview calls to completion will be less likely to provide usable responses. We also expect that cases that have a refusal at the screening stage or at the interview will be less likely to provide usable responses. We expect the relationship between interviewer effort at screening and the quality of the data to be diffused because the screening record of calls is somewhat removed from the actual data collection that occurs in the interview. In many cases the person who completes the screening may not be the person who completes the interview.

*Tables 1 and 2* contain summary information about the distribution of usable cases by the record of calls for the 1999 NHSDA CAI survey. Table 1 contains the distribution of cases by the number of calls to complete the case and by the pending refusal status for both the screener and the interview. Table 2 contains a difference of proportions test by the number of calls to complete the case and the pending refusal status for the screener and the interview. The differences in proportions were all significant beyond the .05 level, in most cases beyond the .0001 level. This is due to the very large sample size.

#### **Screening**

There were 609 cases that failed to meet the criteria of the usable case rule. As indicated by *Table 1*, most of these cases were never assigned a pending refusal code at the screening. Furthermore, most of them had fewer than three screening calls. This suggests that interviewer effort is only part of the explanation for the unusable cases.

As expected, there is little difference between the screening record of calls and the distribution of usable cases. Cases with refusals were unusable about as often as those without refusals (99.11 vs. 98.80 percent). This is also true for the number of calls to complete.

#### **Interview**

However, there is a clear relationship between the amount of effort at the interview stage and the number of usable cases. Cases coded as a pending refusal had a lower percentage of usable cases than those that were not assigned a refusal code (95.14 vs. 99.29 percent). Cases that required more than ten calls to complete had a lower usability percentage (96.79 vs. 99.21 percent). This suggests that the additional effort required to convert the reluctant respondents did influence the quality of the data.

## 5. Conclusion

These findings are not surprising. It is reasonable to expect that people who refuse or avoid the interviewer will provide low quality data due to a predisposition against the survey. However, it is unlikely that interviewer effort was a problem in the 1999 NHSDA CAI because there were only 609 unusable cases, and because most the unusable cases were not products of exceptional effort.

This report is a first cut at examining the relationship between interviewer effort and the quality of the data. Future work should be concentrated in two areas. First, any additional work should consider a multi-variate model that evaluates the conditional relationship between the number of calls, the presence of a refusal, and other factors that influence response patterns. This model should also be sensitive to the relative scarcity of the unusable cases. Second, future work should consider different measures of data quality. The usable case rule is a fairly conservative measure of data quality which identifies only the lowest quality data. More informative analysis could be generated if the measures of data quality were extended to measure the frequency of “Don’t Know” and “Refuse” responses. These measures could also be used to identify answer patterns that indicate an insincere response, such as cases where all responses were generated by the same keystroke. These measures could also examine the length of the interview to identify exceptionally short interview

**Table F1      Distribution of Usable Cases by Record of Calls**

			Not Usable		Usable		Total	
<b>Screening</b>	<i>Ever Refuse</i>	<i>No</i>	582	95.6%	64,943	96.7%	<b>65,525</b>	<b>96.7%</b>
		<i>Yes</i>	27	4.4%	2,217	3.3%	<b>2,244</b>	<b>3.3%</b>
		<b>Total</b>	<b>609</b>	<b>100.0%</b>	<b>67,160</b>	<b>100.0%</b>	<b>67,769</b>	<b>100.0%</b>
<b>Screening</b>	<i>Number of Calls</i>	1	203	33.3%	23,917	35.6%	<b>24,120</b>	<b>35.6%</b>
		2	128	21.0%	14,826	22.1%	<b>14,954</b>	<b>22.1%</b>
		3	95	15.6%	9,199	13.7%	<b>9,294</b>	<b>13.7%</b>
		4	42	6.9%	5,895	8.8%	<b>5,937</b>	<b>8.8%</b>
		5	36	5.9%	3,762	5.6%	<b>3,798</b>	<b>5.6%</b>
		6	31	5.1%	2,568	3.8%	<b>2,599</b>	<b>3.8%</b>
		7	18	3.0%	1,793	2.7%	<b>1,811</b>	<b>2.7%</b>
		8	10	1.6%	1,248	1.9%	<b>1,258</b>	<b>1.9%</b>
		9	10	1.6%	982	1.5%	<b>992</b>	<b>1.5%</b>
		10	12	2.0%	665	1.0%	<b>677</b>	<b>1.0%</b>
		11+	24	3.9%	2,305	3.4%	<b>2,329</b>	<b>3.4%</b>
			<b>Total</b>	<b>609</b>	<b>100.0%</b>	<b>67,160</b>	<b>100.0%</b>	<b>67,769</b>
<b>Interview</b>	<i>Ever Refuse</i>	<i>No</i>	460	75.5%	64,244	95.7%	<b>64,704</b>	<b>95.5%</b>
		<i>Yes</i>	149	24.5%	2,916	4.3%	<b>3,065</b>	<b>4.5%</b>
		<b>Total</b>	<b>609</b>	<b>100.0%</b>	<b>67,160</b>	<b>100.0%</b>	<b>67,769</b>	<b>100.0%</b>
<b>Interview</b>	<i>Number of Calls</i>	1	84	13.8%	20,151	30.0%	<b>20,235</b>	<b>29.9%</b>
		2	141	23.2%	20,848	31.0%	<b>20,989</b>	<b>31.0%</b>
		3	59	9.7%	8,246	12.3%	<b>8,305</b>	<b>12.3%</b>
		4	61	10.0%	4,922	7.3%	<b>4,983</b>	<b>7.4%</b>
		5	44	7.2%	3,213	4.8%	<b>3,257</b>	<b>4.8%</b>
		6	29	4.8%	2,365	3.5%	<b>2,394</b>	<b>3.5%</b>
		7	31	5.1%	1,723	2.6%	<b>1,754</b>	<b>2.6%</b>
		8	27	4.4%	1,232	1.8%	<b>1,259</b>	<b>1.9%</b>
		9	23	3.8%	906	1.3%	<b>929</b>	<b>1.4%</b>
		10	15	2.5%	693	1.0%	<b>708</b>	<b>1.0%</b>
		11+	95	15.6%	2,861	4.3%	<b>2,956</b>	<b>4.4%</b>
			<b>Total</b>	<b>609</b>	<b>100.0%</b>	<b>67,160</b>	<b>100.0%</b>	<b>67,769</b>
<b>BOTH</b>	<i>Ever Refuse</i>	<i>No</i>	596	97.9%	67,013	99.8%	<b>67,609</b>	<b>99.8%</b>
		<i>Yes</i>	13	2.1%	147	0.2%	<b>160</b>	<b>0.2%</b>
		<b>Total</b>	<b>609</b>	<b>100.0%</b>	<b>67,160</b>	<b>100.0%</b>	<b>67,769</b>	<b>100.0%</b>

**Table F2      Difference of Proportions of Usable Cases by Record of Calls**

			<b>% Usable</b>	<b>Difference</b>
<b>Screening</b>	<i>Ever Refuse</i>	<i>No</i>	99.11%	
		<i>Yes</i>	98.80%	-0.32
	<i>Number of Calls</i>	<i>1-10</i>	99.11%	
		<i>11+</i>	98.97%	-0.14
<b>Interview</b>	<i>Ever Refuse</i>	<i>No</i>	99.29%	
		<i>Yes</i>	95.14%	-4.15
	<i>Number of Calls</i>	<i>1-10</i>	99.21%	
		<i>11+</i>	96.79%	-2.42
<b>Both</b>	<i>Ever Refuse</i>	<i>No</i>	99.12%	
		<i>Yes</i>	91.88%	-7.24