

1-1-1992

Persistence patterns among Latino students attending community colleges : an exploratory study.

Vanessa R. Mas

University of Massachusetts Amherst

Follow this and additional works at: https://scholarworks.umass.edu/dissertations_1

Recommended Citation

Mas, Vanessa R., "Persistence patterns among Latino students attending community colleges : an exploratory study." (1992). *Doctoral Dissertations 1896 - February 2014*. 5084.

https://scholarworks.umass.edu/dissertations_1/5084

This Open Access Dissertation is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Doctoral Dissertations 1896 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

UMASS/AMHERST



312066 0297 9773 8

**FIVE COLLEGE
DEPOSITORY**

PERSISTENCE PATTERNS AMONG LATINO STUDENTS
ATTENDING COMMUNITY COLLEGES:
AN EXPLORATORY STUDY

A Dissertation Presented

by

VANESSA R. MAS

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

September, 1992

School of Education

© Copyright by Vanessa R. Mas 1992

All Rights Reserved

PERSISTENCE PATTERNS AMONG LATINO STUDENTS

ATTENDING COMMUNITY COLLEGES:

AN EXPLORATORY STUDY

A Dissertation Presented

by

VANESSA R. MAS

Approved as to style and content by:



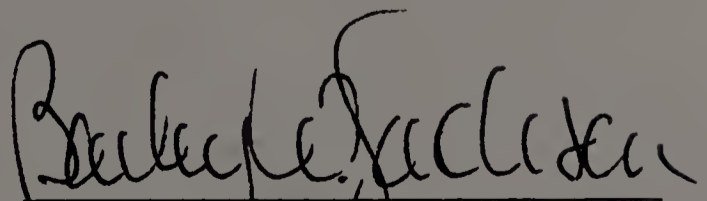
Luis Fuentes, Chair



Gloria Guevara, Member



Juan C. Zamora, Member



Bailey W. Jackson, Dean
School of Education

To

My Father, Pedro T. Rivera

Thank you for showing me the value of an education.
Your love, guidance, and inspiration will live
with me forever.

ACKNOWLEDGMENTS

It is impossible to name all those friends who were with me throughout the course of my doctoral work. Your support, friendship, and patience during very challenging moments kept me going. Thank you all.

Special thanks go to:

- My doctoral advisor, Dr. Luis Fuentes, for his friendship, support, and encouragement. Without his guidance and constructive criticism, this dissertation could not have been possible.
- My committee members, Dr. Gloria Guevara and Dr. Juan C. Zamora, for their friendship and professional guidance through this long process.
- My children, Juan Pablo and Gabriel Ignacio, who learned to be patient at a very young age while I devoted many long hours studying at home. Now we can have lots of fun!
- My best friend, Leandro A. Rivera, for his time and patience reading and editing the various chapters in this dissertation. His insight and research expertise helped me to clarify ideas and pose new research questions.

His positive attitude kept me focused and optimistic through the many moments of despair in the research process.

- My mother, Josefa Calderon, and my sister, Aida Esther Rivera, whose love and encouragement have helped me grow personally and professionally.
- Gloria Correa, who devoted many hours creating a data base and tracking students for this study.
- Maritza Ortiz, Robyn Flynn, Gloria Correa, and Francine Meigs, for "taking over" when time was of the essence.
- Dr. Daniel Asquino, President of Mount Wachusett Community College, for facilitating documents utilized in this study and for his support by granting permission and resources to conduct this study.
- Jane Carney, Bob Gilman, Chris Coolidge, Johanna Kozlowski, and all the staff at Mount Wachusett Community College's Library, for their support during various research stages.
- Paula Davidson from the Data Processing Center at Mount Wachusett Community College, for facilitating with data collection.

- All Latino students at Mount Wachusett Community College, especially those who participated in the study. You are my inspiration. I know you, too, will make it!
- Pilar Hernandez, for her assistance editing the Spanish version of the questionnaire.
- Kenneth J. Cote, Jr., for believing in me and for introducing me as a professional to the field of higher education.
- Nancy Kaminski, for her professional work in typing this document and for her flexibility to work with me on tight time frames.

ABSTRACT

PERSISTENCE PATTERNS AMONG LATINO STUDENTS

ATTENDING COMMUNITY COLLEGES:

AN EXPLORATORY STUDY

SEPTEMBER, 1992

VANESSA R. MAS, B.A., UNIVERSITY OF PUERTO RICO

M.Ed., UNIVERSITY OF MASSACHUSETTS

Ed.D., UNIVERSITY OF MASSACHUSETTS

Directed by: Professor Luis Fuentes

This exploratory study examines the persistence patterns of Latino students attending a two-year college in North Central Massachusetts.

Thirty-three persisting students participated in this study. They answered a questionnaire developed in English and translated into Spanish. Questionnaires were administered by the researcher who is bilingual and bicultural.

Individual interviews were conducted with nine departing students. These interviews were analyzed using Ishikawa's (1982) fish bone charting techniques. The methodology, utilized by Japan's industries for problem-solving identification, was used in this study to generate cause-and-effect relationships and prioritize solutions.

Results of this study conclude that Latino student persistence at Mount Wachusett Community College is affected by external and environmental factors, namely,

health, and financial and family responsibilities. These factors affect goal-oriented and non-goal oriented students at the same rate. Role models of the same ethnic and cultural backgrounds impact students in ways that result in decreased isolation at the institution.

Most salient recommendations for future institutional policy include: comprehensive support services delivered by ethnically compatible staff; increased on-campus job opportunities to increase students' institutional integration; block programming of academic courses during the freshman year; academic achievement recognition; and individual tracking using cause-and-effect charting.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	v
ABSTRACT	viii
LIST OF TABLES	xii
LIST OF FIGURES	xiii
 Chapter	
I. INTRODUCTION	1
Background of the Problem	3
Statement of the Problem	11
Purpose of the Study	12
Significance of the Study	13
Definition of Terms	14
Organization of the Study	16
II. REVIEW OF THE LITERATURE	17
III. METHODOLOGY	28
Research Site	28
Population	29
Limitations of the Study	30
Instrumentation	31
Procedure	35
Summary	37
IV. FINDINGS	38
Introduction	38
Questionnaire Results	38
Demographics and Academic Background	38
Financial Profile	54
Institutional Profile and Academic Advising	54
Faculty Contact	70
Institutional Participation	70

English as a Second Language	70
Goal Commitment	75
Exit Interview	84
Summary	84
V. CONCLUSIONS AND RECOMMENDATIONS	93
Conclusions	93
Recommendations	95
APPENDICES	100
A. PARTICIPANT CONSENT FORM	101
B. QUESTIONNAIRE (ENGLISH AND SPANISH VERSIONS)	104
C. LETTER OF PERMISSION TO ADAPT RYAN QUESTIONNAIRE	130
D. RESULTS TO REMAINING QUESTIONS OF STUDY QUESTIONNAIRE	132
BIBLIOGRAPHY	156

LIST OF TABLES

Table	Page
1. List of Factors to Which Students Attribute Their Persistence at Mount Wachusett Community College (Question #56)	82

LIST OF FIGURES

Figure	Page
1. Data from Question 4: Place of Residence . . .	39
2. Data from Question 3: Marital Status	40
3. Data from Question 2: Sex	41
4. Data from Question 5: Number of Dependents . .	42
5. Data from Question 1: Age	43
6. Data from Question 6: What academic preparation did your mother complete?	45
7. Data from Question 7: What academic preparation did your father complete?	46
8. Data from Question 26: Do you work off-campus?	47
9. Data from Question 8: How supportive would you say your parents are of your academic efforts?	48
10. Data from Question 22: What kind of financial assistance do you receive?	49
11. Data from Question 11: What was your overall grade point average in high school?	50
12. Data from Question 20: What is your overall grade point average at Mount Wachusett Community College?	51
13. Data from Question 15: Are you presently studying full time, part time, or not studying?	52
14. Data from Question 16: What were your original plans when you entered Mount Wachusett Community College?	53
15. Data from Question 13: Why did you decide to come to Mount Wachusett Community College?	55

16.	Data from Question 14: Did you apply to any other college?	56
17.	Data from Question 24: Could you have continued school without financial assistance?	57
18.	Data from Question 27: How many hours do you work?	58
19.	Data from Question 28: How has work affected your academic progress?	59
20.	Data from Question 21: How much time do you devote to your school work a week, outside of your class time?	60
21.	Data from Question 49: Have you used the student support services at Mount Wachusett Community College?	61
22.	Data from Question 50: What are the strengths of these programs?	63
23.	Data from Question 51: What are the weaknesses of these programs and services?	64
24.	Data from Question 53: What recommendations would you offer Mount Wachusett Community College about these support services and programs?	65
25.	Data from Question 54: Do you feel that Latino staff have made a difference in your persistence at Mount Wachusett Community College?	66
26.	Data from Question 55: How would you describe it?	67
27.	Data from Question 34: How would you describe the help your academic advisor is giving you?	68
28.	Data from Question 35: How many times have you and your advisor discussed your educational program?	69

29.	Data from Question 37: Why have you met with your professors?	71
30.	Data from Question 38: How often do you meet with them?	72
31.	Data from Question 39: How would you rate these meetings?	73
32.	Data from Question 41: What campus activities do you participate in?	74
33.	Data from Question 59: Do you feel that your speaking proficiency is better than your writing proficiency?	76
34.	Data from Question 61: How do you think courses taught in Spanish would influence your academic progress?	77
35.	Data from Question 57: What language do you prefer to use most of the time?	78
36.	Data from Question 58: How would you rate your English language proficiency?	79
37.	Factors to which students attributed their persistence at Mount Wachusett Community College?	80
38.	Data from Question 31: How many absences do you usually have in a semester?	81
39.	Factors affecting the persistence of goal-oriented students at Mount Wachusett Community College	85
40.	Factors affecting the persistence of non-goal oriented students at Mount Wachusett Community College	86
41.	Data from Question 9: Did you complete high school?	133
42.	Data from Question 10: Did you complete the General Equivalency Diploma (GED)?	134
43.	Data from Question 12: Why did you decide to go to college?	135

44.	Data from Question 17: What was your intended program of study when you entered Mount Wachusett Community College?	136
45.	Data from Question 18: Are you still pursuing that program of study?	137
46.	Data from Question 19: How many credits have you approved at Mount Wachusett Community College?	138
47.	Data from Question 23: If you receive financial assistance, have you had to supplement your assistance by working?	139
48.	Data from Question 25: If you do not receive financial assistance, do you still work for pay while attending college?	140
49.	Data from Question 29: How many semesters have you been enrolled at Mount Wachusett Community College?	141
50.	Data from Question 30: Have you stopped attending any semester?	142
51.	Data from Question 32: What is your academic major?	143
52.	Data from Question 33: How would you rate your academic performance in your major?	144
53.	Data from Question 36: Do you meet with your professors outside of class?	145
54.	Data from Question 40: Do you belong to any clubs at the college?	146
55.	Data from Question 42: How often do you participate?	147
56.	Data from Question 43: If you do not, what do you think the college can do to encourage students like you to participate?	148

57.	Data from Question 44: How did you feel about Mount Wachusett Community College when you first entered?	149
58.	Data from Question 45: How do you feel now?	150
59.	Data from Question 46: What do you like about Mount Wachusett Community College? . .	151
60.	Data from Question 47: What are some of the things you do not like about Mount Wachusett Community College?	152
61.	Data from Question 48: What kinds of special support services have you received at the college?	153
62.	Data from Question 52: How have these support services and programs helped you at Mount Wachusett Community College?	154
63.	Data from Question 60: If your English writing proficiency is lower, would you say that this has hindered your academic progress at Mount Wachusett Community College?	155

C H A P T E R I

INTRODUCTION

The minority population in the United States is growing at a rate of two to fourteen times greater than the non-minority population (Estrada, 1988). Among minorities, Latinos exhibit by far the fastest growth rate in this country. This is because of the young age of the Latino population, and the higher proportion of women of child-bearing age with a higher rate of fertility (Estrada, 1988).

Wilson and Carter (1988) reported that between 1976 and 1986, the eighteen to twenty-four year old group in the Latino population alone increased by 62 percent. It is expected that the Black and Latino population in that same age group will increase from 5.2 million to 6.6 million during the next twenty years (Estrada, 1988). It is estimated that by 2025, minorities are expected to comprise 40 percent of all college-age youth (Ottinger, 1991).

The Western Interstate Commission for Higher Education (WICHE) and the College Board predict that "nationwide the number of public high school graduates will decline 3.5 percent from 1986-1995. Whites will account for much of the decrease. The number of White high school graduates is

projected to drop by 10 percent between 1986-1995. By contrast, the number of Latino high school graduates will increase by 52 percent" (American Council on Education, 1991, p. 5). In addition, the Commission "projects steady growth for Hispanics in increments of 5,000 to 10,000 students per year. Overall, the number of Hispanic high school graduates is expected to jump from 140,000 in 1986 to 213,290 by 1995" (Carter & Wilson, 1991, p. 6).

Given the overall decrease in the Anglo-American population and the small number of high school graduates in the eighteen to twenty-four year old cohort, colleges will inevitably have to draw from minority groups to keep their enrollments high. If colleges and universities are now faced with students different from the ones they have served in the past, new programs and strategies will have to be in place to increase not only their access but their retention.

In Massachusetts, increases in the Latino population mirror national trends and Latinos are the fastest growing group in the state. Increases in the Black and Southeast Asian population are also taking place but at a slower pace. The U. S. Department of Commerce, Bureau of the Census, reported a 103.9 percent increase in the Latino population in Massachusetts for 1990 (Massachusetts Institute for Social and Economic Research, 1991).

Nationally, most low-income Latino students are concentrated in community colleges (Adelman, 1992, p. 9). Fifty-five percent of all Hispanics in college during 1990 were enrolled in two-year colleges (Carter & Wilson, 1991, p. 12). These colleges experienced a 13 percent increase in four-year institutions during the same period of time (Rendon & Nora, 1989). Among 1980 high school graduates, Hispanics were more likely to enter two-year institutions [53 percent] (Ottinger, 1991). However, they have also been less likely to persist to degree completion even when they have followed traditional paths to college (Ottinger, 1991).

These statistics point for the need to concentrate our efforts on determining ways to increase persistence among Latinos and other minority groups in community colleges. The vitality of the nation may be at stake should we overlook this pressing issue.

Background of the Problem

Contemporary community colleges trace their rapid expansion to the Truman Commission on Higher Education of 1947. As Parnell (1986) noted in his book, The Neglected Majority: "The Truman Commission Report became the blueprint for developing higher education in post-war America and in it the phrase 'community college' first appeared" (p. 840).

Nationally, 51 percent of all college freshmen attend community colleges, according to recent statistics from the American Association of Community and Junior Colleges (Massachusetts Community College President's Council, 1990).

Because of their emphasis on inclusivity rather than exclusivity, their open access, and lower tuition costs, community colleges reach people who would otherwise be locked out of educational opportunities if they depended solely on senior institutions of higher learning. In 1983-1984, there were 1,066 two-year public colleges enrolling 10,707,876 credit and non-credit earning students in the United States (Parnell, 1986, pp. 84-85).

Community colleges have demonstrated that they can address the needs of minority students. Low-income Latino students, for example, must juggle families, jobs, financial responsibilities, and, in many instances, acquire English language proficiency. They know that this proficiency is necessary to compete academically on an equal basis with their English-speaking counterparts.

Community college growth in the state of Massachusetts happened quickly. Beginning in 1960, the state created a total of 15 community colleges in less than 13 years. The creation of community colleges was intended to respond to the increasing need for educational opportunities in different localities. Massachusetts community colleges are

designed to be accessible to students within a 25-mile radius of the institution. The colleges are publicly supported and have an open admissions policy. This accessibility is aimed at removing barriers to higher education and is part of the process of democratization of postsecondary education to include members of otherwise excluded groups.

Community colleges prepare students in programs concluding with their Associate's Degree, career-oriented programs, and programs for students transferring to senior institutions. In the past, they had served a traditional student body. Today, however, large numbers of non-traditional students are seeking admission into those postsecondary institutions. Most are single parents who can only attend part-time; many hold full-time or part-time jobs while attending college; and some have deficient academic preparation, are of low-income background, and are first-generation college attenders.

Current enrollments also reflect the increasing cultural, linguistic, and ethnic diversity of our society. This means that colleges are now serving many linguistic minorities who may lack the English-language proficiency needed to succeed in college. "For people of color and students with limited-English proficiency, such as Latinos and recent Asian immigrants, community colleges are the overwhelming choice. As the fastest growing K-12

population in Massachusetts, Latinos are a particularly important new student choice. Community colleges must be able to provide sophisticated programs in English as a Second Language designed to enable these students to successfully complete college-level studies in a variety of fields" (Massachusetts Community College Presidents' Council, 1990).

In Massachusetts, community colleges continue to increase the state's work force with a significant number of college-educated Latino workers. Currently, Massachusetts community colleges serve nearly 60 percent of all Latino students enrolled in postsecondary educational institutions. While community colleges have attempted to meet the needs of Latino students, they often fall short of the special support services needed for students to adjust to college life. Consequently, many such students experiencing academic difficulty have opted to leave college before completing their degrees. These cases have increased in the past years and pose new challenges to our state colleges.

Retention of Latino students, the fastest growing ethnic group in the state, becomes especially pressing at a time when enrollment of traditional Anglo-American students is declining. This, coupled with declining higher education state funding, higher accountability from state and federal legislators, and declining financial aid

monies to students, may jeopardize the student population of community colleges and a work force for the next century. This minority student group will also decline if special services are withdrawn, further eroding the community college population.

Thus, it may seem that understanding retention may not only be an institutional responsibility but also a prerequisite for the survival of many state colleges in the 1990s.

Student persistence at the postsecondary level is affected by many factors. Most of the research on this topic addresses factors such as social and academic integration, goal commitment, academic preparation, socioeconomic status, and family background. The research, conducted largely by four-year institutions, involves primarily traditional students. Consequently, theories and models developed (Pascarella & Chapman, 1983; Terenzini & Pascarella, 1980; Tinto, 1987) posit factors that may or may not affect students attending community colleges and/or two-year commuter institutions.

Research concerning Hispanic student participation and persistence in community colleges is not abundant in spite of the fact that approximately 60 percent of all Hispanic students enrolled in institutions of higher learning are concentrated in community colleges (Rendon & Nora, 1989). It is the point of entry into postsecondary

education for low-income Hispanics and for many the opportunity to transfer to a senior institution to pursue a Baccalaureate Degree.

"At the Baccalaureate level, the community college's role in facilitating Hispanic academic progress in collegiate studies takes on paramount importance" (Rendon & Taylor, 1989-1990).

Latino students attending community colleges tend to come from lower socioeconomic levels. In spite of lower tuition costs, students depend on loans and financial aid to pursue their education. Nora, in a 1990 study entitled "Campus-Based Aid Programs as Determinants of Retention Among Hispanic Community College Students," found both campus and non-campus based resources to be significant in the retention process of Latino students at the community college level (Nora, 1990). Hispanic community college students who received higher levels of non-campus and campus-based awards were enrolled in more semesters, earned more semester hours, and received some form of credential (Nora, 1990, p. 35).

Low-income Latino students attending community colleges are, for the most part, first-generation college attenders. Parents tend not to support their educational efforts. A history of academic failure from previous schooling and unfocused academic goals also affect the students. They are at a disadvantage in institutional

settings where these factors are a prerequisite for success.

Their low-income status requires that Latino students attending community colleges work part-time or even full-time to support themselves and their families while attending college. This status allows them little or no time to participate in campus activities that will presumably result in higher levels of social integration with the institution.

Colleges and universities are socializing agents. As such, they require students to adapt and integrate in order to succeed. This adaptation requires that low-income, first-generation Latinos adopt values that are not within their immediate experience. While most of these students attempt to adapt within short periods of time, academic institutions remain monolithic and unresponsive to students' needs. These incongruencies in expectations have resulted in larger numbers of non-persisters in community colleges. It would seem that students who perceive their academic institutions as responsive would be more likely to persist in spite of factors impinging on their academic performance.

Institutions aware of the seriousness of student persistence are moving towards the development of retention strategies and programs in an effort to increase their retention rates. Some models have attempted to

counterbalance students' preparation deficiencies and increase integration through comprehensive programs that run through the course of an academic year. Other institutions have addressed remediation by offering developmental programs and services prior to the commencement of college, often during the summer.

Latino students, especially those who are first-generation college attenders, need support services if they are to succeed in college. As Richardson (1989) noted in the Chronicle of Higher Education: "They need ladders with every rung in place in order to have a fair opportunity to overcome the incomplete preparation for college, unfocused educational objectives, and the discrimination that has been part of the minority experience in the United States" (p. A-48).

The education of Hispanics and other minority group members in this nation continues to be critical, and is probably one of the biggest challenges facing the United States as we approach a new century. Community colleges which have traditionally prepared members of under-represented groups for full participation in society have a special responsibility to rise to this challenge. The seriousness of this issue requires that we take a hard look at the persistence of Latinos and other minority group students in order to lead the Commonwealth's

community colleges to the forefront of successful postsecondary education of Latino students.

Minority education and participation in our nation's economy is necessary if we are to regain our place in the global economy. This means that with regard to the development of effective retention programs for Latinos, the best interests of the state and the students are equally in agreement.

Statement of the Problem

Mount Wachusett Community College (MWCC), a comprehensive postsecondary educational institution belonging to the Community College System of the state of Massachusetts, is the site for this research study. The number of Latino students enrolled at Mount Wachusett Community College has increased in the past two years (Fall of 1989 to Fall of 1991) to 168. Nonetheless, their persistence has been erratic. Those students who persist do so in spite of the many barriers they have had to overcome.

This persistence pattern is disconcerting especially when, as stated previously, community colleges are the preferred and most financially viable postsecondary educational route for low-income Latino students. In North Central Worcester County, Mount Wachusett Community College is the only two-year, public, postsecondary

educational institution with open access available to low-income Latino students. The following questions are raised:

1. What factors are causing some students to persist:
 - (a) Are these students experiencing their academic careers in ways that result in greater persistence?
 - (b) How can we reach those most at risk because of lessened persistence?
2. What kinds of retention programs and services would contribute to the persistence of Latino students at the community college level?

This research study is an attempt to seek answers to these questions.

Purpose of the Study

Student persistence in institutions of higher learning is affected by many factors. These factors vary according to the type of institution. Although many of those factors may affect students in community colleges, one needs to look at the characteristics that make these cases unique, more specifically, the factors affecting low-income Latino students at the community college level. Most of these

factors have been identified as a result of research conducted in residential four-year institutions, both public and private, with traditional Anglo-American students (Pascarella & Chapman, 1983; Tinto, 1987). Few studies, however, have approached the topic from the community college or Latino perspective.

Thus, the main purpose of this research was to seek answers to the following research questions:

1. What are the characteristics of Latino students at Mount Wachusett Community College?
2. What are the factors affecting Latino student persistence at Mount Wachusett Community College (environmental, academic, and institutional factors)?
3. What is the effect of financial aid on Latino student persistence at Mount Wachusett Community College?
4. To what extent does absenteeism predict student persistence?
5. What are the implications of Latino student persistence for institutional policy?

Significance of the Study

A deeper understanding of the roots of Latino student persistence is essential. It is essential in order to

develop clearly defined institutional strategies and policies in the area of retention that may result in better educational opportunities and higher persistence rates for this segment of the population in the Commonwealth of Massachusetts.

Experience and demographics have demonstrated that when it comes to Latinos and other minority group students, recruitment is not a vital issue. Rather, their successful performance to degree completion is what poses the greatest challenge. Few community colleges in Massachusetts have formalized ways to study Latino student persistence. Lacking this data, they are at a disadvantage to address the problem. Each institution must be in a position to study their own causes of attrition to address the problem. The findings of this study will attempt to produce conclusions which can be used as a first step in developing systemwide retention policies and strategies in addressing the problem. The completion of this study paves the way for future studies in cities with a larger Latino population in community colleges.

Definition of Terms

In order to begin with a common frame of reference, the significant terms used throughout this study are defined:

- Absenteeism: Five or more absences during a single semester.
- Goal Commitment: A student's expressed willingness and determination to pursue an educational career in an institution of higher learning.
- Latino: Any student who traces his or her roots and/or language to a Spanish-speaking background or country.
- Non-Persister: Any Latino student who has interrupted his or her career for one semester or more.
- Persister: Any Latino student who has been enrolled at Mount Wachusett Community College four or more semesters without interruption and/or completed a Certificate or Associate's Degree program or has transferred to a senior institution.
- Retention: The number of Latino students enrolled at Mount Wachusett Community College for four semesters or more.

Organization of the Study

This dissertation consists of five chapters.

Chapter I presents the background, statement of the problem, purpose of the study, significance of the study, and definition of terms. Chapter II provides a review of the literature pertaining to all factors under investigation, including state and institutional documents at Mount Wachusett Community College, theories, and doctoral dissertations on related topics. Chapter III describes the methodology used. The approach to procedures for instrumentation and data collection as they relate to the specific research questions are included. Chapter IV centers on an analysis of the data and the interpretation of findings as they relate to the research objectives guiding the investigation. Chapter V includes a summary of the study, implications for further research, and recommendations for the development of future programs and policies on student retention at state community colleges.

C H A P T E R I I
REVIEW OF THE LITERATURE

This chapter summarizes significant research on the topic under investigation through the review of the most recent literature on the subject. It includes an in-depth study of published research, institutional and state documents, federal publications, and doctoral dissertations.

Research on the topic of persistence has been largely conducted in four-year private institutions and has involved primarily traditional students in residential colleges or universities. Most of the research includes factors such as social and academic integration, goal commitment, academic preparation, socioeconomic status, and parental educational attainment, primarily affecting student persistence.

Tinto (1987) theorizes that an institutional-student fit is a prerequisite for persistence. "Experiences, academic and social, which serve to integrate the individual into the life of the college, also serve to heighten attachments and therefore strengthen individual commitments both to the goal of education and to the institution" (Tinto, 1987, p. 5).

Other models explore the relationship between personal characteristics and the nature of the institution

(Chapman & Pascarella, 1983). Others also address gender, educational goals, and student's intention to return, as strongly related to student persistence (Voorhees, 1987). Noel (1987) sustains that persistence is a by-product of student satisfaction. Students persist "when they are having an exciting, substantive learning and personal growth experience that they can relate to their future development and success" (Noel, 1987, p. 2).

Bean and Metzner (1985), in their article entitled "A Conceptual Model of Non-Traditional Undergraduate Student Attrition," pose that "the chief difference between the attrition process of traditional and non-traditional students is that non-traditional students are often more affected by the external environment than by the social integration variables affecting traditional student attrition" (p. 485). Non-traditional students are very heterogeneous. They may come "from rural or urban settings; may be rich or poor; Black, White, or Hispanic; 18 years or older; not employed, working full- or part-time, or retired; male or female; with or without dependents; married, single, or divorced; enrolled for vocational and avocational reasons in a single course or in a degree or certificate program" (Bean & Metzner, 1985, p. 488). This same heterogeneity is what makes it so difficult to attempt a definition of these students, according to the authors.

Failing to recognize these differences prevents us from addressing the root of the problem.

Low-income Latino students attending community colleges have a similar profile. Therefore, it would seem that the conceptual model developed by Bean and Metzner would be most appropriate in attempting to describe the Latino experience at two-year institutions. These Latino students are, for the most part, older; hold full- or part-time jobs; commute to school; attend full- or part-time; are academically underprepared; vary in their degree of English language proficiency; and, because of external responsibilities, are less likely to integrate socially with the institution. It seems then that for Latino students, as "for non-traditional students, academic integration is paramount" (Bean & Metzner, 1985, p. 489).

Ryan (1989), in a study conducted at the University of Massachusetts in Amherst, found that "academic integration occurred in the form of relationships with faculty members both inside and outside the classroom" (p. 81). Faculty members were perceived as "supporting and caring" (p. 81). Ryan also found a strong relationship between Puerto Rican students' participation in academic and personal support services and their persistence. "The Bilingual Collegiate Program enabled many Puerto Rican students to integrate into the university community, while still maintaining their own cultural identities. By

maintaining their own cultural identities, Puerto Rican students were better able to adapt to the university with a minimum of cultural conflict between their own and the predominantly White American culture of the campus" (Ryan, 1989, p. 85).

These findings are important in understanding the academic experience of Latinos in community colleges. It would seem that increased contact with faculty members in community colleges may serve both functions, increase social integration as well as academic integration. Thus, satisfactory interaction may result in higher persistence, as pointed out by Ryan (1989).

Investigators have looked at the impact of financial aid packages on student persistence given the limited financial resources of Latino students in community colleges and the rising costs of postsecondary education. "Financial aid has a stronger effect on the persistence of two-year students than four-year students" (Murdock, 1987, p. 81). Murdock also found financial aid to have a stronger effect on "low socioeconomic status students" (p. 92). Nora, in his 1990 study of retention among Hispanic community college students, found higher retention among students with higher financial aid awards. Others have found overestimated financial statements by Hispanic students in completing their financial aid application form (Olivas, 1986). Consequently, low-income

students could be receiving lower amounts of financial aid at a time when they most need it. Facing lower financial resources, they may decide to leave.

An analysis of the literature on student departure confirms that retention has many dimensions. "It begins with the student recruitment and ends with the follow-up activities that provide assistance in making choices of program, on-campus work opportunities, transfer institution, and career employment. Pre-college orientation has also proven helpful along with the type of continuing support that says to the students 'We Care'. Students no longer have the right to fail. The coming decade will see attrition rates decline and transfer and career success increase" (Cohen, 1984, p. 8).

Bell (1984), in his article entitled "Grades as a Predictor of Student Attrition," stated that there are no dropout personalities only individual personalities interacting with the different campus environments at various times in their mutual changing lives" (p. 14). He added that multiple variables operate concurrently to cause a student not to persist (p. 14). However, he found that grades and grade point averages, along with other pre-enrollment factors, were highly accurate predictors of attrition rates among Richland College students (pp. 15-17).

Bell (1984) believes "attrition rates can be reduced if students who are experiencing difficulties can be more

adequately served. For instance, a peer counseling program for all students can improve retention rates and help students in their educational and social development (p. 18).

Cohen (1984), in his article "Helping Ensure the Right to Succeed: An ERIC Review," talks about the notable comeback of orientation activities after the decline of the "'right to fail' era of the 1960s and 1970s. All orientation programs have the intention of providing students with a program-affiliated identity early on, assisting students with their career and academic goals, and above all encouraging them to maintain continuing enrollment in courses in which they have a chance for success" (p. 5).

Several factors contribute to the success of the particular orientation program. One of these is the absence or presence of faculty, counselors, and other participating staff with whom the student will eventually spend time throughout the course of the semester.

The use of fellow students as teacher aides has been a popular strategy in the retention effort. Usually based at learning centers, these trained students work with peers in mathematics, reading, and writing skills. They generally work in small groups or provide one-on-one tutoring. On some occasions, tutorials have also been expanded to subject matter areas, providing support

to those courses such as biology, algebra, and calculus.

Astin (1975) speaks about the benefits of peer tutoring itself. Students who work as peer tutors are less likely to drop out of school. The opportunity to work with peers on campus gives them a chance to get more involved in campus activities.

Universities, aware of the pressing need to educate minorities, have developed initiatives targeted to the retention of this particular segment of the population. The University of California at San Diego, in an attempt to increase student academic and social integration to counterbalance initial disadvantages (Meyers & Drevlow, 1982), developed a summer program integrating academic and personal support services. The main emphasis was on developing a student-institutional bonding that resulted in higher retention of minority students. The reality of underpreparation that plagues minority students makes it essential that remedial and academic work be integrated in any such program. The level of preparation of minority students is generally lower than that of the majority, a fact directly related to minorities' overall socioeconomic status (Johnson & Turner, 1974).

Community colleges are commuter schools by nature, and students must juggle jobs, families, and other responsibilities, as well as their academic work.

Consequently, they spend less time on campus and on the social ties that residential students experience. It is still most likely that the departure of such students will be the result of deficient academic skills or goal commitment. Subgroup characteristics, such as gender and ethnicity, are not emphasized in this model.

Research on two- and four-year schools suggests that academic integration appears to have a greater indirect effect on dropouts than social integration (Pascarella & Chapman, 1983; Pascarella & Wolfle, 1985; Tinto, 1987). In two-year commuter colleges, goal commitment appears to have a greater effect than in four-year residential schools (Pascarella & Chapman, 1983).

In the mid-1980s, Purdue University developed a program directed to increase the representation of minorities in science and engineering programs. A year-long orientation exposed students to the university, introduced academic majors, and provided career and job opportunities information.

Exposure to faculty and continuing science students provided positive interaction and reinforcement and resulted in increased student motivation to pursue science careers (Johnson, 1986). This program recognized that "social isolation, loneliness, cultural shock, and lack of commitment to minority students have been barriers to college attainment for many minority students" (Astin, 1982).

Several methods for data gathering have been used by researchers. "The single most widely used technique in education" has been the questionnaire (Isaac & Michael, 1982, p. 133). Carefully structured and previously tested for calibration, this instrument can be a helpful and economical tool for data gathering. Researchers using mailed questionnaires, however, run the risk of having a low response rate since not all questionnaires mailed are returned by the respondents. The possibility of low response rates may affect research results and therefore needs to be addressed early on. Adding open questions provided a source for data other than what is solicited in the questionnaire. Follow-up letters, postcards, and telephone calls have been suggested as ways of increasing response rates. Interviews, another method used, have the advantage of eliciting more responses not drawn by questionnaires (Jackson & Rothney, 1961). They allow the researcher to go into greater depth to elicit responses and probing when necessary (Isaac & Michael, 1982, p. 138).

It would seem that in order to increase the response rate and accuracy in responses, a combination of both procedures would be most promising. This approach would reduce the influence of questionnaire bias and allow for direct access to information from respondents to the questionnaire.

"Cause-and-effect diagrams show us most clearly the causes so we can take action quickly" (Ishikawa, 1982, p. 20). Ishikawa's charting provided structure for the analysis of cause-and-effect from the factor and variable (cause) to resulting attrition (effect). "A cause-and-effect diagram is useful in helping us to sort out the causes . . . and organize the mutual relationships" (Ishikawa, 1982, p. 19). Such charting allowed enhanced presentation on individual profiles in responses during exit interviews.

Pareto charting provided the distinction between the significant few and the trivial many.

Correlations were not sought. The lack of an abundant population would reduce the significance of relations. Such interdependencies could have been inferred erroneously.

Summarizing, from the review of the literature on student persistence at the postsecondary level, it appears that a number of diverse factors affect students' staying power. Socioeconomic, environmental, and academic factors all seem to affect student persistence. In addition, social and academic integration, goal commitment, and parental preparation can have a positive or negative effect and may make a difference in student persistence.

Persistence in community colleges seem to be affected most by external factors. When compared with students in

four-year colleges and universities, it appears that the social integration of these students is not a determinant factor in their persistence. Rather, family responsibilities, environment, and financial factors have a direct effect on students.

C H A P T E R I I I

METHODOLOGY

This chapter describes the methodology utilized in this exploratory study. The approach for procedures for instrumentation and data collection as they relate to the specific research questions to be studied have been included. It incorporates the innovative approach in the use of Ishikawa's (1982) fish bone charting techniques to trace interdependencies on the causes of student departure.

Research Site

Mount Wachusett Community College (MWCC) is a comprehensive postsecondary educational institution belonging to the Community College System of the state of Massachusetts. The college, with an enrollment of 5,331 (day and evening) students, is located in North Central Worcester County and has 24 towns and three cities in its service area. Mount Wachusett Community College is the only community college providing postsecondary educational opportunities in the cities of Fitchburg, Leominster, and Clinton. These cities have experienced a rapid growth in Latino student population during the past three years. At the postsecondary level, Mount Wachusett Community College, with an open admissions policy and lower tuition costs,

has been a feasible route for Latinos exiting public schools to enter postsecondary education. Even Latinos that have dropped out of school later enroll in general equivalency diploma (GED) preparation programs and enter the college to pursue an Associate's Degree program.

The researcher is presently Director of the Visions Program at Mount Wachusett Community College. In that capacity, she oversees the delivery of personnel and academic support services to students of disadvantaged backgrounds. The Visions Program seeks to increase access and retention to postsecondary education for its 255 student participants. The researcher holds a Bachelor's Degree in Psychology and a Master's Degree in Education with a concentration in Counseling and School Psychology. This academic preparation and seven years of work experience in higher learning allows the researcher to address this exploratory study from a qualitative rather than an exclusively quantitative point of view.

Population

The target population of this exploratory research study consisted of all Latino students enrolled full- or part-time at Mount Wachusett Community College from Fall of 1989 to Fall of 1991. The Data Processing Center at Mount Wachusett Community College assisted with the

identification of the target population. Of these, 56 met the definition of a persister used in the study. A "Participant Consent Form" introducing the researcher, identifying the nature and purpose of the study, and requesting participation as an interviewer was sent to all 56 students that constituted the target population (see Appendix A).

