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Introduction

In this paper we offer a new conceptualization of college characteristics, such as size and complexity, and examine some empirical findings on college dropout and changes in occupational choice during college which are readily explained by this theory, but which are difficult to account for on the basis of traditional interpretations of effects of college.

Organizational attributes, such as quality and size, are usually seen as indicators of two kinds of resources available to colleges: 1) student inputs, such as measures of the social class composition, academic aptitude and intellectualism of students recruited to different colleges. College quality, for example, is usually explicitly conceptualized as an aggregate measure of the academic talent colleges have to work with. (Spaeth, 1968; Davis, 1966; Astin, 1964).
2) Secondly, organizational attributes such as size and complexity have been viewed as measures of the socializing resources that are differentially distributed among colleges. Size and facultystudent ratio are frequently viewed as measures of internal resources per stu-dent, which in turn have a number of subsequent consequences that affect the shape of the internal structure of relations; e.g., frequency of interaction, stratum isolation, social distance between the socializing agents and the socializees, etc. (Newcomb, 1943; Feldman and Newcomb, 1969).

Both sets of interpretations have a common denominator in that they <u>focus on measures of inputs</u>; student inputs and available socializing resources. Thus, as Meyer has pointed out (1970), discussions of college quality are typically conceptualized solely in terms of differential social resources <u>with no reference to outcomes</u>.

What is missing from such conceptualizations and associated measurements is the relation between colleges and the wider social order. Obsession with inputs has obscured the idea that colleges have constituencies whose demands they must be responsive to if they are to sur-These outside clients set constraints not only on the resources available but also on the kinds of products that are socially acceptable; i.e., what kinds of people colleges should be producing. It is very clear, for example, that the production of student radicals has become unacceptable by many important clients of American universities, most notably state legislators. Colleges that continue to produce them will be penalized. In short, the clients of higher

education impose <u>cultural</u> constraints on socialization in <u>colleges</u> as well as resource limitations. It is our <u>contention that such constraints have a powerful effect on the socialization process in college.</u>

This idea leads us to urge a new interpretation of college characteristics, and to argue for new types of measures of colleges. We suggest that we need measures that focus on the connection between colleges and the larger social order.

Once we accept the idea of attempting to characterize colleges in terms of the expectations of their external constituencies (as well as in terms of inputs, such as internal resources and socializing structures), it may be possible to re-interpret some widely used measures of college structures, such as size. complexity and prestige, and to offer some predictions about their socializing capacity that are different from those ordinarily made from theories of 'inputs.'

Our major point is that college characteristics such as prestige and size may have <u>direct effects on students by</u> indicating the kinds of social changes that the organization is 'licensed' to produce by the wider society. Meyer has called this mandate the organizational charter, and we will adopt this term. (Meyer, 1970) Meyer argues that, "Any socializing organization has crucial features which lie largely outside its own structure and which constitute its relationship with its social setting. One such feature--perhaps the most important--is the social definitions of the products of the organization. If, for example, everyone knows that a particular school or class of schools (i.e. colleges) produces successful people, and if they know that others--employers, professional gatekeepers--know and accept this, then the school has acquired an invaluable resource in transforming its products." (Meyer, 1970, 9)

We hypothesize that schools differ in the kinds of charters they have, which in turn affects their socializing ability. This argument emphasizes that colleges and other socializing agencies vary not only in the social characteristics of their clientele and other inputs, but also in the kinds of future statuses to which they are able to allocate their recruits. The point that needs to be stressed is that the strength and credibility of the guarantee colleges can offer regarding status placement may vary among schools.

There are two well known ways of characterizing status locations that are relevant to his general argument. These dimensions are: first, the horizontal differentiation of statuses or division

of labor; and secondly, the vertical stratification of statuses, where the relative rank of statuses is the central feature.

The point is that colleges may differ in their status allocating capacity on both dimensions. Thus, from this view the strength of large, public institutions rests on the diversity of middle class occupational roles that students perceive graduates of such colleges assume. On the other hand, the socializing capacity of elite universities is based on the diversity of high status professional roles that the typical graduate is perceived to move into. Thus the socializing capacity of institutions is linked in this argument, to the variety of career outcomes that its external constituencies will validate.

