

Field Report for MIDUS 2 Project 1 (Survey) Longitudinal Sample

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Appendices are available upon request.

OVERVIEW OF PROJECT

The second wave of the Midlife in the U.S. National Study of Health and Wellbeing (MIDUS) Project 1 data collection was conducted by the University of Wisconsin Survey Center for Professor Carol Ryff of the University of Wisconsin Institute on Aging. Production interviewing began on January 2, 2004 and ended September 1, 2006.

At Time 2, 90.8% of the sample was located. Of those located and not yet found to be deceased, 82.8% were interviewed (If only cases that completed both the phone and mail surveys at Time 1 are considered, we interviewed 85.5% of found sample). This calculation is not final. One National Death Index comparison has been run on the unresolved cases, and additional comparisons will be done as the NDI is updated to the point in time that MIDUS 2 was completed. When final statistics on the number of respondents that are deceased are available, these figures will be recalculated. For the main phone survey a total of 4,963 interviews were completed. A total of 4,032 self administered questionnaires were completed, and 4,205 cognitive interviews were completed. In addition, 156 mortality closeout interviews were completed with family members for respondents who were deceased. Detailed information on the numbers of these additional respondents who completed the SAQ and Cognitive portions of the interview is reported in the response rate section of this document (See Appendix A).

The overall response rate for the Time 2 main phone survey was 75.4% (79.7% for respondents who had completed both the phone and SAQ at Time 1). The overall SAQ response rate was 81.3%, and if this rate is computed for those who completed the SAQ, or the SAQ by Telephone survey, it is 88.9%. If we consider only the cases who completed all of MIDUS 1, and who responded to the SAQ by telephone survey, that figure of 88.9% jumps to 91.0%. The final portion of the Project 1 survey, the phone survey administration of the TACT instrument (Telephone Assisted Cognitive Testing), had an overall response rate of 86.5% and a rate of 88.5% for those who fully participated at MIDUS Time 1. Full discussion of the response rates for all of these many portions of the MIDUS 2 Project 1 are reported in the response rates section of the appendix document (See Appendix A).

The University of Wisconsin Survey Center

The UW Survey Center (UWSC) is a unit of the College of Letters and Science at the University of Wisconsin-Madison, and is supported by the College, the Graduate School, and revenue generated from contractual work. Professor Nora Cate Schaeffer is the Faculty Director of the UW Survey Center. John Stevenson is the Associate Director. Steven Coombs is the Field Director. Kelly Elver served as Project Director on this project. Other key UWSC staff included:

- Wes Taylor, MIDUS CASES programmer. Responsible for instrument programming and data delivery.
- Danna Basson, UWSC project director. Assisted in creation of tracking and locating database and assignment of respondents to replicates.
- Brendan Day MYSQL and CASES programmer. Responsible for creation of system to update contact database with data obtained in CASES instrument and database consultant.
- Rachel Rosenbaum, Research Assistant. Helped develop interviewer training materials, organize training sessions, and helped revise SAQ layout for printing.
- Robert Breen, Tracking/Locating Supervisor. General oversight of tracking locating operations.
- Marilyn Gannon, MIDUS Tracing Contact.
- Lisa Klein, Robert Stone, Joe Degnitz, Phone Room Supervisors.
 Responsible for hiring and training interviewing and shiftleader staff.
 General oversight of CATI projects and staff.
- Renea Brinks, Stephanie Paciak, Megan Meinen, Erin Binder. Renee Roerdink, MIDUS Phone Room Shiftleaders.
- Nathan Condella, MIDUS mail room coordinator. Responsible for preparing all mailings of payments, SAQ's and letters to MIDUS respondents.
- Sarah Pluck, UWSC mail room supervisor. Responsible for staffing and training of all mail room and data entry staff. Created unique protocols for MIDUS data entry.

CASES CATI System

Interviews were conducted over the telephone using CATI (computer-assisted telephone interviewing) technology. The CATI system used by the Survey Center is CASES. This system is copyrighted by the University of California-Berkeley's Computer-Assisted Survey Methods Program or CSM.

In the CASES CATI system, the text of the survey appears question by question on a computer screen for the interviewer to read to the respondent. Routing through the interview is based on skip logic pre-programmed into the computer. Question wording may be adapted according to answers given previously in the interview. The system allows for pre-coded questions, open-ended questions, and combinations of the two. In addition, the computer allows only valid responses; when an invalid response is entered, the computer asks the interviewer to reenter the response. The system also keeps track of the current status of all sample telephone numbers and automatically routes them for proper follow-up for the next attempt, and maintains an elaborate set of management records.

