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**Midlife in the United States (MIDUS
1), 1995-1996**

Technical Report

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Midlife in the United States (MIDUS 1), 1995-1996

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NATIONAL SURVEY OF SUCCESSFUL MID-LIFE DEVELOPMENT

Technical Report

January 1995 - January 1996

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OVERVIEW

The following report provides technical documentation for the MIDMAC "National Survey of Successful Mid-Life Development". This telephone/mail study was conducted by DataStat on behalf of the MacArthur Foundation Network on Successful Mid-Life Development (MIDMAC). DataStat was responsible for supplying the sample, fielding the phone survey (using CATI methods), mailing the self-administered questionnaire and related follow-up materials, keypunching the returned self-administered questionnaires, fielding a reminder call survey (using CATI methods) and preparing a final dataset that includes both the telephone and mail data.

Telephone numbers within the coterminous United States served as the sampling frame for the National RDD survey. In addition, oversample surveys were conducted in each of five cities - Boston, Atlanta, Chicago, Phoenix and San Francisco. All households containing at least one adult 25-74 years of age were eligible for inclusion in the survey. Within eligible households, respondent selection was based on gender and age using probability methods. Not all eligible households were selected to participate.

Interviewing and data entry for the study were carried out at DataStat's field facility in Ann Arbor, Michigan. Interviewing began January 16, 1995. Table 1.1 displays a schedule of events that took place during the study period. In total, 3,485 telephone interviews were completed for the National RDD survey. The original proposal called for 3,490 National RDD telephone interviews. All telephone interviews were expected to be approximately 30 minutes in length. The actual telephone interview length was 34:15.

Table 1.1

Telephone Interviewing Begins: 01/16/95

Initial 1st mailing: 01/19/95

Last 1st mailing: 09/06/95 (09/04 was Labor Day)

Initial postcard mailing: 01/26/95

Last postcard mailing: 09/11/95

Initial 2nd mailing: 02/09/95

Last 2nd mailing: 09/25/95

Initial phone follow-up call: 03/03/95 (started ~2 wks late)

Last phone follow-up call: 12/05/95

Data entry began: 03/22/95

Data entry ended: 01/31/96

Stopped Accepting mail returns: 01/30/96
Refusal Conversion Project Began: 05/06/95

Approximately 7,700 interviewer hours were needed to administer the telephone surveys. This included time spent on extensive callback procedures and multiple refusal conversion attempts. More than 10% of the interviews were unobtrusively monitored by DataStat supervisors.

Following the field period, DataStat staff reviewed the data and performed the necessary cleaning, editing and merging. Because the telephone survey was conducted using Computer Assisted Telephone Interviewing (CATI) and the self-administered questionnaires were keypunched using Direct Data Entry (DDE-a modified version of CATI), inconsistencies due to skip patterns did not occur and data cleaning and editing were minimal. A small number of data recodes and automatic fills were done. Finally, a SAS setup file was prepared. This report describes the study process from sample design through data preparation.

DATASTAT FIELD FACILITY (CATI and DDE)

DataStat has developed an advanced and well-equipped telephone and data entry field facility that was used to conduct this study.

The facility is physically part of our general offices which facilitates ease of access for the professional staff assigned to a project.

The facility is part of approximately 11,500 square feet of office space overall and is divided into a large central room containing a supervisors' station and individual interviewer carrels. Each carrel is carpeted on vertical surfaces for noise control. Stations are equipped with a microcomputer and standard telephone set as well as general and study specific documentation materials. DataStat currently has 80 active stations. In addition to the central facility there are managerial offices, monitoring rooms, breakrooms for interviewers, and a fireproof vault providing secured storage for the central computer, telephone equipment and the research archives.

All studies conducted by DataStat are done using the CATI/DDE system. The facility is designed around the use of microcomputers for all phases of the research process.

DataStat offices are cabled for local area networks. The CATI/DDE system was designed for this environment. A few examples of its capabilities include allowing professional staff to attach their own microcomputers to any interviewer's station to do real-time visual monitoring of an interview in progress, to obtain statistical output based on data collected up to the minute the run is processed, and to view coversheets for problem interviews while the interviewer is still available.

The DataStat computing environment duplicates the capacities and performance of mainframe computing systems. The DataStat network contains approximately 4000 megabytes of on-line storage. Our tape subsystem is programmed to perform automatic archival backup of disk systems nightly. Professional staff use 486 and pentium-based machines for data management and data analysis providing them with multiple MIPS of processing power.

In order to support the telephone connectivity required for the National Survey of Successful Mid-Life Development, DataStat used a PBX which was built by DataStat technical staff and which is integrated with the CATI system over the local area network.

DataStat total phone usage, for the National Survey of Successful Mid-Life Development, as well as other large studies conducted recently, has exceeded the levels of usage associated with WATS lines. DataStat has converted to dedicated digital service supported by two multiplexed T-1 circuits.

All equipment, both computer and telephone switches, are powered by Uninterruptable Power Supplies to assure continuity of service and integrity of data and networks even through temporary perturbations of utility company electrical service.

Security of facilities and confidentiality of data is a high priority for DataStat. The entire DataStat facility is protected by a security system that is active at all times the building is vacant. Because of the large number of paper documents that are stored within DataStat, systematic procedures have been developed for logging all paper documents before they are placed in secured storage. Computer tapes containing DataStat data are stored within the secured area of our fireproof vault and additional backup copies are stored off-site. Appendix A offers a detailed description of DataStat's confidentiality and security policies.

To accommodate a variety of survey questionnaires, the CATI/DDE system has the ability to handle open-ended questions, closed-ended questions, questions that are combinations of open-ended and closed-ended, and subcategories of these types including multiple choice questions or "roster" types of questions. A roster type question involves a main question that collects a number of independent items from the respondent. For each of these items a series of additional (sometimes called nested) questions are asked.

