
Cambridge Housing Study

**Final Report
June 1987**

Prepared by
Abt Associates Inc.
Cambridge, Massachusetts

Prepared for
The City of Cambridge

Abt Associates Inc.

55 Wheeler Street, Cambridge, Massachusetts 02138-1168

Telephone • 617-492-7100

TWX: 710-3201382

CAMBRIDGE HOUSING SURVEY

June 19, 1987

Meryl Finkel

James E. Wallace

Executive Summary

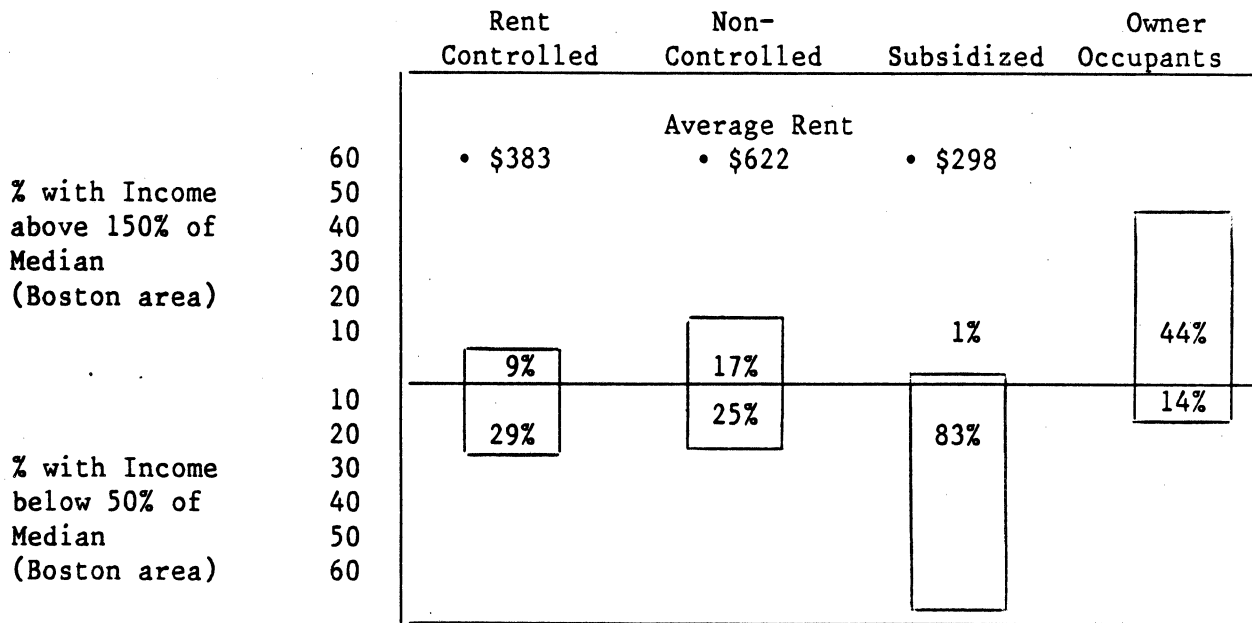
This study, conducted by Abt Associates for the City of Cambridge, addresses two major questions:

- What are the characteristics of households in rent controlled apartments in Cambridge?
- How do they compare with other households in the City?

Because no data are available containing all the necessary information, answers to these questions were obtained using data from a survey of Cambridge households conducted by Abt Associates during April and May, 1987. In order to provide a broad array of information useful to Cambridge policy makers, the survey asked about rent, housing characteristics, income, and household descriptors.

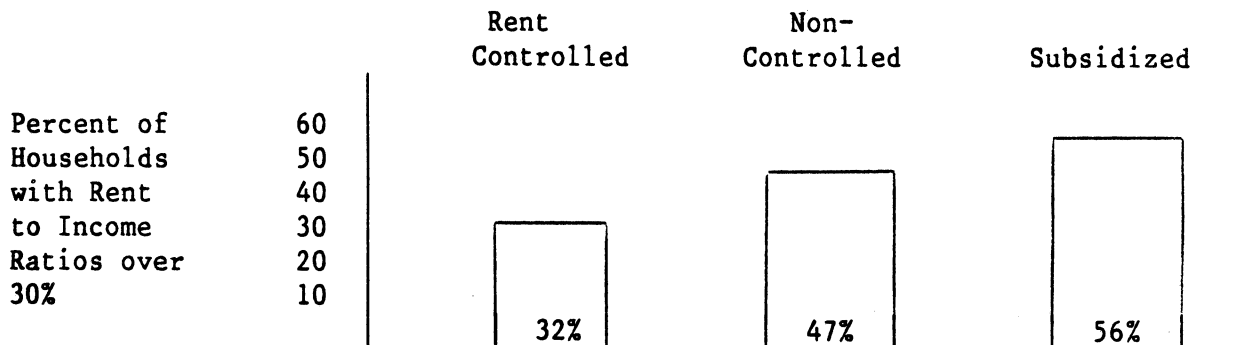
Rent and income are lower for households in subsidized and rent controlled units as compared with non-controlled units. Average contract rent for non-controlled units was \$622 per month but only \$383 for rent-controlled units and \$298 for subsidized housing. Differences also exist in income distribution for households in rent controlled and non-controlled units but they are not as dramatic as the differences in rent. Incomes for households in subsidized units are generally much lower than the other groups while households in owner occupied units had higher incomes (see Exhibit 3-4).

Income Distribution and Average Monthly Contract Rents



The result of these relationships are rather wide differences in the rent to income ratios faced by these households.

Rent Burden: Percent of Households with Rent to Income Ratios over 30 Percent



For example, for 32 percent of rent controlled households, rent exceeds 30 percent of income; this number jumps to 47 percent and 56 percent for non-controlled and subsidized housing, respectively (see Exhibit 3-6).

Household composition also varied across housing type. Nearly half the rent controlled units were occupied by one person households as compared with less than a third of other households (see Exhibit 3-8). A total of 68 percent of the rent controlled units were occupied by single people or couples

without children. Only 50 percent of non-controlled units were, as were 52 percent of owner occupied units, and 42 percent of subsidized units.

Twenty-one percent of owner occupied households and 26 percent of subsidized units had elderly members as compared with 7 percent of controlled units and 8 percent of non-controlled units (see Exhibit 3-9). Twenty-three percent of families in subsidized units had children under age six compared with 8 percent in rent-controlled units, 14 percent in non-controlled units, and 17 percent in owner occupied units (see Exhibit 3-10).

Minorities occupy 17 percent of rent controlled units, 22 percent of non-controlled units, and 13 percent of owner occupied units. In contrast, minorities comprise 45 percent of subsidized units (see Exhibit 3-11).

Finally, housing characteristics also differ by housing type. Rent controlled units are smaller on average than other types of housing. Fifty-five percent have 0-1 bedrooms compared with 37 percent of subsidized units, 33 percent of non-controlled units and 12 percent of owner occupied units (see Exhibit 3-21).

Owner occupied households are the least crowded, with 23 percent having 4 or more rooms per person. In contrast, only 3 percent of subsidized units are this uncrowded, as are 18 percent of controlled, and 13 percent of non-controlled units (see Exhibit 3-23).

The remaining chapters of this report review the background of this study, describe the survey methodology, and report the detailed survey results for household and housing characteristics. The findings presented are purely descriptive. Appendices provide the survey questionnaire and supplementary tabulations of the data.

Summary Results

Household Characteristics Within Each Housing Category

	<u>Rent Controlled</u>	<u>Non- Controlled</u>	<u>Subsidized</u>	<u>Owner Occupants</u>
Median Contract Rent per month	\$300-400	\$400-600	\$200-300	---
Mean Contract Rent per month	\$383	\$622	\$298	---
% of households with rent over \$600	8%	40%	4%	---
% of households with rent income rates over 30%	32%	47%	56%	---
% households with income greater than median income for the Boston area	30%	42%	3%	63%
% households with income greater than 150% of median income for the Boston area	9%	17%	1%	44%
% households with income less than 50% of median income for the Boston area	29%	25%	83%	14%
% of households with elderly members (65 or older)	7%	8%	26%	21%
% of households with children under age 6	8%	14%	23%	17%
% of households occupied by one person	49%	27%	32%	24%
% of households with minority members	17%	22%	45%	13%
% of units with 0-1 bedrooms	54%	31%	37%	12%
% of households with 4 rooms or more per person	18%	13%	3%	23%

Acknowledgments

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The Survey Research Group at Abt Associates designed and conducted the housing survey. We would like to acknowledge the assistance of Diane Stoner, Survey Director; Michael Battaglia, Sampling Statistician for the Survey Research Group, Maureen Meagher, Interview Supervisor; John Straubinger, Coding Director and Kevin Fahey, Data Entry Supervisor.

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1.0 BACKGROUND

On May 5, 1986 the Cambridge City Council adopted an order that the City Manager arrange to provide the City Council "with any available statistics as {to} the kind of people (i.e., age, economic level, etc.) living in rent controlled units, 2-3 family and larger buildings, etc., and if such information is not presently available, to have the proper agency conduct such a study and report back to the City Council as soon as possible."

In the search conducted by the Community Development Department for available data, it became clear that direct answers to the question were not already available. Such information is not kept as part of the records of the Rent Control Board or any other agency. The Community Development Department assembled some basic facts on the numbers of rent controlled units and their distribution by size of building in the City as well as some basic data on population and housing characteristics from the 1980 U.S. Census.

Because these data were not refined enough to address the original question, the City solicited proposals for a further study of existing data and consideration of a direct survey to obtain the information needed. The solicitation for the proposals (that were submitted October 24, 1986) called for an analysis of 1980 U.S. Census data, combined with statistics from the Rent Control Board and the Cambridge Housing Authority, "to compare tenants in rent-controlled units to (a) tenants in non-rent controlled private housing, and (b) tenants in subsidized housing in Cambridge." Abt Associates, in a contract effective December 22, 1986, performed the required study and the results are summarized in the report, Cambridge Rent Control Study -- Phase 1 Status Report.¹

In addition to the data sources named above, we also used the Valuation File of the Assessor's Office for buildings classified in that file as subject to rent control (to which we appended the Census Block Group identification as a function of building address) and supplemented the data from the Cambridge Housing Authority by telephone inquiries to the owners and managers of privately owned subsidized housing (using a listing and map provided by the

1. Cambridge Rent Control Study: Phase 1 -- Existing Data Status Report, Abt Associates Inc., Cambridge, Massachusetts, March 1987.

Community Development Department). We made reference to a street listing (City census) from the Cambridge Rent Control board.

The basic methodology used was to disaggregate statistics first to the 13 planning districts in the City, then to the level of the 95 Block Groups into which the U.S. Census has divided the City. This did not permit exact identification of the characteristics of households in rent controlled units, but it did permit a statistical analysis of the way in which aggregate household characteristics at the Block Group level vary with the relative concentration of rent controlled units at the Block Group level.

Across 95 Block Groups we found a negative correlation of -0.140 between mean incomes of renter households and the proportion of rent controlled rental units in the Block Group. For the 66 Block Groups with no subsidized housing properties the cleaner analysis (one not requiring any correction for these households) yields a correlation of -0.284 . For the 66 Block Groups with no subsidized properties we also found a negative correlation (-0.39) between the percentage of renter households with 1979 incomes of \$20,000 or more and the percentage of rent controlled rental stock. These results indicate that, on average, rent controlled units tend to be occupied by lower income households and that very high income households tend to live in areas with low concentrations of rent controlled households.

The Status Report provided the City with an analysis of available data by using household characteristics from the 1980 U.S. Census and from owners of subsidized housing properties to describe average household characteristics at the Census Block Group level in relation to the fraction of rental units that are rent controlled in that Block Group. These data do not answer the question raised, however, in that they do not provide information on individual households, classified by the rent control status of their unit. The original Scope of Work in the Abt Associates contract with the City provided that, "If the results of the data analysis are inconclusive or insufficient, the Consultant shall provide sufficient evidence for recommending either a more in-depth analysis of existing data or a sample survey among tenants in rent-controlled and non rent-controlled buildings (excluding subsidized units) and possibly among homeowners."

Because existing data were inadequate to answer the question posed, the City modified our study contract as of February 12, 1987 to include the design

of a household survey to gather the needed information. The resulting report² reviewed the data requirements, indicated the items to be included in a household survey and provided alternative approaches to the sampling design for reaching the households whose responses can be used to answer the objectives of the study. A sample questionnaire was submitted to the City as a separate item.

On April 2, 1987 the Cambridge City Council commissioned Abt Associates to conduct a survey of households in Cambridge to compare tenants in rent-controlled units to tenants in three other types of housing units; a) owner occupants (including condominiums), b) tenants in non-rent controlled units and c) tenants in subsidized units. This report summarizes the survey methodology and results. Section 2 reviews the survey methodology. Section 3 presents the survey results in the form of tabulations of household socio-economic and housing characteristics permitting comparisons between households in rent controlled and other types of housing.

2. Cambridge Rent Control Study: Phase II -- Household Survey Design Report, Abt Associates Inc., Cambridge, Massachusetts, March, 1987.

2.0 SURVEY METHODOLOGY

The purpose of this study was to gather socioeconomic and housing characteristics data from households in Cambridge. A phone survey was determined to be the most effective way to gather this data, both in terms of providing anonymity with respect to sensitive rent and income questions and in terms of cost of obtaining data from a large random sample of households. The survey methodology is described in detail in the Phase II report of the Cambridge Rent Control Study.