BACKGROUND

MIDUS 1 (The Harvard Survey of Health and Life Quality) was a survey of over 7,000 adults, ages 25 to 75, which occurred in 1995. Some aspects of that study that made it unique included the comprehensive, multi mode protocol of the study, which included a 45 minute phone survey, a 100 page mail survey, and daily dairies that many respondents participated in. A large subset of the sample consisted of 957 pairs of twins, the largest randomly drawn sample of twins in the U.S. today. Also included were hundreds of siblings, and many large city oversamples. MIDUS 1 was conducted at Harvard University, and was sponsored by the John D. and Catherine T. MacArthur Foundation. A panel of over a dozen researchers around the country, in fields ranging from psychology, sociology and anthropology, to medicine, and health care policy are involved in the MIDUS survey.

MIDUS 2

Instrument Development

The UWSC's Work on the main phone survey for MIIDUS 2 began in January of 2003. University of Wisconsin Survey Center staff met with PI Carol Ryff and other key UW-IOA personnel to discuss the Wave 2 instrument. The Wave 1 main telephone instrument formed the basis for the Wave 2 instrument with some modifications.

The UWSC received the Wave 2 telephone instrument from the IOA in Microsoft Word, and used these files to begin programming of the CASES CATI instrument. Revisions to the main telephone instrument were made by summer of 2003 and testing and debugging began.

While modifications were made to the main phone survey instrument, preparations were also being made to revise and print the 2 booklets of the 114 page self administered questionnaire. Files were received from IOA in PageMaker and extensive changes were made to create files for use by UW Printing. At this time all of the pages of the SAQ's were turned into PDFs for ease of printing.

During this same time period, UWSC head programmer Eric White worked with Brandeis PI's Pat Tun and Margie Lachman to investigate new technologies and systems for use on the Cognitive phone survey, which required digital recording of the entire interview. The end product of this recording process was a set of digital wave files that could be listened to, analyzed and scored entirely on the computer at a later date by the research team at Brandeis. New equipment was

purchased for the phone bank at the UWSC, and plans for unique and extensive cognitive interviewer training began (see interviewer training section).

Much of the development required for this round of MIDUS went into creating protocols that would make for smooth transition between the phone interview, the mail survey, and the final cognitive telephone interview, all of which would be occurring with different MIDUS respondents at the same time.

Pretests

Main Telephone Survey, Self Administered Questionnaire, and Cognitive Telephone Survey

A full pretest of all of the portions of Project 1 was completed in the fall of 2003. Random sample was obtained for the state of Wisconsin from Survey Sampling Inc. and 50 random numbers were fielded. A total of 38 respondents were recruited to complete the main phone survey. After they completed this survey they were sent the two SAQ booklets in the mail and a total of 27 respondents out of 38 sent back their completed booklets. Finally the 38 cases were fielded for the cognitive survey and 32 respondents completed this last portion of the interview.

Advance letters were sent to everyone in the pretest sample, and checks were sent out after each portion in order to test the full field protocol. These respondents did not know that they were pretest respondents and thought they were part of the Wave 2 production sample.

After the pretest, debriefing sessions were held with pretest interviewers and further adjustments were made to the instrument. All of the data from these pretests was delivered to the UW IOA staff during the late fall, and winter of 2003/2004, and minor programming changes were made to all three instruments after protesting was complete. Final production instruments were then prepared for fielding.

THE WAVE 2 SAMPLE

Sample Selection

The entire sample from Time 1, including respondents who had not completed the SAQ at Time 1, was fielded for Time 2. The sample was divided up into 24 replicates of approximately 300 cases. The replicates were not perfectly random in that initial replicates were set up to include cases that lived in the correct geographic areas to be recruited for projects 2 through 5, so that cases that had completed project 1 could be moved immediately to those projects and they could begin recruiting for respondents as quickly as possible. Twins and siblings were fielded in distinct replicates so that progress for those two important groups could be easily monitored during the field period.

Replicates were released on a weekly basis beginning on January 2, 2004, and concluding on June 11, 2004. Each case in a replicate had at least one call attempt made during the week following its release.

In sum the sample included 4,243 main respondents that had been recruited at Time 1 by random digit dialing (RDD). It also included 1914 twins from Time 1. Finally, 948 cases were fielded of siblings of main respondents. These were fielded last of all the cases so that main respondents would have been contacted previously with the expectation that main respondents would recall the survey and be more willing to participate than the sibling respondents.

