

GRADUATE STUDENT HOUSING AT M.I.T.

by

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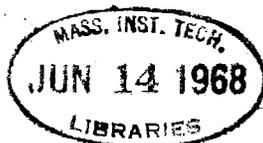
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ABSTRACT

Title: GRADUATE STUDENT HOUSING AT M.I.T.

Author: Karen Ann Cohen

Submitted to the Department of City and Regional Planning in partial fulfillment of the requirements for the degree of Master in City Planning.

The paper is an attempt to describe, analyze and evaluate graduate student housing at M.I.T., on and off campus. The objective was to gain a clear picture of the present housing situation, from the students' perspective and from the Institute's and to consider possible solutions for the future.

A thirteen-page questionnaire, sponsored by the M.I.T. Planning Office, was sent to all M.I.T. graduate students in spring, 1967. There was a 55% response. The survey has produced valuable data on residential location, types of housing, rent levels and degree of residential satisfaction among single and married graduate students living on and off campus. Twenty-one open-ended interviews with students also served to enlighten the author about their housing choices. The author studied much of the literature of past M.I.T. committees on the subjects of graduate student housing and the proposed graduate student center and interviewed many members of the administration to gain insights about M.I.T. policy.

By describing the graduate student population, their present housing and M.I.T.'s present and future programs for graduate students, the author has tried to assess the situation, point out its merits and shortcomings and suggest directions--not formulas--for future action.

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CHAPTER I: INTRODUCTION

This paper is an attempt to describe, analyze and evaluate graduate student housing at M.I.T., both on and off campus. The objective of the study was to gain a clear picture of the present housing situation, from the students' perspective and from the Institute's, and to discuss the possibilities for the future.

What does an institution like M.I.T. want to accomplish in its housing for graduate students? What do the students themselves see as the function of their housing during their years at M.I.T.? Is there agreement within the administration of the Institute as to the kind and amount of housing which should be provided for its graduate students? Can one expect consensus in the housing choices in a population of 3,400¹ graduate students? What trade-offs must M.I.T. make in adopting a certain alternative for housing graduate students? What trade-offs does the individual student make in choosing a particular arrangement?

The issue of graduate student housing is as complex as is any attempt to describe the population itself. Graduate students are a more homogeneous group than a typical American urban population, but they differ radically in character and needs from an undergraduate population. At present M.I.T. graduate students range in age from twenty to fifty, are divided among twenty-three fields of study. One half are married, one quarter have children, one fifth are citizens of foreign countries, one half are enrolled in Ph.D. or Sc.D. programs, one half in Master's and engineer's degree programs. How each student views his housing, i.e., what function it is to perform, is bound to be affected by all these factors.

Within the Institute several different notions have been evolving about the whole question of graduate student housing. The idea of a Graduate Student Center, which would house 1,200 single students has been under discussion since the late 1950's. The idea of the Center is not unconnected to the goals which the Graduate School has set itself:

1. This figure includes approximately 400 special and/or part-time students.

"Although graduate study is often popularly associated only with a high degree of specialization, M.I.T. believes that such specialization, while valuable, is secondary to extending mental horizons, producing new orientations, and developing growth in intellectual courage and in depth of understanding."¹

According to the Graduate Residence Report, "a very important part of this tradition has been the close proximity of all students to all scholars."²

"Scholars from many disciplines and from many places come to M.I.T. to study....Intellectual interchange among these people stimulated by a properly designed graduate housing center should be a major objective in planning for advanced study at M.I.T."³

Recently the administration has begun to question the concept of a single men's residence and has begun to think more in terms of a complex of apartments which would house single and married students and some faculty. The current thinking is the product of several years of investigation and deliberation on the subject by Institute Committees, but a final decision has not yet been made. But there are still those who oppose the idea of a Graduate Student Center. They feel very strongly that such an undertaking is undesirable, that graduate students want to find accommodations away from the institution where they are studying, that there is little evidence to support the theory that the "whole man" can be better achieved on campus than off and that M.I.T. should not devote large amounts of its scarce land resources to graduate student housing.

These questions suggest important decisions for M.I.T. about the type of graduate student it wishes to produce. It must weigh the costs and advantages of each alternative. But the student too is constantly making trade-offs about the kind of life he leads. Income and transportation problems, while areas of concern in their own right affect the housing situation significantly. Any change in one would mean a change in the other two. If graduate salaries increased, if a subway stop

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1. MASSACHUSETTS INSTITUTE OF TECHNOLOGY BULLETIN, 1963-1964, pp. 59-60.
 2. GRADUATE RESIDENCE REPORT, M.I.T. Planning Office, 1964, pp. 1-4.
 3. S. C. Brown, Notes on a prospectus for a Graduate Residence, Committee on Graduate Residence (1964), quoted in GRADUATE RESIDENCE REPORT, M.I.T. Planning Office.

were built at 77 Massachusetts Avenue, if parking at the Institute were made available to all graduate students, then different choices would be made in graduate student housing. Although the main concern of this paper is housing, that is not to say that improved transportation and increased financial support are undesirable. There is clearly a need for both. However, the author assumes here that general income levels, public transportation and the availability of parking will not change radically in the near future. The proposals within the paper are based on that assumption. But it is clear that in determining its housing policy, M.I.T. must take into account all the elements in the system.

To discover how members of the administration viewed the situation, the author conducted informal interviews and read much of the literature of past committees on the general subject of a graduate student center. Those consulted included men and women directly concerned with housing and planning, student aid, graduate student salaries, managing the two graduate housing facilities, Westgate and Ashdown House, and others more directly involved with policy-making.

In order to ascertain how graduate students themselves see their housing problems, the author sent a thirteen-page questionnaire, sponsored by the M.I.T. Planning Office, to all M.I.T. graduate students (3,400) in March, 1967. By mid-April 55% had responded. The survey has produced valuable data on types of housing, rent levels, location and degree of residential satisfaction among M.I.T.'s graduate students. In addition, the author conducted twenty-one open-ended interviews with students--American and foreign, on campus and off campus, married and single, with and without children, men and women--about their living arrangements.

Income and transportation, as mentioned earlier, affect housing choices significantly. The Cambridge-Boston area within the radius of the several universities has become an exceptionally high rent area. The size of nationally awarded fellowships may be ample in some areas of the country but inadequate here. Like any other urban university, M.I.T. has a limited amount of land and cannot provide parking for all those who wish it. These externally-determined situations affect choices in housing, but so do many individually-determined situations, i.e., marital and family status, length and purpose of study, the nature of the work

and the hours and facilities it requires, car ownership and personal taste regarding neighborhood, aesthetics and privacy. One should not view the graduate student's choice of living arrangements as a perfect solution, but rather as the product of a series of trade-offs of all of these factors. As the hero in "Life at the Top" said, "It isn't a question of what I want anymore, but what I can settle for."

There is an element of "settling for" about M.I.T.'s policy too. It would be ideal if M.I.T. were able to provide high-quality, inexpensive housing on campus for all those who wanted it and were able to help, either with subsidies or with actual housing units, all those who preferred to live off campus. But M.I.T. in 1956 adopted a policy of breaking even on all housing ventures. This means that rents for new on-campus buildings will always reflect the costs of construction, in a fire-zone of Cambridge, which prohibits certain types of low-cost construction.

At present M.I.T.'s campus is bounded by Memorial Drive along the Charles River on one side and factories and warehouses on all other sides. Heavy traffic and unpleasant smells and smoke make the M.I.T. campus an undesirable residential environment for many, particularly married students with children. Unless M.I.T.'s surroundings change radically in the near future, graduate student families, who comprise one quarter of the population, will not find on-campus living attractive. This information, together with the high cost of construction on the M.I.T. campus, suggests that, given the present M.I.T. campus, and the Institute's present neighbors, M.I.T. cannot provide truly inexpensive housing on campus, nor can it attract those who want clean air, peace and quiet and lots of open space.

If M.I.T. decides to build a residential complex for 1,200 graduate students on campus, will the undertaking require all of the resources to be allotted to graduate student housing, or will energetic efforts also be made to better the situation of those who cannot afford to be, or who for other reasons will not be living on campus?

As a planner the author will undertake to discuss the choices facing M.I.T. The intention is to assess the present situation, point out its merits and shortcomings and suggest directions--not formulas--for future action.

CHAPTER II: CHARACTERISTICS OF THE GRADUATE STUDENT POPULATION

As a consumer of housing, what does the M.I.T. graduate student look for? To determine that it is necessary to discover who the M.I.T. graduate student is. What statements can be made about the entire population? What groups exist within the larger population? Which characteristics most affect housing choices? The following is a brief description of M.I.T.'s graduate students by age, national origin, marital and family status, field, residential location, and type of financial support.

As mentioned earlier, the graduate student population is considerably more heterogenous than the undergraduate one. They seem to have little in common beyond the fact that they are all graduate students at M.I.T., intend to be here for a limited period of time and for the most part, have annual individual incomes of less than \$3,000.

M.I.T. is divided into twenty-three departments ("courses" as they are known here) which fall under the administration of five schools: Architecture and Planning, Science, Engineering, Humanities, and the Sloan School of Industrial Management. Nearly one half of the graduate students are in the School of Engineering. The second largest number of graduate students (nearly one third) are in the School of Science.¹

For a look at how the students are divided among the various courses and schools, see Table I.

General Characteristics

As of fall, 1966, according to the Registrar, 5% of the graduate students were women, 20% were foreign students, and 43% were married.² An educated guess by several different administrative people is that 50% of those married have children. The Graduate Student Housing Questionnaire was sent to 3,426 regular and special graduate students.³ Fifty-

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1. It must be noted that all the figures presented here are subject to slight inaccuracies. The Registrar's figures vary from semester to semester and often within a semester. However, the proportions being discussed here remain fairly constant, even if the actual numbers vary slightly.
 2. Figures compiled by John Adger, for the office of Malcolm Kispert, Vice President, Academic Administration.
 3. Table I figures are from February, 1967. By March the figures had changed, probably due to late registrants.

M.I.T. GRADUATE STUDENTS BY SCHOOL AND COURSE
AS OF FEBRUARY 13, 1967

TABLE I*

Second Term

February 1967-June 1967

Name	Course Number	Graduate Students	
		Regular	Special
School of Architecture and Planning			
	Architecture, IV-A	57	9
	City and Regional Planning	63	9
Total		120	18
School of Engineering			
	Aeronautics and Astronautics, XVI	168	64
	Chemical Engineering, X	123	1
	Civil Engineering, I	178	18
	Electrical Engineering, VI		
	Program I - The Electrical Engineering Program	375	117
	Electrical Engineering, VI-A (cooperative)	21	-
	Mechanical Engineering, II	186	22
	Textile Technology, IIT	10	1
	Metallurgy, III-A	124	5
	Material Science, III-B		
	Ceramics	16	-
	Naval Architecture and Marine Engineering, XIII	36	2
	Naval Construction and Engineering, XIII-A	69	-
	Nuclear Engineering, XXII	105	2
	Shipping and Shipbuilding Management, XIII-B	5	-
	Center for Advanced Engineering Study, EN	-	11
Total		1,416	243
School of Humanities and Social Science			
	Economics, XIV	112	5
	Humanities and Engineering, XXI-A	27	2
	Humanities and Science, XXI-B		
	Modern Languages, and Linguistics XXIII	32	10
	Political Science, XVII	65	14
	Psychology, IX	23	3
Total		259	34
Alfred P. Sloan School of Management			
	Management, XV	283	24
Total		283	24

Table I (continued)

Name	Course Number	Graduate Students	
		Regular	Special
School of Science			
	Biology, VII	94	10
	Chemistry, V	240	3
	Geology and Geophysics, XII and XII-A	69	1
	Mathematics, XVIII	114	24
	Meteorology, XIX	66	2
	Nutrition and Food Science, XX	93	6
	Physics, VIII	253	18
Total		929	64
GRAND TOTAL		3,007	383

* This table reproduces a portion of one issued by the Office of the Registrar entitled "Massachusetts Institute of Technology, Number of Students Registered by Courses and Years, February 13, 1967."

five per cent or 1,874 students responded.¹

Since the questionnaire could be filled out anonymously, it is difficult to know very much about those who did not respond. The objective data available describing the population has been used in Table II to test the representativeness of the sample. The sample seems to represent fairly accurately the various groups for which data existed. It must be stressed that there are many variables for which no data is available and for which the representativeness of the sample cannot be tested. All that can be said is that in terms of field of study, sex, marital status and nationality the sample appears to be quite representative. The author assumes that what applies to the 55% who did respond also applies to the 45% who did not.

According to the Registrar's February figures 11% of the 3,390 graduate students were special students. Only 0.7% of those who responded to the questionnaire indicated that they were special students. The other choices for that question were the various degree programs. There are several possible explanations for this low response: 1) special students as a group include a larger proportion of people who do not like to fill out questionnaires than do regular students; 2) the Registrar's address list is more inaccurate for addresses of special students than it is for regular students; 3) most special students just checked the degree program in which they are enrolled. To the author the last seems the most plausible.

Residential Location

The survey sample also appears to be representative of residential location for off-campus married and single students. (See Table III) The implications of these data on location, i.e., the different patterns for single and married students will be discussed in more detail in Chapter 3.

