2.

CITY OF CAMBRIDGE

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EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

January 5, 1987

To the Honorable, the City Council,

During the past several months, the Finance Department has conducted an analysis of residential property tax bills in order to determine the impact that Proposition 2 1/2, and full market assessment have had on residential taxpayers. The study was conducted by taking a statistical sample from each of the City's nineteen assessment districts. The methodology used is presented on page eleven. In general, however, a twenty five percent sample was taken from each district in each of the following categories: single family, two family, three family, condominiums, apartment buildings of four or more units, and apartment buildings of nine or more units. The study covered the period from FY 1981 through FY 1986, and as the table below indicates, all categories, with the exception of one, paid less in taxes on average in 1986 than they had in 1981. In the one category where the average showed an increase, two families, the average increase was only $28.00 over the study period.

	City Wide Average Tax Bill			
	FY 81	FY 86	Change	% Change
Single Family	$ 2,429	$ 2,350	$ (78)	-3.2%
Two Family	1,930	1,958	28	1.4%
Three Family	2,048	1,942	(106)	-5.2%
Condominiums	1,891	1,284	(607)	-32.1%
4 to 8 Units	3,326	1,867	(1,459)	-43.9%
9 Plus Units	21,410	11,196	(10,214)	-47.7%

When actual tax dollars paid are measured in constant 1981 dollars, the savings to residential taxpayers are even more dramatic.

	Average Tax Bill 1981 Dollars			
	1981	1986	Difference	% Change
Single Family	$ 2,429	$1,842	$ (587)	-24.2%
Two Family	1,930	1,535	(395)	-20.5
Three Family	2,048	1,522	(526)	-25.7
Condominiums	1,891	1,006	(885)	-46.8
4 to 8 Units	3,326	1,463	(1,863)	-56.0
9 Plus Units	21,410	8,776	(12,634)	-59.0

The decrease in the average residential tax bills should not be surprising. In FY 1981, the total tax levy of the City was $79,961,416, while in FY 1986, the levy was $74,361,512, a decrease of $5,599,904. At the same time that the overall levy decrease has occurred, one of the strongest periods of economic development in the City's history has taken place. In 1986, newly constructed buildings generated tax payments of approximately $9,000,000 on buildings that did not exist in 1981.

Beyond the lower tax levy and expanded tax base, two other factors, tax classification and homeowners exemption, have contributed to lower average residential tax bills. Tax classification, approved by the City Council maintains a heavier tax burden upon the commercial sector, thus lowering residential tax rates and payments. The second factor, the exemption for owner occupied homes does not reduce the overall levy for residential property (merely shifting the burden among the residential sector). However, the data indicates that the homeowner exemption contributed to keeping average 1986 tax payments below the 1981 levels in the single and three family category. This reduction was achieved by shifting a greater burden to non-owner occupied residential property, generally speaking, apartment buildings of four units or more.

However, these apartment buildings had received the greatest reduction in taxes due to revaluation and continue to do so even with residential exemption. The result of residential exemption therefore, has been to somewhat moderate and equalize residential tax reductions. It can be assumed that had the City Council not approved homeowners exemption, the net reduction in average tax payments by single and three family properties would not have occurred and that the tax reduction to apartment buildings of four or more units would have been greater.

