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ABSTRACT

In order to assess the outcomes of postsecondary vocational-technical-transfer programs, 4,350 students who had completed the American College Testing Programs Career Planning Program (CCP) in the fall of 1970 were surveyed to discover their educational-vocational decisions, experiences, and plans five years after their initial enrollment. Survey mailings to individuals, to parents, and to institutions for address updating, and phone calls to nonrespondents, produced an overall response rate of 60 percent (2,594 from 109 insituttions). Of those students currently employed who had completed educational programs, 75 percent were working in occupations related to their training. Even those who did not complete their programs were frequently employed in occupations related to their programs. Individuals still in school were generally in educational areas related to the program they began in 1970, and most expected to obtain program-related jobs. Individuals employed in program-related occupations felt they could not have obtained their present jobs without education beyond high school. Those employed in program-related occupations were very satisfied with their present occupations. Tables display survey data on the basis of educational programs and real and expected employment of the respondents. (Author/NHM)

Outcomes of Vocational-Technical-Transfer Programs at Community Colleges, Technical Schools, and Similar Types of Institutions

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Abstract

The purpose of this study was to assess the outcomes of postsecondary vocational-technical-transfer programs by examining the educational and vocational status of students five years after enrollment. Survey mailings to individuals, mailings to parents, mailings to institutions for address updating, and phone calls to nonrespondents produced an overall response rate of 60% (N = 2,594 from 109 institutions) which was equivalent to acquiring returns from 95% of those for whom accurate addresses were available.

Of those students currently employed who completed educational programs, a very high percentage are working in occupations related to their training. Even those students presently employed who did not complete a program are employed frequently in occupations related to their programs. In addition, individuals still in school are generally in educational areas related to the program they began in 1970. For most programs, a higher percentage of students currently hold program-related jobs than those who held first jobs that were program related. An even larger percentage expect to obtain jobs in the future that are related to the educational program they completed. Also for most programs, the vast majority of individuals employed in program-related occupations felt they could not have obtained their present job without education beyond high school. Finally, those employed in occupations related to their educational programs are highly satisfied with their present occupation, and the majority indicate that they would enter such a program again if they had to do it over.

Postprogram follow-up studies have traditionally been an integral component of educational research. Recently, however, follow-up activities have received special emphases due to accountability concerns brought to public attention through economic and cultural factors.

The purpose of this study was to assess the outcomes of postsecondary vocational-technical-transfer programs by examining the educational and vocational status of students five years after enrollment. Specific questions to be answered were as follows:

1. What is the present educational-vocational status of individuals who began vocational-technical-transfer programs at community colleges, technical schools, and similar types of institutions in the Fall of 1970?
2. How do students' final programs relate to their occupational experiences and to their future occupational plans?
3. For those individuals working in program-related occupations, do they feel that their postsecondary training made a difference in the level of their present employment?
4. For those individuals working in program-related occupations, are they satisfied with their present jobs and would they go through the same program again?

Procedures

Sample

The follow-up sample (N = 4,350) was selected from among the students (N = 22,342) who completed the American College Testing Program's Career Planning Program (CPP) in the fall of 1970 as part of the national norming. The CPP is a guidance assessment instrument designed to help students make better-informed career decisions and plans. Major components of the CPP include

ability, interest, and experience scales as well as sections on job choice, educational plans, job values, and working condition preferences.

Norm group students completed the CPP as they began vocational, technical, and transfer programs at 110 community colleges, technical schools, and similar kinds of institutions across the nation. Follow-up sample members were chosen according to the educational programs in which they were originally enrolled. Eight programs were selected. Both males and females were selected from the Business and Marketing, Accounting, Science, Social Science, and Arts and Humanities programs. Males only were selected from Electrical Engineering Technology and Auto Mechanics, and females only from Nursing Programs. Very few members of the opposite sex were originally enrolled in these programs.

Follow-Up Instrument

The survey instrument was designed to cover individuals' educational-vocational decisions, experiences, and plans. The instrument was pretested extensively with different samples of two-year college students. Follow-up items included employment history since leaving the program, future employment plans, particular and overall indices of job satisfaction, perceptions of the necessity of postsecondary training for present job, and educational history. A "Would you do it over again?" question was also asked.

Follow-Up Procedures and Response Rate

Survey mailings to individuals, mailings to parents, and phone calls to nonrespondents were conducted from late January to early June, 1975. Mailings were also made to institutions for address updating when necessary. Survey packages included a cover letter, the survey instrument, and a return business reply envelope. The first survey package mailing was followed 17 days later by a postcard reminder. A second survey package was mailed three and a half weeks after the postcard reminder and a third survey package was sent four

weeks after this. By early May, when all mailing procedures had been completed, phone calls were made to all nonrespondents. Many were not listed in phone directories corresponding to their last known home areas and apparently had moved.