Limitations of the Study

The target population were Latino students attending Mount Wachusett Community College residing in North Central Massachusetts.

All Latino students enrolled at Mount Wachusett Community College from Fall of 1989 to Fall of 1991 were invited to participate in the study. Pre-contact with the 54 students was established through a letter identifying the researcher and describing the study to be conducted. A breakdown by Latino subgroups was not issued. The small size of the group suggests that any subgroup generalizations should be avoided due to the lack of statistical significance.

An attempt to delineate a persister profile was made. Nonetheless, caution should be exercised before attempting to draw conclusions on results obtained from this limited population.

Instrumentation

A four-part questionnaire (see Appendix B) included questions containing demographic information as well as questions pertaining to study variables. The questionnaire, originally developed in English, was translated into Spanish. Students were offered the choice to be interviewed in the language of their preference. The questionnaire was personally administered by the researcher (who is proficient in both English and Spanish) during interviews ranging from 45 to 60 minutes in length. Student records obtained through the Data Processing Center at Mount Wachusett Community College were also part of the research. Open-ended questions were included in the questionnaire as a basic source for soliciting reasons or motivations for persisting where the questionnaire could not have anticipated particular motives. These open-ended questions were used specifically in measuring commitment to an education.

Exit interviews were solicited from students in the target population who had opted to leave Mount Wachusett Community College after having persisted for four semesters or more. These interviews were personally conducted by the researcher. Interview results cited multiple causes which seemed to build up into the eventual disruption of seemingly solid academic resolve. A different tool other

than descriptive statistics was sought by the researcher. The use of Ishikawa's (1982) fish bone charting techniques was incorporated to trace interdependencies on the causes of interruption of educational goals. The charting technique consisted in the breakdown of factors (gathered in the interviewing process). Some of these factors (called causes) have interdependencies between and among themselves. These factors are then interconnected into the logical sequence of events which builds a stick-chart resembling a fish bone. All factor "causes" lead to the "effect," which in this case was academic disengagement.

Pareto analyses was applied to all of the questions of this study to determine general preference out of the multiple choices in the questionnaire (Ishikawa, 1982). Pareto analyses consist of the organization of histograms generated out of each answer in the questionnaire in order of importance--from the most frequent outcomes to the less relevant. Review of these charts have a graphic message on the relative importance of the responses to a particular question. Given the fact that the population of the study is too limited to be summarized in statistical parameters, the Pareto charts present the outcomes of each question of the study in terms of relevance.

The discipline in the use of these problem-formulating techniques is, therefore, a significant contribution to this study and to the methodology on this particular type

of research. Without this approach and these tools, it would be difficult to process and recognize general tendencies without the risk of missing potentially important findings.

The format of the research questionnaire utilized in this study was similar to the one developed by Dr. Merle Ryan from the University of Massachusetts at Amherst. Dr. Ryan's (1989) doctoral dissertation, entitled "Persistence Patterns of Puerto Rican Students at the University of Massachusetts at Amherst," served as a model for this research.

The interview questionnaire included questions on factors relevant to Latino students attending community colleges. Permission was granted by Dr. Ryan to adapt her questionnaire for this research study (see Appendix C). A list of variables included in the questionnaire follows:

- Demographic Information
- Academic Background
- Family Background and Environmental Background
- Financial Aid
- Academic Performance
- Institutional Satisfaction
- Faculty Contact

Answers to questions guiding this exploratory study were sought from the following sources:

- Data from Mount Wachusett Community College's student records;
- Personal interviews; and
- Information on services contributing to Latino student persistence from responses to the questionnaire.

More specifically:

1. The characteristics of Latino students attending Mount Wachusett Community College were derived from the answers to questions posed in the questionnaire, personal interviews, and Mount Wachusett Community College's student records.
2. Factors causing Latino students to persist at Mount Wachusett Community College were the result of answers to the questionnaire and personal interviews.
3. The effect of financial aid on Latino student persistence at Mount Wachusett Community College was determined by answers to the questionnaire, personal interview, and summary using Ishikawa's (1982) fish bone charting technique. Mount Wachusett Community College's Financial Aid Office assisted with information on student aid.

4. The extent of absenteeism as a predictor of student persistence was determined from answers to the questionnaire as well as by the personal interview.
5. The implications of Latino student persistence for institutional policy was a result of conclusions from data obtained from the questionnaire, Mount Wachusett Community College's student records, a Pareto Analyses on questionnaire outcomes, and Ishikawa's (1982) analyses (fish bone) on the exit interviews of students who disengaged.

Some questions were reproduced similar to those in Dr. Ryan's original questionnaire. Once constructed, the questionnaire was pilot tested for calibration. Field testing resulted in changes and adaptations of some questions. As a result of the pilot test, the instrument was translated into Spanish (see Appendix B).

Procedure

Fifty-six Mount Wachusett Community College students who fit the description of "persister" as defined in the study were identified. Pre-contact was established through a letter of introduction accompanied by a

"Participant Consent Form" (see Appendix A). This letter was mailed to all Latino students enrolled at Mount Wachusett Community College from Fall of 1989 to Fall of 1991. Persisters in the study also included students who had graduated with an Associate's Degree or transferred successfully to a senior institution. Thirty-three students (or 59 percent) of the 56 students solicited responded to the invitation to participate in the study. Follow-up letters were sent to the non-respondents. Four letters were returned by the Post Office due to unknown forwarding addresses. No additional effort was made to trace these students due to lack of information about new forwarding addresses and time limitations for data collection.

Thirty-three students answered the questionnaire. Interviews were conducted by the researcher either personally or over the telephone. Telephone interviews were required for those students not residing in the college's service area. One of the students had relocated in Puerto Rico. Each interview, conducted in English or Spanish, had a duration of 45 to 60 minutes.

Nine (N=9/33) students (or 27 percent) withdrew from Mount Wachusett Community College after they were originally interviewed by the researcher. Those students were contacted for information pertaining to their decision to interrupt their studies. This approach allowed the

researcher to directly access (free of questionnaire bias) information on factors affecting the students' decision to leave. Each interview was 30 to 45 minutes in length. An unstructured format was utilized for this second interview.

Summary

Chapter III described the methodology used for this exploratory study. The approach to procedures for instrumentation and data collection as they relate to the specific research questions were included.

Chapter IV will focus on an analysis of the data and interpretation of findings as they relate to the research objectives guiding this study.

C H A P T E R I V

FINDINGS

Introduction

This chapter addresses findings from this exploratory research study. It includes a profile of Latino students at Mount Wachusett Community College. Answers to the guiding questions in the study will be addressed. Some of the results, previously supported by the literature on students attending two-year colleges, are addressed. Results to the remaining questions of the questionnaire are found in Appendix D.

Questionnaire Results

Demographics and Academic Background

Latino students at Mount Wachusett Community College are primarily residents of the cities of Leominster and Fitchburg [N=16/33] (see Figure 1). They are largely single [N=21/33] (see Figure 2) females [N=27/33] (see Figure 3) with no dependents [N=18/33] (see Figure 4). These students are primarily over 21 years old [N=30/33] (see Figure 5). Twenty-seven respondents [N=27/33] have mothers who did not enter college; 24 [N=24/33] had mothers who did not complete high school; and 3 [N=3/33] had mothers



Figure 1. Data from Question 4: Place of Residence.

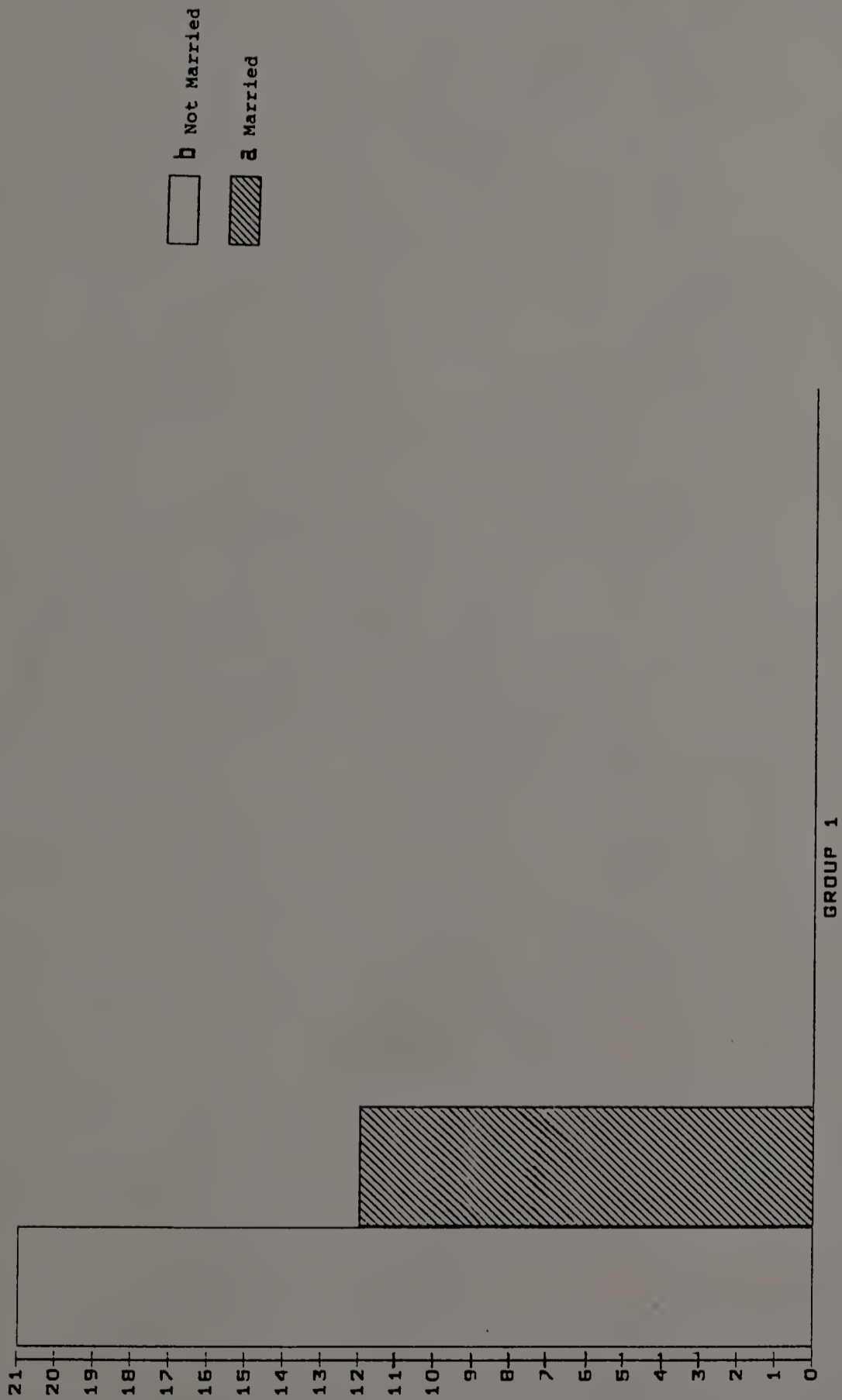


Figure 2. Data from Question 3: Marital Status.

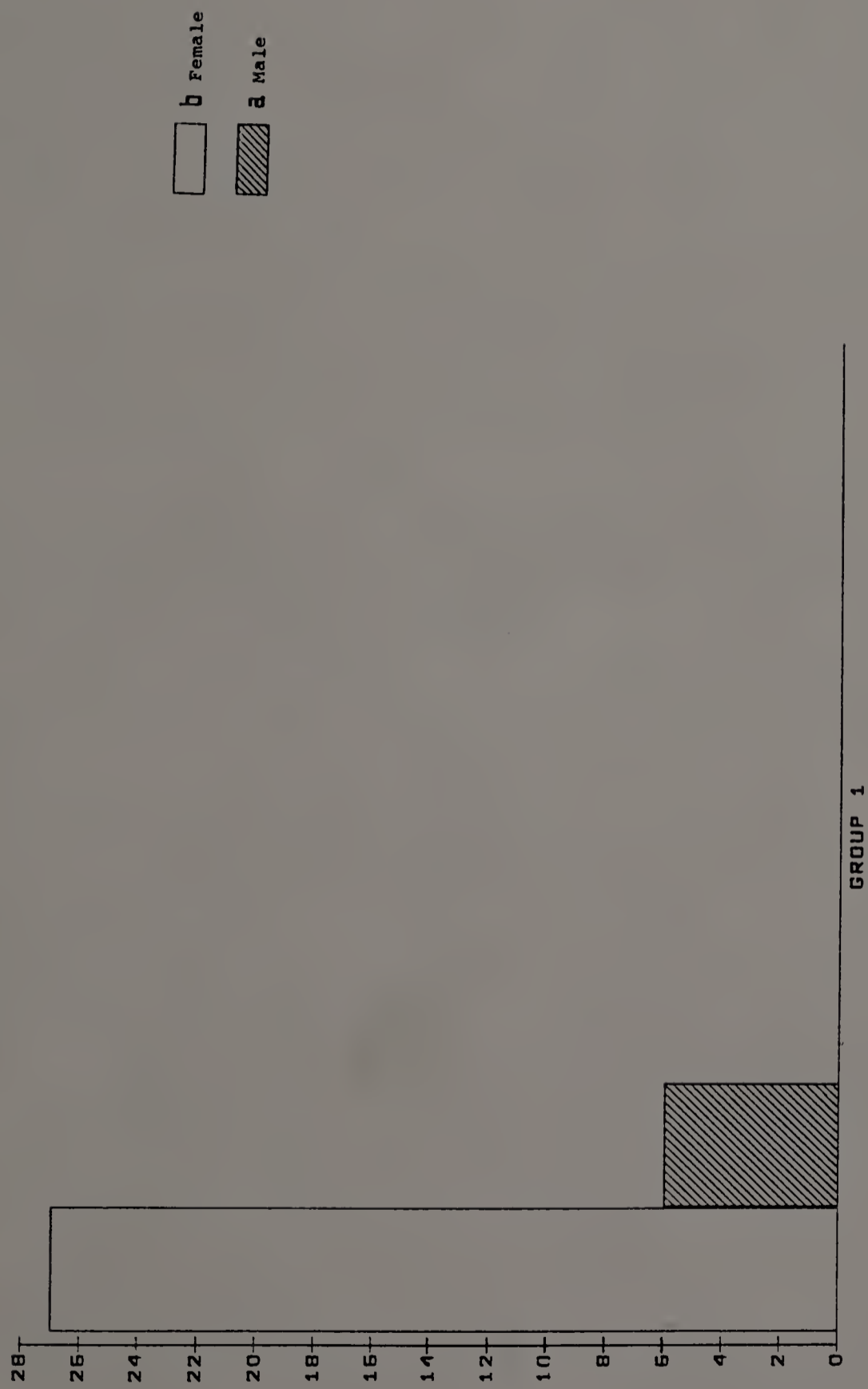


Figure 3. Data from Question 2: Sex.



Figure 4. Data from Question 5: Number of Dependents.

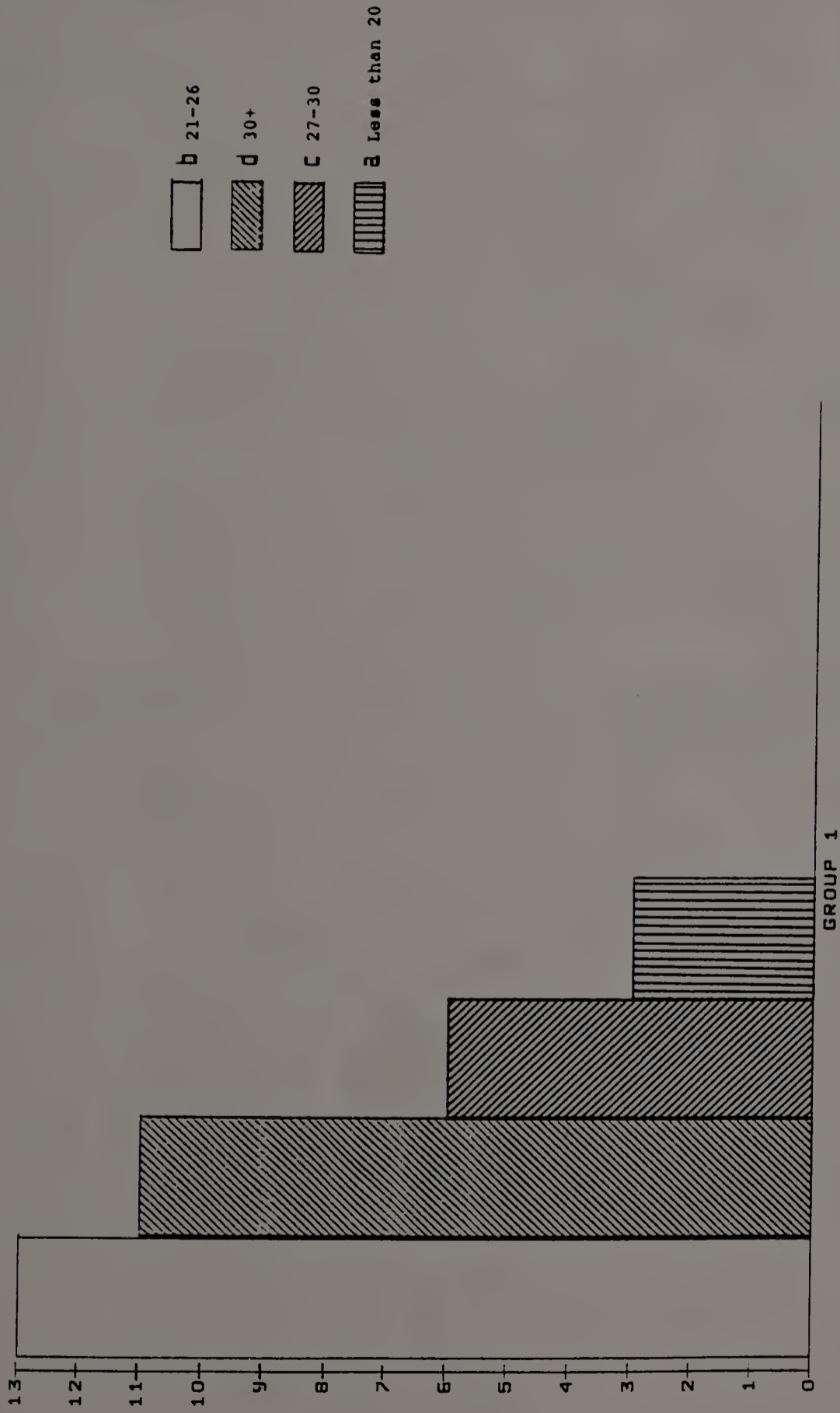


Figure 5. Data from Question 1: Age.

who completed high school (see Figure 6). Thirty respondents [N=30/33] had fathers who did not enter college; 11 [N=11/33] had fathers who completed high school; and 19 [N=19/33] had fathers who did not complete high school (see Figure 7). Latino students commute to school and work [N=28/33; or 70%] while attending college, mostly holding off-campus jobs [N=15/33] (see Figure 8). Although the students are emancipated and less likely to live with their parents, they describe their parents as being supportive of their academic goals [N=22/33; or 67%] (see Figure 9). They depend on Pell Grants [N=25/33] (see Figure 10) and some other source of financial support in order to attend college.

The academic background of the Latino students includes a high school diploma with a grade point average (GPA) better than 2.5 [N=27/30] (see Figure 11). Most [N=24/32] (see Figure 12) of these students have maintained a grade point average within the same range. Of these students, 12 are currently studying full time [N=12/33], 10 [N=10/33] attend on a part-time basis, and 11 [N=11/33] have graduated (see Figure 13). Most enter the college to obtain an Associate's Degree [N=23/33] but first enroll in the English as a Second Language Program in order to acquire English language proficiency [N=15/33] (see Figure 14). Latino students from the college's service area choose Mount Wachusett Community College because of



Figure 6. Data from Question 6: What academic preparation did your mother complete?



Figure 7. Data from Question 7: What academic preparation did your father complete?

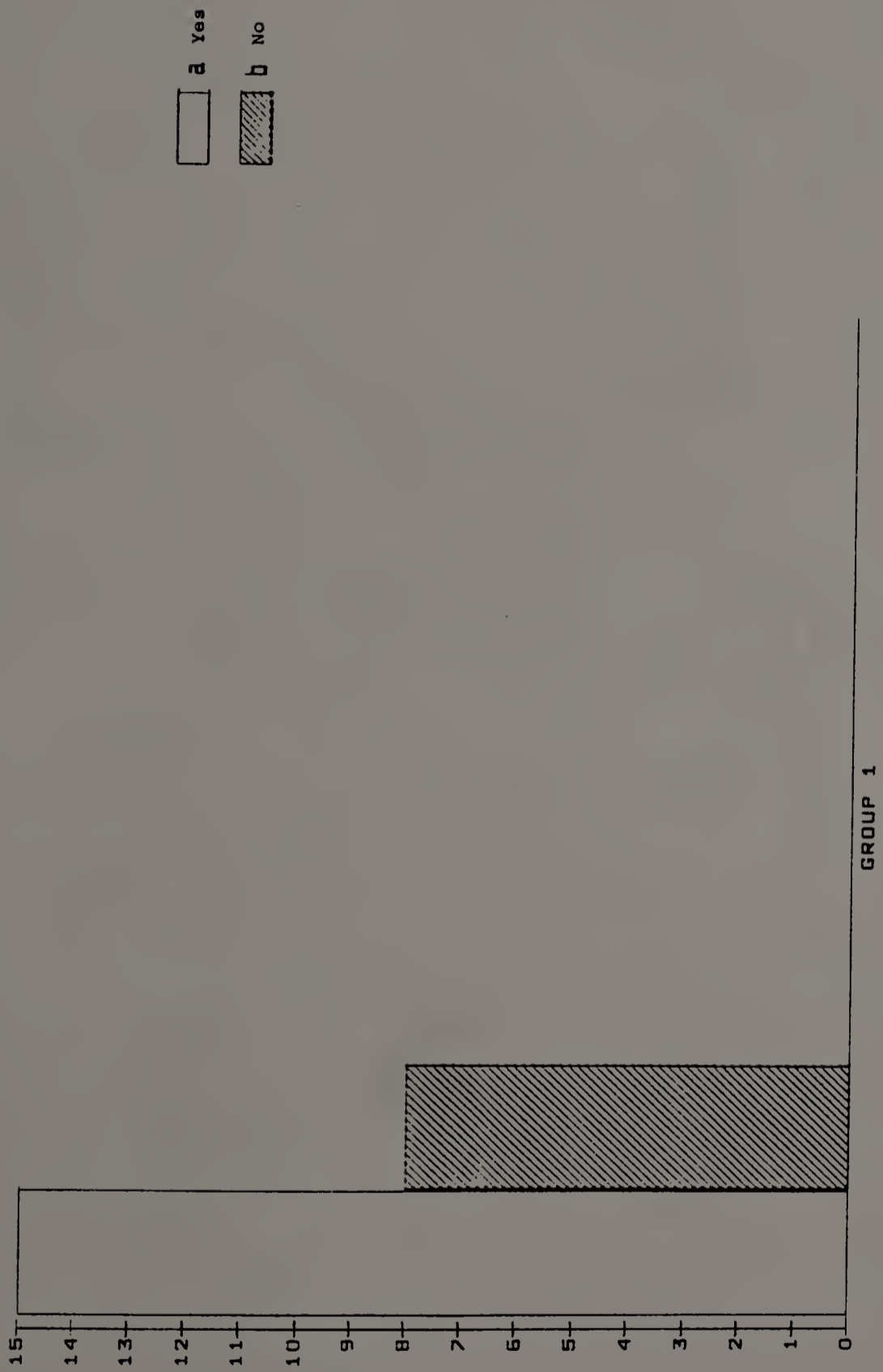


Figure 8. Data from Question 26: Do you work off-campus?

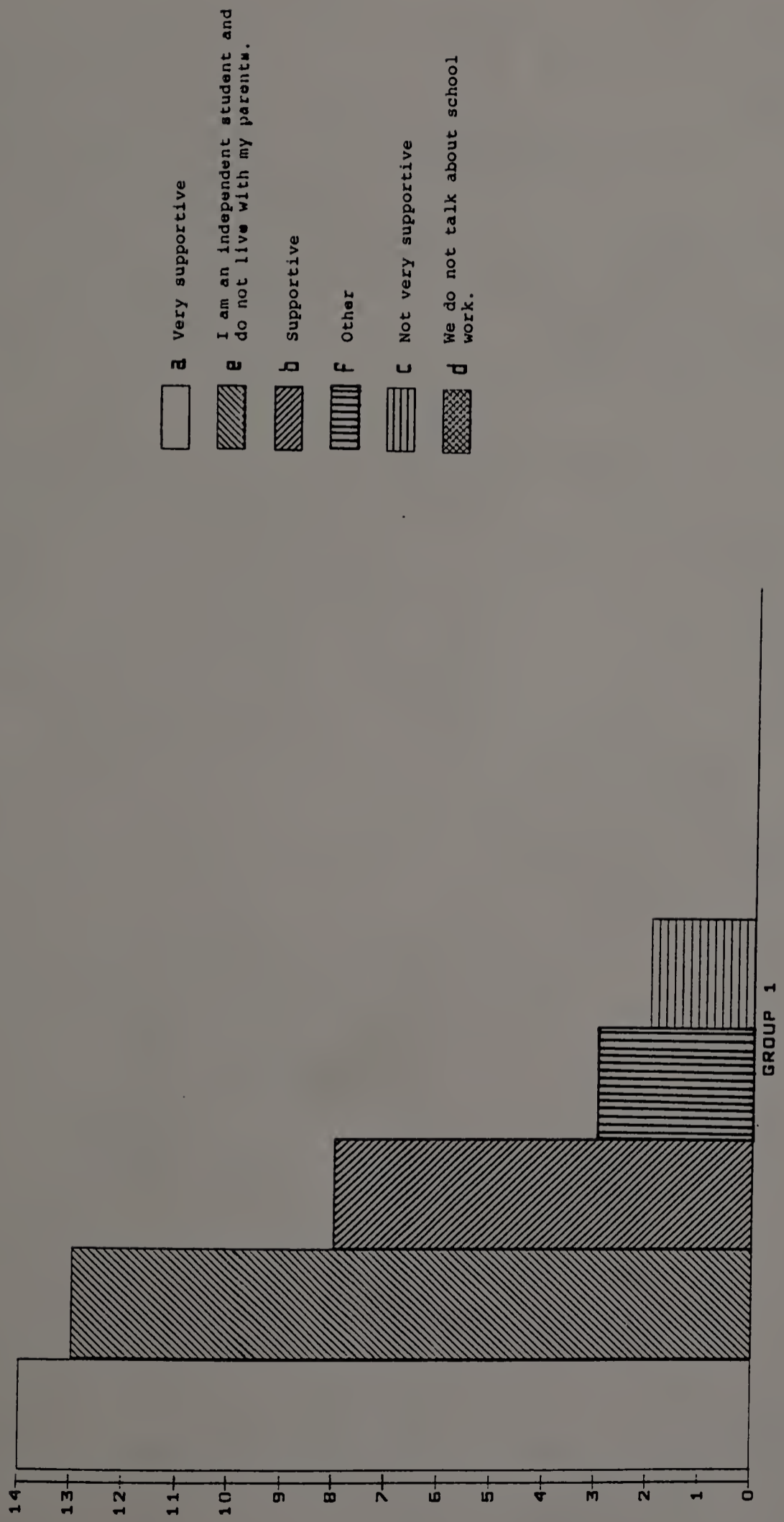


Figure 9. Data from Question 8: How supportive would you say your parents are of your academic efforts?



Figure 10. Data from Question 22: What kind of financial assistance do you receive?



Figure 11. Data from Question 11: What was your overall grade point average in high school?

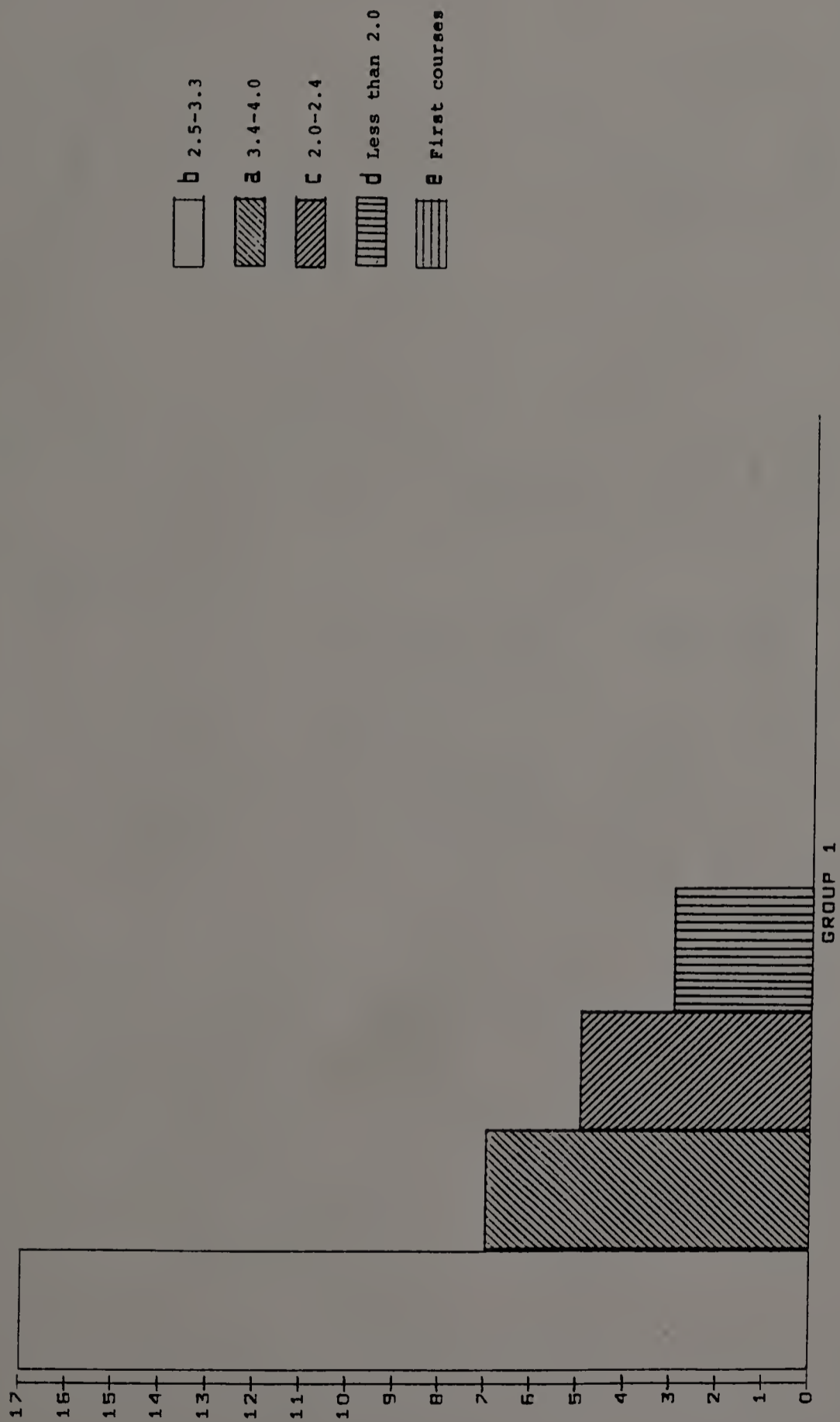


Figure 12. Data from Question 20: What is your overall grade point average at Mount Wachusett Community College?

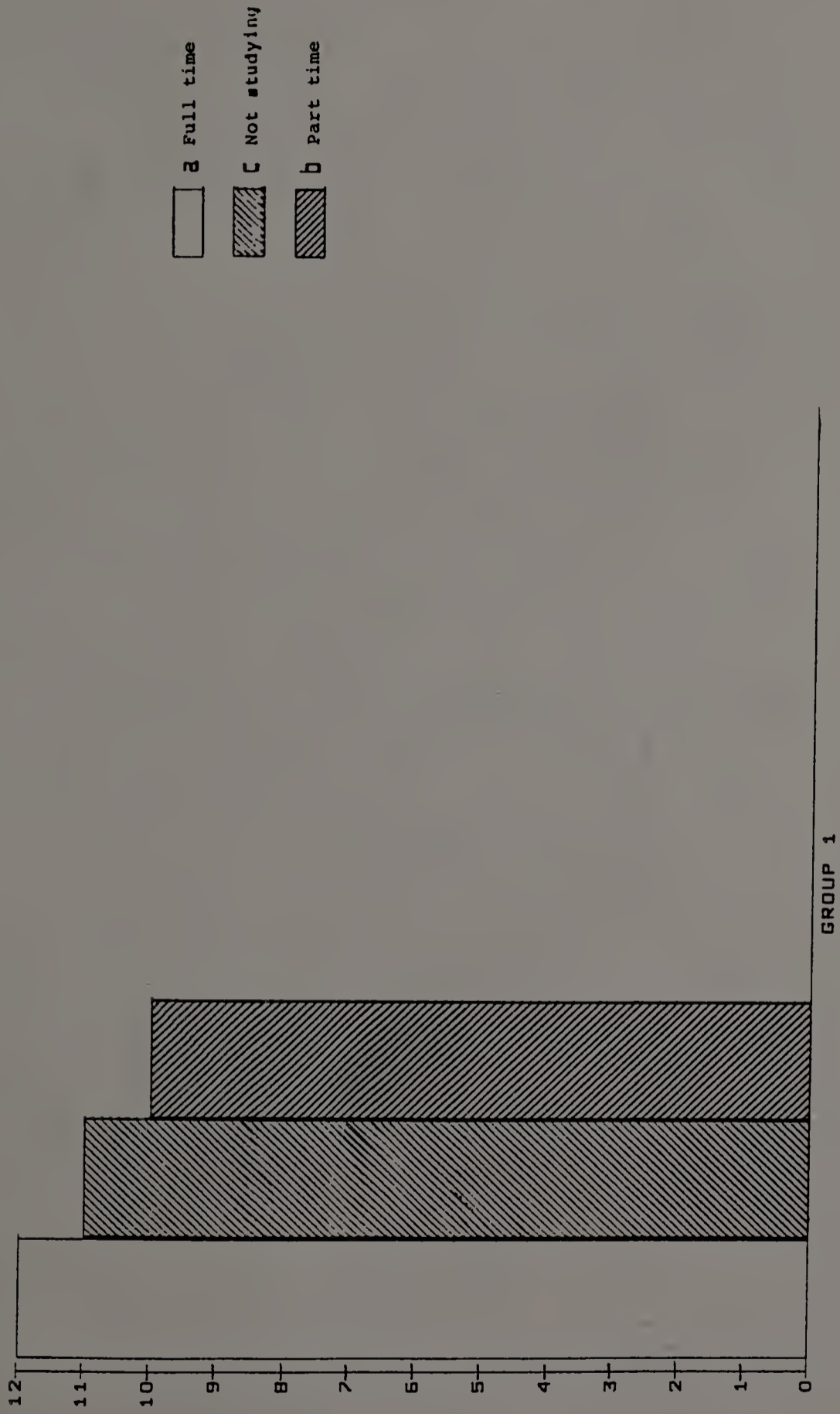


Figure 13. Data from Question 15: Are you presently studying full time, part time, or not studying?