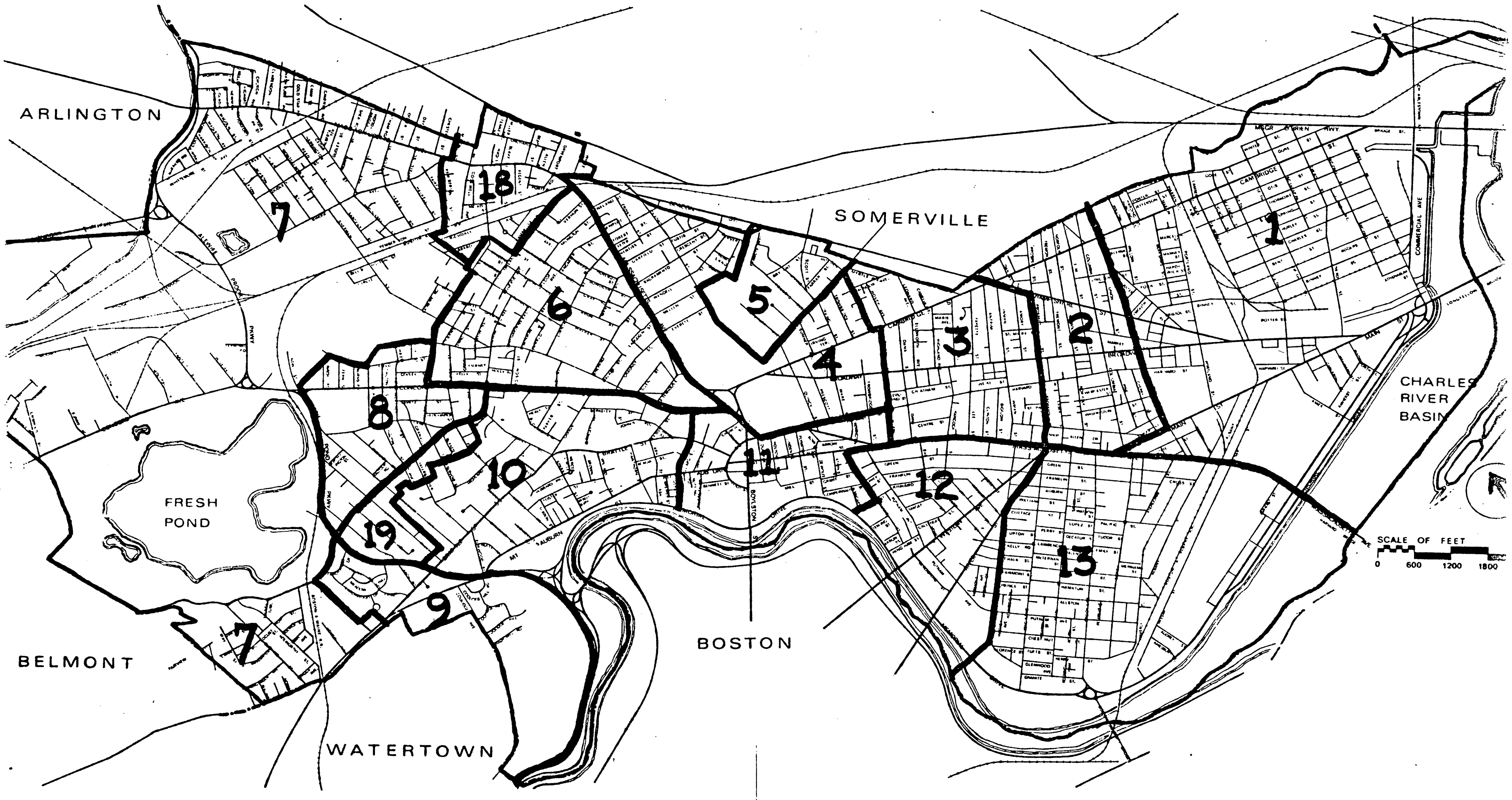
It should be noted that the data summarized above represents city wide averages compiled from the 19 assessment districts in the City. Within each district and within each category there have been increases and decreases greater than the City wide average. Thus, there are individuals who are paying considerably more in taxes on their homes today than in 1981.

However, the bottom line is that the financial policies established by the City Council have resulted in what I believe is an extremely fair tax policy that has resulted in great savings to the residential taxpayers of the City.

Very truly yours,

Robert W. Healy
City Manager

ASSESSMENT DISTRICTS - FY86



NOTES

District 14 - Charles Riverfront
District 15 - Grove & Blanchard Sts.
District 16 - St. Paul St
District 17 - Walden St between Mt Pleasant and Raymond
District 18: was part of District 7 until FY85
District 19: was part of District 4 until FY86