2.1 Sample Design

As indicated in the design report, target samples of households were established for each of four types of housing--rent controlled, subsidized, neither rent controlled nor subsidized rentals and owner-occupied. The original target samples were

Rent Control	500
Non-Controlled	333
Subsidized	333
Owner-Occupied	333

These samples provide adequate statistical reliability for detecting differences between households in rent controlled units and each of the other categories.

In order to estimate the size of the telephone sample needed to generate these target samples we first made estimates of the incidence of the types of housing in the city as shown in Exhibit 2-1.

The technique used to sample households was random digit dialing, where banks of 100 telephone numbers with few residential numbers are eliminated thus increasing the probability that any sampled telephone number will be usable. The actual sample of telephone numbers used was selected by Survey Sampling Inc., of Fairfield, Connecticut, comprising a total sample of 8,340 numbers divided into 30 random subsamples, or replicates. This provided for

flexibility in terms of the sample committed and according to the estimated distribution of Exhibit 2-1, should have provided for a surplus of approximately 30 percent, assuming a 70 percent response rate.

Exhibit 2-1
Approximate Housing Stock in Cambridge

Total Households in Cambridge (1980)	38,836	
Owner Occupants	8,857	(22.8%)
Rent controlled units (1987)	17,116	(44.1%)
Number of Subsidized units (1987)*	5,463	(14.1%)
Number of non rent controlled, non subsidized rental units (residual)	7,400	(19.1%)

* Includes approximately 4663 units in subsidized properties and another 800 other subsidized units. Of the 1,017 Section 8 certificates, approximately 210 are used in subsidized properties.

2.2 Survey Summary

Exhibit 2-2 summarizes the disposition of the sample of telephone numbers drawn. Completion rates and response rates have no singular definitions.³ Several measures of success rates of surveys are used. Of the 7,952 telephone numbers attempted, 1,483 provided usable responses (a completion rate of 18.6 percent). Of the 2,165 non-screened out, working, rent-paying Cambridge numbers reached, 1,483 usable responses were obtained representing 68.5

3. See "On Definition of Response Rates," a Special Report of the CASRO Task Force on Completion Rates (Council of American Survey Research Organizations; Port Jefferson, New York, June 1982).

Exhibit 2-2

Survey Summary

Initial sample of telephone numbers:	8,340
Not attempted	388
Total attempted	7,952
Refused	595
Breakoff	61
No contact after five attempts	1,400
Language barrier *	54
Ill	11
Unavailable during study	15
Occupy without payment of rent	26
Terminated - not subsidized	662
Non working numbers/changed numbers	2,575
Not a Cambridge household	1,070
Complete	1,483
Unclassifiable	50
Classifiable	1,433
Rent control	545
Non-controlled	361
Subsidized	180
Owner occupied	347

* Foreign languages identified less than ten times each included Japanese, Chinese, Haitian Creole, and French. Households identified as having only Spanish- or Portugese-speaking respondents (60 households) were referred to bilingual interviewers to complete the interviews and are not included here as language barriers.

percent of 2,165. One way to estimate a response rate is completions/ (eligible sample) = 59 percent.⁴

Exhibit 2-2 summarizes the survey results in the housing classifications. As the survey was conducted, subsidized households were encountered less frequently than expected and the response rate was 67 percent, with the result that practically all of the phone number sample was used and the last several replicates were devoted entirely to locating subsidized households--all other household types were terminated. Because the incidence of subsidized households was lower than anticipated, the survey yielded a smaller number of these households (180) than targeted in the design (333). Larger samples of completed interviews than targeted were obtained for all of the other household categories.

Five attempts were made to reach each phone number. Portuguese and Spanish speaking interviewers were hired to interview respondents who only spoke either of those languages. Approximately 30 interviews were conducted in each of the two languages.

2.3 Determining Household Classification

Because this survey was intended to make comparisons across household groups according to type of housing, several data items were used to determine the type of housing for each respondent. Items from the survey itself, including the respondents' addresses, were combined with listings of addresses of rent controlled units and subsidized housing provided by the City. The

4. The number of completes is known (1,483), whereas the number of eligibles (rent paying households in Cambridge) must be estimated, since it is not clear whether those not reached would have been eligible. We can assume that the proportion of eligibles among those not reached is the same for those reached;

$$46.8 \% = \frac{1483 + 61}{1,483 + 61 + 26 + 662 + 1,070} = \frac{\text{eligibles}}{\text{eligibles} + \text{ineligibles}}$$

Thus, we assume that for those not reached (no contact made, ill, language barrier, refused), the eligibility rate would have been 46.8 percent. Thus, total eligibles = 1,483 + 61 + 0.468 x (595 + 1,400 + 54 + 11 + 51) = 2,515, giving a response rate of 1,483/2,515 = 59 percent.

survey is included as Appendix A. The following three sources were used for classification.

1. Address information provided by the respondents (asked only of renters). These addresses were crosschecked with lists of rent controlled and subsidized housing projects. The results were as follows:

Owner occupied - not asked address	347
Address listed as rent controlled	444
Address listed as subsidized	129
Address not on either list	313 (can be non controlled or Section 8 subsidized)
Refused / Don't Know	248

2. Respondent's own classification of housing: owner occupied, rent controlled, housing owned by the housing authority, and government assistance in payment of rent. These results were

Owner occupied	347
Renters	1,136 (could answer yes/no to any/all of the following:)

	<u>Yes</u>	<u>No</u>	<u>Don't know/refused</u>
Rent controlled	643	439	63
Housing authority	165	928	43
Section 8	77	1047	12

3. Questions on number of units in the building, building age, and on owner's residence in the building. Buildings built after 1969 and 1-3 family owner-occupied buildings are exempt from rent control. Survey responses on these items could be used to classify households as exempt, independent of the address list matches and of the

respondent's own indication of their classification. In addition, if a building or a unit in a building has undergone considerable rehabilitation, it may have qualified technically as new construction and be exempt from rent control. This is particularly likely for small buildings.

With these sources available, the following rules were imposed to classify households according to type of housing.

Owner Occupied. Households were classified by respondents' answer (address not requested)

Subsidized. Households were classified as subsidized:

If the respondent said s/he lives in a subsidized property and the address was on the list of public housing or private developments.

If the respondent said yes to government assistance, and the address was consistent. (Several respondents said they lived in housing owned by the "Housing Authority" or received government assistance in paying rent, yet gave addresses in Harvard Housing. These were apparently cases where the question was misunderstood; they were not classified as subsidized.)

If the respondent said yes to living in subsidized housing or to receiving government assistance and no address was given and other responses were consistent (i.e., not single young people, not households of all students, not very high income).

Rent controlled. Households were classified as rent controlled:

If address was on the rent control list and respondent said "yes" to rent control and "no" to receiving government assistance.

If address was not on the rent control list or no address was provided, respondent said "yes" to rent control, and "no" to receiving

government assistance, and the units satisfied the rent control criteria, that is were not definitionally exempt.

If the address was on the rent control list or no address was provided, and none of the rent control exemptions applied, and the respondent says s/he received no government assistance, and that the unit is not rent controlled the observation was nevertheless classified as rent controlled; even though the respondent may not know that the unit is legally under rent control. These cases are flagged in the data base provided to the City should further analysis be desired.

Non-controlled. Households were classified as non-controlled:

If the respondent said "no" to rent control, housing authority and subsidies, and the unit was not on any list.

If the respondent said "no" to rent control, housing authority and subsidies, and the unit was on the rent control list or the address was unknown, but any of the rent control exemption criteria held.

If the respondent said "no" to rent control and subsidies, and the unit was on the private development list--because these buildings can have unsubsidized or market rate housing units.

Of the 1433 classifiable responses to the survey the distribution of households was as follows:

Rent control	545
Non-controlled	361
Subsidized	180
Owner occupied	347

This distribution was obtained by screening out all but subsidized households for the last replicates of phone numbers.

These numbers do not represent City averages. Since owner occupants were screened out early and non-subsidized renters were screened out at a later stage, the sample distribution is not intended to represent the City-wide distribution. The sample design was intended to obtain representative samples within each of the housing type classifications.

Appendix B provides selected estimates of housing type distribution patterns within selected population groups of presumed policy concern including: race, households with elderly members, households with young children, and single parent households. These estimates were obtained by weighting the sample by the expected frequency of housing type classifications (from Exhibit 2-1) as detailed in Appendix B.

2.4 Multiple Residential Telephone Numbers

The random digit dialing method used has the advantages of providing anonymity for respondents, as well as enabling reaching unlisted phone numbers--neither of which would be satisfied using directories of listed numbers. The drawbacks of random digit dialing are that all households are not reached with equal probability. Households with no telephones cannot be reached at all and households with multiple telephone numbers have a higher probability of being reached.

Ninety-six percent of all households in Cambridge and 95 percent of renter households were reported as having phones in the 1980 Census. While this number is high, it is likely that those without telephones are generally in the lower income categories. A previous simulation of random digit dialing for a telephone ownership rate of only 87 percent found the random digit dialing results to differ only slightly from the Census population. For example, households with incomes under \$10,000 were 71.8 percent of the random digit dialing simulation compared with 74.8 percent of the population.⁵ Since the phone ownership rate in Cambridge is higher, the potential bias from households with no phones is probably even lower.

5. Tull, Donald S. and Gerald S. Albaum, "Bias in Random Digit Dialed Surveys," Public Opinion Quarterly, Vol. 41, 1977, pp. 389-398.

One hundred thirty-one of the survey respondents (8.8 percent) reported having more than one phone number. As the table below shows, multiple phone numbers were more common in the higher income households surveyed.

Incidence of Multiple Phones in Surveyed Households

<u>Income</u>	<u>Percent of Households</u>	<u>Percent of Households With Multiple Phones</u>
<=20,00	43.9%	5.6%
20,000-40,000	41.2	6.8
40,000+	15.0	15.1

In order to correct for the oversampling of high income homes due to the presence of multiple phones, each observation is weighted by 1/(number of phones). Since the distribution of phone-less households is unknown, no adjustment has been made for this.

The final sample sizes in each of the housing categories determine the statistical precision of the estimates which can be made from the data. For estimates of proportions, such as the proportion of households having incomes above some reference amount, the 95 percent confidence interval around an estimated proportion of 0.5 is as follows:

<u>Housing Classification</u>	<u>Sample</u>	<u>95 Percent (Confidence Interval Around Estimate of 0.5</u>
Rent Controlled	545	±0.04
Non Controlled	361	±0.05
Subsidized	180	±0.07
Owner Occupied	344	±0.05

This means, for example, that for rent controlled households if the data indicate 50 percent of the households have a certain characteristic, in 95 out of 100 samples the true proportion is in the range 46 to 54 percent.

3.0 RESULTS

The following tables summarize the findings of the Cambridge Housing Survey. The tables present characteristics of households classified by housing status (rent control, non-controlled, subsidized, and owner occupied). As noted above, since different categories were screened out starting at different points in the survey, the distribution of characteristics across housing types is not equal to the distribution in the city. These tables reflect distributions of characteristics within each type of housing. Appendix B provides projected distributions of several population groups across housing types.

3.1 Socioeconomic Characteristics

Income

Household income was asked in brackets according to household size. The brackets represent the 1987 percentages of Boston area median income estimated by the U.S. Department of Housing and Urban Development for the Boston area, adjusted for household size.⁶ The median income for a family of four in the Boston metropolitan area for fiscal year 1987, beginning in October 1986, is estimated at \$37,400. (The HUD estimate for median income for a family of four the whole nation is \$30,400). HUD estimates current figures by updating the 1979 median family income obtained from the 1980 Census. All figures were rounded to the nearest \$1,000 for the survey. The Boston income estimates are used, rather than Cambridge incomes (which are lower) because this is the reference used for federal housing subsidy programs in Cambridge.

For example, for a family of four the incomes are:

6. "Estimated Median Family Incomes for Fiscal Year 1987," Memorandum from U.S. Department of Housing and Urban Development, Assistant Secretary for Policy Development and Research, February 6, 1987.

Under 25% percent of median income	\$9,000 or less
25 to 50 percent of median income	9,001 to 19,000
50 to 80 percent of median income	19,001 to 30,000
80 to 100 percent of median income	30,001 to 37,000
100 to 120 percent of median income	37,001 to 45,000
120 to 150 percent of median income	45,001 to 56,000
150 to 200 percent of median income	56,001 to 75,000
over 200 percent of median income	over \$75,000

HUD provides family size adjustment for households from 1 to 8 persons to adjust the income limits used in federal programs at 80 percent of median and at 50 percent of median income for a family of four. Our table of income brackets by household size matches these HUD-adjusted figures and interpolates or extrapolates for the other bracket intervals used in the survey questionnaire. Exhibit 3-1 shows the form in which the question was asked.

Income distributions for households in each of the four housing classifications are graphically displayed in Exhibit 3-2. The graph shows the percentage of households in each income group for all four housing categories.

Exhibit 3-3 shows the cumulative income distribution for each housing category. Subsidized households are more concentrated at the lower income ranges, while owner occupants are much more likely to have higher incomes. Comparing rent controlled and non rent controlled households, higher percentages of rent controlled households are in the lower income ranges while the converse is true in the highest income ranges. The distributions are not widely separated, however, and show both low income non controlled households and high income rent controlled households.