Car Ownership and Parking

Not unrelated to patterns of residential location are the issues

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1. It is likely that many questionnaires never arrived at the correct addresses; a rough guess by someone in the Registrar's office was that their list might have been inaccurate in about 5% of the cases. If that is true then the response of those who actually received the questionnaire is closer to 58%.

TABLE II

CHARACTERISTICS OF THE M.I.T.
GRADUATE STUDENT POPULATION

	<u>Actual Percentage</u>	<u>Percentage of Survey Response</u>
Foreign Students	20.1	20.6
Women Students	5.3	4.7
Married Students	42.8	47.5
Married Students with Children	21.0*	20.9
Students living on campus in Ashdown House and in Westgate	18.1	20.0
Students by enrollment in:		
School of Architecture and Planning	4.0	4.0
School of Engineering	48.6	46.5
School of Humanities and Social Science	8.1	8.3
Sloan School of Industrial Management	9.1	9.6
School of Science	29.3	29.7

* Based on the estimate that 50% of those married have children.

TABLE III

RESIDENTIAL LOCATION OF OFF-CAMPUS GRADUATE STUDENTS

Town	Married Students				Single Students			
	# of students, figs. of fall, '66	%	# of studs. in survey response	%	# of students, figs. of fall, '66	%	# of studs. in survey response	%
Cambridge	333	25.36	215	27.81	744	54.70	420	58.01
Boston	145	11.14	86	11.13	218	16.02	115	15.88
Arlington	111	8.61	62	8.02	16	1.17	9	1.24
Watertown	105	8.07	75	9.70	27	1.98	14	1.93
Brookline	65	5.00	43	5.56	68	5.00	39	5.39
Brighton & Allston	87	6.69	66	8.54	73	5.28	44	6.07
Newton	46	3.56	16	2.07	15	1.02	8	1.10
Belmont	39	3.00	16	2.07	18	1.32	12	1.66
Waltham	24	1.92	10	1.29	*	-	3	.41
Somerville	39	3.00	34	4.40	36	2.64	22	3.04
Revere	4	.31	3	.39	*	-	2	.28
Wellesley	12	.92	8	1.03	*	-	0	0.00
Concord	5	.38	1	.13	*	-	1	.14
Lexington	41	3.15	15	1.94	*	-	1	.14
Natick	5	.38	2	.26	*	-	0	0.00
Needham	21	1.61	9	1.16	*	-	1	.14
Bedford	7	.54	2	.26	*	-	0	0.00
Other	226	17.37	110	14.23	145	10.66	33	4.56
TOTALS	1301		773		1360		724	

*Note: The figures for these towns were not given individually, but rather are all included under "Other."

of car ownership, parking and transportation. Space at M.I.T. is a scarce commodity, and parking permits for M.I.T. lots are given to those graduate students who qualify as bona fide commuters. To be eligible for a permit, a student must live outside of Boston and Cambridge and some distance from an MBTA line. Five hundred seventy-five permits were issued in 1966-1967 to commuting students, of whom about 530 were probably graduate students. There are some inconsistencies in the present parking policy. At present 187 spaces are given to residents of Westgate, the on-campus housing facility for married students; in other words, everyone in Westgate who wanted a parking space had one and some families may even have had two spaces.¹ Ashdown House, the dormitory which houses 435 single students is allotted only about 50 parking spaces per year, although 206 residents had automobiles during the academic year 1966-1967.² Peter Van Aken, of the M.I.T. Planning Office has been studying resident student parking as part of a larger study on traffic circulation and parking at M.I.T. Mr. Van Aken estimates that at least 50% of the single graduate students own cars, as do probably 90% of all married students (quite likely as high as 100% of those in the suburbs.)

Women Students

There were 200 women graduate students registered in the fall, 1966.³ Of these, fifty or 25% are special students. About 40% of the women are married. Nearly one half of the women graduate students are in the School of Science, predominantly in the chemistry, biology and food science departments. Nearly one third are in the School of Humanities and Social Science; about one tenth are in the School of Architecture and Planning and less than one tenth in the School of Engineering. A look at Table IV, compared with Table I, shows that the distribution of women students among the various departments varies considerably from

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1. During 1966-67 two floors of the Westgate tower housed undergraduates. The capacity of the entire complex, tower and garden apartments, is normally 210 families, but this year was 190.
 2. All figures given here in connection with parking were supplied by Peter Van Aken of the M.I.T. Planning Office.
 3. The figures on women graduate students are based on a list from the office of Dean Emily Wick, Associate Dean of Student Affairs.

that of the total population.

Income Levels

The amount and kind of financial support which graduate students at M.I.T. receive varies very much from department to department and among the various schools. A few general statements can be made about graduate student support. About 46% of the students are supported by graduate student staff positions, mainly teaching assistantships and research assistantships and 21% by Federal fellowships and traineeships.¹ The research assistantships, after tuition, range from about \$1,474 to \$2,869 for a nine-month period, and the teaching assistantships range from \$2,025 to \$3,300 for the same period.² According to Michael S. Baram, Executive Officer of the Graduate School, the typical graduate student at M.I.T. gets about \$200 per month beyond tuition.³ Federal fellowships increase if the recipient has dependents but M.I.T. staff position salaries do not; foreign students are ineligible for most Federal fellowships and traineeships. According to the Student Aid Center, the typical single student and married student with a working wife needs \$2,300 to live for nine months.⁴ If the typical graduate student is receiving only \$200 per month, i.e., \$1800 for the academic year (nine months), then this amount falls \$500 short of what the Student Aid Center considers an adequate budget for a single person. The discrepancy between the staff salaries and maximum budgets obviously increases with the number of dependents.

Certain observations can be made about the financial support available within the different schools of M.I.T. Looking only at the two main sources of support, M.I.T. graduate student staff positions and Federal fellowships and traineeships, one notices that the majority of students in the Schools of Engineering, Science, Humanities and Social

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1. From Xerox copy of Preliminary Report on "Graduate Student Support, 1966-1967", M. S. Baram, Executive Officer of the Graduate School, November 8, 1966.
 2. M. S. Baram, Xerox copy of a one-page paper on "Graduate Student Staff."
 3. Interview with M. S. Baram in June, 1967.
 4. Xerox copy, "Maximum Budgets for Students in Graduate School and other Schools, Excluding Tuition Cost," from the Student Aid Center.

TABLE IV

NUMBERS OF WOMEN STUDENTS BY COURSES

	<u>Nos. of Students</u>	<u>% of Women</u>
School of Architecture and Planning		
IV. Architecture	5	-
XI. City and Regional Planning	18	-
TOTAL:	23	11.5
School of Engineering		
I. Civil Engineering	4	-
II. Mechanical Engineering	1	-
III. Metallurgy	5	-
VI. Electrical Engineering	4	-
X. Chemical Engineering	1	-
XIII. Naval Architecture and Marine Engineering	-	-
XV. Aeronautics and Astronautics	-	-
XXII. Nuclear Engineering	1	-
TOTAL:	16	8.0
School of Humanities and Social Science		
IX. Psychology	8	-
XIV. Economics	12	-
XVII. Political Science	24	-
XXI. Humanities	9	-
XXIII. Linguistics	11	-
TOTAL:	64	32.0
Sloan School of Management		
XV. Management	3	1.5

	<u>Nos. of Students</u>	<u>% of Women</u>
School of Science		
V. Chemistry	28	-
VII. Biology	21	-
VIII. Physics	13	-
XII. Geology & Geophysics	2	-
XIX. Meteorology	1	-
XX. Nutrition and Food Science	19	-
TOTAL:	<hr/> 94	47.0

Science receive one or the other of these forms of financial support. Only a small proportion of Sloan School students, architects and city planners have Federal support or M.I.T. graduate student staff positions. (See Table V)

One can question the necessity for a living wage at the graduate student level. Many feel that great financial sacrifices must be made in order to be a graduate student. There are others who maintain that every graduate student should have enough income to live modestly while in graduate school. In any case, there does seem to be a gap between the income necessary for living in the Boston area and the income which the typical M.I.T. graduate student receives. It is also true that, whether or not M.I.T. feels that an aeronautical engineer is worth more than a city planner, the former has access to more financial support than does the latter.

The basic facts about graduate students at M.I.T. have been stated. These students are mostly men studying science or engineering, about one half are married, one fourth have children, one fifth are foreign students, and for the most part, they are earning less than \$3,000 per year. How all of these factors influence their demand for housing is the next subject of discussion.

TABLE V

FINANCIAL SUPPORT

<u>School</u>	<u>Approximate % Graduate Students</u>		
	<u>M.I.T. Graduate Student Staff</u>	<u>Federal fellowships and traineeships</u>	<u>Total M.I.T. staff and Federal</u>
School of Architecture and Planning	12.5	5.8	18.3
School of Engineering	56.6	16.2	72.8
School of Humanities and Social Science	27.3	44.0	71.3
Sloan School of Management	26.1	4.9	31.0
School of Science	51.1	36.0	87.1

* This table is based on the Registrar's figures, February 13, 1967, for number of regular graduate students by department and the figures on financial support by department from the preliminary report on "Graduate Student Support, 1966-1967," by Michael S. Baram, Executive Officer of the Graduate School, November 8, 1966.

CHAPTER III: THE GRADUATE STUDENT HOUSING MARKET

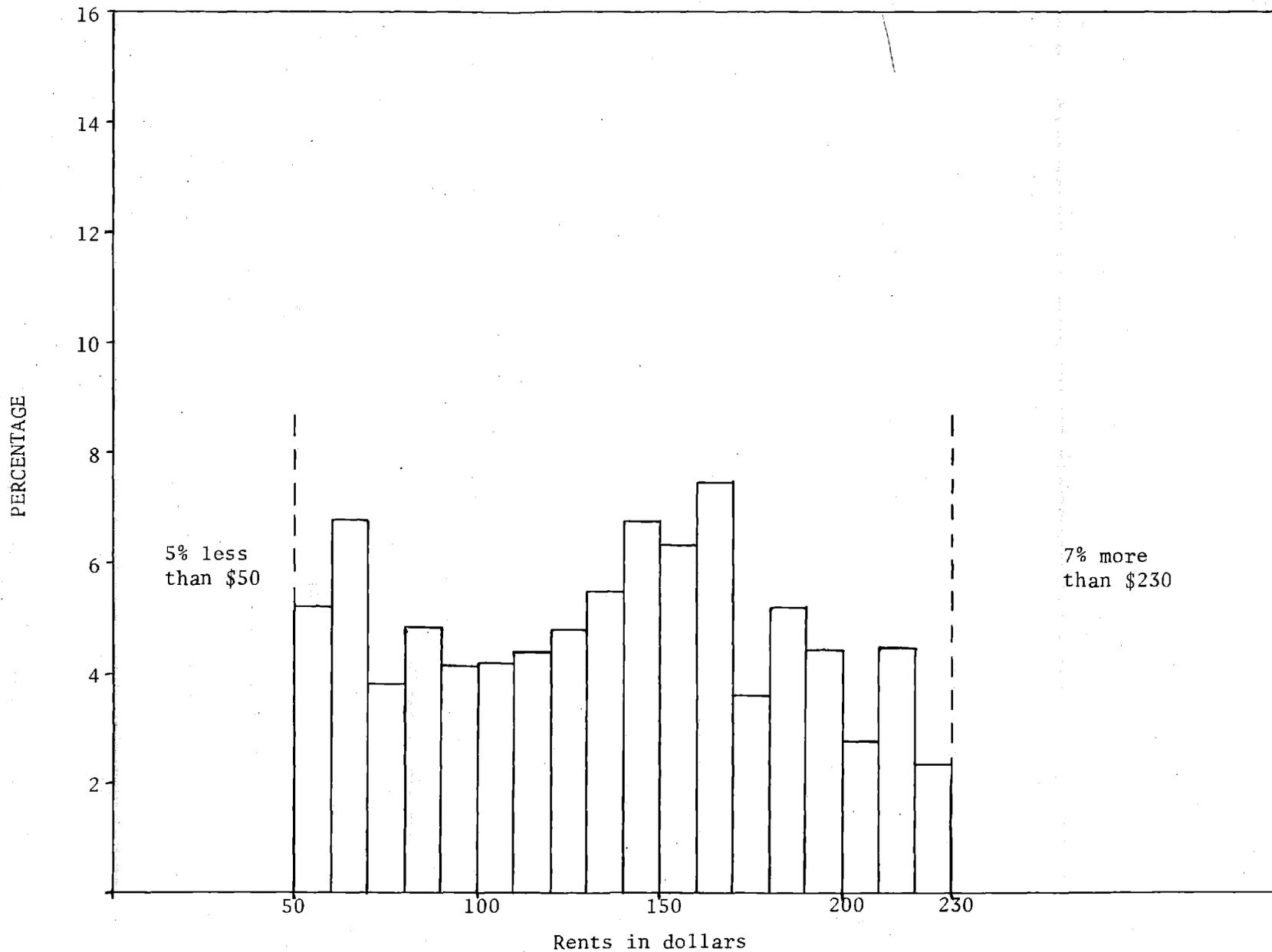
Where do graduate students live? How much rent do they pay? How do rents on campus compare with those off campus? What patterns of housing types and location exist for married students? for single students?