Data fields can be as wide as necessary, whether for alphabetic or numeric data or any combination. Fields that allow the inclusion of closed-ended data which are usually numerical responses, can accept either one value alone or multiple values, such as in a multiple choice question. For any data field, a variety of range checking controls are available in order to ensure that inappropriate data are not entered into the system. Illegal values can be readily specified, as can a wide variety of other flow control and data conversion parameters.

In CATI, to prevent the entering of values that are technically legal but incorrect, the system can require double entry. This controls interviewer error. The CATI system also includes a visual verification procedure that flashes the response just entered in bold characters allowing the interviewer to verify the entry before proceeding.

In DDE to correct the misentry of values that are technically legal but incorrect, all self-administered questionnaires are double entered. The first entry is called logging and the second entry is called comparing. A questionnaire is never logged and compared by the same DDE operator. Data entry errors made during logging are corrected when the questionnaire is compared. If a DDE operator in "compare mode" enters a code that differs from the first entry an audio signal is invoked. The system stops at the mismatched field and prompts the DDE operator to type 'R' to REENTER or 'N' to accept the NEW ENTRY.

The system also aids DDE operators in confirming that they are entering data into the appropriate field. This is done in two ways. A DDE screen displays the current field and the previous field. This allows the DDE operator to review the last entry without having to move between screens. The second way of orienting the DDE operator is through the use of audio signals. At the end of each page a beep is sounded. Another audio signal is used to indicate that the operator has arrived at a multiple choice field.

Programming the CATI/DDE system to perform logic and flow control operations is done through simple and intuitive commands, minimizing programmer error.

Examples of command codes include the following:

1. The variable name or label;
2. The question type (example open-ended, closed-ended, mixed, roster, etc.);
3. Conditional branching logic;
4. Summaries or summations of specific responses for comparison with responses to a more general question;
5. Calculations, data conversions, or table look-ups;
6. Default values for responses such as don't knows, inapplicable questions, refusals, missing data and so on;
7. Logic to rotate the order of items or sections of the questionnaire;
8. The region to be used to define the question text and special instructions exactly as they are to appear on the interviewer or DDE staff member's screen;
9. Allowable response codes or categories.

CATI systems such as ours can translate complex branching instructions with substantial increases in speed, compared to a telephone interviewer using a paper questionnaire. The interviewing environment is never disrupted since appropriate screen changes are made nearly instantly. A computer-assisted approach also guarantees correct skips, thus eliminating interviewer error.

The CATI/DDE system accommodates branching structures that are based on the most recent response and/or some combination of prior responses. Data from questions can be summed, recoded, and translated (for example, from one form of measurement to another). Prior data can be summarized and compared to other questionnaire responses including the current response, and the results of such instructions can be stored as a value for each case or can be used as an intermediate (temporary) variable for flow control or branching purposes.

Questions developed within the CATI system can include information from earlier questions or a project database.

The CATI/DDE system includes diagnostic compile time error messages and debugging tools that allows the state of variables to be examined at any point in an interview or data entry session. These tools simplify the programming. To test that skip patterns and code restrictions are working, test cases are created and the resulting data analyzed. Any errors in skip logic and wild code restriction are corrected before field work begins.

A coversheet is a device used in most surveys to cover a number of important purposes which are the same whether the coversheet is part of a CATI system or whether it is used in a paper-based survey. A coversheet contains a sample listing, usually the telephone number or address to be reached. This information is entered into the system using the sampling and related software described above.

For each study, a series of result codes are defined which are used to characterize the results of each dialing of the telephone number. Result codes are then interpreted by the system for subsequent action. The result code structure is flexible allowing users to define additional codes as desired or to delete or change the implications of current codes. The CATI software allows each result code to cause system actions once it is entered into the system. Further discussion of result codes specific to the National Survey of Successful Mid-Life Development is covered in the Field Procedures section of this report.

Actions might include whether or not the coversheet is to be queued again sometime later for another attempt, or whether the coversheet is to be disposed of in some final manner, for example, if a completed interview is associated with it.

Appointments can be queued to come up at the designated time; refusals can be held for display at supervisor workstations in order for them to evaluate whether a refusal coversheet should be released for an attempted refusal conversion and if so, whether it should be assigned to a specific interviewer or not.

Actions assigned to a particular result code can influence whether a "ring, no answer" is brought up again by the system 20 minutes later, during the next shift, the next day, or at any desired time interval. Similar controls are available for any relevant result code defined. Such flexibility allows special result codes with specific actions required for a particular study to be easily defined and thereafter managed by the system.

Quality telephone interviewing must include monitoring of interviewers to assess their performance, often by having supervisors listen in to live interviews without the knowledge of the respondent or the interviewer.

The CATI system allows supervisors to monitor, in real time, what the interviewer is doing at their individual workstation. The same screen that the interviewer is reading from is displayed on the supervisor's workstation. By listening in on the interviewer, it is possible to verify whether interviewers are reading questionnaire items according to the study protocol and whether they are entering data appropriately.

DataStat has systems in place that keep track of different kinds of errors associated with data collection. Our computerized systems calculate and report such factors as response and nonresponse rates, refusal conversion rates, efficiency rates (which measure productivity and cost-effectiveness), keystrokes per minute, number of data entry errors per questionnaire and average length of interviews.

For telephone interviewers, the CRT screen opens with all the data from a coversheet. The phone number to call is displayed along with any prior status of that number. If it has been called before, call record information is available to show by whom and when contact was made and what the nature of the contact was. If a partial interview is presented to an interviewer for completion, the interviewer is provided with preliminary information concerning where the interview is to begin, and notes concerning what led to the break-off. If the interview has been pre-scheduled as an appointment, the appointment time is shown.

