

LONG-TERM FOLLOW-UP METHODS AND RESULTS*

Ralph LoCascio and Donald E. Super
Horace Mann-Lincoln Institute,
Teachers College, Columbia University

The Initial Contact: 1951-52

The Career Pattern Study is a longitudinal investigation of vocational development. It first made contact with its 142 high school freshmen, all of the boys of that grade level in Middletown, New York, in the academic year 1951-52. There were then virtually no problems in securing the cooperation of the boys, who constituted a complete socio-economic cross-section of the community, since the school authorities supported the project. Some of the boys may not have felt free to refuse to cooperate, in spite of the statement to them and to the school authorities that individual participation in the study was strictly voluntary. Occasional later comments revealed this feeling of compulsion in some boys. However, long-term effects of real or imagined pressure were insignificant, as is indicated by the high percentage of subjects who, as will be seen, continued to cooperate after leaving high school.

The First Follow-Up: 1955

The research design called for a first follow-up during the senior year in high school, when the boys would be about 18 years old. It was assumed that during the intervening years they would

* Report of preliminary results of U.S. Office of Education Cooperative Research Project No. 1393. Presented at meeting of American Psychological Association, Philadelphia, August 30, 1963.

have been coping with the vocational development tasks of the early years of exploration, e.g. crystallizing and specifying a vocational preference, and that most would soon, at the time of leaving high school, be confronted with the task of implementing a vocational preference.

As in the ninth grade, plans called for a battery of questionnaires, inventories, tests, and an interview, all shown in Table 1. Information was sought concerning the subjects' vocational development during the preceding three years. The data collection process was to take place on three different occasions for a total time equivalent to two school days. Preparatory activity consisted of talks with community leaders, with members of the local advisory council, and with Middletown school officials, all of whom gave full support as they had done three years earlier. A letter was sent to all subjects in January, 1955, alerting them to, and generally describing, the nature of the coming contacts and asking them for their cooperation.

(Insert Table 1 about here)

Collecting data from the 106 boys who were still in attendance at the high school proceeded smoothly enough. One boy had died during 1953; 35 not in school had to be accounted for. The last known addresses of these boys were obtained from the school records and were used in the January, 1955, mailing. The records indicated that 9 of the boys had transferred to high schools in other cities; letters to the principals of those schools requested their support. The local newspaper cooperated by publishing a series of three articles about the study, designed to induce dropouts to cooperate. Attempts were

made through the post office to trace boys who had moved, and the aid of two qualified local interviewers was enlisted in locating and collecting data from missing subjects. Arrangements were made to use the offices of the Middletown Chamber of Commerce for meeting with dropouts, as the high school might arouse negative feelings.

These efforts resulted in the collection of data from 16 more boys. Of the remaining 19 subjects, 10 were in the armed forces and could not be seen due to budget and staff limitations, 7 (3 transfers and 4 dropouts) could not be located, and 2 refused to cooperate. However, at least partial data were obtained on all of these subjects from the high school records.

To summarize, then, the first follow-up contact during the spring of 1955 obtained data directly from 122, or 86 percent, of the 141 surviving original ninth graders through personal contact.

The Second Follow-Up: 1958

Plans called for a second follow-up three years after the boys, now young men, would have graduated from high school and would be 20 or 21 years old. It was hypothesized that during this period most men deal with the task of implementing a vocational preference: either implementing high-school-leaving preferences or specifying and beginning to implement new preferences as a result of experience. Partly because of confidence in questionnaire methods for collecting relevant data, and partly for economy reasons, this follow-up was done by mail.

To mail the questionnaires in the late spring of 1958, addresses were brought up to date in the fall of 1957. A first mailing list of 140 names and addresses (a second subject had died since the

last contact) was compiled using the current Middletown telephone and city directories and the latest information in project files (sometimes new addresses were received on Christmas cards, wedding announcements, etc., sent by subjects). In October 1957, a first class letter was sent asking subjects to report their current educational and employment status and addresses on an enclosed self-addressed card. The purpose of this mailing was a first effort to bring addresses up to date for mailing of the questionnaires. Seventy-six or 54 percent of the cards were returned, completed.

In November, 1957, a second wave of letters containing return postcards was sent to non-respondents by certified mail, return receipt requested. As a result an additional 35 cards were received, for a total of 111 out of 140, or 79 percent. Of the remaining 29, 12 letters were returned unopened, suggesting wrong addresses. A Middletown school official secured the most recent addresses of these 12 subjects. The other 17 subjects apparently received their letters or others accepted the letters for them, but did not reply.

