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ABSTRACT

Four items on educational and vocational decisions were analyzed from the 1969 University Student Census of the University of Maryland. A random samole of 100 students from each class was studied and comparisons were made by class and sex. Results indicate that: (1) more freshmen and sophomores were undecided and uncertain about their vocational goal and major field of study than juniors and seniors; (2) a substantial number of upperclassmen were as yet undecided and uncertain of their vocational goal; (3) males and females did not seem to differ in their indecision about a major field of study or vocational goal; (4) the time of selection of vocational goal and major field of study did not appear to be related; (5) students undecided about either major field or vocational goal tended to be undecided about the other; and (6) students undecided on their major field of study were less favorable to the idea of a special college for new students undecided as to their major, students who had decided on a major field of study viewed the idea more favorably. It is suggested that the undecided students may not want to be labeled or singled out, because it may connote that they were different and/or inferior. CAuthor/SW)

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## An Analysis of Educational-Vocational Decision Making Among University Students

Robert C. Lynch and William E. Sedlacek

Research Report # 5-70

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## Summary

Student responses to items from the 1969 University Student Census on educational and vocational decisions were analyzed. The results indicated the following.

1. More freshmen and sophomores were undecided and uncertain about their vocational goal and major field of study than juniors and seniors.
2. However, a substantial number of upperclassmen were as yet undecided and uncertain of their vocational goal.
3. Males and females did not seem to differ in their indecision about a major field of study or vocational goal.
4. The time of selection of vocational goal and major field of study did not appear to be related.
5. However students undecided about either major field or vocational goal tended to be undecided about the other.
6. Students undecided on their major field of study were less favorable to the idea of a special college for new students undecided as to their major; students who had decided on a major field of study viewed the idea more favorably.

It was suggested that perhaps the undecided students did not want to be labeled or singled out; the connotation being that they were different and/or inferior.

The freshman entering college has been faced with weighing several imposing considerations related to college attendance. Undoubtedly, for some time, he has been asked his plans for an occupation, and more recently, in what college and major he wishes to enroll. While vocational preference, vocational selection, and vocational attainment are quite different conditions (Vroom, 1964), the major field of study and specific academic college enrolled in while an undergraduate appears to be positively related to job attainment. Two studies of graduates several years out of college found that three-fourths of them would take the same academic major if they were to start school all over again, knowing what they presently know about their occupation (McKenzie and Magoon, 1967; McKenzie, Magoon, and Lanow, 1966).

While it is not universally true in American higher education, undoubtedly the most common situation is the declaration by the student of a specific college and major as a freshmen; occasionally the student may elect to wait to declare a major, but by his last two years, most will of necessity have done so. Subscribing to developmental theories of occupational choice (e.g. Super (1964) or Holland (1966)) would enable one to posit that some vocational indecisiveness is to be expected in a student's first two years of college. University coursework can suggest fields previously unconsidered.

On the other hand, many feel that vocational decisiveness reflects maturity and commitment on the part of the individual, while indecisiveness indicates immaturity. Much of the available evidence supports Baird's (1969) counter that vocationally undecided students are little different from decided students on academic variables (Williamson, 1937; Watley, 1965; Abel, 1966; Ashby, Wall, and Osipow,

1966), interests (Ashby, Wall, and Osipow, 1966), and attitudes (Nelson and Nelson, 1940). However, Walsh and Russell (1966) point to more personal adjustment problems among freshmen whose major field is not congruent with measured vocational interests than those whose major is congruent.

The present study examines the timing of vocational and academic major selection by University of Maryland students, the degree to which students are certain or uncertain about their selections, and their opinions about a special college for new, academically undecided students, as stated in response to questions on the 1969 University Student Census (USC). Specifically, the hypotheses examined are that:

- More freshmen and sophomores are undecided about academic major and vocational goals than juniors and seniors.

Most juniors and seniors will have decided on a major and vocational goal.

Selection of academic major occurs concurrently with vocational selection, and those undecided about a major are also undecided about a vocation.

Males and females differ in their decision-indecision.

More of the "undecided students" would favor the idea of a special college for undecided students.