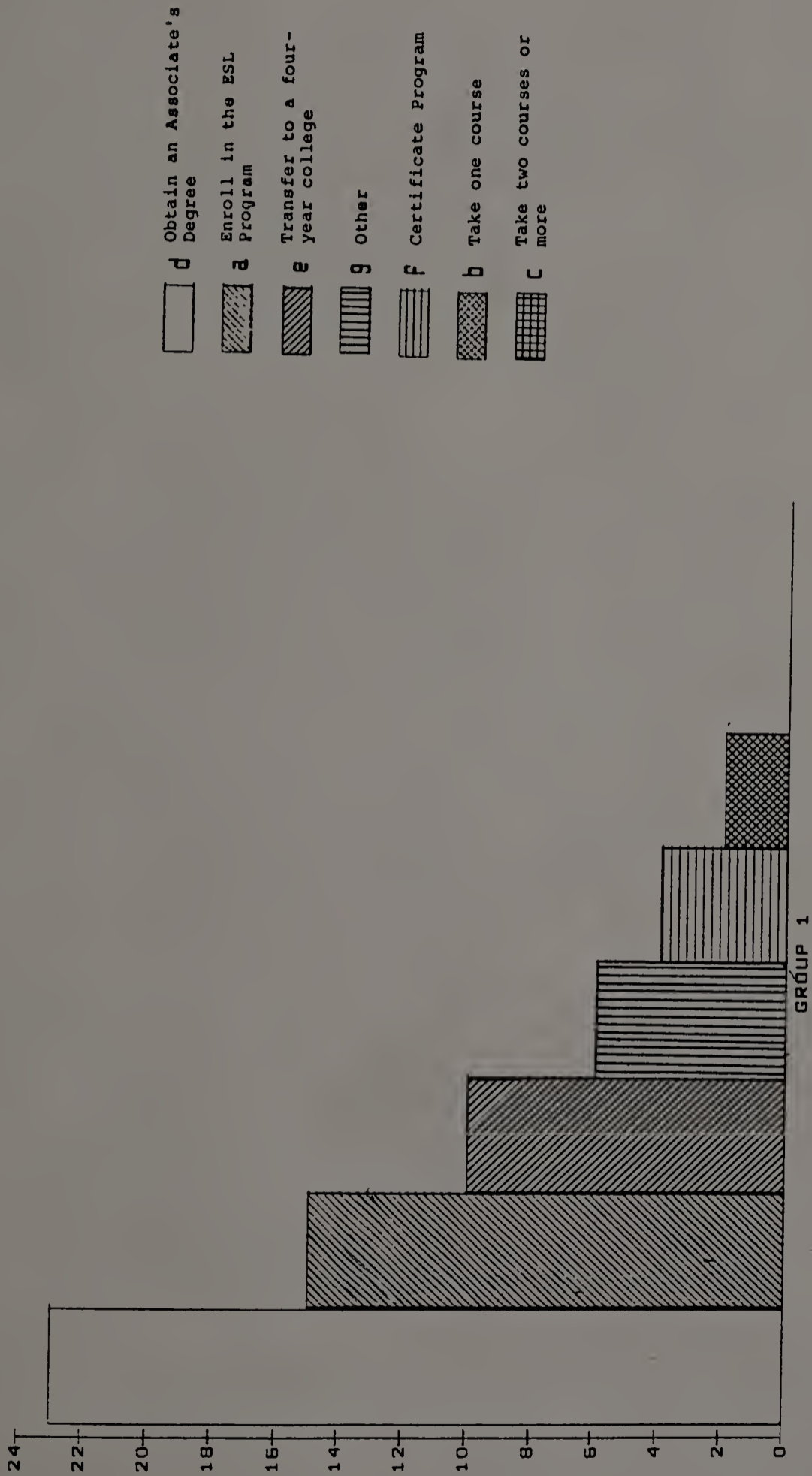


Figure 14. Data from Question 16: What were your original plans when you entered Mount Wachusett Community College?

its convenient location [N=18/33] and low tuition cost [N=11/33] (see Figure 15). Most did not apply to any other college [N=25/33] before they chose Mount Wachusett Community College (see Figure 16).

Financial Profile

Latino students at Mount Wachusett Community College are most likely to be Pell Grant recipients (N=25/33) (see Figure 10) and receive some other form of financial assistance while attending the college. Twenty-seven [N=27/33] students indicated that they could not have continued their education without financial aid (see Figure 17). Those who did not receive financial aid work 16 hours or more [N=14/18] (see Figure 18) primarily in off-campus jobs [N=15/23] (see Figure 8). Of those who hold off-campus jobs, 18 [N=18/23] indicated that work had affected their academic performance (see Figure 19).

Sixteen [N=16/33] indicated spending 10 hours or more in independent study time (see Figure 20).

Institutional Profile and Academic Advising

When asked if they have taken advantage of support services at the institution, most of the Latino students [N=21/33] indicated having used them (see Figure 21). Most students cited counseling, advising, assistance with financial aid applications, and services in their native language [N=18/33] as strengths of these services

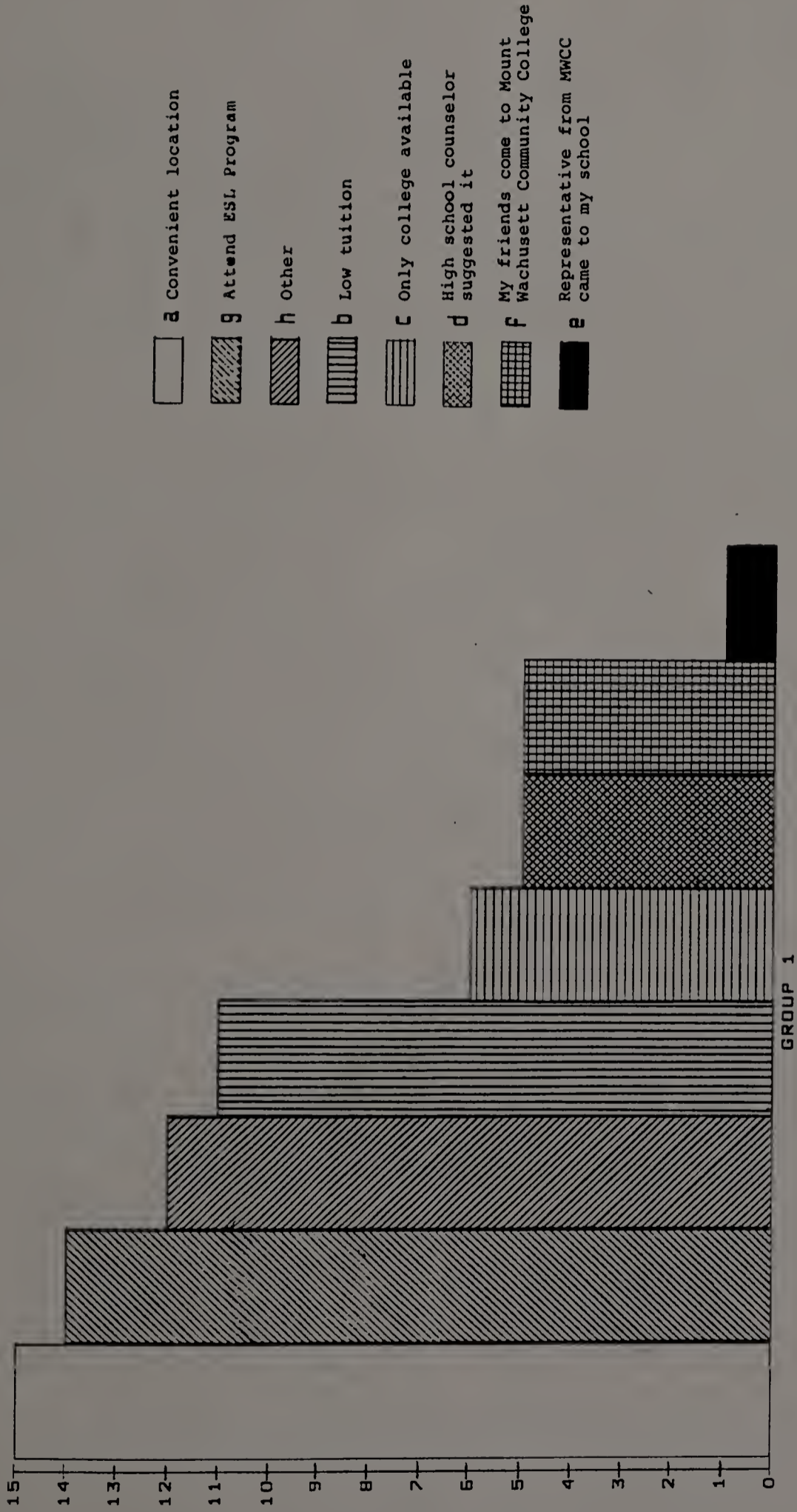


Figure 15. Data from Question 13: Why did you decide to come to Mount Wachusett Community College?

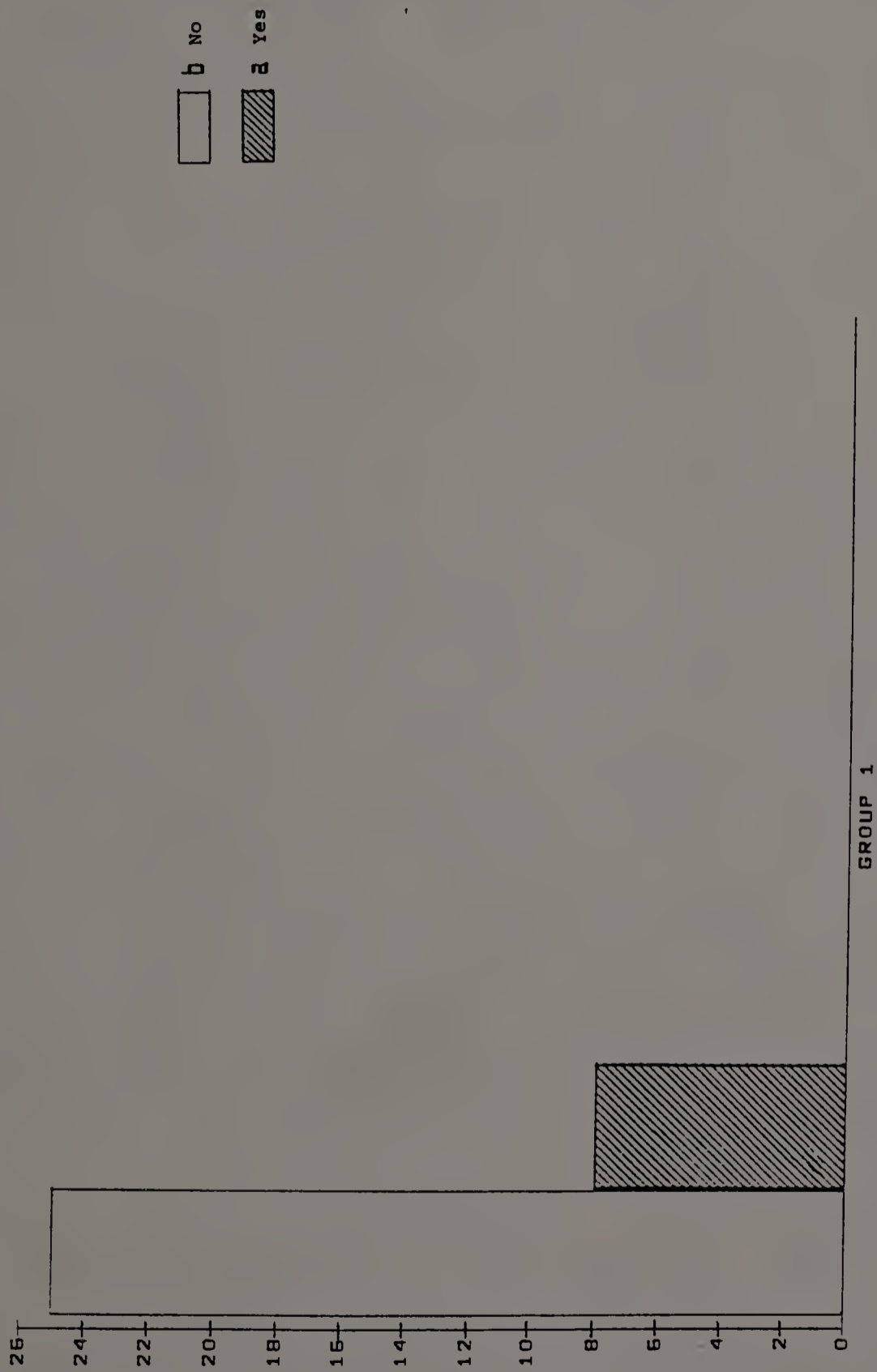


Figure 16. Data from Question 14: Did you apply to any other college?

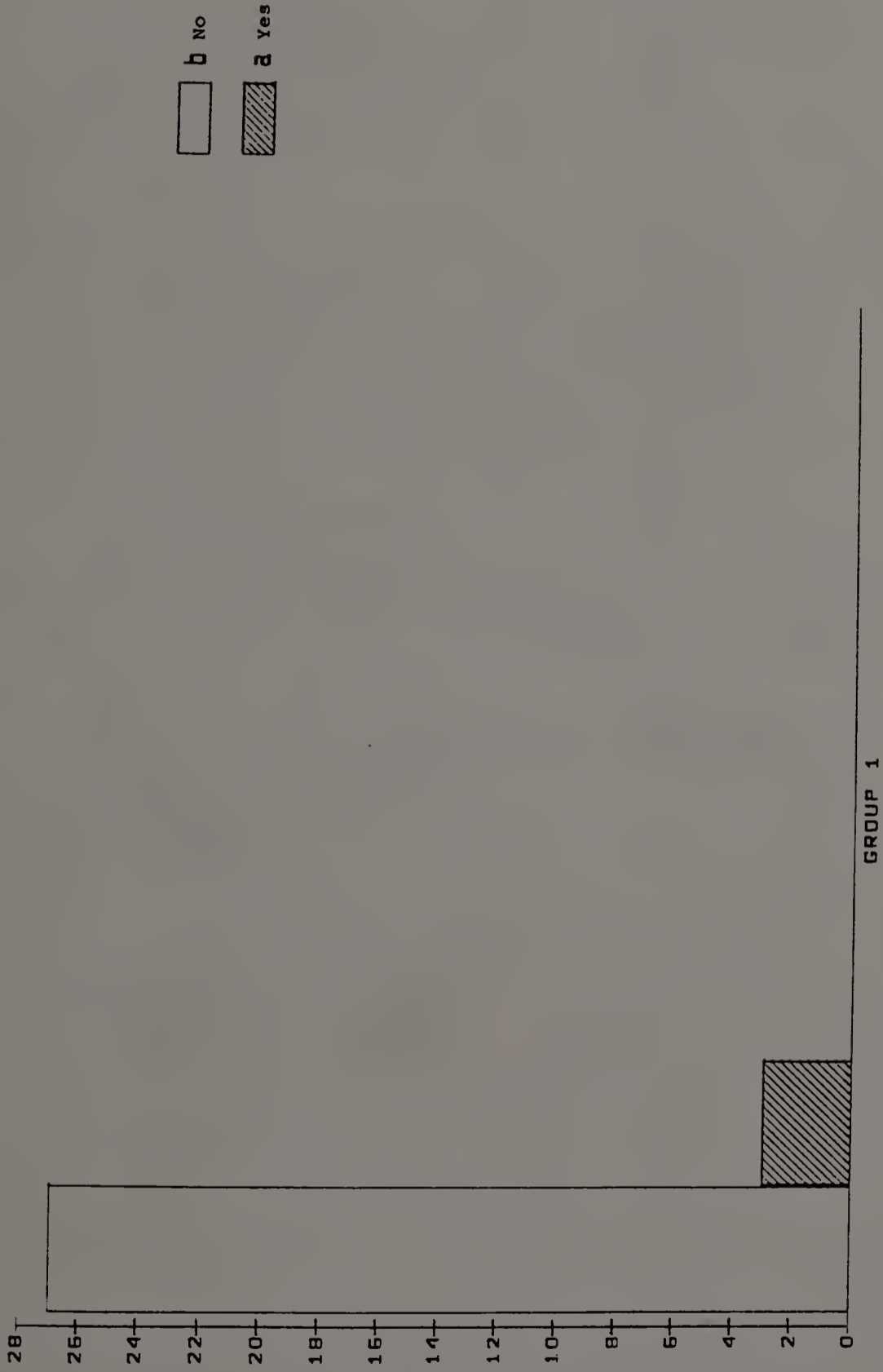


Figure 17. Data from Question 24: Could you have continued school without financial assistance?



Figure 18. Data from Question 27: How many hours do you work?

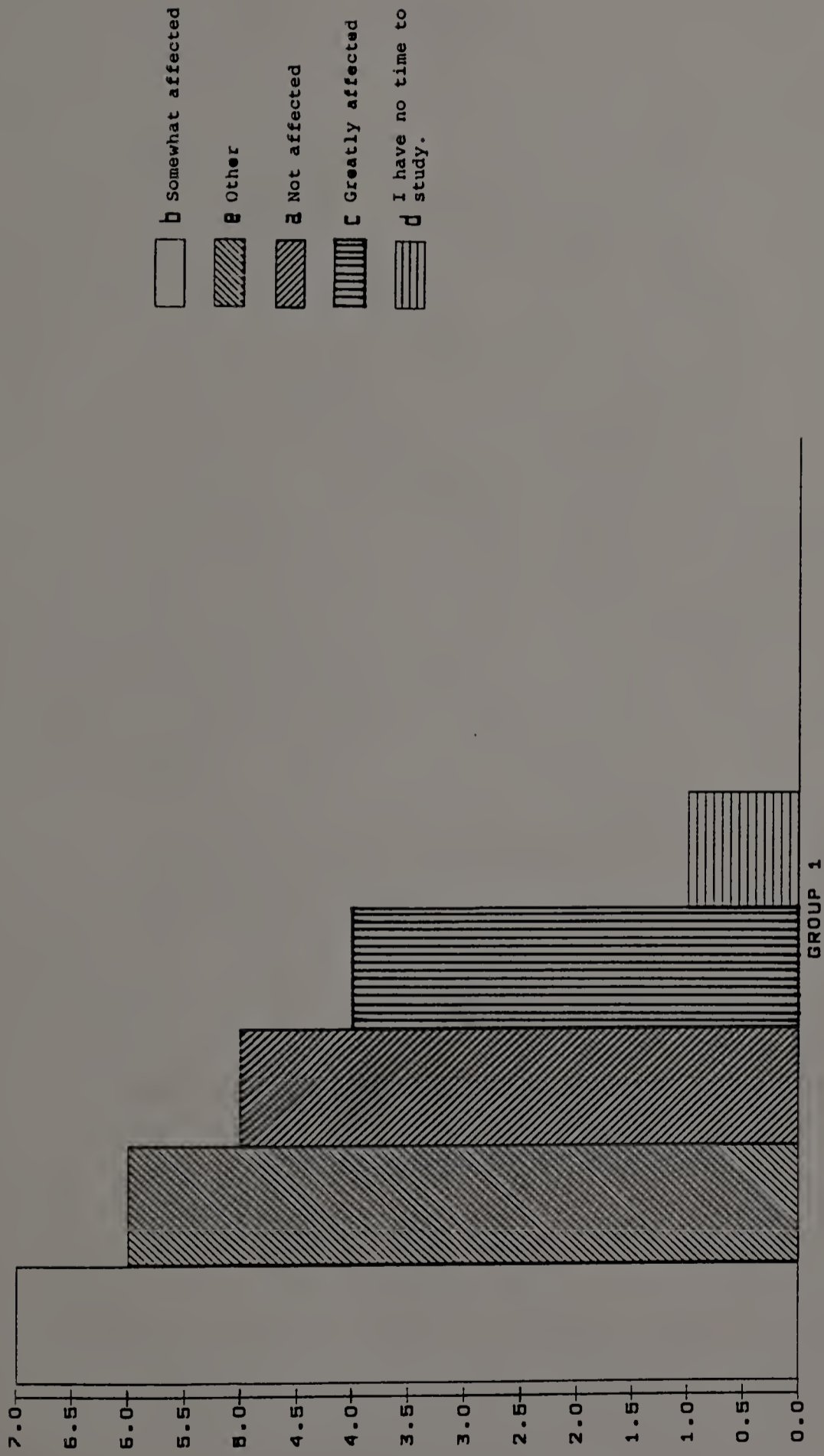


Figure 19. Data from Question 28: How has work affected your academic progress?



Figure 20. Data from Question 21: How much time do you devote to your school work a week, outside of your class time?

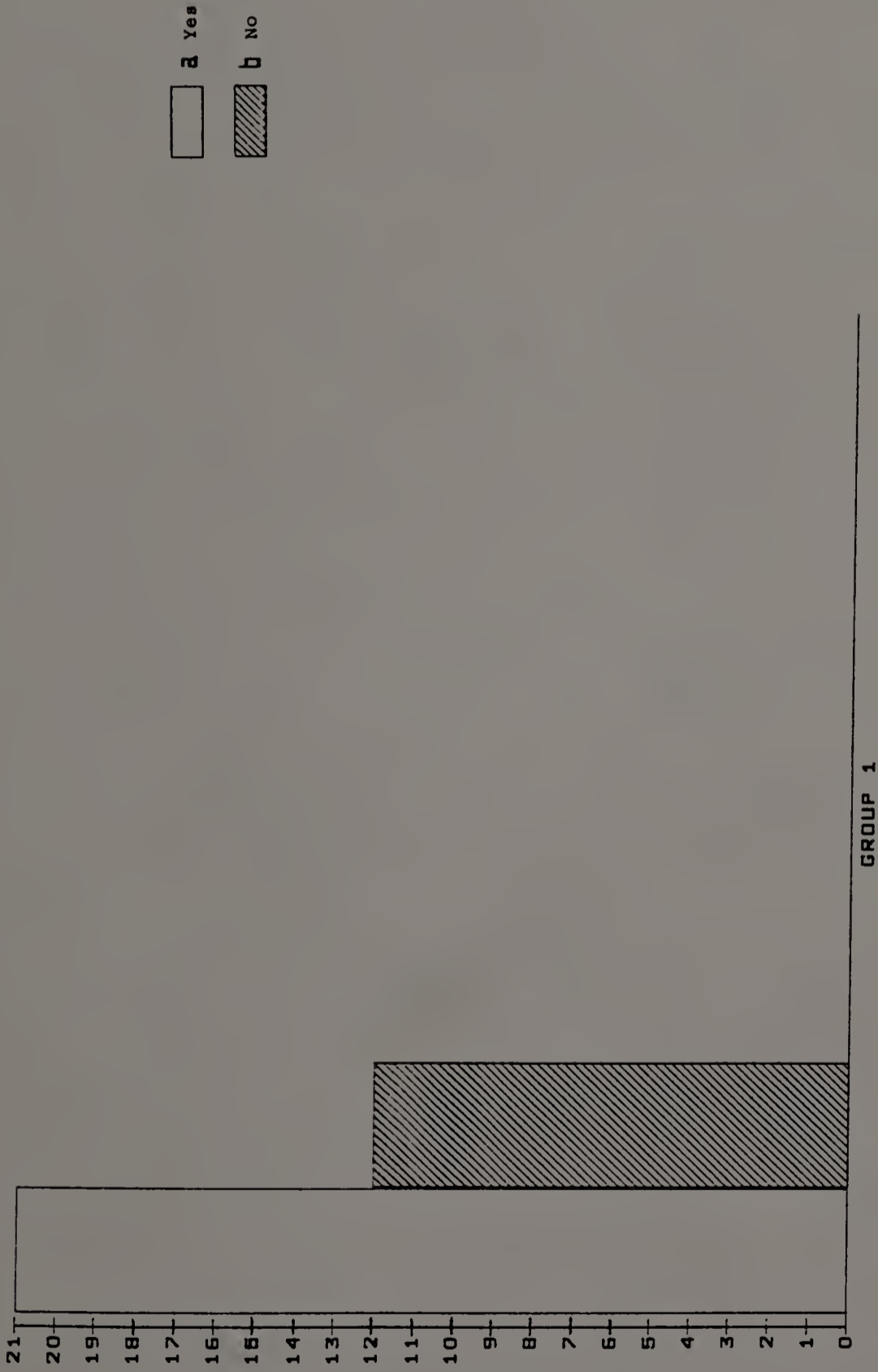


Figure 21. Data from Question 49: Have you used the student support services at Mount Wachusett Community College?

followed by transfer counseling [N=13/33] and tutoring [N=17/33] (see Figure 22). Weaknesses cited included not enough Spanish-speaking faculty and staff [N=9/33] and not enough tutors [N=7/33] (see Figure 23). Latino students felt that these services have given them a sense of belonging at the institution. In evaluating the support services, the students felt these personal and academic support services programs needed more Spanish-speaking staff [N=17/33] and more visibility within the institution [N=10/33] (see Figure 24).

When asked if Latino staff have made a difference in their lives, most responded affirmatively [N=18/33] (see Figure 25). This difference is perceived as more confidence in their ability to succeed in their academic careers. Because they see evidence of successful persons of their same ethnic background, they feel less isolated [N=13/33], and they feel better understood by staff and others from their own ethnic, cultural, and linguistic background [N=14/33] (see Figure 26). Most students [N=20/33] describe their academic advisors as helpful even though their contact is limited (see Figure 27). Only four students [N=4/33] indicated meeting with their academic advisor once a week (see Figure 28). Most students [N=11/33] meet their academic advisors only once a semester (see Figure 28).

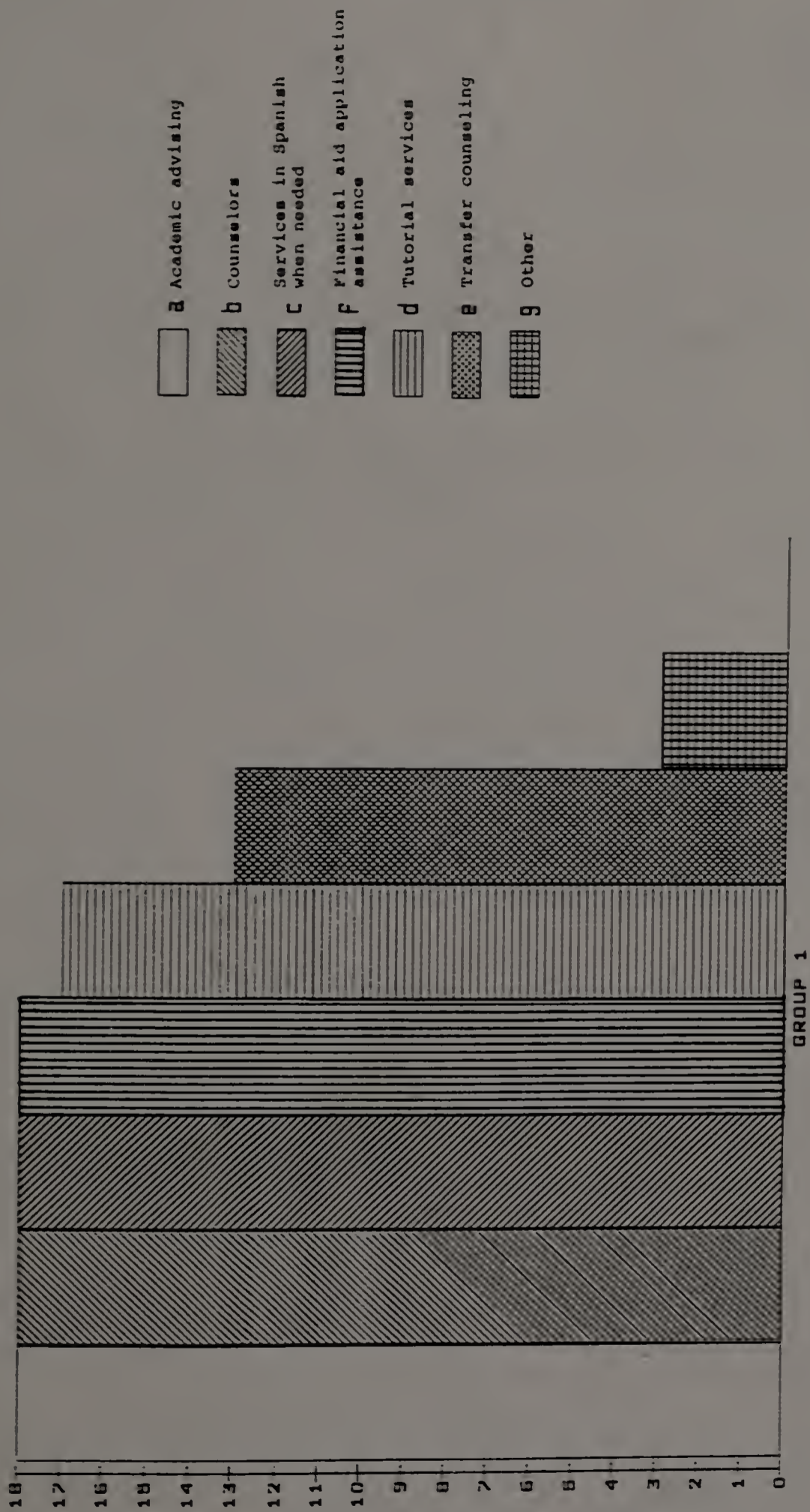


Figure 22. Data from Question 50: What are the strengths of these programs?

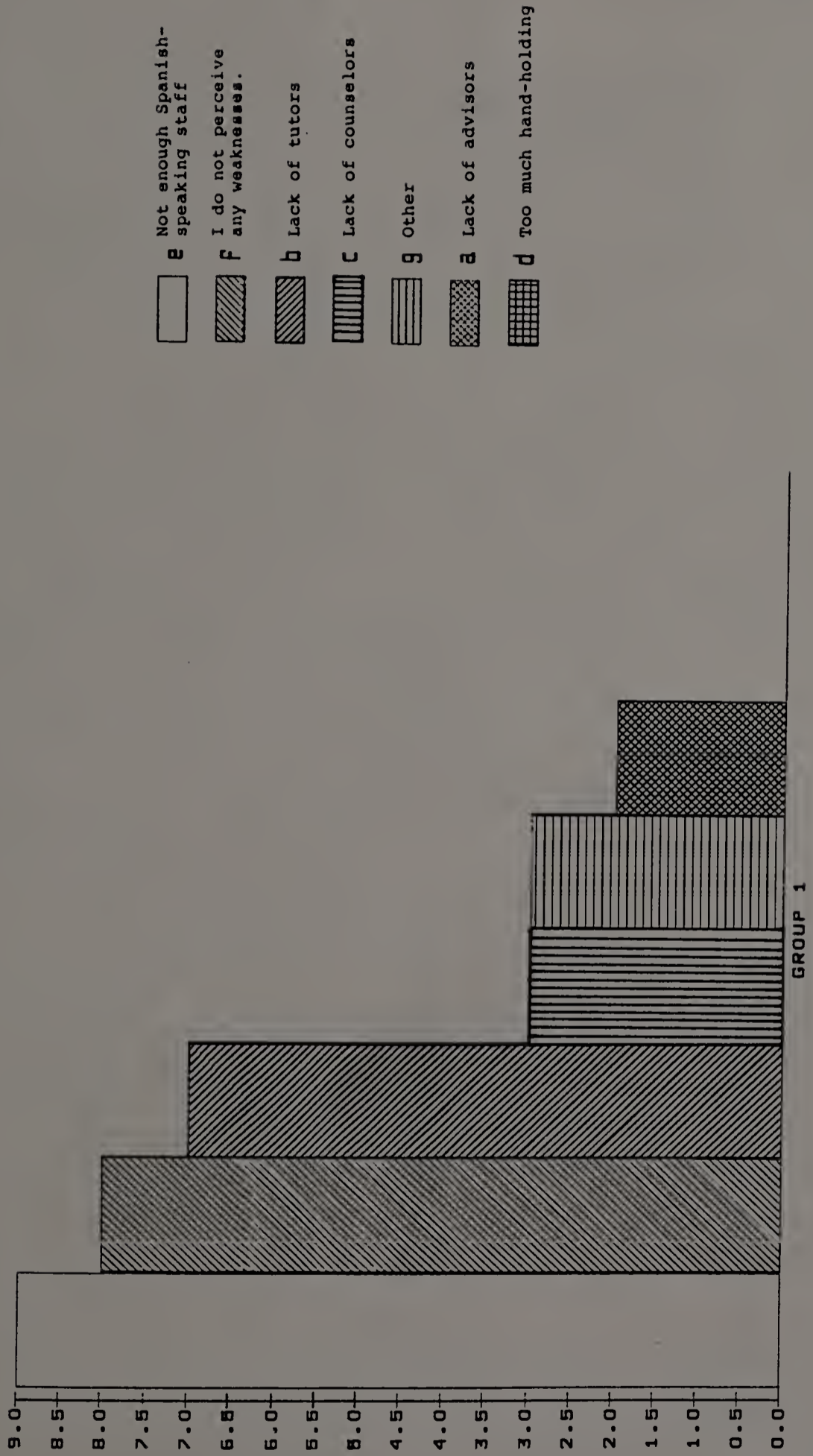


Figure 23. Data from Question 51: What are the weaknesses of these programs and services?

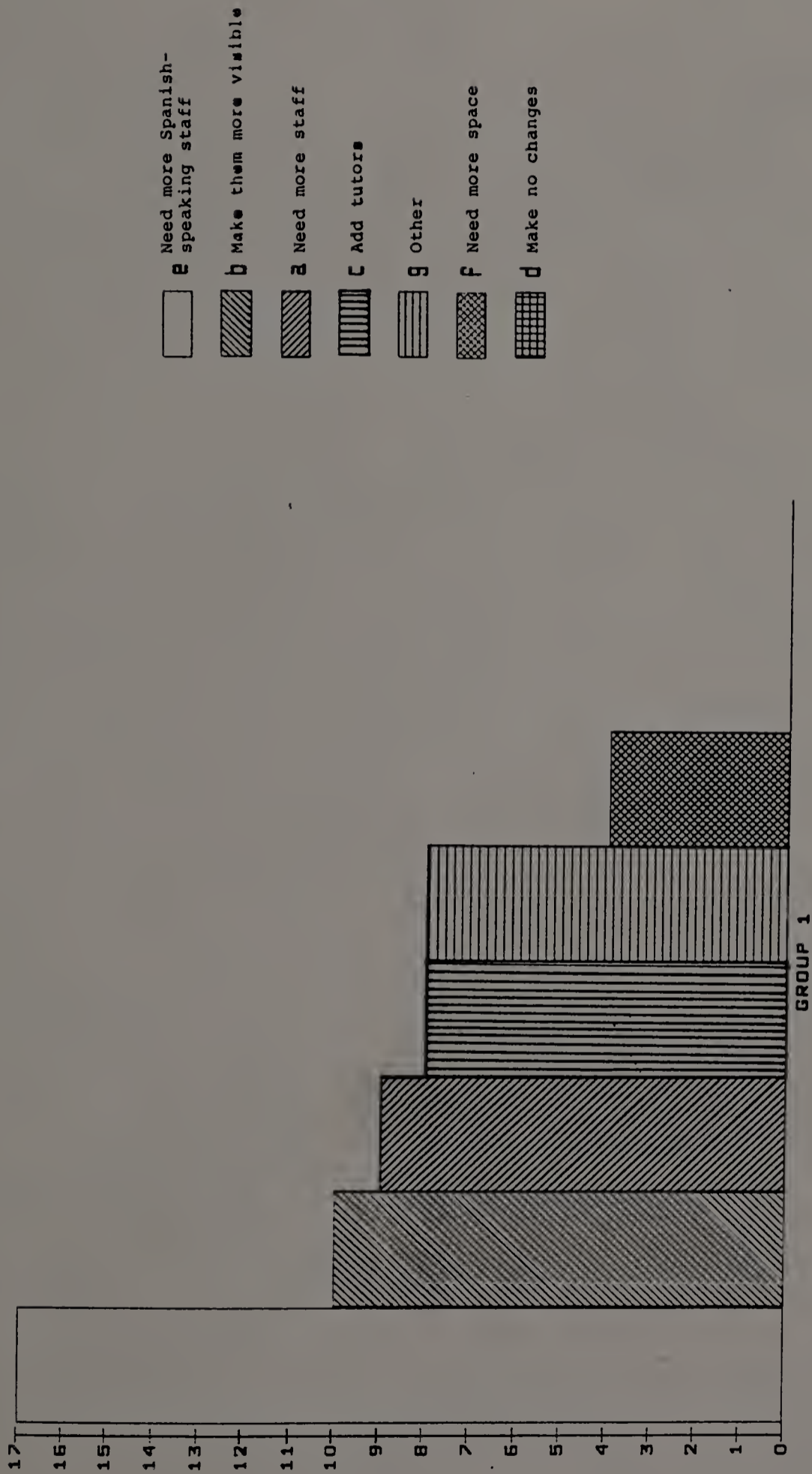


Figure 24. Data from Question 53: What recommendations would you offer Mount Wachusett Community College about these support services and programs?

