

## CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139  
Tel. 498-9011

EXECUTIVE DEPARTMENT  
JAMES L. SULLIVAN  
City Manager

October 31, 1980

Mr. Vincent P. Barraba, Director  
Bureau of the Census  
Washington, D.C. 20233

Dear Mr. Barraba:

The Federal Register of October 20, 1980 included a report from your organization outlining issues relative to any adjustment of the Census results. We are responding based on our unhappiness with the figures arrived at by the Cambridge District Office for our City in the 1980 Census. As you probably are aware we are a party to a suit which has been filed by the Commonwealth of Massachusetts on behalf of many communities similarly aggrieved.

We begin by noting that the report in question was prepared prior to the significant decision in the Detroit case, and therefore does not address itself to the possible need for an immediate adjustment to satisfy that judgement. We find this disappointing. However, it is obvious that the Bureau feels any possible adjustment to be a matter of months or years rather than weeks away, and this is very much more disappointing. One possibly redeeming feature mentioned in the report is the "Post Enumeration Program" which is stated as being "in place and funded." The existence and details of this program have not been well publicised by the Bureau, and this knowledge would help communities such as ours put the whole existing Census program for 1980 in a better perspective.

Nonetheless the report contains some of the issues which must be addressed by any plan for adjustment of the undercount, and we will respond on a general level, with reference to our report on the Cambridge Census Review Project in which we detail our actions and differences with the Cambridge District Office. A copy of that report is appended.

The City of Cambridge feels very strongly that the results of the 1980 Census should be adjusted to compensate for the well-documented undercount of residents, particularly those known to be difficult to enumerate, in complex urban areas. The Cambridge undercount of about 5,000 people, approximately five percent of our actual population of around 100,500, is almost entirely composed of people who either would not be counted or arbitrarily considered themselves residents elsewhere. In addition, these are exactly the people who most need assistance and must be included in order to get a true picture of the population and its needs.

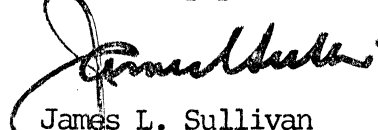
While we find fault with the enumeration of Cambridge by a crew of short-term, briefly trained, and minimally supervised and motivated people, we hold the demographic and statistical experts of the Census Bureau in much higher regard and feel they are fully capable of adjusting for at least the nationally documented undercount. This in conjunction with an effective Post Enumeration Program may produce an acceptable population, or at least come a great deal closer to the real figure. We recognize the certainty that there will be problems and a certain amount of inaccuracy with any adjust-

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ment, but since every conceivable shortcoming of the enumeration process was in the direction of a lower population, even an adjustment that produced an occasional higher figure would be far more accurate on the whole.

In conclusion, we feel that the Census Bureau has an overriding obligation to report the "whole number" of persons in the United States, as well as in each State and locality. Our City has too much to lose for us to be able to settle for anything less.

Very truly yours,



James L. Sullivan  
City Manager

JLS:jp

cc: The Honorable Michael Sloman  
The Honorable Thomas P. O'Neill, Jr.  
Cambridge City Council  
Cambridge Census Review Committee

## THE CAMBRIDGE CENSUS REVIEW PROJECT

The Census Bureau and the City of Cambridge have a history of conflict. During the past two decades the City has challenged virtually every count or estimate of its population done by the Bureau. The 1980 estimate and count both put the City under 100,000 people, and once again the City is prepared to dispute the findings.

For 1980, the Census Bureau decided to extend its switch from door-to-door enumeration to a mailed questionnaire approach in developed areas. The time-honored method was only to be used for followups. Mailing lists were purchased commercially and checked through the Postal Service. Another new feature was to be "local review", an opportunity for communities to help perfect the count both before and after the bulk of the effort. This was billed as the answer to the widespread criticism of the 1970 results.

