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Freshman Socialization: The Influence of Social Class Backgrounds on the Adaptation of Students*

Dennis Bumstead

M.I.T. Working Paper # 537-71 June 1971

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Introduction

This paper is a part of a larger study investigating the socialization of freshmen at M.I.T.* In this paper the focus is on the social-class background of students. Given the central importance of education as a social-mobility route in advanced countries, we are attempting to increase our understanding of some of the social and psychological processes involved in this type of social mobility, by a detailed investigation divided into three sections. In the first section the social-class backgrounds of the students are described and compared to national distributions of occupational and educational levels. The data show that a very disproportionately small number of students come from lower social class backgrounds. In the second section the adaptation and performance of students are examined. The sample is divided into a higher background group--for which attendence at M.I.T. represents a confirmation of the social-class position of their families -- and a lower background group -- for which attendance at M.I.T. represents a step above the social-class position of their families. The firstorder adaptation and performance differences appear to be relatively small, suggesting that the process of social mobility, in which the lower background group are involved, had begun well before their entry to M.I.T. However, such differences as are found in combination with previous theoretical and empirical work led us to the hypothesis that an instrumental mode of adaptation (expressed satisfaction being dependent on academic performance) would be more in evidence among the lower background group than the higher. In the third section of the paper this hypothesis is tested and found to be supported by the data.

2. The Social-Class Background of M.I.T. Students

The first area of investigation is essentially descriptive. We are asking "what types of backgrounds do students come to M.I.T. from". This is an im-

Tother aspects of the larger research project are reported on in Rubin (1971) and Gerstein (1971). The author gratefully acknowledges the assistance of David Kolb, Irwin Rubin, Marc Gerstein, Lotte Baylin, Leonard Davidson and Edgar Schein.

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portant question in relation to the issue of social mobility. It has become a commonplace of social science that, in the last 30 or 40 years inter-generational social mobility via education has come to replace intra-generational social mobility to a very large extent. As long ago as the 1930's the Lynds (1937) suggested that "fundamental alterations in the American ladder of opportunity" were taking place in the sense that "Andrew Carnegie's advice to enterprising young men to begin at the bottom no longer appears to be sound advice." More recent and more detailed studies have established quite clearly that higher education has become vertually a prerequisite to entry into most of the higher levels of the occupational structure. Thus, for example, in their review of mobility research inadvanced countries, Lipset and Bendix (1959) state that "education has become the principal avenue of upward mobility in most industrialized nations."

However, such general statements as these tend to oversimplify the complexities of social mobility, and taken at face value they encourage the replacement of the Horatio Alger myth with the equally mythical conception of an educational meritocracy.* In fact there are filters built into the educational and occupational structures which function so as to control mobility and institutionalize inequality to a considerable degree. Thus, for example, students from working-class backgrounds have less chance of entering any college (Carnegie Commission Report, 1970). If they do get through college their subsequent occupational achievements still tend to be less than the achievements of their counterparts from middle-class backgrounds (Blair & Duncan, 1968; Kinloch & Perrucci, 1969).

This tendency is nullified only if the college they went to was a very high prestige institution such as M.I.T., where the "institutional effect" entirely overcomes background effects on subsequent career achievement (Laumann

^{*}For a more extensive discussion of this see Miller & Riesman (1968)Ch. 5.

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& Rapoport, 1968). However, as we will see below, M.I.T., even more than the college system as a whole, takes in very few students from lower social class backgrounds.

Another reason for giving consideration to the social class backgrounds of M.I.T. students is to put into perspective our second area of investigation —the relative adaptation to M.I.T. of students from different backgrounds. The results of previous research on this subject* have been confusing and conflicting partly because of a failure to give sufficient emphasis to such factors as differences in the distributions of student's backgrounds at different colleges, and differences in the nature and prestige of the colleges themselves. One way in which advances can be made in this area is by specific case studies in which the nature of these factors is made clear.