Number of Sample Cases Fielded for MIDUS Time 2 by Replicate

Replicates	Number of Sample Cases Fielded	
Replicate 1 (RDD)	300	
Replicate 2 (RDD)	300	
Replicate 3 (RDD)	300	
Replicate 4 (Twin)	300	
Replicate 5 (RDD)	303	
Replicate 6 (RDD)	300	
Replicate 7 (RDD)	300	
Replicate 8 (Twin)	301	
Replicate 9 (RDD)	300	
Replicate 10 (RDD)	300	
Replicate 11 (RDD)	300	
Replicate 12 (Twin)	300	
Replicate 13 (RDD)	300	
Replicate 14 (RDD)	300	
Replicate 15 (RDD)	300	
Replicate 16 (Twin)	299	
Replicate 17 (RDD)	296	
Replicate 18 (RDD)	342	
Replicate 19 (Twin)	300	
Replicate 20 (Twin)	300	
Replicate 21 (Twin)	116	
Replicate 22 (Sib)	300	
Replicate 23 (Sib)	300	
Replicate 24 (Sib)	351	
Overall	7105	

Number of Sample Cases Fielded for MIDUS Time 2 by Type of Sample

Replicates	Number of Sample Cases Fielded ¹
Random Digit Dial	4243
Twin	1914
Sibling	948
Total	7105

Sample Input files

To prompt respondents with dates and the information they had provided at their last interview, data from the Time 1 interview was used to create an input, or sample file, for each respondent which would drive their Time 2 interview. The items input from Time 1 mostly consisted of demographics and dates of previous interviews. It was determined that rather than update data with respondents that had been collected at Time 1, some subjects, such as marital status and smoking habits, would be more accurately covered if questions were asked again without reference to the respondent's answers from Time 1.

TRACING

Tracing Database

Work to create a tracing database began in the summer of 2003. The UWSC was provided with the Harvard contact database, which had been updated a number of times during the 8-9 years following the Wave 1 survey. Fields were added to the database to accommodate the new information that would be found by the UWSC tracking and locating department during Wave 2 of the survey. A newsletter was sent by the UW IOA in September of 2003. IOA used the services of the UW Bulk mailing department, who informed IOA that they had found 1050 addresses that were incorrect and that they were able to provide an updated address for. Even with this service provided by Bulk Mail, the UWSC received a total of 1164 undeliverable newsletters back. Only 835 of these cases had been returned before production calling began, in the fall of 2003. This was the group then on which pretracing was conducted. The breakdown of the result of our tracing of these 835 cases was:

364 cases where no new information could be found

¹ MIDUS 1 data consisted of 7,108 cases, but UWSC fielded 7,105 cases because missing contact information made it impossible to trace these three cases.

- 378 cases where both a new address and a new telephone number was obtained
- 14 cases where a new address was obtained but no new phone number found
- 20 cases where a new phone number was obtained but no address found
- 58 cases were deceased
- 1 case was in advanced stages of Alzheimer's

The updated database at the time of fielding contained

- Address at last interview
- Phone numbers at last interview
- Address updates from mailings to respondents
- Phone number updates from mailings to respondents
- Type of Sample (Twin, RDD, Urban Over Sample, Siblings)
- Names, address, and phone numbers of contacts given at the end of the Time 1 interview (people who would know how to reach the respondent)
- Social Security Number for approximately half the sample
- Birth Date
- Date of previous interview
- Information linking twin or sibling respondents

Fields were added to the data base that allotted space for tracers to enter updated information. As new phone or address information was obtained, old information was moved to other fields so that a log of changes was stored. The databases also allowed tracers to a) indicate when attempts to locate were made, b) enter a current "tracing code" indicating the cases current status, and c) enter comments into a text field.

Tracing Protocols

Once calling began, cases that resulted in wrong numbers, disconnected numbers, or faxes were sent back to tracing for a re-trace. Cases were also sent to tracing when an informant at the number knew the R but claimed they no longer lived at the address, and would not provide updated contact information. Cases that were called 20 times without contact were also sent to tracing, and this was done repeatedly for some cases.

(See Appendix B for the complete tracing manual.)

After completion of the main phone portion of the survey, 4,482 of the 7,108 Time 1 respondents had been traced for either a new phone number or address before or during the field period. This accounts for 62% of the sample, and does not include the respondents who had moved or had new phone numbers which they called in on the toll free number to correct, or new contact information obtained during the interview. It also does not account for all the tracing done between phone and mail, and mail and cognitive surveys, which were required whenever

a respondent moved during the field period and did not send us their updated contact information.

