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# TRACING MEMBERS OF A PANEL: A 17-YEAR FOLLOW-UP

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This chapter reports on a search conducted in 1975 for members of a sample of 10,317 men and women who were seniors in Wisconsin high schools in 1957. The post-high school experi-

This research was supported by a grant (M-06275) from the National Institute of Mental Health. William H. Sewell and Robert M. Hauser were the principal investigators, and Taissa Hauser supervised the tracing and interviewing. The Wisconsin Survey Research Laboratory, Madison, conducted the telephone interviews. File management and computation were carried out at the Center for Demography and Ecology, University of Wisconsin, Madison; this center's computing facility is supported by a grant (HD-05876) from the National Institute for Child Health and Human Development.

The procedures described here were designed and carried out by the authors. We wish to thank Halliman H. Winsborough, in addition to Drs. Sewell and Hauser, for suggestions and support. We also thank Nancy Bode for her assistance with the computations.

ences and achievements of this sample have been studied extensively by William H. Sewell and his associates. Data for these studies came from questionnaires filled out when the students were seniors in high school, a 1964 postcard survey directed to the students' parents (Sewell and Shah, 1967; Pavalko and Lutterman, 1973), Wisconsin tax records (Sewell and Hauser, 1972, 1975), Social Security earnings histories, and a round of telephone interviews.

Our 1975 tracing operation located 97.4 percent of the members of the original sample; this figure includes 99 percent of the persons (9,007) for whom responses were obtained in the 1964 survey and 86.2 percent of the persons (1,310) for whom no responses were obtained in the 1964 survey. Ultimately, 88.6 percent of the members of the original sample were interviewed by telephone. This compares favorably to the 87.3 percent response rate in 1964. Our success was in large part attributable to our extensive use of the telephone, during both the search and the interviewing, as well as to certain features of the search procedure.

The major factors affecting the success of a tracing operation are the size, mobility, and dispersion of the sample, the elapsed time between waves of the survey, and the persistence and ingenuity of the searchers. Failure to exhaust all sources of information when searching for potential respondents perpetuates the belief that uncontrollable factors prevent successful tracing operations. Moreover, the search is often left to those who have no vested interest in the research or the quality of the data.

While there have been reports of successful tracing attempts (Eckland, 1968; Crider, Willits, and Bealer, 1972; Carrel, Potts, and Campbell, 1975; McAllister, Butler, and Goe, 1973), a description of our efforts may be useful in several ways. First, our very recent experience indicates that despite changes in receptivity to surveys it is still possible to carry out a successful large-scale panel study. Second, our sample differs from several of those for which successful follow-ups have been reported in that it is very large (more than 10,000 persons) and geographically dispersed; moreover, the elapsed time since the last direct or indirect contact with the intended respondents was very long, ranging from 10 to 17 years. Third, since finding people is more a craft than a science, we believe that the description of successful

searches may be the main means for improving future searches. Fourth, we believe that the organization and management of the search procedure play an important part in its success, a part inadequately portrayed by the description of information sources and search procedures. Finally, we provide information on the outcome of our search, measured in terms of time required and percentage of cases found in various phases of the search.

The following discussion is in three parts. The first reviews the history and design of the study and the organization of the tracing operation. The second describes the steps in the search itself. The third reveals, for a subsample of cases, the time required and the percentage of cases found for various phases of the search as well as relationships between social characteristics of members of the sample and the length and complexity of the tracing operation.

# HISTORY AND DESIGN OF THE STUDY

In 1957 J. Kenneth Little of the School of Education at the University of Wisconsin directed a survey of all Wisconsin high school seniors. More than 30,000 seniors filled in a questionnaire that asked about educational and occupational aspirations, plans for marriage or military service, high school experiences, and social background. These data were supplemented with mental test scores and high school ranks ascertained from the Wisconsin State Testing Service and from 456 high schools. In 1962 the original questionnaires and data were turned over to William H. Sewell of the Department of Sociology. Sewell selected a random sample of one third of the original respondents (N = 10,317) and improved the coverage of the test score and high school rank data in this sample. In 1964, seven years after members of the sample had completed high school, Sewell and his associates carried out a mail survey of these students' parents, whose names and addresses had been given by the students on the original questionnaires. Parents were traced by forwarding postcards through the mails, by attempting to locate new addresses in the files of the Wisconsin State Tax Department, and by searching telephone directories and city directories for the location and telephone numbers of parents who had not responded to the varius mailings.