Tables 2-1 and 2-2 present the basic breakdowns of our sample in terms of fathers' occupational and educational levels.**These tables also present the same data for freshmen in 1958 (from Sussmann, 1961) and national figures for comparative purposes. These figures show that M.I.T. students are four times as likely to come from white collar backgrounds than from blue-collar backgrounds although white collar employees constitute only 40 percent of the population at large. Similarly they show that two-thirds of our samples fathers have at least some years of college as compared to one-quarter of the population at large.

Secondly, we may consider changes in students backgrounds over the last ten years. In terms of the broad categories of occupation there has been very little change. White collar backgrounds accounted for 81 percent of students in 1958 and for 83 percent in 1969. Within this broad category of white

^{*} Summarized in Feldman & Newcomb (1969) Ch. 10.

The sizes of the 1969 samples for which these data were available are: occupational background N=412; educational background N=424 out of a total freshman class of 960.



collar there has been a built from the lop Processional and Managerial Lackgrounds (31 to 19 percent, toward the local Amagerial and Technical Sackground (41 to 50 percent). In terms of educational background there has
been an increase in the national level of education. It would appear that
this shift is, if anything, more marked in the backgrounds of our sample, at
least in terms of a disproportionate drop in the number of students from the
lowest category: in the last ten years the number of males in the population
at large having less education than high school completion has dropped by one
quarter (60 to 45 percent); the number of fathers of M.I.T. students in this
lowest category has dropped by more than half [10 to 6 percent).

Table 2-1 Occupational Background: Occupational levels of M.I.T. freshmen's fathers for 1958 and 1969 in comparison to all employed U.S. males for 1960 and 1970* (percent)

		MIT Fathers 1958	0.S. Males 1960	MIT Fathers 1969	U.S. Males 1970
1.	Top Professional & Managerial	31	11	19	17
2.	Middle Managerial & Technical	+1	11	30	1-
3.	Clerical, Sales	9	15	14	13
4.	Craftsmen, Foremen	12	20	11	20
5.	Operatives, Laborers, service and farm workers.	Ť	43	9	59

^{*}Source: U.S. Bureau of the Census | June 1971| Table 1-. p. sl.

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Table 2-2 Educational Background: Educational level of M.I.T. Freshmens' fathers for 1958 & 1969 in comparison to All Employed U.S. males for 1960 and 1970 * (percent)

		MIT Fathers 1958	U.S. Males 1960	MIT Fathers 1969	U.S. Males 1970
1.	4 years of college or more	43	10	58**	14
2.	Some College (less than 4 years)	13	9	9	11
3.	High School Graduate	24	21	25	30
4.	Less than high school	20	60	8	45

*Source: U.S. Bureau of the Census (Nov. 1970) Table A page 1.

Thirdly Figure 1 serves to summarize and reinforce the main point so far which is that M.I.T., as is to be expected of a high prestige institution such as it is, recruits very disproportionately from the higher social-classes. As we have indicated previous findings have shown that it is only by attending a high prestige institution such as M.I.T. that students from blue collar backgrounds equalize their subsequent occupational achievements with their counterparts from white collar backgrounds (Laumann & Rapoport, 1968). These data presented here showing the small numbers of blue collar background students who gain entry to M.I.T., serve to reinforce our conclusions about the great disparity between the notion of an educational meritocracy and the actual operation of the educational system.

^{**}N.B. This 58% is made up of 27% with graduate degrees and 31% with Bachelor's degrees.

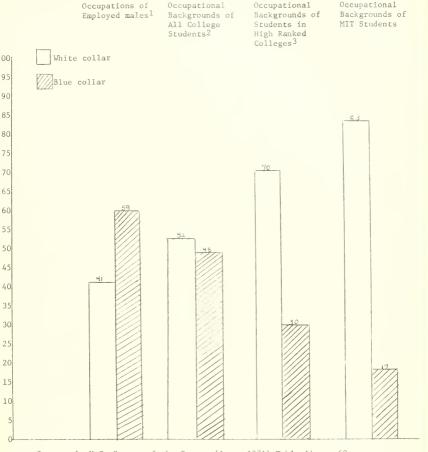
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Figure 1 White and Blue Collar in Four Populations



Sources 1. U.S. Bureau of the Census (June, 1971) Table 14, p. 60.
2. U.S. Bureau of the Census (July, 1969) Table 8, p. 6.
3. U.S. Bureau of the Census (May, 1969) Table 9, p. 20.
The "High Ranked Colleges" are those in the top third of the index of freshman aptitude developed by the University of Pittsburgh "Project Talent" survey (cf Folger et al, 1970).