The interviewer is instructed to go to an introductory screen from which they initiate the computer controlled auto-dial system. On call backs to partially completed interviews, the system then resumes where it had previously terminated. From that point on the interviewer is led through the questionnaire by entering alphabetic or numeric data in response to questions presented, which they read verbatim to respondents. These can be programmed to advance with the entry of numeric or alphabetic keystrokes or particular screens may be defined to change only if the carriage return key is pressed.

If interviewers believe they entered an error to a previous question, they can use a program function key to move backwards and correct the answer and then proceed to the point in the questionnaire where they need to continue. On any question where the carriage return key is required, the staff can edit the data by using the backspace and other keys in order to correct the response and move on. All of these features are presented to the staff on every screen as a highlighted footnote. Other program function keys are available for entering responses such as "don't knows" and others as defined for a specific study.

Once an interview has been completed, the questionnaire returns to the coversheet where the result code and other notes are added. All data from the coversheet, including result codes and other information associated with result codes (such as the time that the result code was obtained, the interviewer who concluded the action, the date and other data as required), are stored in a file for subsequent analysis and use in the management reports the system generates.

Such data are evaluated throughout the data collection process by the Project Manager to identify any problems in adhering to study design specifications while the study is in the field. Study management reports can be generated for the entire project or they can be separated out by individual CATI/DDE operators.

The DataStat facility is managed by a full-time senior manager, enough full and part-time supervisors, floorwalkers, trainers, and monitors to maintain a 1 supervisory staff member to 3 interviewer ratio.

Supervisory staff have the responsibility for walking the floors in order to keep interviewers working efficiently, and to provide assistance when questions are raised. They also provide facility staff with information on their response rates, keystroke speed, keypunch error rate and other issues related to project efficiency and quality.

Supervisory staff members are recruited out of the ranks of our facility staff. Those with the greatest skills, good availability, and a commitment of at least 1 year are selected.

Supervisory staff members also work in a monitoring capacity. Monitors listen to each interviewer and monitor the questions on a selected interviewer's screen from monitoring stations with computer and phone connections.

Supervisors assigned as Monitors are dedicated to formal monitoring of calls and providing interviewers with feedback. Supervisors selected to monitor interviews are trained on study-specific problems as well as the standard evaluative criteria applied to any CATI survey.

Monitoring also provides real-time verification of the interview. Supervisors and Monitors are able to listen to an interview in progress all the way from the phone ringing, through the presentation and response of each question, to successful termination. The on-line monitoring system is invisible to the respondent and the interviewer. As the interview progresses, the Monitor fills out an Interviewer Monitoring Form which covers different aspects of the interviewer's performance (e.g., reading every question exactly as written, pace, clarity, probing, etc.).

After the completion of the interview, the Monitor meets with the interviewer to provide immediate performance feedback. Problems detected by the Monitor are also fed back to the floor supervisors and are recorded in the interviewer's records.

As with most studies, we ensured that at least a 10% sample of completed interviews were monitored for the National Survey of Successful Mid-Life Development. Monitoring continued throughout the study. Each interviewer was monitored for 10% of their interviews.

DataStat Monitors use the monitoring equipment to scan the phone lines of interviewers at their workstations. When the Monitor encounters an interviewer at the point of initial contact, the Monitor completes the attachment to the interviewer's screen and monitors the actual interview in progress.

An alternative form of monitoring that is conducted regularly is coversheet monitoring. Accurate coding of coversheets associated with incomplete interviews, refusals, language problems and all the other potential dispositions is as important to maintaining the quality of the study as is high-quality interviewing itself. DataStat devotes significant time and energy to coversheet monitoring to assure high quality. For coversheet monitoring, the Monitor attaches to an individual interviewer's phone

line and screen for an extended period. The Monitor listens to each contact made and judges the interviewer's result codes and call notes. After sufficient data is collected, the Monitor meets with the interviewer for a debriefing and for any special tutoring that is appropriate. As with all monitoring, the interviewer is unaware that the monitoring process is going on.

Supervisory staff also monitor the work done by DDE operators. The supervisory staff are responsible for comparing at least 10% of each data entry operator's work. Computerized systems calculate a summary of the DDE operators work, including number of errors, overall efficiency and keystrokes per minute. Supervisory staff meet with DDE staff to provide performance feedback.

The resulting datasets from the CATI/DDE system can be made available for use in most statistical packages available for microcomputers or mainframes. Variables can be placed in the resultant dataset in any desired location and format.

The overall software system includes the CATI/DDE component for data collection as well as several statistical and reporting components. We use this software to produce tabular and descriptive statistics which assist in managing the study and in delivering top line results.

For multivariate analysis and graphic output, we can produce a system file in several formats such as SPSS or SAS. This allows access to these powerful and standardized packages. We can provide these fully labeled system files to the client as well.

The basic statistical routines available directly through the CATI/DDE software provide a rapid way of getting to the data throughout the data collection process, when only minimal assessments of the data are required. Simple analysis can be executed on demand.

INTERVIEWER/DATA ENTRY STAFF TRAINING

Field work for the National Survey of Successful Mid-Life Development was conducted by our regular staff of telephone interviewers. Currently, DataStat maintains a staff of about 150 interviewers. Typically, interviewers are part-time employees.

DataStat is located near the University of Michigan and other local colleges which provide us with much of our interviewing staff. Multilingual interviewers are also available. We have a good representation of minorities and a good gender balance among the interviewers. DataStat is an equal opportunity employer.

In order to assure that our interviewers are properly screened during hiring and properly trained before starting work, DataStat has developed a standardized procedure for recruiting and training.

All interviewer job candidates complete a written application which forms the first level of screening. During the initial interview they take a reading test constructed to include words which are often mispronounced.