By the time the Cambridge Census Review Project was being considered, the Pre-Census Local Review had already been scrapped because the mailing lists were in no condition for inspection. Only a few major cities such as Boston which had made early requests were given the lists and the results indicated all the problems which had been feared. The Boston Redevelopment Authority reported them in "The 1980 Census: Potential for Disaster". During the same hearing at which the Boston report was released, a GSA study of the mailing list problem was distributed, as was the Cambridge view, "Points RE: Cambridge Request that the Time Allowance...Be Increased to 20 Days." After this congressional hearing, the Census Bureau made it clear that the Post-Census Local Review would in fact continue until the District Offices closed.

The Cambridge Census Review Committee was appointed by the City Manager to conduct an effective Local Review and make recommendations for City action. At its first general meeting on May 19th the Committee recommended three key studies: a complete count of ten randomly-selected enumeration districts (ED's), a complete count of group quarters, and work on the computerized dwelling unit inventory. Initial meetings were also held between City staff and Census Bureau regional and district office operatives. At the district meeting a problem of staffing for the Census Bureau effort was discussed and the City proceeded to ensure an adequate supply of qualified workers. Other support was given to the Bureau including a copy of Cole's Directory for 1980, some maps, and any information they requested.

The three Cambridge studies got underway immediately and continued through June and July. The Ed Project selected ten enumeration districts by a computer-generated random number process. A crew of neighborhood college students was hired and trained to conduct the operation using a carefully designed form to get a more accurate count of residents as of April 1st. The work began in ED 2058 on June 3rd, and the first run was completed with Ed 2149 on June 13th. Followups by telephone and direct visit continued for three more weeks. Initial results showed an overall 6 percent increase from the Census count. With the aid of our efforts during local review, the Bureau was able to reduce the gap to 4.3 percent. Most of the difference can be attributed to the vacancy rate, 6.58% in the Bureau effort, 3.71% in the City effort, and the persons per household figure, 2.204 for the Census and 2.257 for the City.



Comparison of 10 ED's chosen at random and counted by the City

Enumeration District	Total	Dwelling Units			%vac.	Total	Population		POP/HH
		Occ.	vac.				GQ	HH	
2058 City	283	260	23	8.1	683	0	683	2.627	
Census	288	266	22	7.6	701	0	701	2.635	
2078 City	314	285	29	9.2	481	0	481	1.688	
Census	315	274	41	13.0	437	0	437	1.595	
2088 City	255	246	9	3.5	598	0	598	2.43	
Census	254	246	8	3.1	584	0	584	2.374	
2089 City	391	371	20	4.8	995	41	954	2.571	
Census	411	364	47	11.8	920	40	880	2.418	
2094 City	342	332	10	2.9	738	16	722	2.174	
Census	341	324	17	5.0	710	16	694	2.142	
2099 City	338	336	2	1	574	0	574	1.71	
Census	348	329	19	5.5	563	0	563	1.711	
2112 City	260	257	3	1.2	1007	368	639	2.486	
Census	259	250	9	3.5	967	336	631	2.524	
2124 City	212	208	4	1.9	378	0	378	1.82	
Census	215	209	6	2.8	358	0	358	1.713	
2149 City	359	353	6	1.7	983	0	983	2.78	
Census	356	347	9	2.5	932	0	932	2.686	
2178 City	288	280	8	2.8	590	0	590	2.11	
Census	296	271	25	8.4	567	0	567	2.092	
TOTALS City	3042	2928	114	3.71%	7027	425	6602	2.257	
Census	3083	2880	203	6.58%	6739	392	6347	2.204	
DIFFERENCE	- 41	+ 48	-89	-2.87%	+288	+33	+255	+.057	
					+4.27%	+8.4%	+4.0%	+2.59%	

The GQ Project determined population for every group residence that could be identified. Calls were made when a responsible party could be identified, direct visits were made otherwise. College residences were handled through school administrations. Initial results shows a very substantial difference over the Census results. However, at a later date Bureau personnel indicated that the working definition of "group quarters" included an arbitrary decision as to whether or not occupants share common eating facilities. With this unpublished and difficult proviso, comparison with the Bureau's work became almost impossible. Our efforts did help the Bureau increase its final group quarters count by over 120, but the City is still convinced that the count should be much higher.