At present about 20% of the graduate students can be accommodated in on-campus facilities, 435 single students (95% male) in Ashdown House and 210 married couples in Westgate. In fall, 1967, about 150 married couples will move into Eastgate, the new on-campus tower apartment building.

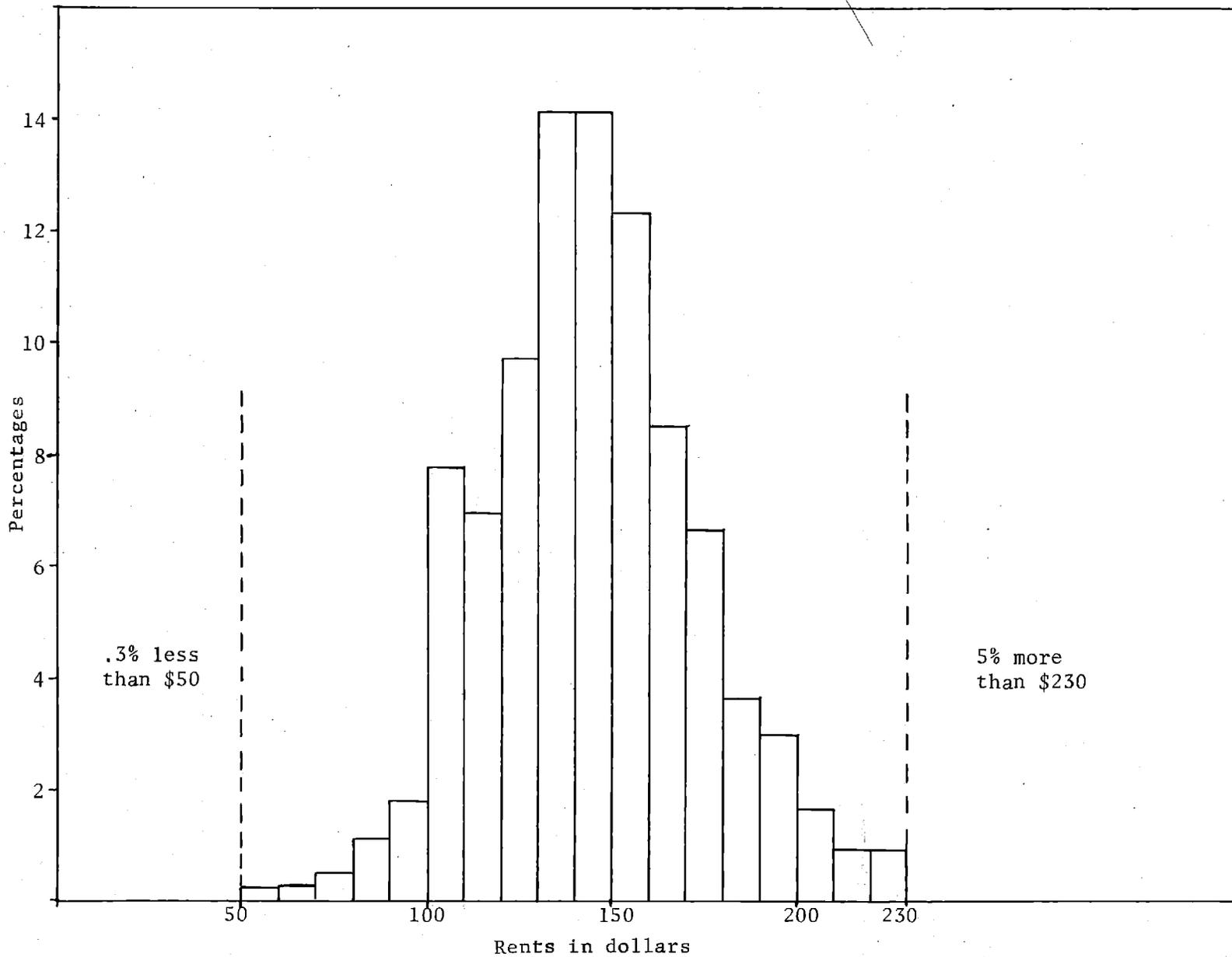
According to the Graduate Student Housing survey results, the vast majority of the off-campus students live in apartments. Also, according to the survey results more than one half of the single off-campus students live in Cambridge and Boston, whereas, less than one half of the married couples do. The majority of the married couples live in the suburbs. According to the survey, the median rent for both groups is the same, between \$140 and \$149.99 per month. The rents on campus for single people range from about \$40 to \$60 per month in Ashdown House, and from \$95 to \$137 per month in Westgate. According to the Community Housing Service, the rents in both facilities compare favorably with that of similar accommodations in Cambridge.¹ The following chapter will be devoted to a more detailed discussion of on-campus facilities and of the Community Housing Service. The discussion in this chapter will be mainly concerned with off-campus housing.

Graphs 1 and 2 show the distribution of rents being paid by single and married students off-campus according to the results of Graduate Student Housing Questionnaire. It must be stressed that the rents described are per housing unit, not per man in the case of single students. They were asked to give the entire monthly rent (including utilities) not just their own portion and about 75% of the single off-campus people share their living quarters. Although the median rent, \$140 to \$149.99, for both single and married off-campus students is the same, the two distributions are very different. More than one half of

1. Community Housing Service, "Average Rents for Rooms and Shared Apartments in Cambridge in January, 1967."



GRAPH I - RENTS BEING PAID BY SINGLE STUDENTS OFF CAMPUS



GRAPH 2 - RENTS BEING PAID BY MARRIED STUDENTS OFF CAMPUS

The married students who responded are paying between \$120 and \$169.99 per month, whereas less than one third of the rents being paid by single students fall into those categories.

At the time of writing, more detailed data from the survey, correlating rents with location and type and size of unit were not yet available. This information will be in a usable form at a later date and will require further study. For the present there are still implications to be drawn with regard to the survey data on rents, living arrangements and location. In comparing the data for single and married students, one realizes that single people have much greater flexibility in choosing their living arrangements (See Table VI). Eleven per cent live in rented rooms,¹ a possibility not usually feasible for married couples, and frequently a group of men rent a house or a large apartment. This accounts for some of the spread of rents for single people. It is also likely that the income and the proportion thereof to be allotted to rent for single people is a more flexible thing than it is for married couples. Savings, life insurance, and feeding and clothing a family are not concerns of the single student. The single student is also presumably more flexible in the type of conditions he is willing to accept in his living quarters than is the married student. We must bear in mind that when discussing the single student we are discussing a predominantly male population, while the married student's housing choices reflect the needs of a wife in all cases and the needs of children in about half the cases. Living in an old building which is poorly maintained and poorly located may be fine for a bachelor living with three other fellows, but when he marries, he and his wife may feel they must have "something better."

The desire for "something better" seems also to be reflected in residential location for married people. As can be seen in Graphs 3 and 4,² the married people are spread throughout the "inner" and "outer" suburbs, the single people are concentrated in Boston, Cambridge, and a few "inner" suburbs. For an idea of the geographic distribution

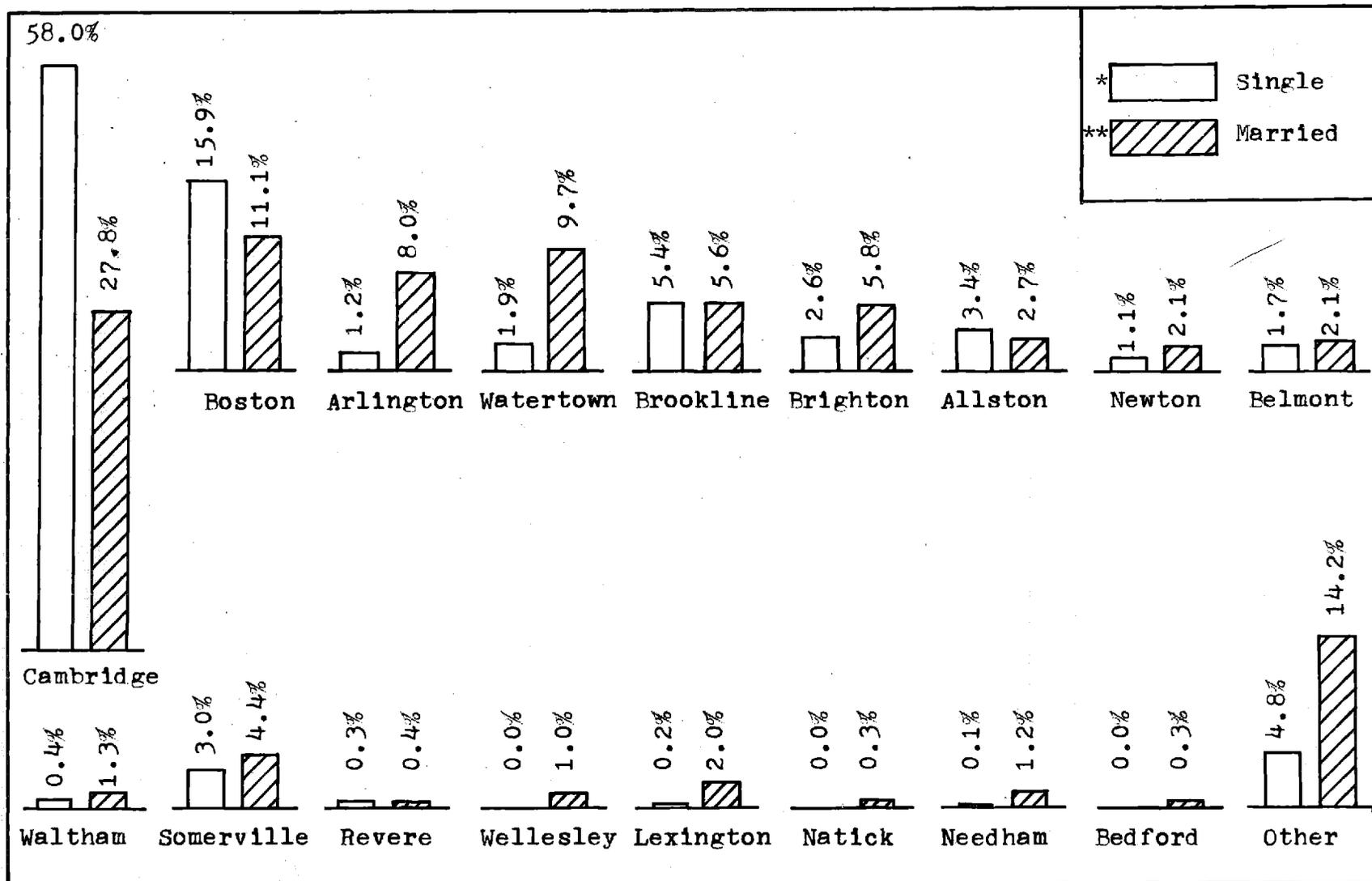
¹Two (0.26%) married couples responded that they live in a single rented room. It was not clear to the author whether both man and wife were living there, or if they mistook the category "single rented bedroom, private bath" for an efficiency apartment.

²And by referring back to Table IV in Chapter II.

TABLE VI

SURVEY RESPONSES TO QUESTION ON LIVING ARRANGEMENTS

<u>Type of Living Arrangement</u>	<u>Off-campus Single</u>		<u>Off-campus Married</u>	
	<u>Frequency/%</u>		<u>Frequency/%</u>	
1. Single rented bedroom, shared bath	68	9.6	-	-
2. Single rented bedroom, private bath	12	1.7	2	0.3
3. Apartment in a one, two, three family house	141	19.8	223	29.0
4. Apartment in a building with 3 or more apts., without elevator	349	49.1	319	41.5
5. Apartment in a building with 3 or more apts., with elevator	55	7.7	74	9.6
6. One-family house	38	5.3	100	13.02
7. Row house	17	2.4	32	4.17
8. Other	31	4.4	18	2.34



