

DOCUMENT RESUME

ED 167 865

CG 013 261

AUTHOR Bisconti, Ann Stouffer
TITLE Who Will Succeed? College Graduates as Business Executives. Special Topic Series No. 3.
INSTITUTION College Placement Council, Bethlehem, Pa.
PUB DATE 78
NOTE 16p.; Some parts may be marginally legible due to print quality

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Academic Achievement; *Administrative Personnel; *Business; *Career Choice; *College Graduates; Course Content; Family Background; Job Satisfaction; *Leadership Qualities; Salaries; Self Esteem; *Success Factors

ABSTRACT

There are several social and personal characteristics that may differentiate those college graduates who will achieve high-salaried positions as business executives from those who will not. Some conclusions about patterns that seem to be associated with becoming a high-salaried business executive can be drawn from the findings of the Utilization of Education Survey, conducted in 1974-75 for the CPC Foundation and the National Institute of Education. The data in this survey, based on the responses of college graduates who participated for over a decade in a survey panel, illuminates the family background, scholastic achievement, college education and self-assessment of a number of business executives. Findings show that the highest salaried business executives are more likely than others to have college-educated fathers, high grades in high school and college, and to have attended a very selective college. They report a positive self-assessment, indicating a high degree of drive to achieve and intellectual and social self-confidence. No relationship was found between majoring in business and attaining a high-salaried position as a business executive. The findings suggest that a certain amount of brilliance in intellect, performance and style is more important than what one studies in college in order to become a business executive. (Author/PK)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED167865

WHO WILL SUCCEED? COLLEGE GRADUATES AS BUSINESS EXECUTIVES

By ANN STOFFER BISCONTI

PERMISSION TO REPRODUCE THIS
SERIAL IN MICROFICHE ONLY
HAS BEEN GRANTED BY

THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC) AND
MEMBERS OF THE ERIC SYSTEM

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY.

HARD COPY NOT AVAILABLE

SPECIAL TOPIC SERIES NO. 3

THE CPC FOUNDATION

2

13261

Copyright 1978 by the CPC Foundation

P. O. Box 2263, Bethlehem, PA 18001

INTRODUCTION

The occupation of *business executive* is one of the most visible to college freshmen and one of the most popular choices today. Among those who entered college in 1977, one out of ten men and one out of sixteen women gave this choice as their probable future occupation, according to the annual national survey conducted by Astin et al, (1977). If this freshman class follows the patterns of previous classes, the proportion of graduates who eventually become business executives will exceed freshmen-year expectations. To a large degree, those who choose this career are motivated by high drive to achieve and an attraction to the possibility of leadership and high earnings (Bisconti, 1975). But many will not succeed in achieving these goals.

What are some of the characteristics that may differentiate those who will achieve high-salaried positions as business executives from those who will not?

The findings of the Utilization of Education Survey, conducted in 1974-75 for the CPC Foundation and the National Institute of Education, offer an opportunity to draw some conclusions about patterns that seem to be associated with becoming a high-salaried business executive.

THE DATA

The data in this report are based on the responses of college graduates who participated for over a decade in a survey panel. The surveys were conducted as part of the Cooperative Institutional Research Program of the American Council on Education and the University of California at Los Angeles. The 1974-75 survey was sponsored jointly by the National Institute of Education and the CPC Foundation. For a more detailed discussion of the methodology see Bisconti and Solmon, 1976.

The respondents were first surveyed in 1961 at the time they entered college and were followed up in 1965, 1971-72, and 1974-75. This report describes the experiences of respondents to these surveys who were selected on the basis of having received a bachelor's but no advanced degree. A further criterion for inclusion was full-time employment in the occupation "business administration/management at the executive level."

These business administrators are compared in three groups: those earning less than \$20,000 in 1974, those earning \$20,000-\$24,999, and those earning \$25,000 or more. All are men--not by design, but because the number of women business administrators among the respondents was too small for such detailed analysis. Although the highest and lowest salaried groups are not widely separated, those earning \$25,000 or more can be considered exceptional. They comprised about one out of four business administrators, and additional tabulations show that only about one out of ten respondents in all other occupational categories earned salaries that high.