All this does not mean that there are necessarily no significant differences in the social class backgrounds of M.I.T. students. For example, we may reasonably expect differences in the pre-M.I.T. experience of a student whose father is a professional with a graduate degree compared to a student whose father is a salesman with some college experience or a student whose father is craftsman who graduated from high school. The skewness of the occupational and educational background distributions does present problems in deciding what categories to use for further analysis. Most of the conventional categorizations which have been employed in the literature* would simply be inappropriate because of this skewness. Thus in the analysis which follows a simple dichotomous categorization is employed. The adaptation and performance of students from the highest social-class backgrounds will be compared to that of students from middle and lower social class backgrounds. For convenience in the rest of this paper the two groups will be referred to as the "higher" and "lower" background students. The composition of the two groups is illustrated in Table 2-3.

Table 2-3 Combined Occupational and Educational Backgrounds of those students who can be classified on both dimensions (n = 404)

		Fathers' Occupation	1
Fathers' education	middle managerial, technical and above	Clerical & sales and below	Blue Collar (skilled & unskilled)
4 years of col- lege or more	"Higher" 217 (54%)	"Lower" 12 (3%)	"Lower" 7 1.5
less than 4 years of college	"Lower" 58 (14.5%)	"Lower" 46 (11.5%)	"Lower" 64 16

^{*}For a recent review and summary of the most frequently used of these see Robinson et al (1969)

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Thus the higher background group consists of 217 students (54 percent of the sample), whose fathers are both employed in professional, managerial and technical occupations and completed four or more years of college. The lower background group consist of 187 students (46 percent of the sample), whose fathers do not fall into these top categories on both the occupational and educational dimensions. The logic of this dichotomous categorization for the subsequent analysis of adaptation and performance is as follows: Laumann and Rapoports' study (1968) has shown that virtually all those who adapt to life at M.I.T. well enough to graduate will themselves subsequently achieve the social-class position which has been achieved by the fathers of our higher group; thus, in social mobility terms the higher group in this study are engaged in a process of maintaining their social class position; the lower group, however are engaged in a process of improving their social-class positions. In the following analysis it must be constantly remembered that less than half of the lower group are making the large mobility step from bluecollar background to the high professional, managerial and technical positions which they are likely to achieve in their careers. Nevertheless, all of the lower group are highly likely to improve on their fathers' achievements to some degree, provided that they adapt to M.I.T. sufficiently to graduate.

3. Overall Differences in the Adaptation and Performance of Higher and Lower Background Students.

The second major area of investigation in this paper concerns the relative adaptation to M.I.T. of students from different backgrounds. Prior research results in this area are somewhat conflicting.* On the one hand there is some support for the "simple discontinuity hypothesis" i.e. that

^{*}cf Feldman and Newcomb (1969)

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students from lower social class backgrounds experience more discontinuity in terms of values, attitudes and life-styles on entering college, and that consequently this group feels out of place initially, experiences more difficulty in adjusting and have to adjust more than students from high social-class backgrounds. On the other hand Feldman and Newcomb also cite results which contradict these conclusions. As they suggest these contradictions may result from premature attempts to generalize from limited studies to general relationships concerning the impact of all colleges on all students. In this case study it should be clear that the results are, at most, generalizable only to institutions similar to M.I.T. in terms of prestige, recruitment policy and, perhaps, technological emphasis.