FIELD PROCEDURES

Several meetings were held with phone room staff to discuss how best to field a sample of this magnitude with multiple contacts with the same respondent within a year being required. MIDUS was the largest survey conducted to date by the UWSC to use the autoscheduling method, meaning that there were no paper cover sheets, and all records of contact with respondents were kept in an electronic cover sheet. This method proved to be very efficient, since it is impossible to misplace an electronic cover sheet, but did present some new issues regarding the flow of information through the survey center between the phone room and tracing department, the phone room and the mail room, and the mail room and the tracing department. UWSC Phone Room supervisor Lisa Klein and her staff, as well as Mail Room supervisor Sarah Pluck, and head of Tracking and Locating Bob Breen were all instrumental in developing the systems that are now center wide protocols for dealing with this type of communication. Some of the issues they grappled with were:

- 1). How would the phone room handle the number of potential call-ins from respondents if a toll-free number was included in an advance letter?
- 2). How would information be moved back and forth between the tracing department and the phone room when cases had been traced.
- 3). How would cases requesting additional information, or requiring new advance letters or refusal letters be moved between the phone room and the mail room.
- 4). How would the phone room be informed once these new letters had been sent and the appropriate amount of time had passed so that calling of those cases could be resumed.
- 5). How would payments be handled?

A Toll-Free Respondent Line

To maximize opportunities to make contact with respondents, a toll-free line for MIDUS was established. This line was distinct from the general Survey Center toll-free number in use for other studies in the field and was available only for MIDUS purposes. A voicemail box was set up on this phone number in the event that phone room staff were not available to answer the phone. A recorded message instructed callers to leave a message if they were calling about an interview, or regarding a payment question. Messages regarding payment were forwarded to Nathan Condella, the MIDUS mail coordinator handling respondent

payments. The toll-free number was included in advance letters sent to all MIDUS participants. During the field period, the toll-free number was given out by interviewers trying to reach respondents and left on answering machines to encourage call-ins for difficult to reach respondents.

Advance Letters

To emphasize the importance of every respondent's participation, each MIDUS respondent was sent a personalized letter 1 week prior to being contacted by a telephone interviewer. Time 1 RDD respondents, twins, and siblings received the same letter. The letter informed them of the second wave of calling about to begin. The letter explained that the Wave 2 interview would take place over the phone and described the importance of the study. The respondent's current phone number was displayed and they were asked to call the MIDUS toll-free number to make any updates or to let us know when the best times were to contact them. A Brochure was also enclosed to reacquaint the respondent with the MIDUS survey and what it was about. (See Appendix C)

Coversheets

The electronic cover sheet or autoscheduling system allowed anyone accessing the case to read the notes of all previous contacts from interviewers. When a case was referred to tracing by the phone room, it automatically showed up in a database used by the tracing department as requiring tracing. The tracing department then traced the case, and entered any new information obtained both into the electronic cover sheet, and also into the contact database so that any mailings that may be occurring at that time in the mail room could make use of the most recent contact information. Programmer Brendan Day of the UWSC created a system where information collected from the respondent during the interview regarding updated contact information was exported to the Access database after the interview was completed, making it possible for the checks sent in payment for the phone interview to be sent out to the correct address within a week of the interview taking place.

Information from the respondent's Time 1 interview was displayed on the electronic cover sheet to help interviewers and tracers confirm that they were contacting the correct respondent. This information included respondent name, date of birth if known, approximate age at Time 1, last known phone and address information. A set of questions were also programmed that used a verification system of first the birth date, and if that verification failed, the address at Time 1. If both of these sets of verification questions failed to identify the respondent as the person interviewed at Time 1, the interview was exited, telling the respondent we would call back after making sure we had the correct respondent. This system was most helpful in identifying cases that had been through tracing and an incorrect new respondent had been identified. It also helped in situations where family members lived in the same household, such as a junior and a

senior with the same name, and ensured UWSC interviewed the correct respondent.

Survey Protocol

MIDUS 2 was complicated to field due to the fact that the phone survey, mail survey, and cognitive phone survey were all taking place simultaneously, with different respondents at different points in the survey at all times. Some respondents went on to complete their mail survey within days of finishing the phone survey, while others took months to complete the mail survey. The basic protocol was as follows.