Exhibit 3-4 tabulates the distributions of incomes for the different housing categories. Seventy percent of the households in rent controlled units who provided income data had incomes of less than the median income. For non-controlled units the number is 58 percent. In contrast, 97 percent of respondent households in subsidized units had incomes less than the median income for their household size, while only 37 percent of owner occupants

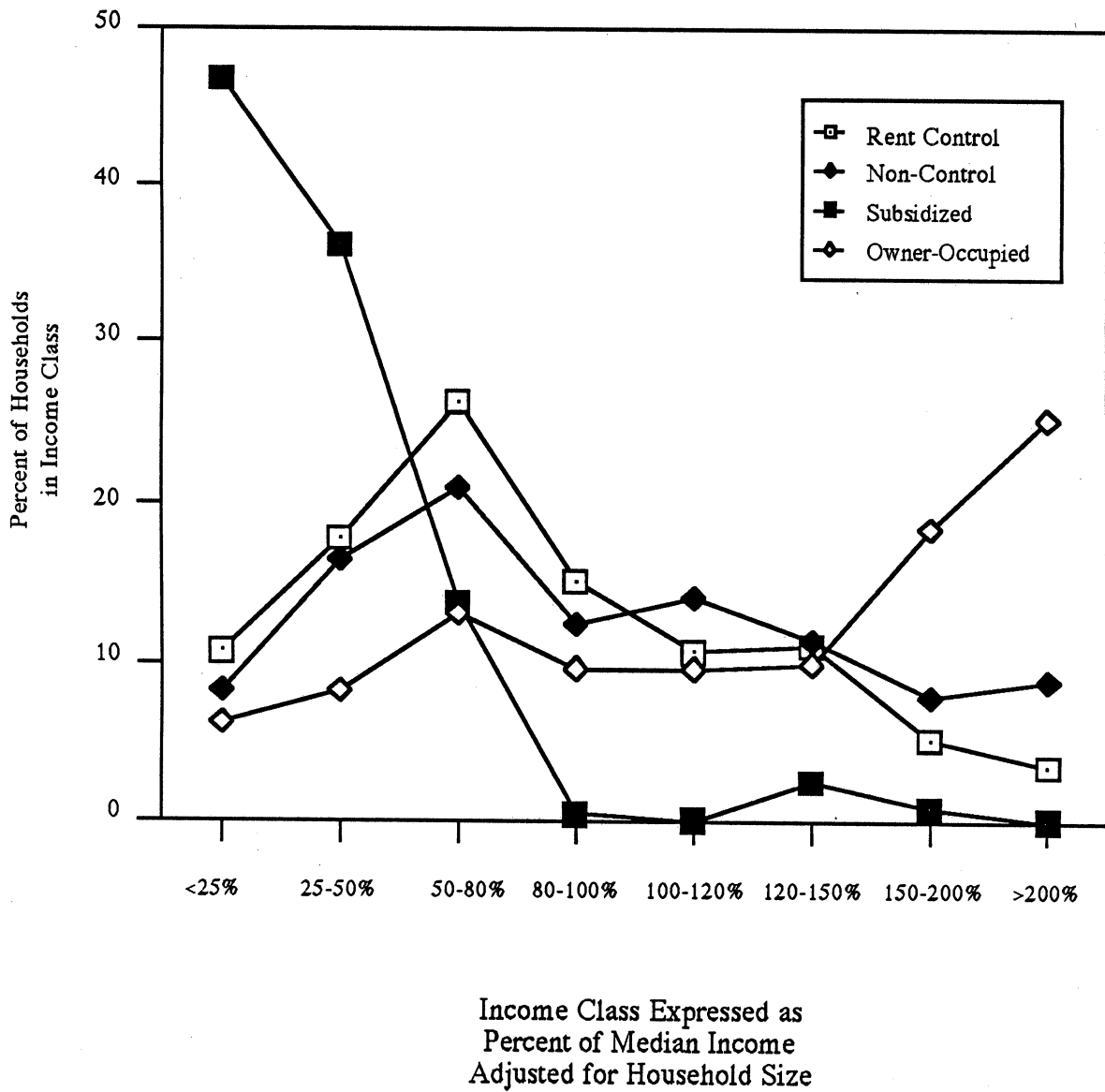
Exhibit 3-1

"In 1986 was your total household income, from all sources, before taxes
[Question read according to number of persons in the household]:"

<u>Number in HH</u>		<u>Number in HH</u>	
1	\$6,000 or less.....1	5	\$10,000 or less1
	\$6,001 up to \$11,000.....2		\$10,001 up to \$20,000.....2
	\$11,001 up to \$19,000.....3		\$20,001 up to \$32,000.....3
	\$19,001 up to \$23,000.....4		\$32,001 up to \$40,000.....4
	\$23,001 up to \$28,000.....5		\$40,001 up to \$48,000.....5
	\$28,001 up to \$35,000.....6		\$48,001 up to \$60,000.....6
	\$35,001 up to \$47,000.....7		\$60,001 up to \$80,000.....7
	over \$47,000.....9		over \$80,000.....9
	DON'T KNOW/REFUSED.....8		DON'T KNOW/REFUSED.....8
2	\$7,000 or less.....1	6	\$11,000 or less.....1
	\$7,001 up to \$15,000.....2		\$11,001 up to \$22,000.....2
	\$15,001 up to \$24,000.....3		\$22,001 up to \$34,000.....3
	\$24,001 up to 30,000.....4		\$34,001 up to \$42,000.....4
	\$30,001 up to \$36,000.....5		\$42,001 up to \$50,000.....5
	\$36,001 up to \$45,000.....6		\$50,001 up to \$63,000.....6
	\$45,001 up to \$60,000.....7		\$63,001 up to \$84,000.....7
	over \$60,000.....9		over \$84,000.....9
	DON'T KNOW/REFUSED.....8		DON'T KNOW/REFUSED.....8
3	\$8,000 or less.....1	7	\$12,000 or less.....1
	\$8,001 up to \$17,000.....2		\$12,001 up to \$23,000.....2
	\$17,001 up to \$27,000.....3		\$23,001 up to \$36,000.....3
	\$27,001 up to \$34,000.....4		\$36,001 up to \$44,000.....4
	\$34,001 up to \$40,000.....5		\$44,001 up to \$53,000.....5
	\$40,001 up to \$50,000.....6		\$53,001 up to \$67,000.....6
	\$50,001 up to \$67,000.....7		\$67,001 up to \$89,000.....7
	over \$67,000.....9		over \$89,000.....9
	DON'T KNOW/REFUSED.....8		DON'T KNOW/REFUSED.....8
4	\$9,000 or less.....1	8+	\$12,000 or less.....1
	\$9,001 up to \$19,000.....2		\$12,001 up to \$25,000.....2
	\$19,001 up to \$30,000.....3		\$25,001 up to \$37,000.....3
	\$30,001 up to \$37,000.....4		\$37,001 up to \$47,000.....4
	\$37,001 up to \$45,000.....5		\$47,001 up to \$56,000.....5
	\$45,001 up to \$56,000.....6		\$56,001 up to \$70,000.....6
	\$56,001 up to \$75,000.....7		\$70,001 up to \$94,000.....7
	over \$75,000.....9		over \$94,000.....9
	DON'T KNOW/REFUSED.....8		DON'T KNOW/REFUSED.....8

Exhibit 3-2

Income Distribution by Housing Classification



**Exhibit 3-3:
Cumulative Income Distribution by Housing Classification**

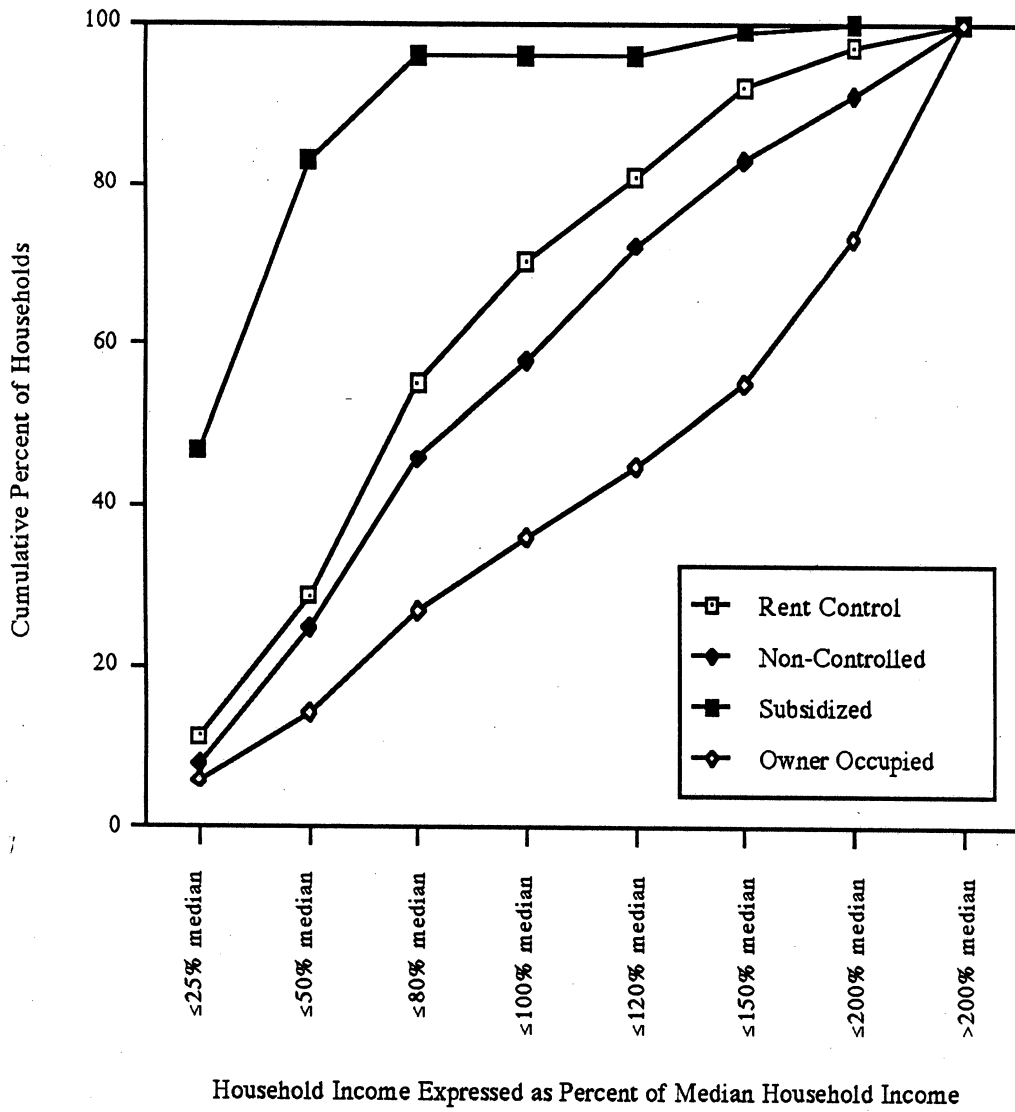


Exhibit 3-4

Income Expressed as Percent of Median
by Type of Housing

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
< 25% MED INCOME	47.8333 10.75	23.5 8.20	68.5 46.86	15.6667 6.16	155.5
25-50% M. INCOME	79.3333 17.82	47.3333 16.51	52.8333 36.15	21 8.26	200.5
50-80% M. INCOME	116.833 26.24	60 20.93	20 13.68	33.5 13.18	230.333
80-100% M. INCOM	66.5 14.94	35 12.21	.333333 0.23	24 9.44	125.833
100-120% M. INCO	47.8333 10.75	40 13.95	0 0.00	24 9.44	111.833
120-150% M. INCO	48.8333 10.97	32 11.16	3.5 2.39	25 9.83	109.333
150-200% M. INCO	23.5 5.28	23 8.02	1 0.68	46.6667 18.35	94.1667
> 200% M. INCOME	14.5 3.26	25.8333 9.01	0 0.00	64.4167 25.34	104.75
TOTAL	445.167	286.667	146.167	254.25	1132.25
FREQUENCY MISSING = 284					

surveyed had household incomes less than the median for their household size.

Of households in rent controlled units 9 percent had incomes over 150 percent of median compared with 17 percent of households in non-controlled units and 44 percent of owner occupants.

Exhibits C-1 to C-3 in Appendix C present the income distributions for rent control households contrasted, in turn, with non control households (Exhibit C-1), subsidized households (Exhibit C-2) and owner occupants (Exhibit C-3) along with x^2 tests of these distributions. The tests indicate that the differences in distributions are significant in the sense that the association with household classification is not random.

Two particular observations about incomes of homeowners are noteworthy. Of the 16 homeowners in the sample with incomes under 25 percent of median, 10 have lived in their present homes twenty years or more (see Exhibit D-1). Incomes for homeowners in buildings with at least four units (condos) are of interest because they may represent the type of household likely to occupy rent controlled units should those in larger buildings be decontrolled. Forty-eight percent had incomes over 150 percent of median for their household sizes. Sixty-seven percent had above median incomes (see Exhibit D-2). The mean income for condominium owners who have owned their units five years or less was \$42,044. (This figure is an underestimate of the true mean because of the truncation of income at 200 percent of median.)

Rent Income Ratio

The rent income ratio is defined as the fraction of household income devoted to rent. Because the survey obtained incomes as ranges, the mid-point for each range was used. The end points were used for the upper and lower brackets. That is, 25 percent of median was used for those reporting less than or equal to 25 percent of median, while 200 percent of median was used for those reporting over 200 percent of median. The effect of the truncation used is felt primarily in the subsidized and owner occupant housing classes. Since 47 percent of subsidized households had incomes less than or equal to 25 percent of median for their household sizes, using 25 percent of median causes an overestimate of incomes of subsidized households. Twenty-five percent of owner occupants had incomes over 200 percent of median. Therefore

using 200 percent of median causes an underestimate of mean income for owner occupied households. For the other two categories of renters the tails of the distribution are smaller so the misestimation is less severe.