We have already referred to previous research on M.I.T. students by Laumann and Rapoport (1968) which showed that their social-class backgrounds did not have an effect on their career achievements after graduation. They suggest three possible explanations for the fact that background effects are "overcome" by M.I.T.: first, prior socialization or selection i.e., those selected from lower backgrounds are already indistinguishable from the higher background students on entry to M.I.T.; second, M.I.T. socialization i.e., the experience of M.I.T. nullifies prior differences; and third, the prestige value of M.I.T. to employers i.e., all M.I.T. graduates tend to get good first jobs, which has a major impact on overall career achievement. Clearly these three explanations are not mutually exclusive. Equally clearly our data on freshmen cannot throw any light on the importance of the third explanation. However, in terms of the first two explanations there are three possible outcomes. Our measures of adaptation and performance may show:

^{*}N.B. For students at the other, lower-prestige colleges studied by Laumann and Rapoport background effects were not "overcome" - they had a continuing effect on occupational achievement after graduation.

- no background related differences, which would lend strong support to the prior socialization explanation;
- (2) strong and consistent background-related differences, which would tend to support the M.I.T. socialization explanation;
- (3) weak but consistent background-related differences, which would imply that both factors (socialization before and at M.I.T.) are influential. Adaptation and Performance Measures

The measures used here come from three sources. The first source is a questionnaire sent to all 960 freshmen in February 1969 and returned by 45 percent of them. Four measures are derived from this source.

(1) Satisfaction with M.I.T. in terms of the following question

If you could choose a university all over again, knowing what you know now about M.I.T., would you choose to come here?

- 1. Definitely yes
- Probably yes
- Undecided
- 4. Probably not
- 5. Definitely not
- (2) an <u>anomie</u> factor, indicating the extent to which students feel a sense of community and being "in place" at M.I.T. This score was based on responses on a six-point scale (from "strongly agree" to "strongly disagree") to the following items*:

With everything in such a state of disorder at M.I.T., it's hard for a student to know where he stands.

I often feel awkward and out of place at M.I.T.

What is lacking in the university today is the kind of friendship that lasts for a lifetime.

It seems to me that other students at M.I.T. find it easier to decide what is right than I do.

Students were better off in the days when everybody knew just how he was expected to act.

Everything changes so quickly these days at M.I.T. that I often have trouble deciding which are the right rules to follow.

The trouble with the university today is that most people don't believe in anything.

^{*}adapted from McClosky and Schaar (1965)

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(3) a political alienation factor, indicating the extent to which students feel that those in positions of power at M.I.T. behave legitimately. This score was based on responses to the following items** (again using a six-point scale):

It seems to me that M.I.T often fails to take necessary actions on important matters even when most people favor such actions.

For the most part M.I.T. serves the interests of a few-organized groups and isn't very concerned about the needs of people like myself.

As M.I.T. is now, I think it is hopelessly incapable of dealing with

all crucial problems facing the university today.

M.I.T. is run by the few people in power and there is not much the student can do about it.

It is difficult for people to have much control over the things officials do in office.

These days M.I.T. is trying to do too many things, including some activities that I don't think it has a right to do.

(4) a personal control factor, indicating the extent to which students feel that they themselves are in control of what happens to them. This score was based on responses to the following items*(again on a six-point scale)

In my case getting what I want at M.I.T. has little or nothing to do with luck.

It is impossible for me to believe that chance or luck plays an important role in my life at M.I.T.

Becoming a success is a matter of hard work. Luck has little or nothing to do with it.

M.I.T. students' misfortunes result from the mistakes they make. There is really no such thing as luch in the university setting. What happens to me at M.I.T. is my own doing.

There is a direct connection between how hard I study and the grades $\ensuremath{\text{I}}$ get.

The average student can have an influence in institute's decisions. In the long run, students at M.I.T. get the respect they deserve.

Institute records were the second source of measures used in this study. They provided the following four measures of academic performance. Measures of units accumulated are used as well as grades for the third semester since the pass-fail system for the freshman year was introduced (for the first time) in 1969-70.