GRAPHS 3 and 4

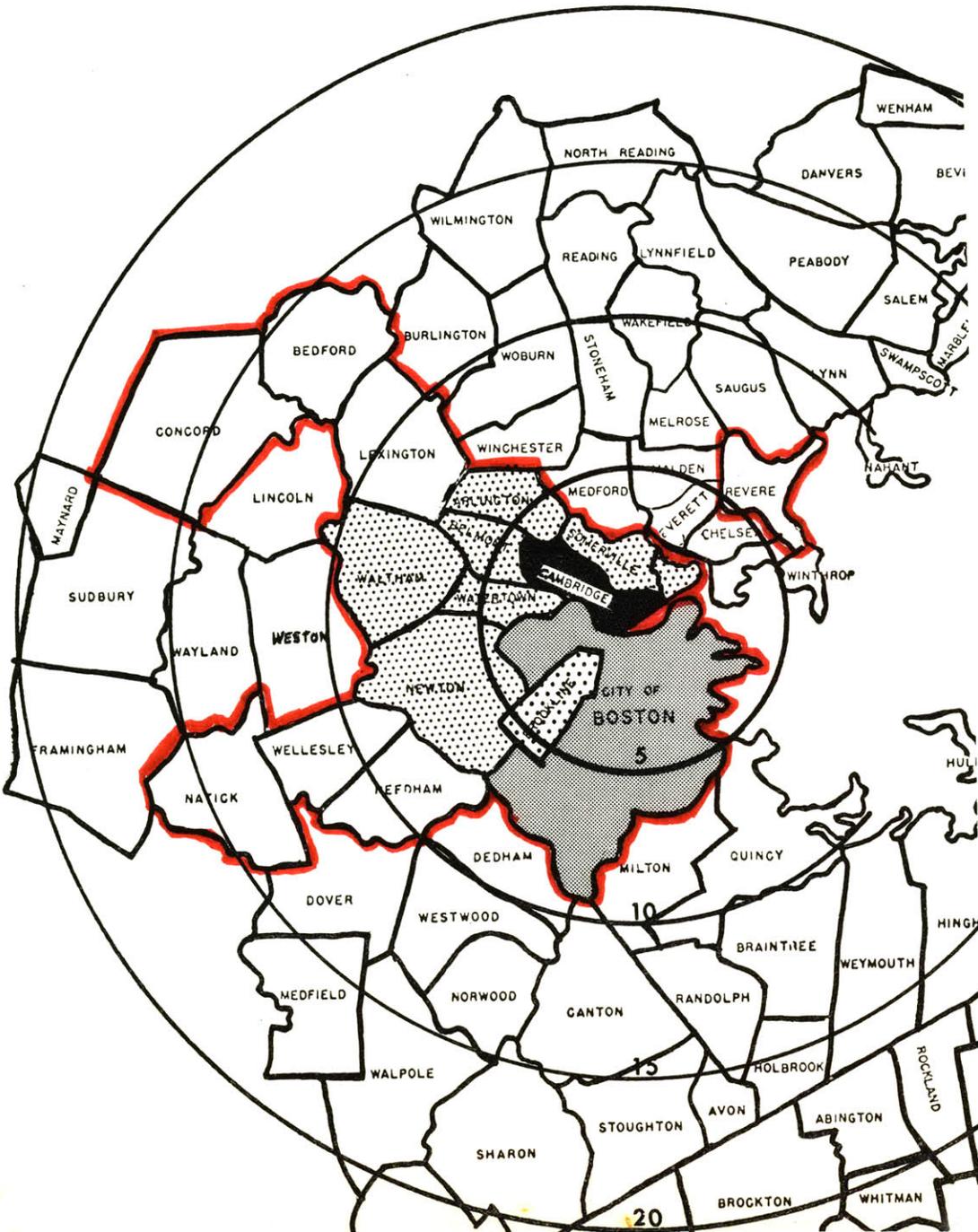
RESIDENTIAL LOCATION OF OFF-CAMPUS STUDENTS: SINGLE AND MARRIED

*Percentage based on total response of single graduate students.

**Percentage based on total response of married graduate students.

of the students, see Maps 1 and 2.

Innumerable factors may be operating to produce such different choices of residential location for married and for single students. As mentioned above, the single, predominantly male population may be less particular about where it lives as bachelors than it is as husbands and fathers. Safety of the neighborhood, shopping facilities, schools, playgrounds, and of course, the amount of space which their rent can get all play vital roles in the housing choices of married couples. Availability of parking space and considerably lower car insurance in the suburbs are great attractions for all, but particularly for married students, among whom the rate of car ownership is higher.



Map 1: Residential Location--
Single Students Off-Campus
(Percentage of Respondents by
Individual Towns)

50% or more (Cambridge)

26-49%

11-25%

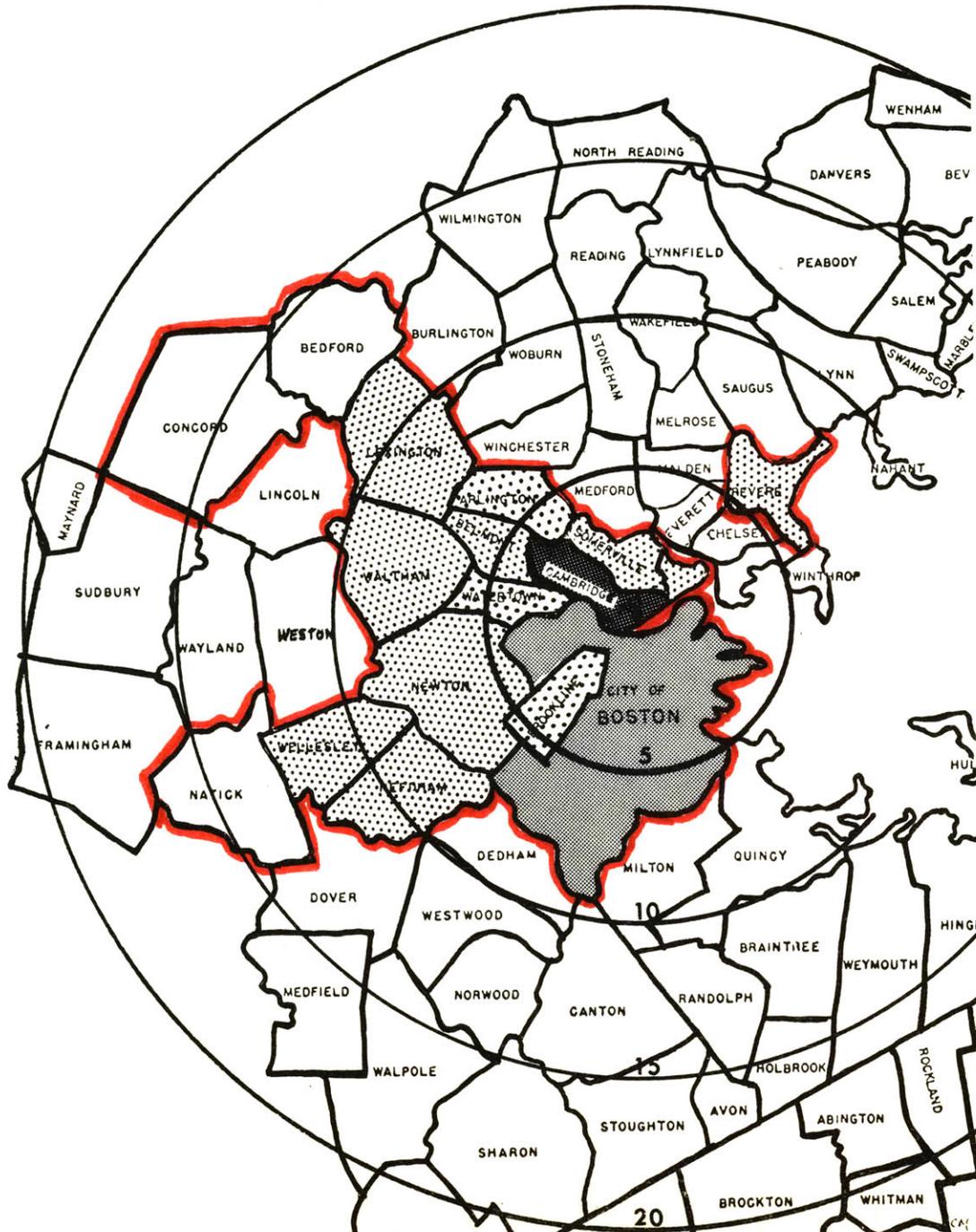
5-10%

1-5%

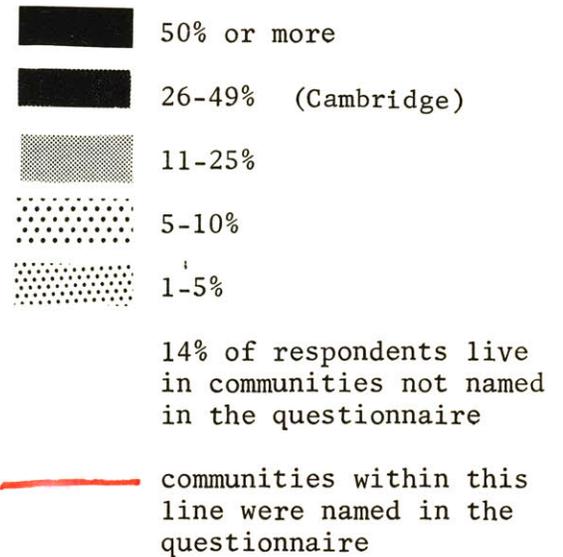
5% of respondents live
in communities not named
in the questionnaire

communities within this
line were named in the
questionnaire

scale: 1" = 5 miles



Map 2: Residential Location--
Married Students Off-Campus
(Percentage of Respondents by
Individual Towns)



scale: 1" = 5 miles

CHAPTER IV: CURRENT SOLUTIONS TO THE PRESENT PROBLEM OF GRADUATE STUDENT HOUSING

What does M.I.T. do to satisfy the demand for graduate student housing at present? What kinds of facilities and services does it provide? How are they administered? Who is served by existing M.I.T. housing? The following is an effort to answer these questions.

As of fall, 1967, M.I.T.'s on-campus facilities will consist of the following: Ashdown House, a dormitory which houses 435 single students, about 30 of whom are women; Westgate tower and garden apartments, which house 210 student couples and families, and Eastgate tower for married students and faculty which will house 204 families, about 150 of whom will be married students (Eastgate will be occupied for the first time in September, 1967). With the addition of the units in Eastgate it will be possible for about 25% of the present graduate student population to live on the M.I.T. campus. In addition to these facilities the Institute operates the Community Housing Service for helping staff, faculty and students find off-campus accommodations and has created the Northgate Community Corporation, a realty corporation created to buy, lease and sell residential properties. To date Northgate's acquisitions have been confined to Cambridge, where they now own several properties.

The oldest of the three on-campus housing facilities is the Avery Allen Ashdown House, known until spring, 1965, as the Graduate House. This six-story building is located at the corner of two main thoroughfares, Memorial Drive and Massachusetts Avenue; it faces the Charles River and is in the center of the M.I.T. campus. Built in 1900 as a hotel, the house was purchased by M.I.T. in 1938 to house single male graduate students. From 1938 until his retirement in 1962, Dr. Avery Allen Ashdown, professor of chemistry at M.I.T., was the Housemaster, and in 1965 the student government of the Graduate House requested the Corporation to rename the building after Dr. Ashdown. In fall, 1965, women (27) were admitted to the house for the first time.

There are in Ashdown House 61 single, 101 double, 52 triple rooms,¹ and a housemaster's suite. The triples all include a bedroom and a living room; most of the double and all of the single rooms consist of only one room. All triple rooms rent for \$235 per term per person; doubles rent for \$160, \$185, \$215 and \$235 per term per person, and singles rent for \$160, \$215 and \$235 per person. The variation in rents reflects the different sizes of rooms. There is no differentiation in rents according to height (as there is at Westgate and Eastgate), or according to the direction which the room faces. The most desirable side of the building, in terms of view, noise level and breezes in hot weather, is the south side, which looks out over a courtyard, the Charles River and the Boston skyline. The eastern side of the building faces Massachusetts Avenue; heavy truck traffic at all hours makes these rooms less desirable, especially those on the lower floors. Memorial Drive, which the south side of the building faces, is also heavily travelled, but trucks are prohibited. Few of these rooms face the street directly. The service area is presently located in back of the building, the northside, and these rooms are also subject to noise and, for the most part, lack interesting views. The rooms on the west side, while quiet, directly face another building, and because of the exposure the rooms are quite hot in summer.

Although it is basically a dormitory (as opposed to an apartment house) there are some significant differences between Ashdown House and most other dormitories. There are virtually no rules about hours and conduct and the main doors are never locked. There is a kitchenette on nearly every floor and residents may have refrigerators in their rooms. In this layout, originally that of a hotel, there is a common bath, for a unit of 2-5 rooms, rather than for a whole floor. Also, unlike most dormitories, the phones do not ring in the hall, but in the individual rooms: the resident dials the operator for his call on a hall phone but does not receive calls on that phone.

1. The figures on number of rooms are subject to slight variations depending on how rooms are being used, e.g., on the women's wing at present a single room is being used as a double and a triple room as a double.

It is likely that the lack of common facilities on each floor considerably reduces the contact a resident has with people outside of his own entryway. In a study conducted in January, 1966, the author discovered that the vast majority of those who responded knew or recognized less than one half of the people on their wing, although most knew more than one half those with whom they shared a bathroom. There are several ways people in Ashdown House appear to get to know one another. There is a cafeteria which is open during the fall, winter and spring on weekdays, but closed during the summers. Most residents find the food prices and service superior to the other campus eating facilities and a large proportion of residents eat at Ashdown cafeteria regularly. Many responses to the Graduate Student Housing Questionnaire gave the cafeteria as one of the reasons for staying at Ashdown House. In addition to fulfilling the function of keeping bachelor men and women from starving, the cafeteria meals serve a social purpose. The evening meal particularly is a time for people to eat together, talk and relax in a way that is not possible in many places on the M.I.T. campus.