Successful applicants are then invited to participate in our thorough training program which includes:

- 1) Required study of our Interviewer's Manual (see Appendix B);
- 2) Classroom experience;
- 3) Hands-on experience with CATI;
- 4) Monitored practice interviews;
- 5) A formal checkout procedure involving an assessment of interviewer skills using standardized forms;
- 6) Coverage of confidentiality issues and the proper and secure handling of any paper-based or computerized data. Trainees must sign a formal Pledge of Confidentiality.

The training program lasts 15 hours over two successive days. After the several layers of evaluation that go into interviewer selection, the individuals who are allowed to begin production interviewing are highly skilled.

Our data entry personnel are largely drawn from our pool of telephone interviewers. A minimum of additional training is necessary due to the similarities between the CATI and DDE systems.

Interviewers/DDE staff are monitored extensively during the first few weeks of employment. Monitoring is also carried out on a systematic basis for all facility staff, regardless of their level of experience.

More experienced interviewers can eventually become Senior Interviewers, a position which carries a higher rate of pay. Our Senior Interviewer pool performs refusal conversions and pretest interviews, and they become candidates for the positions of Supervisor, Floorwalker, and Monitor.

Standard interviewer probes are described in the interviewer's manual. All non-standard probes and question specific instructions can be found in the questionnaire.

In addition to our standard practices of training, evaluating, and promoting interviewers, DataStat also conducts study-specific training. In the case of the National Survey of Successful Mid-Life Development, the study-specific training included the following components:

- 1) An explanation of the survey, its purpose, importance and long-term nature. During the first three weeks of the field period this part of study-specific training was conducted by Dr. Ronald Kessler. DataStat trainers took over this part of the training for the remainder of the field period.
- 2) Special training and practice in introducing the survey in order to successfully recruit respondents. Refusal prevention suggestions and directions for probing and communicating the important purpose of the study were also covered. Interviewers were required to pass a screening test on this portion of the training.
- 3) Administrative specifications for the project, such as dates of interviewing, times of shifts and instructions for the selection of eligible respondents. Interviewers were also provided an opportunity to look over the contents and packaging of the materials to be sent to the respondents.
- 4) A question by question review of the telephone survey on the CATI system.

- 5) Special training and practice in collecting data associated with occupation and industry. Interviewers were trained to determine what was considered an "adequate" or "codable" response, appropriate probing and how to record detailed information (i.e., probes used and responses offered). Interviewers were required to pass a quiz on this portion of the training.

Study-specific training for the National Survey of Successful Mid-Life Development was about 4.5 hours in length including class time and practice time. Interviewers completed all study-specific training prior to working on the study. Examples of the materials used for the study-specific training can be found in Appendix C.

After the study entered the field period, daily written updates were provided to interviewers concerning the progress of the study and any problems or issues needing resolution. Interviewer response rates were carefully monitored throughout the field period. Interviewers having difficulty successfully recruiting respondents were pulled from the study to attend a special workshop. These workshops provided a forum for interviewers with lower response rates to meet with more successful interviewers. Interviewers would role play and have a question and answer session about a variety of scenarios that could take place on the telephone.

SAMPLING

The National Survey of Successful Mid-Life Development was conducted using a multi-stage sampling design. At Stage 1, an equal probability sample of telephone numbers was selected. This sample was drawn by Survey Sampling, Inc. (SSI) and purchased from them by DataStat. For details on their sampling procedures please see Appendix D.

Prior to fielding a study the exact size of the sample needed to achieve the desired number of completed interviews is not known. This is due to variation in eligibility, response rate, and the proportion of working household numbers. For this reason, the sample received from SSI was subdivided into replicates. Each replicate can be thought of as a small independent sample. As interviewing progressed and sample dispositions became available, an estimate of the total number of replicates needed to complete the study was made. Interviewing stopped when all open replicates were exhausted, allowing the final number of completed interviews to vary. Table 4.1 displays the number of interviews originally called for and the final achieved sample sizes.

Table 4.1

	Target	Achieved
National RDD	3490	3485
Geographic Oversamples*		
Boston #1	500	505
Boston #2	50	51
Atlanta	50	50
Chicago	50	50
Phoenix	50	50
San Francisco	50	51

*Definitions for each of the geographic oversamples can be found in Appendix E.

Respondent selection within households occurred in three stages. In each sampled household, the number of men and the number of women 25 - 74 years of age was collected. After a household's eligibility was determined (at least one member 25 - 74 years of age), respondent selection proceeded as follows:

- 1) Selection by gender - In households with men only, a man was selected 100% of the time, in households with women only, a woman was selected 100% of the time, and in households with both men and women a probability of selection was employed.
- 2) Selection within gender - In households with one eligible resident of the selected gender that resident was chosen 100% of the time, in households with two or three eligible residents a probability of selection based on age was employed, and in households with four or more eligible residents selection was based on the last birthday method.
- 3) Selection based on study targets - For each of ten gender by age groups a target number of interviews was set prior to the start of the study. Target numbers and gender/age groupings are given in Table 4.2. Once a potential respondent was selected given the two stages described above, an additional probability of selection was employed based on gender and age group. This probability determined whether the potential respondent would be asked to participate in the study or would be considered ineligible. In order to achieve the study targets, certain gender by age groups were oversampled relative to their occurrence in the population. Because of this, other more common gender by age groups needed to be selected less than 100% of the time.

Table 4.2

	TARGET	ACHIEVED						
		National RDD	Boston #1	Boston #2	Atlanta	Chicago	Phoenix	San Francisco
Men 25-34	400	398	68	6	7	7	7	7
Men 35-44	400	432	68	6	6	6	7	8
Men 45-54	400	415	63	11	7	3	6	5
Men 55-64	310	303	54	7	2	7	3	6
Men 65-74	200	173	49	3	1	2	1	1
Women 25-34	400	393	55	7	10	9	5	9
Women 35-44	400	421	32	2	6	8	4	4
Women 45-54	400	396	55	1	4	2	8	5
Women 55-64	380	355	37	6	4	5	3	4
Women 65-74	200	199	24	2	3	1	6	2

Initial probabilities of selection at each stage were set after reviewing Census estimates for each gender by age group provided by Dr. Kessler. As we gathered experience in the field, probabilities were adjusted to better meet the study targets. The number of final interviews was within 10% of the study target for all but one group. In the case of men 65 - 74 years of age, only 173 (87%) of the targeted 200 interviews were completed. Because of their estimated number in the population, their initial selection probability was set at .75. Although this probability of selection was changed to 1.00 after the first sample replicates had been dialed, we were never able to catch up.