After five waves of mailing and a round of telephone interviews, a response rate of 87.3 percent was achieved. There were no large differences between respondents and nonrespondents on variables that had been measured in the 1957 baseline survey (Sewell and Hauser, 1975, pp. 26–41).

Late in 1973 the project directors, Sewell and Hauser, decided to contact the members of the one-third sample directly for the first time since 1957 in order to improve the measurement of specific social background characteristics and to obtain updated educational, familial, residential, and labor force histories. In 1975, the projected date of the survey, most members of the sample would be about 35 years old. The men would be well established in their careers, and most of the women who had borne children would have completed their families. Thus it was thought that 1975 would be an ideal time to collect additional data.

To develop methods for the search and to test its feasibility, a sample of 216 cases from the one-third sample was traced. This sample was stratified according to respondent characteristics thought likely to affect the complexity and success of the tracing operation. Nine persons were randomly selected into each of the twenty-four cells in a classification of sex by educational attainment in 1964 (high school graduate, some college, or college graduate) by rural or urban residence in 1957 and by state of residence in 1964 (Wisconsin or all other states). With considerable effort all 216 persons were found.

At this point it was decided to undertake a large-scale tracing operation; however, only limited funds were available for the search, and no money was yet available to support the interview itself. With this limitation in mind, the search was organized to make it possible to terminate conveniently at any stage with the assurance of a representative subsample of the one-third sample. Sample members were classified into thirty-two ranked strata defined by the cross-classification of four categories of mental ability by four categories of socioeconomic status by sex. Each of these strata was then randomly divided into numbered tenths. Finally, ten equal-sized groups were formed by combining like-numbered tenths from the thirty-two strata. Tracing these groups one at a time smoothed the work flow and prevented a pileup of hard-to-find cases.

There were several reasons for deciding to use the telephone, rather than the mail, for most of the search. First, studies have demonstrated a higher response rate to telephone rather than mail contacts (Alwin and Jensen, 1976), and use of the telephone would help to convey our interest and enthusiasm for the project. Second, calls were inexpensive because members of the project staff had access to five DAIN (Direct Access Intercity Network) lines. Finally, by using the telephone we could follow up or eliminate leads without the lengthy turnaround inherent in a mail search.

We attempted to trace respondents through their parents so that the initial contact with the respondent would be at the time of the interview. This procedure minimized the number of direct contacts with respondents, thereby reducing both the number of opportunities for refusal and the likelihood of annoying the respondents. This strategy had the additional advantage that parents were geographically less scattered than the respondents. Whereas about 76 percent of the respondents lived in Wisconsin in 1964, almost all the parents lived in the state in the same year. Of course, some parents had died, and some were uncooperative, or could not themselves be located. In these cases we attempted to trace respondents directly.

In retrospect we believe that the organization and management of the search were especially important in its success. The supervisory personnel included a full-time project specialist and three graduate students, all motivated to obtain a high response rate with high-quality data. The remainder of the tracing staff was composed of inexperienced undergraduate students who were carefully trained and closely supervised. Training consisted of an orientation by the project directors concerning the history and goals of the study as well as a description of the panel study as a research design. Students also practiced telephoning and were instructed in the paperwork associated with the calls. We did not mind if students sounded unpolished over the telephone. Occasional bumbling and nervousness were actually helpful in establishing rapport with potential informants.

To maintain efficiency, students placing routine calls to residences were not permitted to telephone for more than 2 hours

<sup>&</sup>lt;sup>1</sup>"Respondents" refers throughout to the one-third sample members we were attempting to locate.

at a time. Students wishing to work for more than a 2-hour period interspersed telephoning and clerical work. However, students dealing with the more difficult, and therefore the more interesting, cases were permitted to call for longer periods of time. Calls to residences were made during the evenings when most people were at home; calls to businesses, alumni offices, and other establishments were placed during normal working hours.