^{**}adapted from Olsen (1960)

^{*}adapted from Rotter (1966)

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- (5) Units 1: units accumulated in the first semester.
- (6) Units 1 & 2: units accumulated in the first two semesters.
- (7) Units 1,2 & 3: units accumulated in the first three semesters.
- (8) Cum 3: grade point average for the third semester.

The source for the last two measures used here was a questionnaire sent to freshmen's faculty advisors in February, 1970.

- (9) <u>behavior style</u>: advisors were asked to consider the following four descriptions of "styles" of student behavior and to indicate which descriptions best approximated each of their advisees:
 - <u>Withdrawn</u>: socially isolated, not identified with any sub-group within the institute; feels powerless to direct his own life within the institute; very deferent to authority; seems anxious; sleeps a lot; misses a lot of classes; does not respond to your initiative to help; confused, no clear goals.
 - Rebellious: vocal in expressing objectives or constraints; extremely sure of his own ideas; ignores rules if they don't suit his purposes; self-oriented; does not build on others' ideas; high energy level focussed against the system; quietly hostile; zealous in promotion of his own ideas; clear goals, but no clear means of achieving them.

 - Self-Directed: clear goals or ideas of what he wants to accomplish; understands system well enough to use it effectively; persistent; high energy level focussed within the system; asks questions, inquiring; self-starter, self-directed.

Only the descriptions, not the labels, were on the advisors' questionnaire.

(10) Advisors were asked to list characteristics of the most and least successful students they had known, to use these descriptions as anchor points for a ten-point success scale and to rate their current advisees on this scale.

Adaptation and Performance Results

As Table 3-1 shows, the measure of satisfaction with M.I.T. in terms of students expressed certainty that they would chose M.I.T. again does not in-

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dicate any significant differences between the two background groups. It is, of course, possible that two groups may indicate the same degree of satisfaction for different reasons. Consideration of this issue is deferred until after all data on first order differences in adaptation have been presented.

Table_3-1: Satisfaction with M.I.T. by Background

		Satisfaction	
	High (would definitely chose M.I.T. again)	Medium (would probably chose M.I.T. again)	Low (urdecided to definitely would not chose M.I.T. again)
Background			
Higher	91 (43%)	77 (36%)	44 (21%)
Lower	88 (47%)	57 (31%)	41 (20%)
	$x^2 = 1.4 \text{ (df = 2) N.}$	S.	

Table 3-2 shows that whereas the lower background group do not appear to be significantly less well adapted to M.I.T. in terms of their feelings of political alienation or personal control, they do experience significantly more anomie. In other words the lower background group feel more "out of place" at M.I.T. and experience less sense of community.

Table 3-2 Higher and Lower Background Group's Mean Schores on Anomie, Political Alienation and Personal Control (sample size (n) and standard deviation (sd) given in parentheses)

	Higher Background Group	Lower Background Group	Significance of t-tests for differ ence in means (two tailed)
Anomie	2.58 (n=207, sd=.78)	2.75 (n=186, sd=.85)	p <. 05
Political Alienation	3.5 (n=212,sd=.97)	3.5 (n=185, sd=1.04)	N.S.
Personal	3.85	3.86	N.S.

(n=187, sd=.70)

(n=215, sd=173)

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Table 3-3 presents mean scores for the academic performance of the two groups in terms of the units and grades measures. In all cases the lower background group's score is slightly below that of the higher background group and the differences in units accumulated reaches a low level of significance.

Table 3-3 Mean Performance Scores of Higher and Lower Background Groups (sample size (n) and standard deviation (sd) given in parentheses).

	Higher Background Group	Lower Background Group	Significance of t-tests for dif- ference in means (two-tailed)
Units 1	58.1 (n=211, sd=13.6)	55.4 (n=180, sd=13.9)	p<.10
Units 1 & 2	110.7 (n=216, sd=18.6)	107.3 (n=185, sd=19.8)	p <. 10
Units 1,2 & 3	156.8 (n=207, sd=26.8)	152.0 (n=177, sd=28.9)	p<.10
Cum 3	4.07 (n=199, sd=.77)	4.02 (n=166, sd=.76)	n.s

Lastly we come to the two measures based on the questionnaire sent to freshman advisors (Here the sample size drops considerably since questionnaires were returned by only about half of the advisors of students who themselves returned questionnaires). Table 3-4 shows a slight indication of poorer adaptation among the lower background group, in that 25.5 percent of them are characterized as "rebellious" or "withdrawn" as compared to 19 percent of the higher background group. Table 3-5 provides somewhat stronger support for this conclusion in that the mean advisor's success rating of the lower background group is significantly below that of the higher background group.