The questionnaire consisted of 70 pages designed to yield data concerning vocational development (including education) since leaving high school. While most subjects would be required to complete less than half of the 70 pages, which were arranged to make selection of appropriate sections easy, the task could conceivably take the least literate two or three hours. Partly to compensate for the time required and partly to provide an incentive to cooperate, it was decided to pay each subject five dollars for completing the questionnaire. Two dollars were sent with the questionnaire, and the covering letter included a statement to the effect that an

additional three dollars would be mailed when the completed questionnaire was returned.

In May, 1958, the questionnaires, covering letter, and two one-dollar bills were sent by certified mail, return receipt requested, to the 140 survivors of the original ninth grade group. Three weeks later returns amounted to 74 questionnaires, or 53 percent. Of the remaining 66 questionnaires, 7 had been returned unclaimed, 2 were returned by subjects who refused to cooperate, and 57 had apparently been received but not returned. A postcard was sent to these 57, and 25 more completed questionnaires were returned, for a total of 99, 71 percent. Non-respondent were now 41 subjects, including 8 unreached, 2 refusals, and 31 who had presumably received questionnaires but had not returned them. A third follow-up was sent to the 31, consisting of a letter with another copy of the questionnaire. This brought in 7 more completed questionnaires, for a total of 106, 76 percent of the original ninth grade group, a substantial return for a mailed questionnaire of such length.

A field follow-up was planned in order to obtain questionnaires from more of the 34 non-cooperating subjects: 10 unreached, one returned blank with information that the subject was in military service, 21 presumably received but not returned, and 2 refusals. In October of 1958 the names of, and information concerning, 32 of the 34 remaining subjects (the refusal of the 2 non-cooperators was honored) were turned over to a psychologist associated with the community college in Middletown. He secured changed addresses for routine follow-up. He made personal contacts to secure cooperation. He attempted to persuade subjects who had received but not returned

questionnaires to do so. New resources used to locate subjects included relatives and friends of the subjects, former landlords, and neighbors at old addresses. The field follow-up produced 17 more completed questionnaires, for a final total of 123 or 88 percent of the surviving original ninth graders, 2 percent more than the number cooperating in 1955 when most of the subjects were a captive group in high school.

Of the remaining 17 subjects, 6 stated definitely that they did not want to cooperate, 7 did not overtly refuse cooperation but could be classified as passive resistors, and 4 could not be located. At the next data collection, four years later, all 4 lost subjects were located, tested and interviewed; of the 13 uncooperative subjects, only 6 (2 of the overt and 4 of the covert non-cooperators) refused to meet. Attrition in longitudinal studies can clearly be diminished by re-contacting subjects who have been lost or who have dropped out in the past. It would also be interesting to investigate the apparent tendency of overt non-cooperators to become cooperative some years later and of covert non-cooperators to maintain their negative posture.

The Third Follow-Up: 1962

The third follow-up was planned for approximately age 25, 10 years after the original contact in the ninth grade, 7 years after the first follow-up at age 17 or 18 and four years after the second follow-up at age 20 or 21. Theory has it that by this time the majority of subjects would have virtually completed the developmental tasks of vocational exploration and would be dealing with those of establishment. A three-year grant from the Cooperative Research

Program of the U.S. Office of Education, added to the project's regular budget from the Horace Mann-Lincoln Institute of School Experimentation, made it possible to collect intensive data on floundering, trial, and establishment during the early and middle twenties. An all day meeting with each subject was decided upon, during which he would complete relevant questionnaires as a basis for a personal interview. In addition several tests and inventories were to be administered.

The data collection period was to be April and May, 1962. To assure community support, the project director and the coordinator of the third follow-up visited Middletown in November, 1961. Meetings were held with the superintendent of schools, the executive vice-president of the chamber of commerce, the president of the local community college, and several randomly selected but previously cooperative subjects who were invited to dinner; all voiced their interest in, and support of, the study. Meetings were also held with the principal and appropriate staff members of the senior high school, who provided offices for testing and interviewing subjects who preferred to be seen in Middletown rather than in New York City. In order to alert the local community and to aid in obtaining the subjects' cooperation, the local newspapers printed an article about the study in February of 1962 and ran two appropriate pictures in April and May.

Throughout this period addresses were brought up to date. Most of the techniques of the second follow-up were used, plus some new ones, e.g., letters of inquiry to the armed forces, visits to former employers, and search of local newspaper items. Although not all subjects had definitely been located by the time of the first

mailing, these efforts were kept up until every one of the surviving 140 original ninth graders had been located.