The supervisors met frequently to discuss the progress of the tracing operation and refine procedures. Efficient systems of filing and record keeping, as well as clear rules of the flow of work, were essential for dealing with a large number of cases and many employees. Poor organization can lead to great confusion, waste of time and money, and, most important of all, tracing failure.

# THE TRACING OPERATION

To organize in a consistent manner all pertinent search information, we maintained a contact record for each member of the sample. Each person's name, sex, stratum and random group numbers, case number, high school, and 1964 address, as well as parents' most recent address, were printed by computer onto gummed labels that were affixed to the first sheet of the contact record. These sheets were color-coded according to the sex of the respondent, since the early stages of the search frequently differed for men and women. They were also marked with spaces for additional information obtained from our records or other sources. Additional pages of the contact record were used to record each and every attempt to locate the respondent or an informant. For each attempted contact we recorded the date, the time, the searcher's initials, the phone number dialed (in some cases, the address to which a letter was sent), the name of the person reached, the relationship, if any, of this person to the respondent, and a detailed description of the outcome of the contact.

At the outset we had a great deal of information for tracing persons whose parents responded in 1964; however, very little was known about the persons for whom no response was obtained in 1964. The information available for both the 1964 respondents

TABLE 1 Information for 1964 Respondents and Nonrespondents

Information	Respondents	Nonrespondents
Parent's and student's 1957 address		
(same household)	X	X
Parent's 1964 address	X	_
Student's 1964 address	X	_
Schools student attended or graduated		
from before 1964	X	_
Student's 1964 occupation	X	_
Student's 1964 marital status	X	_
Female student's spouse's occupation	X	_
Student's military status	X	_
Parents education	X	X
High school rank	X	X
Student's occupational aspirations	X	X
Parents' 1957 occupation	X	X

and nonrespondents is listed in Table 1. Some of this information could be used directly in the search for a parent or respondent; other information sometimes provided clues that were helpful in tracing respondents. In the absence of occupational information for 1964 nonrespondents, for example, knowledge of a respondent's 1957 occupational aspirations was sometimes helpful. Our strategy was to record and use the information that was most likely to lead us to the parent or respondent. In the remainder of this section we outline the search process based on our experience with one of the ten groups (896 cases) discussed earlier.

# The Telephone Book Search

We first attempted to find a telephone number for parents (usually the father) at the 1964 address. This was done in one of two ways. For addresses in Wisconsin or major out-of-state cities, it was possible to use a set of telephone directories at the Madison Public Library. This procedure was straightforward with one exception. Since directories for rural areas usually contained separate listings for several nearby towns, we checked all towns in the appropriate directory when necessary. For addresses in cities other than Wisconsin or major cities in the United States, long-distance telephone operators were called. There were three possible outcomes of the telephone book search for parents. These we now consider in turn.

Listing for Parent. When we found a listing for the parents we called them and confirmed the location of the respondent in almost all cases. The exceptions occurred when the phone was never answered; when the number was no longer in service; when the phone was answered but belonged to someone other than the listed party; or when the parent refused to give, or did not know, the child's address. In all cases we began searching for the respondent at his or her own 1964 address. We assumed, correctly in most cases, that a refusal from a respondent's parents would not always mean a refusal from the respondent.

No Listing for Parent, But Listings for Others with Same Name. If there was no listing for the parent, but others with the same name were listed, we first checked to see whether the respondent was listed. If we found such a listing, we called to confirm that this was indeed the respondent. If the respondent was not listed, we then checked to see whether the parents' 1964 address was listed. We assumed that the person residing at this address was related to the respondent.

If we found no one of the same name living at the parents' 1964 address, we copied several (three to eight) of the telephone numbers of persons with the same last name as the parents. If many names were listed, we selected the names and numbers we thought were most likely to lead us to the respondent. We found that the people most likely to be related to the respondent were those with listings such as Mrs. Smith or J. K. Smith (these were frequently widowed mothers of the respondents) and those with a telephone prefix (the set of three digits immediately following the area code) representing the geographic area in which the parents lived in 1964.

No Listings or Too Many Listings for People with Same Last Name. When we were unable to find listings of persons with the same last name as the parents, or if the large number of persons with the same last name made this approach impractical, we conducted a telephone book search for the respondent. We thought that the risk of alienating respondents was worth taking at this stage since direct contact was the most efficient of the remaining search methods.