- 1). A respondent was sent an advance letter telling them about all three portions of Project 1
- 2). One week later calling for the main phone survey began for that case.
- 3). When a completed telephone interview was obtained, a check for \$25.00 was sent out to the respondent within one week.
- 4). One week after the respondent was sent a check for the phone survey, they were sent a packet containing the two SAQ booklets, as well as a letter explaining how to fill it out, a tape measure to be used in providing body measurements, a business reply envelope for the respondent to send the completed survey back in, a letter sized business reply for the respondent to return a perforated page to be removed from the survey asking for additional contacts who we might use to find the respondent should MIDUS conduct another wave, and also 2 five dollar bills which were a pre-incentive to complete the survey.
- 5). When the respondent sent back their completed SAQ's, they were sent another check for \$25.00 within one week.
- 6). One week after the payment for the mail survey was sent, cases were fielded for the Cognitive telephone survey.
- 7). No additional incentives were paid for the Cognitive survey.
- 8). One week after the SAQ survey was mailed out, a postcard was sent to encourage the respondent to fill it out and send it back.
- 9). If a respondent did not return the SAQ within 5 weeks of receiving it, another wave of the SAQ was sent, with all the same materials as the first wave, but not including another \$10 in cash.

- 10). If a respondent had not returned their completed SAQ within 3 weeks of the second wave of the mailing, they were sent another full mailing, again without the preincentive cash.
- 11). After all three waves of SAQ had been sent, if 3 months had elapsed from the time of the first mailing, a phone call was made to the respondent to encourage them to send in the survey, and to inform them that they would soon be called for the cognitive survey.
- 12). Before cases were fielded for the Cognitive survey, a final fourth wave of the mail survey was sent to them, which included a package of post-it notes with the MIDUS logo and toll free number on it, along with a letter requesting their participation. This mailing included the check for \$25.00 that respondents were usually sent after completing the SAQ. (See Appendix D for full description of this mailing and its results).
- 13). Two weeks after sending this mailing, fielding of cases for the cognitive survey began, even if the respondent had not mailed back their SAQ's.
- 14). Near the end of the MIDUS 2 field period, a telephone version of the Self Administered Questionnaire was developed by the MIDUS PI's and contained approximately 25% of the items in the original SAQ. These questions reflected the areas that PI's felt to be the most valuable questions from the SAQ, but were limited to this number to create a viable telephone survey length for what came to be called the SAQ by Phone effort. Respondents that had not completed the SAQ's were fielded for this effort in the summer of 2006, and nearly half of them completed the telephone version of the SAQ surveys. (See Appendix SAQ by Phone for a complete description of the results of this effort).

For some cases, special protocols were needed. These consisted of:

- 1). Respondents that reported not receiving the advance letter were sent an additional copy of that letter. Some respondents required they have this letter before agreeing to participate, others participated without the letter, but were sent one after they completed the phone survey since the letter described all three parts of the survey.
- 2). Respondents who had refused to be interviewed were sent a refusal letter (see Appendix F), explaining how important their participation was and attempting to persuade them to be interviewed. Two weeks after sending this letter, a specially trained refusal converter would call to try to conduct the interview with the respondent. If the respondent refused again, calling was suspended for that respondent.
- 3). Respondents that did not answer their phone, or for whom we had a good address but not a good phone number were sent a hard to contact letter, asking

them to let us know if their contact information had changed, and providing them with a form they could return with new contact info and the best time to call. Most respondents used the provided toll free number to call us with this information, rather than sending back the form. (See Appendix G).

- 4). Respondents that remained hard to reach, or who had provided "soft" refusals were sent an additional mailing including a stress ball, a brochure containing results from Time 1, as well as a color insert regarding the recent publication of How Healthy Are We? A book published regarding the results of Time 1. (See Appendix E for a full description of this mailing and its results). This mailing proved to be very successful. Given that the average number of call attempts for this group was 28, with a third of the cases having received 40 or more calls, the completion rate of 30% of the cases who were sent the mailing was seen as very successful.
- 5). Respondents who expressed a desire to learn more about the results from Time 1 before participating were sent copies of several different chapters from the How Healthy Are We book. If they had further questions they were referred to the MidMac web site, or the UW IOA web site, or sent a bibliography of MIDUS publications.
- 6). Respondents who were very concerned about confidentiality issues were sent a copy of the Certificate of Confidentiality obtained from the federal government for the MIDUS survey.
- 7). Respondents who expressed other concerns were contacted either by Project Director Kelly Elver, or by one of the IOA staff at the University of Wisconsin.

Mortality Closeout Interviews

Mortality Closeout interviews were necessary when interviewers determined that a respondent was deceased. This interview was programmed to be part of the main telephone interview. Interviewers could quickly jump to the mortality items if they discovered that the main respondent was deceased and had an informant on the phone that could provide this information.