Now we must deal with the question of how these expectancies are transmitted to students. We will suggest how two college attributes, prestige and size, directly signify the character of the organization's social license to students. Secondly, we will consider how this affects two aspects of the socialization process: 1) the ability of organizations to maintain members' commitment, as indicated by dropout; and 2) the effects of colleges on changes in occupational choice. Occupational choice is used as a direct measure of status allocation. Dropout is used as a measure of the value students attach to membership in the college. Value here refers to the perceived economic and social benefits, i.e., motivation, economic resources, etc. To remove the influence of other variables and thus 'purify' dropout as a measure of the value of college, we will control for a variety of variables known to be related to dropout and thus attempt to remove from dropout the effects of other causes of attrition.

The Effects of College Size

The case for size as a 'chartering' mechanism is intriguing and also more difficult to make, primarily because of the weight of negative evidence and theory that emphasizes the dysfunctions of size on student socialization. (Cf. Feldman, and Newcomb, 1969; Panos and Astin, 1968; for counter evidence, cf. Kamens, 1970). We suggest that large schools have a special charter; but this function of size may be peculiar to American higher education. The chartering aspect of size seems to depend on two characteristics of the larger American stratification system; 1) the large size of the elites, to which college graduates are recruited; (Lipset, 1960, 330ff.), and 2) secondly, the fact that the American stratification system is organized around a system of functionally differentiated occupational groups rather than highly organized social classes. (Cf. R. Brown, 1965, 113ff for

some evidence).

Given these two conditions socialization in American higher education must proceed on different cultural assumptions than that in more aristocratic cultures. In the United States higher educational institutions are expected to train students for high status, but functionally specific occupational roles rather than to act as upholders of traditional values and aristocratic culture. (Turner, 1961) Thus they are <u>chartered</u> to accomplish very limited purposes. In this kind of cultural and institutional setting size may have positive consequences for student socialization that it would not have in countries characterized by a small elite and well defined social classes.

Given the mission of occupational socialization as their primary responsibility vis à vis students in the United States, the socializing capacity of colleges is apt to depend on the diversity of career roles that they incorporate within their ecological and social organization. Consider the plight of small colleges in this social and cultural context. They integrate in their structural and curriculum few of the occupational roles, activities and identities that exist in the wider society. College teaching, especially in the humanities, is one of the few activities that students are exposed to and which college can train them for. Furthermore, small colleges typically represent only limited functions of even academic roles. They expose students to academics as teachers but typically not to the <u>research</u> functions of the role. On the basis of interviews with transferees to Berkeley Lipset argues that this emphasis on teaching functions causes many intellectually oriented students to leave small colleges like Reed and go to much larger universities like Berkeley. He asserts that having been taught the value and excitement of research, bright students are often willing to pay the price of anonymity and little contact to hear major scholars in person, and to be in a research setting

where the action is. (Lipset, letter)

Big colleges and universities, on the other hand, integrate a large number and diversity of values and activities in their social structures. This results from the fact that in American higher education size and structural complexity have historically been closely associated. (Scott and El-Assal, 1969; Meyer, 1970). Rather than forming separate organizations for new educational and intellectual innovations, as in Europe, these have been fused with existing university structures to form bigger and more complex structures, i.e., the 'multiversity.' This development, we suggest, has two consequences for student socialization: 1) Students at large universities are exposed to more <u>diverse models</u> of what graduates

of the college actually become; 2) secondly, the ecological proximity and structural connection of the college with graduate and professional schools may act as a guarantee that the college is actually expected to produce diverse kinds of professionals and specialists. If not, why would these training facilities exist on the same campus?

The easily visible flow of average undergraduates from college to graduate and professional schools may also function as an indicator to students of the value outside agencies typically attach to the undergraduate experience.

We stress the symbolic function of institutional arrangements characteristic of large universities because of our concern with chartering mechanisms. We recognize that there may also be structural arrangements at larger colleges which make it easier for students to assume future occupational identities. For example, undergraduates are likely to have more contact with graduate students, and faculty who teach in graduate schools This exposure may give them more concrete knowledge of standards, the kinds of people who become professionals, and may lead to a clearer picture of the meaning and value of these careers. In short, large colleges may have a number of structural features which serve to articulate undergraduate and graduate status sequences. This argument suggests that large universities may produce more continuity in status socialization than small colleges. Thus, large schools may reduce anxiety over future role assumption, though they may breed other kinds of anxiety.