In searching for respondents we followed the same telephone book search procedure outlined above. This task was straightforward for men and for women who were not married in 1964. However, for each woman who was married in 1964 it was necessary first to ascertain husband's full name from the 1964 questionnaire.

# Other Sources of Respondents' Addresses

When the 1964 addresses did not lead us to the respondent, we reviewed each case to decide what information was most likely to be helpful. If the respondent had a specific occupation in 1964 and the employer's name was listed, and if he or she had attended a small college but did not graduate, we would try the employer or, in appropriate cases, a licensing association. If the respondent graduated from a university or private school that had an alumni association, we would try that group. If the respondent or parents had lived in a town that had a city directory, and if there was no helpful information concerning occupation or schooling, we would locate and call neighbors. If the respondent was from a small town, we might call the post office in that town before pursuing any other lead.

The following procedures are listed in the typical order in which they were applied, although not all these methods were appropriate for every case.

Employment Data. One of the most useful pieces of information in the 1964 questionnaires was the respondent's occupation, job title, and name of employer. In the case of married female respondents, spouse's occupation was also listed. With this information it was possible to trace many respondents (or their spouses) through their 1964 employers, a trade union, or a state or national licensing system. For example, whenever we were searching for a respondent who was in training or working as a nurse in 1964 or had indicated in 1957 a desire to become a nurse, we contacted the nurses' licensing registration office for the state of Wisconsin. If a search for a respondent through a specific employer or through a licensing bureau or union was not feasible, we frequently would look in the yellow pages for potential employers under general categories (say, upholsterers) for company names in the appropriate city.

Alumni Associations. For respondents who were college graduates or near-graduates by 1964, a telephone call to their col-

lege alumni associations frequently gave us a more recent, or even current, address. Some alumni associations appeared to be sensitive to invasion of privacy, but very few refused to cooperate once we explained the purposes of the study.

Neighbors. One of the more time-consuming but productive procedures was telephoning persons living at or near the 1964 or 1957 address of the parent or student. For this part of the search we relied on city directories, which list the population of a city by street address as well as by last name. Additionally, these directories frequently list occupation, place of employment, and spouse's name. The directories are located in the State Historical Society at the University of Wisconsin, Madison, for many cities in the state of Wisconsin and at the Madison Chamber of Commerce. Rural route addresses were not usually helpful because they did not identify specific households; thus it was not possible to select neighbors. Most of the directories were 3 to 6 years old, but this did not hamper our search since we were interested in locating persons who lived in the neighborhood when our family of interest resided there. When directories were missing, we called local public libraries for information.

We copied the names and telephone numbers of the persons currently living at the last known address of the parent or respondent, the persons in the houses immediately adjacent, and the person directly across the street. We then telephoned each of these families and inquired about the location of the parent or respondent. If the person we telephoned could not help us at all, we asked if there was anyone who had lived in the neighborhood for a long time who might be able to help us. If no one remembered the respondent or his or her parents, we would then try to use the occupation lead given in the directory, provided we had not done so at an earlier stage.

High Schools. On contacting a respondent's high school we were often able to obtain the names of the respondent's siblings or the names of colleges for which transcripts had been requested. Occasionally a school secretary would have personal knowledge of the respondent's whereabouts.

Late in the search, our effort to locate respondents through their high schools was greatly hampered by the passage of the Buckley Amendment to the Freedom of Information Act and by locally strict interpretation of this law, which limited the information school personnel were willing to give us. The school would inform us that we had to obtain permission in writing from the respondent before information could be released. In our view, the law did not, in fact, prohibit schools from providing the information we wished, but the effect of the law was virtually to eliminate this source of information.

Post Offices. In rural areas postal employees were often quite helpful. We might be told, for example, that the widow of the respondent's father had moved to Milwaukee or that someone in town was a good friend of the parent or the respondent and could give us the information we were seeking. Sometimes the letter carrier who answered the phone knew the respondent or the parents and was willing to forward a letter, even though no forwarding address was on file. Post offices in larger cities were less willing, and frequently unable, to provide us with such information.