Exhibit 3-5 graphically displays the distribution of contract rent to income ratios for the different types of renters. Rent control households tend to have the lowest rent ratios, followed by non control renters and subsidized renters. Rent income ratio can be defined both in terms of gross rent and contract rent, where gross rent includes the household's estimate of utility payments, while contract rent simply uses the rent reported as paid to the landlord. Exhibits 3-6 and 3-7 tabulate the contract (Exhibit 3-6) and gross (Exhibit 3-7) rent income ratios of the rent control households compared with non control and with subsidized households. The χ^2 tests of association show (in Exhibits C-4 through C-7) statistically significant differences in the distributions compared. Sixty-seven percent of households in rent controlled units have gross rent income ratios of less than 30 percent of income, compared with 53 percent of households in non-controlled units and 38 percent of households in subsidized units. Contract rent accounts for less than 30 percent of income for 71 percent of households in rent controlled units, for 57 percent of households in non-controlled units and for 42 percent of households in subsidized units. Nine to ten percent of each group pay over 80 percent of their income for gross rent. Seven to eight percent pay over 80 percent of their income for contract rent.⁷

7. The survey responses indicate that 7.05 percent of the respondents pay over 100 percent of income for gross rent. This is not unusual in such surveys and may reflect either errors in reporting income or rent, or cases where families have temporarily low incomes, and are one paying rent from savings or with help from families, for example. Of the 57 such cases 55 (96.5 percent) report income as being less than 25 percent of median. The other two cases had income of between 25-50 percent of median for their household size.

As can be seen in Exhibit 3-6 over half the households in subsidized units have rent income ratios over 30 percent. The 30 percent rent to income cap is required only in federal programs. In addition, mid-range incomes were used (as described above) which could cause mis-estimates of the true ratio.

Exhibit 3-5
 Contract Rent to Income Ratio

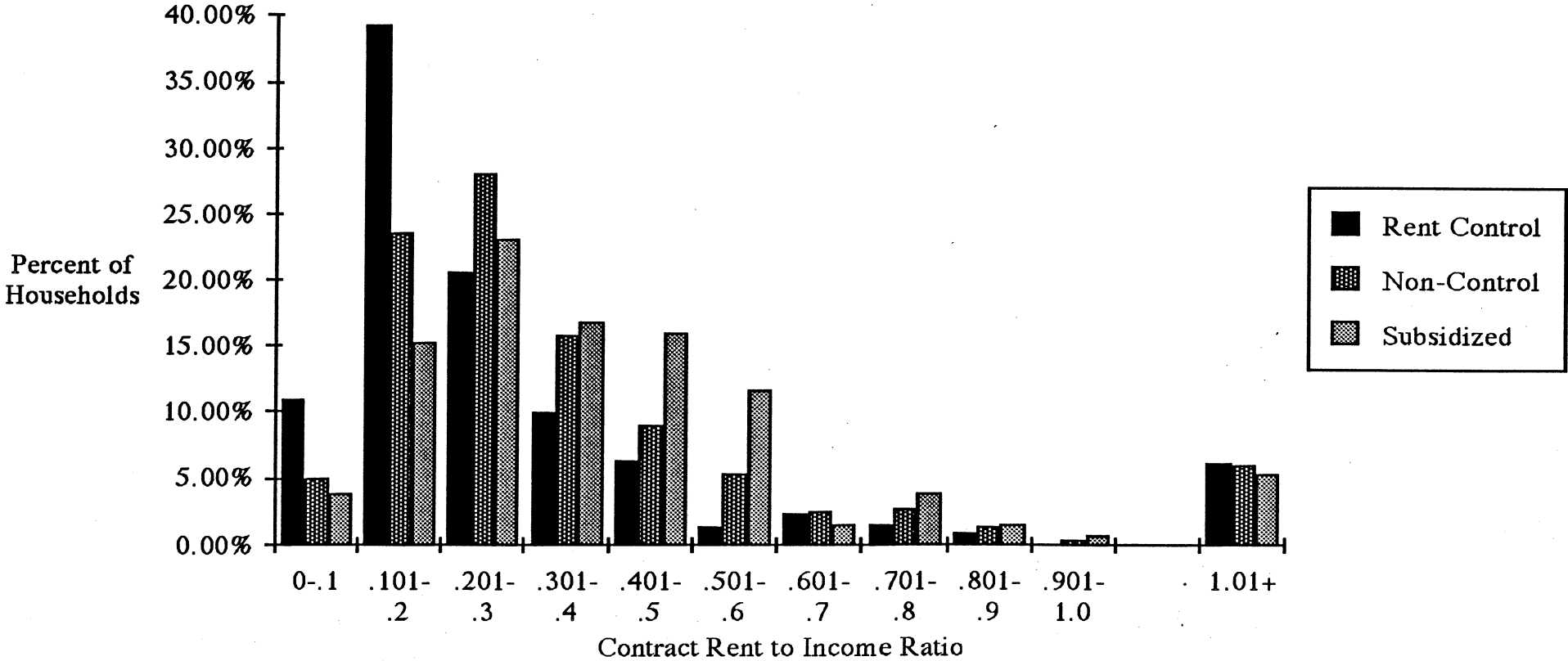


Exhibit 3-6

Contract Rent to Income Ratio
by Type of Renter

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
0-.1	45.8333 10.96	13 5.00	5 3.83	63.8333
.101-.2	164.333 39.30	61.5 23.64	20 15.31	245.833
.201-.3	86.3333 20.65	73.3333 28.19	30.3333 23.21	190
.301-.4	41.8333 10.00	41 15.76	22 16.84	104.833
.401-.5	27 6.46	23.5 9.03	21 16.07	71.5
.501-.6	6 1.43	14 5.38	15.3333 11.73	35.3333
.601-.7	10 2.39	6.5 2.50	2 1.53	18.5
.701-.8	7 1.67	7 2.69	5 3.83	19
.801-.9	4 0.96	3.5 1.35	2 1.53	9.5
.901-1.0	0 0.00	1 0.38	1 0.77	2
1.01 + GREATER	25.8333 6.18	15.8333 6.09	7 5.36	48.6667
TOTAL	418.167	260.167	130.667	809

FREQUENCY MISSING = 607

Exhibit 3-7

Gross Rent to Income Ratio
by Type of Renter

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
0-.1	28.5 6.98	7 2.82	1 0.78	36.5
.101-.2	148.333 36.33	59.5 23.98	18 14.10	225.833
.201-.3	100 24.49	65 26.19	28.3333 22.19	193.333
.301-.4	45.3333 11.10	39.8333 16.05	24 18.80	109.167
.401-.5	31.3333 7.67	24.5 9.87	21 16.45	76.8333
.501-.6	5 1.22	15.5 6.25	14.3333 11.23	34.8333
.601-.7	10 2.45	7.5 3.02	5 3.92	22.5
.701-.8	5 1.22	6 2.42	5 3.92	16
.801-.9	5 1.22	6.5 2.62	1 0.78	12.5
.901-1.0	1 0.24	1 0.40	1 0.78	3
1.01 + GREATER	28.8333 7.06	15.8333 6.38	9 7.05	53.6667
TOTAL	408.333	248.167	127.667	784.167
FREQUENCY MISSING = 632				

Household Composition

Exhibit 3-8 shows that nearly half the rent controlled apartments are occupied by single people. This is in contrast to 24-31 percent for the other housing categories. Nearly 28 percent of subsidized units are occupied by single mothers. In contrast, single mothers account for under 6 percent of any other type of housing. Roommates account for almost 24 percent of non controlled units, 14 percent of controlled units, and under 7 percent of the other types of units.

Rent controlled units also tend to be smaller than other types of housing units. Fifty-four percent of rent controlled apartments had 0-1 bedrooms, compared with 31 percent of non-controlled and 37 percent of subsidized units. In contrast, only 44 percent of rent controlled units had 2-3 bedrooms, while 63 percent of non-controlled units, and 58 percent of subsidized units did. (This is detailed further in Exhibit 3-21.)

Age

Exhibit 3-9 shows the distribution by housing type of households having any members over the age of 65. Households with elderly members are concentrated in the subsidized and owner-occupied sectors--over 20 percent of households in these categories have elderly members compared with under 10 percent for the other categories. Appendix Exhibits D-3 through D-6 show the household size distribution of households with elderly members across housing types. People over 65 account for over half the one-person households in subsidized units, a third of the one person owner occupied units, 15 percent of non-controlled and 8 percent of controlled units occupied by one person.

These results are similar to the situation for households with children under the age of six. As Exhibit 3-10 shows, 92 percent of rent controlled units have no children under age six.

Race

As Exhibit 3-11 shows, whites account for 83 percent of households in rent controlled units, 78 percent of non-controlled units, and 87 percent of owner occupied households, while they represent only 55 percent of subsidized households. Blacks account for 31 percent of households in subsidized units

Exhibit 3-8

Household Composition by
Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
COUPLE W/ CHILDR	63.3333 12.04	64 18.55	38.3333 21.76	99.0833 31.11	264.75
COUPLE W/OUT CHI	97.1667 18.48	78.1667 22.66	18 10.22	90.5 28.41	283.833
ROOMMATES	73 13.88	82.1667 23.82	6.33333 3.60	21.5 6.75	183
2+ FAMILIES SHAR	6 1.14	4.5 1.30	2 1.14	6.33333 1.99	18.8333
ONE PERSON	259.333 49.32	93.3333 27.05	56 31.79	76.5 24.02	485.167
MALE PARENT-SING	9 1.71	3.33333 0.97	7 3.97	8.08333 2.54	27.4167
FEMALE PARENT-SI	18 3.42	19.5 5.65	48.5 27.53	16.5 5.18	102.5
TOTAL	525.833	345	176.167	318.5	1365.5
FREQUENCY MISSING = 50					

Exhibit 3-9

Households with a Member Over
65 Years by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
AGE < 65	492.833 93.19	316 91.59	130.167 73.89	250.333 78.60	1189.33
AGE >= 65	36 6.81	29 8.41	46 26.11	68.1667 21.40	179.167
TOTAL	528.833	345	176.167	318.5	1368.5

FREQUENCY MISSING = 47

Exhibit 3-10

Households with a Child
Under 6 Years by Housing Classification

FREQUENCY OF CHILDREN UNDER AGE 6 BY TYPE OF HOUSING

TABLE OF CHILD BY HOUSING

CHILD FREQUENCY COL PCT	HOUSING				TOTAL
	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	
NO CHILDREN < 6	485.833 91.87	297.5 86.23	135.333 76.82	263.167 82.63	1181.83
CHILDREN UNDER 6	43 8.13	47.5 13.77	40.8333 23.18	55.3333 17.37	186.667
TOTAL	528.833	345	176.167	318.5	1368.5

FREQUENCY MISSING = 47

Exhibit 3-11

Race by Housing Classification

FREQUENCY OF RACE BY TYPE OF HOUSING

TABLE OF RACE BY HOUSING

RACE	HOUSING				TOTAL
	FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	
WHITE, NON-HISPA	433.167 83.30	260.667 77.81	95.3333 54.74	272.583 86.67	1061.75
BLACK, NON-HISPA	29.3333 5.64	37.5 11.19	53.8333 30.91	22.9167 7.29	143.583
HISPANIC	24 4.62	14 4.18	19 10.91	9 2.86	66
ASIAN OR PACIFIC	26.5 5.10	18.8333 5.62	5 2.87	9 2.86	59.3333
NAT. AMER/ALASKA	7 1.35	4 1.19	1 0.57	1 0.32	13
TOTAL	520	335	174.167	314.5	1343.67
FREQUENCY MISSING = 72					

and only 7 percent of owner occupants. Hispanic households are 11 percent of subsidized households and constitute smaller percentages (3 to 4%) among other classifications.

Tenure in Unit & Length of Residency in Cambridge

Exhibit 3-12 shows that half of the non-controlled units have been occupied by any member of the current household less than two years. In contrast only 33 percent of the rent controlled units have been occupied by any member of the current household less than two years. Over 28 percent of owner occupied units have been occupied by a member of the current household for more than 20 years. This is in contrast to less than 7 percent for any rental category. Appendix Exhibit D-7 shows a similar distribution for length of residence in Cambridge for the different housing categories.

3.2 Housing Characteristics

Rent

Exhibits 3-13 and 3-14 provide information on rent characteristics of the different housing categories. Household contract rent (rent paid by the household) for rent controlled units, non-rent control units, and subsidized units are presented (graphically in Exhibit 3-13 and as a table in Exhibit 3-14). A table comparing gross rents (the rent households pay plus adjustments for utilities) is presented as Exhibit 3-15.

Contract rents below \$400 are paid for 68 percent of rent controlled units and 71 percent of subsidized units, while only 26 percent of the non-controlled units have such rents. When gross household rent is used, 61 percent of rent control households, 70 percent of subsidized units, and 16.38 percent of non controlled units have rents below \$400.