When interviewers indicated that a respondent was deceased (after asking for the main respondent), interviewers asked to speak with someone who knew the most about the respondent in the household, generally a spouse/partner. If the interviewer determined that the main respondent was deceased and there was no spouse or partner to be interviewed, the interviewer asked the informant for the contact information of the person with the most knowledge about the death of the respondent. If the informant was not knowledgeable enough to complete the interview, he/she was asked for the contact information of anyone who could provide this information. If the informant knew of no such person, the case was

sent to tracing in the hopes that an informant could be found. Often contact people listed by the respondent at the Time 1 or Time 2 interviews were sought as informants in this case. If no such informants were found, or if they refused to be interviewed, the case was coded as an unconfirmed mortality, pending the submission of the case to the National Death Index for confirmation.

Refusal Protocol

Standard protocol at the Survey Center is to hold a case that has refused for at least two weeks before attempting a conversion. This strategy was applied to MIDUS main telephone survey cases when a respondent refused. When refusals occurred directly after the phone was answered, before the respondent even knew who was calling, or if an informant should refuse on behalf of the respondent with little information about why we were calling, we continued to call the case. When Respondents or Informants who did know the purpose of our call refused, such cases were set aside and sent a letter encouraging the respondent to participate before they were called again for a conversion attempt. The refusal letter discussed the importance of the project and the topics of study, and included a one page insert of answers to common questions about the study (e.g. why another interview?, is it confidential?, what if I don't have time?, etc). These questions and answers were based on an analysis of refusal types and was an attempt to address the most common respondent concerns (see Appendix F). Two weeks after this letter was sent out, refusal conversion specialists were assigned to call the case and attempt to convince the respondent to participate. Respondents who once again refused were then placed on hold and calling was suspended.

Respondent Payments

Respondent payments were discussed in sequence in the field protocol section, but to recap, respondents received a check for \$25.00 after completing the main phone survey. They were then sent \$10.00 (two five dollar bills) along with the mail survey to act as a preincentive. After the completed mail survey was returned, respondents were sent another check for \$25.00. No additional incentive was included for the cognitive phone survey portion, as respondents had received a check for their mail survey completion only a week before we began calling them to complete the cognitive survey. We hoped this recent payment would serve as a pre-incentive for the cognitive survey, and given the excellent cognitive survey response rate, this may have been the case. For respondents who failed to complete the mail survey after 3 waves of mailings, a post card, and a reminder call, one final 4th mailing was sent to them, and this mailing included the check for \$25.00 that was usually sent out only after the respondent returned their completed mail surveys.

Interviewer Training

Interviewers were initially trained on the main telephone interview only since the cognitive survey required a special training protocol discussed below. New interviewers at the UWSC receive over 12 hours of training, and complete another 12 hours of observation with an experienced telephone interviewer. In addition to that training, MIDUS interviewers received 4 hours of training specific to MIDUS issues and the MIDUS instrument. Interviewers learned how cases would be fielded, how to identify respondents using information on the electronic coversheets, how to conduct mortality closeout interviews, calling guidelines, and protocol for refusals. They also completed a "walk-thru" of the main telephone instrument. Interviewers were given time to practice the interview on their own, and were instructed to complete three practice cases before they began to call actual respondents. (See Appendix H for the interviewer training manual.)

Carol Ryff attended the largest of these training groups in January of 2004, and was helpful in motivating the interviewers and providing them with sufficient background information to help them be very convincing to MIDUS respondents. She talked about the previous wave of data collection, the purpose and design of the study, and the goals at Wave 2. Dr. Ryff also shared information about projects 2-5 with interviewers to help them understand the full MIDUS survey and how the portion they would be working on fit in.

With the exception of one group of interviewers, all interviewers trained on MIDUS had some experience calling other CATI projects. Ideally, interviewers had been calling at the Survey Center for at least 3 months before they were trained on MIDUS. Due to the complexity and importance of the project, we felt it would be better to train experienced interviewers and thought it might be overwhelming for new interviewers to begin by calling MIDUS.

One group of new interviewers who were briefed to call only MIDUS were hired to supplement already existing staff. This group was selected by the hiring staff as individuals who were the top candidates of the pool of applicants. After their initial interviewer training, they were briefed on MIDUS. Overall, these individuals preformed well, although they took longer to complete their training in the phone room.

Once they began calling, all interviewers were regularly monitored during calls to respondents to ensure that they were following protocol and adhering to standardized interviewing techniques. UWSC uses a blind monitoring system, where a supervisor sits in a room not visible from the phone room, and uses a monitoring system that both allows them to hear interviews (both the respondent and the interviewer), and see the same screens the interviewer is seeing during the interview, and the answers that the interviewer enters as they are being entered. All interviewers have their work monitored on a monthly basis, and are provided with a document critiquing their work and offering suggestions for

improvement. If there are special issues that require attention, interviewers are monitored more frequently. This system of monitoring interviewers allows for constant improvement of staff abilities, and if there is a larger training issue that all interviewers would benefit from learning about, monitoring makes the issue apparent very quickly.