In addition to the cafeteria the resident of Ashdown House enjoys a number of services and facilities: a desk staff which sells magazines and newspapers, sorts mail and takes telephone messages from 8:00 a.m. to 12:00 a.m., and maid and porter service (in the past in the rooms, but as of fall, 1967, service will be limited to halls, common rooms, and bathrooms), two color televisions, lounge with magazines and newspapers, Xerox machine, music listening room, piano practice room, dark room, washers, dryers, irons and ironing boards, ping pong table, pool table, and a snack bar which serves beer. There is also a house government with an annual budget of about \$3500 to purchase and maintain most of this equipment, and to sponsor parties, mixers, and other social events.

In the past admissions to Ashdown House were on a first-come, first-served basis. When a student was admitted to the graduate school, he applied for a room in the house and if there was space, he was accepted. It was also true that if a student appeared on Registration Day and there was space available, he might be accepted on the spot. The manager and assistant manager were in charge of assigning rooms.

the more dedicated student. When asked the frequency with which they go out (parties, concerts, movies, etc.) in an average month, 14% of the Ashdown respondents, compared with 8% of the off-campus respondents, answered "about once a month" or "rarely at all in an average month."

In the present room arrangements the scarcity of singles forces a lack of privacy not desired by the average graduate student, who is likely to be between the ages of 22 and 26. When asked "If you live in a multiple unit, or in a single unit with at least one other person, do you find the lack of privacy inhibiting or troublesome?", 21% of the Ashdown respondents who answered that question checked the alternatives "most of the time" or "often." Only 10% of the off-campus single people who answered that question gave those answers. One of the most common reasons for a student to move to an off-campus apartment is to have his own room.

The shortage of single rooms is one problem associated with Ashdown House. Another is the age of the building and cost and difficulties of maintaining it. In 1963 the "Program for Improvements in the Graduate House" was written, but when no decision as to the site and nature of the Center was made these improvements were postponed. Certain renovations have taken place in the past few years. Shower attachments have been installed in the bathrooms, the lounge has been redecorated, the television room renovated (but the old furniture has not been replaced), and kitchenettes have been built. One of the most obvious problems is that of maintenance. The age and nature of the building requires a large maintenance staff, and at this time plans are to reduce the numbers of porters as they retire. The common rooms, hallways, kitchenettes, elevators and stairways are often dirty and unattractive. Renovating and refurnishing every room and every hall in the building would make little difference in the long run if the maintenance staff continues to be cut back.

The house, despite its shortage of singles affords spacious rooms of a sort not typical of new construction. If Ashdown House were levelled, it would not solve the problem of rising labor costs and maintenance, and it would be impossible to reproduce in a new building the spacious rooms of the old at a reasonable cost.

The kind of community which Ashdown House represents should be an

important concern of the Institute in considering any future housing schemes for graduate students. As a woman resident of the house from fall, 1965, through summer, 1967, the author made the following observations. The house seems to be an ideal place to live for two extreme types of students: the one very antisocial, and work-oriented, and the other very sociable. For the extremely conscientious student, Ashdown House beds are the closest one can get to the Institute. He does not need to cook, buy light bulbs, pay utilities bills. Everything is taken care of for him--all the activities associated with apartment living can be cut to a bare minimum, and he is two minutes from the main building of M.I.T. He does, however, subsidize events which he may not attend, since a small portion of the rent is used for house social activities. For the very sociable the house is an ideal place to meet people, particularly people from other departments than one's own. Data gathered from interviews describes some of the reasons for and attitudes to living in Ashdown in more detail in Chapter V.

House student government and committees are such that anyone with the necessary will, energy and time can be very active in sponsoring social events.¹ The house's social calendar is unusually sensitive to the nature and schedules of the students in charge. There have been years when there were few mixers because the social chairman was preparing for doctoral exams and other years when the social chairman has sacrificed passing his doctoral exams for keeping Ashdown House lively. The head tax of \$3 per term included in each resident's rent and the proceeds from the laundry machines give the Executive Committee a substantial budget for sponsoring many large events, when there are people to do the planning, purchasing, organizing and cleaning up associated with these activities.

The last point suggests an important issue associated with the planning of a graduate student residential community, or for that matter any other community. It is quite possible that there are people in Ashdown House and all over M.I.T. who prefer to be left alone and who will never attend any social gatherings. This is their right and one should not interfere. But for those in the middle of the social spectrum, those who enjoy meeting new people but are unlikely to take the initiative

1. The author found that it was possible in her two years to introduce a new tradition of "sherry hours: and "whisky sour hours" for residents and their guests. Attendance at these events was very good and people seemed to enjoy this kind of informal, non-mixer social event.

in establishing social contacts the opportunity should be there. Providing this opportunity seems to the author is much less dependent on architecture or on the "critical size" of the community than it is on the enthusiasm of a few people for doing things for the whole community, and on (the maintenance of) a few places for people to come together.

If the Institute sincerely wants to encourage a sense of community in the residents of a place like Ashdown House then it must encourage students to participate and it must not decrease the number of occasions when they meet. Giving the Executive Committee the task of room assignments seems unlikely to make those offices more attractive. It may be that a learning process is involved in such tasks and that this is good for undergraduates, but the author seriously doubts the value of this job to a man 25 years old who is trying to write a doctoral thesis and is already doing a public service by giving up several hours a week for the regular business of the Executive Committee. As mentioned earlier the Ashdown House Cafeteria is considered by many residents and non-residents to be the best on campus. It also serves a very special function in terms of the house community and the whole graduate community. People go there not only to eat but to see each other, and meet new people. The cafeteria has been losing money (as have other on-campus eating facilities) and in the last few years service has been stopped in the summer and on weekends. The M.I.T. policy of breaking even on housing and dining facilities has brought about these decisions and could conceivably close the cafeteria completely in the future. The effects such an action would have on the House community could not be measured financially, although the cost of keeping it open can.

It seems that M.I.T. must review its goals for the graduate student community and its fiscal policies and resolve the conflicts of the present situation. The administration must discover new ways of dealing with the financial and administrative problems of a graduate residence like Ashdown House, and it may want to decide to what extent it is willing to subsidize social interaction among graduate students.

The individual can benefit more fully from the resources of the Institute community and more effectively meet the demands placed upon him if his quarters are pleasant and comfortable and consciously designed to promote social and intellectual intercourse, as well as sustained individual effort. The living accommodations provided for advanced scholars should be designed to provide maximum encouragement and stimulus to the development of the individual.¹

Westgate Married Student Housing

Westgate, although a very different type of facility than Ashdown House and for a different kind of population, presents some of the same issues in policy decisions. Westgate consists of a sixteen-story tower with ninety efficiency and sixty bedroom apartments and four 3-story buildings with sixty 2-bedroom garden apartments. The complex was first occupied in 1963 and is located at the western end of the M.I.T. campus near Memorial Drive and over looking the Charles River. The efficiency apartments rent for \$99, \$109 and \$119, depending on the height (the cheaper apartments are on the lower floors). The one-bedroom apartments rent for \$124, \$130 and \$136, and the two-bedroom garden apartments for \$143 per month.* Only couples with one or more children may rent two-bedroom apartments. Facilities for the buildings include a children's playground, a parking lot and in the tower a nursery school, grocery store, a laundry room and storage areas. There is also a room in the basement called the "function room", which can be used by residents for private and public meetings and parties. Unlike Ashdown House there is no head tax for a common fund and until fall, 1966, there was no functioning residents' council. The income from the laundry machines goes into a general fund of income from the building, and it is this fund that will finance planned renovations of the function room. It must be mentioned here that while a public lounge may be something desired by the majority of Westgate residents, the use of general fund money for this purpose, like the Ashdown House head tax, does involve a cost to some who, given the choice would not wish to contribute to the maintenance of a common room because they have no intention of using it.

Westgate is generally filled to capacity and there is usually a long waiting list. The turnover so far has been about 40% per year. Requests are accepted and filled according to the order in which the applications are received as was the case formerly at Ashdown House. This results in the same inequities formerly true of Ashdown House admissions. The proportion of chemists is again higher in Westgate than it is in the Graduate School as a whole, 12% in the former, 8% in the latter. It is

1. Graduate Residence Report, M.I.T. Planning Office, pp. 111-4, quoting S. C. Brown, Committee on Graduate Residence. Notes on a Prospectus for a Graduate Residence, 1964.

* All rentals include utilities. The rents given here are those as of an increase in fall, 1967. At the time of the survey, efficiency apartments still rented for \$95, \$105 and \$115, 1-bedroom apartments for \$120, \$125 and \$130 and 2-bedroom apartments for \$137.

quite possible that a higher proportion of chemists want to live in Westgate than do political scientists because they want to be near their laboratories. But, considering laboratory work, one would expect that those in biology and food science would also be heavily represented in Westgate and they are not. It seems more likely that it is the admissions policy of the department that creates this situation. When one considers that the chemistry department is one in which over 90% are supported either by graduate student staff salaries or by Federal fellowships or traineeships and that a higher proportion of them are in doctoral programs than in many departments, then the fact that they are occupying more than their share of the available on-campus apartments seems less than fair. The system for admissions into Westgate and Eastgate should be reformed in a similar way to that of Ashdown House. For new students who have just been accepted into the Graduate School for the next fall there should be some type of lottery at a date when students from all departments have been notified of their acceptance.

In addition to the regular waiting list for new people, Westgate operates an "internal waiting list" for residents. Tenants pay \$15 to be on this list and must wait one year before they can move into another apartment, although when the Housing Office is unable to find someone from outside to fill a vacancy then tenants on the waiting list may move in less than one year. It is virtually impossible for a new resident to move into a one-bedroom apartment and also not as easy for outsiders as it is for Westgate residents to move into the garden apartments. In 1964 three one-bedroom apartments went to couples not already living in Westgate, in 1965 five and in 1966 none. Thirteen couples from outside moved into two-bedroom apartments in 1964, eleven in 1965, and twenty-three in 1966.¹ One of the reasons for this phenomenon is that people move out of Westgate during the year and it often takes the Housing Office time to find new tenants because so many couples have signed leases in off-campus apartments for the whole year.

One couple with two children waited two years to get into a garden apartment. They feel that one of the main problems under the present

1. These figures are based on a list from the Campus Housing Office.

system is that tenants have no incentive to keep lease agreements at Westgate. They knew of two couples who are planning to move in September but signed a lease for next year in order not to have to rush their moving. Many people will be turned down for places in Westgate in the fall and by the time the Housing Office is notified of the plans of these two couples, it may be difficult to find two other families who are living off campus who have not already made arrangements for next year. A student with a wife and children is unlikely to leave his decisions for housing to be made at the last minute. The couple who had waited so long also felt that the particular apartment a couple got depended a lot on hearsay. They felt that Westgate residents have an advantage over those off campus because they hear of approaching vacancies and can go to the Housing Office and request particular apartments. There are certain problems in administering a complex like Westgate, where demand always exceeds supply. But if it is to truly serve the entire married student community then the system would be fairer if it were more sensitive to non-resident applicants. This would require that the lease be a meaningful document and that some penalty be associated with breaking it. If the vacancies could be better regulated then it would be possible also to establish quotas for the different apartment types. Westgate residents represent only about 20% of the married student population, and should not be given more than their share of the garden apartments, scarcest housing type on campus.

How does Westgate operate as a place to live and as a community? According to the interview data, many couples in the tower find that they do not meet people, a fact which they attribute to the architecture and the people. Those in the garden apartments seem to have much more contact with one another, in the entryways, stairways, balconies, outdoor space and through their children. Of those interviewed garden apartment residents seemed much more satisfied with Westgate life than did tower residents. It is also true that the garden apartments are better value for the rent than are the efficiency or one-bedroom apartments.

1966-1967 was the first year that Westgate had an active tenants' council. In part this organization grew out of discontent about rules

about pets. Residents had been annoyed when, in the spring of 1965, the administration, faced with the problem of a larger number of undergraduate women than they could house in the existing women's dormitory, found that it needed to use the two lower floors of the tower for undergraduate women. Some residents were indifferent about this decision, but many were incensed at the idea -- the fact that they were not really consulted before the decision and that by removing these floors from circulation residents were deprived of two floors of the lowest-priced apartments. In the spring of 1967 there was an incident involving married residents and the undergraduates. The conduct of one undergraduate woman was offensive to some of the garden apartment residents whose apartments faced the one in which she lived. They did not speak to the girl about this, but brought the issue directly to the dean and the housing people and the girl eventually moved out. Since the same conduct in a married couple probably would not have elicited such a strong reaction, it is likely that this incident reflected some of the bitterness of many residents about the presence of the undergraduate women.

A barbecue this spring was the first large event to be sponsored by a Westgate Tenants' Council. The author's observations of the event were that the attendance was good, that the residents, particularly the children, enjoyed themselves, but that few people got to know new people. Couples and families sought out people they knew to sit and eat with. But more events like this in the future, perhaps in the evening and without children, might increase the interaction of the residents with one another.

This year's council has also succeeded in getting some improvements for the "function room." Unfortunately the function room has little to recommend it since it is a room in the basement without windows. The residents have discussed the possibility of converting an apartment in the tower to a common room but at present the policy statement of the administration on this issue has been negative because of the shortage of apartments, and the loss of rent such a conversion would involve. The administration appears to have given more thought to common rooms in the planning of Eastgate, the new married student residence, where the entire top floor is devoted to public spaces.¹

¹The money for this floor was provided by a gift.