In order to control for different household sizes, per capita rent is calculated. Exhibit 3-16 shows per capita rent, using household contract rent. Thirty-four percent of households in rent controlled units and 27 percent of households in non-controlled units pay under \$200 per person while

Exhibit 3-12

Number of Years in Current Unit
by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
1 YEAR	100.833 19.07	111 32.46	26 14.76	28.5 8.98	266.333
2 YEARS	73.8333 13.96	61.5 17.98	25.5 14.47	22.75 7.17	183.583
3-4 YEARS	109.833 20.77	61.5 17.98	33.6667 19.11	48.8333 15.38	253.833
5 TO 9 YEARS	146.833 27.77	54.5 15.94	43.5 24.69	67.5 21.26	312.333
10 TO 14 YEARS	45.3333 8.57	22 6.43	36 20.44	38 11.97	141.333
15 TO 19 YEARS	19.8333 3.75	8.5 2.49	8 4.54	21.25 6.69	57.5833
20+ YEARS	32.3333 6.11	23 6.73	3.5 1.99	90.6667 28.56	149.5
TOTAL	528.833	342	176.167	317.5	1364.5

FREQUENCY MISSING = 51

Exhibit 3- 13

Distribution of Contract Rent by Housing Classification

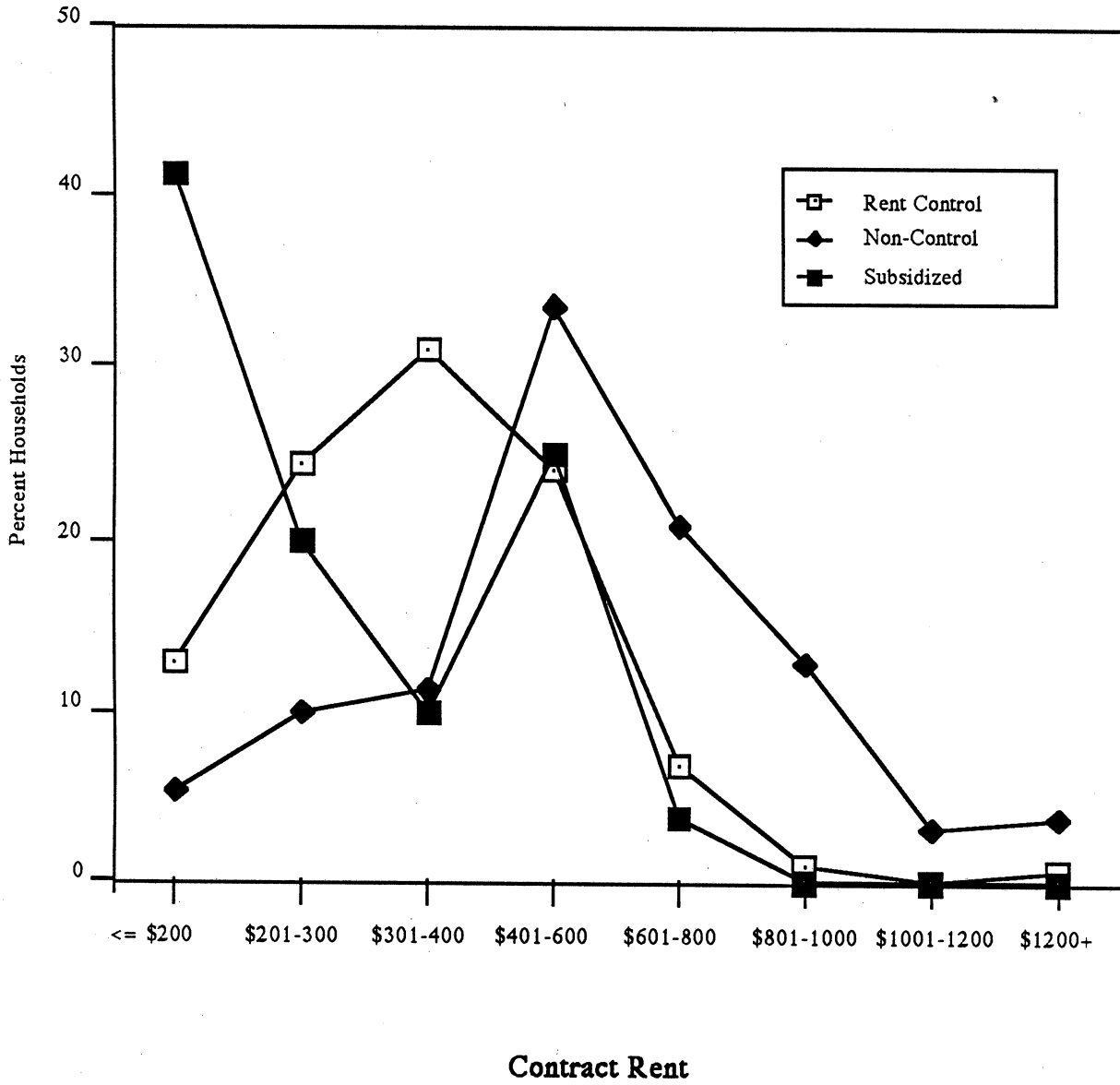


Exhibit 3-14

Contract Rent by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
RENT <= \$200	59.6667 12.63	15 5.13	62 41.29	136.667
RENT=201-300	114.333 24.21	29.5 10.08	30 19.98	173.833
RENT=301-400	146.333 30.98	32.5 11.10	15 9.99	193.833
RENT=401-600	112.667 23.85	98 33.49	37.3333 24.86	248
RENT=601-800	31.8333 6.74	60.5 20.67	5.83333 3.88	98.1667
RENT=801-1000	4.5 0.95	37.5 12.81	0 0.00	42
RENT=1001-1200	0 0.00	8.83333 3.02	0 0.00	8.83333
RENT > 1200	3 0.64	10.8333 3.70	0 0.00	13.8333
TOTAL	472.333	292.667	150.167	915.167
FREQUENCY MISSING = 501				

Exhibit 3-15

Gross Rent by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
RENT 1- \$200	26 5.67	8 2.88	52.5 35.92	86.5
RENT=201-300	113.667 24.81	18 6.48	31.5 21.55	163.167
RENT=301-400	141.333 30.85	19.5 7.02	19 13.00	179.833
RENT=401-600	122.333 26.70	99.5 35.83	37.3333 25.54	259.167
RENT=601-800	42.3333 9.24	61.1667 22.03	4.83333 3.31	108.333
RENT=801-1000	7.5 1.64	41.8333 15.07	1 0.68	50.3333
RENT=1001-1200	1 0.22	16 5.76	0 0.00	17
RENT > 1200	4 0.87	13.6667 4.92	0 0.00	17.6667
TOTAL	458.167	277.667	146.167	882
FREQUENCY MISSING = 534				

Exhibit 3-16

Per Capita Contract Rent
By Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
RENT 1- \$50	3.33333 0.73	5 1.80	20 13.68	28.3333
RENT=51-100	32 7.00	17.5 6.30	29 19.84	78.5
RENT=101-150	50.5 11.05	26 9.36	55.3333 37.86	131.833
RENT=151-200	72.1667 15.79	25.5 9.18	21.3333 14.60	119
RENT=201-300	141.833 31.02	67 24.13	13.5 9.24	222.333
RENT=301-400	95.8333 20.96	54.1667 19.51	4 2.74	154
RENT > 401	61.5 13.45	82.5 29.71	3 2.05	147
TOTAL	457.167	277.667	146.167	881
FREQUENCY MISSING = 535				

76 percent of households in subsidized units have such rents. In the high per capita rents (over \$400 per person) we find 13.5 percent of rent control households, thirty percent of non-controlled households, and only 13 percent of rent control and 2 percent of subsidized units.

As Exhibit 3-17 shows, 54 percent of rent control households pay contract rents of \$100 per room or less as do 67 percent of households in subsidized units. Only 28 percent of non-controlled units have such contract rents. Seven percent of rent controlled units have contract rents over \$200 per room compared with 24 percent of non-controlled units. Appendix Exhibits D-8 and D-9 show similar results for per capita and per room gross rent.

Housing Quality

Tenants were asked to rate the condition of their building. As shown in Exhibit 3-18, of the three categories of rental housing, tenants rate non-controlled buildings as being in excellent condition 25 percent of the time, compared with only 12 percent for rent controlled buildings and 21 percent for subsidized buildings. Forty-four percent of occupants of rent controlled units rate their buildings as being in only fair or poor condition compared with only 29 percent of those in non controlled buildings.

Tenants also were asked to rate their building condition as getting better, worse, or staying the same. As Exhibit 3-19 shows, there is little difference in the change in condition between the three groups of renters.

Finally, respondents indicated whether there was run down housing in their neighborhood. Exhibit 3-20 shows that similar percentages of respondents in all three groups of renters say there is rundown housing in their neighborhoods (24 percent to 29 percent). In contrast 35 percent of owner occupants claim there is housing in rundown condition in their neighborhoods.

As mentioned above, rent controlled units were generally smaller than other types of units, with over half the units having 0-1 bedrooms (see Exhibit 3-21). Exhibit 3-22 shows that 44 percent of rent controlled units had 3 rooms or less as did 41 percent of subsidized units. Appendix Exhibits D-10 to D-13 detail household size by number of bedrooms for each housing category. Seventy-eight percent of single people in rent controlled units and 91 percent of single people in subsidized units occupied studio or one bedroom

Exhibit 3-17

Per Room Contract Rent
by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
RENT 1- \$50	44.8333 9.49	16 5.47	51 33.96	111.833
RENT=51-100	212.5 44.99	65.5 22.38	49 32.63	327
RENT=101-150	136.5 28.90	75.1667 25.68	33.1667 22.09	244.833
RENT=151-200	46.5 9.84	66.1667 22.61	11 7.33	123.667
RENT=201-300	23 4.87	48.8333 16.69	6 4.00	77.8333
RENT=301-400	5 1.06	13 4.44	0 0.00	18
RENT > 401	4 0.85	8 2.73	0 0.00	12
TOTAL	472.333	292.667	150.167	915.167
FREQUENCY MISSING = 501				

Exhibit 3-18

Tenant Rating of Building Condition
by Type of Renter

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
EXECCELLENT	63.6667 12.05	85.1667 24.76	36 20.73	184.833
GOOD	230.667 43.66	158.167 45.98	75.8333 43.67	464.667
FAIR	183 34.64	86.3333 25.10	52.8333 30.42	322.167
POOR	51 9.65	14.3333 4.17	9 5.18	74.3333
TOTAL	528.333	344	173.667	1046

FREQUENCY MISSING = 370

Exhibit 3-19

Tenant Rating of Building Condition Changes
by Type of Renter

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
CONDITION IMPROV	151.167 28.75	106 30.81	56.8333 33.01	314
CONDITION DECLIN	64.3333 12.23	35.3333 10.27	22.5 13.07	122.167
STAYED SAME	310.333 59.02	202.667 58.91	92.8333 53.92	605.833
TOTAL	525.833	344	172.167	1042
FREQUENCY MISSING = 374				

Exhibit 3-20

Rundown Housing in the Neighborhood
by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
RUNDOWN CONDITIO	119 23.97	87 27.13	42 28.73	107.5 35.13	355.5
NOT RUNDOWN	377.5 76.03	233.667 72.87	104.167 71.27	198.5 64.87	913.833
TOTAL	496.5	320.667	146.167	306	1269.33

FREQUENCY MISSING = 146

Exhibit 3-21

Bedrooms by Type of Housing

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
STUDIO-1 BEDROOM	283.167 53.55	105.5 30.58	65 36.90	37.5 11.77	491.167
2 BEDROOMS	184.333 34.86	155.833 45.17	65.8333 37.37	114.333 35.90	520.333
3 BEDROOMS	46.5 8.79	59.3333 17.20	35 19.87	96.0833 30.17	236.917
4 BEDROOMS	11.5 2.17	19.3333 5.60	9.33333 5.30	40 12.56	80.1667
5 BEDROOMS	2 0.38	3 0.87	1 0.57	14.5 4.55	20.5
6+ BEDROOMS	1.33333 0.25	2 0.58	0 0.00	16.0833 5.05	19.4167
TOTAL	528.833	345	176.167	318.5	1368.5

FREQUENCY MISSING = 47

Exhibit 3-22

Rooms by Type of Housing

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
1 ROOM	28 5.29	14.5 4.20	16 9.08	0 0.00	58.5
2 ROOMS	51.3333 9.71	38 11.01	19 10.79	6 1.88	114.333
3 ROOMS	155.5 29.40	55.5 16.09	38 21.57	26 8.16	275
4 ROOMS	154.667 29.25	80.1667 23.24	46.8333 26.58	41.5 13.03	323.167
5 ROOMS	92.6667 17.52	90.5 26.23	34 19.30	68.8333 21.61	286
6 ROOMS	27.3333 5.17	37.5 10.87	15.3333 8.70	68.8333 21.61	149
7+ ROOMS	19.3333 3.66	28.8333 8.36	7 3.97	107.333 33.70	162.5
TOTAL	528.833	345	176.167	318.5	1368.5

FREQUENCY MISSING = 47

apartments. For non-controlled and owner occupants the numbers are 63 percent and 29 percent, respectively.

The distribution of unit size for larger households is similar across renter categories with 64 percent of rent control households, 51 percent of non-controlled, and 52 percent of subsidized households with 3 to 5 members having fewer than 3 bedrooms. In contrast only 31 percent of owner occupied households with 3 to 5 members had fewer than 3 bedrooms.

Another measure of housing quality is crowding. The Annual Housing Survey considers more than one person per room as "crowded." Ninety-five percent of the households surveyed had 1 or fewer people per room. Eighteen percent of rent control and 13 percent of non-controlled households had four or more rooms per person (for example, one person in a four room unit). Only 3 percent of the subsidized units were so "uncrowded," while 23 percent of owner occupied units had four or more rooms per person (see Exhibit 3-23).

As seen in Exhibit 3-24, of the units in buildings with four or more apartments, 61 percent of non-controlled units had working elevators compared with only 26 percent of rent controlled units.

3.3 Variable Means

The presentation thus far has concentrated on distributions of household and housing characteristics. This provides useful detail for comparisons, but it often is helpful to compare summary measures, such as means. Exhibit 3-25 presents the mean values in the sample for household income, rent and rent income ratio. All of the relevant housing classification groups test as significantly different from the rent control group in each of the variables.