This view of size leads to a number of hypotheses, that run contrary to usual expectations. First, the idea that large schools produce more continuity in status sequences because of their charter leads us to hypothesize that large colleges will have important positive effects on students' occupational ambitions, despite the fact that they have fewer socializing resources per student. For instance, one measure of student faculty-interaction, the faculty-student ratio, correlates -.34 (Tau-B) with size in our data.

We can test this idea with our <u>panel</u> data on occupational choice by looking at the effects of size on the general status of students' aspirations <u>and</u> the kinds of occupational choices students make, when appropriate individual characteristics are held constant. Meyer has shown elsewhere with this data that size, along with many other college characteristics, has <u>no effect</u> on the general social status of students' occupational choices. Large schools do <u>not increase</u> students' general occupational ambitions (Meyer, 1970; 36). However, school size <u>does affect</u> the <u>allocation</u> of students to <u>different</u>

sectors of the occupational structure. Tables 1 and 2, from Meyer's report (1970), show the effects of size on 1) students' ambition to enter high status academic occupations; and 2) students' aspirations to enter the high status professions. The tables together show that large colleges shift students toward the traditional professions at the expense of high status academic occupations. versely, small colleges shift students toward academic careers and away from the professions. This evidence partially supports the early findings of Knapp and Greenbaum on the effectiveness of small, often mediocre, colleges in producing scientists and scholars. (Knapp and Greenbaum, 1953) Unfortunately, because there were too few cases for analysis, we cannot tell from this data whether small colleges are more effective at maintaining the commitment of students who initially aspire to become scientists and scholars than large schools.

TABLE 1.--Students with Non-Academic
Freshman Choices Only: Senior
Academic Occupational Choice by
School Size, Sex and Ability
Index

	School Size		
Ability	Large (1000+)	Small (Under 1000)	
High	22% (59)	39% (33)	
Medium	14% (59)	17% (35)	
Low	7% (73)	19% (48)	
High	14% (50)	18% (66)	
Medium	3% (65)	11% (72)	
Low	10% (51)	5% (95)	

Freshman Choice = Non-Academic Professional, low status, undecided and other.

TABLE 2.--Senior Professional Occupational Choices by Freshman Choice, Ability, Index Score and School Size -- Males

		School Size			
Ability	Freshman Occup'l Choice	Lar (100			mall er 1000)
High	Prof'l Other	-	(32) (36)		(18) (34)
Medium	Prof'l Other	68% 20%	(34) (41)		(19) (20)
Low	Prof'l Other	70% 6%	(30) (50)	4 7% 8%	(19) (40)

All NAs excluded. All entries are per cent Choosing Professional Occupations as Seniors.

Freshman Choice:

Professional = high status professional occupations

Other - Academic choices, low status and undecided

We now consider some consequences that this variation in status allocating capacity between large and small schools may have on dropout.

This leads us to the second hypothesis about size. Larger colleges are likely to increase the average value attached to membership in the college and lower dropout, even when individual characteristics, known to affect dropout, are held constant. The problem is basically demographic. Small colleges are better than large colleges at attaching students to academic careers and less able to connect them with careers in the non-academic professional occupational sector. Yet, very large proportions of the student body aspire to non-academic professional occupations at both large and small colleges. The basic idea here is that the special charter of small colleges may reduce the original commitment of many students who do not aspire to academic careers. Conversely, large colleges may lead more students to believe that the college will connect them with professional occupations.

The <u>charter</u> of larger colleges may, however, have negative effects on students with academic aspirations. Large colleges may reduce the commitment of such students and increase their dropout.

Table 3 presents the data on the effect of size on dropout when students' social class and the ability index are held constant.

TABLE 3.--Per Cent Dropout by College Size, Standardized on Students' Social Status, Verbal Ability and High School Grades²

Size	Per Cent Dropout
0-999	39% (492)
1000-4999	29% (322)
5000+	24% (111)

Size <u>reduces</u> dropout and the effect is linear over the three categories.

Table 4 presents the data when sex is introduced as an added control.

TABLE 4.--Per Cent Dropout by Size and Sex, Standardized on Ability Index and Social Class Index

·	<u>Sex</u> Male Female		
<u>Size</u>		.	
0-999	37% (225)	39% (267)	
1000-4999	24% (197)	39% (125)	
5000+	27% (84)	10% (26)*	

^{*}Standardized per cent unreliable because all cell sizes too small.