DETAILED FINDINGS

Current Job

Many aspects of a job contribute to prestige or social standing, and success can be viewed from many perspectives. Success can be defined as achieving one's own particular goals (which may not necessarily be monetary), or it may be defined as achieving some status that society respects. A single individual may be considered successful by those who aspire to his or her level of attainment but a failure by those who have surpassed this level. Success may be determined by one's accomplishments relative to those of others of the same sex, age, race, or social standing; others with the same education; others in the same work setting; others with the same job; etc. However, one of the most frequently used measures of success is earnings, partly because earnings consistently stand at or near the top of the list of job features rated as important by American workers (see the review by Quinn et al., 1974).

In the case of the business executives whose responses are reported here, the highest earners were, as a group, more successful than the lower earners not only with respect to earnings but also with respect to job satisfaction and perceived status relative to others (Table 1). They were more likely to feel well paid relative to others both at the same job level in the same place of employment and at the same job level in other places of employment. They were more likely to

Table 1
CHARACTERISTICS AND ASSESSMENT OF CURRENT JOB, BY SALARY IN 1974-75:
MEN BUSINESS EXECUTIVES WHO WERE FRESHMEN IN 1961
(In Percentages)

CHARACTERISTICS AND ASSESSMENT	UNDER \$20,000 (N=187)	\$20,000-\$24,999 (N=123)	\$25,000 or More (N=110)
<u>Assessment of Job Features</u>			
Well paid (relative to others at same job level in same place of employment)	44	55	66
Well paid (relative to others at same job level in other places of employment)	38	65	80
Design own work program	66	79	80
Have policy and decision-making responsibility	92	97	98
Have sufficient status or prestige	82	84	91
Satisfied with career progress to date	74	88	94
<u>Job Satisfaction</u>			
Very	65	72	77
Somewhat	32	25	23
Not at all	3	3	0

view their jobs as prestigious and to be satisfied with their career progress to date. Relatively large proportions of these higher earners enjoyed positions with independence and responsibility.

Business executives who received the highest salaries tended to be more satisfied than those with lower salaries. The differences in overall job satisfaction are not great and demonstrate that many "good" jobs do not carry high salaries (if a "good" job is interpreted to mean a satisfying job). However, the patterns of differences do suggest that the highest earning business executives as a group can be considered higher achievers (or more successful) than the other respondents in this occupation.

Family Background

Many experiences in the early years of one's life contribute to educational and career attainment later on. Family background and resources, both financial and cultural, have been shown to influence values, goals, educational opportunity and development, and career interest and attainment. It is well documented that being of low socioeconomic status (as measured by income, education, and/or occupation) decreases the probability of attending college and receiving a bachelor's degree (Segall, 1971, Leslie, 1977).

Nevertheless, about half of those who entered four-year colleges and universities in 1961 and succeeded in obtaining a baccalaureate during the next decade were first generation college-goers (Bisconti, 1978). The business executives whose responses are reported here were drawn from a wide variety of backgrounds. About half had fathers who did not attend college; about one in five of the fathers of business executives had not even completed high school (Table 2).

However, those who earned the highest salaries tended to include relatively large proportions of college-educated fathers. Fifty-seven percent of business executives earning more than \$25,000 had college-educated fathers compared with 42 percent of those earning less than \$20,000. The differences are not great, but they do show that, even among a group of college graduates, traces of early family status advantages still persist.

Table 2
FATHER'S EDUCATION, BY SALARY IN 1974-75:
MEN BUSINESS EXECUTIVES WHO WERE FRESHMEN IN 1961
(In Percentages)

HIGHEST LEVEL OF EDUCATION	UNDER \$20,000 (N=187)	\$20,000- \$24,999 (N=122)	\$25,000 or More (N=110)
Less than high school completion	28	17	18
Completed high school	31	29	26
Some college	16	19	23
Completed college	17	23	29
Completed graduate study	9	12	5

Scholastic Achievement and College Selectivity

Several studies have found relationships between college grades, college selectivity, and earnings. Among these studies are various analyses made since the thirties by different investigators using data on college graduates employed by the American Telephone and Telegraph Company (Bridgman, 1930, Walters and Bray, 1963, and Weisbrod and Karpoff, 1968). Each of these studies found that high earnings were associated with college grades and college selectivity independently and that the combination of high grades and having attended a high quality college yielded the highest earnings. Similarly, Daniere and Mechling (1970) reported evidence showing ability, as measured by scores on an aptitude test, and college quality, as measured by expenditures per student, interact to differentiate high and low earners.