Exhibit 3-23

Persons Per Room
by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
<= 0.25	96 18.22	44.3333 12.85	6 3.41	74.5833 23.42	220.917
0.26-0.50	263.333 49.98	147.333 42.71	68.5 38.88	153.417 48.17	632.583
0.51-0.75	87.1667 16.55	73.3333 21.26	37.3333 21.19	57.8333 18.16	255.667
0.76-1.00	65 12.34	59.5 17.25	47.8333 27.15	27.3333 8.58	199.667
1.01-1.50	11.3333 2.15	11.5 3.33	11.5 6.53	5 1.57	39.3333
1.51-2.00	3 0.57	6 1.74	5 2.84	.333333 0.10	14.3333
> 2.00	1 0.19	3 0.87	0 0.00	0 0.00	4
TOTAL	526.833	345	176.167	318.5	1366.5
FREQUENCY MISSING = 49					

Exhibit 3-24

Presence of Working Elevators for
 Rent Controlled and Non-Rent Controlled Units
 In Buildings of at Least Four Units

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	TOTAL
WORKING ELEVATOR	115 26.25	71 61.38	186
NONE/ NOT WORKIN	323.167 73.75	44.6667 38.62	367.833
TOTAL	438.167	115.667	553.833

Exhibit 3-25

Mean Values of Selected Variables for Housing Classes

	<u>Rent Control</u>	<u>Non- Controlled</u>	<u>Subsidized</u>	<u>Owner- Occupied</u>
Household Income (Standard Error)	\$22,590 (623)	\$28,591* (938)	\$12,231* (640)	\$41,341* (1,250)
Observations	457	300	149	277
Contract Rent (Standard Error)	\$383 (9.4)	\$622* (18.2)	\$298* (15.4)	
Observations	488	306	153	
Contract Rent Income Ratio (Standard Error)	33% (0.020)	42%* (0.033)	41%* (0.025)	
Observations	430	272	130	
Household Size (Standard Error)	1.83 (0.046)	2.42* (0.074)	2.63* (0.116)	2.65* (0.082)
Observations	543	361	180	347
Rooms per Unit (Standard Error)	3.8 (0.064)	4.4* (0.100)	3.8 (0.113)	6.2* (0.135)
Observations	545	361	180	347
Bedrooms per Unit (Standard Error)	1.6 (0.036)	2.0* (0.052)	1.9* (0.074)	2.9* (0.070)
Observations	545	361	180	347

* Differences in variable means are significantly different from means for rent controlled units at the 95% level. Significance is calculated using a "t" test for differences of means.

$$t = \frac{M_{RC} - M_i}{\sqrt{\frac{S_{RC}^2}{n_{RC}} + \frac{S_i^2}{n_i}}}$$

- where
- M_{RC} = mean value for rent-controlled unit
 - M_i = mean value for other units (i = subsidized, non-controlled, owner-occupied)
 - S^2 = variance = $\sum (x_i - \bar{x})^2$
 - n_{RC} = number of observations for rent control
 - n_i = number of observations for group i (i = subsidized, non-controlled, owner occupied)

Exhibit 3-25 shows that the differences in income, household rent and rent burden between rent controlled units and the other two classes of renters are statistically significant at the 95 percent confidence level. The mean income for households in rent controlled units is significantly lower than for households in owner-occupied units.

3.4 Household Perceptions about Their Unit's Rent Control Status

As we followed the procedure outlined in Section 2 for classifying households in the survey, a number of households on the rent control address list and not apparently in an exempt category nevertheless said their unit was not rent controlled. We investigated the responses of this group to see if they differed systematically from those who said they were in rent controlled units. The results are in Exhibit 3-26.

Exhibit 3-26

Comparison of Mean Values for Rent Control Households

	<u>Households Who Say Unit is Controlled</u>	<u>Households Who Say Unit is Non-Controlled</u>
Household Income	\$22,271	\$23,134
(Standard Error)	(658)	(3357)
Observations	424	26
Household Rent	\$364	\$586*
(Standard Error)	(7.4)	(80.8)
Observations	447	30
Rent Burden	34%	66%*
(Standard Error)	(0.018)	(0.223)
Observations	390	22

* Differences are statistically significant at the 95% level.

Exhibit 3-26 shows that rents and rent burdens are lower for households who think they live in rent controlled apartments compared with those who

think they do not live in rent controlled apartments, while income levels do not differ.

Appendix A

Survey Questionnaire

CAMBRIDGE HOUSING SURVEY

RNTCN SRV
 *2 7744

Time Begun _____

Hello, my name is _____. I'm calling from Abt Associates in Cambridge. We are doing a survey on housing for the Cambridge City Council. Any information you give will be kept in strictest confidence and will never be reported in any way that would allow you or your house or apartment to be individually identified.

1. First, is this a residential household in Cambridge?

- YES..... 1
- NO (TERMINATE)..... 2

2. May I speak with the male or female head of this household? IF AVAILABLE, CONTINUE; IF NOT, ARRANGE CALLBACK.

3. We have to make sure that our survey includes all kinds of housing, so I need to begin with a few questions about your house or apartment. First, do you own your home or do you rent?

- OWN (RECORD ON DROP SHEET AND SKIP TO Q5)..... 1 8/
- RENT (RECORD ON DROP SHEET AND CONTINUE)..... 2
- OCCUPY WITHOUT PAYMENT OF RENT (TERMINATE)..... 3
- REFUSED (TERMINATE)..... 8

		YES	NO	DK	
4.	Is your rent under rent control?	1	2	8	9/
	Do you live in housing owned by the Housing Authority?	1	2	8	10/
	Do you receive any government assistance like Section 8 or 707 in paying your rent?	1	2	8	11/

5. What type of building do you live in? Is it...(READ LIST AND CIRCLE ONE)

- A single family house, including a town or row house (SKIP TO Q6)..... 1 12/
- A duplex or two family house (SKIP TO Q6)..... 2
- A three family house (SKIP TO Q6)..... 3
- A building with 4 - 10 apartments (ASK 5A)..... 4
- A building with more than 10 apartments (ASK 5A)..... 5
- Some other type of building (SPECIFY) and (SKIP TO Q6) 6

5A. Does your building have a working elevator?

YES..... 1 14/
 NO..... 2

6. How many bedrooms does your housing unit have?

_____ 15/

7. How many full bathrooms do you have?

_____ 16/

8. How many half bathrooms do you have?

_____ 17/

9. Not counting bathrooms, how many rooms are there in your unit?

_____ 18-19/

10. How long has this housing unit been occupied by any member of your present household?

_____ 20-21/

REFER TO DROP SHEET
 IF HOMEOWNER, SKIP TO QUESTION 19 ON PAGE 4.

11. How much does this household pay in monthly rent?

\$ _____ 22-25/

12. Is that the full rent usually charged by the landlord, or do you pay less than the full amount?

FULL RENT (SKIP TO Q13)..... 1 26/
 LESS THAN FULL AMOUNT (ASK 12A AND B)..... 2
 DON'T KNOW/REFUSED (SKIP TO Q13)..... 8

12A. How much does the landlord usually charge per month?

\$ _____ 27-30/

12B. Do you pay less than full rent because you do work for the landlord or building manager?

YES..... 1 31/
 NO..... 2
 DON'T KNOW/REFUSED..... 8

13. Does your rent include...READ LIST

	YES	NO	DK	13A		13B			ELECT.	
				AMOUNT PER MONTH		INCLUDES	HEAT	HOT WATER		
a. Heat.....	1	2	8	32/	\$ _____	33-35/	1	2	3	36/
b. Hot water.....	1	2	8	37/	\$ _____	38-40/	1	2	3	41/
c. Electricity	1	2	8	42/	\$ _____	43-45/	1	2	3	46/

IF NO TO a, b, OR c ABOVE, ASK;

13A. On average, how much do you pay for (ITEM) per month? RECORD ABOVE.

13B. IF RESPONDENT CANNOT SEPARATE PAYMENTS, ENTER AMOUNT IN 13A AND CIRCLE APPROPRIATE CATEGORY IN 13B, ABOVE.

14. Do you rent your housing unit as furnished?

- YES..... 1 47/
- NO..... 2
- DON'T KNOW..... 8

15. Does the owner of your building live in the building?

- YES..... 1 48/
- NO..... 2
- DON'T KNOW..... 8

16. Is the owner related to anyone in your household?

- YES..... 1 49/
- NO..... 2
- DON'T KNOW..... 8

17. Do you think your building was built before or after 1968? A place built in 1968 would now be about 19 years old.

- 1968 OR BEFORE..... 1 50/
- AFTER 1968..... 2
- DON'T KNOW..... 8

18A. How would you rate the overall condition of your house or apartment building. Would you say it is ...READ LIST

- Excellent..... 1 51/
- Good..... 2
- Fair, or..... 3
- Poor..... 4
- DON'T KNOW..... 8

18B. Since you moved into your current unit, has the condition of the building become better, worse, or stayed the same?

- Better..... 1 52/
- Worse..... 2
- Stayed the Same..... 3
- DON'T KNOW..... 8

19. Now, thinking about your neighborhood, does your neighborhood have occupied housing in rundown condition?

- YES..... 1 53/
- NO..... 2
- DON'T KNOW/REFUSED..... 8

20. Finally, I have a few questions to help us classify your answers. How many years have you lived in Cambridge?

YEARS 54-55/

21A. Do you have any roomers or boarders living in your home who are not related to you?

- Yes..... 1 56/
- No..... 2
- DON'T KNOW/REFUSED..... 8

21B. (Not counting any roomers or boarders) How many people are there in your household? Remember to include yourself and any newborn babies. RECORD BELOW AND ON DROP SHEET

PEOPLE 57-58/

IF ONLY ONE PERSON IN HOUSEHOLD, SKIP TO QUESTION 23.

22. How would you describe your household? Are you...READ LIST

- A single parent..... 1 59/
- A couple with children..... 2
- A couple without children..... 3
- Roommates..... 4
- Two or more families sharing living quarters..... 5
- Other (SPECIFY) _____ .. 6 60/

23. (How many of the adults in your household are/Are you)...READ LIST AND ENTER ALL THAT APPLY.

Employed full time.....	—	61/
Employed part time.....	—	62/
Full time students in college or graduate school.....	—	63/
Retired.....	—	64/
A homemaker.....	—	65/
Unemployed and looking for work.....	—	66/
Other (SPECIFY) _____	..	67/
REFUSED.....	8	68/

24. (Counting yourself, how many of the people in your household are/Are you)

(Children under 6).....	—	69/
Between the ages of 6 and 18.....	—	70/
19 to 55 years old.....	—	71/
56 to 64.....	—	72/
65 and older.....	—	73/
REFUSED.....	8	74/

25. Are you . . . READ LIST

White, not of Hispanic origin.....	1	75/
Black, not of Hispanic origin.....	2	
Hispanic.....	3	
Asian or Pacific Islander.....	4	
Native American or Alaskan Native.....	5	
Other (SPECIFY) _____	6	
REFUSED.....	8	

26. In 1986 was your total household income, from all sources, before taxes or other deductions (REFER TO DROP SHEET AND READ LIST APPROPRIATE FOR RESPONDENT'S HOUSEHOLD SIZE)

Number
in HH

1 \$6,000 or less.....1
 \$6,001 up to \$11,000.....2
 \$11,001 up to \$19,000.....3
 \$19,001 up to \$23,000.....4
 \$23,001 up to \$28,000.....5
 \$28,001 up to \$35,000.....6
 \$35,001 up to \$47,000.....7
 over \$47,000.....9
 DON'T KNOW/REFUSED.....8

2 \$7,000 or less.....1
 \$7,001 up to \$15,000.....2
 \$15,001 up to \$24,000.....3
 \$24,001 up to 30,000.....4
 \$30,001 up to \$36,000.....5
 \$36,001 up to \$45,000.....6
 \$45,001 up to \$60,000.....7
 over \$60,000.....9
 DON'T KNOW/REFUSED.....8

3 \$8,000 or less.....1
 \$8,001 up to \$17,000.....2
 \$17,001 up to \$27,000.....3
 \$27,001 up to \$34,000.....4
 \$34,001 up to \$40,000.....5
 \$40,001 up to \$50,000.....6
 \$50,001 up to \$67,000.....7
 over \$67,000.....9
 DON'T KNOW/REFUSED.....8

4 \$9,000 or less.....1
 \$9,001 up to \$19,000.....2
 \$19,001 up to \$30,000.....3
 \$30,001 up to \$37,000.....4
 \$37,001 up to \$45,000.....5
 \$45,001 up to \$56,000.....6
 \$56,001 up to \$75,000.....7
 over \$75,000.....9
 DON'T KNOW/REFUSED.....8

Number
in HH

5 \$10,000 or less.....1
 \$10,001 up to \$20,000.....2
 \$20,001 up to \$32,000.....3
 \$32,001 up to \$40,000.....4
 \$40,001 up to \$48,000.....5
 \$48,001 up to \$60,000.....6
 \$60,001 up to \$80,000.....7
 over \$80,000.....9
 DON'T KNOW/REFUSED.....8

6 \$11,000 or less.....1
 \$11,001 up to \$22,000.....2
 \$22,001 up to \$34,000.....3
 \$34,001 up to \$42,000.....4
 \$42,001 up to \$50,000.....5
 \$50,001 up to \$63,000.....6
 \$63,001 up to \$84,000.....7
 over \$84,000.....9
 DON'T KNOW/REFUSED.....8

7 \$12,000 or less.....1
 \$12,001 up to \$23,000.....2
 \$23,001 up to \$36,000.....3
 \$36,001 up to \$44,000.....4
 \$44,001 up to \$53,000.....5
 \$53,001 up to \$67,000.....6
 \$67,001 up to \$89,000.....7
 over \$89,000.....9
 DON'T KNOW/REFUSED.....8

8+ \$12,000 or less.....1
 \$12,001 up to \$25,000.....2
 \$25,001 up to \$37,000.....3
 \$37,001 up to \$47,000.....4
 \$47,001 up to \$56,000.....5
 \$56,001 up to \$70,000.....6
 \$70,001 up to \$94,000.....7
 over \$94,000.....9
 DON'T KNOW/REFUSED.....8

76/

27. Does anyone in your household have any income from...READ LIST

	YES	NO	DK	
Social Security, pensions, annuities, or other retirement income	1	2	8	77/
Public assistance such as AFDC, SSI, or welfare	1	2	8	78/
Assistantships or scholarships or support from family or friends	1	2	8	79/

CARD 2
DUP 1-6
7/2

28. What is your ZIP code? _____

8-12/

29. I need to make sure I dialed the right number. Is this (READ NUMBER)

RECORD TELEPHONE NUMBER _____

INTERVIEWER CIRCLE ONE: TELEPHONE NUMBER VERIFIED1
TELEPHONE NUMBER MISDIALED.....2

30. Are there any other residential telephone numbers in your household besides this one?

YES (ASK 30A).....1 13/
NO (SKIP TO Q31).....2

30A. How many other residential telephone numbers does this household have? _____

14/

REFER TO DROP SHEET. IF OWNER, SKIP TO CLOSING.