Military Service. Since persons who were in the military service in 1964 might still be in the military in 1974, letters were sent to the military locator services. Many of the individuals located in this way could not have been found by any other method because of the great geographical mobility of military personnel. In general, we found that military locators were able to help in nearly every case where we had a service identification number (which the parent gave as part of the respondent's 1964 address) or a Social Security number.

High School Classmates. As a last step in the search process, we sent letters to persons already interviewed asking about their high school classmates whom we had not been able to find. The rate of response to these letters was very low since we were asking about our most difficult cases. Nevertheless, almost every return letter led us directly to a respondent. We might have profited by using sample members as informants earlier in the search; however, we were attempting to minimize contact with respondents prior to the interview.

Follow-Up Letters. Special letters were sent to parents, respondents, employers, and other informants when we were not able to obtain a confirmed address or phone number over the tele-

<sup>&</sup>lt;sup>2</sup>Military Personnel Center, Alexandria, Virginia; Military Personnel Records Division, Randolph Air Force Base, Texas; Bureau of Naval Personnel, Washington, D.C.

phone. They were used, for example, to obtain unpublished telephone numbers from some respondents or to convince cautious parents or employers of the legitimacy of the study. If a parent or respondent had recently moved, we sent a letter with the note Address Correction Requested on the outside of the envelope and often received a card with a forwarding address from the post office. Licensing associations and military locator services preferred to respond to letters rather than telephone calls, and we usually sent a request for information by letter when we wanted information on more than one person from a given source.

### Additional Procedures

To ensure that the person located was indeed the person sought, we made use of other identifying information besides the respondent's name. In our search we used high school attended. It was also important to decide which sources were most likely to have correct information on the respondent. In our study we required that the respondent's current address be confirmed by parent, spouse, close relative, or the individual. Thus we frequently made confirming calls once we had learned the location from some other source.

Although almost everyone contacted was friendly and helpful, it was occasionally necessary to deal with the suspicious or hostile. These persons were invited to place a collect call to one of the study directors. Of the thousands of people contacted in our tracing operation, only six calls of this nature were received. All were dealt with satisfactorily.

We sometimes discovered that people did not want to be found. Some owed money for child support and others moved frequently, leaving a trail of unpaid bills. Sometimes the parents or spouse would refuse to give us information because they wanted to protect the respondent from harassment or because the respondent had a serious problem such as alcohol addiction or mental illness. It was seldom possible to locate and interview such a respondent.

We treated the entire search procedure as inherently unreliable and obtained a substantial return from verification of records, repeating of steps, and in some cases a complete recycling of failed cases. For example, we went back to the 1957 and 1964 questionnaires of hard-to-find respondents and occasionally discovered errors in the identifying information. We also found that names were missed or information copied incorrectly in our telephone book search. When a long-distance telephone operator could not find a listing, we would double-check our information. Occasionally a different operator was able to find the needed listing. Alternatively, we would call the library in the city of interest and request information from the current city directory.

#### RESULTS

Of the 896 individuals in the group about which we are reporting, 23 were found prior to our search for them; thus we performed the telephone book search for 873 individuals. The telephone book search for parents yielded potential information on the parents of 98 percent (or 855) of the respondents. We were able to locate 83 percent of the respondents through their parents and another 9.5 percent by searching for them directly. Thus 92.5 percent of the members of our sample were located as a direct result of these telephone book searches. The telephone book searches for parents and respondents took an average of 4 minutes per case, and it took an average of 13 minutes of telephoning per case to exhaust these leads.

We spent an average of 50 additional minutes pursuing occupational and alumni leads for those persons for whom we had information. We were able to find 13 of 37 persons for whom we had usuable employment data and located 20 of 37 for whom we had usable information on post-secondary schooling (1.5 percent and 2 percent of the total subsample through employment data and alumni leads, respectively), bringing our cumulative tracing rate to 96 percent.

We found 13 of the 24 individuals for whom we had obtained city directory information, and we spent 65 minutes on the average for each person pursued in this manner; 1.5 percent of the total subsample was located in this way, bringing the cumu-

<sup>&</sup>lt;sup>3</sup>While searching for respondents in earlier groups, we obtained some names and addresses from fellow classmates.