The DU Project included improvement of the computerized land use inventory, adding ED designations and writing a short program to summarize dwelling units at the ED level. Initial results showed the possibility of 20 ED's each having 10 or more dwelling units that had been missed by the Census.<sup>6</sup> Some of these were coding problems on one side or the other, but the final results indicated small but worthwhile increases in total dwelling units, up about 200. The Bureau also indicated at a late date that some of their earlier DU figures were inflated by duplication. The City had no opportunity to respond to the adjusted counts, which have resulted in an overall decrease of 100 units from the preliminary figures, therefore over 300 units were removed in the remaining ED's.

The release of the preliminary census figures on June 24th revealed a larger than expected gap between the City estimate and the Census effort, which indicated 92,350 people with only about 1700 housing units unenumerated. Broad shifts in the population were indicated, with over 1/3 of the Census Tracts showing 17-29% losses of population and another 1/3 showing increases of up to 21%. Knowledgeable City people find at least some of the losses hard to believe or explain.

The population of Cambridge has clearly stabilized since the dramatic dispersal of the 1950's and 1960's. The size of the City as counted by the federal Census peaked in 1950 at 120,740. In 1960 it was set at 107,716 and for 1970, a figure of 100,361 was finally agreed upon. The City conducted its own complete count in 1975 and the accepted number was 102,095, an increase of almost 2% over the 1970 figure. The preliminary 1980 Census count of 92,350 represented over a 9% decrease since 1975. The final Census count of approximately 95,350 is still well below the City's minimum determination of 100,495.

Key figures in determining the population are housing stock, vacancy rate, persons per occupied household, and group quarters population. The housing stock has increased dramatically since 1970, with over 4320 new units built and about 640 units demolished for a net gain of 3680 new units, not including unreported subdivisions. In addition, changes in the group quarters definition increasing from 5 to 10 the number of unrelated individuals needed as well as the "common eating" requirements have added a significant but as yet unknown number of "dwelling units" that are actually rooms in lodging houses of various types. These facts show the Census preliminary figure of 41,274 units to be low, and the final figure of 41,193 is lower. The 1960 Census count was 37,668 and the net increase from building permits as mentioned previously was 3680 units. Adding even a low number of rooming house

Enumeration District	City Count Given by Address	Comment	Preliminary Census	Final Census	Change
2044	1		1	0	-1
2045	108		108	107	-1
2069	16		0	0	0
2070	146		107	105	-2
2071	28		28	28	0
2074	196		44	46	+2
2075	144		12	8	-4
2076	67		0	11	+11
2077	133		95	95	0
2079	995		782	987	+205
2081	2120	Dorms & Frats	1588	1640	+52
2083	180		189	189	0
2084	42		16	16	0
2085	215		121	219	+98
2089	41		0	40	+40
2093	13		15	15	0
2094	16		16	16	0
2103	80	Nursing Home	52	0	-52
2105	46		78	78	0
2106	1017		1000	1000	0
2107	527		474	473	-1
2108	0	See 2107	39	38	-1
2109	479		437	327	-110
2110	1651		1654	1652	-2
2112	378	Youville Hosp. and Halfway Home	336	336	0
2113	21		0	0	0
2115	57		44	22	-22
2116	27		25	25	0
2118	29		0	0	0
2121	83		83	83	0
2125	13		0	0	0
2126	1936	Harvard Dorms	1984	1940	-44
2127	713	Harvard Dorms	720	668	-52
2128	407	Harvard Dorms	415	415	0
2132	936		962	897	-65
2133	64		10	64	+54
2135	14		0	0	0
2137	164		137	155	+18
2140	226	Temp. Tufts Dorm and E.D.'s Dorm	94	93	-1
2141	17		24	13	-11
2142	52		45	45	0
2148	155		156	156	0
2150	0		11	11	-
2159	31		31	31	0
2160	14		14	14	0
2169	4		14	14	0
2171	0		16	16	0
2173	22		33	33	0
2176	7		6	6	0
2177	24		26	26	0
2184	19		17	14	-3
2189	163		153	163	+10
2192	24		24	24	0
2193	26		25	25	0
TOTALS	13,860		12,261	12,378	+117