All four mailings produced a total response rate of 45% which equalled 72% of those for whom accurate addressed were available. Phone calls added 15% to the overall response rate (increasing the rate of those that could be reached by 23%). Thus a final response rate of 60% (N = 2,594 from 109 institutions) was achieved. This was equivalent to acquiring returns from 95% of those for whom accurate addresses were available.

Analyses

For each of the four questions related to the overall purpose of this study, cross-tabulation procedures were performed between individuals in the particular group studied and the criterion measure (e.g., present occupation, job satisfaction, etc.). Prior to the cross tabulations, all individuals were screened for complete data (i.e., that they responded to all items pertinent to that particular analysis).

Results

Present educational-vocational status

Sample members are listed by completed and noncompleted programs as related to current occupation in Table 1. The classification system shown in Table 3 was used to categorize current occupations into groups of similar occupations. The comparisons below include all 982 program completers and 507 program non-completers who were currently employed.

Study results reveal that most program completers currently employed hold jobs for which they were trained. For example, those in the Business and Marketing Programs mostly hold Business Contact jobs (50% of both the completers and noncompleters) and then Business Detail jobs (23% of the

completers). All Registered Nursing Program completers hold nursing jobs. Individuals from Accounting Programs mostly hold Business Detail jobs (72% of the completers) and then Business Contact jobs while those in Electrical Engineering Technology mostly hold Technologies jobs (62% of the completers) and then Trades jobs (22% of the completers). Greater percentages of those from Science Programs hold jobs in Technology and Trades than in Science. A large majority of those in Auto Mechanics Programs hold Trades jobs (79% of the completers and 78% of the noncompleters); the majority of those in Social Science Programs hold Social Science jobs (64% of the completers). Finally, those who were in Arts and Humanities programs are fairly spread out among the different types of jobs; almost half of the completers (45%) are in either Social Science or Arts and Humanities jobs.

Of the 2,594 members of the sample, 234 are not employed and are still enrolled in educational programs. The current educational programs (both 2-year and 4-year) of these program continuers, (i.e., those who have not completed their program but who are continuing on to complete them) are similar to those in which they started in 1970. For example, more than half of the program continuers who were originally enrolled in Business and Marketing Programs are currently in either 2- or 4-year Business Programs. Similarly, over half of those program continuers who were in Accounting Programs are still in this type of program; over two-thirds of those continuers who were originally in Registered Nursing are presently in nursing programs. Over half of the program continuers who were originally in Electrical Engineering Technology programs are still enrolled in this type of program although only about 20% of those continuers who were initially in Science are still in Science Programs with about 25% who switched to Engineering Programs. Two-thirds of those continuers who were in Social Science Programs are currently in

these types of programs. About 30% of those continuers who began Arts and Humanities Programs are still in these types of programs with another 30% who switched to Social Science Programs.

First, Current, and Planned Future Job

The data in Table 2 illustrate the movement toward program-related employment of working individuals who completed educational programs and who spent at least four months in a program before leaving school. Hence, these data differ slightly from the data reported in Table 1.

The data demonstrate the stability of the more vocationally specific programs. For nearly every vocationally-specific program area, percentages of students who obtained their first job in a program-related occupational group were almost identical to those percentages of students still currently employed in that group. For example, 72% of the students from Accounting programs obtained their first job in the Business Detail occupational group; the same percentage are currently employed in that group.

For students who completed some of the more general programs, larger percentages are currently employed in program-related occupations than those who obtained their first jobs in these areas. For example, over 70% of the students who completed a program in the Social Sciences are currently employed in this area in contrast to only 53% who first obtained Social Science jobs. A similar pattern is also evident for the Arts and Humanities students. There is a marked trend to eventually obtain program-related jobs for people who complete general programs like Social Science or Arts and Humanities. Many of these students evidently do not have the opportunity to enter the job market in a program-related occupation. However, in 1975, three years after entry, a higher percentage are currently employed in program-related jobs and an even higher percentage expect to hold such jobs three years into the future. For people

from the more specific educational programs there appears to be a tendency to move in the direction of what some might consider higher paying and higher status jobs which might indeed utilize more of their training. For example, Electrical Engineering Technology students tend to move out of the Trades area and into the Technology area; Business and Marketing students move out of Business Detail into Business Contact occupational areas.

Several interesting trends in job mobility from first to anticipated future job are also shown in Table 2. Most noticeable is the dramatic drop from 80% of the Auto Mechanics students who are currently employed in Trades jobs to 64% who expect to hold future jobs in this area. The data suggest that many of these people expect to hold future jobs in the Business Contact area (note the increase from 3% of the Auto Mechanics students who obtained their first job in that area to 17% who expect to obtain a job in that area). Except for Nursing and Social Science students, there is a slight trend for people to move out of a specific training area toward the Business Contact area. This movement probably represents those people who want to manage or own a business of their own.