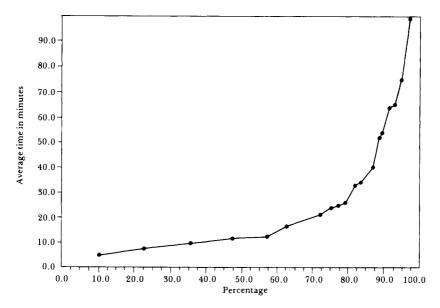


Figure 1. Average time spent finding each percent.

lative percentage to 97.5 percent. Using information from post offices, the military service, and high school classmates, we were able to locate an additional 1 percent of the total subsample, increasing our percentage to 98.6 percent. On the average it took over an hour and a half to locate each of these individuals.

Figure 1 presents another way of looking at the time spent in finding respondents. This figure shows the average number of minutes spent searching and calling for each successive portion of the sample. Each point on this graph represents the average time required to find the cases at that particular point rather than the average time for the cumulative total to that point. As might be expected, the early search netted a high return on our investment of time while the late search yielded much less. If the shape of this curve can be generalized to other samples, its parameters will certainly vary with sample characteristics.

The number of calls was a simple summary of our telephoning experience. More than a third of the sample members were located with a single call; two thirds were found after no more than three calls, but the distribution was highly skewed to the right. Nine percent of the sample required eleven or more calls

	TABLE 2	Dancantona Distailantian of Samula Last and har Samula Chan anniation

	TABLE 2

TABLE 2  Percentage Distribution of Search Methods by Sample Characteristics

(310) (156) (335) (561)

100

0.60

1.79

0.30

0.30

0.90

2.09

8.36

84.78 80.75 80.77

<u>5</u> <u>5</u>

2.26

0.97

 $0.32 \\ 0.64$ 

0.32

2.58

2.26

1.29

9.03 4.49

80.97

some college Vocational or

High school

Female

College grad

(436) (460) (430)

1.61

0.0 0.23

0.46 0.47

2.06 1.40

0.0

0.70

Total 100 100

Not Found

Informants 0.69 0.47

Milli-tary

Post Office

Neighbors 1.61 0.70

Busi-ness

Numni 2.06 2.39

Student Search 8.49 12.33

Parent Search

Characteristic

82.34 82.17 83.72 (687) (209)

100

1.46 0.96

0.73

0.0

0.90 0.0 0.29 0.48 0.0 1.26 0.0

1.31

1.46 1.44

0.87

82.53 81.34

1964 out-of-state

1964 in-state

1957 urban 1957 rural

(645) (239) (12)

8 8 9

0.0

0.95 0.42 0.0

0.0 1.26 0.0

0.78 3.35 0.0

0.78 3.35 0.0

1.09 5.44 0.0

84.34 80.35 0.0

1974 out-of-state

1974 in-state

11.35 4.78 12.09 4.18 0.0

TABLE 3
Percentage Distribution of Einst State of Same

υ					Dist	Distribution of Those Found	e Found
(436) 97.94 89.22 4.59 1.83 (460) 98.70 92.61 2.83 1.52 (460) 98.83 91.40 3.95 2.09 (1.52 (4.30)) 98.83 91.40 3.95 2.09 (1.52 (4.30)) 98.72 90.32 3.23 1.94 (1.56) 99.40 95.22 2.39 1.19 (561) 97.68 88.41 4.46 1.91 (687) 98.57 90.91 1.44 1.91 (687) 98.57 90.91 1.44 1.91 (645) 100 92.40 4.50 1.55 2.09	Characteristic	7.	% Found	Inter- viewed	Refused	No Phone	Decease
ge (310) 98.83 91.40 3.95 2.09 ge (310) 97.43 90.32 3.23 1.94 (156) 98.72 91.03 3.85 0.0 (335) 99.40 95.22 2.39 1.19 (561) 97.68 88.41 4.46 1.96 (687) 98.26 90.98 4.37 1.60 (645) 100 92.40 4.50 1.55 (645) 100 92.40 4.50 2.09	Male Female	(436) (460)	97.94 98.70	89.22 92.61	4.59	1.83	1.15
ge         (310)         97.43         90.32         3.23         1.94           (156)         98.72         91.03         3.85         0.0           (335)         99.40         95.22         2.39         1.19           (561)         97.68         88.41         4.46         1.96           (687)         98.26         90.98         4.37         1.60           rate         (209)         98.57         90.91         1.44         1.91         (645)           rate         (239)         98.74         91.63         1.67         2.09         (645)	High school Vocational or	(430)	98.83	91.40	3,95	2.09	1.16
(335) 99.40 95.22 2.39 1.19 (561) 97.68 88.41 4.46 1.96 (687) 98.26 90.98 4.37 1.60 (645) 100 92.40 4.50 1.55 (239) 98.74 91.63 1.67 2.09 (645)	some college College grad	(310)	97.43	90.32	3.23	1.94	0.65
ate (239) 98.74 91.63 1.67 2.09 (331)	1957 rural <sup>b</sup> 1957 urban	(335)	99.40	95.22	2.39	1.19	0.30
ate (239) 98.74 91.63 1.67 2.09 (	1964 in-state 1964 out-of-state	(687) (209)	98.26 98.57 98.57	90.98	4.46 4.37 1.44	1.96 1.60 1.91	1.60 1.16 0.96
	1975 in-state 1975 out-of-state	(645) (239)	100 98.74	92.40	4.50	1.55	1.55ª