Westgate apartments, though not inexpensive, compare favorably in terms of rent with similar buildings in Boston and Cambridge. They are easier to keep clean than apartments in older buildings. For many the age of the building and the convenience of facilities within the building are more important than the actual size of the rooms. One of the most frequent complaints about Westgate is its location. It is close to M.I.T., but not to anything else. It is located near no major transportation line and it is almost imperative to have a car to reach the nearest supermarket. For families with children this disadvantage may be counteracted by the playground.

In terms of creating a sense of community Westgate appears to really function well only among the residents of the garden apartments. Tower residents interact little with each other or with garden apartment residents. People appear to know each other in the tower through the husbands' departments or the wives' work (many of the wives work). From the interviews the author got the impression that while there are many couples quite happy to be left alone and not be bothered by communal events there are more who would welcome the opportunity for casual contacts with other residents but feel that the opportunity does not exist. There is no place really to socialize in the way that the couples with children are able to around the playground. Unless a very attractive facility or service is added to the "function room" to draw people there, it seems unlikely that it will become a great gathering place. The one place residents see each other is in the elevator and there they rarely speak. Even when it was filled with people all going to the barbecue the elevator was the scene of interaction between spouses only; like Ashdown House, Westgate needs a few enthusiastic people willing to devote time and energy to creating occasions for residents who want to meet each other. The people who undertook the barbecue may be able to break the monotony, which presently characterizes the atmosphere of the Westgate tower.

Eastgate Housing for Married Students and Faculty

Since at the time of writing Eastgate will not yet have been occupied, it is only possible to state the facts about the building: It is a thirty-story tower located at Kendall Square next to the Hermann and the Sloan Buildings, the former the headquarters for the departments of political

political science and economics of the latter the Sloan School of Industrial Management. The plan of Eastgate differs in two major ways from Westgate: there is a great deal of lounge space (the entire thirtieth floor), and there are no efficiency apartments. But the costs of these changes and the rise in construction costs during the past five years are reflected in the higher rents. There are 96 one-bedroom apartments, 84 large one-bedroom apartments, and 24 two-bedroom apartments. The rents range from \$115 to \$140 for the small one-bedroom, from \$135 to \$155 for the large one-bedroom and are \$190 for the two-bedroom apartments. About 75% of the apartments are intended for married students, the rest are intended for faculty, for whom the rents are slightly higher.

The thirtieth floor community facilities will include three lounges, a laundry and an outdoor patio. The site overlooks Cambridge, Boston and the Charles River Basin and is convenient to a major subway stop, and to several shops, bars and restaurants. The only impressions which the bare facts and the floor plans suggest are that the apartments are small, the rents high and the attractions for couples with children few.¹ Its proximity to the subway will make it ideal for working wives. What kind of use the common rooms will get and how much social interaction actually occurs in them will depend partly on the furnishings, but mainly on the residents themselves.

Community Housing Service

The Community Housing serves the entire M.I.T. community in helping students, faculty and staff find suitable housing off campus. They keep a list of available apartments and furnish literature on apartment hunting, leases, etc. To be on the Community Housing Service list the landlord must sign a card promising not to discriminate and, if in Cambridge, the structure must be approved by the Health Department. Between January and December, 1966, 1722 graduate students visited the

¹Eastgate was designed primarily for couples without children. The site, the lack of outdoor space and the proximity to public transportation suggested a residence for couples without children. However as far as the author knows couples with children have not been rejected when they have applied for apartments.

office. 1079 of them were single, 625 married. Two is the average number of visits. Members of the office staff try to tell people how to look for an apartment in the first visit and also try to be of assistance in difficult cases, e.g., a married foreign student arriving in September with four children.

One of the problems of the Community Housing Service is its small staff. During the peak seasons they are extremely over-burdened. Comments in answer to several open-ended questions in the Graduate Student Housing Questionnaire varied in the opinions they expressed about the Service. Some respondents were very grateful to them; others were disappointed that they were not more helpful. Many commented that their particular landlords should be removed from the list because they were dishonest and the units in extremely poor condition. Many commented that the Harvard housing list was far superior to the M.I.T. one. The M.I.T. Community Housing Service has been in existence only a few years and its list will probably increase as its name becomes more known. It does seem that a larger staff would make it possible for them to follow up more efficiently those who use their service and provide more information on the accommodations people do find. But the major problem of the Community Housing Service is that it is difficult to run a housing service in an area where there is such a shortage of decent, moderately priced housing.

Northgate Community Corporation

Northgate was incorporated in September, 1965. According to its Articles of Organization:

The exclusive purpose of the corporation is to hold title to property, collect the income therefrom and turn over the entire amount thereof, less expenses, to Massachusetts Institute of Technology.

Northgate has bought or leased several residential properties to house M.I.T. students, faculty and staff in Cambridge since its incorporation. The properties are scattered and do not appear to be part of any particular physical plan. The long-range goals of Northgate have not yet been determined. One of their properties, the buildings at 22 and 24 Magazine Street, according to the interview data, seems to provide

¹Northgate Community Corporation, Articles of Organization.

very satisfactory housing for the students living there. The idea of M.I.T. sponsored housing off-campus could certainly be enlarged upon through Northgate Community Corporation, perhaps in towns other than Cambridge as well. One of the main difficulties this type of venture will encounter will be political opposition and public pressure, particularly in Cambridge, where the available stock of low-income housing is constantly being decreased by landlords who make minimal improvements on their properties, raise rents, and then rent to groups of students.

Conclusions

M.I.T. faces several problems in the existing housing facilities of Ashdown House and Westgate. To what extent the Institute is willing to finance social and intellectual interaction is one of the major issues. Before making any decisions of plans about a graduate student center, it seems imperative to review the inconsistencies in the present policy. The operations of the Community Housing Service and Northgate Community Corporation might well be expanded. Each facility and service, while it may now adequately serve those who can use it, might be improved in some of the ways mentioned here.

CHAPTER V: ATTITUDES TO HOUSING AMONG GRADUATE STUDENTS

The following is a study of attitudes to housing among graduate students at M.I.T. based on 21 interviews¹. I have tried to find out what goes into the choices graduate students make about their housing; what problems are unique to certain groups; and what are the main sources of residential satisfaction and dissatisfaction among graduate students. The material was gathered from interviews most often conducted in the home of the person being interviewed, which ranged from 15 minutes to 2 1/2 hours, but averaged about one hour in length; and from my own observations as a graduate student and resident of Ashdown House, graduate residence for men, which first admitted women in fall of 1965.

I have tried to describe the situation of some room-renters, co-op members, Ashdown House men and women, Cambridge and Boston apartment dwellers, M.I.T.-sponsored off-campus apartment dwellers, suburban families, and Westgate tower and garden apartment residents. Living arrangements are reflections of many personal feelings as well as of marital status, parental status, income and what the market has to offer. I have observed and recorded the way in which people reacted to the housing alternatives offered them and the decisions they made.

The 21 graduate students interviewed vary considerably in the way they view the purpose of their housing. In answer to the question, "Why do you live here?", the replies fell into three major groups-- those in which prime importance was placed on the physical location, or facilities and/or the layout of the place itself; those in which great importance was attached to non-physical characteristics, mostly social and/or financial; and the group of replies in which physical and non-physical characteristics of the housing were of approximately equal importance.

Whether the priorities people assign to different aspects of their present housing are the cause of their moving there or whether they are the result of living there for a time is not always possible to say.

1. See Appendix for description of subjects and examples of questions.

I have made the assumption that if they have no plans to move, then even if the reasons they are staying are not the same as those which brought them there, that for the moment at least the former are more important.

Physical Versus Non-physical Considerations in Housing

One young couple living in the Westgate tower very clearly attached the greatest importance to Westgate's physical facilities and practically none to social life (neither as a reason for moving there, nor as something that they enjoy or miss). They chose the place sight unseen although they have parents here and would have been able to come from Philadelphia to hunt for apartments. They took a place in Westgate because it was close and they knew it would be clean. They are both chemists, were able to tell me how many hours they are in their labs, in the apartment, and how many they spend eating and sleeping. They see no point in any common rooms for entertaining -- they would never use them. They never have parties.

In sharp contrast to the first case, one of the single foreign students interviewed lives where he does in spite of the dirt and general poor physical condition of the building primarily because of the "living experience" of the World Student Co-operative House. This is a place which every year houses eight foreign and four American graduate student men, who are studying at either Harvard or M.I.T. The building is near the Harvard Law School and is owned by the University. The residents of the houses share the rent, food and other expenses and cook and eat together six evenings a week. The evening meal is apparently what holds the house together.

I would say that next to the social benefits ("I feel I get to know and understand people, why they are doing what they're doing,") the informant felt the financial advantages of his living arrangements were of great value. Total expenses per man, including rent, utilities, food, telephone, etc., average between \$80 and \$100 per month. Each resident cooks supper and cleans up with one other once a week, and the jobs of cleaning, buying food, and keeping accounts are divided among the twelve. "It is the optimum compromise between the least time and money."

The distance from M.I.T. and the physical condition of the house (an older building, often dirty because people neglect their jobs) are

things which this person, a Swiss-German, who is fond of order and cleanliness, has sacrificed. He says he is not totally satisfied but has learned to make compromises and "live with garbage and such things." By making such compromises, he has had a very enjoyable one and a half years socially and has also been able to have a car and spend more on entertainment than he could when he was living on campus and his expenses were considerably higher.

An English couple living in the Westgate Tower find little merit in the place socially and have remained because of its physical virtues: proximity to M.I.T. (he is a graduate student in physics; she is a secretary at the Institute); modernness of the apartment; and the apartment itself, a one-bedroom on the seventh floor with a view of the river. For two years they lived on the second floor in an efficiency which faced the low-rise apartments and they probably would have moved out this year if they hadn't gotten such a good apartment in September. They feel that the people in Westgate think of nothing but work; the only conversations one hears in the elevator among the men are about work. The pressures of academic life, time, money (and often parental financial help and advice) make them a rather cheerless lot. Had this couple known all this in advance, they might not have moved to Westgate. They would like to be in an area where there is more variety in age and would like to get away from students. They are not dissatisfied enough to move and apparently have decided that the attractive physical features of Westgate are more important for the moment than more varied neighbors.

Single Men on Campus

It is quite likely that single people sacrifice physical facilities for social life more often than married people do. In addition to the Swiss student, two of the Ashdown House men interviewed fit in this category. One, an Indian in mechanical engineering, has lived in Ashdown House for four years. He had lived in a dormitory as an undergraduate in India and had liked it. He had particularly liked getting to know so many people. He had to spend one month in an apartment when he came, but then was able to get a place in Ashdown House. That aspect of Ashdown House social life, which he values most, is the casual,

unplanned meetings with people. He likes the fact that it isn't necessary to make definite arrangements, that he can see people when he wants, and doesn't have to when he doesn't feel like it (he has one of the scarce singles in Ashdown House), he can always find people with whom to play bridge or pool, and when he wants can go to friends' rooms and talk. Some of the people who stay in Ashdown House do so because there is no one with whom they care to share an apartment. This is not the case here. There are people with whom this person discussed getting an apartment, but he says, "I have too many friends here to leave until the time comes when one has to."

Another mechanical engineering student from Minnesota moved into Ashdown House last summer because a good friend of his from college was there and he knew he would be able to room with his friend in the fall. He does not like industrial Cambridge and feels that if it weren't for the river, it would be an awful place to live. He finds it a good place to meet people and feels if he lived by himself somewhere off campus, he might be quite isolated.

It appears that what makes one man's social life makes another man's boredom. Three single men interviewed had lived in Ashdown House and had moved out because they did not care for the life there. Two other single people interviewed had never applied because they had had enough of dormitory life as undergraduates. The question of the institutional versus non-institutional environment is one we will come back to later.

Physical, Non-physical Considerations of Equal Importance in the Choice of Housing

There are people for whom physical and non-physical considerations have played equally important roles, and there are those for whom some secondary effect of the two has been most important. One who falls in the latter group is a mathematician who rents a room from a Harvard Russian teacher. Her apartment is the lower floor of a two-family house on a quiet, tree-lined street behind the Cambridge City Hall. He shares a bath, kitchen, and small dining area with the landlady (a widow with one grown son who lives with his family outside Boston) and three other students. She cleans all of the common areas and charges \$13 a week rent, including fresh linen every

two weeks. He lives there because he feels an apartment would be too much to take care of, because he did not want to live on campus, and because this is the cheapest and most convenient arrangement, particularly regarding cleaning. He usually walks or cycles to school, but occasionally takes the bus. The landlady does not interfere with the students' personal lives and for those who know some Russian there is the added benefit that her Russian is much better than her English, so that she is happy to speak Russian with any of her boarders. The man interviewed speaks only Russian with her.

One secondary effect of a combination of physical location and the people in a neighborhood is safety. This seems to be a more important factor for single women and married couples than it is for single men. Two couples in Westgate tower mentioned safety as one of the most important reasons for living there. One, a physicist who often works late, likes to know that if his wife is at home alone, she is safe; she is a secretary at the Institute and doesn't feel uncomfortable if she must walk to Westgate alone at night. They feel the area is well-protected by the Campus Patrol. An Ethiopian city planning student lived by himself off Central Square last year. It was a neighborhood with a large number of bars and he was often annoyed by drunks. When he got married last summer in Ethiopia, he did not want to bring his young wife back to such a neighborhood, and so he got a place in Westgate.