AVERAGE REAL ESTATE TAXES FOR SINGLE FAMILY HOMES

DISTRICT	SAMPLE SIZE	FY81	FY82	FY83	FY84	FY85	FY86	CHG 81-86
1	81	$903	$783	$776	$841	$880	$753	($149)
2	50	$1,036	$898	$890	$935	$986	$895	($141)
3	42	$2,243	$1,945	$1,927	$2,159	$1,979	$2,004	($239)
4	44	$2,735	$2,372	$2,351	$2,219	$2,165	$2,215	($520)
5	12	$4,639	$4,023	$3,986	$3,944	$4,075	$4,767	$128
6	93	$3,426	$2,971	$2,944	$3,609	$3,468	$3,441	$15
7	153	$1,494	$1,295	$1,284	$1,246	$1,282	$1,158	($336)
8	27	$1,759	$1,525	$1,511	$2,028	$1,909	$1,803	$44
9	50	$4,583	$3,974	$3,938	$3,907	$3,638	$3,666	($917)
10	115	$4,447	$3,856	$3,822	$4,685	$4,636	$5,226	$779
11	4	$2,742	$2,378	$2,356	$4,054	$3,898	$4,404	$1,662
12	44	$1,194	$1,035	$1,026	$1,028	$1,014	$996	($198)
13	51	$1,368	$1,187	$1,176	$1,377	$1,357	$1,329	($40)
15	9	$3,543	$3,072	$3,045	$3,074	$2,759	$2,817	($726)
16	2	$1,244	$1,079	$1,069	$1,717	$1,542	$1,524	$280
17	2	$1,728	$1,499	$1,485	$1,883	$1,808	$1,798	$70
18	18	$1,508	$1,308	$1,296	$1,320	$1,370	$1,720	$212
19	8	$3,453	$2,995	$2,968	$2,908	$3,075	$3,265	($189)
GROSS TOT	805	$1,955,105	$1,695,423	$1,680,169	$1,878,210	$1,797,363	$1,892,031	($63,074)
AVERAGE CITYWIDE		$2,429	$2,106	$2,087	$2,333	$2,233	$2,350	($78)
% CHANGE 81-86								-3.23%

	81-82	81-83	81-84	81-85	81-86
% CHANGE IN CPI	6.86%	11.86%	15.95%	20.67%	27.57%
% CHANGE IN TAXES (1981 BASE YEAR)	-13.30%	-14.08%	-3.95%	-8.07%	-3.25%

	1981	1982	1983	1984	1985	1986
WHAT TAXES WOULD BE TO KEEP WITH CHG IN CPI	$2,429	$2,596	$2,717	$2,816	$2,931	$3,099
ACTUAL TAXES	$2,429	$2,106	$2,087	$2,333	$2,233	$2,350
CONSTANT 1981 $	$2,429	$1,971	$1,866	$2,012	$1,850	$1,842

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index,
All Urban Consumers, Boston, Mass.

NOTE: Differences in dollar values and percentages are due to rounding to the nearest dollar.

AVERAGE REAL ESTATE TAXES FOR TWO FAMILY HOMES

DISTRICT	SAMPLE SIZE	FY81	FY82	FY83	FY84	FY85	FY86	CHG 81-86
1	89	$1,120	$971	$962	$1,010	$1,088	$989	($131)
2	54	$1,223	$1,060	$1,051	$898	$866	$919	($304)
3	50	$2,121	$1,839	$1,822	$2,296	$2,029	$2,146	$25
4	45	$2,379	$2,063	$2,045	$2,446	$2,211	$2,688	$309
5	6	$3,990	$3,460	$3,429	$3,868	$3,910	$4,680	$691
6	53	$2,777	$2,408	$2,386	$3,225	$3,350	$3,103	$327
7	203	$1,784	$1,549	$1,533	$1,523	$1,572	$1,598	($186)
8	84	$2,080	$1,804	$1,788	$2,298	$2,166	$2,540	$459
9	8	$3,482	$3,019	$2,992	$345	$3,186	$3,593	$111
10	30	$3,847	$3,336	$3,306	$3,601	$3,984	$4,266	$419
11	17	$2,224	$1,929	$1,911	$1,788	$1,881	$2,210	($14)
12	51	$1,382	$1,199	$1,188	$1,121	$1,066	$1,272	($110)
13	71	$1,572	$1,363	$1,351	$1,411	$1,267	$1,425	($147)
14	1	$5,184	$4,496	$4,455	$2,364	$2,271	$2,487	($2,697)
16	2	$1,924	$1,668	$1,653	$1,989	$1,785	$1,844	($80)
17	10	$2,092	$1,814	$1,798	$1,824	$1,748	$1,810	($282)
18	31	$1,719	$1,491	$1,477	$1,487	$1,542	$1,655	($64)
19	39	$2,456	$2,130	$2,110	$2,846	$2,555	$3,082	$627
GROSS TOT	844	$1,629,054	$1,412,695	$1,399,968	$1,564,574	$1,538,859	$1,652,309	$23,255
AVERAGE CITYWIDE		$1,930	$1,674	$1,659	$1,854	$1,823	$1,958	$28
% CHANGE 81-86								1.43%

	81-82	81-83	81-84	81-85	81-86
% CHANGE IN CPI	6.86%	11.86%	15.95%	20.67%	27.57%
% CHANGE IN TAXES (1981 BASE YEAR)	-13.26%	-14.04%	-3.94%	-5.54%	-1.45%

	1981	1982	1983	1984	1985	1986
WHAT TAXES WOULD BE TO KEEP UP WITH CHG IN CPI	$1,930	$2,062	$2,159	$2,238	$2,329	$2,462
ACTUAL TAXES	$1,930	$1,674	$1,659	$1,854	$1,823	$1,958
CONSTANT 1981 $	1930	1566	1483	1599	1511	1535

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index, All Urban Consumers, Boston, Mass.