The findings of the 1974-75 survey also show a relationship between grades, selectivity of colleges attended, and earnings (Table 3). In fact, the business executives who eventually earned the highest salaries were differentiated from the others as far back as high school. Some of those with highest salaries did receive poor grades in high school, but 48 percent had a B+ or better average, compared to 22 percent of the lowest salaried groups. Moreover, additional tabulations not shown here found that the highest salaried business executives had better high school and college records than men at the same salary level in other occupations.

Table 3

ACADEMIC HISTORY, BY SALARY IN 1974-75:
MEN BUSINESS EXECUTIVES WHO WERE FRESHMEN IN 1961
(In Percentages)

ASPECT OF ACADEMIC HISTORY	UNDER \$20,000 (N=187)	\$20,000- \$24,999 (N=122)	\$25,000 or More (N=110)
<u>High School Grades</u>			
B+ or higher	22	27	48
B	34	21	19
B-, C+	34	40	26
C or lower	10	12	7
<u>College Grades</u>			
B+ or higher	4	2	16
B	23	24	34
B-, C+	46	50	35
C or lower	26	24	16
<u>College Selectivity</u>			
High	16	27	33
Medium	53	57	49
Low	31	16	18

The meaning of the relationship between college selectivity and earnings remains a puzzle, although there has been much speculation on the topic. Do students from more selective (high quality) colleges earn more than those with comparable grades or ability who attended less selective colleges because they perform better on the job? Do they perform better because of the superior quality of their education or because the experience of attending a highly selective college increased their motivation and self-confidence? Do they earn more, as Hoyt (1965) suggests, simply because employers offer them higher starting salaries and because these salary levels and the reasons for offering relatively high salaries become part of the cumulative record and create a continuing advantage? In effect, many different factors may be operating, including all those mentioned.

Self-Assessment

Certain patterns of self-ratings, goals, and interests expressed by these same business executives in response to a survey several years earlier were quite strongly associated with earnings. The items in Table 4 differentiate the various salary groups in three main ways. Finance-related factors appear to differentiate each salary group. Those with the highest salaries were most likely and those with the lowest salaries were least likely to attribute high importance to financial well-being and earnings.

Another set of factors related to leadership qualities appears to differentiate primarily between those with relatively low salaries and the other two groups. The lowest salaried business executives included proportionately fewer men whose self-perceptions indicated strong drive, ambition, intellectual self-confidence, or interest in leadership or creative endeavors.

Two of the ability-rating items instead differentiated the highest earners from others. The highest salaried business executives were more likely than others to rate their mathematical and writing skills above average.

However, those with the highest salaries did not hold the most positive self-view with respect to every item. Men in the middle salary range were most likely to feel that their understanding of others was above average, and relatively many selected this career because of intrinsic interest in the field. Men in the lowest income group were slightly more concerned than others with making a contribution to society. Furthermore, the highest earners were no more likely than others to desire to help others in difficulty.

This profile of the high achievers as ambitious, driving, and self-confident but with nonexceptional capability for understanding and compassion corresponds with Maccoby's (1977) psychoanalysis of corporate personnel that showed the difficulty, regardless of good intentions, of attaining a top corporate position while strongly guided by qualities of "heart."

College Education and Career Preparation

The majority of these graduates chose their current occupations after college and, thus, did not direct their college studies specifically to their current

Table 4

SELF-ASSESSMENT, BY SALARY IN 1974-75:
 MEN BUSINESS EXECUTIVES WHO WERE FRESHMEN IN 1961
 (In Percentages)

ITEM	UNDER \$20,000 (N=137)	\$20,000- \$24,999 (N=122)	\$25,000 or More (N=110)
<u>Self-Ratings (Rated Self Above Average)</u>			
Drive to achieve	69	81	84
Intellectual self-confidence	45	61	66
Social self-confidence	36	43	48
Mathematical ability	37	38	47
Mechanical ability	36	36	32
Understanding of others	58	69	54
Writing ability	28	34	47
<u>Life Goals (Rated Essential or Very Important)</u>			
Being very well-off financially	50	65	73
Helping others in difficulty	47	43	47
Becoming a community leader	20	24	21
<u>Reasons for Career Choice</u>			
Chance for rapid career advancement	42	61	65
High anticipated earnings	57	69	80
Chance for originality	43	58	60
Chance to make a contribution to society	33	24	26
To avoid pressure	5	3	1
Leadership opportunity	61	78	77
Intrinsic interest in field	32	47	33

occupation (Table 5). Early versus late occupational choice made little difference to occupational achievement as indicated by salary. Only about one-fourth of the business executives at each salary level had decided on their occupation at the time they were taking their college courses. It is clear that an early decision and occupationally-directed college study were not, by any means, prerequisites to success.