Cognitive Interviewer Training

Before fielding began, staff at the UWSC determined that the tasks involved in interviewing for the (TACT) Cognitive interview were quite different than the usual skills required by our telephone interviewers. Rather than obtaining factual information from the respondent or asking the respondent's opinion, the Cognitive interview would involve administering cognitive tests to the respondents on the phone. Some of these tests were timed, and so included a speed element. Other tests involved collection of open ended responses from the respondent in a timed fashion, which would make it difficult for the interviewer to record by data entry methods. One of the tests involved a task switching element for the respondents that required the interviewer to be saying things with very precise timing, as well as recording the respondent's answers at the same time. All of this pointed to extra training required.

Interviewers who had been trained for the main MIDUS telephone survey and had been calling successfully for over a month were eligible to be trained for the cognitive interview. Training for the cognitive survey was by invitation only. When an interviewer was invited to be trained for the cognitive survey, they were given time to work with a special practice instrument that concerned the "Red/Green" task switching test from the interview. They were provided with 3 different scenarios of possible types of respondents and their answers. These consisted of a scenario where the respondent had no trouble at all completing the interview, one where the respondent had some difficulties, and a third where the respondent had a great deal of trouble with the task. The interviewers were then tested on these three scenarios to be sure they could competently administer the test. Only when they had obtained a 95% accuracy rate of entering the responses for each of the scenarios were they approved to attend the cognitive training. This very rigorous standard was set to insure that we did not spend time training interviewers who would not be able to handle the complexity of the skills involved in administering this interview. Another benefit of this was that interviewers understood the importance of completing the interview accurately, and being a cognitive interviewer became a prized position in the phone room, all of which helps to explain the high response rate obtained on the project. (See cognitive section of interviewer training manual in Appendix H for specific training issues for this portion of the survey).

Data Entry Protocol and Staff Training

Data entry for the MIDUS survey began in March of 2004. The two SAQ booklets that make up the MIDUS 2 mail survey were 58 and 56 pages in length respectively. They included every possible type of formatted question, making them quite complex to enter. Given all of these facts, it was decided that each booklet would first be reviewed by an "editor" to uncover any issues that could cause data entry confusion and resolve these issues before they went to data entry. Editors received separate training from main data entry staff. They were given an editor protocol booklet (see Appendix J), and were trained on how to resolve the most common problem issues, such as respondents that gave multiple answers, selected answers that fell between actual response categories, or followed skip patterns incorrectly.

Data entry staff also underwent 2 hours of MIDUS specific training to make them familiar with the instrument, train them in the specific protocols set for the project, and give them an opportunity to practice and ask questions about the data entry process. (See Data Entry Specifications Manual in Appendix K). Each booklet was blind entered by two different data entry staff members. When a discrepancy between the first pass and the second was found by the computer, the data entry person was alerted to the difference in responses, and they then determined the correct answer (with help from an editor if needed) and then made the correction to the error, either from the first or second pass. Analysis of the number of changes required by second pass interviewers showed a data entry error rate of less than .4 percent for all data entered.

INTERIM AND FINAL DATA DELIVERIES

Delivery of Contact Information

The UW Institute on Aging required regular installments of updated contact information for the respondents who had completed all three portions of project 1. This was needed so that projects 2-5 could begin recruiting sample for their projects. In order to accomplish this, Karen Palmersheim, Jacob Emmerick and Gayle Love of the UW IOA created an Access data base which was to be used for two purposes. One was to obtain all the respondent information needed by the other projects from the UWSC, and the other was to have an organized way to assign cases to projects 2-5 and actually send them the contact information. This data base came to be known as the shell database, as it was completely designed by the IOA staff with all of the variables they would need for this purpose, but contained no data until the UWSC populated the tables in the data base and sent installments of cases to IOA in this "shell". The variables needed encompassed much more than just name, address and phone numbers for contact. In addition, it included the data collected from interviewers for each case after completing each portion of the survey. For the main survey, there was an 8 question follow-up section that interviewers completed in order to rate the cooperativeness and competency of the respondent to be interviewed, as well as fields for the interviewer to record any anecdotal information that the respondent

may have shared with them that would help with recruitment to the other projects. The shell also included a field for all interviewer notes made during the attempt to contact the respondent. These notes were used to by the other Projects to assess how difficult the respondent was to reach and gain insight into the best times and ways to contact them. For the SAQs, the database included fields for the first date an SAQ was mailed to the respondent and also the date when the completed survey was returned. For the cognitive survey, there were 3 additional interviewer feedback questions to capture changes in the respondent's health or life circumstances between the cognitive and the main phone surveys, which were often conducted months apart.