NOTE: Differences in dollar values and percentages are due to rounding to the nearest dollar.

AVERAGE REAL ESTATE TAXES FOR THREE FAMILY HOMES

DISTRICT	SAMPLE SIZE	FY81	FY82	FY83	FY84	FY85	FY86	CHG 81-86
1	76	$1,417	$1,229	$1,218	$996	$1,309	$1,271	($146)
2	48	$1,627	$1,411	$1,398	$954	$1,113	$120	($507)
3	52	$2,282	$1,979	$1,961	$2,036	$1,967	$2,544	$262
4	31	$2,511	$2,177	$2,158	$2,439	$2,620	$2,805	$294
5	3	$5,130	$4,449	$4,409	$4,735	$5,101	$5,525	$395
6	27	$2,841	$2,463	$2,441	$2,922	$3,148	$3,111	$270
7	76	$1,944	$1,685	$1,670	$1,695	$2,050	$1,914	($30)
8	25	$3,098	$2,686	$2,662	$2,296	$2,190	$2,377	($720)
9	1	$3,318	$2,877	$2,851	$2,558	$2,365	$2,337	($981)
10	6	$3,314	$2,874	$2,848	$3,064	$3,352	$3,328	$14
11	5	$2,295	$1,990	$1,972	$2,161	$2,235	$2,360	$65
12	42	$1,657	$1,437	$1,424	$1,293	$1,167	$1,322	($336)
13	63	$1,873	$1,624	$1,605	$1,645	$1,525	$1,482	($392)
16	5	$1,848	$1,602	$1,588	$1,421	$1,839	$2,031	$183
17	2	$2,074	$1,798	$1,782	$1,928	$2,163	$1,793	($281)
18	19	$1,964	$1,704	$1,688	$1,661	$2,007	$2,093	$129
19	13	$3,008	$2,608	$2,585	$3,173	$3,845	$3,679	$672
GROSS TOT	494	$1,011,640	$877,292	$869,081	$855,797	$927,639	$959,405	($52,235)
AVERAGE CITYWIDE		$2,048	$1,776	$1,759	$1,732	$1,878	$1,942	($106)
% CHANGE 81-86								-5.16%

	81-82	81-83	81-84	81-85	81-86
% CHANGE IN CPI	6.86%	11.86%	15.95%	20.67%	27.57%
% CHANGE IN TAXES (1981 BASE YEAR)	-13.28%	-14.11%	-15.43%	-8.30%	-5.18%

	1981	1982	1983	1984	1985	1986
WHAT TAXES WOULD BE TO KEEP UP WITH CHG IN CPI	$2,048	$2,188	$2,291	$2,375	$2,471	$2,613
ACTUAL TAXES	$2,048	$1,776	$1,759	$1,732	$1,878	$1,942
CONSTANT 1981 $	$2,048	$1,662	$1,573	$1,494	$1,556	$1,522

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index, All Urban Consumers, Boston, Mass.

NOTE: Differences in dollar values and percentages are due to rounding to the nearest dollar.

AVERAGE REAL ESTATE TAXES FOR CONDOS

DISTRICT	SAMPLE SIZE	FY81	FY82	FY83	FY84	FY85	FY86	CHG 81-86
CITY WIDE	211	$1,891	$1,640	$1,625	$1,307	$1,315	$1,284	($607)
GROSS TOT		$398,915	$345,934	$342,817	$275,747	$277,538	$270,913	($128,002)
AVERAGE CITYWIDE		$1,891	$1,640	$1,625	$1,307	$1,315	$1,284	($607)
% CHANGE 81-86								-32.09%

	81-82	81-83	81-84	81-85	81-86
% CHANGE IN CPI	6.86%	11.86%	15.95%	20.67%	27.57%
% CHANGE IN TAXES (1981 BASE YEAR)	-13.27%	-14.07%	-30.88%	-30.46%	-32.10%

	1981	1982	1983	1984	1985	1986
WHAT TAXES WOULD BE TO KEEP UP WITH CHG IN CPI	$1,891	$2,021	$2,115	$2,192	$2,282	$2,412
ACTUAL TAXES	$1,891	$1,640	$1,625	$1,307	$1,315	$1,284
CONSTANT 1981 $	$1,891	$1,535	$1,453	$1,127	$1,090	$1,006

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index, All Urban Consumers, Boston, Mass.