The reports of respondents in this survey panel challenge the belief that majoring in business is essential for achievement in business management. Those who majored in business did not fare any better than those who majored in other fields; nonbusiness majors comprised similar proportions of all three salary groups (Table 5). Certainly, the annual CPC salary surveys make it clear that business majors are preferred to liberal arts majors and are paid a higher entry-level salary by private industry. Thus, to major in business rather than liberal arts does place a student at an advantage in the initial job search (CPC Salary Survey Final Report, July 1978). The important question, however, is whether or not such employer preference is defensible.

Table 5

COURSES OF STUDY AND TIME OF CAREER CHOICE, BY SALARY IN 1974-75:
 MEN BUSINESS EXECUTIVES WHO WERE FRESHMEN IN 1961
 (In Percentages)

ITEM	UNDER \$20,000 (N=187)	\$20,000- \$24,999 (N=122)	\$25,000 or More (N=110)
<u>Major: Business</u>	34	32	38
<u>Non-Business College Study (16 or more credit hours completed)</u>			
Arts and humanities	39	49	47
Biological sciences	14	8	8
Education	11	6	7
Engineering	9	14	12
Mathematics	22	21	20
Physical sciences	18	28	25
Social sciences	58	58	54
<u>Time of Career Choice</u>			
Before or during college	23	22	27
At graduation	24	22	28
Later	53	56	45

There are strong opposing positions today, regarding the value of liberal arts courses for business work. The old traditional view is that liberal arts courses are totally unrelated to the business world and, therefore, useless. The newer view links liberal arts courses to certain skills or competencies--broadly categorized as communications, numerical, and interpersonal skills--shown to contribute to job performance. Through this link, liberal arts courses are considered useful.

Some additional tabulations of the career work patterns of these groups of business executives were made in order to investigate the relation of different amounts of liberal arts study to salary level in 1975. The number of credit hours in arts and humanities, mathematics, and social sciences completed by high- and low-salaried business executives were compared (Table 5). No consistent relationships were found between amount of study in liberal arts fields and salary level. Additional comparisons for men who majored in business and those who majored in other fields of study also showed no relationship between area of study and salary.

It may be true that liberal arts courses contribute by strengthening one's analytical ability--the ability to think and communicate logically. It also may be true that analytical ability is a major contributor to achievement in business. But it has not been demonstrated, by this or other studies, that liberal arts courses strengthen basic abilities more than, or less than, courses in business--or, for that matter, in engineering or computer science. Perhaps, for jobs such as many business jobs that do not require occupationally-specific college training, the process and discipline of college study matter more than the specific course content.

Engineers as Business Executives

There is, on the other hand, some evidence that a major in engineering and a career as business executive are highly compatible. Earlier analyses of data from this same respondent panel showed that engineering majors, followed by economics majors, were the highest paid and most satisfied of all those in the panel who had become business executives (Table 6).

The number of men engineers in the panel who became business executives is small--just 35, compared with 212 who identified their occupation as engineer and 104 who were engaged in other occupations, such as sales, computer work, and teaching. However, because they seemed to be among the more "successful" business executives, the history of these 35 men was examined in detail to find out how they compared both with other business executives and with other engineering majors.

This closer look revealed that these engineering-major business executives were indeed a special group. Their salaries, job satisfaction, career progress, advancement possibilities, and sense of being fully utilized were very high compared with other engineering graduates. Fully 81% were very satisfied with their jobs, compared with 44% of engineering graduates employed as engineers, 62% of engineering graduates employed in other occupations, and 77% of all business executives in the highest salary category (Table 7).