For the first stage of respondent selection, the probability of selecting a man in a household containing both eligible men and women was set to .50 at the study start. Only one adjustment needed to be made to this probability. All cases were selected with either male probability equal to .50 or male probability equal to .65.

At the second stage of respondent selection, the following probabilities were set at the study start and remained unchanged. In households with two eligible residents of the selected gender, the probability of selecting the oldest was set at .50. In households with three eligible residents of the selected gender, the probability of

selecting the oldest was .34, the second oldest .33, and the youngest .33. When a household contained four or more eligible residents of the selected gender the resident having had the most recent birthday was selected, with the probability of selection equal to (1/the number eligible). More than 90% of the respondents had a selection probability of 1.00 at this stage.

For each gender by age group, Table 4.3 gives the estimated population percent, the initial probability of selection, and the range of selection probabilities used throughout the study. Although the probability of selection was lowered to .35 for several of the groups in the later months of the study, more than 90% of the respondents had a selection probability $\geq .50$ at this stage.

It should be noted that all selection probabilities were set to meet the study targets for the National RDD sample. No attempt was made to control the distribution of the city oversamples.

Table 4.3

	Estimated Percent of Population 25-74 Yrs.	Initial Selection Probability	Range of Selection Probabilities
Men 25-34	13.2	.65	.65 - .35
Men 35-44	12.2	.65	.65 - .35
Men 45-54	8.9	.90	.90 - .35
Men 55-64	6.1	1.00	—
Men 65-74	5.2	.75	1.00 - .75
Women 25-34	14.2	.60	.60 - .35
Women 35-44	14.2	.60	.60 - .35
Women 45-54	9.9	.80	1.00 - .70
Women 55-64	7.6	1.00	1.00 - .90
Women 65-74	8.5	.55	1.00 - .35

If a designated respondent refused or was otherwise unavailable he/she was NEVER replaced by another household member. Before beginning the telephone interview, the interviewer was required to obtain verbal agreement for both the telephone and self-administered portions of the survey.

FIELD PROCEDURES (CATI)

This section covers the specific CATI field procedures employed for the National Survey of Successful Mid-Life Development. In general, DataStat procedures for management of the facility and for interviewer training, which are described in sections above, were followed for this study. To the extent that special procedures were employed, or where more detail is appropriate, it is covered within this section.

We employed our standard monitoring procedure for the National Survey of Successful Mid-Life Development. Our monitors monitor 10% of all interviews and 10% of each individual interviewer's work. When an interviewer is less experienced, our monitoring tends to be heavier. Interviewers are debriefed after a monitoring session to give them feedback on their performance and suggestions for improvement.

Monitoring is done by linking a monitor's screen and phone line into the interviewer's screen and phone line. The process is unobtrusive; neither the interviewer nor the respondent is aware that the interview is being monitored. Equipment eliminates any initial click or ongoing noise as the phone lines are linked.

During the pretest and early field periods, our regular monitoring staff was supplemented by ad hoc monitoring by the professional staff assigned to the project. In addition, the pretest was monitored by the following MIDMAC members - Dr. William Hazard, Dr. Ronald Kessler, Dr. Alice Rossi and Dr. Hazel Marcus. Additional monitoring was primarily to assess the flow and design of the questionnaire and identify any last minute fine tuning required.

Standard floor supervision was also employed. DataStat maintains a supervisory staff to interviewer ratio of 1 to 3. On any given interviewing shift, the activities of the supervisory staff will vary. Typically, the majority of the supervisory staff will be walking the floor handling interviewer questions. Supervisors are also responsible for controlling the minute-to-minute sample management. These activities involve instructing the sample management software to release certain result codes at certain prescribed times, to monitor the opening and closing of time zone windows, and so forth.

Interviewers signal floorwalkers or supervisors when questions occur. Two special keys are available on the CATI keyboard: one function key will place the interviewer into "supervisor" mode for time accounting purposes, and the other key flashes the interviewer's workstation number on a floor computer monitor to alert the floorwalker or supervisor. Interviewers are trained never to ask other interviewers for information, but to always seek out a supervisor or floorwalker.

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DataStat interviewers interact with the CATI system to obtain sample and conduct interviews. For the National Survey of Successful Mid-Life Development and for most studies, in general, this interaction is in the following manner.

Interviewers log into the computing network, identifying themselves by ID and password for security clearance. They invoke the CATI program and specify the study they are working on.

When interviewers are ready, they enter a command to request a coversheet. The coversheet is accessed over the network from sample control machines. The coversheet contains a phone number and other related information including the complete call history of every dial attempt on this number, the result code, the time and date of the attempt and any notes left by interviewers during the earlier attempts. The interviewer uses a computer controlled auto-dial system to dial the telephone number. The dial can produce a number of outcomes including a completed interview, classification of the number as dead (e.g., a business), or some interim classification requiring a later call (e.g., a busy signal).

All contacts with a human require that the interviewer enter a coversheet note giving general information. Examples of coversheet notes include information about the temperament of the respondent, respondent concerns, information about line and phone conditions, and so forth.