#### Procedure

A random sample of 100 students from each class responding to the 1969 USC was selected. These students were compared, by class and sex, on their responses to four items from the USC (see Appendix):

- #17. When did you decide on your major field of study?
- #18. How certain are you of your vocational goal?
- #22. When did you decide on your present vocational goal?
- #37. There should be a special college for new students undecided about their major.  
(response options) requested extent of agreement)

A chi-square analysis was computed between items 17 and 22 to reflect the relationship between vocational decision-indecision and major field of study decision-indecision. A Pearson product-moment correlation was computed between those same items (excluding response options "have not decided" and "other") to ascertain to what degree vocation and major field of study are related in terms of the time they were decided upon. A phi coefficient (Guilford, 1965) was calculated between items 18 and 22 to determine the consistency of responding to those two items, both of which determine whether the respondent has decided on a vocational goal. Finally, responses to item 37 were compared by t-test. These comparisons and analyses were done for students grouped by class and by sex.

### Results

A surprisingly large percentage of students at the University are uncertain about their vocational goals; Table 1 (responses to USC item 18) reflects the differential nature of this uncertainty by sex and class. More<sup>†</sup> freshmen and sophomores are uncertain than juniors and seniors ( $p < .05$  using chi-square), although these upperclassmen did reflect a great deal of uncertainty. Though males indicated more uncertainty than females on the item, the difference was not statistically significant.

When students were asked when they had decided on their present vocational goal (item 22), a much smaller proportion of each class and sex selected response H, "have not decided" (Table 1). Again, more freshmen and sophomores were "undecided" about their vocational goal than juniors and seniors ( $p < .05$  using chi-square), while males and females did not differ. A significant relationship existed between those who were "uncertain" on item 18 and "undecided" on item 22 ( $p < .05$  using chi-square).

TABLE 1

## Vocational-Educational Uncertainty on Two USC Items

	Percent "uncertain" of vocational goal (item 18)	Percent "undecided" on vocational goal (item 22)	Phi coefficient
All students	53%	22%	.48
Males	56%	21%	.42
Females	48%	23%	.55
Seniors	46%	12%	.41
Juniors	48%	17%	.48
Sophomores	59%	23%	.44
Freshmen	58%	32%	.53

Table 2 shows that students were fairly evenly distributed as to the time of their decision on a major field of study (item 17). Males appear to have decided more recently than females. Seniors most frequently decide in their junior and sophomore years, juniors, sophomores, and freshmen most frequently indicate the previous year as their decision-making time. As would be expected, many freshmen (24%) and sophomores (15%) had not decided on a major field of study.

More students had decided on a major field of study than had decided on a vocational goal (Table 2). Males appear to have decided on a vocational goal slightly more recently than females. Most frequently, seniors and juniors decided the previous year, while sophomores and freshmen decided most frequently in their senior year of high school.

TABLE 2

When did you decide on your major field of study?  
(in percentages)

	Jr. in coll.	Soph. in coll.	Fr. in coll.	Sr. in h.s.	Jr. in h.s.	Soph. in h.s.	pre- soph. in h.s.	have not decided	Other	Total
All students	10	20	15	16	10	4	10	11	4	100
Males	12	22	16	15	7	4	7	11	6	100
Females	7	17	13	18	14	5	14	9	3	100
Seniors	21	24	15	12	3	2	11	2	10	100
Juniors	15	35	11	16	8	4	4	1	6	100
Sophomores	2	16	26	15	13	3	9	15	1	100
Freshmen	1	3	8	22	16	8	17	24	1	100

When did you decide on your vocational goal?  
(in percentages)

	Jr. in coll.	Soph. in coll.	Fr. in coll.	Sr. in h.s.	Jr. in h.s.	Soph. in h.s.	pre- Soph in h.s.	have not decided	Other	Total
All students	8	14	10	15	10	4	11	22	6	100
Males	9	15	10	15	10	5	8	21	7	100
Females	6	12	11	15	9	1	14	23	6	100
Seniors	21	17	13	9	3	3	9	12	13	100
Juniors	9	23	12	10	8	3	8	17	5	100
Sophomores	1	12	11	20	10	6	11	23	6	100
Freshmen	0	3	5	20	16	5	15	32	4	100

There was little relationship between time of decision on major and time of decision on vocational goal (items 17 and 22 -  $r = .11$ ). However, most students who are undecided on a major are also undecided on a vocational goal (see Table 3).



TABLE 3

% of those undecided on major also  
undecided on vocation

	N and Percent	
All students	33	= 79
Males	20	= 80
Females	13	= 76
Seniors	1	= 50
Juniors	1	= 100
Sophomores	13	= 87
Freshmen	18	= 75

When asked whether there should be a special college for new, undecided students, freshmen disagreed with the statement more than the other classes (Table 4). Sophomores, juniors, and seniors tended to agree with the statement, and were not significantly different from each other in the extent of their agreement. While males agreed more with the statement than females, there were no significant differences between them.