31. And finally, so we can be sure we have your house or apartment correctly classified, what is your street address?

IF NECESSARY SAY: This is strictly confidential. This study is so important that we're checking addresses against lists of public and rent controlled and subsidized housing to be sure all units are correctly classified.

15/

CLOSING: That is the end of my questions. Thank you very much for your time.

INTERVIEWER: CODE SEX:

MALE.....1
FEMALE.....2

16/

Date _____ / _____ / _____

Time ended: _____

INTERVIEWER PRINT LAST NAME _____

CODER PRINT LAST NAME _____

Appendix B

Estimates of Housing Type Distribution for
Selected Population Groups and
Weighting Methodology

Since households were sampled unequally across housing categories, the distribution of population groups in the survey is different from the distribution in the City. (Owner occupants were excluded early in the survey, and at the end only households in subsidized units were questioned).

In order to obtain City-wide estimates of housing type distribution for certain population groups, the existing distributions are weighted according to the estimated housing stock distribution in the City (see Exhibit 2-1). For example, rent controlled units were assumed to comprise 44.1 percent of the housing stock and were 38.6 percent of the surveyed households (weighted by phones). Thus, to obtain City incidences, rent controlled incidences were multiplied by $1.441/1.386 = 1.040$.

The other weights were calculated similarly: non-controlled unit households are multiplied by 0.951, subsidized by 1.011, and owner occupants by 0.996. These figures should be interpreted with caution since the City housing stock estimates include total household and owner occupant estimates from the 1980 Census. (Estimates for subsidized and rent control units are current.)

The tables show that households with elderly members are more likely to be owner occupants or live in subsidized units rather than rent.

Whites and other races (Pacific, Asian, and Native American) are more likely than Blacks or Hispanics to live in rent controlled units. Thirty-eight percent of Blacks and 29 percent of Hispanic households live in subsidized units.

Nearly half the single mothers live in subsidized units compared with only 15 percent of two-parent households. Over half the single person households in the City are in rent controlled units.

Exhibit B-1

Estimates of Housing Type Distribution for
Selected Population Groups

<u>Group</u>	<u>Controlled</u>	<u>Non- Controlled</u>	<u>Subsidized</u>	<u>Owner- Occupied</u>
All Cambridge Households	44%	19%	14%	23%
Households with Members over Age 65	21%	15%	26%	38%
Households with Members under Age 6	24%	24%	22%	29%

Whites	42%	23%	9%	25%
Blacks	21%	25%	38%	16%
Hispanics	38%	20%	29%	13%
Other Races	48%	30%	8%	14%

Couples with Children	25%	23%	15%	37%
Single-mothers	18%	18%	48%	16%
Single-fathers	34%	11%	26%	29%
One-person Households	55%	18%	12%	16%

Appendix C

χ^2 Tests of Selected Unweighted Distributions

Exhibit C-1

Income Distributions for Rent Controlled and
Non-Rent Controlled Households

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	TOTAL
< 25% MED. INCOM	50 10.94	24 8.00	74
25-50% MED INCOM	81 17.72	49 16.33	130
50-80% MED INCOM	119 26.04	63 21.00	182
80-100% MED INCO	68 14.88	36 12.00	104
100-120% MED INC	50 10.94	44 14.67	94
120-150% MED INC	50 10.94	32 10.67	82
150-200% MED INC	24 5.25	25 8.33	49
> 200% MED INCOM	15 3.28	27 9.00	42
TOTAL	457	300	757

FREQUENCY MISSING = 149

FREQ. OF INCOME FOR HOUSING= 1 OR 2

STATISTICS FOR TABLE OF INCOME BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	7	20.179	0.005
LIKELIHOOD RATIO CHI-SQUARE	7	19.878	0.006
MANTEL-HAENSZEL CHI-SQUARE	1	13.885	0.000
PHI		0.163	
CONTINGENCY COEFFICIENT		0.161	
CRAMER'S V		0.163	

EFFECTIVE SAMPLE SIZE = 757

FREQUENCY MISSING = 149

WARNING: 16% OF THE DATA ARE MISSING.

Exhibit C-2

Income Distributions for Rent Controlled and
Subsidized Households

FREQUENCY COL PCT	RENT CONTROL	SUB- SIDIZED	TOTAL
< 25% MED. INCOM	50 10.94	69 46.31	119
25-50% MED INCOM	81 17.72	54 36.24	135
50-80% MED INCOM	119 26.04	20 13.42	139
80-100% MED INCO	68 14.88	1 0.67	69
100-120% MED INC	50 10.94	0 0.00	50
120-150% MED INC	50 10.94	4 2.68	54
150-200% MED INC	24 5.25	1 0.67	25
> 200% MED INCOM	15 3.28	0 0.00	15
TOTAL	457	149	606

FREQUENCY MISSING = 119

FREQ. OF INCOME FOR HOUSING=1 OR 3

STATISTICS FOR TABLE OF INCOME BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	7	152.095	0.000
LIKELIHOOD RATIO CHI-SQUARE	7	170.475	0.000
MANTEL-HAENSZEL CHI-SQUARE	1	105.997	0.000
PHI		0.501	
CONTINGENCY COEFFICIENT		0.448	
CRAMER'S V		0.501	

EFFECTIVE SAMPLE SIZE = 606

FREQUENCY MISSING = 119

WARNING: 16% OF THE DATA ARE MISSING.

Exhibit C-3

Income Distributions for Rent Controlled
Households and Owner Occupants

FREQUENCY COL PCT	RENT CONTROL	OWNER OCCUPIED	TOTAL
< 25% MED. INCOM	50 10.94	17 6.14	67
25-50% MED INCOM	81 17.72	22 7.94	103
50-80% MED INCOM	119 26.04	34 12.27	153
80-100% MED INCO	68 14.88	25 9.03	93
100-120% MED INC	50 10.94	25 9.03	75
120-150% MED INC	50 10.94	28 10.11	78
150-200% MED INC	24 5.25	50 18.05	74
> 200% MED INCOM	15 3.28	76 27.44	91
TOTAL	457	277	734

FREQUENCY MISSING = 158

FREQ. OF INCOME FOR HOUSING=1 OR 4

STATISTICS FOR TABLE OF INCOME BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	7	146.379	0.000
LIKELIHOOD RATIO CHI-SQUARE	7	147.809	0.000
MANTEL-HAENSZEL CHI-SQUARE	1	120.674	0.000
PHI		0.447	
CONTINGENCY COEFFICIENT		0.408	
CRAMER'S V		0.447	

EFFECTIVE SAMPLE SIZE = 734

FREQUENCY MISSING = 158

WARNING: 18% OF THE DATA ARE MISSING.

Exhibit C-4

Gross Household Rent Burden for
Rent Control and Non-Control Renters

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	TOTAL
0-0.2	179 42.72	69 26.54	248
0.201-.4	151 36.04	111 42.69	262
0.401-0.6	37 8.83	41 15.77	78
0.601-0.8	15 3.58	14 5.38	29
> 0.8	37 8.83	25 9.62	62
TOTAL	419	260	679

FREQUENCY MISSING = 227

GROSS HOUSEHOLD RENT BURDEN FOR HOUSING=1 OR HOUSING=2

STATISTICS FOR TABLE OF RBURDGR BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	4	21.400	0.000
LIKELIHOOD RATIO CHI-SQUARE	4	21.658	0.000
MANTEL-HAENSZEL CHI-SQUARE	1	7.986	0.005
PHI		0.178	
CONTINGENCY COEFFICIENT		0.175	
CRAMER'S V		0.178	

EFFECTIVE SAMPLE SIZE = 679

FREQUENCY MISSING = 227

WARNING: 25% OF THE DATA ARE MISSING.

Exhibit C-5

Gross Household Rent Burden for
Rent Control and Subsidized Renters

FREQUENCY COL PCT	RENT CONTROL	SUB- SIDIZED	TOTAL
0-0.2	179 42.72	20 15.38	199
0.201-.4	151 36.04	53 40.77	204
0.401-0.6	37 8.83	36 27.69	73
0.601-0.8	15 3.58	10 7.69	25
> 0.8	37 8.83	11 8.46	48
TOTAL	419	130	549

FREQUENCY MISSING = 176

GROSS HOUSEHOLD RENT BURDEN FOR HOUSING = 1 OR 3

STATISTICS FOR TABLE OF RBURDGR BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	4	51.298	0.000
LIKELIHOOD RATIO CHI-SQUARE	4	50.942	0.000
MANTEL-HAENSZEL CHI-SQUARE	1	17.315	0.000
PHI		0.306	
CONTINGENCY COEFFICIENT		0.292	
CRAMER'S V		0.306	

EFFECTIVE SAMPLE SIZE = 549

FREQUENCY MISSING = 176

WARNING: 24% OF THE DATA ARE MISSING.

Exhibit C-6

Contract Rent Burden for
Rent Control and Non-Control Renters

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	TOTAL
0-0.2	214 49.77	77 28.31	291
0.201-.4	134 31.16	121 44.49	255
0.401-0.6	33 7.67	38 13.97	71
0.601-0.8	17 3.95	14 5.15	31
> 0.8	32 7.44	22 8.09	54
TOTAL	430	272	702

FREQUENCY MISSING = 204

HOUSEHOLD RENT BURDEN FOR HOUSING=1 OR HOUSING=2

STATISTICS FOR TABLE OF RBURDHH BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	4	33.807	0.000
LIKELIHOOD RATIO CHI-SQUARE	4	34.422	0.000
MANTEL-HAENSZEL CHI-SQUARE	1	10.756	0.001
PHI		0.219	
CONTINGENCY COEFFICIENT		0.214	
CRAMER'S V		0.219	

EFFECTIVE SAMPLE SIZE = 702

FREQUENCY MISSING = 204

WARNING: 23% OF THE DATA ARE MISSING.

Exhibit C-7

Contract Rent Burden for
Rent Control and Subsidized Renters

FREQUENCY COL PCT	RENT CONTROL	SUB- SIDIZED	TOTAL
0-0.2	214 49.77	26 19.55	240
0.201-.4	134 31.16	53 39.85	187
0.401-0.6	33 7.67	37 27.82	70
0.601-0.8	17 3.95	7 5.26	24
> 0.8	32 7.44	10 7.52	42
TOTAL	430	133	563

FREQUENCY MISSING = 162

HOUSEHOLD RENT BURDEN FOR HOUSING=1 OR 3

STATISTICS FOR TABLE OF RBDH BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	4	57.633	0.000
LIKELIHOOD RATIO CHI-SQUARE	4	56.082	0.000
MANTEL-HAENSZEL CHI-SQUARE	1	18.970	0.000
PHI		0.320	
CONTINGENCY COEFFICIENT		0.305	
CRAMER'S V		0.320	

EFFECTIVE SAMPLE SIZE = 563

FREQUENCY MISSING = 162

WARNING: 22% OF THE DATA ARE MISSING.

Exhibit C-8

Household Rent for Rent Control
and Non-Control Renters

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	TOTAL
RENT <= \$200	62 12.70	15 4.90	77
RENT=201-300	116 23.77	31 10.13	147
RENT=301-400	149 30.53	33 10.78	182
RENT=401-600	118 24.18	100 32.68	218
RENT=601-800	34 6.97	63 20.59	97
RENT>=801	9 1.84	64 20.92	73
TOTAL	488	306	794

FREQUENCY MISSING = 112

FREQ. OF HOUSEHOLD RENT FOR HOUSING= 1 OR 2

STATISTICS FOR TABLE OF HHRENT BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	5	170.613	0.000
LIKELIHOOD RATIO CHI-SQUARE	5	178.016	0.000
MANTEL-HAENSZEL CHI-SQUARE	1	149.072	0.000
PHI		0.464	
CONTINGENCY COEFFICIENT		0.421	
CRAMER'S V		0.464	

EFFECTIVE SAMPLE SIZE = 794

FREQUENCY MISSING = 112

WARNING: 12% OF THE DATA ARE MISSING.