Table 3-4 By background

	Withdrawn	Rebellious	Conformist	Self-Directed
Higher Back-	8	8	36	32
ground Group	9.5%	9.5%	42.9%	38.1%
Lower Back-	6	9	22	22
ground Group	10.2%	15. 3 %	37.3%	37.3%

 $X^2 = 1.3 \text{ (df=3) n.s.}$

Table 3-5: Mean Advisors' Success Rating for Higher and Lower Background groups (sample size (n) and standard deviation (sd) given in parenthesis)

	Higher	Lower	Significance of t-test
	Background	Background	for difference in
	Group	Group	means (two-tailed)
Advisor's	6.76	6.18	(p < .10)
Rating	(N=93, SD=2.4)	(N=72, SD=2.4)	

To summarize, we have found some indications of poorer adaptation on the part of the lower background group in terms of freshman advisors' ratings. academic performance indicators and the measure of anomic. No differences between the two groups were found in terms of personal control, political alienation or satisfaction with M.I.T. (It should also be noted that no reversals were found; none of the measures showed significantly better adaptation in the lower background group.) As far as the question raised by Laumann and Rapoports' work as to whether prior socialization or socialization at M.I.T. best explains the similarity of the occupational achievements of M.I.T. graduates from different social class backgrounds, we must conclude that both factors are important. The moderate level of the differences found suggest that not only intellectually and academically but also socially and psychologically, the process of social mobility, in which the lower background group are involved began before they entered M.I.T. and continues during their time at M.I.T. In the final section of this paper we turn to one specific aspect of the adjustments involved in this process.

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Instrumentality as an Adjustive Mechanism

It was suggested earlier that there might be different sources of satisfaction for the similar levels of satisfaction found in the two groups. More specifically, we want to test the hypothesis that the satisfaction of the lower background group is more instrumental -- more based on specific and visible rewards. The general area of investigation was suggested by studies of blue collar industrial workers. For example, Dubin (1956) and Goldthorpe et al (1968) had argued that the instrumental orientation of blue collar employees contrasted with the relatively intrinsic orientation (satisfaction from the work itself) of white collar employees. It is possible that the upwardly mobile children of lower social-class parents retain this orientation to some degree, as a mechanism for adjusting to the pressures of the new social situations which they encounter. Other studies provide conclusions which lend more direct support to this hypothesis. For example, Becker et al (1961) in their study of medical students showed how the students modified their initial orientation of learning all relevant material toward a more specific and instrumental orientation of learning for tests or learning what the faculty wants. Becker et al did not investigate whether instrumentality was stronger among students from lower social-class backgrounds, but their result suggests that those who are having difficulty adjusting to a new situation may tend to be instrumental in their orientation, and as we have seen in the previous section the lower background group do appear to have somewhat more difficulty in adjusting to M.I.T.

The most closely related study suggesting this line of argument was Sussmann's (1960) study of freshmen in the class of 1961 at M.I.T. She argued that the level of satisfaction found among students from lower social-class backgrounds might be partly an instrumental response to the achievement of getting into M.I.T., while the satisfaction of students from higher social-class backgrounds would be less affected by this factor since they would be

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more likely to take for granted getting into M.I.T. or some equally high prestige university.