Necessity of Postsecondary Education

Students who have completed a program or who spent at least four months in one before leaving school and who are currently employed in program-related occupations formed the criterion groups used in this analysis. The occupational groups and related educational programs are shown in Table 3.

Over 75% of the individuals who are now employed in program-related occupations agree that they could not have obtained their present job without their education beyond high school. People from only two of the programs (Business and Marketing and Auto Mechanics) have mixed feelings, half positive and half negative, about whether they need postsecondary training to obtain their present job. However, for all other programs, a substantial majority feel that their training beyond high school has been necessary for them to obtain

their present job. The Registered Nursing, Social Science, Electrical Engineering Technology, and Science Programs have high ratios (35:1, 9:1, 5:1, and 5:1 respectively) of individuals who feel that their training has been necessary as opposed to those who feel that their training has not been necessary for them to have obtained their present job.

Satisfaction and Willingness to Do It Over

The same criterion groupings that were established in the preceding section are also employed here (See Table 3). The satisfaction index is based on a four-response item which asked how satisfied individuals are overall with their current job. The responses were: very satisfied; fairly satisfied; fairly dissatisfied; and very dissatisfied. The item which covers the second part of this topic asked, "If you could to it over again, would you still enter a post-high school vocational, technical, or transfer program?" The possible responses were "yes," "no," and "I'm not sure."

The data indicate that, for all eight programs, the overwhelming majority of students employed in program-related occupations are generally satisfied with their present occupations. For example, 93% of those in Business and Marketing, 98% in Registered Nursing, 94% in Accounting, 92% in Electrical Engineering Technology, 97% in Science, 94% in Auto Mechanics, 95% in Social Science, and 85% in Arts and Humanities all express satisfaction with their current occupation. In addition, a little over 75% of those people who expressed satisfaction with their present occupation indicate that they would go through their training programs again. Furthermore, those who are satisfied but "not sure" as to whether they would go through their training again clearly outweigh those who are satisfied but would definitely "not do it over" again. Interestingly enough, among the small number of persons who were dissatisfied with their current employment, most would still go through their training programs again.

Conclusions

This study has examined outcomes of certain types of postsecondary educational opportunities by offering several responses to the overall question, "What happens to students who attend vocational-technical-transfer programs at community colleges, technical schools, and similar types of institutions?"

A major finding is that of those students currently employed who completed educational programs, a fairly high percentage (i.e., about 75%) are employed in occupations related to their training. Many of those students currently employed who did not complete a program are employed in occupations related to their program. In addition, those individuals who are still in school are generally in educational areas related to the programs they began in 1970.

A second trend evident from these data is that students generally tend to gravitate toward jobs related to the educational program they completed, although the first job they obtained may not be directly program-related. For most programs, a higher percentage of students currently hold program-related jobs than those who held first jobs that were program-related. An even larger percentage expect to obtain jobs in the future that are related to the educational program they completed. Apparently, local labor market conditions may not provide the opportunity to immediately enter a program-related job but these people persist and subsequently obtain, or plan to obtain, jobs related to their educational programs. One might speculate that students who invest greater amounts of time and money in completing a program may persist longer in seeking related employment. Thus, a side benefit of two-year vocational-technical-transfer programs may be an increased level of job motivation, at least as related to job entry.

The third important finding from this study concerns the perceived value of these educational programs by the student "consumer." With the exception of those from the Business and Marketing and Auto Mechanics programs, the vast majority of individuals employed in program-related occupations feel they could not have obtained their present job without their education beyond high school. Overall, students employed in program-related occupations think that their community colleges and vocational-technical schools provide valuable training experiences which one might surmise have indeed influenced their future. That a majority of the graduates from only two programs did not see their educational program as necessary to obtain their current jobs may reflect the nature of the job skills or degree of responsibility assigned to entry level people in these areas. In some cases, for example, a graduate from an Auto Mechanics program may work with and receive the same pay as an older worker who has received no formal training.

Finally, the data from this study suggest that those employed in occupations related to their educational programs are highly satisfied with their present occupation and the majority of them indicate that they would enter such a program again if they had to do it over. Even students who were not satisfied with their current job would still go through their particular training program again. Unfortunately, job satisfaction data for the sake of comparison are not available for students who did not enter or complete a two-year educational program. As far as the individuals in this study are concerned, the educational program had sufficient value for them to say they would do it again.