NOTE: Differences in dollar values and percentages are due to rounding to the nearest dollar.

AVERAGE REAL ESTATE TAXES FOR FOUR TO EIGHT FAMILY HOMES

DISTRICT	SAMPLE SIZE	FY81	FY82	FY83	FY84	FY85	FY86	CHG 81-86
No. Camridge/Highlands/ Strawberry Hill Districts 7, 18, 15	15	$3,858	$3,346	$3,316	$2,031	$1,843	$1,929	($1,92
W. Cambridge/Harvard Sq./ Nieghborhood 9 Districts 6, 8, 9, 10, 11, 17, 14, 19	13	$5,305	$4,600	$4,559	$3,761	$3,457	$3,461	($1,84
Agassiz Nieghborhood/ Mid Cambridge Districts 3, 4, 5, 16	36	$4,812	$4,173	$4,135	$3,138	$2,817	$2,738	($2,07
Cambridgeport/Riverside/ Districts 12, 13	54	$3,057	$2,651	$2,628	$1,781	$1,607	$1,648	($1,40
East Cambridge/Area 3 & 4 Districts 1, 2	72	$2,316	$2,009	$1,990	$1,354	$1,216	$1,294	($1,02
GROSS TOTALS	190	$631,941	$548,011	$543,074	$386,534	$348,311	$354,675	($277,26
AVERAGE CITYWIDE		$3,326	$2,884	$2,858	$2,034	$1,833	$1,867	($1,45
% change 81-86								-43.8

	81-82	81-83	81-84	81-85	81-86
% CHANGE IN CPI	6.86%	11.86%	15.95%	20.67%	27.57%
% CHANGE IN TAXES (1981 BASE YEAR)	-13.29%	-14.07%	-38.85%	-44.89%	-43.87%

	1981	1982	1983	1984	1985	1986
WHAT TAXES WOULD BE TO KEEP UP WITH CHANGE IN CPI	$3,326	$3,554	$3,720	$3,857	$4,014	$4,243
ACTUAL TAXES	$3,326	$2,884	$2,858	$2,034	$1,833	$1,867
CONSTANT 1981 $	$3,326	$2,699	$2,555	$1,754	$1,519	$1,463

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index, All Urban Consumers, Boston, Mass.

ANALYSIS REAL ESTATE TAX FOR APARTMENT BUILDINGS NINE UNITS AND OVER

DISTRICT	S#	FY81	FY82	FY83	FY84	FY85	FY86	CHG 81-86
No. Camridge/Highlands/ Strawberry Hill Districts 7, 18, 15	4	$9,159	$7,942	$7,871	$7,819	$7,721	$4,604	($4,554)
W. Cambridge/Harvard Sq./ Nieghborhood 9 Districts 6, 8, 9, 10, 11, 17, 14, 19	10	$60,600	$52,551	$52,078	$41,353	$41,176	$41,899	($18,701)
Agassiz Nieghborhood/ Mid Cambridge Districts 3, 4, 5, 16	19	$22,968	$19,918	$19,739	$8,796	$8,685	$8,411	($14,558)
Cambridgeport/Riverside/ Districts 12, 13	5	$13,218	$11,463	$11,360	$4,177	$3,819	$3,471	($9,747)
East Cambridge/Area 3 & 4 Districts 1, 2	20	$4,834	$4,192	$4,154	$1,809	$1,786	$1,740	($3,094)
GROSS TOTALS	58	$1,241,800	$1,076,874	$1,067,172	$668,991	$662,481	$649,362	($592,438)
AVERAGE CITYWIDE		$21,410	$18,567	$18,400	$11,534	$11,422	$11,196	($10,214)
% CHANGE 86-81								-47.71%

	81-82	81-83	81-84	81-85	81-86
% CHANGE IN CPI	6.86%	11.86%	15.95%	20.67%	27.57%
% CHANGE IN TAXES (1981 BASE YEAR)	-13.28%	-14.06%	-46.13%	-46.65%	-47.71%

	1981	1982	1983	1984	1985	1986
WHAT TAXES WOULD BE TO KEEP UP WITH CHANGE IN CPI	$21,410	$22,880	$23,948	$24,825	$25,836	$27,314
ACTUAL TAXES	$21,410	$18,567	$18,400	$11,534	$11,422	$11,196
CONSTANT 1981 $	$21,410	$17,374	$16,450	$9,947	$9,465	$8,776

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index, All Urban Consumers, Boston, Mass.