Reviewing these previous results led to the formulation of the hypothesis that the lower background group in this study would be more instrumental, and, specifically that this instrumentality would be apparent in a relationship between satisfaction with M.I.T. (in terms of certainty about chosing M.I.T. again) and academic performance indices. Data to test this hypothesis are presented in Tables 4-1 and 4-2. The data support the hypothesis in that, in terms of both units accumulated in the first semester and units accumulated in the freshman year there is a positive, significant and consistent relationship to satisfaction within the lower background group; in the higher background group the relationship is neither significant nor consistent.

<u>Table 4-1</u> Satisfaction by Units Accumulated First Semester by Background

	Higher Background Group			Lower Backg	Lower Background Group	
	Satisfaction			Satisfaction		
Units Accumu- lated First Semester		High (would definitely chose M.I.T. again)	Medium & Low (probably would to definitely would not)	High	Medium & Low	
Low	1st quartil	e 20(42%)	28 (58%)	14(32%)	30(68%)	
	2nd "	18(38%)	29(62%)	21(43%)	28(57%)	
	3rd "	23(41%)	33(59%)	28(57%)	21(43%)	
High	4th "	26 (52%)	24(48%)	20(57%)	15 (43%)	
$X^2 = 2.2$ (3df) n.s.		$x^2 = 7.9 \text{ (3df) } p<.05$				

Table 4-2 Satisfaction by Units Accumulated Freshman Year by Background

			Higher Background Group		Lower Background Group	
		Satisfaction		Satisfaction		
	d	igh (would efinitely hose M.I.T. gain)	Medium & Low (probably would to definitely would not)	High	Medium & Low	
	Units Accumulate Freshman Year	d				
V	lst quarti	le 21(44%)	27(56%)	14(29%)	35 (71%)	
_	2nd "	16(30%)	38(70%)	27(48%)	29 (52%)	
	3rd "	28(48,)	30(52%)	26 (55%)	21(45%)	
ı	4th "	26 (51%)	25 (49%)	21(64%)	12(36%)	
		v2 = 5 0(3df) n c	$x^2 = 11$.	6 (3df) p<.01	

Low

High

These two performance measures are used for the primary test of the hypothesis since, at the time when they indicated their level of satisfaction with M.I.T. they knew how many units they had accumulated in the first semester and had a good idea of how many they would accumulate during the year, since they were already a month into the second semester. On the assumption that, at that time, they had a reasonable idea of how they would perform when grades were introduced in the sophomore year, we may check the hypothesis in terms of the relationship of satisfaction and grade point average for the third semester. This is done in Table 4-3. While the relationship is not highly significant in either group, it is positive and consistent in the lower background group and it is inconsistent and somewhat negative (those with higher grades indicating lower satisfaction) in the high background group.

Table 4-3 Satisfaction by Grade Point Average ("Cum") by Background

			Background Group		Background Group	
			Satisfa	action	Satisfaction	
			High (would definitely chose M.I.T. again)	Medium & Low (probably would to definitely would not)	High	Medium & Low
	CUM					
w	1st	quartile	25(50%)	25(50%)	14(35%)	26 (65%)
	2nd	11	24(51%)	23(49%)	25(45%)	30(55%)
	3rd	11	16(34%)	31(66%)	20(56%)	16(44%)
gh	4th	11	19(38%)	31(62%)	20(61%)	13(39%)
			$x^2 = 4.3$ (3df) n.s.		$x^2 = 5.8$ (3df) n.s.	

Establishing this relationship does not, of course, establish the direction of the relationship as being solely from performance to satisfaction but for our purposes it is sufficient to have demonstrated the existence of the relationship in one group and not in the other. The results indicate a more instrumental orientation among the upwardly mobile, lower background group, a tendency to focus on specific, tangible symbols of performance either as a basis for satisfaction or as a mechanism for demonstrating that one belongs. The interesting question for further research is how far this orientation represents a temporary adjustive mechanism which is gradually replaced by more and less specific sources of satisfaction, and how far it represents a permanent orientation, retained in college and in later life.