The evidence confirms the main argument on the effect of size on dropout. Size, however, has a differential impact on men and women. Male dropout is higher in small colleges than in either of the other two size categories. In contrast, women have lower dropout only in the largest schools. Because of the small number of women sampled from the largest colleges, we do not place much confidence in this finding.

A separate analysis, not presented here, examined the possible negative effects of size on students with academic career aspirations in their freshman year. The data show that small colleges reduce dropout among students with academic and scientific career aspirations but increase dropout among all other students. Conversely, large schools lower dropout among students with professional, semiprofessional and business aspirations but increase it among those with scientific and college teaching career choices. This evidence provides tentative support for the idea that the special charters of large and small colleges may reduce organizational commitment among students whose aspirations do not coincide with the college's charter.

Our last hypothesis on size concerns the effects of academic achievement on dropout. We expect that the status allocating capacity of large colleges will increase commitment to continue, independently of students' academic success. Whatever their grades, students at large colleges should be more dependent on membership than those in smaller schools. Furthermore, low academic achievement may be less deprivational in large colleges, given the impersonality and anonymity of these contexts. Students see teachers less outside class and are probably less visible, and therefore less easily by faculty and other students on the basis of their academic performance for large schools. (Kamens, 1970) Grades are thus less likely to become the basis for diffuse status in the community.

Table 5 presents the data, showing the effect of size on male and female dropout when grades have been controlled

TABLE 5.--Respondents and Non-Respondents:
Per Cent Dropout by Size and
Sex, Standardized on College
Grades--Institutional Record

	<u>Dex</u>	
	Male	Female
<u>Size</u>		
0-999	39% (438)	47 % (577)
1000-4999	30% (454)	46% (302)
5000+	36% (144)	45% (63)

through standardization. Both respondents and non-respondents to the original questionnaire are included in this cross tabulation. Size lowers dropout among males, independently of grades; though the relation is curvilinear. Size, however, has no effect on women's dropout; when grades are controlled. The nonstandardized table shows the same effect.

with one exception. In the <u>largest</u> colleges, women drop out <u>less</u> at all but the highest grade level. Again only the largest colleges reduce female dropout. Further research with larger samples of big colleges and students is needed to determine the validity of this finding.

Conclusion

This paper has argued that colleges achieve much of their effects on students because of their connection with the wider social order. This idea led us to hypothesize that colleges differ in their status allocating capacity because of differences in the structural networks colleges have with occupational and economic groups in the larger society. Two characteristics of colleges were chosen as indicators of different kinds of structural connections with the larger social order: college prestige and sizecomplexity. Empirical analysis showed that each has effects on occupational allocation and dropout, when individual characteristics of students are held constant. Two qualifications of these results need to be mentioned. First, the results in the case of women indicate that a separate theory is needed to account for female dropout. Secondly, while the effects of prestige-selectivity on dropout are relatively clear, the effects of size must remain tentative. This is due to the fact that we undersampled the largest colleges so that conclusions about the effects of the very largest schools are unreliable. Further, given the complexity of the effects of size, we feel that more powerful analytical tools are necessary that can consider: a) the effects of a large number of variables simultaneously; and b) possible interaction effects between size and individual characteristics.

In conclusion, we urge that future research focus on two interrelated problems: 1) developing models of the ways that colleges are related to the wider social order and how this may affect different aspects of student socialization and 2) developing measures of colleges that reflect student outcomes as well as inputs. In regard to the measurement of colleges we have as yet almost no measures that characterize colleges both in terms of the types of students they recruit, e.g. average abil-ity, and the kinds of finished products they produce, e.g. occupational choices. One interesting measure of college academic quality, for example, might be the ratio of student academic career choices to the proportion of high ability students.

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Footnotes

- 1. The section on prestige has been deleted due to limitations of space.
- 2. Our ability index is composed of two items: verbal ability scores on a number of college entrance tests and high school grades. Test scores were standardized on the basis of published distributions and were converted to equivalent scores on the CEEB verbal ability test. The resulting distribution was then trichotomized: low = 200-499; medium = 500-599; and high = 600-800. High school grades were also trichotomized: high = A, A-; medium = B+, B; and low = B- and lower. These two items were then combined into a three point index of ability.

The social class measure is an index that combines the status of fathers' occupation and mothers' and fathers' education level into a three point scale.