units yields a total DU count of over 41,300. The final Census housing total does not approach this number. The Local Review program failed to give the City a chance to challenge the real figures.

The census vacancy rate is clearly unacceptable. Despite boarded up public housing units and buildings being converted to condominiums, vacant units in Cambridge are rare. The rental and for sale housing markets are extremely tight, with only about 1.5% of the City's 20,200 rental units being available and realtors unable to find housing even for those with money to spend. People gladly pay from \$50 to \$150 for information that leads to an apartment. The preliminary Census rate was 5.6% overall and 6.7% in the ten ED's enumerated by the City. The final Census figure there is 6.58%, compared with 3.71% in the City results. Extrapolating by the Census ratio yields a City vacancy rate of 3.96%. We have received letters from many members of the community verifying a low vacancy rate, including one from 808 Memorial Drive, when preliminary census results showed 25 units vacant. The management says no units were vacant for more than a changeover period.

The person per household figure of 2.13 found by the Census work is also unacceptable. This statistic had shown a steady decrease from over 3 in 1950 down to 2.8 in 1960 and 2.43 in 1970. The Federally accepted City count of 1975 found it to be 2.5. In the ten ED's the Census figure is 2.204 and the City figure is 2.257. Extrapolating again yields a City overall figure of 2.181, which represents over a 10% drop from 1970, the maximum decrease found in a study of north-east cities.

The group quarters problem was discussed above. The City contests the Census Bureau count of 12,380 even with the understanding that many of the additional people found by the City were counted by the Bureau as household residents. Dormitory counts provided by M.I.T., Harvard and Tufts show significantly more people than are enumerated in those ED's by the Census Bureau, and at least one nursing home appears to have been missed.

The City's determination of its minimum population is computed as shown on Figure. The result is a population of 100,495 as determined by adding all the undercounts onto the Census figure. This leaves the City about 5,000 short in the Census count, or about 5 percent undercounted. The City managed to find an overall 4.27% undercount in the ten ED's, 4% in households, about a 6% undercount in group quarters and at least 107 housing units missed.

Further meetings with the Census Bureau have revealed a determination to defend their efforts despite admissions that they can only count people who want to be counted. In cities with large ethnic and student populations such as Cambridge there are any number of reasons why a person or even an entire family would not want to be counted by a governmental body. Many college-associated residents view themselves as visitors whose homes are elsewhere. The Bureau has used its confidentiality requirement to make local review virtually a one-way effort, and even important aspects of the City work provided to them such as the listing of individuals by dwelling unit in the ED Project has not been used to attempt to increase the count. Only housing unit and group quarters

Comparison of Housing Counts in 20 ED's With Overall Results

Enumeration District	City Count Given by Address	Preliminary Census	Final Census	Change
2054	653	633	634	+1
2055	280	269	273	+4
2064	588	570	571	+1
2065	501	461	492	+31
2081	424	393	392	-1
2085	255	232	254	+18
2106	281	263	265	+2
2111	53	17	47	+30
2116	333	297	326	+29
2135	466	450	449	-1
2136	373	281	293	+12
2137	454	435	443	+8
2157	235	225	231	+6
2159	224	220	216	-4
2160	254	236	237	+1
2164	478	459	466	+7
2166	304	293	295	+2
2172	232	225	225	0
2186	1127	1076	1128	+52
2189	194	167	159	-8

Change where Housing provided (over 20 ED's, average +9.5 per ED)	+190
Change in housing where complete count provided (over 10 ED's, average +3.2 per ED)	+ 32
Change where information not provided and results not given (over 101 ED's, average -3 per ED)	<u>-303</u>
Overall Housing Change From Preliminary to "FINAL" Census	- 81

location information has been considered. The local office for Cambridge was closed on August 30th and "final" figures for total population and housing units were only telegraphed on September 15th.