NOTE: Differnces in dollar values and percentages are due to rounding to the nearest dollar.

METHODOLOGY

The City is divided into 19 districts for the purpose of revaluation and assessment. Within each district units are further divided by type, i.e. one family homes (R1), two family homes (R2) etc.. The Assessor's Office provided a list broken down by district and type from which a 25% sample was drawn from each district. In order for properties to become included in the study the following set of criteria had to be met:

1. Construction on all properties was completed by 1980 so that their total value was complete;

2. The type of dwelling remained the same. For example,. a one family house in 1981 was still a one family house in 1986;

3. All properties in the sample were located within the City of Cambridge limits. Properties which were split between Cambridge and Somerville were excluded.

If properties which were in this original sample did not meet this criteria they were not included and were replaced with another property if possible. In some districts a particular housing type did not exist or the available properties did not meet the stated criteria which explains why some districts are not listed for a particular housing type. Source data was taken from the Assessors Office, as well as commitment books which provided the necessary data for fiscal years in the sample.

1986 Residential Exemptions were included in the calculations for those units which were owner occupied. If the Commitment did not include an exemption for a unit which had the same owner for three years, a residential exemption was assumed to have been granted after the Commitment was published.

Abatements were deducted for the years 1981-1986 for the dollar amount that was abated. A change was not reflected in the property value for the fiscal year, but in the property tax.

Condominiums are listed as one large group because of their low percentage of completions as of 1980. Apartments and four families or more are grouped into five different sections of Cambridge: North Cambridge, Harvard Square, Cambridgeport, East Cambridge and MidCambridge. This was due to the smaller number of units which make up this housing type.

The analysis, on pages five through ten, gives the average tax bill from the sample for each district by housing category. The average citywide totals for each housing type were derived by taking the total taxes paid for the entire sample for a particular fiscal year and dividing by the total sample. This method of calculation presents the citywide average more fairly as oppossed to taking an average of the average tax bills for each district.

As for the statistical analysis presented for each housing type, the source for the Consumer Price Index came from the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index (CPI) , All Urban Consumers for January of each respective year. The analysis using this information in relation to the change in property taxes was dervived by the following formulas.

Percentage change in CPI (1981 Base):

$$\frac{\text{198X CPI} - \text{1981 CPI}}{\text{1981 CPI}}$$

Percentage change in Taxes (1981 Base):

$$\frac{\text{198X Taxes} - \text{1981 Taxes}}{\text{1981 Taxes}}$$

Calculation to determine what taxes in dollar terms would have to be to keep up with change in CPI:

$$\frac{\text{198X CPI}}{\text{1981 CPI}} \quad \text{times} \quad \text{1981 Taxes}$$

1981 Constant Dollars calculation:

$$\text{198X Taxes divided by } \frac{\text{198X CPI}}{\text{1981 CPI}}$$

X represents the year which is being compared.

Lastly, a list of the total number of units as of January 1, 1985, by housing type was provided by the Assessor's Office. From the list of units by housing type, the number of units that constituted 25% of the total was calculated and compared to the sample size taken for the study.

The following table shows the result of the comparison.

Type	Number of Units	Actual 25%	Sample Size	%
One Family	3,450	863	805	23%
Two Family	3,370	844	844	25%
Three Family	1,960	490	494	25%
Condo	4,000	1,000	211	5%
R4/Apts.	1,300	325	248	19%

The only category which appears to be well below the desired 25% sample size is condominiums. The reason for this discrepency can be explained by examining the criteria stated above. Specifically, construction was completed by 1980 and the housing type remained the same throughout the fiscal years. Therefore, the amount of eligible condominiums for the study was reduced so that the 211 sample does reflect a high percentage sample of eligible condominiums.

Agenda Item No. 25-5

Re: an analysis conducted by the Finance Dept. on residential property tax bills to determine the impact of Proposition 2½ & full market assessment on residential tax-payers.

In City Council,

January 5, 1987

Placed on File