Table 6
RANK ORDER OF MEDIAN SALARIES AND JOB SATISFACTION OF BUSINESS EXECUTIVES,
BY MAJOR: BACCALAUREATES WHO ENTERED COLLEGE IN 1961

COLLEGE MAJOR	SALARY ^{a/}		JOB SATISFACTION ^{b/}
	MEN	WOMEN	MEN & WOMEN COMBINED
Engineering	1	1	1
Economics	2	2	2
Business	3	4	5.5
Social sciences (other)	4	5	c/
Physical sciences	5	3	5.5
Psychology	6	6	c/
History	7	9	c/
Education	8	7	4
Arts & humanities (other)	9	8	c/
Mathematics	c/	c/	3
English	c/	c/	7

^{a/} From Bisconti, A. S. & Gomberg, I. L. The Hard-to-Place Majority--A National Study of the Career Outcomes of Liberal Arts Graduates. Bethlehem, PA: CPC Foundation, 1976.

^{b/} From Bisconti, A. S. & Solmon, L. C. Job Satisfaction After College--The Graduates Viewpoint. Bethlehem, PA: CPC Foundation, 1977. (Tables 13-21).

^{c/} Category not comparable.

Table 7

PROFILE OF ENGINEERING GRADUATES EMPLOYED AS BUSINESS EXECUTIVES,
 COMPARED WITH OTHER GROUPS
 (In Percentages)

ITEM	ENGINEERING GRADUATES: BUSINESS EXECUTIVES (N=35)	ENGINEERING GRADUATES: ENGINEERS (N=212)	ENGINEERING GRADUATES: OTHER OCCUPATIONS (N=104)	ALL BUSINESS EXECUTIVES EARNING \$25,000 OR MORE (N=110)
<u>College Grades</u>				
B+ or higher	14	12	7	48
B	29	25	22	19
B-/C+	40	46	43	26
C or lower	17	17	28	7
<u>Self-Ratings: "Above Average"</u>				
Drive to achieve	86	50	62	84
Leadership ability	79	43	63	*
Math ability	74	62	72	47
Mechanical ability	71	62	61	32
Intellectual self- confidence	83	39	48	66
Social self-confidence	34	13	35	48
Understanding of others	57	43	51	54
Writing ability	41	27	29	47
<u>Life Goals: "Essential or Very Important"</u>				
Being very well-off financially	60	43	51	73
<u>Assessment of Job</u>				
Skills are fully utilized	41	31	28	*
Very satisfied with job	81	44	62	77
Have sufficient status and prestige	85	46	63	91
Satisfied with career progress	85	60	70	94
Have good prospects for future advancement	94	56	61	*
<u>Activities on Current Job</u>				
Engineering	63	100	55	*
Administrative	100	47	64	*

* Data not available.

Whether or not they were more competent or capable technically than other engineering majors is doubtful, if performance in college can be considered a valid indicator; their college grades were about the same as those of engineering majors who were employed as engineers. What differentiates these groups most sharply is self-concept and goals. The engineering-majors business executives had a very positive self-concept (high self-ratings on abilities and on intellectual self-confidence), and they also had high self-ratings on drive to achieve and concern for financial well-being.

In a large corporation, there may come a point when the only way for an engineer to move up is to take on more managerial responsibilities. However, these 35 men who identified themselves as business executives were different from other engineering graduates with managerial responsibility and high salaries (and more satisfied with their jobs) possibly because their self-concept was particularly suited to executive ranks of their companies.

While identifying with the occupation of "business executive", two-thirds still performed some engineering functions. Perhaps the favorable career positions and future prospects these men seem to enjoy is due to their combination of technological expertise (which may place them at an advantage over other business executives) and drive (which may place them at an advantage over other engineering graduates).

CONCLUSIONS

Not all of those who become business executives seek high earnings and not all would consider high earnings a measure of success. Nevertheless, high earnings are one measure of success, and among business executives studied here, high earnings were closely associated with satisfaction with various aspects of work and with holding positions of responsibility and independence.

The highest salaried business executives were more likely than others to have college-educated fathers, high grades in high school and college, and to have attended a very selective college. They reported a positive self-assessment, indicating a high degree of drive to achieve, intellectual self-confidence, and social self-confidence. More than others, they sought high earnings, rapid career advancement, and leadership. Besides these responses, which indicate actual or perceived compatibility with the dominant characteristics associated with the occupation, the high salaried business executives were more likely than others to consider their own writing and math ability above average. However, it was the middle-salary group, not the highest-salary group, whose responses were more likely to indicate understanding of others and intrinsic interest in the field.