On-Campus Housing for Women

Many of the girls who live in Ashdown House do so because they can come home quite safely at any hour. This is particularly important for those in fields which require a large amount of laboratory work. In fact, most of the women who live in Ashdown House are in the Chemistry, Biology or Nutrition and Food Science Departments.

For one girl interviewed the use of a particular instrument is vital to her research in chemistry. She works during the afternoon and until 2:00 or 4:00 in the morning in order to get to use this instrument without interruption. She has no car, and there are no buses at those hours. For her at the moment proximity to the Institute is of the greatest importance.

She lives in one of the four singles allotted to girls in Ashdown House, but lived last year in a double. Her roommate's boyfriend was in their room so much of the time that had she not been able to get a single or change roommates, she might have considered moving off campus. She did get a single and will now probably stay, although she would like a kitchen of her own and finds sharing a small closet-size kitchenette with 25 other girls the feature of Ashdown House which she likes least. Since she will be finishing some time during next year, she is hesitant to commit herself to a lease, and if her boyfriend gets a place of his own, that will probably provide the kitchen she misses.

For another girl, a biologist who lives in Ashdown House, cost and proximity to M.I.T. are of equal importance. She lives in a triple (all of which have two rooms, whereas most of the doubles consist of only one room) which costs her \$235 a semester. She cooks supper regularly with two other girls, bringing her food costs down to about \$1 per day. (Eating regularly at the Ashdown House cafeteria, as most residents do during the week, probably comes to at least twice that amount.)

She would love to have an apartment by herself, and the only thing that prevents her from having one is lack of money. She doesn't want to share an off-campus apartment with anyone because there is no one with whom she wants to live. I asked about this since she appears to get along with her roommate (there is only one other at present) and with the third girl with whom they cook. She said that they all get along but have little in common and are not good friends. This was particularly interesting since they are all in the same field and I had interviewed another biologist who lived with a city planner and two college-educated secretaries who complained bitterly, "none of my roommates understand anything I'm doing." She would like to live with a biologist, and the city planner would like to live with a city planner, although the two not only get along, but consider themselves friends. When I mentioned the four biologists, I knew she said she knew them only well enough to know she did not want to live with any of them. The biology student in Ashdown House feels that if she were to have an apartment, she would want it to be with good friends, although she doesn't mind sharing two rooms

with people who are not good friends. She also felt the arrangement in an apartment regarding roommates who leave, get married, etc., would be difficult.

As a resident of Ashdown House and someone who has spoken at least a few words with every girl on the floor over the past two years, the author ventures to say that the problem of finding roommates might be a large one. As the girl described above (the on-campus biology student) expressed it: "there is so little to choose from" in her department in the way of girls. There are only 15 and about one third of those are married. This brings up a problem unique to a place with 150 women out of 3,100 regular graduate students,¹ since the women are fairly spread out among the 23 departments with a slightly lower proportion in engineering and slightly higher in the pure and social sciences, and because there is little opportunity for them to meet one another. A pleasant lounge on the third floor of Building 7 and the kitchen at Ashdown House (for those who live there) are about the only other places to meet girls outside of one's own department.

Women who come to M.I.T. for graduate work are probably somewhat different from the average woman college graduate. If the group who live at Ashdown House are at all representative (which is not necessarily so) then the M.I.T. woman graduate student is less sociable, less friendly and more school-oriented than women of the same educational level who are not at M.I.T. At social functions (run by another woman resident) such as sherry and whiskey hour hours, about one third of the girls come. About half of them have steady boyfriends and the author suspects that all of them know more men than women.

Perhaps the only way to solve some of the housing problems of single graduate student women at M.I.T. is either to increase their numbers so that they have more potential roommates to choose from or to increase the on-campus housing available to them (now they represent about the same proportion of the Ashdown House population as they do in the Institute as a whole). The latter move could be strongly supported by the argument that since a high proportion of the women are in sciences which require lab work at odd hours and since M.I.T.

¹Including special students the figures are about 200 women out of a total of about 3,400 regular and special graduate students.

is not located in an area where a woman can easily walk home late at night through safe areas to a safe neighborhood, the Institute has an obligation to its single women graduate students.

M.I.T. HOUSING OFF CAMPUS: The Experiment on Magazine Street

Many of the people interviewed placed equal importance on physical and non-physical features of their housing. Among these were people in two of the apartments at 22 and 24 Magazine Street, owned by Northgate Community Corporation. The buildings are four-story frame walk-ups with bay windows in the front and porches in the back. Most of the renovation was done by the previous owner who ran into financial difficulties and sold the buildings to Northgate. The apartment has a new pink tile bathroom and all new matching dark brown kitchen equipment: stove, refrigerator and dishwasher.¹ The apartments are quite attractive, very light and airy with re-finished wood floors and freshly painted white walls. The furnished apartment, which I visited, rents for \$225, and has new furniture, which seems sturdy, although not extremely attractive. The unfurnished apartment for 4 rents for \$190 a month, and there are girls living there who had furnished it with good-looking cast-offs from home (two of the girls live nearby).

All the people on Magazine Street with whom I spoke seemed to feel it is quite a good deal as far as cost, proximity to M.I.T., and the quality of the facilities go. From my observations I would agree. I would say the \$190 unfurnished apartment was one of the best values which I saw during my study in terms of space, condition of the facilities and proximity of the neighborhood to transportation, shopping and to M.I.T.

I don't know if M.I.T. intended to create a community within the buildings at 22 and 24 Magazine Street, or if the intention was solely to furnish good, clean housing at a reasonable cost. My interviews in two apartments there indicate that the project has succeeded admirably in achieving the latter, but not at all in the former. The girls know the people in two apartments above them, but

¹In one apartment they have never turned the dishwasher on; they rarely eat together and never have enough dishes to make it worth it, so they use it as a drying rack.

no one else in the building including those in the apartment directly across from them. One girl said that others in the building seem to be "M.I.T. types, afraid of females."

In the furnished apartment there are four men ranging in age from twenty to twenty-eight. They are a Chinese-American M.I.T. senior majoring in economics, a first-year American electrical engineering graduate student, who was an M.I.T. undergraduate, an Indian Sloan School student and an Italian special student in the field of cybernetics. They did not know each other before, and from what I observed, do not know each other very well now. They each keep different hours and rarely eat together. One of these rare occasions occurred during my interview when the Italian announced he was making pasta and invited all of us to join him. I would guess that the two younger ones, both Americans, spend more time together than they do with their other slightly more mature roommates.

But each of these people had different reactions to my questions, particularly about social life. The M.I.T. senior would like to be on campus, but there is no room for him because he transferred to M.I.T. from another school. He moved from his last place because it was very run-down, and he and his roommates split up because he "wanted to be with new people" and in a "new environment," although he and his former roommates are still good friends. He is not totally satisfied with not knowing anyone in the building, whereas the other American said, "I think it's great. You don't have them interfering with your affairs." It was difficult to find a community within the apartment itself, and there seemed to be no more contact within the building than there is in any Cambridge apartment building, although they are all (with a few exceptions) M.I.T. graduate students. Two exceptions are the secretaries with whom the biologist (mentioned above) "has nothing in common." She and the city planner are friends, and the two secretaries are friends, but the four as a group apparently do not get along very well. The biologist feels that she is separated from the girls because they are not students and spend so much time entertaining, watching television, buying clothes, etc.

Graduate Student Families in the Suburbs

Space, low cost, and a good physical and social environment were of equal importance in the housing choices of two suburban couples interviewed. Both have two children. One family lives in Arlington, near Massachusetts Avenue, the other in Watertown near the Belmont line. I spoke only with the wife in Watertown. They have a child seven years old, one child two and a half, and the wife is expecting another. They found Westgate (where a 2-bedroom apartment rents for \$137) "cold" and out of their financial means. In their present apartment (the lower floor of a duplex) they have two bedrooms, a living room, dining room, enclosed porch, large pantry and a backyard for \$115 a month.

They know their neighbors, and there are children for their children to play with. They found the public elementary school poor, so her seven year old girl now goes to a Catholic school. They are from Colorado, and find the East "too crowded." The back of their house faces the golf course of a country club, giving them some feeling of space. They like where they live because they have lots of room, a good neighborhood with other young couples and children, and because they can look out of their windows and see trees -- all at reasonable cost.

The other couple, whose children are about one and a half and four years old, made the same sort of decision; that is they moved out of town in order to get more space and amenities for their money. They live in a rather unique community which looks from a distance like any other suburban development, ten small houses fairly close

together with front yards and back yards. But the houses are all duplexes and most of the twenty families living there are graduate students at M.I.T. or Harvard Medical School or Business School. Their rent is \$115 a month for two bedrooms, a dining room, living room, porch and yard. They were on the waiting list for Westgate and were offered a one-bedroom apartment but heard from friends there that "the apartments were small, the prices high and that it was badly planned and badly run." They like their neighbors, and feel that by living in a suburban community of graduate student families "we don't have to justify our existence." Although there is babysitting back and forth and there are teas, etc., they feel privacy is respected. Despite the fairly low rent they were sure that everyone there has parental help as they did.

The Westgate Garden Apartments

If one can do better in the private market than one can in the M.I.T.-owned married student housing, why do people with children want to live at Westgate? As in all the decisions about housing which have already been discussed, people have assigned different priorities to cost, proximity, trees and a community of similar people. I spoke to three families living in the garden apartments. One couple lived for two years in the tower and had come to Westgate from California because they "thought it would be great" to be in married student housing. They had actually known very few people until they moved into the garden apartments last summer. They have only one child who is not yet a year old, so they find the two-bedroom apartment quite adequate in terms of space. Another couple with two children find the apartment cramped, but moved there from an expensive apartment in an old building on Ellery Street in Cambridge because they wanted play space for the children and like^a modern building which is easy to keep clean, is free of bugs and has a garbage disposal. Another couple with two children seem also to place the highest priority on "neighborhood" and playspace for the children.

For those who are not willing to go out to the suburbs, the Westgate garden apartments at \$137 per month are a bargain compared to similar two-bedroom apartments in the near areas of Cambridge and

Boston. That is definitely the feeling of one couple with whom I spoke. They have two children, one almost six, one almost five. They live on Green Street in a relatively new apartment building where they pay \$170 a month for two bedrooms and \$5 a month extra for parking space. There are no grounds around the building and their younger child cannot yet open the front door or reach the buzzer system, so someone must always go out with him when he plays. They have been trying desperately to get into the Westgate garden apartments since April, 1966, and finally have gotten a place as of June. Playspace for the children without having to commute was their main reason for wanting to move. The husband has been out of school for a few years, and they lived in the suburbs of Washington and he commuted to work. They liked it but to do the same thing now they say is "not our idea of student living."

External and Internal Space Demands

With the families who now live or want to live in the Westgate garden apartments we come to the issue of demands for internal versus external space. The demands of couples without children can quite easily be restricted to the former if the costs of acquiring the latter seem too high. As one wife living on lower Broadway in a fairly old building said, "we settled in the factory grime and smells and whistles of lower Broadway," but she feels they can "bar the door somewhat" against their "miserable environment." They plan to put their names on the waiting list for Westgate so that when they begin to have children, which they hope to do in a year, they will be able to live in a "community" and can be rid of the noise and smells of a factory which operates twenty-four hours a day.

The couple who now live on Green Street have also made clear that it is not the size of the apartment, but the lack of adjacent outdoor space which is one of the major reasons for their moving to Westgate. They liked their garden apartment in Rockville, Maryland, and are looking forward to being able to let their kids run in and out. Both couples made clear that it was the children who create a need for outdoor living space and pleasant physical surroundings. They all felt that for married people without children the range of

feasible choices in housing in this area is much wider. This means that the housing needs and demands of married students vary considerably according to whether they have children and then too according to the ages of the children. Westgate's small play area might be quite adequate for children under six but might leave something to be desired as a playground for older children; the area is adjacent to no other areas where children can safely play by themselves, being bounded by Memorial Drive, Vassar Street, warehouses and a fenced-in M.I.T. playing field.

The Institutional and the Non-institutional Environment

Perhaps only married couples with children require pleasant physical surroundings, but there are other groups, too, who want something of their external physical environment. One Austrian geologist lives on Marlborough Street in Back Bay because he likes the buildings, the area's atmosphere and because after one year in Ashdown House he wanted to get away from the campus and the atmosphere of the House.

Here we come to the broad issue of an institutional versus a non-institutional environment--more specifically, M.I.T.'s particular brand of institutional environment--one which is immediately bounded by industry, not lively commercial or residential areas. The Austrian found Ashdown House convenient, especially for his first year in this country, but said the people "depressed" him, work was their main topic of conversation, and no one ever had time to go to a movie. He had enough of dormitory life as a young boy in school and felt that graduate students should be treated as adults and regress if they are in a dormitory situation.