Cambridge is hardly alone in its displeasure with the Census Bureau, its techniques and its results. A suit by Detroit has been accepted and the Federal District Court has ruled that the undercount must be rectified. Another by the State and City of New York goes further, requesting court supervision and a partial recount. Many communities in Massachusetts are unhappy and state action is underway since a representative seat in Congress is at stake. The Census Bureau may still make an adjustment to its results based on an accuracy check to be conducted at some point.

Cambridge will be particularly harmed if a population figure of under 100,000 is accepted by the federal government. The City could lose its prime sponsorship of its CETA agency and an economic opportunity organization. Revenues from many federal and state programs are based on population and its characteristics, and the undercount will hurt in both areas. Some neighborhoods may appear to be relatively more affluent and lose eligibility for Block Grant funding. The overall impact is hard to quantify, but the people most in need would lose the most. The City will pursue all means of achieving an accurate judgement of its population because the next ten years will be difficult enough without losing the benefits that the City deserves.

THE CAMBRIDGE POPULATION CALCULATION

41,193  
 Census Occupancy x .9439  
 Census Occ. Units 38,882  
 Difference in Pop/HH x .051

734  
 Persons in  
 Under/Not  
 Counted  
 Group Quarters

1983  
 Persons in  
 Undercounted  
 Households

37,668  
 + 4,320  
 - 640  
 - 48

41,300  
 - 41,193  
107  
 x .9684  
104  
 x 2.181  
226

Persons in  
 Missing Housing

95,351  
 + 734  
 + 1,983  
 + 226  
 + 2,201  
100,495

Dwelling Units in 1970 Census  
 Units with Building Permits 1970-1980  
 Units with Demolition Permits 1970-1980  
 Safety Factor for Units Not Built or Removed\*

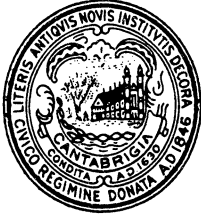
DWELLING UNITS (Minimum) IN CAMBRIDGE  
 Census 1980 Unit Count 41,193  
 Minimum Units Missed x .0245 Difference  
 City Occupancy Rate in Occupancy Rate  
 Occupied Units Missed 1,009 Not Vacant  
 City Persons/HH Rate x 2.181  
2,201

Persons in Housing  
 Listed as "Vacant"

Census 1980 Count of People

People Who Resided in  
 Cambridge April 1, 1980

\* In addition, no units that are rooms in group residences not counted as GQ's are added.



CITY OF CAMBRIDGE

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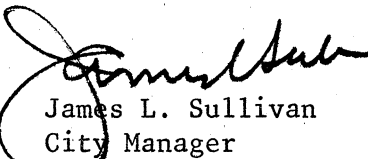
EXECUTIVE DEPARTMENT  
JAMES L. SULLIVAN  
City Manager

November 3, 1980

To the Honorable, the City Council:

I am enclosing herewith a communication and attached material addressed to Mr. Vincent P. Barraba, Director of the Bureau of the Census in Washington, D. C. It cogently places in perspective Cambridge's arguments against the inadequate census conducted by the Bureau. It is for your information.

Very truly yours,



James L. Sullivan  
City Manager

JLS/mbf  
Enc.

Agenda # 13

S-494

Information regarding the census.

In City Council,

November 3, 1980

11/3/80

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