The CATI system manages all of the coversheets and incorporates such features as automatic rescheduling of ring/no answers and busy signals according to one of several algorithms, the ability for interviewers to schedule appointments to be picked up by any available interviewer, and the ability to classify and reassign initial refusals to specially trained interviewers. Interviewer efficiency is enhanced because interviewers do not need to perform clerical and filing tasks. Accuracy and consistency are enhanced by computer management.

Each coversheet outcome is given a result code which is pre-coded into the system and causes a sequence of actions depending on the definition of the code. The handling of result codes within the CATI system is configurable. The Project Manager defines a table of codes, actions, durations, and groupings which is maintained and accessed by the sample management subsystem. The final result code (disposition) for each sample number and result code definitions can be found in the Sample Disposition section of this report.

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Except when requested by the respondent as an appointment time, interviewing hours followed standard calling times:

Weekdays	10:00am - 9:30pm
Saturdays	10:00am - 9:30pm
Sundays	3:00pm - 9:30pm

Calling times are automatically regulated by the CATI system but can be overridden by a supervisor. All calling times are adjusted for the local time zone automatically. The CATI system also schedules callbacks for ring/no answers and other automatic callbacks according to time-dependent rules.

The field period for the National Survey of Successful Mid-Life Development was mid-January through August 1995. As is typical with studies of this type, the workload scheduling was not distributed evenly over this period. The initial days of the study had a lower workload schedule in order to accumulate experience and refine interviewer instructions. The middle period, roughly February through mid-May, had approximately 75% of the total field hours. This distribution of the workload allowed the quick elimination of bad numbers and the early identification of problem respondents. The final interviews were conducted throughout the summer.

Because of the desire to obtain the highest response rates for the National Survey of Successful Mid-Life Development, a \$20 financial incentive was offered to all respondents and extensive refusal conversion was performed. All initial refusals and breakoffs received at least one refusal conversion attempt. This often involved several additional calls to the household. Any household which expressed a reluctance to participate was offered a brochure prepared by Dr. Kessler's office. This brochure explained the study in greater detail, stressed the importance of the information being collected, and described how the study findings would be used. It was hoped that this brochure would help to persuade potential respondents, particularly those concerned about the legitimacy of the study. In total, DataStat mailed out 1359 brochures, recontacting the household 10 days after the mailing to again request their participation.

In order to minimize initial refusals, seminars were conducted with interviewers to train them to counter typical objections. As the field period progressed, early refusals were allowed to rest without further contact for several weeks. They were then recontacted for another attempt. DataStat selected a small group of the most senior and experienced interviewers to attempt refusal conversion.

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A random subsample of 844 initially selected numbers that resulted in a final refusal were selected for the nonrespondent study. Additional contact attempts were made to the household to offer a substantial financial incentive of \$200 to a respondent for completing both portions of the survey. Respondent's were paid \$100 after completing the telephone survey. The final \$100 payment was made upon receipt of the self-administered questionnaire. If an informant or respondent continued to communicate an unwillingness to participate, they were asked to complete a 10 question survey.

MAILING AND REMINDER CALL PROTOCOL

This section covers the specific mailing and reminder call procedures followed for the National Survey of Successful Mid-Life Development. Interviewers obtained name and address information at the beginning of the telephone survey. The schedule of events described in Table 6.1 was initiated two times a week throughout the field period. A respondent was taken out of the mailing and reminder call protocol when their self-administered questionnaire was returned. All addresses were reviewed for missing and/or misspelled information. Examples of the postcard and personalized letters can be found in Appendix F.

In general, the phone follow-up study followed the specifications described in the field procedures section of this document. No time limit was placed on the length of time a coversheet could remain active in this project. An additional \$30 was offered if a respondent indicated a reluctance to complete the self-administered questionnaire. The incentive was paid out immediately.

Table 6.1**MAILING SCHEDULE - SCHEDULE OF EVENTS****Day 1 - 1st mailing sent**

Contents of Priority Mail Envelope:

- brochure
- personalized coverletter
- \$20 incentive check (\$100 check for refusal conversion project)
- questionnaire Part I
- questionnaire Part II
- tape measure
- pen
- postage paid return envelope

Day 8 - reminder postcard sent

Day 22 - 2nd mailing sent

Contents of Priority Mail Envelope:

brochure
personalized coverletter
questionnaire Part I
questionnaire Part II
tape measure
pen
postage paid return envelope

Day 33 - phone number added to reminder call project

Packages mailed as a result of reminder call contacts were designed to fulfill each respondent's specific needs. Following is a description of the 4 most common situations encountered and the contents of the package mailed to each respondent.

1. R received 1st and/or 2nd package but misplaced, discarded, etc. Send complete package in Priority Mail envelope:

brochure
personalized coverletter
\$20 incentive check, if 1st mail not received (\$100 for refusal conversion)
\$30 incentive check, if necessary (NO \$30 for ref conversion)
questionnaire Part I
questionnaire Part II
tape measure
pen
postage paid return envelope

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2. R completed and returned entire self-administered packet but materials were not received at DataStat. Send complete package in a Priority return envelope:
brochure
personalized coverletter
\$30 incentive check, if necessary (NO \$30 for ref conversion)
questionnaire Part I
questionnaire Part II
tape measure
pen
postage paid Priority return envelope
3. R completed and returned part of the self-administered materials. Send partial package containing remainder of materials in Priority Mail envelope:
brochure
personalized coverletter
\$30 incentive check, if necessary (NO \$30 for refusal conversion)
questionnaire Part I (if not completed)
questionnaire Part II (if not completed)
tape measure (if Part I not completed)
pen
postage paid a return envelope
4. R received neither 1st nor 2nd packet. Send complete packet w/ \$20 Certified mail:
brochure
personalized coverletter
\$20 incentive check (\$100 for refusal conversion project)
\$30 incentive check, if necessary (NO \$30 for refusal conversion)
questionnaire Part I
questionnaire Part II
tape measure
pen
postage paid return envelope

FIELD PROCEDURES (DATA ENTRY)

This section covers the specific DDE field procedures employed for the National Survey of Successful Mid-Life Development. In general, DataStat procedures for management of the facility and for data entry training, which are described in sections above, were followed for this study. To the extent that special procedures were employed, or where more detail is appropriate, it is covered within this section.