Table 1

Students From Completed and Noncompleted Programs by Present Occupation

Current[a]	Educational Program																	
	Business & marketing		Registered nursing		Accounting		Electrical eng. technology		Science		Auto mechanics		Social science		Arts & humanities	
Occupational Group	C[b]	N	C	N	C	N	C	N	C	N	C	N	C	N	C	N
Business Contact	50[c]	50	0	17	14	22	9	14	9	19	7	12	13	16	13	18
Nursing	0	0	100	37	0	0	0	0	0	0	0	0	0	1	0	2
Business Detail	23	13	0	20	72	38	3	9	2	11	8	2	11	31	17	33
Technologies	0	8	0	0	2	6	62	39	57	18	3	8	2	2	7	13
Science	0	0	0	6	0	0	0	2	11	2	0	0	2	2	0	4
Trades	12	23	0	17	9	28	22	32	19	44	79	78	7	19	18	16
Social Sciences	15	6	0	3	3	6	3	4	2	6	2	0	64	28	29	7
Arts & Humanities	0	0	0	0	0	0	1	0	0	0	1	0	1	1	16	7
Total %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
N-Counts	104	48	206	30	133	72	154	44	91	99	136	40	113	81	45	93

Note. There were 1,489 completers and noncompleters (shown above) and 234 program continuers. Not included in the analyses discussed in the article are 97 individuals in the military, 124 homemakers, 140 who were seeking jobs, 80 who indicated that there were no jobs available in their field, and 97 who were unemployed for "other" reasons. The remainder of respondents not accounted for above did not complete sufficient items to be included in the analyses for this study.

[a] Current occupational groups are defined in Table 3.

[b] C indicates completed program, N indicates noncompleted program.

[c]

TABLE 2

Students from Educational Programs by Their First Job, Current Job, and Expected Future Job

Program completed	Occupational Group[a]																							
	Bus. contact			Nursing			Bus. detail			Technologies			Science			Trades			Soc. sciences			Arts & hum.		
	1st[b]	C	F	1st	C	F	1st	C	F	1st	C	F	1st	C	F	1st	C	F	1st	C	F	1st	C	F
Business & Marketing	54[c]	51	60	1	1	1	24	27	13	4	0	1	0	0	0	12	9	5	5	12	19	0	0	1
Registered Nursing	1	0	0	99	100	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Accounting	11	14	22	1	1	1	72	72	64	7	0	1	1	0	0	12	10	7	1	3	5	0	0	0
Electrical Eng. Technology	6	9	12	0	0	0	4	2	3	63	61	68	0	0	1	27	25	12	0	1	3	0	1	1
Science	8	9	13	1	0	0	4	3	2	67	60	64	5	9	11	24	19	7	1	0	3	0	0	0
Auto Mechanics	3	8	17	0	0	0	8	9	6	1	3	5	0	0	0	87	80	64	1	0	7	0	0	1
Social Sciences	17	14	11	4	0	0	17	8	3	4	1	0	0	1	1	5	3	2	53	71	83	1	2	1
Arts & Humanities	12	14	16	3	0	3	17	18	2	12	5	10	0	0	3	19	11	2	22	36	36	15	16	28
N-Count	125	144	131	216	238	219	170	200	167	191	216	205	149	178	171	167	179	164	165	199	203	99	133	125

Note. Percentages are based on students who completed or spent at least four months in a training program. N-counts vary from cell to cell (from Table 1 to Table 2) within a program area because of missing data.

[a] Occupational groups are defined in Table 3.

[b] 1st indicates first job, C indicates current job, and F indicates future job.

[c] All numbers are in percentages except the N-counts at the bottom of the table.

Table 3

Occupational Groups and Educational Programs Used in Classifying Students' Educational and Employment Status

Occupational Group (& Related Job Families)	Related Educational Program
1. Business Contact: (Promotion and Direct Contact Sales; Management and Planning; Retail Sales and Services)	Business & Marketing
2. Nursing: (Nursing and Human Care)	Registered Nursing
3. Business Detail: (Paying, Receiving, and Bookkeeping; Clerical and Secretarial Work; Office Machine Operation; Dispatch and Delivery)	Accounting
4. Technologies: (Engineering and Other Applied Technologies; Engineering; Repairing and Servicing Home and Office Equipment)	Electrical Engineering Technology
5. Science: (Natural Sciences and Mathematics; Medicine and Mecical Technologies)	Science
6. Trades: (Machine Operating, Servicing & Repairing; Construction and Maintenance; Transport Equipment Operation; Growing and Caring for Plants/Animals)	Auto Mechanics
7. Social Sciences: (Social Sciences and Legal Services; Education and Social Services; Law Enforcement and Protective Services)	Social Sciences

8.	Arts & Humanities: (Creative Arts; Applied Arts-Verbal; Applied Arts-Visual; Popular Entertainment)	Arts & Humanities

Note. This table shows how the eight occupational groups are defined according to the Occupational Classification System and how they directly parallel and relate to the eight vocational-technical-transfer programs included in this study.