In December, 1961, an informative letter was sent to the subjects, in which they were alerted to plans for a personal meeting in April or May. It was explained that all expenses, including compensation for their time, would be paid, and the importance of their help was stressed. One hundred and nineteen of the letters were sent by first class mail to subjects whose addresses were established. Sixteen letters were sent by certified mail, with a request for a return receipt indicating to whom and where delivered, because the addresses were questionable. Five subjects had not yet been located and could not be alerted at this time.

In late January, 1962, a letter was sent to 138 of the young men (2 subjects had not yet been located), explaining in more detail the plans for meeting. It was reiterated that the project would pay all travel expenses (if they lived east of the Mississippi River, otherwise special plans were to be made) plus \$25 to compensate them for the day spent with us. The letter was sent by certified mail, with a request for a return receipt showing where and to whom delivered. A one-page appointment questionnaire was enclosed with the request to complete and return it for use in making arrangements for the interview. Special letters were written to those who had not cooperated four years earlier. Seventy-five appointment questionnaires (2 with letters refusing cooperation) were returned, 53 percent of the experimental group of 140. Telephone contacts were made four weeks later with 43 subjects or with relatives whose Middletown telephone numbers were listed. After these phone calls, 17 more questionnaires

were returned for a total of 92, or 66 percent of the total group.

Three weeks after the telephone contact a follow-up letter was sent by first class mail, with a second appointment questionnaire, to 35 of the remaining 48 subjects. The letter was not sent to 6 because the results of the last mailing had indicated a lack of current addresses, nor to another 6 because they were too far away to be handled routinely, nor to one who had previously asked to be seen in May. Fourteen more questionnaires were returned after this mailing for a total of 106, 76 percent.

In May, 1962, while interviewing was under way, another follow-up letter was sent by first class mail to 16 of the 34 subjects who had not yet returned questionnaires and whose addresses were definite. The remaining 18 were omitted because of lack of current addresses for 6, the remoteness of 8, special arrangements necessary for meeting one patient in a mental hospital, one pre-arranged phone contact to be made, and clerical error affecting two subjects. Five more questionnaires were returned for a final total of 111, 79 percent.

In April and May, 1962, 82, or 59 percent of the surviving 140 subjects were tested and interviewed as scheduled by correspondence. Of the remaining 58 subjects, 2 were scheduled for meetings after May, 12 who had expressed willingness to cooperate lived too far away to be handled by the regular procedure, 8 were outside the continental United States in the armed forces and had expressed willingness to cooperate, 2 had not been located, and 34 were classified as difficult cases for whom more than the standard process was needed to secure cooperation. During June one staff member took a trip to the West Coast to meet with 7 subjects, another staff member went South to the

Gulf to meet with 5 subjects, 2 men were seen as a result of regular scheduling, and 22 hard-to-gets were seen as a result of persuasion by three staff members who went into the field. Subsequent appointments were kept with 6 subjects who came back from overseas, with 4 hard-to-gets, and with 2 lost subjects who were finally located. In addition, a vacationing staff member met with a subject in Turkey and the project director, while attending a meeting in Paris, interviewed another subject. All cooperating subjects were sent letters of appreciation.

As of this writing, 132 or 94 percent of the 140 survivors of our original ninth grade group have been interviewed and tested. This is 6 percent higher than the number cooperating at the second follow-up and 8 percent higher than the number cooperating at the first follow-up. The remaining 8 have been classified as uncooperative, although only 4 seem definitely to be in this category.

Status of 9th Grade Boys at Age 25

It is pertinent to ask, next, concerning the status of 140 surviving 9th grade boys ten years later, at about age 25. Their geographic location is shown in Table 2, which makes it clear that 76 percent of the group are located in the Northeastern United States, that 68 percent are located in or near Middletown, and that 58 percent live in Middletown or its immediate vicinity. Only 24 percent are outside of the Northeast, and this includes those in military or student status; if military and student subjects are excluded, 91 percent are in the Northeast, and 87 percent are within easy reach of Middletown. Despite the fact that these subjects are reaching

the period of establishment, with most of their uprooting educational and military experience behind them, they have not moved very far from home.

(Insert Table 2 here)

The educational attainments of this typical cross-section of young men are reported in Table 3, for the 132 subjects for whom data were available at the time of tabulation. A total of 83 percent had graduated from high school, 45 percent had gone on to some kind of post-high school education (about twice that which according to school records, had characterized classes three years ahead of this one, when there was no local community college), 26 percent had finished two years of college or of technical training, 17 percent had graduated from four-year colleges, 11 percent had gone beyond the bachelor's, and 4 percent had obtained a master's degree or equivalent.