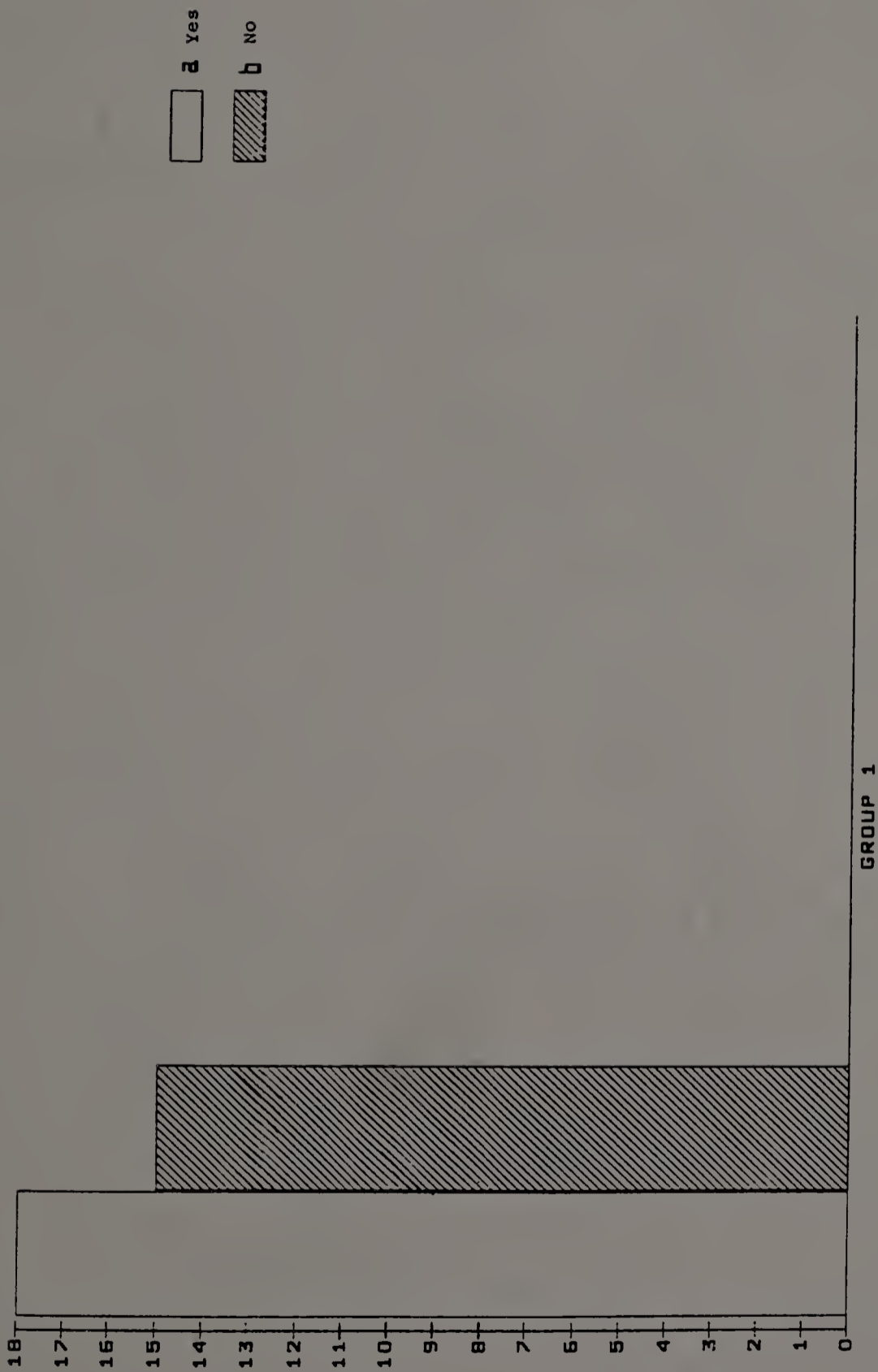


Figure 25. Data from Question 54: Do you feel that Latino staff have made a difference in your persistence at Mount Wachusett Community College?

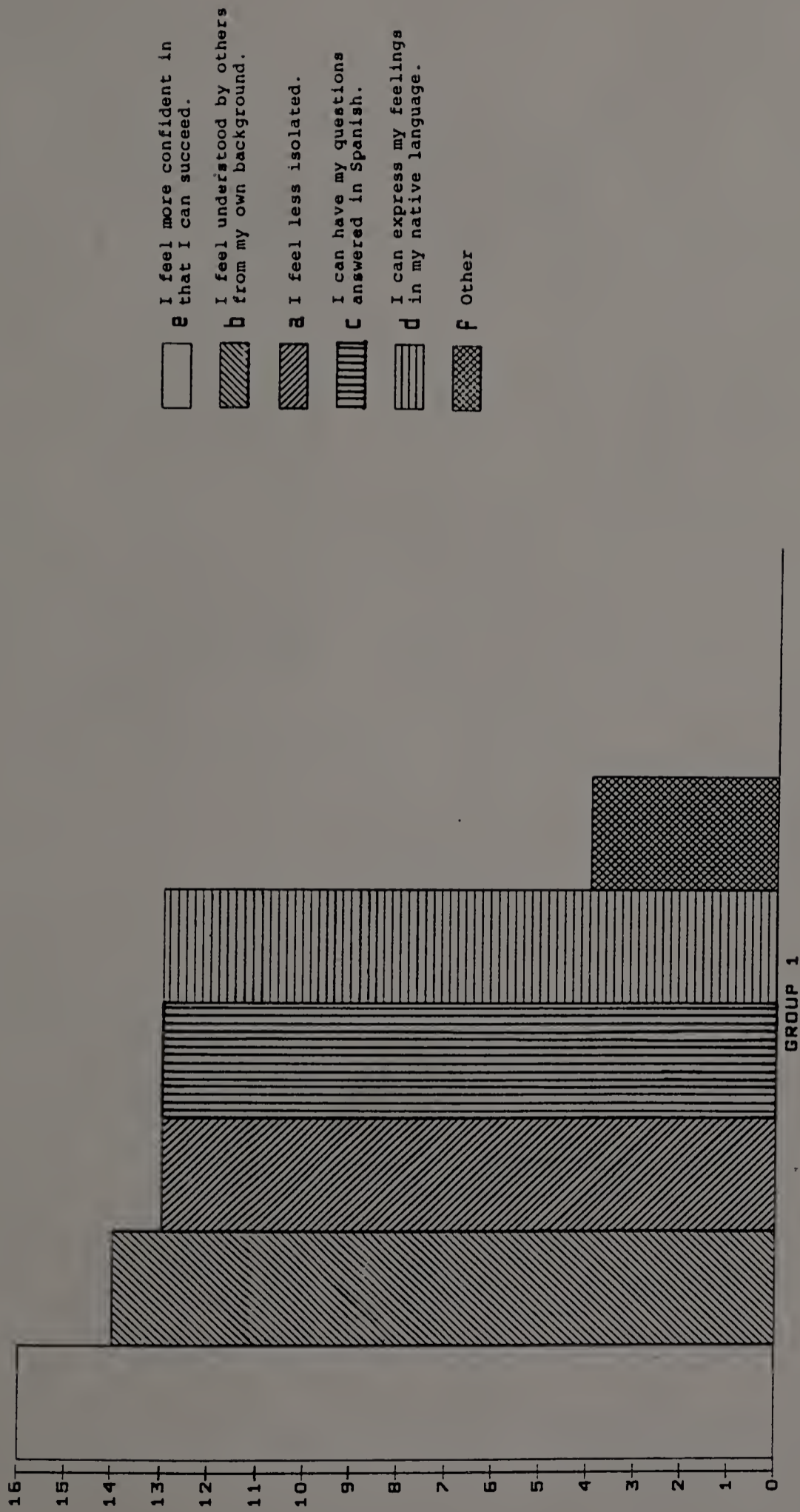


Figure 26. Data from Question 55: How would you describe it?



Figure 27. Data from Question 34: How would you describe the help your academic advisor is giving you?



Figure 28. Data from Question 35: How many times have you and your advisor discussed your educational program?

Faculty Contact

Faculty contact is limited to discussion of academic matters [N=18/22 (see Figure 29)]. Occasional interactions occurred more than just once per semester [N=20/22] (see Figure 30). One student indicated having met with a professor socially. Throughout meetings, students perceived faculty as caring [N=17/26] (see Figure 31).

Institutional Participation

Upon entering, students described themselves as nervous, excited, and lost. After four semesters or more at the College, they had an increased sense of confidence and belonging to the institution not expressed at the beginning of their academic career at Mount Wachusett Community College.

Their participation in clubs and extracurricular activities is not necessarily limited. Twenty-three students [N=23/27] indicated they participated in extracurricular activities (see Figure 32). Because of work and family responsibilities after school hours, four students [N=4/27] did not participate in some form of extracurricular activity (see Figure 32).

English as a Second Language

Most students enter academic programs after acquiring English language proficiency via the English as a Second Language Program at Mount Wachusett Community College.



Figure 29. Data from Question 37: Why have you met with your professors?

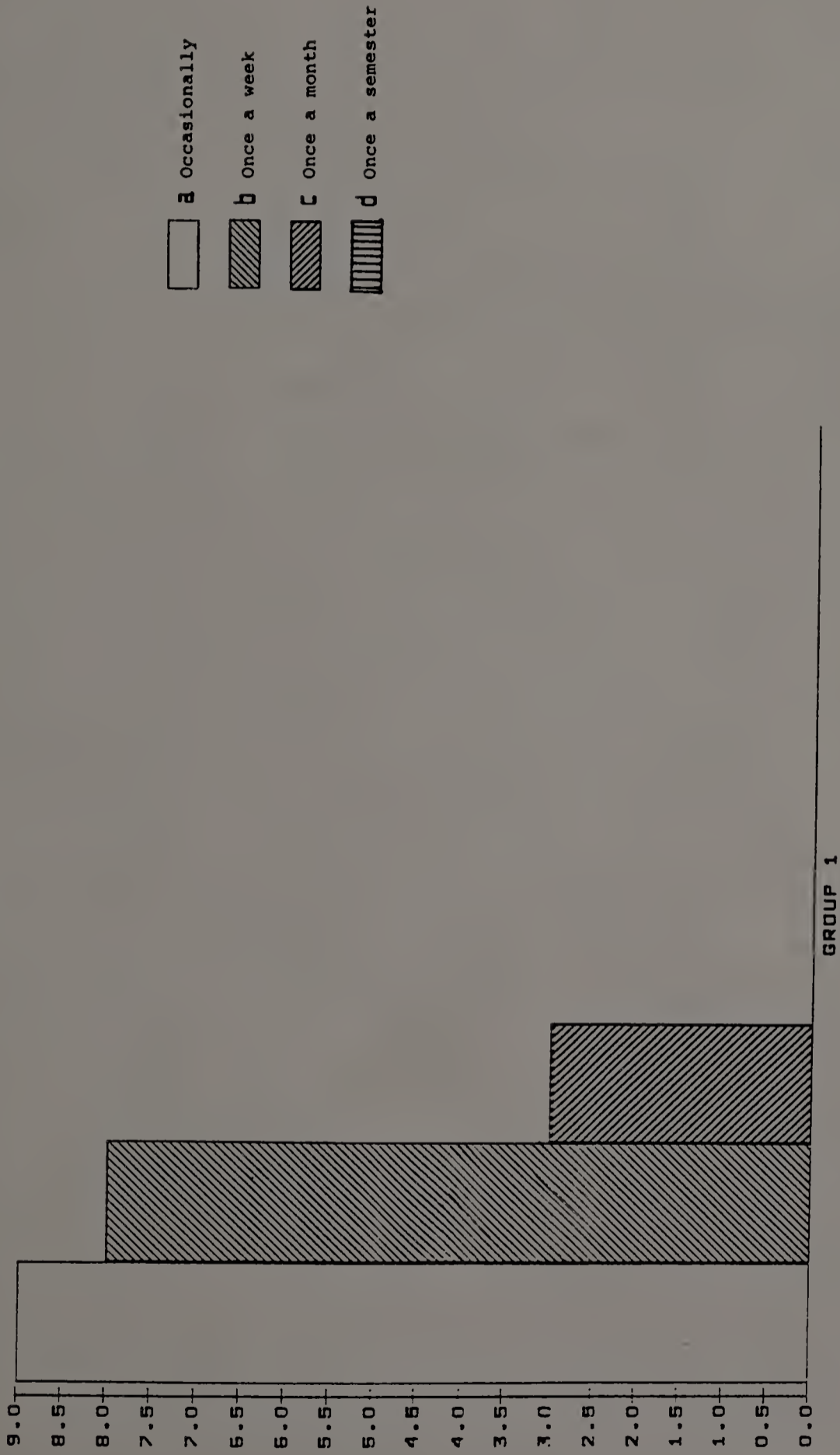


Figure 30. Data from Question 38: How often do you meet with them?

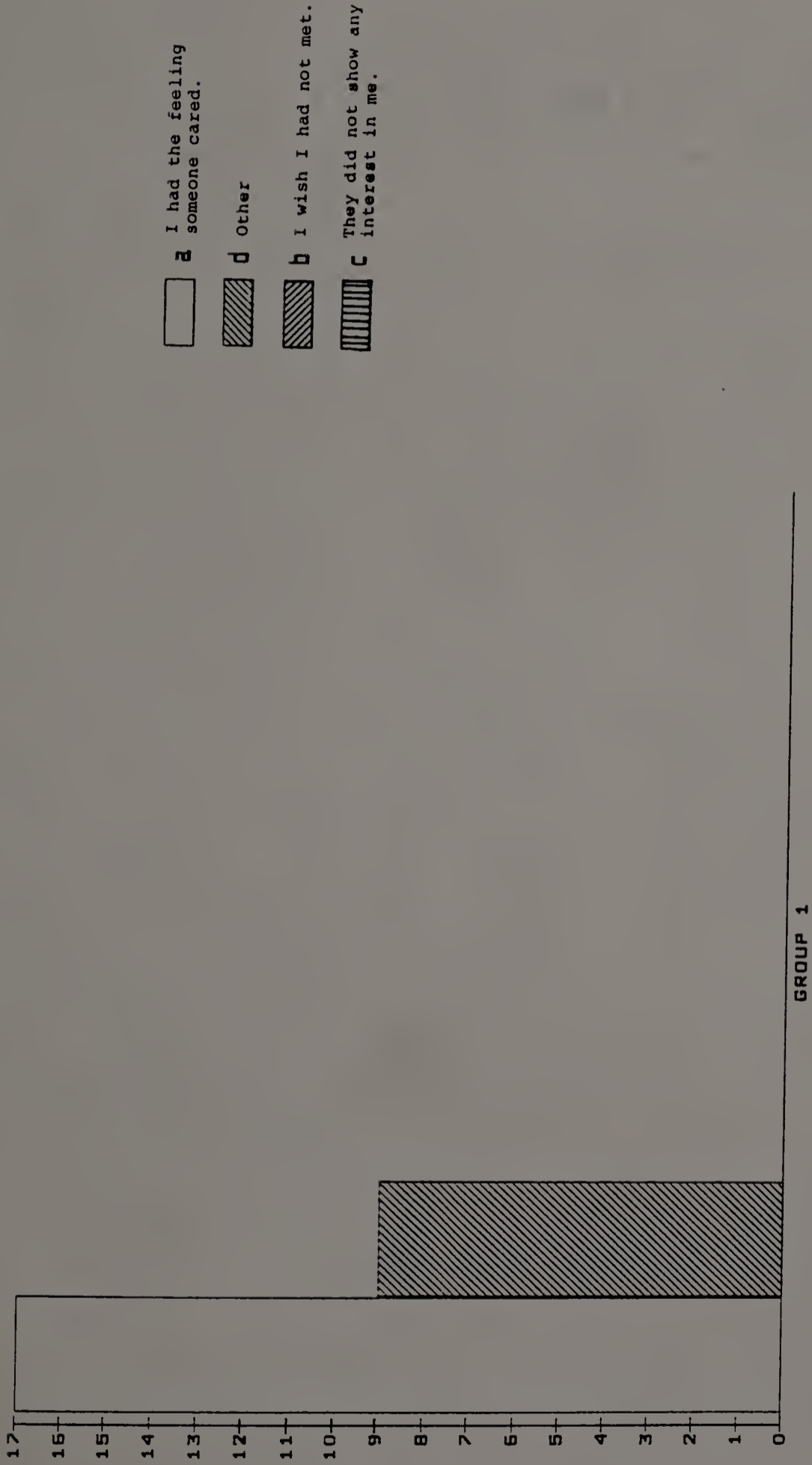
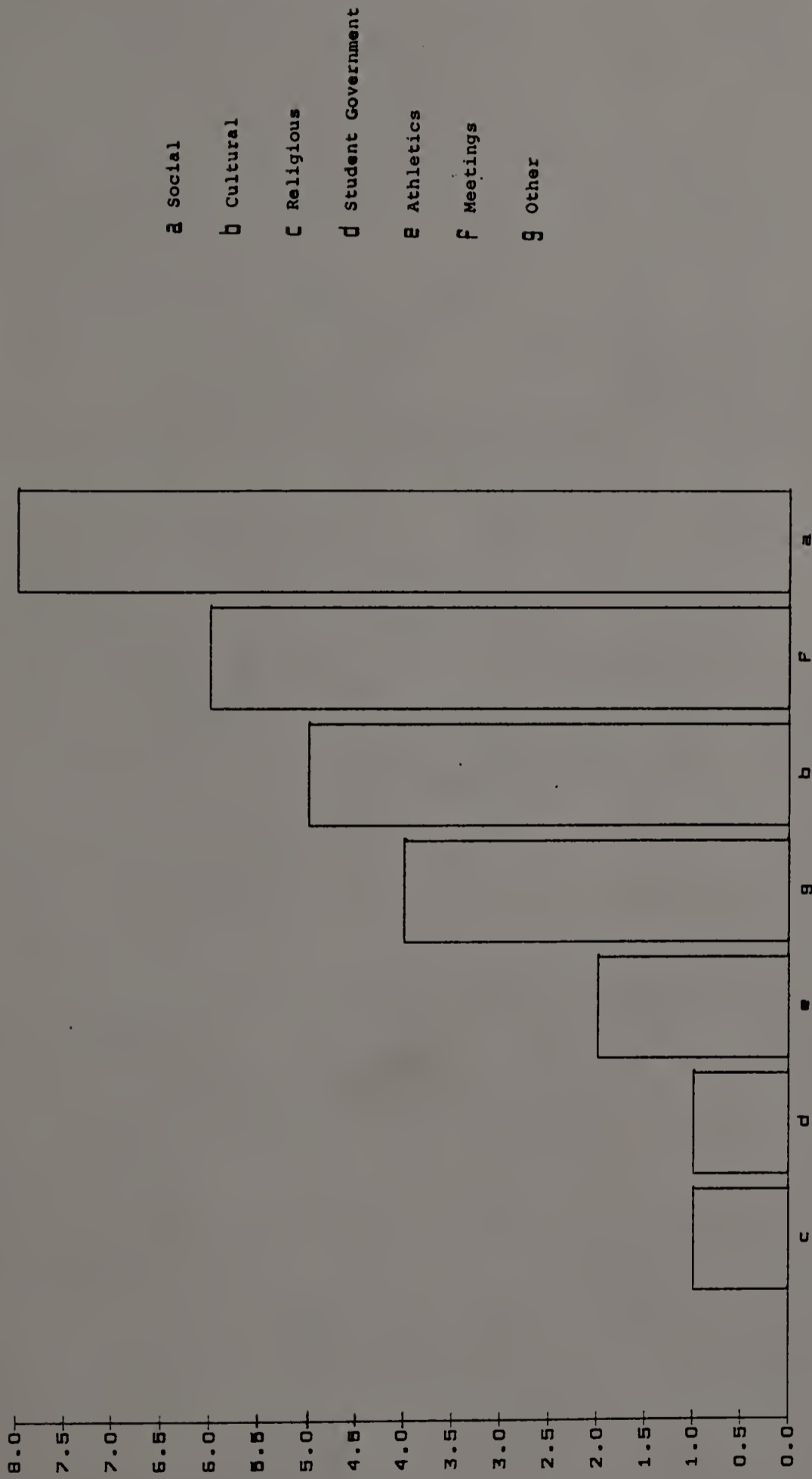


Figure 31. Data from Question 39: How would you rate these meetings?



- a Social
- b Cultural
- c Religious
- d Student Government
- e Athletics
- f Meetings
- g Other

Figure 32. Data from Question 41: What campus activities do you participate in?

They rate their English-speaking proficiency better than their writing proficiency [N=16/33] (see Figure 33), and they feel that their lower writing proficiency has hindered their academic progress at the college. When asked if they would rather take academic courses in Spanish, they expressed a preference for courses in English [N=16/33] (see Figure 34). When speaking, most [N=24/33] are comfortable with English and Spanish equally (see Figure 35), and they rate their English language proficiency as good [N=16/33] (see Figure 36).

Goal Commitment

Latino students are determined to complete a degree at Mount Wachusett Community College because of the value they place on an education in order to acquire upward mobility. Other factors include an expressed desire to become positive role models for their own children and families (see Figure 37). Persisters had only between one to three absences per semester [N=20/33] (see Figure 38) basically for health or family reasons. These students were committed to their educational endeavors as stated during the original interview and in the responses to Question 56 (see Figure 37). In this open-ended question, the students cited factors to which they attributed their persistence (see Table 1). They were allowed the opportunity to describe, in their own words, factors

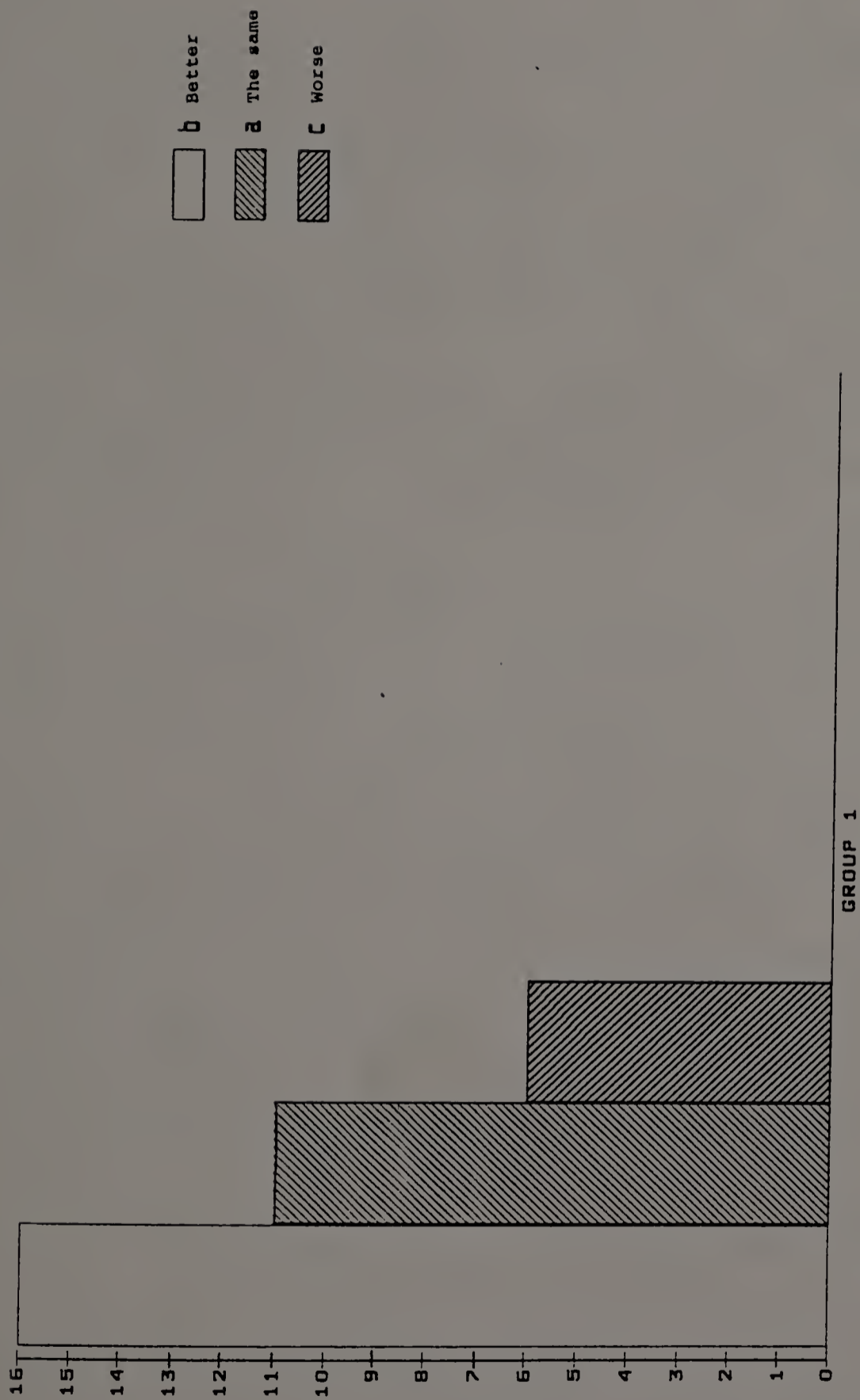


Figure 33. Data from Question 59: Do you feel that your speaking proficiency is better than your writing proficiency?



Figure 34. Data from Question 61: How do you think courses taught in Spanish would influence your academic progress?

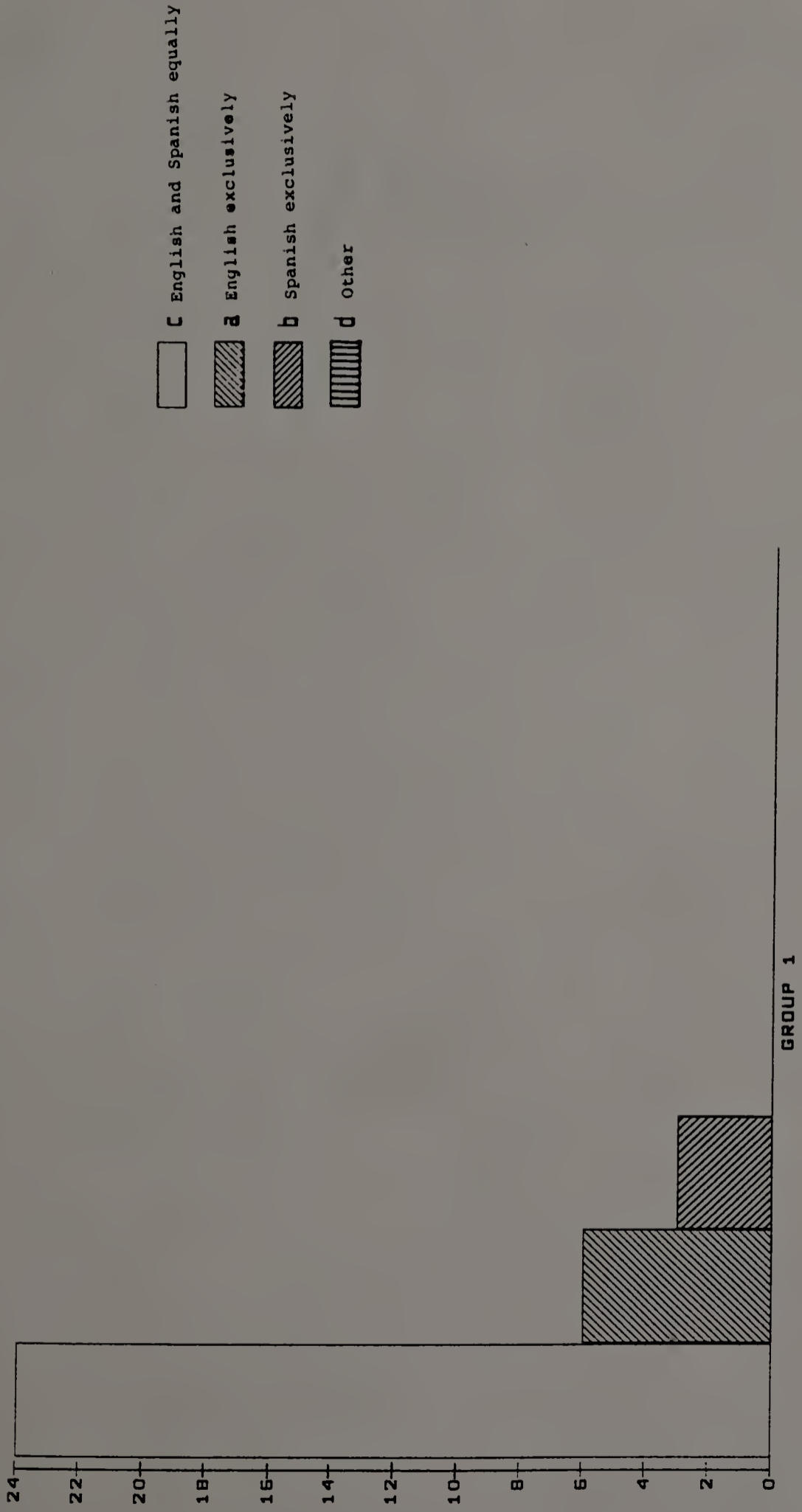


Figure 35. Data from Question 57: What language do you prefer to use most of the time?

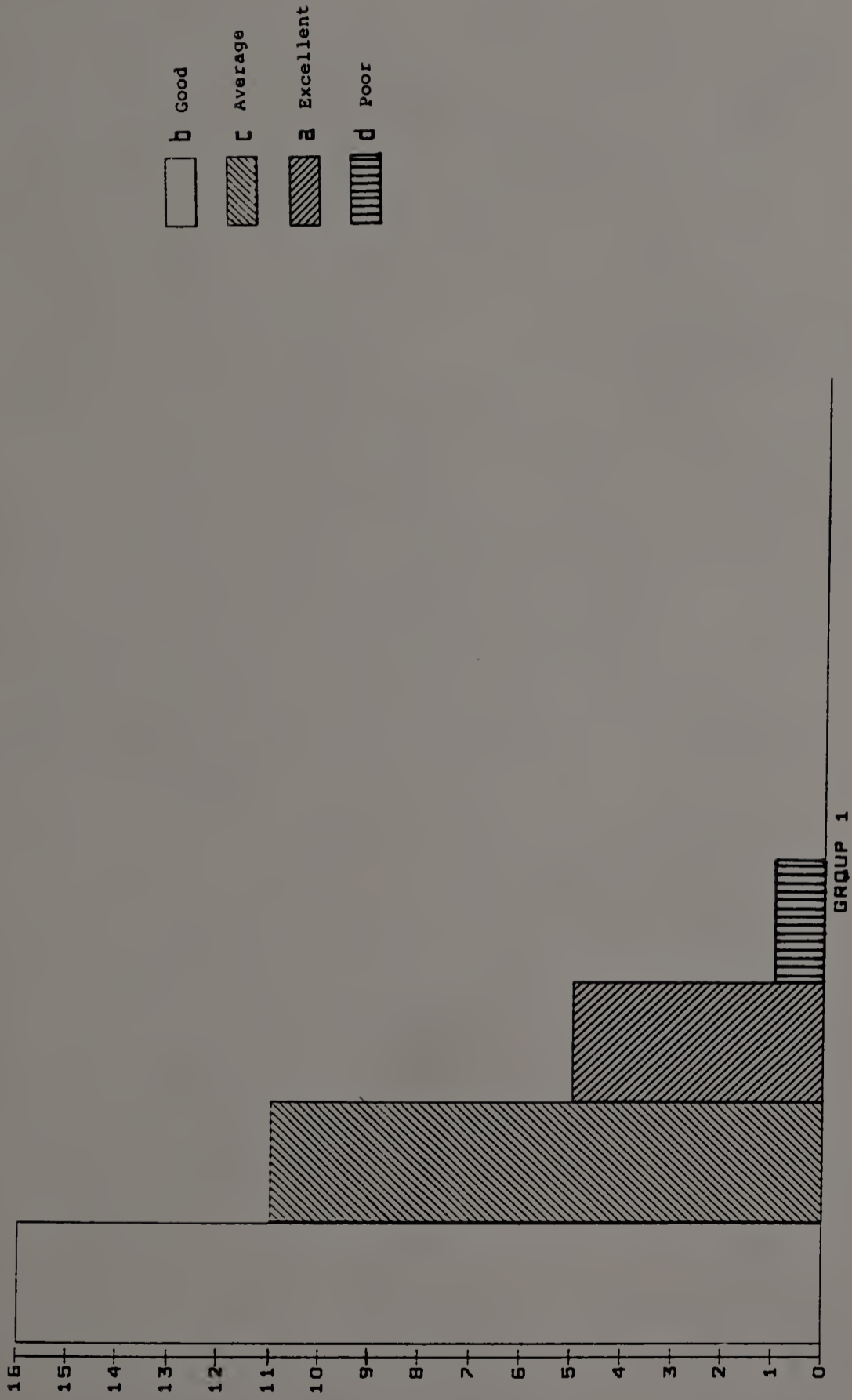


Figure 36. Data from Question 58: How would you rate your English language proficiency?

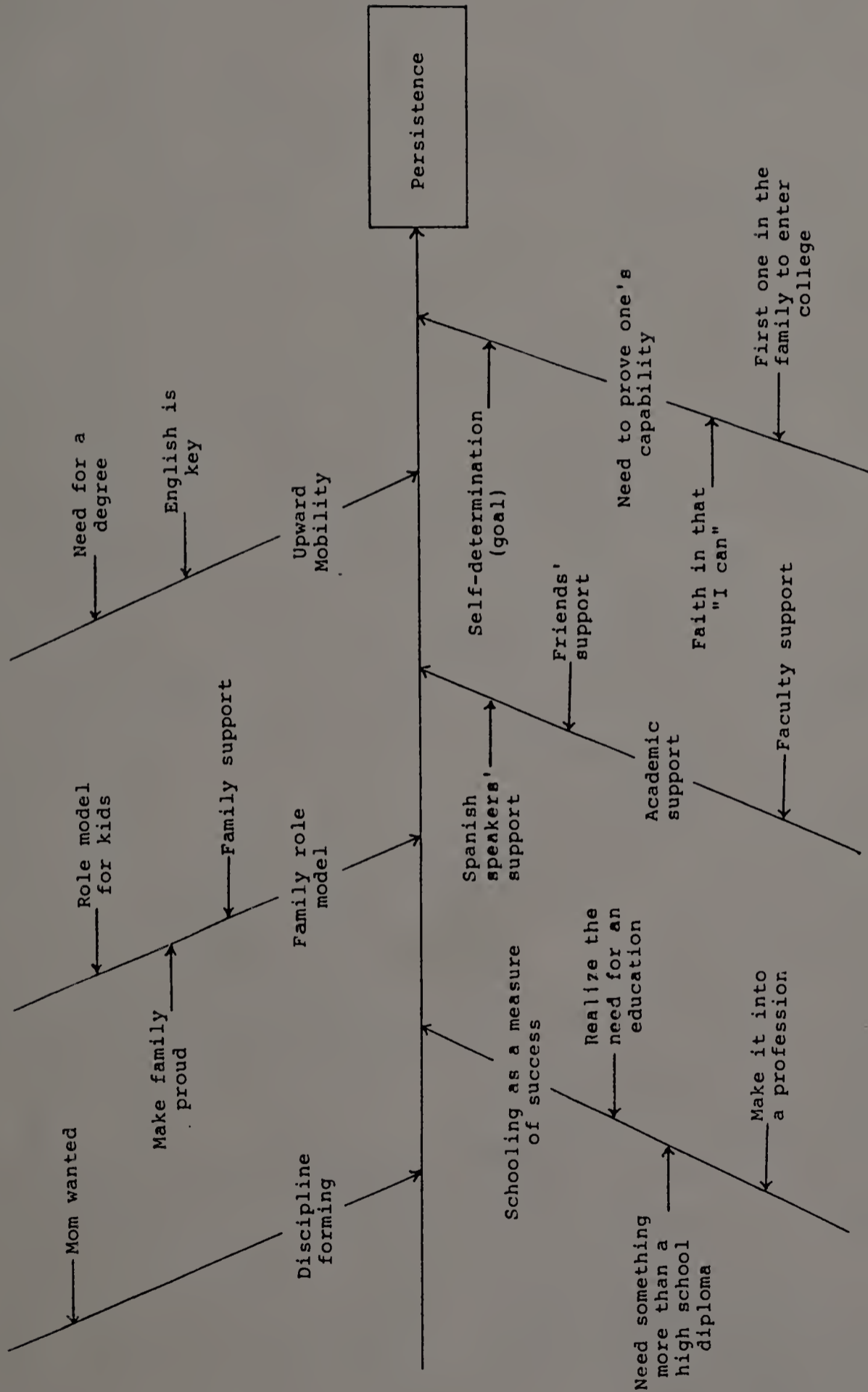


Figure 37. Factors to which students attributed their persistence at Mount Wachusett Community College.