Conclusion

Hig

In this paper we have been dealing with the relative adaptation and performance of freshmen at M.I.T., who come from different social-class background. It was made clear that very few of these freshmen come from working-class or blue-collar backgrounds. However, just under half the sample could be seen as being socially mobile in the sense that they were likely to achieve

higher educational and occupational status than their fathers had. Overall adaptation and performance differences between this group and the higher background group were not striking suggesting that the selection and self-selection played a considerable role in determining the similarities in the occupational achievement of M.I.T. students from different backgrounds. However, those differences which were found were always in the direction of somewhat poorer adaptation in the lower background group, suggesting that socialization during the years at M.I.T. does also have a homogenizing influence. In addition, a more instrumental orientation reflected in a strong relationship between academic performance and satisfaction was shown to exist in the lower background group. This raised the question of whether this is a relatively temporary adjustive mechanism or a more permanent orientation in these upwardly mobile individuals.

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References

- Becker H. S. et al, Boys in White: student culture in medical school, Chicago, University of Chicago Press, 1961.
- Blau P. M. & Duncan O. D., The American Occupational Structure New York, Wiley, 1968.
- Carnegie Commission on Higher Education "A Chance to Learn," A Special Report and Recommendations New York, McGraw-Hill, 1970.
- Dubin R., "Industrial Workers' Worlds: a study of the central life interests of industrial workers", Social Problems, 3, 1956.
- Feldman K. A. & Newcomb T. M., <u>The Impact of College on Students</u>, San Francisco, Jossey-Bass, 1969.
- Folger J. K. et al, <u>Human Resources and Higher Education</u>, New York, Russel Sage Foundation, 1970.
- Gerstein M., "Styles of Student Adaptation: Outcomes of the Psychological Contract," M.I.T. Working Paper #536-71, June 1971.
- Goldthorpe J. H. et al, The Affluent Worker: Volume 1: Industrial Attitudes and Behavior, Cambridge, Cambridge University Press, 1968.
- Kinloch G. C. & Perrucci R., "Social Origins, Academic Achievement and Mobility Channels: Sponsored & Contest Mobility among college Graduates." Social Forces 48, 1, 1969.
- Laumann E. O. & Rapoport R. N. "The Institutional Effect on Career Achievement of Technologists," Human Relations, 28, 3, 1968.
- Lipset S. M. & Bendix R., <u>Social Mobility in Industrial Society</u>, Berkeley & Los Angeles, University of California Press, 1959.
- Lynd R. M. & Lynd H. S., <u>Middletown in Transition</u>, New York, Harcourt, Brace & World, 1937.
- McClosky H. & Schaar J. H., "Psychological Dimensions of Anomie," American Sociological Review, 30, 1, 1965.
- Miller S. M. & Riesman R., <u>Social Class and Social Policy</u>, New York, Basic Books, 1968.
- Olsen, M. in Robinson J. P. & Shaver P. R. <u>Measures of Social Psychological</u>
 Attitudes Institute for Social Research, University of Mychigan, 1969.
- Robinson J. P. et at "Measures of Occupational Attitudes and Occupational Characteristics" Appendix A to Measures of Political Attitudes, Institute for Social Research, University of Michigan, 1969.
- Rotter J. B., "Generalized Expectancies for Internal Versus External Control of Reinforcement," Psychological Monographs, 80, 1966.
- Rubin I. R. "Freshman Socialization: the Psychological Contract between the Individual and the Institute," M.I.T. Working Paper #534-71, June 1971.

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- Sussmann L., Freshman Morale at M.I.T.: the class of 1961, Cambridge, Mass., M.I.T. Press, 1960.
- U. S. Bureau of the Census "Characteristics of Students and their Colleges:
 October 1966," Current Population Reports, ser. P-20, no. 183, May 1969.
- "Factors Related to High School Graduation and College Attendance: 1967," <u>Current Population Reports</u>, Ser. P-20, no.185, July 1969.
- "Educational Attainment: March 1970" Current
 Population Reports ser. P-20, no. 207, Nov. 1970.
- "Social and Economic Characteristics of the Population in Metropolitan and Nonmetropolitan Areas: 1970 & 1960". Current Population Reports: Special Studies ser. p-23, no. 37, June 1971.

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