No relationship was found between majoring in business and attaining a high salaried position as a business executive. Furthermore, there was no evidence to support either of the contrasting views regarding the value of liberal arts courses for business, since high and low earners had about the same amount of these courses.

The responses of 35 engineering graduates who identified their occupations as "business executive" were examined in detail because these men were more satisfied and earned higher salaries than the business executives from other educational backgrounds. They were no more successful academically than the average engineering major but differed sharply from others with respect to self-concept and goals. Like other high salaried business executives, they had a positive view of their own abilities, were highly self-confident and ambitious, and were strongly oriented towards financial well-being. Their favorable position relative to other ambitious business executives may have been due to their technological expertise (the majority still performed some engineering functions). Their favorable position relative to other technologically competent engineering managers who did not identify with the occupational title "business executive" may have been due to their positive self-concept and drive.

Many factors, including some not considered in this survey, probably combine to influence attainment of high salaried positions in a business executive career. The responses of business executives studied here suggest that a certain amount of brilliance in intellect, performance, and style is more important than what one studies in college. Except for situations in which technological expertise may place an engineering graduate in an advantageous position, it does not appear that any particular pattern of college study promotes the attainment of high salaried business executive jobs in later years.

This conclusion does not imply that college education fails to contribute to work performance. Previous analyses of the 1975 survey data showed that most respondents considered their college education useful in their work, regardless of whether the titles of their major and their occupation appear closely related (Bisconti and Solmon, 1976). A new study by this author is under way, with support from the CPC Foundation, to investigate in greater depth the dynamics of the contribution of education to productive work. The preliminary results indicate that many aspects of the college experience--completing study assignments, conducting special projects, interacting with faculty and peers, participating in sports, and assuming leadership roles--may contribute as much as, or more than the specific course content to the formation of the basis on which the knowledge and skills required for productive performance are built.

REFERENCES

- Astin, Alexander W., King, Margo R., and Richardson, Gerald T. The American Freshman: National Norms for Fall 1974. Los Angeles: Laboratory for Research on Higher Education; Washington, DC: American Council on Education, 1974.
- Bisconti, Ann S. College Graduates and Their Employers -- A National Study of Career Plans and Their Outcomes. Bethlehem, PA: The CPC Foundation, 1975.
- Bisconti, Ann S. Low-Income Students in College and Careers. Bethlehem, PA: The CPC Foundation, 1978.
- Bisconti, Ann S. and Solmon, Lewis C. College Education on the Job--The Graduates' Viewpoint. Bethlehem, PA: The CPC Foundation, 1976.
- Bridgman, D. S. "Success in College and Business," Personnel Journal, 1930, 9, pp. 1-19.
- College Placement Council, Inc. CPC Salary Survey. Final Report, July 1978. Bethlehem, PA: College Placement Council, Inc., 1978.
- Daniere, A. and Mechling, J. "Direct Marginal Productivity of College Education in Relation to College Aptitude of Students and Production Costs of Institutions," Journal of Human Resources, Winter 1970, pp. 51-70.
- Hoyt, D. P. The Relationship Between College Grades and Adult Achievement: A Review of the Literature. Iowa City: ACT Research Reports, No. 7, September, 1965.
- Leslie, Larry L. Higher Education Opportunity: A Decade of Progress. Washington, DC: ERIC/Higher Education Research Report No. 3, 1977.
- Maccoby, M. The Gamesman. New York: Simon & Schuster, Inc., 1976.
- Quinn, R. P., Staines, G. L., McCullough, M. R. Job Satisfaction: Is There A Trend? Washington, DC: U.S. Department of Labor, 1974.
- Sewell, William H. "Inequality of Opportunity for Higher Education," American Sociological Review, Volume 36, No. 5, October 1971, pp. 793-809.
- Walters, R. W. and Bray, D. W. "Today's Search for Tomorrow's Leaders," Journal of College Placement, 1963, Vol. 24, No. 1, pp. 22-23.
- Weisbrod, B.A. and Karpoff, P. "Monetary Returns to College Education, Students Ability, and College Quality," Review of Economics and Statistics, 50(4), 1968, pp. 491-497.