The UWSC will have delivered 14 installments of the shell data throughout the field period. The first took place in April of 2004, with a delivery taking place approximately every 2-3 months for the remainder of the field period. The final delivery included cases that did not complete any portion of project 1.

Delivery of Interim Data Files

In January of 2004, one month after production calling began, UWSC delivered an interim data set of the first 156 cases to complete the main telephone interview, so that IOA staff could review and be sure all variables were being asked correctly. In April of 2004, another delivery of the first 100 cases to complete the entire survey, phone, mail and cognitive, was made to IOA. This delivery included the data from all three portions of the survey. No major problems were found resulting from that delivery. In February of 2005, a delivery of all cases, including those previously delivered was sent to IOA. This delivery consisted of the first 3,485 cases to have completed the phone and mail portions of the survey. It also included the cognitive data for the 3,129 cases of the 3,485 who had completed the cognitive survey at that time.

Barry Radler of the IOA completed extensive data cleaning efforts in collaboration with the UWSC at that time so that all labeling was complete for the data set, and all variables that needed to be reviewed for the final data set had been identified. This finalized the protocols for final data set cleaning and delivery.

Cognitive survey data were delivered in a separate process. Each day, the digital recordings of each cognitive interview conducted that day were downloaded via a secure server to the Brandeis project. In addition to the sound files, 5 demographic variables were delivered to Brandeis for the all the cases that had completed the cognitive survey during the previous week. This allowed Brandeis to begin scoring the tests that were conducted in the interview. They were also sent the open ended interviewer comments regarding the cooperativeness of the respondent and reporting of any physical or mental health issues that may have made the interview difficult for the respondent, to be used in assessing the quality of the data they received.

Final Data Deliveries

Final data delivery for the main phone survey took place on August 30, 2005. This delivery consisted of 1478 cases, which when added to the 3, 485 previously delivered cases, accounts for all 4,963 main phone interviews completed. Final data delivery for the mail and cognitive portions of the survey took place in November of 2006, after all "straggler" cases (those who completed the SAQ very late) completed the SAQ by Phone effort, or completed the TACT survey in the summer of 2006 were completed.

Effort Required

UWSC placed 106,711 phone calls in the course of the MIDUS 2 main telephone survey field period. The number of call attempts per case ranged from 0 (cases that came to UWSC with no working phone number, and tracing never found any information on the respondent) to 97, with an average of 12 attempts for completes and 24 attempts for non-completes. Of the 75.4% of the sample who completed a telephone interview at MIDUS Time 2, 12% were completed in 1 or 2 calls, 20% in 3-5 calls, 18% in 6-10 calls, 13% in 11-20 calls, 5% in 21-30 calls, 3% in 31-40 calls, 2% in 41-50, and 2% in more than 50 calls.

Number of Call Attempts	Percent of Completes	Cumulative Percent of Completes
51+ Calls	2%	75%
41-50 Calls	2%	73%
31-40 Calls	3%	71%
21-30 Calls	5%	68%
11-20 Calls	13%	63%
6-10 Calls	18%	50%
3-5 Calls	20%	32%
1-2Calls	12%	12%

Cases that did not complete both parts of MIDUS Time 1 (telephone and SAQ surveys) but did complete MIDUS Time 2 required an average of 7 additional call attempts to gain completion. The respondents who did not complete both parts of MIDUS Time 1, and also never completed the MIDUS Time 2 telephone survey received the most call attempts, with an average of 25 attempts made per case. With the use of the autoscheduling system in place at UWSC, these call attempts were spread out over days, nights and weekends, for the entire 18 month field period.

Average Number of Call Attempts Required to Complete MIDUS 2 Main Telephone Survey By Respondents Who Completed Both the Telephone and SAQ Surveys at MIDUS Time 1 vs. Respondents Who Completed Only the Telephone Survey at Time 1

MIDUS Time 2 Completion Status	All Cases Fielded (N=7105)	Time1 Complete Only (N=6325)	Time1 Non- Complete (N=780)
Overall Sample	15.1	14.2	22.5
Completed Interview	11.5	11.1	18.2
Non-Complete Interview	23.6	23.1	25.1