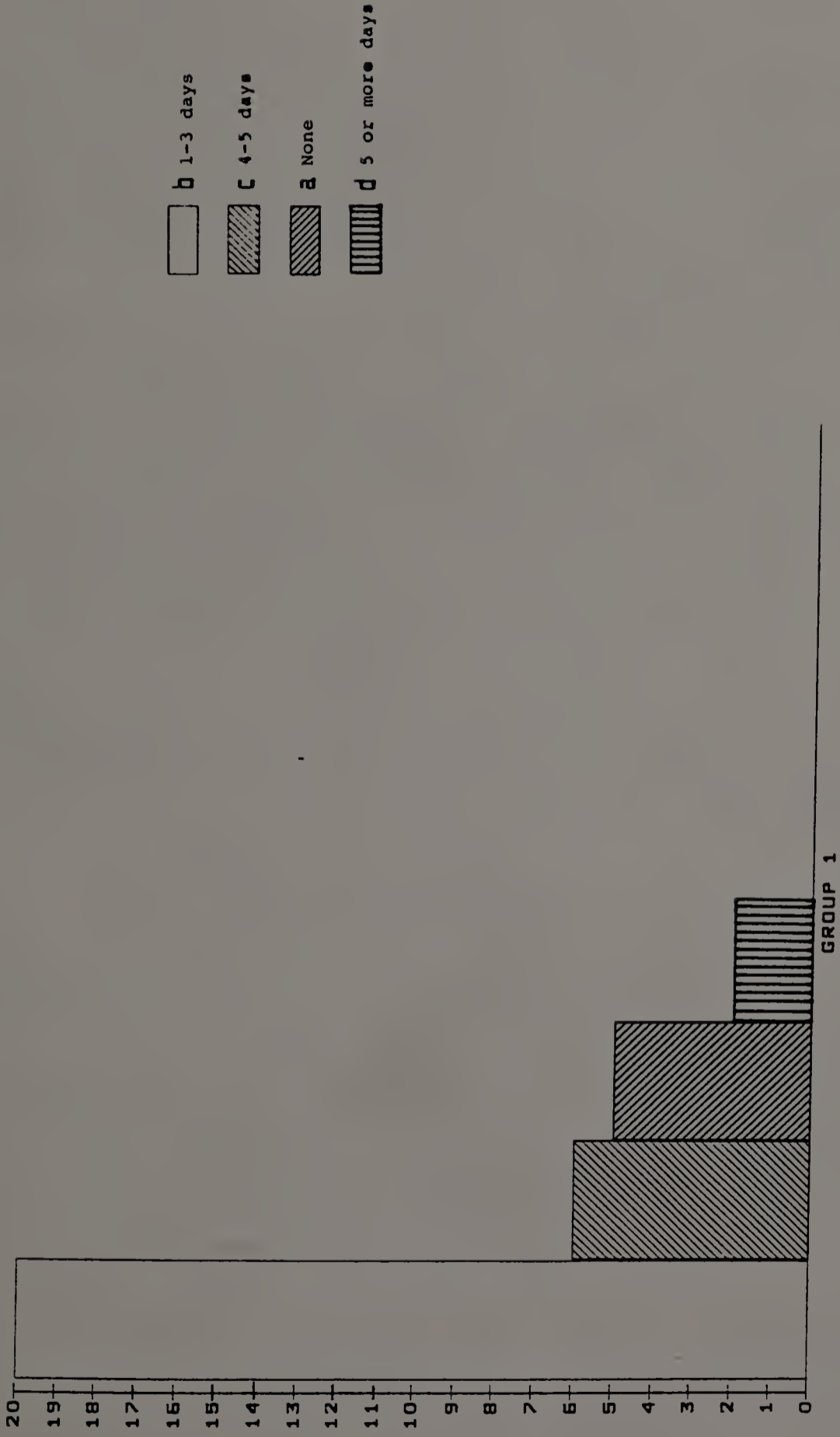


Figure 38. Data from Question 31: How many absences do you usually have in a semester?

Table 1

List of Factors to Which Students Attribute
Their Persistence at Mount Wachusett
Community College (Question #56)

Number of Student Responses	Factors
8	Family support
6	Determination to succeed in college
1	It has always been my goal.
3	Need to be financially independent
2	Knowing how proud my children and parents would be of me.
4	Mount Wachusett Community College's faculty support
5	Need for a profession and something more than a high school diploma
5	Need to learn English and become upwardly mobile
1	No one in my family went to college and I need to prove that I can.
1	I realize the need for an education.
5	Need to become a role model for my kids
1	Support from the Spanish-speaking counselors at Mount Wachusett Community College
1	Timing in my life and knowing that I was getting old and needed a degree
1	Without financial aid, I could not have done it.

Continued, next page

Table 1--Continued

Number of Student Responses	Factors
1	I liked Mount Wachusett Community College.
1	I need a degree if I want to practice in my field.
1	I have stayed because of my mother; she wants me to stay.
1	I have unfocused goals but I much rather be confused at the college than at home.
2	Support from my friends

that, in their view, had contributed to their goal commitment to an educational career (see Figure 37).

Exit Interview

An unforeseen opportunity appeared when following up on student persisters. It was found that 9 of the 33 interviewees had disengaged academically. This withdrawal occurred in spite of the fact that six [N=6/9] of the students had expressed a high commitment to their educational goal (see Figure 39). Exit interviews were solicited from these nine students [N=9/33] who opted to leave the institution after having persisted for four semesters or more. They were personally interviewed by the researcher at their homes. These interviews allowed for the disclosure of factors not previously considered given the limitations and biases inherent in multiple choice questionnaires.

Several factors and commonalities emerged as a result of these interviews, although students disengaged for very different reasons. For confidentiality reasons, traceability to individual subjects was eliminated by summarizing reported data (see Figures 39 and 40). Two students [N=2/9] were in academic jeopardy. In both instances, students had to increase their work hours. This resulted in decreased independent study time and undermined academic efforts. Seven of these students

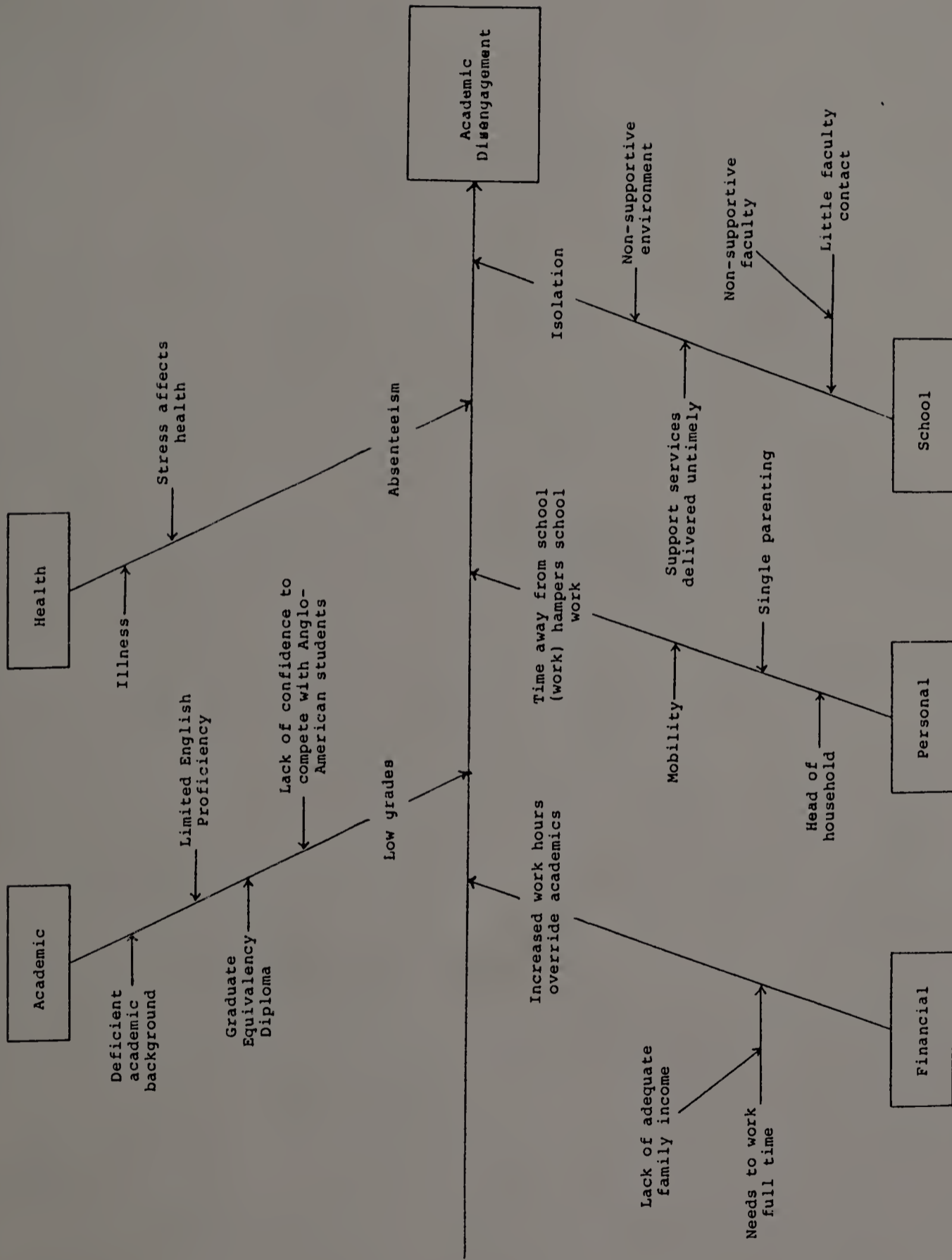


Figure 39. Factors affecting the persistence of goal-oriented students at Mount Wachusett Community College.

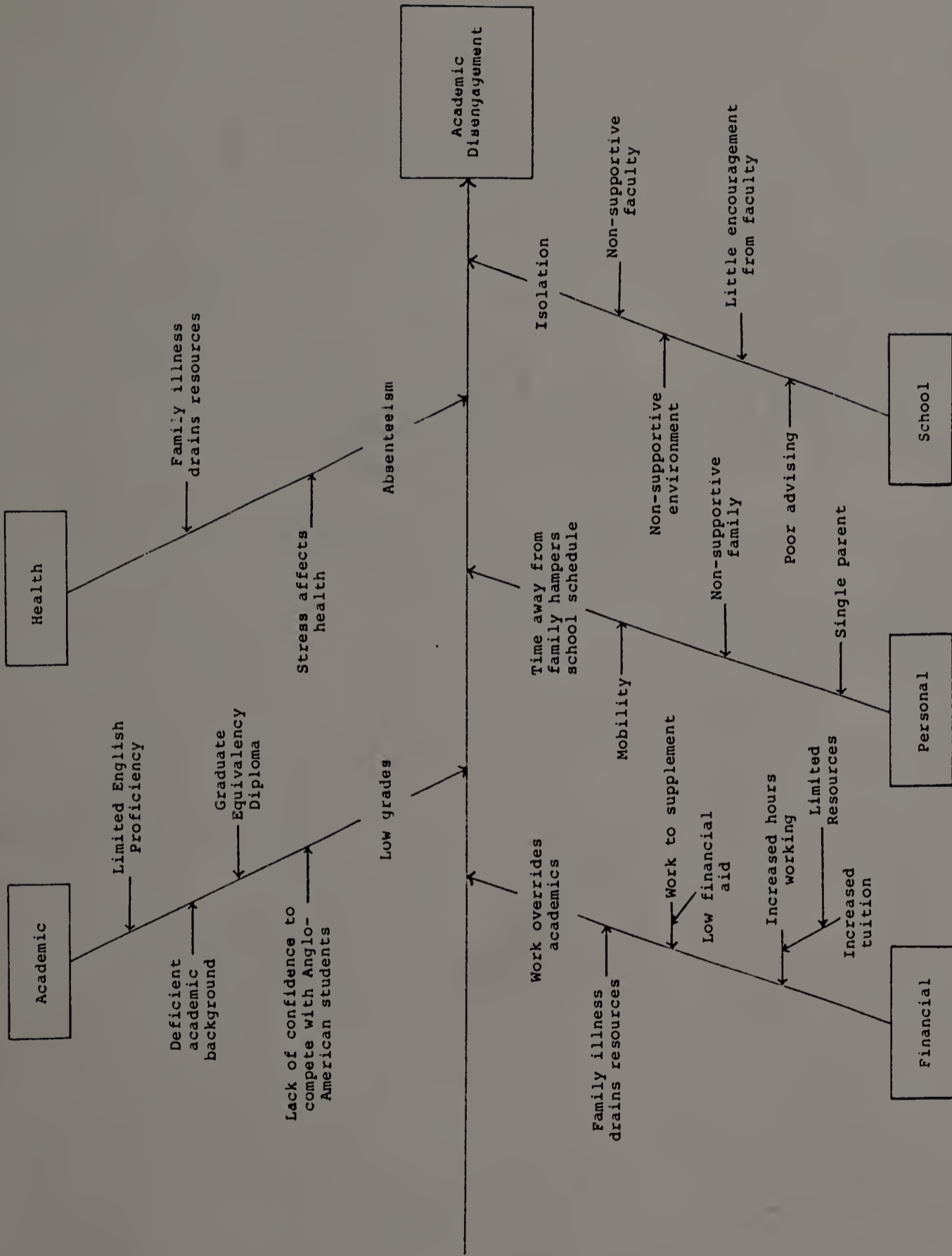


Figure 40. Factors affecting the persistence of non-goal oriented students at Mount Wachusett Community College.

who were interviewed had grade point averages of 2.0 or above.

Students cited different reasons for leaving school. Two students (N=2/9) left school for health reasons, and one student [N=1/9] cited family reasons. Of the two students who cited health reasons for their departure, one [N=1/9] indicated the intent to return to Mount Wachusett Community College during the Fall of 1992, and the other student indicated the intent to return in the Spring of 1993. Four students [N=4/9] cited financial reasons for their departure, indicating that although they were on financial aid, it was not sufficient to meet their personal needs and other financial and family responsibilities. Two students [N=2/9] had to search for jobs, and two students [N=2/9] had to increase their work hours in order to meet their financial obligations. Two students [N=2/9] left dissatisfied with the institution, particularly their individual program of studies. Both of these students expressed an interest in continuing their education at another institution. These particular exit interviews were analyzed for cause-effect using Ishikawa (1982) charting techniques (see Figures 39 and 40).

Summary

The findings of this study portray Latino student characteristics consistent with the one presented in the literature (Guerra, 1990; Nora, 1987; Rendon & Nora, 1989). They also share commonalities with characteristics of non-traditional students attending community colleges described in the literature by Bean and Metzner (1985, pp. 488-489). At Mount Wachusett Community College, like that at the national level, Latino students are for the most part older; hold full- or part-time jobs; commute to school; depend on financial aid to attend college; attend school full- or part-time; vary in their degree of English language proficiency; and because of external responsibilities, have less time to integrate socially with the institution. The Carnegie Foundation for the Advancement of Teaching (1988) states that Hispanic students are distinctive in their characteristics as a college population subgroup even though they share certain commonalities of students in general.

As stated earlier, given the commonalities shared by low-income Latinos in community colleges and non-traditional students attending community colleges, Bean and Metzner's (1985) "Conceptual Model of Non-Traditional Student Attrition" seemed most appropriate.

Location and low tuition costs are important factors in the selection of Mount Wachusett Community College. Economic reasons make Mount Wachusett Community College a viable option for economically disadvantaged students residing in the service area. These findings were supported by the Carnegie Foundation for the Advancement of Teaching in its analysis of the annual survey of full-time college freshmen administered by the Cooperative Institutional Research Program at the University of California at Los Angeles and sponsored in association with the American Council on Education. "Hispanics are less affluent than the general population, and the ability to live at home and attend a low-tuition community college presents an economic advantage as well" (Carnegie Foundation for the Advancement of Teaching, 1988, p. 43). The Carnegie Foundation for the Advancement of Teaching goes further to state a possible relationship between traditionalism in the family and economics as a factor in making these decisions (Carnegie Foundation for the Advancement of Teaching, 1988, p. 43).

The role of the community college as point of entry (Rendon & Nora, 1987; Rendon & Nora, 1987-1988; Rendon & Taylor, 1989-1990) into postsecondary education for Latinos in our service area is therefore reaffirmed. As such, it is their first step in becoming upwardly mobile and breaking the cycle of poverty.

Given the number of low-income Latino students at Mount Wachusett Community College who depend on Pell Grants and some other form of subsidy to complete their education, it is not surprising to see students withdrawing when financial pressures mount. Murdock (1987) and Nora (1990) support this argument in their individual research on the impact of financial aid on student persistence. It seems that "financial aid has a stronger effect on the persistence of two-year college students" (Murdock, 1987, p. 91). This is mainly because of their lower socioeconomic status.

Tinto's (1975) theory of institutional student fit seemed partially substantiated by the researcher's findings. Latino students participated in limited social or extracurricular activities. In spite of this participation, these students continued to feel a sense of isolation within the college. Contact with faculty and advisors suggests that at Mount Wachusett Community College these are more likely limited to discussion of academic matters than to social interactions. These interactions occur most frequently once a semester. No social interaction occurs between student and faculty members. These findings suggest that persisters did so in spite of lessened student-faculty interaction. Ryan's (1989, p. 81) findings with Puerto Rican students at the University of Massachusetts, indicating that students

experienced academic integration through faculty interaction "both in and outside of the classroom," did not seem to be supported by the researcher's findings. It could be that this experience has a higher likelihood of success at Mount Wachusett Community College given that students tend to perceive faculty and advisors as "helpful" and "someone who cared" in spite of their limited interactions. Academic integration seems paramount among non-traditional students (Bean & Metzner, 1985, p. 489; Fox, 1986, pp. 415, 422) given the lack of social interaction exhibited.

Students' aspirations and goal commitment were undermined by external or environmental factors, namely, financial circumstances, family responsibilities, and health factors. As posed by the fish bone chart generated by the exit interviews, these external factors were deterministic as opposed to influential (see Figures 39 and 40).

Environmental factors affect community college students more so than resident students of four-year institutions (Bean & Metzner, 1985, p. 530). These external factors seem to affect goal-oriented students at the same rate than non-goal oriented students. Goal-oriented students seem to see their departure as a temporary setback, planning to return to school as soon as their circumstances allow them. Non-goal oriented

students do not have a sense of commitment, therefore the likelihood of their resuming an education is hard to gauge.

High absenteeism was only partially supported as an indicator of attrition. Persisters did not display high absenteeism at the time of the interview. It was manifested after external circumstances impinged upon the students. Only then did these students begin to miss classes, at which point departure was inevitable. Therefore, absenteeism seems to be a predictor of disengagement at an untimely point for remedial action.

C H A P T E R V

CONCLUSIONS AND RECOMMENDATIONS

Chapter V reports the conclusions and recommendations drawn from the findings of this exploratory research study. Implications of these findings for institutional policies are discussed.

Conclusions

The engagement in academic careers by Latino students at Mount Wachusett Community College is affected by external and environmental factors, namely, health, and financial and family responsibilities that impinge upon the student. These external factors affect goal-oriented students at the same rate as non-goal oriented students at Mount Wachusett Community College.

Latino student persistence is significantly affected by role models of their own ethnic and cultural background. These role models impact students in ways that result in decreased isolation at the institution and provide an increased sense of confidence in their ability to succeed.

Latino students at Mount Wachusett Community College have high aspirations. They value education and recognize it as a vehicle to gain upward mobility. They recognize it as the only way to gain access to jobs that will

eventually afford them a better life-style not only for them but for their families.

Latino students at Mount Wachusett Community College recognize the value of acquiring English language proficiency to compete academically with their Anglo-American counterparts. They realize that without that proficiency their ability to enter an all English-speaking work force is limited.

Latino students at Mount Wachusett Community College incorporate the student role as an additional role. This adds to their responsibilities as parent, worker, spouse, head of household, and, in many instances, the only source of emotional support for the whole family. These multiple responsibilities prevent them from participating in more extracurricular activities on campus.

The low socioeconomic status of Latino students at Mount Wachusett Community College requires that they hold jobs while attending college in order to subsidize their academic careers. They work full- or part-time, mostly in off-campus jobs, while attending college.

The Latino population at Mount Wachusett Community College lacks the numbers to establish statistics with sufficient significance as to draw subtle patterns and lurking undercurrents of factors. The methodology used in this study relieves the statistical burden imposed by the need of a sizable quantity of subjects.

Facilitating retention lies, therefore, in a delicate balance, that is, a balance between providing support services and anticipating mitigating circumstances that could potentially lead to disengagement in an otherwise promising academic development. It is an institutional responsibility to facilitate services early on in the student's academic career. Front-loading services and the opportunity to affiliate and bond with a program increases the likelihood of addressing this disengagement in a timely manner.

Recommendations

Mount Wachusett Community College, in an effort to serve their increasing number of Latino students, should focus its resources at dealing with mitigating circumstances that degenerate in Latino student academic disengagement. Specifically:

1. Support services developed for this population must include tutoring; personal, academic, and career counseling; and assistance with financial management and job-related issues.
2. Increased opportunities for on-campus jobs should generate not only supplemental income for students but would also thrust the student into increased institutional integration by increasing staff and faculty contact as well

as participation in extracurricular activities on campus.

3. Support services are better delivered by ethnically compatible personnel whenever possible. Staff, sharing commonalities in origin, socioeconomic background, and career paths, would also act as role models. Faculty members from Latino backgrounds from the College's service area and faculty members whose academic backgrounds include a community college experience would be examples of this.

4. Integrating "success stories" can serve as a source of inspiration to students and will convey a message of hope in that they, too, can make it. Seeing successful staff as part of the system provides a sense of hope and a message that "they, too, can make it" to non-goal oriented students. For goal-oriented students, on the other hand, it is a reaffirmation of their conviction.

5. Latino students' high aspirations must be rewarded. Achievement recognitions should not wait until graduation. Rather, they should be delivered intermittently throughout the course of their academic experience. Enforcement mechanisms must be in place as part of institutional programs to ensure timely delivery of this process. Tangible reinforcements for exceptional accomplishments delivered during awards ceremonies would be an example of the above.

6. An institutional commitment to programs and activities related to the English-language acquisition process should be strong and consistent. English as a Second Language Programs should be institutionalized and expanded to accommodate the increasing numbers of non-native speakers expected to enter Mount Wachusett Community College as a result of the changing demographics experienced in the area. Institutional commitment should be convincingly strong and effective.

7. Institutional bonding should be increased through block programming of academic courses, that is, all incoming Latino freshmen students enrolled in same course sections during the first academic semester. This should include participation in a college orientation course section. Personal counseling and academic advising should be delivered by the same person throughout the course of the student's academic career. This model would increase peer bonding and affiliation and result in the likelihood of decreased academic disengagement.

8. An informed understanding of the linguistic and cultural factors affecting Latino students' academic performance is essential. Information on Latino students' needs and background is essential to track and facilitate academic progress in any institution of higher learning. Social tracking of students' individual external circumstances is essential to anticipate possible indicators of

economic disengagement. Individual student tracking, similar to Ishikawa's (1982) fish bone charting, should be conducted with this purpose in mind. Counseling, then, could become more of a predictive process rather than a descriptive one.

9. Innovative problem-solving techniques provide a simple analytical approach and should be incorporated in further studies. These tools, used in Japan's industrial revolution, have a place in research of this kind where the number of subjects is limited and the number of affecting factors involved are multiple in nature.

It is in the best interest of Massachusetts' community colleges to develop proper mechanisms for the retention of all groups. The increasing number of Latinos in the State requires the development of mechanisms that ensure higher retention rates at the postsecondary level for this segment of the population. It is necessary to increase the number of Latino faculty and staff in community colleges in order to initiate the process of retaining those engaged. Socioculturally, this same process may be extended to other minority groups. In spite of the nature of this study's population, other similar studies may be conducted with other ethnic minorities.

The results of this exploratory study, conducted in a community college in the State of Massachusetts with a very small sample, were possible because of the use of

innovative problem-solving techniques. These methodology and analytical approaches are tools widely used by Japan's industries for problem identification and isolation.

A particularly important aspect of this research is the realization that these tools have a place in education research. These tools are utilized to uncover problems, generate cause-and-effect relationships, and prioritize solutions. They have a place in the continual improvement process of all postsecondary educational institutions.

This study's findings and methodology should serve as a future model for educational research, especially in geographic areas with large Latino student populations.

APPENDICES

APPENDIX A

PARTICIPANT CONSENT FORM

Vanessa R. Mas
19 The Brook
East Hadley Road
Amherst, Massachusetts 01002

Dear

My name is Vanessa R. Mas. You may know me in my administrative capacity as Director of the Visions Program at Mount Wachusett Community College.

I am also a doctoral candidate in the School of Education at the University of Massachusetts at Amherst. I am conducting a doctoral research project addressing the persistence patterns of Latino students who, like you, are attending community colleges. As a "Mount" student, you have been chosen to participate in this study.

The goal of this research study is to analyze the answers given by Latino students to questions posed in a questionnaire. This questionnaire will be administered individually and will take between 30 to 45 minutes to complete. I will personally meet with you at a mutually convenient time between November 25 and December 6, 1991.

Findings from this research may be used by the administration of this and other state community colleges for the purpose of developing programs, strategies, or policies that may result in higher retention rates for Latino students. In addition, this research may also be part of presentations at professional conferences or publications. Strict confidentiality will be maintained to protect each participant. Results will be expressed in the form of aggregate data only. Research findings will be available to all interested participants.

I am hoping that you will consider taking time to participate in this study. If you are willing to do so, please sign and return this letter to my office (Room 316). In signing the form, you agree to participate. You also assure me that you will not make any financial claims to me, Mount Wachusett Community College, or the University of Massachusetts at Amherst, for your participation in this study. You also have the right to withdraw from the study at any time.

Thank you in advance for your consideration in helping make this dissertation research study possible.

I look forward to meeting with you.

Sincerely,

Vanessa R. Mas

I, _____, have read the above statement and agree to participate in this doctoral research study as an interviewee under the conditions stated above.

Signature of Participant

Date

APPENDIX B

QUESTIONNAIRE
(ENGLISH AND SPANISH VERSIONS)

QUESTIONNAIRE

The purpose of this questionnaire is to determine factors influencing Latino student persistence in community colleges. As a Latino student at Mount Wachusett Community College (MWCC), you have been chosen to participate in this study. All information provided by you will be strictly confidential and will be reported only in the form of aggregate data. No data will identify you as a subject in any way. You have the right to withdraw your participation in this study at any time.

The results of this research may pave the way for the future development of programs and policies to increase Latino student persistence at Mount Wachusett Community College and other community colleges in the State of Massachusetts.

Thank you for your willingness to participate and for making this dissertation research study possible.

PART I: DEMOGRAPHIC INFORMATION

1. Age

- A. Less than 20
- B. 21-26
- C. 26-30
- D. 30+

2. Sex

- A. Male
- B. Female

3. Marital Status

- A. Married
- B. Not Married

4. Place of Residence

- A. Fitchburg
- B. Leominster
- C. Clinton
- D. Westminster
- E. Gardner
- F. Lancaster
- G. Other (Please Specify: _____)

5. Number of Dependent Children

- A. None
- B. One
- C. Two
- D. Three or More

PART II: QUESTIONS PERTAINING TO STUDY VARIABLES

6. What academic preparation did your mother complete?

- A. Did not complete high school
- B. Completed high school
- C. Two years of college
- D. Four years of college
- E. Graduate degree

7. What academic preparation did your father complete?

- A. Did not complete high school
- B. Completed high school
- C. Two years of college
- D. Four years of college
- E. Graduate degree

8. How supportive would you say your parents are of your academic efforts?

- A. Very supportive
- B. Supportive
- C. Not very supportive
- D. We do not talk about school work.
- E. Other (Please Specify: _____)

9. Did you complete high school?

- _____ A. Yes (Year Completed: _____)
 _____ B. No

If "NO", go to Question 10.
 If "YES", go to Question 11.

10. Did you complete the General Equivalency Diploma (GED)?

- _____ A. Yes (Year Completed: _____)
 _____ B. No

11. What was your overall grade point average in high school?

- _____ A. 3.5-4.0
 _____ B. 2.5-3.4
 _____ C. 2.0-2.4
 _____ D. Less than 2.0

12. Why did you decide to go to college?

- _____ A. I always wanted to go to college.
 _____ B. My parents wanted me to go.
 _____ C. My friends encouraged me.
 _____ D. After completing my GED
 _____ E. My high school counselor suggested it.
 _____ F. Other (Please Specify: _____)

13. Why did you decide to come to Mount Wachusett Community College (MWCC)?

- _____ A. Convenient location
 _____ B. Low tuition
 _____ C. Only college available
 _____ D. High school counselor suggested it
 _____ E. Representative from Mount Wachusett Community College came to my school
 _____ F. My friends come to Mount Wachusett Community College
 _____ G. Attend ESL Program
 _____ H. Other (Please Specify: _____)

14. Did you apply to any other college?
- A. Yes
 B. No
15. Are you presently studying:
- A. Full Time
 B. Part Time
16. What were your original plans when you entered Mount Wachusett Community College? (Please check all that apply.)
- A. Enroll in the ESL Program
 B. Take one course
 C. Take two courses or more
 D. Obtain an Associate's Degree
 E. Transfer to a four-year college
 F. Certificate Program
 G. Other (Please Specify: _____)
17. What was your intended program of study when you entered Mount Wachusett Community College?
- _____
18. Are you still pursuing that program of study?
- A. Yes
 B. No
19. How many credits have you approved at Mount Wachusett Community College?
- A. 30+
 B. 25-29
 C. 20-24
 D. 19 or less
20. What is your overall grade point average at Mount Wachusett Community College?
- A. 3.4-4.0
 B. 2.5-3.3
 C. 2.6-2.4
 D. Less than 2.0

21. How much time do you devote to your school work a week, outside of your class time?
- A. 3 hours or less
 - B. 4-6 hours
 - C. 7-9 hours
 - D. 10 or more hours
 - E. I have no time to study.

22. What kind of financial assistance do you receive?
(Please check all that apply.)

- A. Pell Grant
- B. Massachusetts State Scholarship
- C. Educational loans
- D. College work study
- E. Scholarships
- F. MWCC tuition waiver
- G. I receive no financial assistance.

If you do not receive financial assistance,
go to Question 25.

If you do receive financial assistance,
go to Question 23.

23. If you receive financial assistance, have you had to supplement your assistance by working?

- A. Yes
- B. No

24. Could you have continued school without financial assistance?

- A. Yes
- B. No

25. If you do not receive financial assistance, do you still work for pay while attending college?

- A. Yes
- B. No

26. Do you work off-campus?

- A. Yes
 B. No

If "YES", go to Question 27.
If "NO", go to Question 29.

27. How many hours do you work?

- A. Less than 10 hours
 B. 11 to 15 hours
 C. 16 to 20 hours
 D. Over 20 hours

28. How has work affected your academic progress?

- A. Not affected
 B. Somewhat affected
 C. Greatly affected
 D. I have no time to study.
 E. Other (Please Specify: _____)

29. How many semesters have you been enrolled at Mount Wachusett Community College?

- A. 1-2 semesters
 B. 3-4 semesters
 C. 5 or more semesters

30. Have you stopped attending any semester?

- A. Yes
 B. No

If "YES", please specify reason: _____

31. How many absences do you usually have in a semester?

- A. 1-3 days
 B. 4-5 days
 C. 5 or more days

32. What is your academic major? _____

33. How would you rate your academic performance in your major?

- A. Excellent
- B. Good
- C. Average
- D. Below Average
- E. Poor

34. How would you describe the help your academic advisor is giving you?

- A. He/she is helpful.
- B. I have not met with my advisor.
- C. I need little help from my advisor.
- D. Other (Please Specify: _____)

35. How many times have you and your advisor discussed your educational program?

- A. Occasionally
- B. Once a week
- C. Once a month
- D. Once a semester

36. Do you meet with your professors outside of class?

- A. Yes
- B. No

If "NO", go to Question 40.

If "YES", go to Question 37.

37. Why have you met with your professors?

- A. Socially
- B. To discuss academic matters
- C. To talk specifically about tutoring
- D. Other (Please Specify: _____)

38. How often do you meet with them?

- A. Occasionally
- B. Once a week
- C. Once a month
- D. Once a semester

39. How would you rate these meetings?
- _____ A. I had the feeling someone cared.
 _____ B. I wish I had not met.
 _____ C. They did not show any interest in me.
 _____ D. Other (Please Specify: _____)
40. Do you belong to any clubs at the college?
- _____ A. Yes
 _____ B. No
41. What campus activities do you participate in?
- _____ A. Social
 _____ B. Cultural
 _____ C. Religious
 _____ D. Student Government
 _____ E. Athletics
 _____ F. Other (Please Specify: _____)
42. How often do you participate?
- _____ A. All the time
 _____ B. Some of the time
 _____ C. Never
 _____ D. I do not have time to stay after school.
43. If you do not, what do you think the college can do to encourage students like you to participate?
- _____ A. Advertise them more
 _____ B. Nothing at all
 _____ C. Have more Latinos in them
 _____ D. Other (Please Specify: _____)
44. How did you feel about Mount Wachusett Community College when you first entered?
- _____ A. Nervous
 _____ B. Excited
 _____ C. Lost
 _____ D. Lonely
 _____ E. Other (Please Specify: _____)

45. How do you feel now?

- A. I feel excited.
 B. I feel like I belong here.
 C. I feel lonely.
 D. I feel proud.
 E. Other (Please Specify: _____)

46. What do you like about Mount Wachusett Community College? (Please check all that apply.)

- A. It is small.
 B. Faculty members are helpful.
 C. Advisors are helpful.
 D. Support services and programs are good.
 E. Classes
 F. Helpful counselors
 G. Other (Please Specify: _____)

47. What are some of the things you do not like about Mount Wachusett Community College? (Please check all that apply.)

- A. Not enough Latino faculty members and staff
 B. Faculty are not helpful.
 C. Lack of multicultural activities
 D. Lack of social activities
 E. Lack of support services for Latinos
 F. Other (Please Specify: _____)

48. What kinds of special support services have you received at the college? (Please check all that apply.)

- A. Early orientation
 B. Assistance with admission and registration
 C. Personal counseling
 D. Assistance in Spanish
 E. Tutoring
 F. Developmental courses
 G. Support services from the ESL Program
 H. Other (Please Specify: _____)

49. Do you know about support services programs for Latinos at Mount Wachusett Community College?

- _____ A. Yes
 _____ B. No

If "YES", go to Question 50.

If "NO", go to Question 54.

50. What are the strengths of these programs? (Please check all that apply.)

- _____ A. Academic advising
 _____ B. Counselors
 _____ C. Services in Spanish when needed
 _____ D. Tutorial services
 _____ E. Transfer counseling
 _____ F. Financial aid application assistance
 _____ G. Other (Please Specify: _____)

51. What are the weaknesses of these programs and services? (Please check all that apply.)

- _____ A. Lack of advisors
 _____ B. Lack of tutors
 _____ C. Lack of counselors
 _____ D. Too much hand-holding
 _____ E. Not enough Spanish-speaking staff
 _____ F. Other (Please Specify: _____)

52. How have these support services and programs helped you at Mount Wachusett Community College? (Please check all that apply.)

- _____ A. They have helped with counseling.
 _____ B. They have helped with tutorial assistance.
 _____ C. They have offered career counseling.
 _____ D. They have given me a sense of belonging.
 _____ E. They have helped with financial aid information.
 _____ F. Other (Please Specify: _____)

53. What recommendations would you offer Mount Wachusett Community College about these support services and programs? (Please check all that apply.)

- A. Need more staff
 B. Make them more visible
 C. Add tutors
 D. Make no changes
 E. Need more Spanish-speaking staff
 F. Need more space
 G. Other (Please Specify: _____)

54. Do you feel that Latino staff have made a difference in your persistence at Mount Wachusett Community College?

- A. Yes
 B. No

55. How would you describe it? (Please check all that apply.)

- A. I feel less isolated.
 B. I feel understood by others from my own background.
 C. I can have my questions answered in Spanish.
 D. I can express my feelings in my native language.
 E. Other (Please Specify: _____)

56. What language do you prefer to use most of the time?

- A. English exclusively
 B. Spanish exclusively
 C. English and Spanish equally

57. How would you rate your English language proficiency?

- A. Excellent
 B. Good
 C. Average
 D. Poor

58. Do you feel that your speaking proficiency is better than your writing proficiency?
- _____ A. The same
_____ B. Better
_____ C. Worse
_____ D. Other
59. If your writing proficiency is lower, would you say that this has hindered your academic progress at Mount Wachusett Community College?
- _____ A. Yes
_____ B. No
60. Do you think that content area courses taught in Spanish would influence your academic progress?
- _____ A. It would facilitate my progress.
_____ B. It would not make a difference.
_____ C. I would rather take courses in English.
_____ D. My academic program would not be measured by my English proficiency.
_____ E. Other (Please Specify: _____)

* * * * *

We have reached the end of the interview. I want to thank you again for your participation and for making this research study possible. Once the study is completed, I will be glad to share the findings with you.

Vanessa R. Más

CUESTIONARIO

El propósito de este cuestionario es determinar los factores que afectan la persistencia de los estudiantes Latinos en los colegios de dos años. Como estudiante Latino en Mount Wachusett Community College (MWCC), has sido seleccionado para participar en este estudio. Toda la información que tu proveas será mantenida en estricta confidencialidad y será reportada en forma de datos agregados únicamente. En ninguna forma serás identificado como sujeto en este estudio. Además, tienes el derecho de retirar tu participación en este estudio en cualquier momento.

Los resultados de esta investigación pueden abrir el camino al desarrollo de nuevos programas diseñados para aumentar la persistencia de estudiantes Latinos en Mount Wachusett Community College y en otros colegios de dos años en el estado de Massachusetts.

Gracias por tu participación y por hacer posible este estudio de investigación.

PARTE I: INFORMACIÓN DEMOGRÁFICA

1. Edad

- A. Menos de 20
 B. 21-26
 C. 27-30
 D. 30+

2. Sexo

- A. Masculino
 B. Femenino

3. Estado Civil

- A. Casado/a
 B. Soltero/a

4. Lugar de Residencia

- A. Fitchburg
- B. Leominster
- C. Clinton
- D. Westminster
- E. Gardner
- F. Lancaster
- G. Otro (Por favor especifica: _____)

5. Numero de Dependientes

- A. Ninguno
- B. Uno
- C. Dos
- D. Tres o mas

PARTE II: PREGUNTAS RELACIONADAS CON LAS VARIABLES A ESTUDIARSE

6. ¿Qué preparación académica completó tu mamá?