All self-administered questionnaires were double-entered (logged and compared). The first and second entry of a form was never performed by the same data entry operator. In addition, supervisory staff are responsible for the second entry of at least 10% of a data entry operators work. This process ensures that the data entry staff are following the project specific rules. Supervisory staff meet with DDE staff to provide performance feedback. A "general" set of rules followed by data entry staff can be found below. Study specific instructions and rules to be followed for the National Survey of Successful Mid-Life Development can be found in Appendix G.

GENERAL RULES:

If more than 1 answer is checked enter F1*, unless told otherwise in study specific instructions.

If the question is blank enter F1, unless told otherwise in study specific instructions.

If Not Applicable (N/A), Don't Know (DK) or REFUSED is written next to the question enter F1, unless told otherwise in study specific instructions.

There is a beep to let you know that you are at the end of a page.

There is a double beep to let you know that the next question is a select all that apply.

If a range is given for an answer, take the average and round. Round up for .5 or higher, round down for less than .5.

* Function keys are assigned to handle specific scenarios in DDE and CATI. A '9' will appear in a 1-column field when F1 is entered, '99' will appear in a 2-column field and so on. The use of function keys simplifies the work of a data entry operator by requiring fewer "question-by-question" rules.

If a respondent gives an answer in decimals or fractions for a question that does not allow for such a response, round up for .5 or more, and down for less than .5.

If a respondent writes an answer in the other specify, but does not circle the appropriate number, enter the 'other' option and type in the answer.

SAMPLE DISPOSITION (TELEPHONE SURVEY)**Sample Disposition--National RDD
Prior to Refusal Conversion Study**

	Total	Sample 1	Sample 2
<u>Screening Completed</u>			
Completed Telephone Interview			
Usable	3323	881	2442
Unusable	2	0	2
Ineligible			
No one 25-74 yrs	988	240	748
Selected R-Age terminate	2473	540	1933
Language problem	71	23	48
Circumstantial	104	27	77
Appointment Not Completed			
R selected, interview not started	111	18	93
After R began interview	20	9	11
Refusal			
R selected, interview not started	932	238 *	694
After R began interview	76	24 *	52
<u>Screening Not Completed</u>			
Ineligible			
Language problem	362	80	282
Circumstantial	154	46	108
Appointment Not Completed	66	2	64
Refusal	2087	582 *	1505
Maximum Calls--No Contact	1246	327	919
Non-household	2743	632	2111
Non-working Number	5242	1331	3911
Total Numbers	20000	5000	15000

* This disposition reflects the status of all sample numbers given one refusal conversion attempt. A total of 844 numbers (238 + 24 + 582) were classified as final refusals from Sample 1. These numbers then became eligible for inclusion in the refusal conversion study. The final disposition for these numbers is given on the following page.

**Sample Disposition--National RDD
Refusal Conversion Study**

	<u>Total</u>
<u>Screening Completed</u>	
Completed Telephone Interview	162
Completed Short Form	14
Ineligible	
No one 25-74 yrs	23
Selected R-Age terminate	50
Language problem	0
Circumstantial	6
Refusal	
R selected, interview not started	174
After R began interview	15
<u>Screening Not Completed</u>	
Ineligible	
Language problem	2
Circumstantial	9
Refusal	383
Non-household	6
Total Numbers	844

Sample Disposition - Definition of Categories

Screening Completed	Sample number reached a household where an informant completed the household composition questions.
Completed Telephone Interview	Respondent completed the telephone interview and agreed to complete the paper questionnaire. Telephone interviews classified as unusable represent cases where information collected in the paper questionnaire made the respondent ineligible for the study.
Completed Short Form	After a final refusal to participate in the study, the respondent agreed to complete a 10 question survey OR an informant agreed to complete the 10 questions about the respondent (Refusal Conversion Study only).
Ineligible--No One 25-74 Yrs.	Told by informant that no one living in the household was 25-74 years of age.
Ineligible--Selected R-Age Terminate	Respondent was selected out of the study using probability methods based on gender and age. These methods were employed to control the gender/age distribution of completed interviews.
Ineligible-- Language	Informant/Respondent could not be screened/interviewed in English.
Ineligible-- Circumstantial	This code was used when the selected informant was hard of hearing, hospitalized, or otherwise incapacitated in a way that prohibited participation in the study.

Appointment Not
Completed

If the household screening selection could not be completed or the selected respondent was not available at the time of first contact, an appointment was made by the interviewer. The computer automatically released those appointments at the appropriate time. If, on callback, the respondent was still not available another appointment was made. Attempts to complete the screening/reach the respondent continued throughout the study period. Appointments were always made at the convenience of the respondents.

Refusal

The Informant refused to participate in the household screening OR the informant refused to bring the selected respondent to the phone OR the selected respondent refused to begin/continue the interview. All initial refusals received at least one refusal conversion attempt. This conversion attempt often involved several additional calls to the household. All reluctant informant/respondents were offered a study brochure. Following a second firm refusal, 844 cases were randomly selected for the Refusal Conversion Study. In this part of the study, an additional conversion attempt was made offering the respondent \$200 for participating.

Maximum Calls--
No Contact

This code was assigned if, after 10 attempts, no contact was ever made with a household. Attempts to contact a household were spread across parts of the day and days of the week. All attempts resulted in ring/no answers or pick-ups by answering machines.

Non-Household

A business, fax machine, modem, car phone, boat, dorm, telephone booth, etc. Numbers reaching fax machines and modems were attempted several times before being classified as non-households.