Even the Indian who likes Ashdown House finds "a lot of people here take themselves too seriously. They think that every minute counts. I don't feel that way. You can't get to know them too well, they are not the mixing type, will not just sit and talk, they evaluate their time." The fact that the atmosphere is different from that of the outside world seems to be why some people live here. One Ashdown resident plans to move after he takes his generals, finds the fact that everyone else is studying makes him study more and says if

he moved off campus he would live "more like a human being instead of a student."

The Swiss German hated eating in the Ashdown cafeteria. He felt that the place was impersonal, and that the food was lacking in variety, quality and quantity. It must be mentioned here that this man had lived at home while at the university and has had only this one experience with American institutional food. Many people choose to live at Ashdown House because of the cafeteria and find the food excellent.

Another person who moved out of Ashdown House for the summer originally intended to come back in the fall, but he "liked the freedom outside" and stayed. He did like the convenience, the facilities (snack bar, pool table, dark room, etc.) and the wide choice of people, but was tired of "so many of the same faces." He now has his own room (which he did not have in the House) in an apartment with three other M.I.T. graduate students on Dana Street, a twelve-minute bike ride for him from M.I.T. He feels he can have privacy there which he couldn't on campus and enjoys having lots of people in the neighborhood who are not graduate students.

The atmosphere of Ashdown House is predominantly that of a men's residence, and has not been drastically affected by the addition of twenty-seven women. But the women (who all live on one wing) do more visiting with one another in the hall and kitchen than the men do. In a study which I did last year I found that the women knew twice as many of the people on their floor as the men did. This year, too, the new housemaster and his wife have had buffet suppers (with marvelous food and an open bar) about once a month, each time inviting the residents of a different floor, but each time inviting the women. The women also had a tea in one of the rooms at the beginning of the year so that they at least all recognize each other.

Westgate, by definition, is a different type of on-campus housing than Ashdown House. More than one half of the residents in the 210 apartments are not students but spouses or children of graduate students. There are those who would not live there because it is M.I.T. married student housing, and those who dislike it because they find the social and/or physical environment monotonous. But there

are also those who live there and are reasonably satisfied, but who feel there should be more communal facilities and activities. Violently opposing such suggestions are those who feel as one resident expressed it, "Westgate is an apartment house, not a dormitory" and should remain so.

There are people, like the Ethiopian couple, who came hoping to find a stimulating community of graduate students, and have been sorely disappointed. They think there must be many interesting people but do not know how to meet them. They have not been as happy there as they expected and have plans to move. The kind of loneliness this couple and others have experienced in the high-rise building does not seem to exist in the garden apartments¹ where the mothers are home, where the children play with one another and where six apartments all share an entrance. Whether the uniformity of age and occupation creates an institutional atmosphere at Westgate or a suburban one in the middle of industrial Cambridge, I find difficult to say; in any case it does create some rather distinctive atmosphere.

Conclusions

One of the most obvious conclusions my interviews leads me to is that the problem of providing housing for the graduate students of M.I.T. (and probably for the graduate students of any other big-city school) is a very difficult and complicated one. There is the diversity of tastes and values expected of any large group, plus the requirements of several special groups: single women, single men, foreign students, married couples, couples with children, couples with children of school-age and so on. No one development or type of development has satisfied all their diverse demands in the past, and it seems unlikely that it will do so in the future.

1. To live in the garden apartments a couple must have at least one child.

CHAPTER VI: CONCLUSIONS - DIRECTIONS FOR THE FUTURE

Where do we go from here? What action should M.I.T. take in the future to improve the graduate student housing situation? What are the choices before the institution and what is the situation of the student?

The present M.I.T. housing facilities and services have been discussed in an earlier chapter. It is the author's feeling that improvement in these facilities would require resolving some present conflicts between fiscal and socio-educational policies. How common areas are to be properly maintained is a problem which must be solved for all present and future residential complexes if they are to provide more than shelter for the residents. As long as the present on-campus facilities do not meet the demand, admissions policies must be as equitable as possible. The Community Housing Service must be enlarged in order to serve better the majority of the M.I.T. community which is off campus. Northgate Community Corporation might widen its activities to acquire or lease residential properties outside of Cambridge. It should be borne in mind that conversions and acquisitions of properties in Cambridge are likely to reduce the stock of low-income housing; M.I.T.-owned housing in the suburbs, however, is more likely to serve the same population it would in the hands of private landlords.

What are the main problems facing the student with regard to housing? Basically, they are the combined problems of low-income and high rentals. But students are a peculiar population -- one with low incomes but a middle-class life-style. The importance of maintaining this life-style, particularly in terms of housing, varies very much from individual to individual as do the attitudes to large loans and parental financial assistance. The information on graduate student income levels presented earlier pointed out that the typical M.I.T. graduate student receives \$200 per month or \$1,800 per academic year (beyond tuition) and that the M.I.T. Student Aid Center calculates that a single student or married student with a working wife needs about \$2,300 to live adequately for a nine-month period in the Boston area.

Married couples renting certain one-bedroom apartments at Westgate are presently paying \$120 rent per month. If the husband's income were \$2,300 for a nine-month period this couple would be spending about 50% of their income on rent, twice the most frequently recommended ratio of rent to income. It is likely that these and other couples, particularly those with children, are forced to supplement their income with loans, savings, part-time work or parental financial help.

The survey data presently available on rent level gives a median rent of \$140 to \$149.99 for off-campus married students, which is higher than the on-campus median. It must be stressed that this figure until it is broken down by location, housing type and number of rooms cannot fairly be compared with the Westgate rents.¹ "Cost" was given as the one factor which most affected their housing choices by only 9% of Westgate respondents, but by 33% of the off-campus couples. Among single students 8% of Ashdown respondents, as opposed to 32% of off-campus respondents gave "cost" as the most significant factor in their housing choices. Despite the median rent data, these responses, together with information from the interviews suggest that many students live off campus because the rents on campus are out of their means. Many students live in the suburbs or in working class neighborhoods of Cambridge because they can get more space for their money there than they can on campus. Space is a particularly important factor for couples with children.

One of the groups least served by M.I.T.'s present housing facilities are married couples with children. The difficulty outside people have in getting into the sixty two-bedroom apartments at Westgate has been discussed. Even if the admissions system is improved, the vast majority of couples with children will still be off-campus. At present 265 of the 310 couples with children five years of age or under live off campus, as do 77 of the 83 couples with children over five years of age. It is difficult to imagine that M.I.T. could provide the space and facilities that these families need on campus at rents which the majority could afford.

¹Several problems and difficulties arose during the processing of the survey data. Programming the correlations took longer than originally estimated. As mentioned earlier, these more detailed results will be available in the near future, and will require more study.

If M.I.T. wants to create a community for these people, perhaps it must do it off campus with a complex similar to Harvard's Holden Green. The concept of Northgate's Community Corporation's Magazine Street building might be expanded for this purpose. There are already several suburban developments largely inhabited by M.I.T. graduate students. If Northgate were to purchase or lease one of these developments, it might be able to reduce the financial burden of these students, since it would probably not seek the profits of a private landlord, and by creating a community of M.I.T. graduate student families it might accomplish some of its social and educational goals. At the same time, such a development might support a transportation system which would reduce the number of parking spaces necessary for commuting graduate students.

The most frequent estimate given for the value of the M.I.T. land necessary to provide one parking space is between \$3,000 and \$4,000, and for a space in a parking structure of four stories or less, the figure is \$3,500.¹ If M.I.T. were to purchase or lease a development like the ten duplexes on Mott Street, in Arlington near the Cambridge line, described in the Chapter on interviews, it could run student-driven shuttle-buses to and from M.I.T. every weekday, using vehicles leased at \$130 a month. This figure is the cost of leasing a new nine-passenger vehicle and includes all expenses except gas and oil, i.e., insurance excise tax, registration and maintenance.² The cost of gas and oil would come to about \$14 a week if there were five round trips and could be divided among the eight riders with the driver paying nothing, being responsible for the vehicle and having the use of it during non-commuting hours. Such a system would free the land required for eight parking spaces, the present value of which is about \$28,000. It would cost M.I.T. \$1,560 a year to operate this system and under a three-year plan of one company as lessor, M.I.T. would own the vehicle at the end of the period.³ Sharing the

¹ According to the M.I.T. Planning Office.

² This rate is the cost of leasing a 1968 Dodge Sportsman from a Chrysler leasing system called Lease by Boch, in Norwood, Mass., as of August, 1967.

³ This plan was available at Lease by Boch, Norwood, Mass., as of August, 1967.

gas and oil would cost each of the riders about \$1.75 per week, about \$1.00 less than they now pay to go to M.I.T. by bus. The Institute would benefit in terms of land freed for uses other than parking. The riders would benefit in terms of time, money and energy saved, and they would have an opportunity to get to know each other. Although meant only to serve as an example of one solution to the problems of a particular group of graduate students, it would seem that a system which benefits socially and financially the students and the Institute is worthy of consideration.

The idea of flexible solutions to the graduate student housing situation seems a good one, given the diverse nature of the population. Cost is one of the reasons people live off campus, but there are others too. The Graduate Student Housing Questionnaire included this question: "Suppose there were two apartments of a similar price and quality, one off campus, one on campus, which would you prefer?" Of the off-campus married respondents 44% replied "off-campus." 56% of the off-campus single students who responded also replied "off-campus." To many off campus the "character or quality of the neighborhood," "proximity to the people or activities which constitute social life" and "distance from the crowded city" conditions were more important factors than "cost" or "proximity to M.I.T." The desire for privacy and a non-institutional atmosphere are also strong reasons for living off campus. It is likely that many of these people will never wish to live on the M.I.T. campus. The Institute can disregard them in planning for graduate student housing and concentrate on those who can afford and want to live on campus or it can increase the numbers of solutions to the problems of the off-campus students. Direct action to improve conditions and keep rents reasonable is something which the Institute can do in a variety of areas through Northgate Community Corporation.

The graduate student Community is one with very diverse housing needs. There are students who manage well with a rented room, shared bath and kitchen and those who need two bedrooms near a playground and a good public school. This suggests that what M.I.T. must do is to assess the demand for different types of housing and try through various means to meet the variety of needs of its students. M.I.T., its students and its faculty have helped to make the Cambridge and Boston housing

market what it is and it would seem that M.I.T. has an obligation to its students to help correct some of the effects of this market. The rents in Westgate and Eastgate are beyond the means of many married students. If M.I.T. cannot build more cheaply on campus it must expand its off-campus endeavors. It is conceivable that a "community of scholars" could be created as well off campus as on campus.

It is true that M.I.T.'s main function is to educate people. But if M.I.T. hopes to continue to get top people in its graduate school it must compete with many other institutions in the areas of salaries and housing as well as the quality of instruction and facilities. The Institute administration must reach a consensus about what it wants for its graduate student population in terms of housing and how much it is willing to pay to achieve these goals. In building more on-campus facilities, M.I.T. may find that it has to underwrite students so they can afford these facilities. An effort should be made to arrive at a situation in which the trade-offs will be more reasonable for the student, (for instance, he should not be forced to pay more than one half of his income for rent). M.I.T. might want to review income levels and the quality of public and private transportation as well as the housing of graduate students. The present literature on the subject suggests that M.I.T. sincerely wants to improve the housing situation of its graduate students and to create a sense of community among them. To accomplish this ambitious task will require careful scrutiny of the present situation and its history. The preceding paper is merely a suggestion of some of the issues involved. It is meant to be only a beginning. Some of the questions and problems involved have been raised, but the task of finding and executing solutions has barely begun.

APPENDIX

Interviewed subjects included one room-renter, one co-op member, four single people sharing apartments in Boston or Cambridge, two married couples (one with children, one without) living in apartments in Cambridge, four couples who live in the Westgate tower, three who have children and live in the garden apartments and two married couples with children who live in duplexes in the suburbs.

Although I conducted twenty-one interviews, I spoke with twenty-four people since in one apartment I conducted a group interview. Three subjects were in biology, five in chemistry, one in city planning, two in economics, two in electrical engineering, one in geology, two in mathematics, three in mechanical engineering, one in nuclear engineering, two in physics, one in psychology, and one in the Sloan School of Management. All except one were graduate students. Eleven were married of whom six had children; and thirteen were single, of whom three were women. Eight subjects were foreign: one from Canada, four from Western Europe, one from Ethiopia and two from India. Of the Americans five were from the Far West. Six were selected from their questionnaire responses, the rest were acquaintances or suggested to me by other friends or acquaintances. I always called and asked if they had time for such an interview and was never refused.

The questions varied to some extent but usually included the following:

- Why did you move to your present place?
- How long have you been there?
- Where did you live before and what was wrong with it?
- What do you like most about your present place?
- What do you like least?
- Do you know your neighbors?
- How do you get to school?
- What is the nature and amount of your fellowship or assistantship and can you support yourself on it?

In addition I asked:

- people on campus if they had ever considered living off campus and vice versa;
- married couples with whom and where their children play;
- working wives how they get to work;
- single people where and with whom they usually eat supper;
- single people sharing apartments how they decide on rooms and arrange cooking, cleaning and shopping.

The nature of the session was very much determined by the people

being interviewed. One couple preferred that I come to their lab during their lunch break so that "it wouldn't break up the whole day." Another couple insisted that I stay for drinks and then supper with them. In general, people were friendly and helpful and interested in discussing their housing arrangements.

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