Outside U.SA 1.15 0.65 0.23

Deceased<sup>a</sup>

1.29 1.92 0.30 1.25 0.15 3.35 0.0

1.15 1.09 1.16 0.65 1.92 0.30 1.60 1.16 0.96 0.0

before we located them. Our considerable efforts to locate hard-to-find persons were well rewarded. Even in the hardest to find 8 percent of the sample we ultimately interviewed 71 percent of the cases. And among those we attempted to call who were not dead, outside the United States, or without a phone, the completion rate was more than 90 percent.

To summarize our search experience we present Tables 2 and 3. Table 2 displays the percentage found by each method cross-classified by various sample characteristics. Since we found and interviewed such a high portion of the sample, the response differentials, expressed as a function of the sex, education, and residence of the members of the subsample, were rather small. Men and persons of urban origin were harder to find and interview than women and persons of rural origin. Business leads were especially helpful in locating male non-college graduates, alumni leads in locating male college graduates, and spouses' names and employment characteristics in locating females. The percentages shown in Table 2 would be vastly different, of course, if the search methods had been applied in a different order.

Table 3 goes one step further and records the final status of the cases we found in our subsample. It is noteworthy that for the sample drawn in 1975 we interviewed a slightly higher percentage in the subsample of 896 cases than we did in the remainder of the cases. This could be a result of taking a little more care in following our search procedures, or alternatively it could be a result of a shorter time period between the date of locating the respondents and the date of interviewing them.

### DISCUSSION

It might be tempting to conclude that our success in tracing the Wisconsin panel was an artifact of the sample's restricted and favorable makeup. To some extent this argument may have merit. We had virtually no blacks in the sample for instance. On the other hand, there were no substantial response differentials across the major strata of our sample. We were as likely to find men as women, persons with post-secondary schooling as those with only a high school education, persons from urban areas as those from rural areas, and out-of-state as in-state residents.

The outcome of our search suggests that the success of a tracing operation may depend primarily on certain features of that search rather than on characteristics of the sample.

We attribute the success of our operation to extensive use of the telephone, the organization and management of the tracing operation, persistence in trying to locate the difficult cases, the amount of information available for tracing most respondents, and the allocation of sufficient resources for the tracing operation. The first three factors have beee discussed already, but we might say something about the last two. The importance of establishing anchor points at each panel of a longitudinal study cannot be overemphasized. Over 90 percent of our sample was traced through parents' and students' 1964 addresses—information obtained in the 1964 postcard survey. The 1975 telephone interview also obtained information that can be used to trace individuals in the future: current address of respondent and parents, name and address of respondent's current or last employer, and names and addresses of colleges the respondent attended. In addition, the interview includes data on the respondent's spouse and parental family.

A major factor in our success—the allocation of sufficient resources for the tracing operation—reflects the belief of the project directors in the importance of locating virtually every member of the sample. Too frequently, a good deal of time and money are spent analyzing data from incomplete and biased samples.

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