- A. No completó escuela superior
- B. Completó escuela superior
- C. Dos años de colegio
- D. Cuatro años de colegio
- E. Escuela Graduada

7. ¿Qué preparación académica completó tu papá?

- A. No completó escuela superior
- B. Completó escuela superior
- C. Dos años de colegio
- D. Cuatro años de colegio
- E. Escuela Graduada

8. ¿Cuánto apoyo tu consideras que tus padres te dan en tus esfuerzos académicos?

- A. Mucho apoyo
- B. Me apoyan
- C. No me apoyan
- D. No hablamos sobre la escuela
- E. Soy un estudiante independiente y no vivo con mis padres.
- F. Otro (Por favor especifica: _____)

9. ¿Completaste escuela superior?

- _____ A. Si
 _____ B. No

Si contestaste "NO", pasa a la pregunta 10.
 Si contestaste "SI", pasa a la pregunta 11.

10. ¿Completaste el diploma de equivalencia de escuela superior (GED)?

- _____ A. Si (Año en que lo completaste: _____)
 _____ B. No

11. ¿Qué promedio académico tenías al completar la escuela superior?

- _____ A. 3.5-4.0
 _____ B. 2.5-3.4
 _____ C. 2.0-2.4
 _____ D. Menos de 2.0

12. ¿Porqué decidiste continuar tu educación post-secundaria?

- _____ A. Siempre quise ir a colegio.
 _____ B. Mis padres querían que continuara.
 _____ C. Mis amigos me motivaron.
 _____ D. Luego de completar mi Diploma de Equivalencia (GED)
 _____ E. Otro (Por favor especifica: _____)

13. ¿Por qué decidiste venir a Mount Wachusett Community College?

- _____ A. La localización es conveniente
 _____ B. La matrícula es baja
 _____ C. Era el único colegio disponible
 _____ D. La consejero de escuela superior me lo sugirió
 _____ E. Un representante de Mount Wachusett Community College visitó mi escuela
 _____ F. Mis amigos asisten a Mount Wachusett Community College
 _____ G. Porque quería asistir al Programa de Inglés Como Segundo Idioma
 _____ H. Otro (Por favor especifica: _____)

14. ¿Solicitaste a algun otro colegio?
- A. Si
 B. No
15. En estos momentos estás estudiando,
- A. Tiempo completo
 B. Tiempo parcial
 C. No estoy estudiando
16. ¿Cuáles eran tus planes originales al comenzar en Mount Wachusett Community College? (Marca todas las alternativas que apliquen.)
- A. Matricularme en el Programa de Inglés Como Segundo Idioma
 B. Tomar un curso
 C. Tomar dos cursos o más
 D. Completar un Grado Asociado
 E. Transferirme a un colegio de cuatro años
 F. Completar un Certificado de un año
 G. Otro (Por favor especifica: _____)
17. ¿Qué programa de estudio pensabas continuar al solicitar a Mount Wachusett Community College?
-
18. ¿Te encuentras en ese mismo programa de estudios en estos momentos?
- A. Si
 B. No
19. ¿Cuántos créditos has aprobado en Mount Wachusett Community College?
- A. 30+
 B. 25-29
 C. 20-24
 D. 19 O menos
 E. En Progreso

20. ¿Qué promedio académico tienes en Mount Wachusett Community College?
- A. 2.4-4.0
 - B. 2.5-3.3
 - C. 2.0-2.4
 - D. Menos de 2.0
 - E. Primeros Cursos
21. ¿Cuánto tiempo dedicas a tu trabajo académico fuera del salón de clases durante la semana?
- A. 3 horas o menos
 - B. 4-6 horas
 - C. 7-9 horas
 - D. 10 horas o mas
 - E. No tengo tiempo para estudiar.
22. ¿Qué tipo de ayuda económica recibes? (Marca todos lo que apliquen.)
- A. Beca Pell
 - B. Beca del Estado de Massachusetts
 - C. Prestamo educacional
 - D. Programa de Estudio y Trabajo
 - E. Beca privada
 - F. Exención de matrícula de MWCC
 - G. No recibo ayuda económica.

Si no recibes ayuda económica, pasa a la pregunta 25.

Si recibes ayuda económica, pas a la pregunta 23.

23. ¿Has tenido que suplementar tu asistencia económica mediante trabajo?
- A. Si
 - B. No
24. ¿Sin esa ayuda económica, hubieses podido continuar tus estudios?
- A. Si
 - B. No

25. ¿Si no recibes asistencia económica, trabajas mientras asistes al colegio para sufragar tus gastos?

- _____ A. Si
 _____ B. No

26. ¿Trabajas fuera del campus del colegio?

- _____ A. Si
 _____ B. No

Si trabajas, pasa a la pregunta 27.
 Si no trabajas, pasa a la pregunta 29.

27. ¿Cuántas horas trabajas?

- _____ A. Menos de 10 horas
 _____ B. 11 a 15 horas
 _____ C. 16 a 20 horas
 _____ D. Más de 20 horas

28. ¿Consideras que tu trabajo ha afectado tu progreso académico en el colegio?

- _____ A. No lo ha afectado
 _____ B. Lo ha afectado un poco
 _____ C. Lo ha afectado muchísimo
 _____ D. No tengo tiempo para estudiar.
 _____ E. Otro (Por favor especifica: _____)

29. ¿Cuántos semestres has estado matriculado en Mount Wachusett Community College?

- _____ A. 1-2 semestres
 _____ B. 3-4 semestres
 _____ C. 5 semestres o más

30. ¿Has dejado de asistir al colegio algun semestre?

- _____ A. Si
 _____ B. No

Si la contestación es "SI", por favor especifica la razón: _____

31. ¿Cuántas ausencias tienes por lo regular durante el semestre?

- A. Ninguna
 B. 1-3 días
 C. 4-5 días
 D. 5 días o más

32. ¿Cuál es tu concentración académica? _____

33. ¿Cómo evalúas tu progreso académico en tu concentración?

- A. Excelente
 B. Bueno
 C. Promedio
 D. Bajo el promedio
 E. Pobre

34. ¿Cómo describirías la ayuda que tu consejero académico te esta brindando?

- A. El/Ella es de mucha ayuda.
 B. No me he reunido aun con mi consejero.
 C. Necesito poca ayuda de mi consejero.
 D. Otro (Por favor especifica: _____)

35. ¿Cuántas veces has discutido tu progreso académico con tu consejero?

- A. Nunca
 B. Ocasionalmente
 C. Una vez a la semana
 D. Una vez al mes
 E. Una vez al semestre

36. ¿Te reúnes con tus profesores fuera del salón de clases?

- A. Si
 B. No

Si la contestación es "SI", pasa a la pregunta 37.

Si la contestación es "NO", pasa a la pregunta 40.

37. ¿Con qué motivo te has reunido con tus profesores?
- A. Socializar
 - B. Discutir asuntos académicos
 - C. Para hablar específicamente de tutorías
 - D. Otro (Por favor especifica: _____)
38. ¿Con cuánta frecuencia te reúnes con ellos?
- A. Ocasionalmente
 - B. Una vez a la semana
 - C. Una vez al mes
 - D. Una vez al semestre
39. ¿Como evalúas esas reuniones?
- A. Sentí que alguien se interesaba en mi.
 - B. Hubiese preferido no reunirme.
 - C. No mostraron ningún interés en mi.
 - D. Otro (Por favor especifica: _____)
40. ¿Pertenece a algún club en el colegio?
- A. Si
 - B. No
41. ¿En que actividades del campus participas?
- A. Sociales
 - B. Culturales
 - C. Religiosas
 - D. Senado Estudiantil
 - E. Atléticas
 - F. Reuniones del programa
 - G. Otro (Por favor especifica: _____)
42. ¿Con cuánta frecuencia participas?
- A. Todo el tiempo
 - B. Algunas veces
 - C. Nunca
 - D. No tengo tiempo para quedarme después de horas de clases.

43. ¿Si no participas, que crees que el colegio puede hacer para motivar a los estudiantes como tu para que participen?
- _____ A. Anunciar las actividades más
 _____ B. Nada
 _____ C. Tener mas Latinos en ellas.
 _____ D. Otro (Por favor especifica: _____)
44. ¿Cómo te sentiste cuando comenzaste en Mount Wachusett Community College?
- _____ A. Nervioso/a
 _____ B. Excitado/a
 _____ C. Perdido/a
 _____ D. Solo/a
 _____ E. Bien
 _____ F. Otro (Por favor especifica: _____)
45. ¿Cómo te sientes ahora?
- _____ A. Me siento excitado/a.
 _____ B. Siento que pertenezco aqui.
 _____ C. Me siento solo/a.
 _____ D. Me siento orgulloso/a.
 _____ E. Me siento confiado.
 _____ F. Otro (Por favor especifica: _____)
46. ¿Qué es lo mas que te gusta de Mount Wachusett Community College? (Por favor, marca todas las alternativas que apliquen.)
- _____ A. Es pegueño.
 _____ B. Los profesores ayudan a uno.
 _____ C. Los consejeros académicos ayudan a uno.
 _____ D. Los programas y servicios de apoyo.
 _____ E. Las clases
 _____ F. Los consejeros ayudan a uno.
 _____ G. Otro (Por favor especifica: _____)

47. ¿Qué no te gusta de Mount Wachusett Community College? (Por favor, marca todas las alternativas que apliquen.)

- A. No hay suficientes Latinos entre la facultad y el personal
- B. Los profesores no ayudan a uno.
- C. Falta de actividades multiculturales
- D. Falta de actividades sociales
- E. Falta de servicios de apoyo para los estudiantes Latinos
- F. No hay nada que no me guste.
- G. Otro (Por favor especifica: _____)

48. ¿Qué servicios de apoyo has recibido en Mount Wachusett Community College? (Por favor, marca todas las alternativas que apliquen.)

- A. Orientación
- B. Ayuda al solicitar y matricularme en el colegio
- C. Consejería personal
- D. Ayuda y servicios en mi propio idioma
- E. Tutorías
- F. Cursos remediales
- G. Servicios de apoyo a través del programa de Inglés como Segundo Idioma
- H. Otro (Por favor especifica: _____)

49. ¿Has usado los servicios de apoyo para estudiantes ofrecidos en Mount Wachusett Community College?

- A. Si
- B. No

Si contestaste "SI", pasa a la pregunta 50.

Si contestaste "NO", pasa a la pregunta 54.

50. ¿Cuáles son las fortalezas de ese programa? (Por favor, marca todas las alternativas que apliquen.)

- A. Consejería académica
- B. Consejería personal
- C. Servicios en español cuando son necesarios
- D. Servicios de tutorías
- E. Consejería sobre programas de transferencia
- F. Ayuda completando la solicitud de ayuda económica
- G. Otro (Por favor especifica: _____)

51. ¿Cuáles son las debilidades de estos programas y servicios?

- A. Falta de consejeros académicos
- B. Falta de tutores
- C. Falta de consejeros personales
- D. Demasiada ayuda
- E. Falta de suficiente personal Latino
- F. No considero que el programa tiene debilidades
- G. Otro (Por favor especifica: _____)

52. ¿Cómo crees que estos programas y servicios de apoyo te han ayudado en Mount Wachusett Community College? (Por favor, marca todas las alternativas que apliquen.)

- A. Con consejería.
- B. Con tutorías.
- C. Ofreciéndome consejería en el área de carreras.
- D. Dándome un sentido de pertenencia en el colegio.
- E. Con información y procesamiento de la solicitud de ayuda económica.
- F. Otro (Por favor especifica: _____)

53. ¿Qué recomendaciones le harías a Mount Wachusett Community College sobre estos servicios y programas? (Por favor, marca todas las que apliquen.)

- A. Más personal
- B. Más visibilidad
- C. Más tutores
- D. No necesitan cambios
- E. Más personal que hable español
- F. Más espacio
- G. Otro (Por favor especifica: _____)

54. ¿Crees que el personal Latino ha hecho una diferencia en tu persistencia en Mount Wachusett Community College?

- A. Si
- B. No

55. ¿Si tu respuesta fue afirmativa en la pregunta anterior, como describirías esa experiencia?
- A. Me siento menos aislado.
 - B. Siento que otras personas de mi mismo trasfondo cultural me entienden.
 - C. Pueden contestar mis preguntas en español.
 - D. Puedo expresar mis sentimientos en mi idioma nativo.
 - E. Me siento mas confiado en que puedo tener éxito.
 - F. Otro (Por favor especifica: _____)
56. ¿A qué factor o factores le atribuyes tu persistencia en el colegio?
- _____
- _____
- _____
57. ¿Qué idioma prefieres usar la mayor parte del tiempo?
- A. Inglés exclusivamente
 - B. Español exclusivamente
 - C. Inglés o Español igualmente
 - D. Otro (Por favor especifica: _____)
58. ¿Cómo describirías tu proficiencia en Inglés?
- A. Excelente
 - B. Buena
 - C. Promedio
 - D. Pobre
59. ¿Crees que tu proficiencia en el Inglés conversacional es mejor que la proficiencia en el Inglés escrito?
- A. Igual
 - B. Mejor
 - C. Peor
60. ¿Si tu proficiencia en Inglés escrito es inferior, consideras que esto ha afectado tu progreso académico?
- A. Si
 - B. No

61. ¿Cómo afectaría tu progreso académico el tomar cursos en español?

- A. Facilitaría mi progreso.
- B. No haría diferencia.
- C. Prefiero tomar cursos en Inglés.
- D. Mi progreso académico no sería evaluado en base a mi proficiencia en Inglés.
- E. Otro (Por favor especifica: _____)

* * * * *

Hemos llegado al final de nuestra entrevista. Quiero darte las gracias por tu participación y por hacer este proyecto de investigación posible. Una vez finalizado, estaré en la mejor disposición de compartir los resultados contigo.

Vanessa R. Más

APPENDIX C

LETTER OF PERMISSION TO ADAPT
RYAN QUESTIONNAIRE



UNIVERSITY OF MASSACHUSETTS
AT AMHERST

Financial Aid Services

255 Whitmore Administration Building
Amherst, MA 01003
(413) 545-0801

October 28, 1991

To Whom It May Concern:

I hereby give my permission to Vanessa R. Mas to freely adapt the survey instrument developed for my study entitled "Persistence Patterns of Puerto Rican Students at the University of Massachusetts."

Sincerely,

Merle M. Ryan
Merle M. Ryan, Ed.D.

APPENDIX D

RESULTS TO REMAINING QUESTIONS
OF STUDY QUESTIONNAIRE

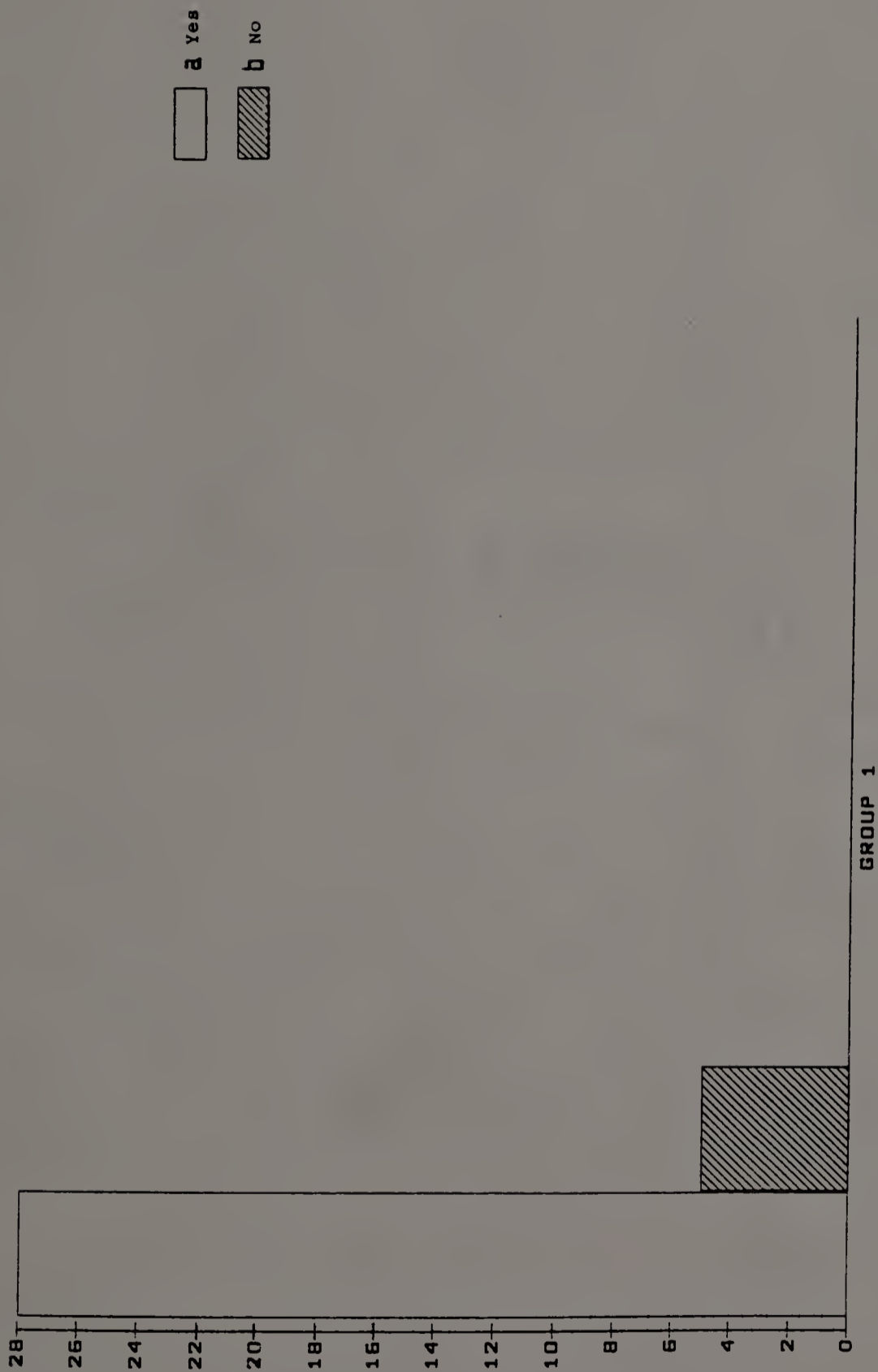


Figure 41. Data from Question 9: Did you complete high school?

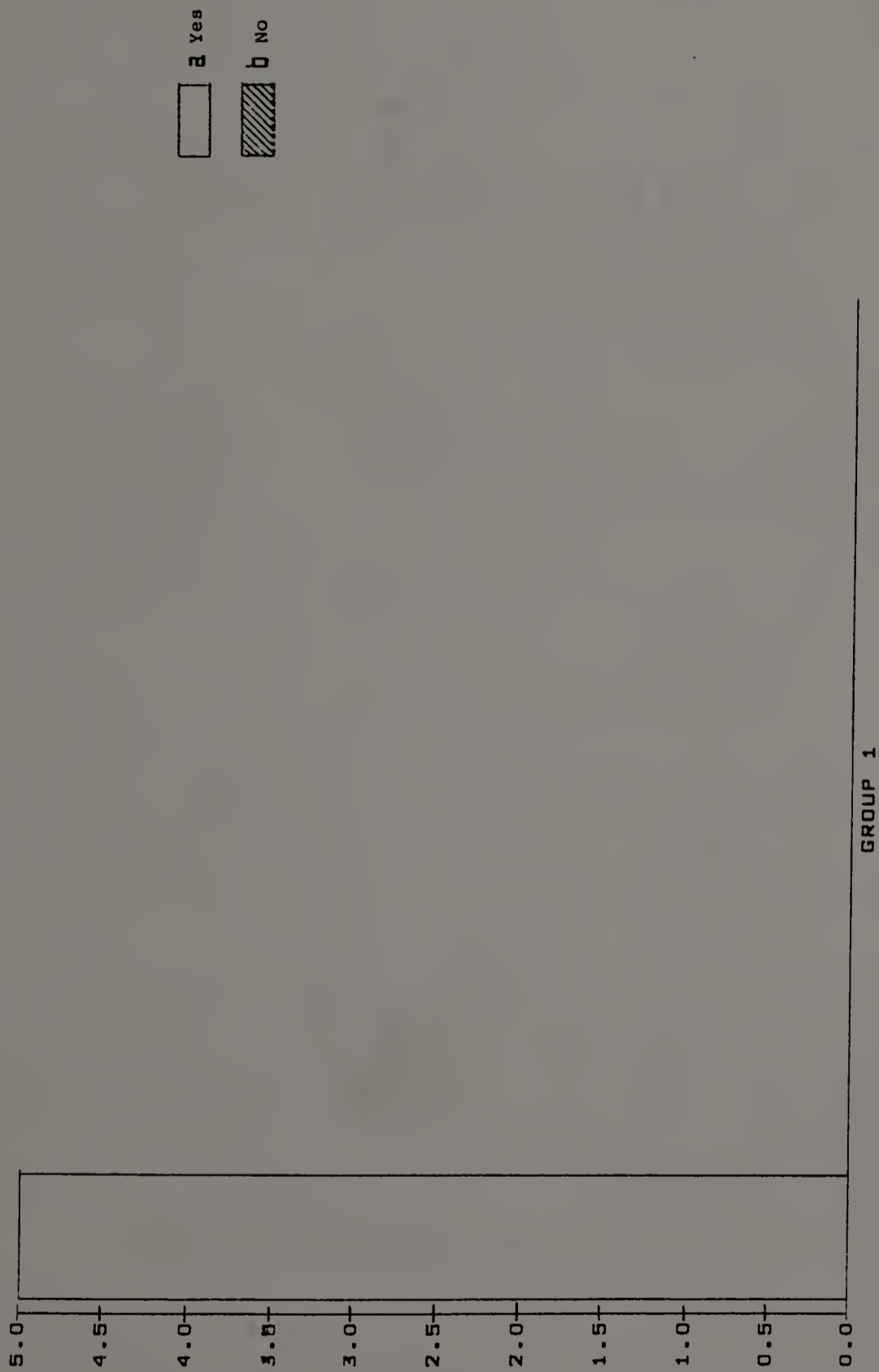


Figure 42. Data from Question 10: Did you complete the General Equivalency Diploma (GED)?



Figure 43. Data from Question 12: Why did you decide to go to college?

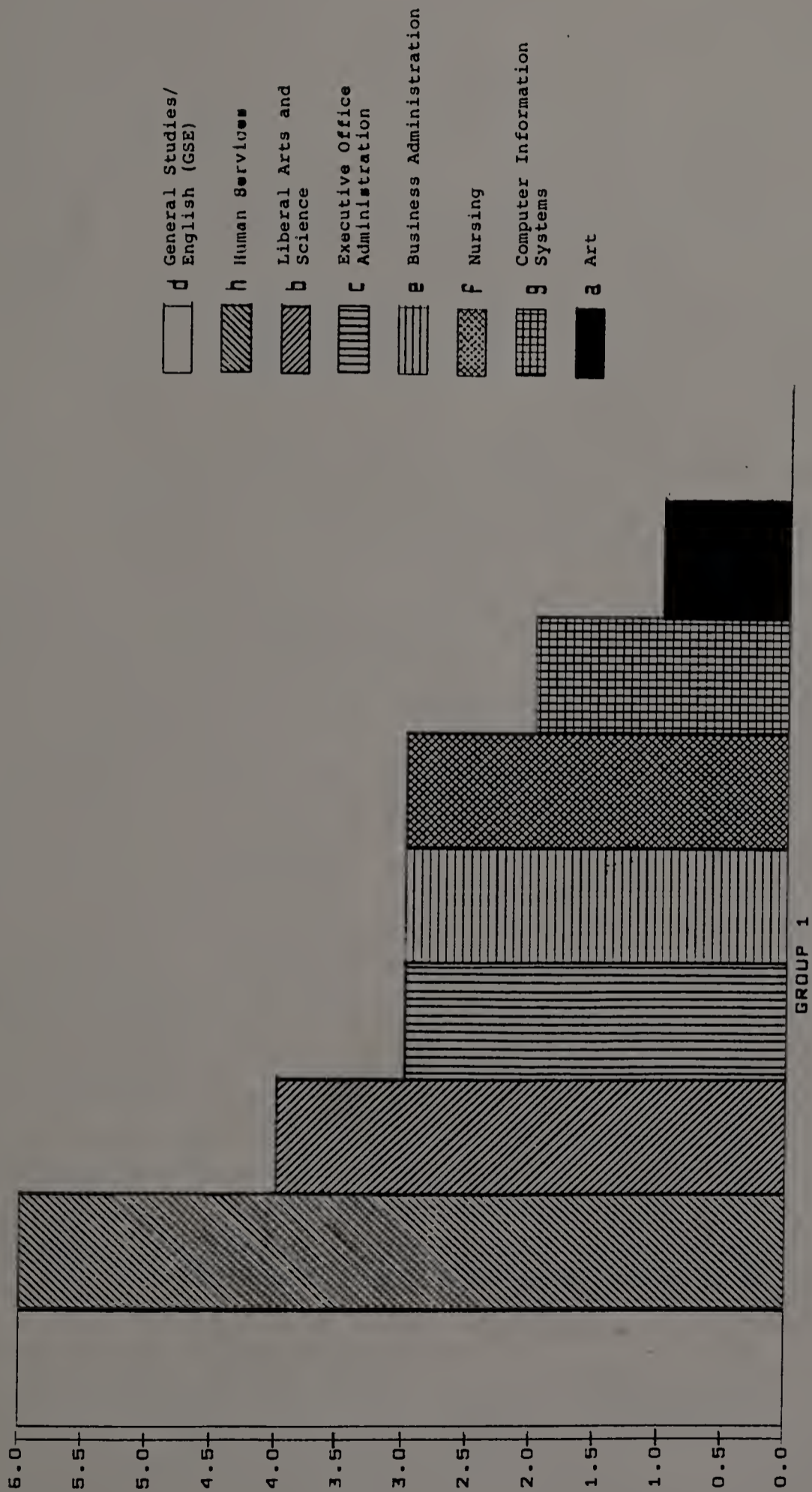


Figure 44. Data from Question 17: What was your intended program of study when you entered Mount Wachusett Community College?

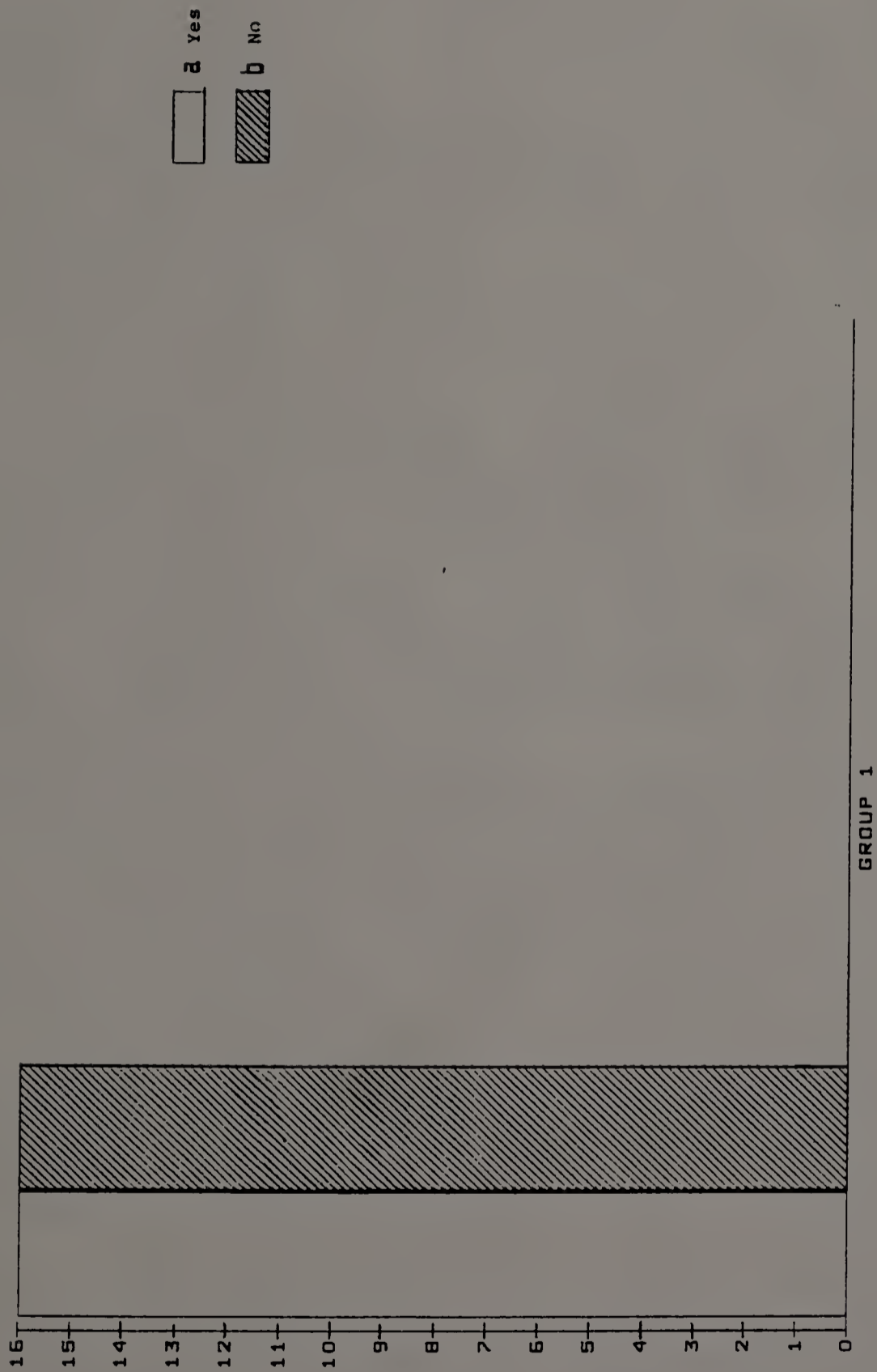


Figure 45. Data from Question 18: Are you still pursuing that program of study?

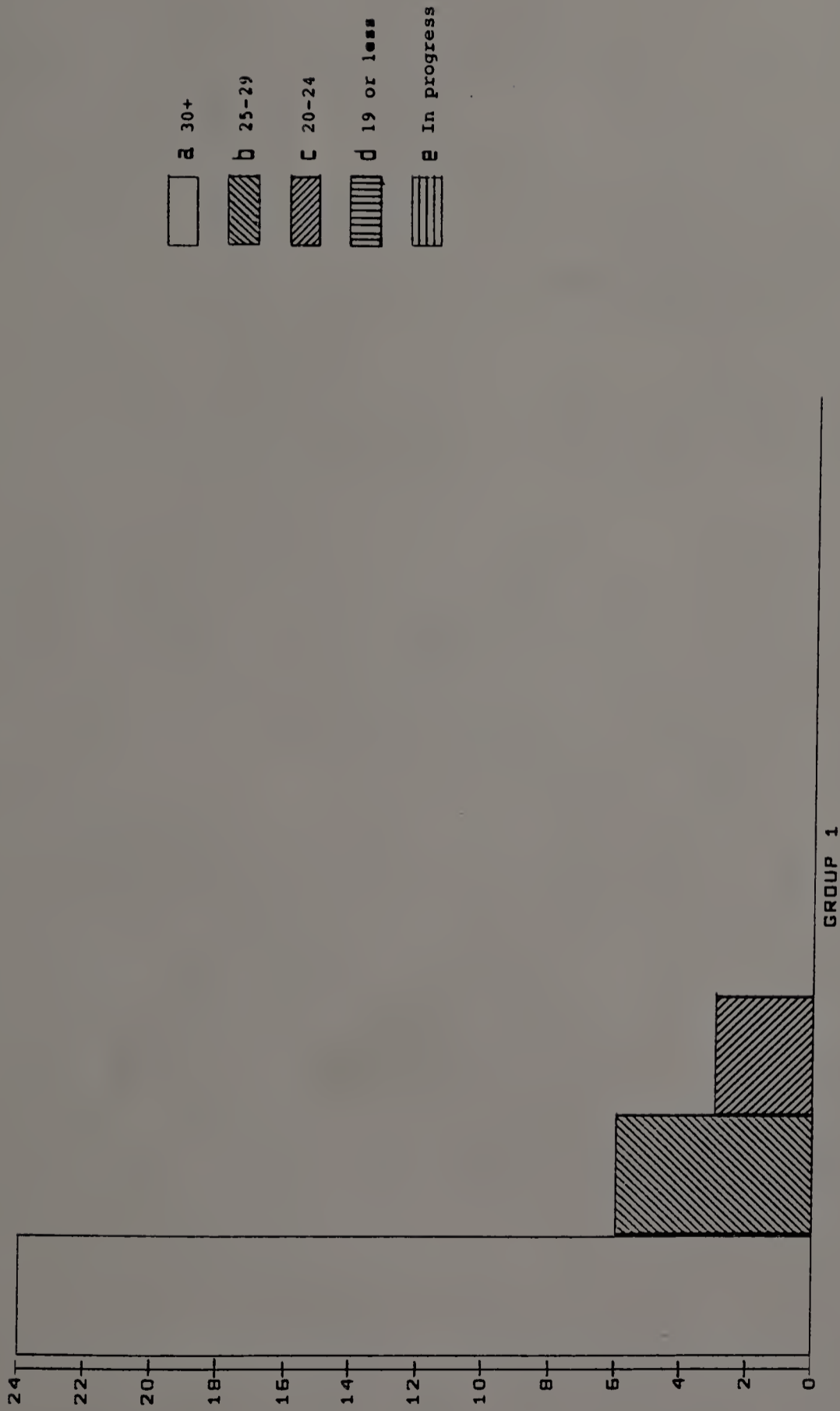


Figure 46. Data from Question 19: How many credits have you approved at Mount Wachusett Community College?

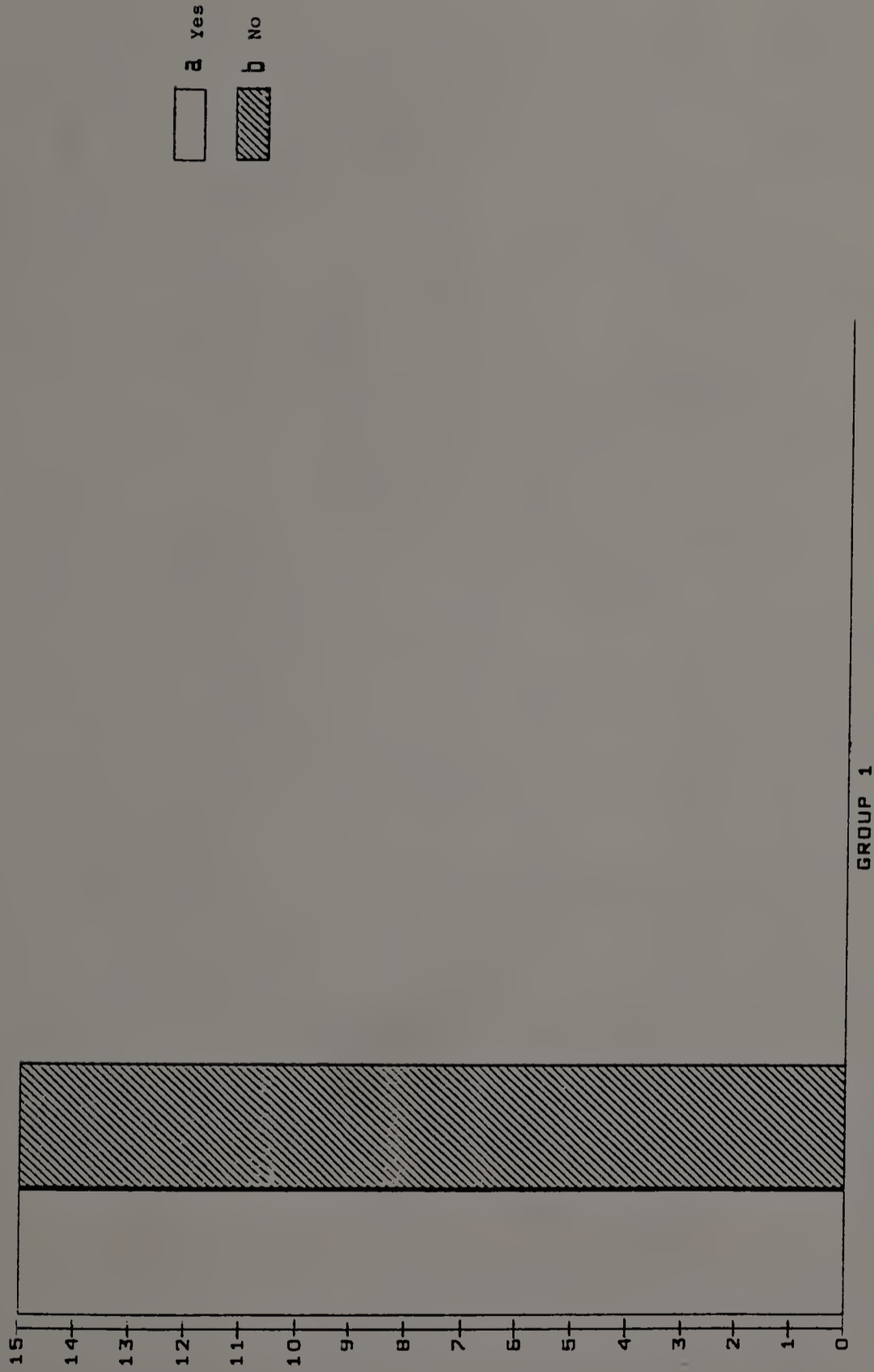


Figure 47. Data from Question 23: If you receive financial assistance, have you had to supplement your assistance by working?