Non-Working Number

This code was used when we encountered complete silence, a strange noise, or an operator message stating that the number had been changed, was unassigned or was temporarily disconnected. All numbers without recorded messages were recontacted several times before being classified as non-working.

SAMPLE DISPOSITION (SELF-ADMINISTERED SURVEY)**Sample Disposition -- National RDD
Self-Administered Survey**

First Mailing Sent	3487
Total Usable Returns	3032
First Mailing-Usable Returns	
Both Books Complete	2656
Book 1 Complete - Attempt to Obtain Book 2 Failed	12
Book 2 Complete - Attempt to Obtain Book 1 Failed	1
Second Mailing-Usable Returns	
Both Books Complete	233
Book 1 Complete - Attempt to Obtain Book 2 Failed	2
Post-Reminder Call-Usable Returns	
Both Books Complete	111
Self-Administered Questionnaire Administered by Phone	
Both Books Complete	12
Book 1 Complete	3
Book 2 Complete	1
Total Unusable Returns	
Phone and Self-Administered	2
Self-Administered	11

DATA MANAGEMENT

The data were examined periodically while in the field to detect and correct any problems such as inconsistent responses or interviewer coding error. Open-ended data (e.g., QA11B, Other Diagnosis) were read, and interviewer coding errors found and corrected.

Occasionally an interviewer would detect an error while interviewing. In most cases they were able to back up and correct the wrong answer. Skips were then controlled on the basis of this new information. In some cases the interviewer did not have time to back up and make the correction. When this happened the interviewer would make a note of the problem and bring it to the attention of the floor supervisor at the end of the interview. If a change in the data was called for, an edit order was written by the supervisor which was then acted upon by the project data manager. The data were edited and checked to ensure that the edit was correct and consistent with the rest of the record.

Informants/Respondents sometimes gave answers that contradicted earlier responses:

Inconsistent responses were found within the phone survey and between the phone survey and the self-administered questionnaire. The CATI program included many consistency checks to evaluate the integrity of responses. Consistency checks between the phone survey and the self-administered questionnaire were performed after the two data records were combined.

QL4.1 stored the age of the respondent. This information was collected during the household screening portion of the phone survey - an informant was responsible for reporting this piece of information. QL4.1 was used extensively during the phone survey to evaluate the integrity of the respondent's answers.

Inconsistencies based on age were handled in the following manner:

During the phone interview some respondents indicated that QL4.1 was incorrect:

- a) If the discrepancy was LESS than five years - QL4.1 was NOT changed. Responses that were inconsistent with the age stored in QL4.1 were edited to the data record by the project data manager.

- b) If a respondent indicated that QL4.1 was incorrect and the discrepancy was five years or more - QL4.1 was edited to the correct age. If necessary, the project data manager also edited age.grp (gender-age classification) and any other responses that were inconsistent with the age originally stored in QL4.1.

In post-processing a new variable was created to store the respondent's age based on the birth date reported in the self-administered questionnaire. In some instances a discrepancy was found between this variable and QL4.1.

- c) If the discrepancy was LESS than five years - QL4.1 was NOT changed.
- d) If the discrepancy was five years or more - QL4.1 was edited. If necessary the project data manager also edited age.grp (gender-age classification).
- e) If the age variable based on birth date indicated that the respondent should NOT have been eligible to participate in the study (less than 25 years old or more than 74 years old) the case was determined to be unusable.

Inconsistencies based on sex were handled in the following manner:

A consistency check was run to find cases where the gender of the phone interview respondent was different than the gender of the respondent that completed the self-administered questionnaire. Ten such cases were found. For each of these cases, data from the self-administered questionnaire were discarded.

Inconsistencies based on marital status:

If a respondent indicated that they are separated or divorced (QB17 = 2 or 3) they were asked for the date they actually stopped living with their spouse. Five respondents indicated that they are still living with their ex-spouse. QB22.MO and QB22.YR were edited to 97 to call attention to this scenario. Detailed information about each of these cases can be found in the case log (Appendix H).

If a respondent indicated that their first marriage ended in divorce (QB20 = 2) they were asked for the date they actually stopped living with their spouse. Three respondents indicated that they NEVER LIVED with their first spouse. QB20B.MO and QB20B.YR were edited to 97 to call attention to this scenario. Detailed information about each of these cases can be found in the case log (Appendix H).

Respondents sometimes gave answers that exceeded the limits of the field reserved for a response.

Standard codes were used to represent this situation. "EXCEEDED FIELD LIMIT" was represented as a "97" in a two-column variable such as QA29A and "9997" in the case of a four-column variable such as QB14.3. The actual responses given by the respondent can be found in the case log (Appendix H).

This code was used for the following variables:

Phone Questionnaire: QA29A, QA44, QA47, QA88, QB14.3
Self-Administered Questionnaire: SG3, SG4, SP37, SS13A, SS13C, SS13H, SS13K

Post-Processing/Data Recodes

- a) J8 - J13 and J15 in the self-administered questionnaire were originally stored as alpha codes. In post-processing these data were recoded to numeric values for ease of use in analysis. Numeric codes were assigned consecutively to each of the original alpha codes (e.g., A = one, B = two, etc.).
- b) Geographic and demographic descriptive variables were appended to each data record based on the area code and central office code used to reach the respondent. The names of these variables and a short description can be found in the dataset description - Appendix I.
- c) A variable named caselog was created to call attention to cases with anecdotal information. The anecdotal information on each case can be found in the case log - Appendix H.

A dataset description that details file names, standard codes, variable types and a complete list of variables stored in each data record can be found in Appendix I. The dataset description should be read before any analysis of the data is attempted. The questionnaires indicate the skips and codes for most of the variables in the dataset. A copy of the telephone instrument can be found in Appendix J. Some variables are not fully covered in the questionnaire however, and some additional issues are explained in the dataset description.