(Insert Table 3 here)

Table 4 shows that while only 95 of the 140 survivors graduated from Middletown High School in 1955 (on schedule) or in 1956, two more returned to graduate after dropping out, and 6 transferred to other high schools and graduated, for a total of 103, 74 percent, graduates by 1957. But if we take high school equivalency diplomas won by examination in later years, the drop out rate is cut by about 40 percent, from 26 percent to 16 percent; 118 or 84 percent, held some kind of high school diploma by 1962. It seems clear that motivation to complete high school changes during the years after dropping out.

(Insert Table 4 here)

Table 5 reports the employment status of all 140 subjects in 1962, at about age 25. A total of 96 men were employed, 7 were seeking jobs, 22 were in the armed forces, and 15 were students or hospital patients who were not in the labor force. That more high school dropouts than graduates were in military service is suggested by this table, and by the fact that of the 10 career military men, 8 were dropouts of whom 5 had secured equivalency diplomas.

(Insert Table 5 here)

Table 6 gives the occupational levels of the 93 men in classifiable civilian occupations. The distribution is normal and typical, except for the lack of higher level professional and managerial occupations, as might be expected in a group of young men. It is noteworthy that the dropouts, of both types, are limited to the lowest levels, unlike the graduates.

(Insert Table 6 here)

Table 7 reports the fields of employment of these same men. Again, the distribution of the total group is according to expectations, and the dropouts are severely limited as to fields of work (it should be remembered that their technological employment is, as shown by Table 6, at the lowest skill levels).

(Insert Table 7 here)

Table 8 gives the data on the self-estimated occupational and career success of the men for whom such data were relevant. It should be noted that occupation is here defined as by Shartle and career means the sequence of educational and occupational positions held.

That this distinction was successfully made by the subjects was due to a sequence of questions which in effect programmed the distinction into their thinking, and is demonstrated by a correlation of .46 between the two ratings. About two-thirds of the total group, and of graduates and dropouts alike, considered themselves as successful as the average man their age in their occupations, and one-tenth or fewer considered themselves less successful than the average. But whereas only one-twelfth of the graduates believed that they had not handled their careers well, more than one-fourth of the dropouts considered that they had handled their career development badly - figures which have to be viewed with caution because of small numbers. Occupational success tends to be rated as average, but there appears to be more of a tendency for graduates to rate career success as above average, and for dropouts to rate career success less favorably than their occupational success.

Conclusions

Several important generalizations concerning the conduct of longitudinal studies and the career development of young men appear to follow from what has been reported in this paper:

1. Attrition should not be expected or accepted in a longitudinal study, even when the subjects constitute an intellectual and socioeconomic cross-section. On the contrary, the salvaging of many lost and uncooperative cases can be expected with the passage of time.

2. The bringing to bear of appropriate financial resources and methods, plus perseverance and tact, can insure returns from all but an insignificant number of subjects.

3. Geographic mobility during the years following high school and college leaving is not substantial and presents no great difficulty in follow-up other than that of causing delay and expense in reaching subjects.

4. When a community college is available, the percentage of students continuing education beyond high school increases greatly, but many of these students do not complete two years.

5. After the lapse of several years, the high school dropout rate is substantially reduced by changed motivation and by the resumption of educational endeavors.

6. Military service serves as a refuge or outlet for a substantial proportion of dropouts.

7. The occupational opportunities of dropouts are severely limited as to both level and field when compared to those of high school graduates, by the time they have attained the age of about 25.

8. It is possible, by use of appropriate methods, to get even the less educated subjects to make a useful distinction between occupation and career.

9. Dropouts consider themselves as successful in their occupations as high school graduates do in theirs, most members of each group considering themselves as successful as others in their occupations. But dropouts believe that they have handled their careers less effectively than do graduates. More dropouts believe that they have entered blind alleys or have prematurely reached the excessively low ceiling of their careers, and more tend to devalue career success ratings rather than to inflate them as do graduates.

LONG-TERM FOLLOW-UP METHODS AND RESULTS

IN THE CAREER PATTERN STUDY

Ralph LoCascio and Donald E. Super
Horace Mann-Lincoln Institute of School Experimentation
Teachers College, Columbia University

U.S. Office of Education Cooperative Research
Project 1393

Tables for .
Preliminary Report,
American Psychological Association,
Philadelphia, August 30, 1963