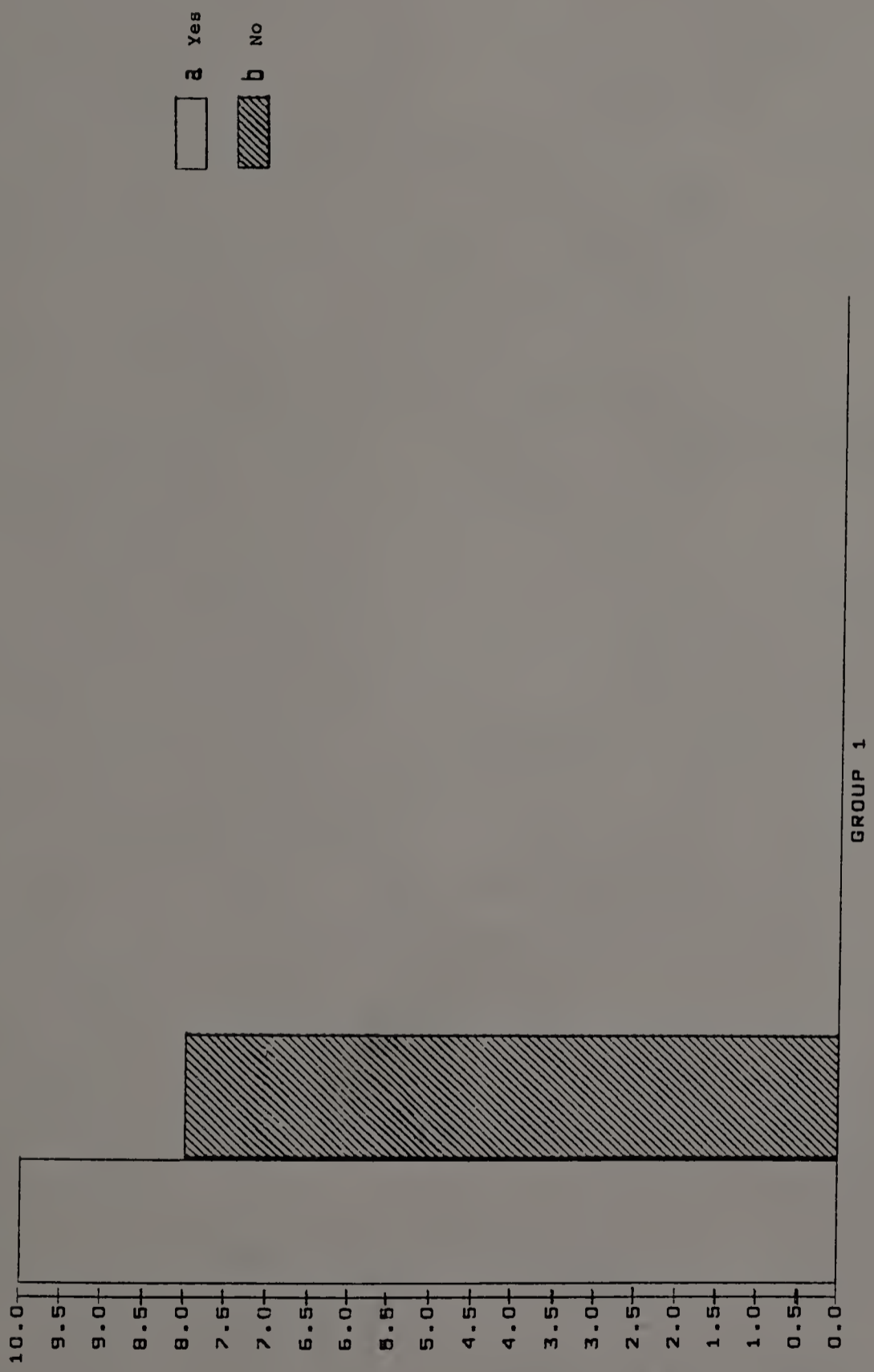


Figure 48. Data from Question 25: If you do not receive financial assistance, do you still work for pay while attending college?

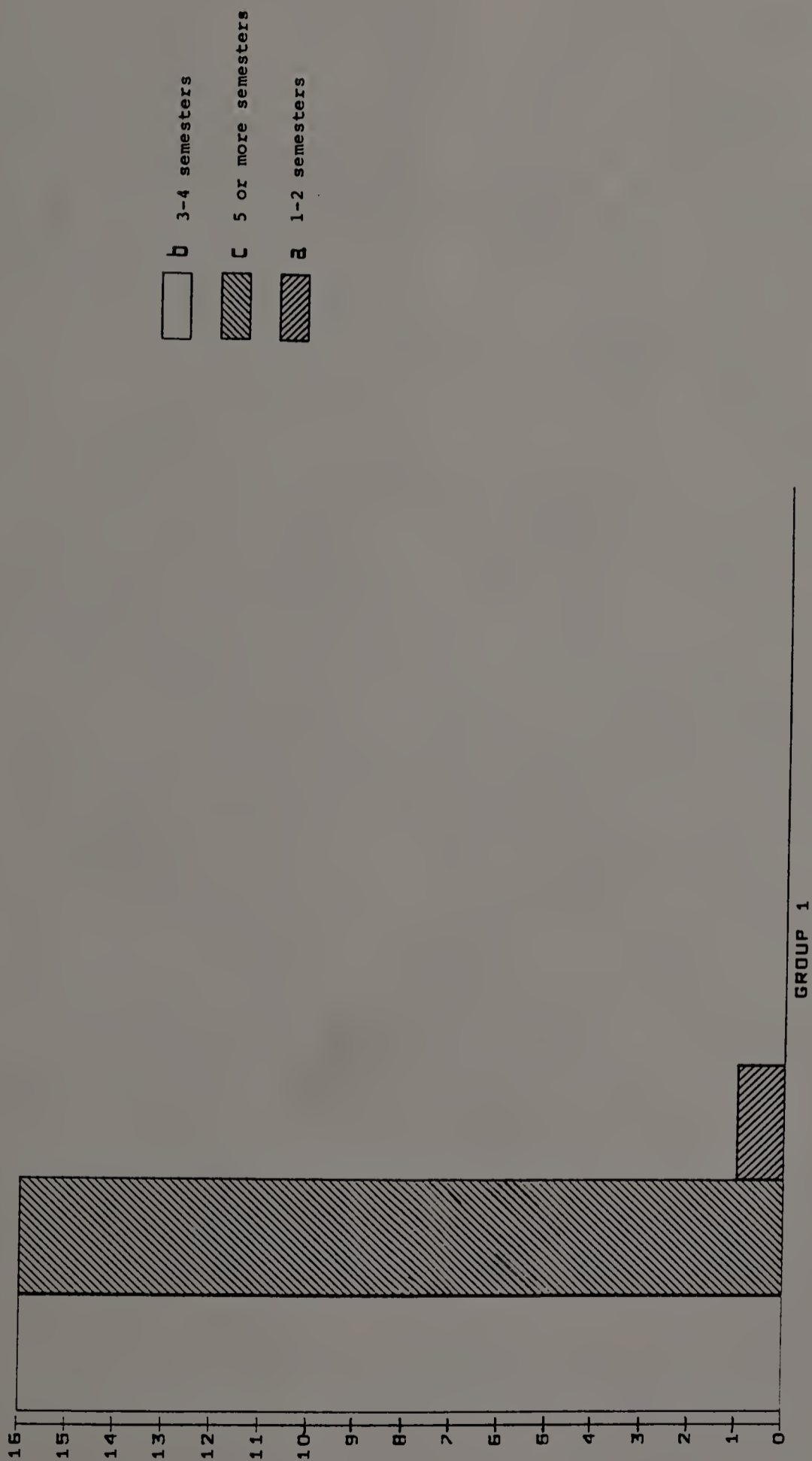


Figure 49. Data from Question 29: How many semesters have you been enrolled at Mount Wachusett Community College?

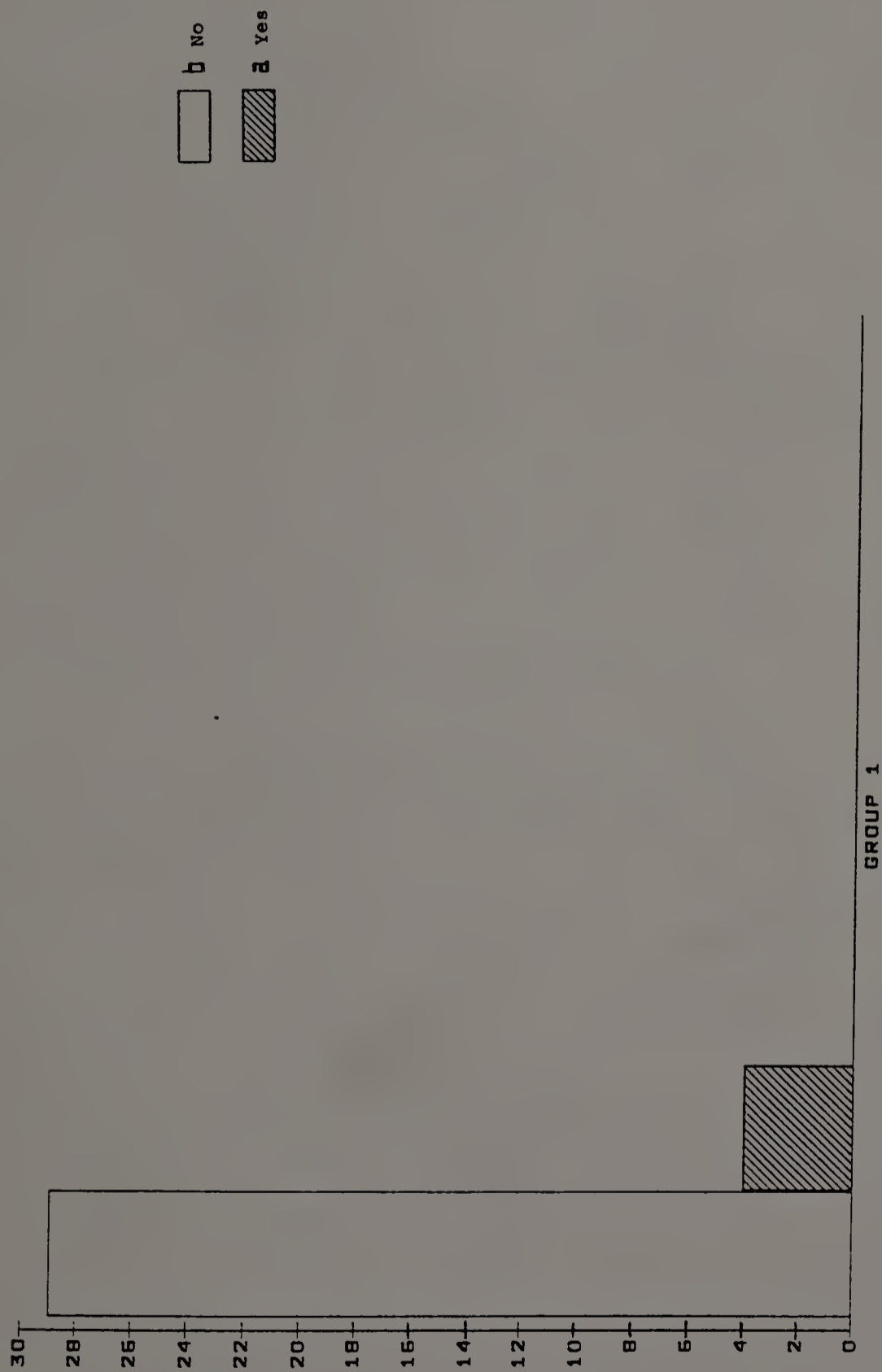


Figure 50. Data from Question 30: Have you stopped attending any semester?

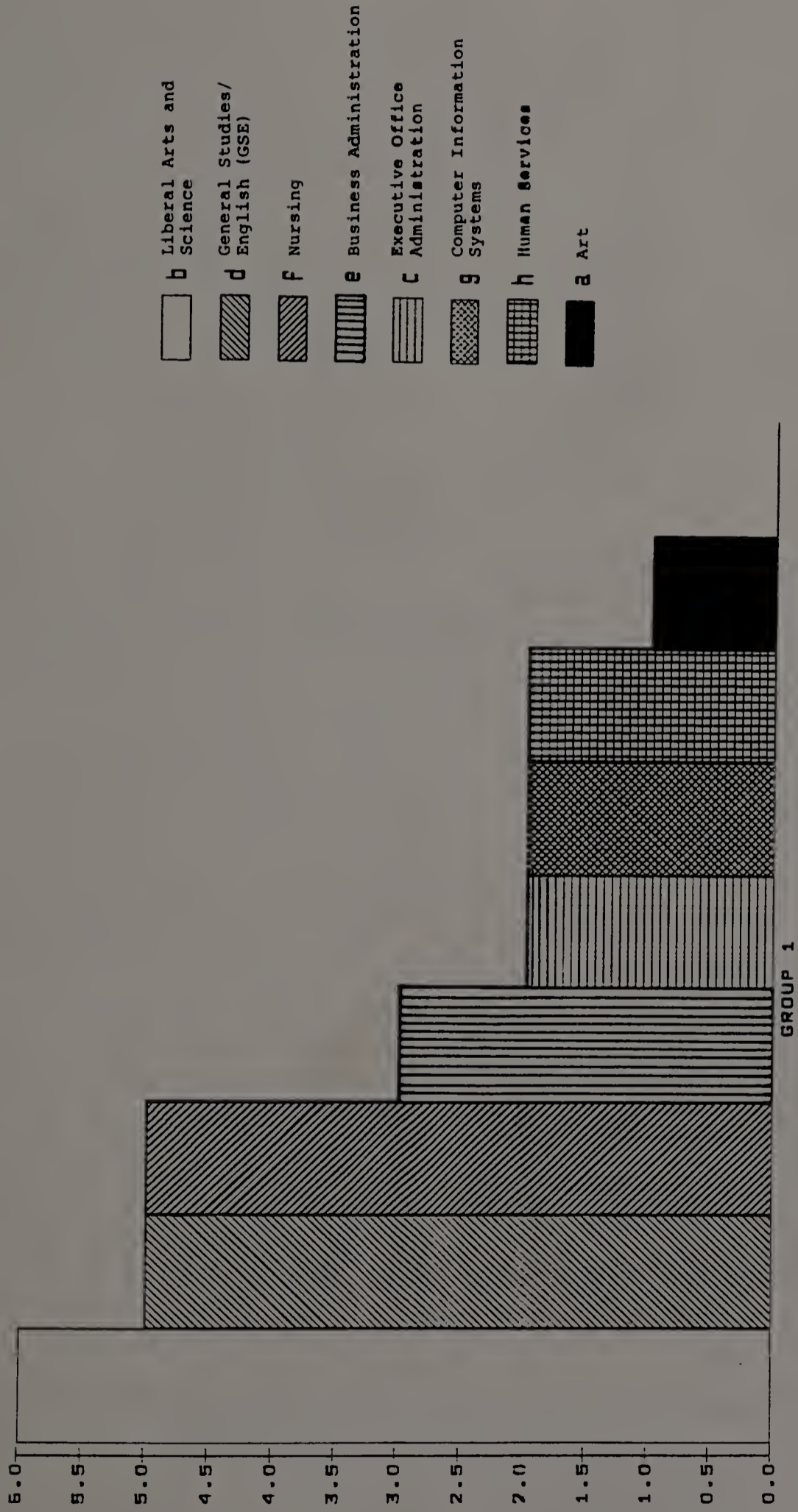


Figure 51. Data from Question 32: What is your academic major?

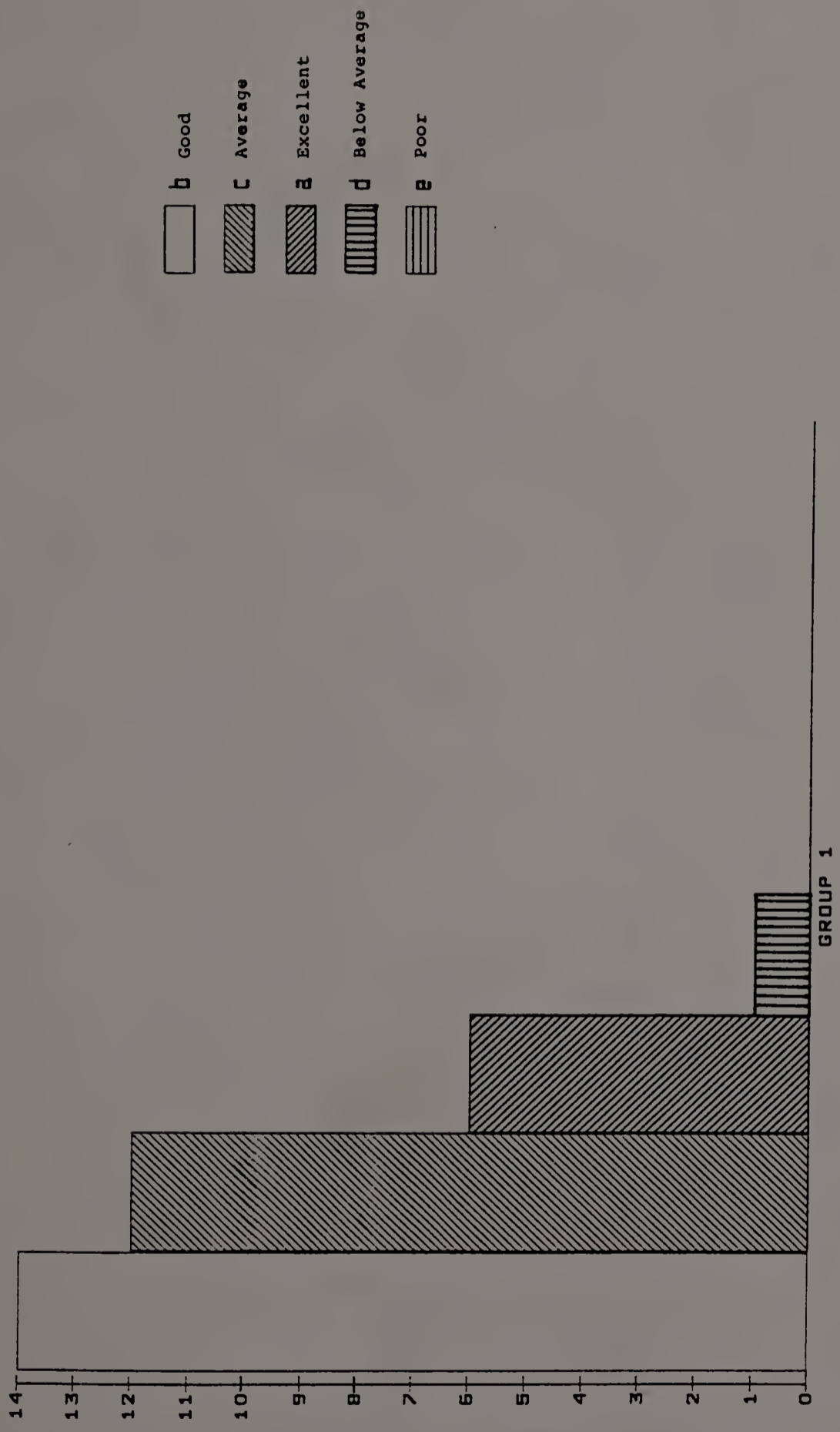


Figure 52. Data from Question 33: How would you rate your academic performance in your major?

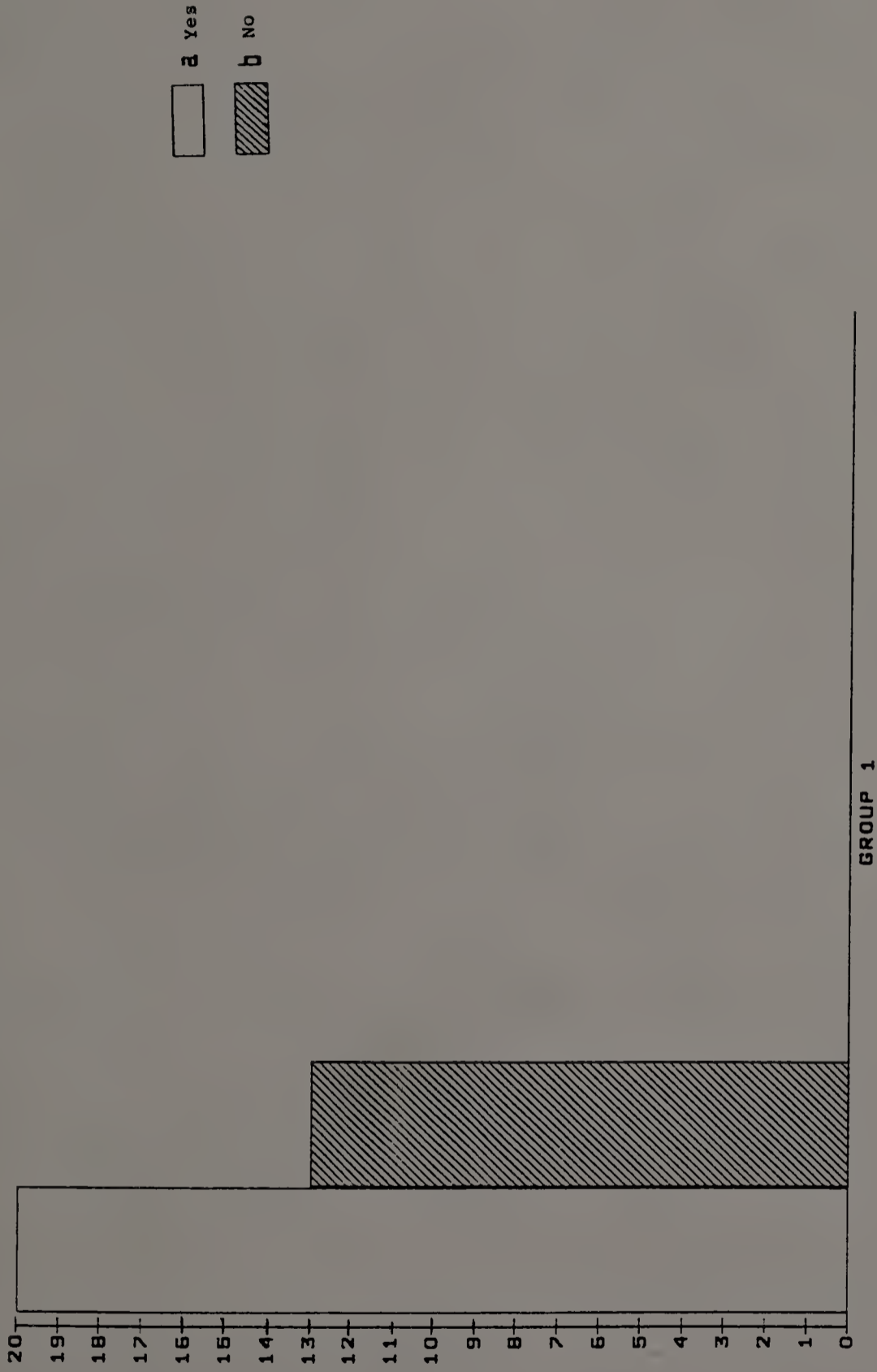


Figure 53. Data from Question 36: Do you meet with your professors outside of class?

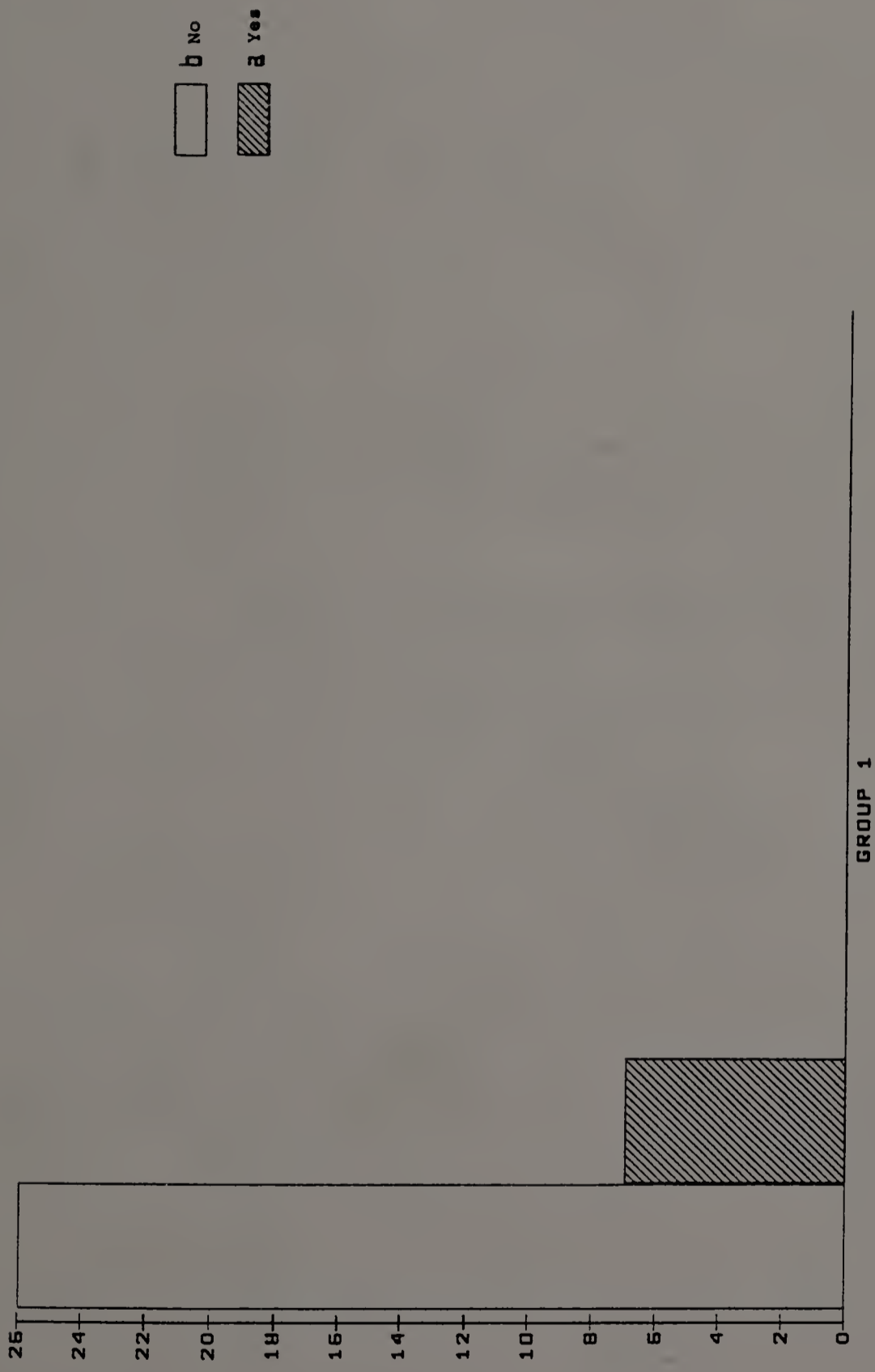


Figure 54. Data from Question 40: Do you belong to any clubs at the college?

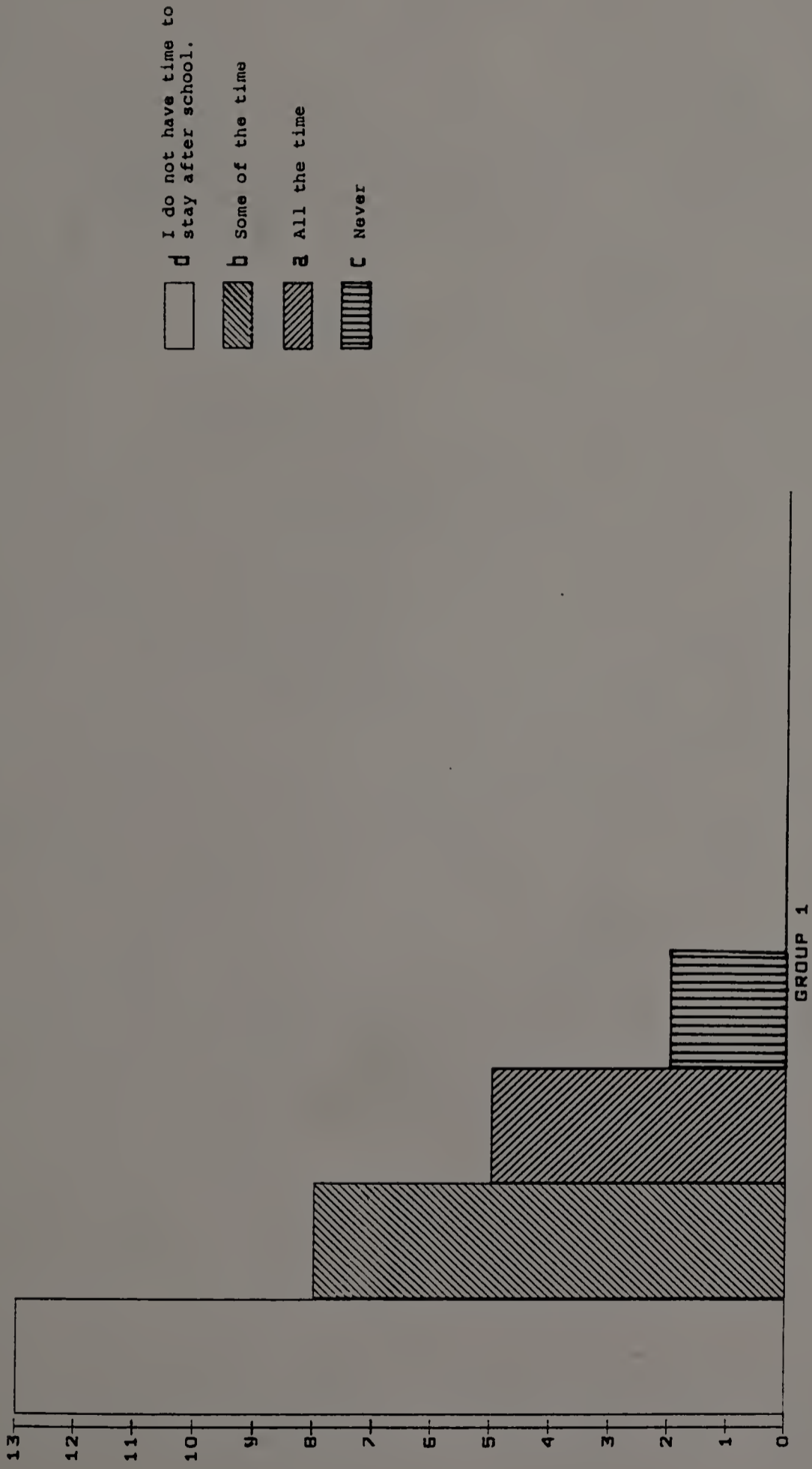


Figure 55. Data from Question 42: How often do you participate?

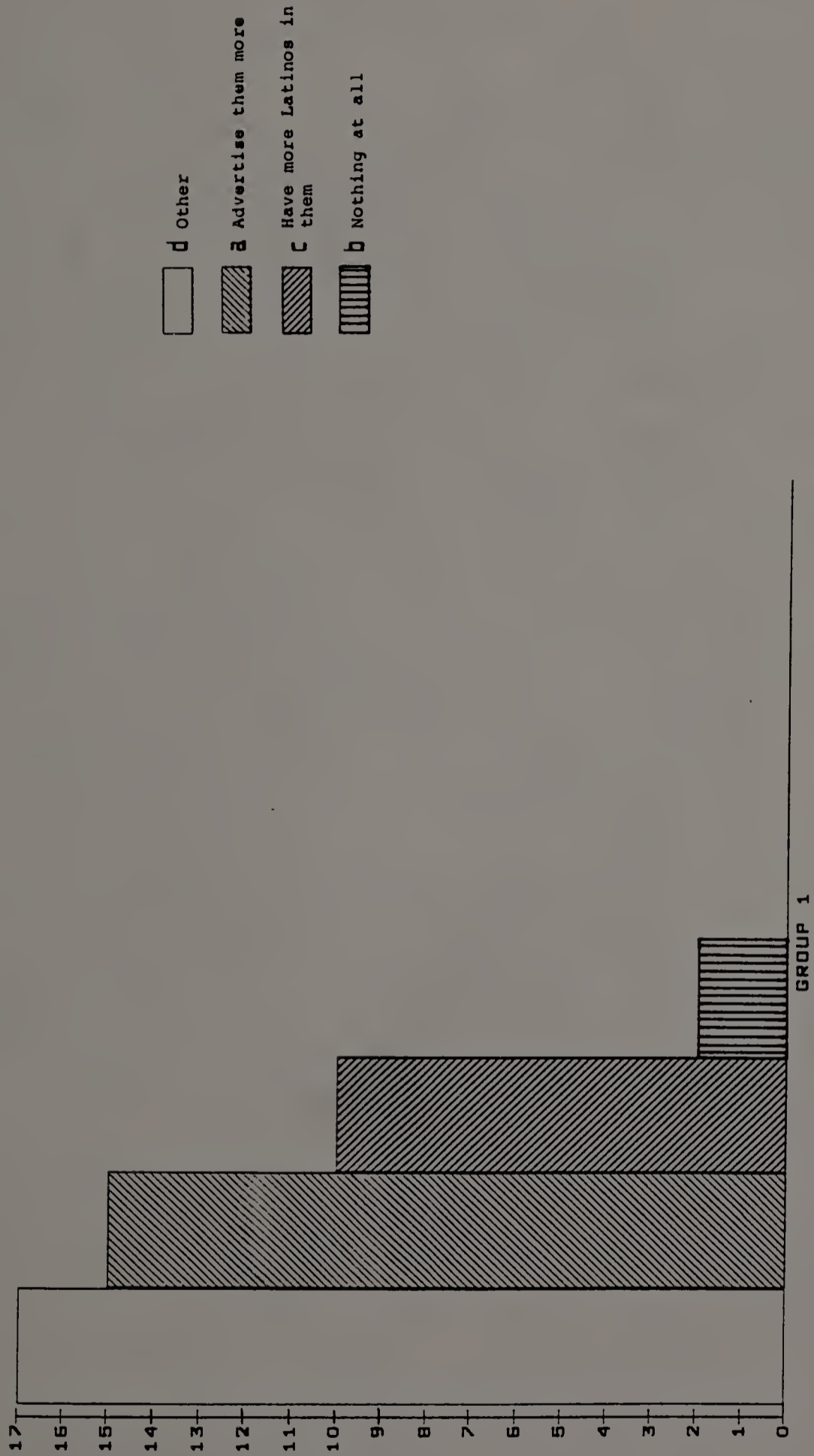


Figure 56. Data from Question 43: If you do not, what do you think the college can do to encourage students like you to participate?