TABLE 4

N and Mean and Standard Deviation  
by sex and class on "USC" item 37  
(special college for undecided students)

	N	Means*	S.D.	Comparing freshmen with other classes (t's sig- nificant at .05)
Males	209	1.76	1.14	
Females	176	1.93	1.14	
Seniors	97	1.68	1.14	t=3.62
Juniors	97	1.58	1.12	t=4.30
Sophomores	98	1.85	1.13	t=2.59
Freshmen	93	2.26	1.06	

\*response options on a five-point agree/disagree scale,  
0=strongly agree, 4=strongly disagree

Students who indicated they had decided on a vocational goal (item 22) agreed more with the "special college" item than those who said they had not decided yet ( $t=2.08, p<.05$ ). Dividing students on the certainty-uncertainty of their vocational goal yielded no significant differences on the "special college" item.

Responses, by class, to item 37 ("special college") for the sample were compared to those of all students by t-test to determine the representativeness of the sample. No significant differences were found, permitting generalization of the results to the student body.

### Conclusions and Discussion

The results obtained permit several generalizations:

1. More freshmen and sophomores were undecided and uncertain about their vocational goal and major field of study than juniors and seniors.
2. However, a substantial number of upperclassmen were as yet undecided and uncertain of their vocational goal.
3. Males and females did not seem to differ in their indecision about a major field of study or vocational goal.
4. The time of selection of a vocational goal and major field of study did not appear to be related.
5. However students undecided about either major field or vocational goal tended to be undecided about the other.
6. Students undecided on their major field of study were less favorable to the idea of a special college for new students undecided as to their major; students who had decided on a major field of study viewed the idea more favorably.

While indecision among freshmen and sophomores can be viewed as being no cause for alarm, it may, in fact, be perceived as beneficial. In their first two years of college students sample a variety of course

offerings, thus being exposed to many different occupational content areas. A "closed occupational mind" may not be in the student's best interest. However, during the last two years of college, vocational decision-making would be expected to be making inroads in the student's thinking. Although Baird (1969) assures us that the vocationally "undecided student" is no different from the "decided student", some anxiety, especially for males, may be felt.

For instance results of his study indicate that academically undecided students seem less tolerant of a special college for new, undecided students than academically decided students. The study of other possible attitudinal differences seems justified if this finding is accurate. It could be, for instance, that undecided students do not want to be singled out or labeled; the connotation being that they are different and/or inferior.

The discrepancies in responses to items 18 (certainty/uncertainty of vocational goal) and 22 (time of decision on vocational goal, or "have not decided") reported in Table 1 are interesting. It was expected that students "uncertain" on item 18 would indicate on item 22 that they were "undecided." Students may be reading the items differently, or it may be that many students have selected a tentative vocational goal, about which they are uncertain. The location of response options may have some psychometric implications--the first six options, as well as the stem, may imply a decision has been made; students may pick a year without observing response option H, "have not decided." Moving that response option to A may elicit different responses from students.

Tables 2 and 3 also indicate some response inconsistencies. For instance in Table 1 3% of the Freshmen indicated they decided on their majors as sophomores. This could either be errors in responding or perhaps an anticipated time of decision.

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APPENDIX

USC Items Analyzed

17. How long ago did you decide upon your major field of study?

- A. Junior year of college
- B. Sophomore year of college
- C. Freshman year of college
- D. Senior year of high school
- E. Junior year of high school
- F. Sophomore year of high school
- G. Before sophomore year of high school
- H. Have not decided yet
- I. Other

18. How certain are you of your vocational goal at this time?

- A. No specific goal at present
- B. Quite uncertain
- C. Somewhat uncertain
- D. Quite certain
- E. Clearly fixed vocational goal
- F. Other

22. When did you decide upon your present vocational goal?

- A. Junior year of college
- B. Sophomore year of college
- C. Freshman year of college
- D. Senior year of high school
- E. Junior year of high school
- F. Sophomore year of high school
- G. Before sophomore year of high school
- H. Have not decided yet
- I. Other

37. There should be a special college for new students undecided as to their major.

- A. Strongly agree
- B. Agree
- C. Neutral
- D. Disagree
- E. Strongly disagree
- F. Other