Exhibit C-9

Household Rent for Rent Control
and Subsidized Renters

FREQUENCY COL PCT	RENT CONTROL	SUB- SIDIZED	TOTAL
RENT <= \$200	62 12.70	63 41.18	125
RENT=201-300	116 23.77	30 19.61	146
RENT=301-400	149 30.53	15 9.80	164
RENT=401-600	118 24.18	38 24.84	156
RENT>=601	43 8.81	7 4.58	50
TOTAL	488	153	641

FREQUENCY MISSING = 84

FREQ. OF HOUSEHOLD RENT FOR HOUSING= 1 OR 3

STATISTICS FOR TABLE OF HHRENT BY HOUSING

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	4	71.569	0.000
LIKELIHOOD RATIO CHI-SQUARE	4	68.903	0.000
MANTEL-HAENSZEL CHI-SQUARE	1	35.392	0.000
PHI		0.334	
CONTINGENCY COEFFICIENT		0.317	
CRAMER'S V		0.334	

EFFECTIVE SAMPLE SIZE = 641

FREQUENCY MISSING = 84

WARNING: 12% OF THE DATA ARE MISSING.

Appendix D

Supplementary Tables

Exhibit D-1

Tenure in Present Unit by Income for Owners

FREQUENCY COL PCT	< 25% ME D. INCOM	25-50% M ED INCOM	50-80% M ED INCOM	80-100% MED INCO	100-120% MED INC	120-150% MED INC	150-200% MED INC	> 200% M ED INCOM	TOTAL
<=1 YEAR	2 12.77	2 10.00	2 5.97	1 4.17	2 8.33	3 12.00	8 17.14	5.5 8.54	25.5
2 YEARS	0 0.00	0 0.00	3 8.96	1 4.17	4 16.67	0 0.00	5 10.71	9.5 14.75	22.5
3-4 YEARS	.333333 2.13	1 5.00	8.5 25.37	5 20.83	3 12.50	2.5 10.00	8 17.14	16.5 25.61	44.8333
5 TO 9 YEARS	1.33333 8.51	2.5 12.50	5 14.93	6.5 27.08	5 20.83	10 40.00	12.6667 27.14	16 24.84	59
10 TO 14 YEARS	1 6.38	5 25.00	3 8.96	4.5 18.75	3 12.50	3.5 14.00	6.5 13.93	6.5 10.09	33
15 TO 19 YEARS	1 6.38	2.5 12.50	1 2.99	1 4.17	5 20.83	1 4.00	.5 1.07	4.25 6.60	16.25
20+ YEARS	10 63.83	7 35.00	11 32.84	5 20.83	2 8.33	5 20.00	6 12.86	6.16667 9.57	52.1667
TOTAL	15.6667	20	33.5	24	24	25	46.6667	64.4167	253.25
FREQUENCY MISSING = 65									

Exhibit D-2

Income Distributions by Length of Tenure
in Unit for Homeowners in Buildings of
Four or More Units

FREQUENCY COL PCT	< 25% ME	25-50% M	50-80% M	80-100%	100-120%	120-150%	150-200%	> 200% M	TOTAL
	D. INCOM	ED INCOM	ED INCOM	MED INCO	MED INC	MED INC	MED INC	ED INCOM	
<=1 YEAR	2 50.00	2 28.57	1 25.00	0 0.00	1 25.00	1 14.29	2 18.18	1 5.88	10
2 YEARS	0 0.00	0 0.00	1 25.00	0 0.00	0 0.00	0 0.00	1 9.09	4.5 26.47	6.5
3-4 YEARS	0 0.00	1 14.29	1 25.00	1 25.00	1 25.00	1 14.29	3 27.27	6.5 38.24	14.5
5 TO 9 YEARS	0 0.00	2 28.57	1 25.00	3 75.00	2 50.00	4 57.14	4 36.36	4 23.53	20
10 TO 14 YEARS	1 25.00	1 14.29	0 0.00	0 0.00	0 0.00	0 0.00	1 9.09	1 5.88	4
15 TO 19 YEARS	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0
20+ YEARS	1 25.00	1 14.29	0 0.00	0 0.00	0 0.00	1 14.29	0 0.00	0 0.00	3
TOTAL	4	7	4	4	4	7	11	17	58
FREQUENCY MISSING = 11									

Exhibit D-3

Household Size by Elderly
For Rent Controlled Units

FREQUENCY COL PCT	1 PERSON	2 PEOPLE	3-5 PEOPLE	6 - 9 PEOPLE	TOTAL
AGE < 65	237.333 91.52	161 93.60	87.8333 96.70	4.66667 100.00	490.833
AGE >= 65	22 8.48	11 6.40	3 3.30	0 0.00	36
TOTAL	259.333	172	90.8333	4.66667	526.833
FREQUENCY MISSING = 2					

Exhibit D-4

Household Size by Elderly
For Non-Controlled Units

FREQUENCY COL PCT	1 PERSON	2 PEOPLE	3 - 5 PEOPLE	6 - 9 PEOPLE	TOTAL
AGE < 65	79.3333 85.00	119 92.25	104.167 95.42	13.5 100.00	316
AGE >= 65	14 15.00	10 7.75	5 4.58	0 0.00	29
TOTAL	93.3333	129	109.167	13.5	345

Exhibit D-5

Household Size by Elderly
For Subsidized Units

FREQUENCY COL PCT	1 PERSON	2 PEOPLE	3 - 5 PEOPLE	6 - 9 PEOPLE	TOTAL
AGE < 65	26 46.43	27.5 66.27	68.1667 97.15	8.5 100.00	130.167
AGE >= 65	30 53.57	14 33.73	2 2.85	0 0.00	46
TOTAL	56	41.5	70.1667	8.5	176.167

Exhibit D-6

Household Size by Elderly
For Owner-Occupied Units

FREQUENCY COL PCT	1 PERSON	2 PEOPLE	3 - 5 PEOPLE	6 - 9 PEOPLE	>=10 PEOPLE	TOTAL
AGE < 65	51 66.67	84.0833 78.16	105.917 86.29	9 81.82	.333333 50.00	250.333
AGE >= 65	25.5 33.33	23.5 21.84	16.8333 13.71	2 18.18	.333333 50.00	68.1667
TOTAL	76.5	107.583	122.75	11	.666667	318.5

Exhibit D-7

Length of Residence in Cambridge
by Housing Type

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	OWNER OCCUPIED	TOTAL
1 YEAR	67.8333 12.85	71 20.64	5.33333 3.10	10.5 3.30	154.667
2 YEARS	46.1667 8.75	44 12.79	7 4.07	10.5 3.30	107.667
3-4 YEARS	86.5 16.39	56 16.28	11.3333 6.58	23.5 7.38	177.333
5 TO 9 YEARS	132 25.01	67 19.48	27.5 15.97	54.5833 17.14	281.083
10 TO 14 YEARS	63.3333 12.00	25 7.27	30 17.42	46.6667 14.65	165
15 TO 19 YEARS	38.6667 7.33	9.5 2.76	11 6.39	36.0833 11.33	95.25
20+ YEARS	93.3333 17.68	71.5 20.78	80 46.47	136.667 42.91	381.5
TOTAL	527.833	344	172.167	318.5	1362.5
FREQUENCY MISSING = 53					

Exhibit D-8

Per Capita Gross Rent
by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
RENT 1- \$50	3.33333 0.73	5 1.80	20 13.68	28.3333
RENT=51-100	32 7.00	17.5 6.30	29 19.84	78.5
RENT=101-150	50.5 11.05	26 9.36	55.3333 37.86	131.833
RENT=151-200	72.1667 15.79	25.5 9.18	21.3333 14.60	119
RENT=201-300	141.833 31.02	67 24.13	13.5 9.24	222.333
RENT=301-400	95.8333 20.96	54.1667 19.51	4 2.74	154
RENT > 401	61.5 13.45	82.5 29.71	3 2.05	147
TOTAL	457.167	277.667	146.167	881
FREQUENCY MISSING = 535				

Exhibit D-9

Per Room Gross Rent
by Housing Classification

FREQUENCY COL PCT	RENT CONTROL	NON- CONTROL	SUB- SIDIZED	TOTAL
RENT 1- \$50	14.5 3.16	5 1.80	44.5 30.44	64
RENT=51-100	203.5 44.42	46 16.57	49.5 33.87	299
RENT=101-150	154.667 33.76	74.8333 26.95	35.1667 24.06	264.667
RENT=151-200	50.5 11.02	74.5 26.83	11 7.53	136
RENT=201-300	24 5.24	55.8333 20.11	6 4.10	85.8333
RENT=301-400	6 1.31	11.5 4.14	0 0.00	17.5
RENT > 401	5 1.09	10 3.60	0 0.00	15
TOTAL	458.167	277.667	146.167	882
FREQUENCY MISSING = 534				

Exhibit D-10

Bedrooms by Household Size
For Rent Controlled Units

FREQUENCY COL PCT	1 PERSON	2 PEOPLE	3 -5 PEOPLE	6 - 9 PEOPLE	TOTAL
STUDIO-1 BEDROOM	201.333 77.63	69.8333 40.60	11 12.11	0 0.00	282.167
2 BEDROOMS	48.5 18.70	87.8333 51.07	47 51.74	0 0.00	183.333
3 BEDROOMS	5.5 2.12	12.8333 7.46	24.8333 27.34	3.33333 71.43	46.5
4 BEDROOMS	3 1.16	.5 0.29	7 7.71	1 21.43	11.5
5 BEDROOMS	0 0.00	1 0.58	1 1.10	0 0.00	2
6+ BEDROOMS	1 0.39	0 0.00	0 0.00	.333333 7.14	1.33333
TOTAL	259.333	172	90.8333	4.66667	526.833
FREQUENCY MISSING = 2					

Exhibit D-11

Bedrooms by Household Size
For Non-Controlled Units

FREQUENCY COL PCT	1 PERSON		2 PEOPLE		3 - 5 PEOPLE		6 - 9 PEOPLE		TOTAL
STUDIO-1 BEDROOM	58.5 62.68	39 30.23	7 6.41	1 7.41					105.5
2 BEDROOMS	29.8333 31.96	71.6667 55.56	50.3333 46.11	4 29.63					155.833
3 BEDROOMS	4 4.29	14.8333 11.50	35 32.06	5.5 40.74					59.3333
4 BEDROOMS	1 1.07	3.5 2.71	12.8333 11.76	2 14.81					19.3333
5 BEDROOMS	0 0.00	0 0.00	3 2.75	0 0.00					3
6+ BEDROOMS	0 0.00	0 0.00	1 0.92	1 7.41					2
TOTAL	93.3333	129	109.167	13.5					345

Exhibit D-12

Bedrooms by Household Size
For Subsidized Units

FREQUENCY COL PCT	1 PERSON	2 PEOPLE	3 - 5 PEOPLE	6 - 9 PEOPLE	TOTAL
STUDIO-1 BEDROOM	51 91.07	13 31.33	1 1.43	0 0.00	65
2 BEDROOMS	5 8.93	26 62.65	34.8333 49.64	0 0.00	65.8333
3 BEDROOMS	0 0.00	2.5 6.02	26 37.05	6.5 76.47	35
4 BEDROOMS	0 0.00	0 0.00	8.33333 11.88	1 11.76	9.33333
5 BEDROOMS	0 0.00	0 0.00	0 0.00	1 11.76	1
TOTAL	56	41.5	70.1667	8.5	176.167

Exhibit D-13

Bedrooms by Household Size
For Owner-Occupied Units

FREQUENCY COL PCT	1 PERSON	2 PEOPLE	3 - 5 PEOPLE	6 - 9 PEOPLE	>= 10 PEOPLE	TOTAL
STUDIO-1 BEDROOM	22 28.76	13.5 12.55	2 1.63	0 0.00	0 0.00	37.5
2 BEDROOMS	30.5 39.87	48 44.62	35.5 28.92	0 0.00	.333333 50.00	114.333
3 BEDROOMS	15 19.61	31.3333 29.12	45.75 37.27	4 36.36	0 0.00	96.0833
4 BEDROOMS	5 6.54	8 7.44	23 18.74	4 36.36	0 0.00	40
5 BEDROOMS	2 2.61	2.5 2.32	9 7.33	1 9.09	0 0.00	14.5
6+ BEDROOMS	2 2.61	4.25 3.95	7.5 6.11	2 18.18	.333333 50.00	16.0833
TOTAL	76.5	107.583	122.75	11	.666667	318.5

Appendix E

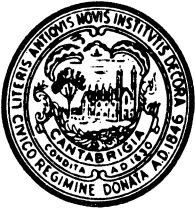
Projected Proportions of Households with Income Over \$30,000

The following table presents an estimate of the proportion of households in each housing category with incomes over \$30,000. The proportions were calculated under the assumption that incomes are distributed uniformly within income brackets. (For example, of the one person households with incomes between \$28,000 - \$35,000, it is assumed that 5/7ths had incomes above \$30,000.)

Note that the estimates do not adjust for household size, but do waight by number of phones.

<u>Housing Category</u>	<u>Projected Proportion of Households with Income Over \$30,000</u>
Rent Controlled	20%
Non-Controlled	35%*
Subsidized	3%*
Owner Occupied	52%*

* Means are significantly different from mean for rent controlled units at the 95 percent confidence level.



CITY OF CAMBRIDGE
CAMBRIDGE, MASSACHUSETTS 02139
TEL. 498-9011

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

June 22, 1987

To the Honorable, the City Council:

Attached you will find the final report on the Housing Study conducted by Abt Associates for the City of Cambridge. The report contains the results of the sample survey designed to determine the income and household characteristics of the occupants of rent-controlled and non-rent-controlled units, subsidized apartments, and those who occupy their own units. An Executive Summary of the findings appears at the beginning of the document.

I have asked James Wallace and Meryl Finkel, directors of the study at Abt Associates, to be available on or after June 29th to discuss any questions you have about the study and the findings.

Very truly yours

Robert W. Healy
City Manager

RWH/b

Agenda Item No. 16 S-420

Re: enclosed final report on the Housing
Study conducted by Abt Associates for the
City.

In City Council,

June 22, 1987

Referred to Committee
on
Rent Control