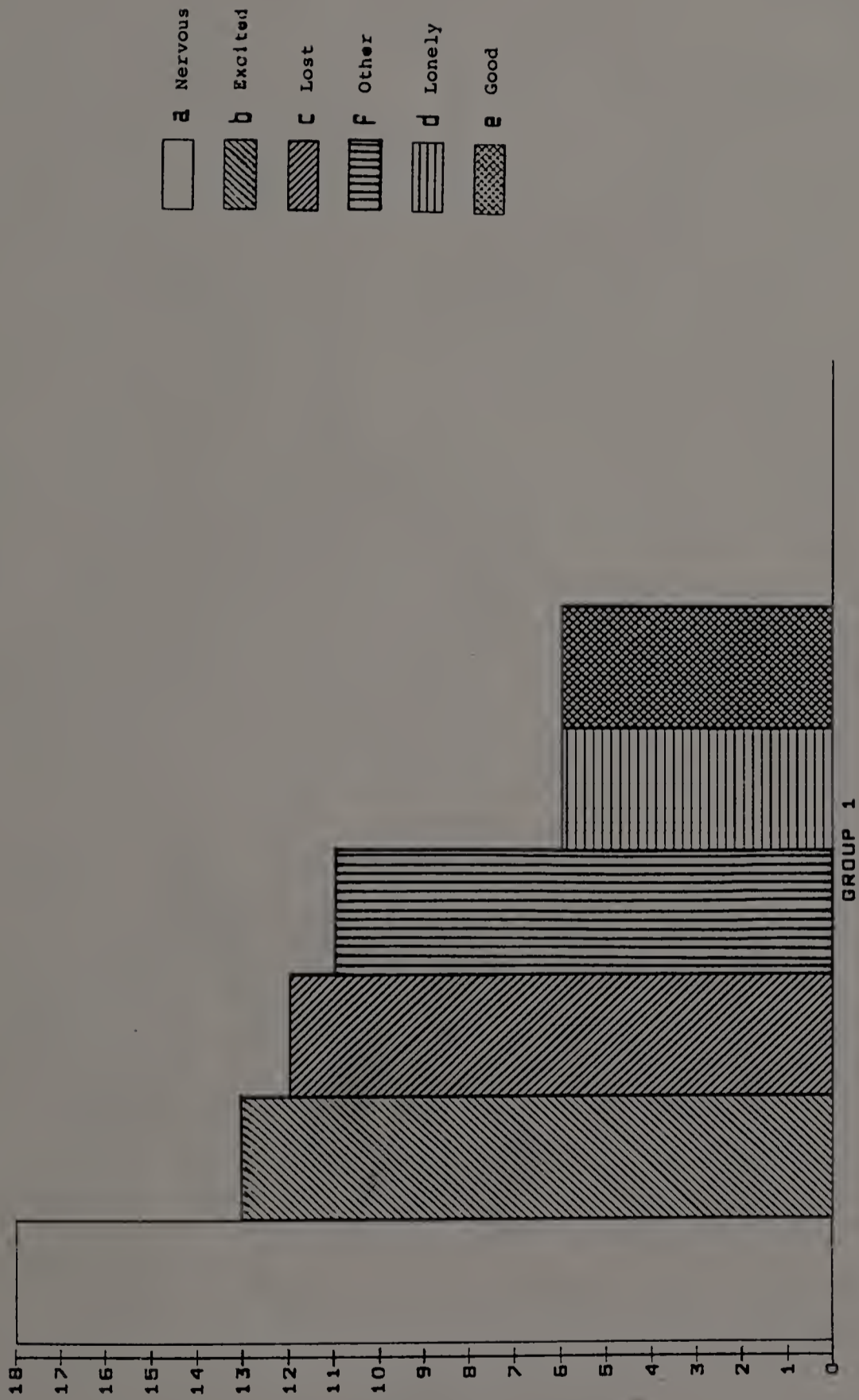


Figure 57. Data from Question 44: How did you feel about Mount Wachusett Community College when you first entered?

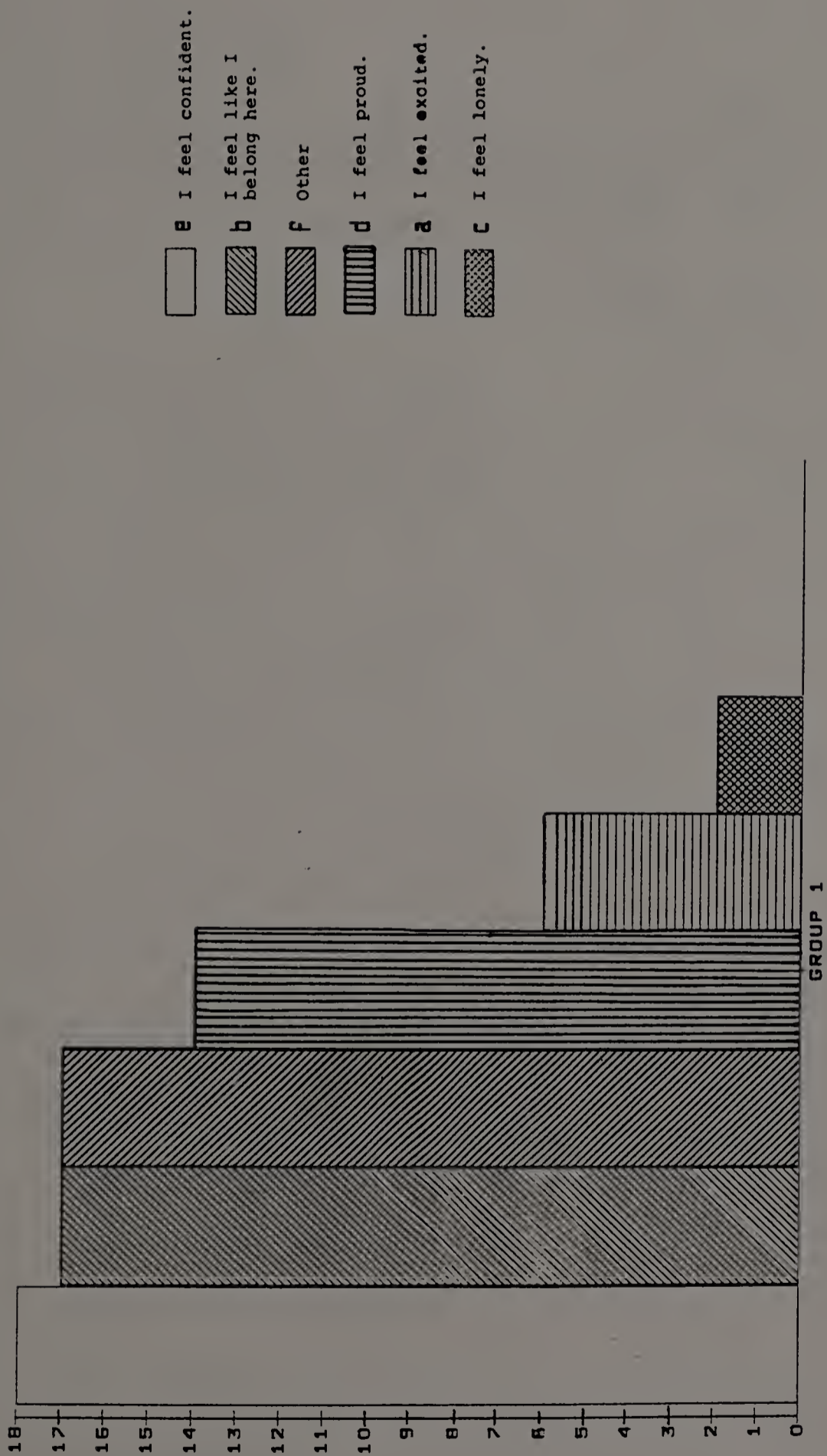


Figure 58. Data from Question 45: How do you feel now?

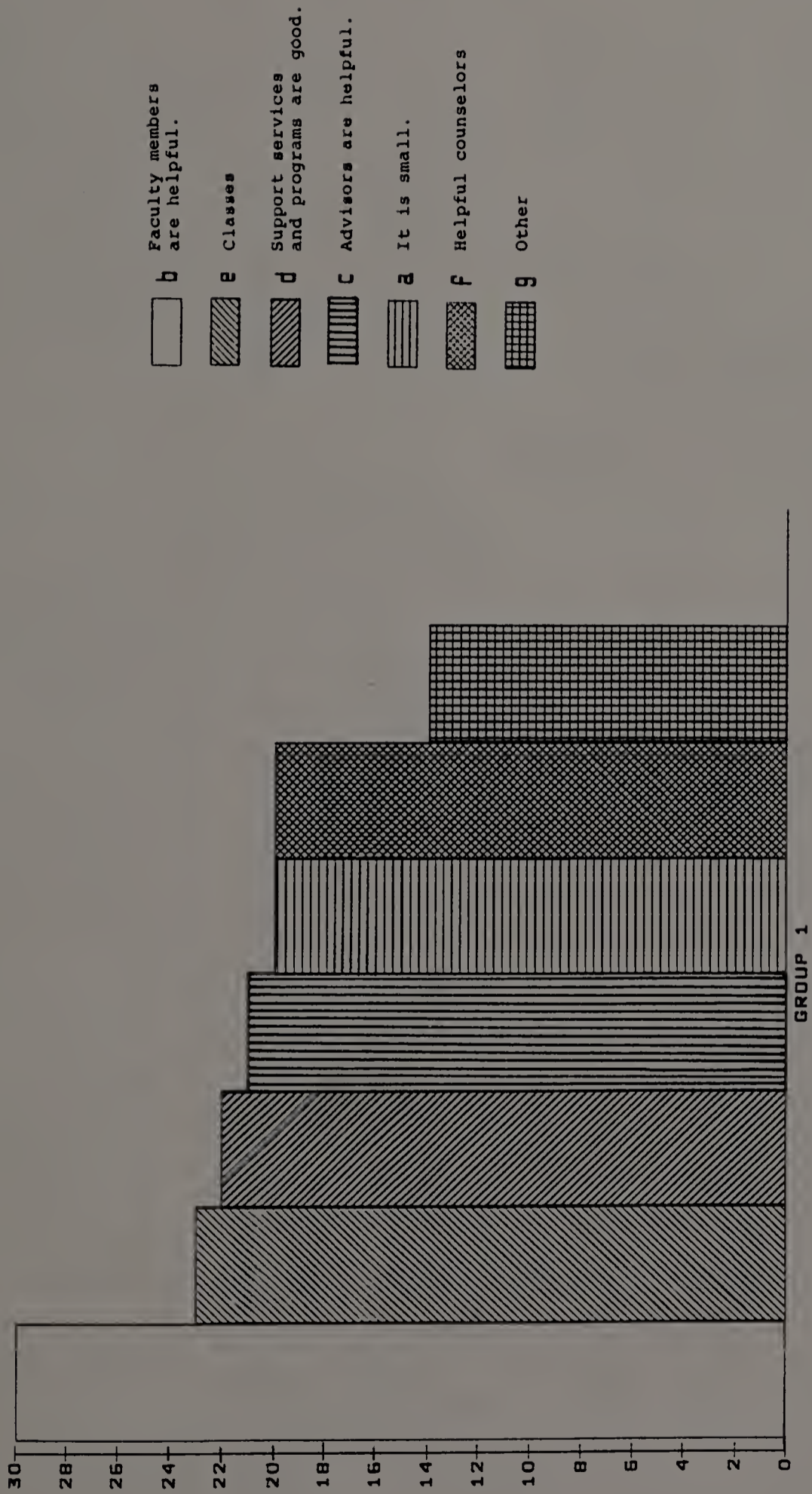


Figure 59. Data from Question 46: What do you like about Mount Wachusett Community College?

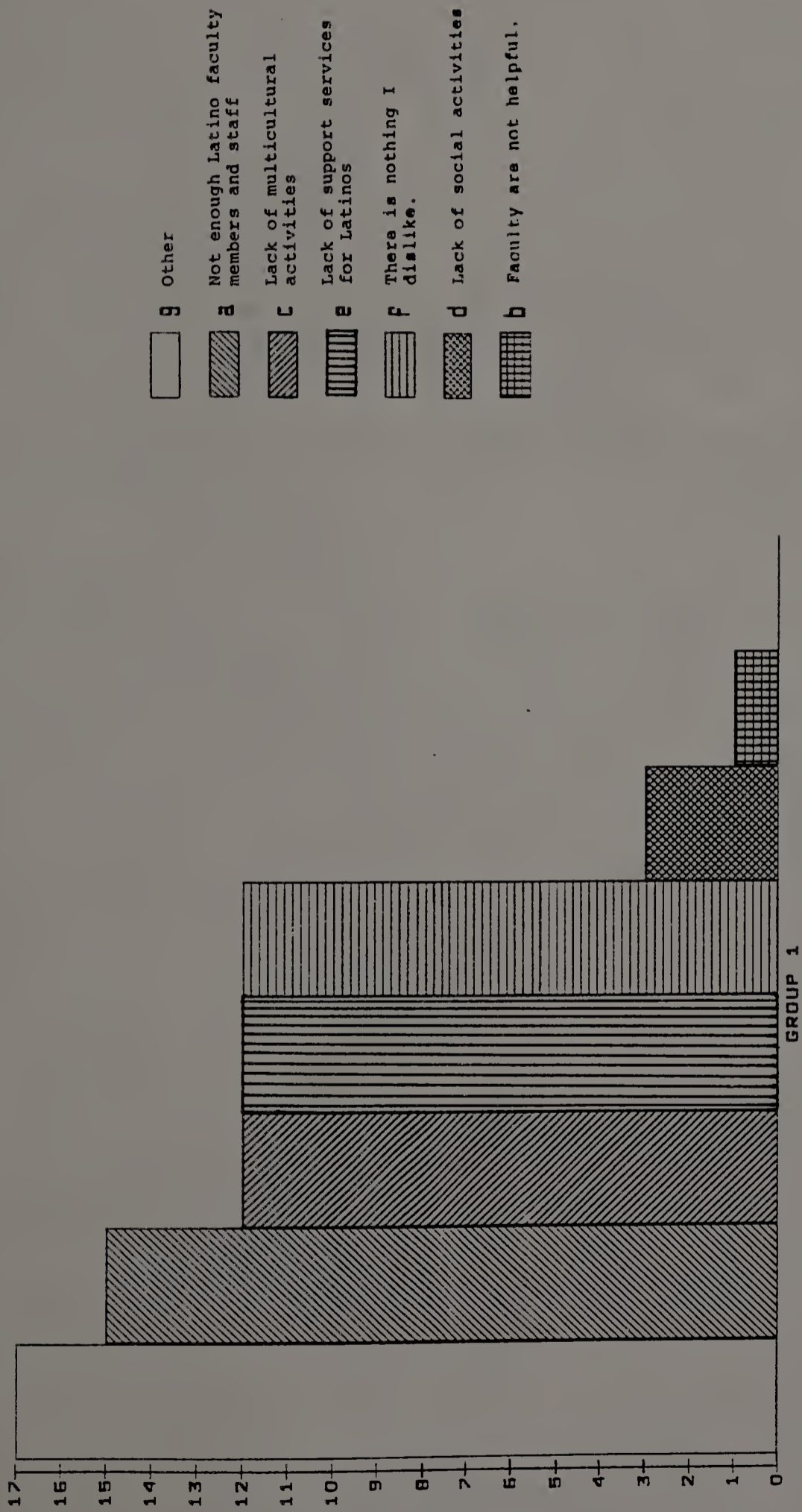


Figure 60. Data from Question 47: What are some of the things you do not like about Mount Wachusett Community College?

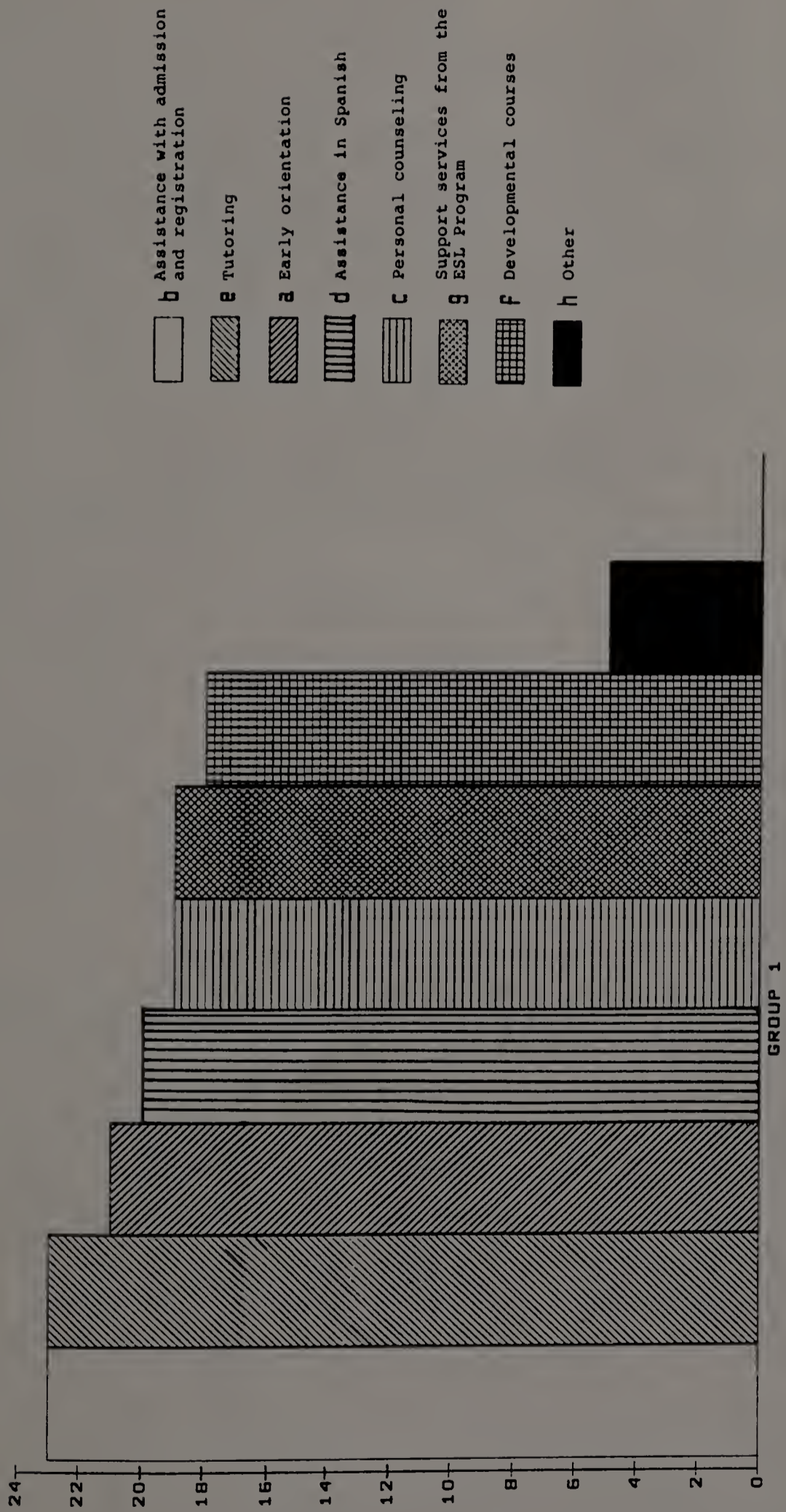


Figure 61. Data from Question 48: What kinds of special support services have you received at the college?

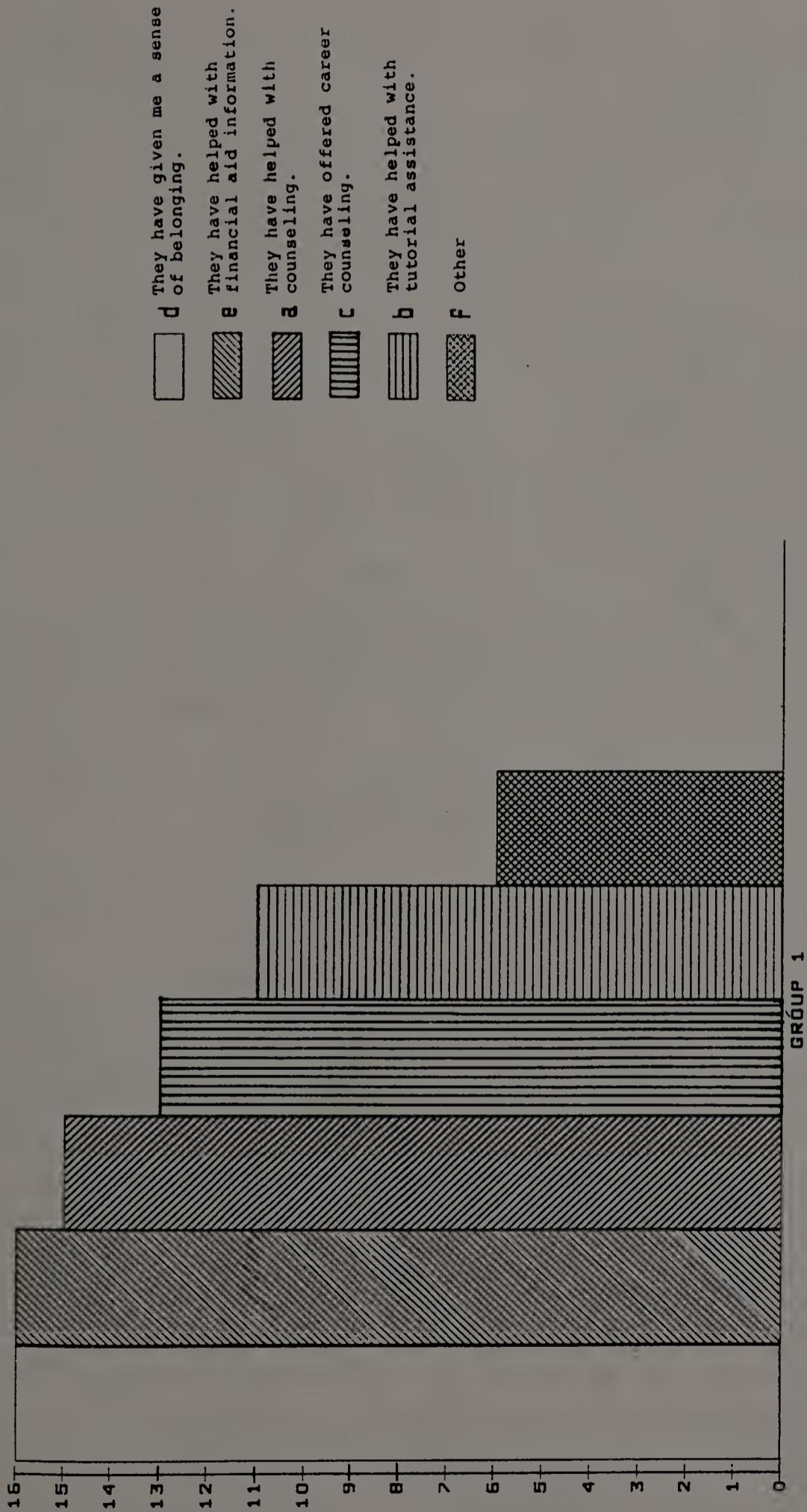


Figure 62. Data from Question 52: How have these support services and programs helped you at Mount Wachusett Community College?

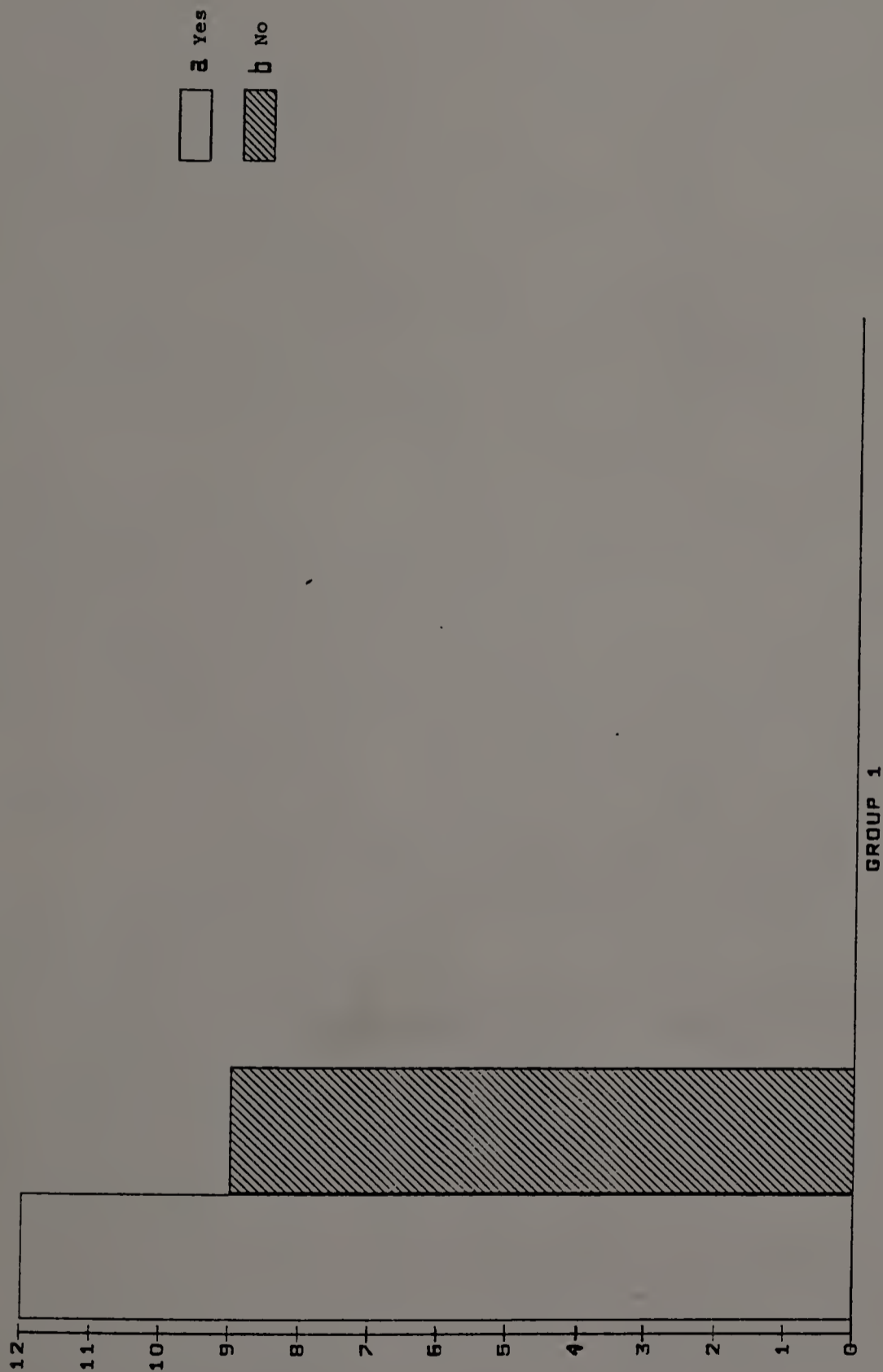


Figure 63. Data from Question 60: If your English writing proficiency is lower, would you say that this has hindered your academic progress at Mount Wachusett Community College?

BIBLIOGRAPHY

- Adelman, C. (1992, February). The way we are: The community college as American thermometer. Washington, D. C.: U. S. Government Printing Office.
- American Association of Community and Junior Colleges. (1988, April 23). Minority students in community colleges: Policy statement. Washington, D. C.: American Association of Community and Junior Colleges.
- Astin, A. W. (1975). Preventing students from dropping out. San Francisco, CA: Jossey-Bass, Inc.
- Astin, A. W. (1982). Minorities in American higher education. San Francisco, CA: Jossey-Bass, Inc.
- Astin, A. W. (1985). Achieving educational excellence. San Francisco, CA: Jossey-Bass, Inc.
- Attenasi, L. C. (1989, May/June). Mexican-Americans' perceptions of university attendance and the implications for freshman year persistence. Journal of Higher Education, 60(3), 247-277.
- Beal, P., & Pascarella, E. T. (1982). Designing interventions and verifying their effectiveness. San Francisco, CA: Jossey-Bass, Inc.
- Bean, J. P., & Metzner, B. S. (1985, Winter). A conceptual model of non-traditional undergraduate student attrition. Review of Educational Research, 55(4), 485-540.
- Bell, C. J. (1984). Grades as a predictor of attrition. Community College Review, 12(2), 13-19.
- Blake, H. J. (1985, December). Approaching minority students as assets. Academe, 19-21.
- Carnegie Council on Policy Studies in Higher Education. (1986). Three thousand futures: The next twenty years for higher education. San Francisco, CA: Jossey-Bass, Inc.
- Carnegie Foundation for the Advancement of Teaching. (1988, May/June). Change trendlines: Hispanic students continue to be distinctive. Change, 43-47.

- Carter, D. J., & Wilson, R. (1989, December). Eighth annual status report on minorities in higher education. Washington, D. C.: American Council on Education.
- Carter, D. J., & Wilson, R. (1991). Tenth annual status report on minorities in higher education. Washington, D. C.: American Council on Education.
- Chapman, D. W., & Pascarella, E. T. (1983). Predictors of academic and social integration of college students. Research in Higher Education, 19(3), 295-322.
- Cohen, A. M. (1984). Helping ensure the right to succeed: An ERIC review. Community College Review, 12(3), 4-9.
- Deming, E. W. (1986). Out of the crisis. Cambridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study.
- Dodson, R. R. (1987). Quality and accessibility: Are they mutually exclusive? Community College Review, 14(4), 56-60.
- Doris, C. (1992, March 27). Higher education and total quality management: What's in it for you? Presented at the Faculty and Professional Staff Meeting, Mount Wachusett Community College, Gardner, MA.
- Duncan, R. (1985). Four models for increasing student retention at the Community College of Denver. Denver, CO: Denver Community College, College Admissions and Advising Center.
- Ellison, N. M., & Others. (1987). Access, excellence, and student retention: A leadership commitment. Higher education: Significant and contemporary concerns. Cleveland, OH: Info-Tec, Inc.
- Estrada, L. F. (1988, May/June). Anticipating the demographic future. Change, 14-19.
- Fox, R. N. (1988, Fall). Application of a conceptual model of college withdrawal to disadvantaged students. American Educational Research Journal, 23(3), 415-424.

- Guerra, N. W. (1990, April). Removing barriers to Hispanic participation in higher education. AASCU Reports. Washington, D. C.: American Association of State Colleges and Universities, Center for Educational Opportunity and Achievement.
- Hippler, H. J., Schwarz, N., & Sudman, S. (1987). Social information processing and survey methodology. New York: Springer-Verlag New York, Inc.
- Isaac, S., & Michael, W. B. (1982). Handbook in research and evaluation. San Diego, CA: Edits Publishers.
- Ishikawa, K. (1982). Guide to quality control. Tokyo: Asian Productivity Organization.
- Jackson, R. M., & Rothney, J. W. M. (1961, March). A comparative study of the mailed questionnaire and the interview in follow-up studies. Personnel and Guidance Journal, 569-571.
- Johnson, A. A., & Turner, R. M. (1974). The problems of minorities. New Directions for Community Colleges, 8, 57-66.
- Johnson, I. H. (1986). Minorities orientation science seminar at Purdue University: A counseling/mentoring approach. Paper presented at the Annual Convention of the American Association for Counseling and Development, Los Angeles, CA. (ERIC Reproduction Service No. ED 29 977)
- Langley, H. M. (1987). Student retention study: Brunswick Junior College. Brunswick, GA: Brunswick Junior College.
- Lee, J. B. (1987). The equity of higher education subsidies. College Park, MD: University of Maryland, National Center for Postsecondary Governance and Finance.
- Livingston, M. D., & Stewart, M. A. (1987). Minority students on a White campus: Perception is truth. NASPA Journal, 24(3), 39-49.
- Magner, D. K. (1989, November 29). Colleges try new ways to ensure minority students make it to graduation. Chronicle of Higher Education, A-1, A-38, A-39.

- Massachusetts Community College Presidents' Council.
(1990, November). Massachusetts community colleges:
A blueprint for the future. Report of statewide
listening sessions on community colleges in the 1990s.
- Massachusetts Institute for Social and Economic Research.
(1991, March 7). 1990 population by race and Hispanic
origin for Massachusetts. Amherst, MA: Massachusetts
Institute for Social and Economic Research,
University of Massachusetts.
- Meyers, C., & Drevlow, S. (1982). Summer Bridge Program:
A dropout intervention program for minority and
low-income students at the University of California,
San Diego. Paper presented at the Annual Meeting of
the American Educational Research Association,
New York.
- Murdock, T. A. (1987, February). It isn't just money:
The effects of financial aid on student persistence.
Paper presented at the Annual Meeting of the
Association for the Study of Higher Education, San
Diego, CA.
- Noel, L. (1987). Increasing student retention: New
challenges and potential. In L. Noel & R. Levitz
(Eds.), Increasing student retention, pp. 1-27.
San Francisco, CA: Jossey-Bass, Inc.
- Nora, A. (1987). Determinants of retention among
Chicano college students: A structural model.
Research in Higher Education, 26(1), 31-57.
- Nora, A. (1990, May/June). Campus-based aid programs
as determinants of retention among Hispanic community
college students. Journal of Higher Education, 61
(3), 312-331.
- Olivas, M. A. (1986). Financial aid for Hispanics:
Access, ideology, and packaging policies. New York:
Teachers College Press.
- Olivas, M. A. (1986). Research on Latino college students:
A theoretical framework and inquiry. In M. A. Olivas
(Ed.), Latino college students, pp. 1-25. New York:
Teachers College Press.
- Opp, R., & Colby, A. (1986). Improving student retention
in community colleges. Los Angeles, CA: ERIC
Clearinghouse for Junior Colleges.

- Ottinger, C. (1991). College going, persistence, and completion patterns in higher education: What do we know? American Council on Education Research Review, 2(3).
- Parnell, D. (1988). The neglected majority. Washington, D. C.: College Press.
- Pascarella, E. T. (1982). Designing attrition studies: New directions for institutional research. San Francisco, CA: Jossey-Bass, Inc.
- Pascarella, E. T., & Chapman, D. W. (1983). A multi-institutional path analytic validation of Tinto's model of college withdrawal. American Educational Research Journal, 20, 87-102.
- Pascarella, E. T., & Wolfle, L. M. (1985). Persistence in higher education: A nine-year test of a theoretical model. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Quality Education for Minorities Project. (1990). Education that works: An action plan for the education of minorities. Cambridge, MA: Massachusetts Institute of Technology.
- Ratcliff, J. L. (1987). An essay review: John E. Roueche and George Baker's Access and excellence: The open-door college. Community College Review, 14(4), 5-10.
- Rendon, L. I., & Nora, A. (1987-1988, Fall/Winter). Hispanic students: Stopping the leaks in the pipeline. Educational Record, 79-85.
- Rendon, L. I., & Nora, A. (1989, Summer). A synthesis and application of research on Hispanic students in community colleges. Community College Review, 17(1), 17-24.
- Rendon, L. I., & Taylor, M. T. (1989-1990, December/January). Hispanic students: Action for access. American Association of Community and Junior Colleges Journal, 18-23.
- Richardson, R. C. (1989, January 11). If minority students are to succeed in higher education, every rung of the ladder must be in place. Chronicle of Higher Education, A-48.

- Richardson, R. C., Simmons, R., & de los Santos, A. (1988, May/June). Graduating minority students. Change, 20-27.
- Richardson, R. C., & Skinner, E. (1988, May/June). Making it in a majority university. Change, 34-42.
- Richardson, R. C., & Skinner, E. (1990, September/October). Adapting to diversity: Organizational influences on student achievement. Journal of Higher Education, 61(5).
- Richardson, R. C., & Skinner, E. (1991). Achieving quality and diversity. New York: Macmillan Publishing Company.
- Roueche, J. E., & Baker, G. A. (1987). Access and excellence: The open-door college. Washington, D. C.: The Community College Press.
- Roueche, J. E., Baker, G. A., & Roueche, S. D. (1985). Access with excellence: Toward academic success in college. Community College Review, 12(4), 4-9.
- Ryan, M. M. (1989). Persistence patterns of Puerto Rican students at the University of Massachusetts in Amherst. Unpublished doctoral dissertation, University of Massachusetts, Amherst.
- Smith, J. (1988). Access, excellence, and student retention: The challenge of leadership, public trust, and institutional effectiveness in urban community colleges. Paper presented at the Annual Convention of the Association of Community College Trustees, Louisville, KY.
- Stampsen, J. O., & Fenske, R. H. (1988). The impact of financial aid on ethnic minorities. Association for the Study of Higher Education Journal, 11(4), 337-353.
- Terenzini, P. T., & Pascarella, E. T. (1980). Toward the validation of Tinto's model of college student attrition: A review of recent studies. Research in Higher Education, 12(3), 271-282.
- Terrell, M. C., & Wright, D. J. (1988). From survival to success: Providing minority student retention. National Association of Student Personnel and Administrators Journal, 9.

- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 45(1), 89-125.
- Tinto, V. (1982). Defining dropout: A matter of perspective. In E. Pascarella (Ed.), New directions for institutional research: Studying student attrition. San Francisco, CA: Jossey-Bass, Inc.
- Tinto, V. (1987). Leaving college. Chicago, IL: University of Chicago Press.
- Tinto, V. (1988, July/August). Stages of student departure: Reflections on the longitudinal character of student leaving. Journal of Higher Education, 59(4), 438-455.
- Tinto, V. (1989). The evaluation of student retention. Paper presented at the National Conference on Student Retention, Chicago, IL.
- Thompson, C. P. (1975). Maintaining quality with open access. Community College Review, 12(4), 10-15.
- Verdugo, R. R. (1986). Educational stratification and Hispanics. In M. A. Olivas (Ed.), Latino college students, pp. 325-347. New York: Teachers College Press.
- Voorhees, R. A. (1987). Toward building models of community college persistence: A logic analysis. Research in Higher Education, 26(2), 115-129.
- Walker, D. K. P. (1988). Strategies for increasing retention of Hispanic students in community colleges. Unpublished doctoral dissertation, University of Texas at Austin.
- Webb, M. (1989). A theoretical model of community college student degree persistence. Community College Review, 16(4), 42-49.
- Wilson, R., & Carter, D. J. (1988). Seventh annual status report on minorities in higher education. Washington, D. C.: American Council on Education.
- Yin, R. K. (1990). Case study research: Design and methods. Applied Social Research Methods Series, Vol. 5. Sage Publications, Inc.

