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BUREAU OF THE CENSUS

*Review of the Special Census of the
Village of Machesney Park, Illinois*

Final Inspection Report No. IPE-12045/September 2000

Office of Inspections and Program Evaluations



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EXECUTIVE SUMMARY

Shortly after reviewing the initial results of a June 1998 special census, the mayor of the Village of Machesney Park, Illinois, alleged that various illegal and improper activities had taken place during the special census, resulting in a serious undercount of the village's population. In May 1999, Congressman Donald A. Manzullo, of the 16th District of Illinois, requested that the Office of Inspector General conduct a full review of the mayor's allegations.

We did not find evidence of a significant undercount in the Machesney Park special census. After analyzing all 103 enumeration books and interviewing appropriate special census and other bureau personnel, we concluded that special census employees followed most, but not all, special census procedures, and that the special census enumeration books were generally well documented and complete. Enumerators properly listed 97 percent of the total households and all but two residential streets. However, we did conclude that two of the five allegations were partially supportable. The key problem affecting this special census was that some special census enumerators improperly listed 434 houses as having "one" occupant when the actual number of occupants was unknown. As a result, some households were undercounted. However, we found no evidence that 2,000 people¹ were missed and uncounted during the special census, as claimed by the mayor. We did, however, find that parts of the special census process needed improvement.

We do not believe that a special census recount of some or all households in Machesney Park is warranted or feasible at this point. It has been two years since the special census was completed. More importantly, the bureau has completed its 2000 decennial enumeration of Machesney Park. Given the issues raised in this special census, we recommend that the bureau work closely with village officials to ensure that any coverage issues are addressed prior to releasing the final decennial counts for Machesney Park.

¹The difference between the village's population estimate of 21,867 and the bureau's final population number of 19,831.

Most of the Allegations Were Not Supportable

The allegations and our summary findings are as follows:

OIG Findings on Allegations Pertaining to Machesney Park Special Census

	Allegations	Supportable	Unsupportable
1.	The special census supervisor instructed enumerators to “just put down ‘1’ if you don’t know” who lives in a household.	Partially ²	
2.	Special census workers falsified data.	Partially ³	
3.	Machesney Park’s special census results are inconsistent with adjacent communities’ special census results.		T
4.	A gross undercount in the initial special census was validated by a follow-up study.		T ⁴
5.	Census regional director admitted that the special census was illegally closed out.		T ⁵

To determine whether or not the allegations were supportable, we conducted a detailed review of the special census process. As a result, we found that parts of the special census process need modification or clarification. Specifically, we determined that four key problems had occurred

²While the evidence indicated that some households were improperly recorded, there is conflicting testimony about whether the enumerators were improperly instructed by the special census supervisor to violate special census procedures by listing a household as having only “one person” if they could not determine who lived in the household. Two of the four crew leaders and three of the nine enumerators that we spoke to supported this allegation; however, the special census supervisor denied to us that she had told special census personnel to list unverified housing units this way.

³Falsification of data found was related only to data noted in Allegation 1. Findings did not support other allegations of data falsification.

⁴We found that this allegation was not supportable. However, as part of this allegation, the mayor stated that the census bureau certified the final special census numbers without the village’s review and did not inform the village of the final numbers when they were issued. The bureau did certify the final numbers without the village’s review, but this was in accordance with current bureau procedures. We also verified that the village was notified by the bureau of the final census count.

⁵We obtained conflicting comments from participants in the meeting about whether the regional director admitted that the special census was illegally closed. The mayor also alleged that the special census supervisor was terminated because she illegally closed out the special census. However, we found evidence to support that the supervisor was not terminated.

because some important special census procedures were not always followed. To prevent similar problems from occurring in the future, we provide recommendations to improve the special census process. The four key problems that we found are discussed below.

First, some special census enumerators improperly listed 434 households as “one-person”⁶ households instead of actually verifying the number of people living in those households.⁷ As a result, at least some of these households were undercounted.⁸ There were conflicting accounts about whether the special census supervisor instructed them to violate special census procedures by listing a household as having only “one person” if they could not determine how many people lived in the household. (See page 6.)

Second, the Chicago Regional Office did not know about the 434 “one-person” households listed by enumerators before the special census preliminary numbers were issued. The regional office should have reviewed more detailed information about the preliminary results of the special census to help detect any anomalies, such as the large number of single-person households, before the preliminary counts were released. It should not have allowed the special census supervisor to issue preliminary numbers before quality control measures were performed on those households. (See page 7.)

Third, special census enumerators failed to count two small streets containing seven houses. The special census supervisor and/or crew leaders should have corrected this error during their review of streets enumerated, by comparing streets enumerated to a master list of streets in Machesney Park. Special census personnel did list the other 270 residential streets in the village, including 11 streets that were not marked on village maps or included on the village’s list of streets. (See page 8.)

⁶Some enumerators incorrectly listed households with one person when no information on that household was available. Special census procedures require enumerators to list such households as having zero persons and check the “unknown” box. The supervisor or crew leader then returns to the households to determine the number of occupants. In this report, we use the term “one-person” when discussing these one-person households for which no information was found by enumerators.

⁷Follow-up work conducted by bureau officials corrected the counts for 230 of these households, adding 283 people to the population count.

⁸The average number of persons per occupied household found during the special census was 2.64. The average number of persons per total household was 2.56 persons. We used the 2.64 figure for our calculations because the bureau believes that the average number of persons per household is better represented by occupied households and should not include vacant households.

Fourth, the follow-up team sent by the regional office to review selected households in the village found households not counted by the special census team and double-counted some other households. The team added 104 households and 265 people not found by enumerators to the preliminary housing and population counts, respectively. The follow-up team also double-counted 29 households and 78 people that had originally been counted by special census enumerators. (See page 14.)

As a result of the above problems and other smaller problems, it is possible that some people may have been missed during the special census. However, based on our analysis, it is very unlikely that 2,000 people were missed as stated by the village officials. We estimate that the undercount was closer to 320 persons. We developed our estimate as follows: first, we found five specific corrections to the special census count that resulted in an over count of 18 people. Second, the Machesney Park average number of persons per occupied household is 2.64. If all 204 “one-person” households listed by enumerators were comparable, this second calculation would produce an undercount figure of about 335 people,⁹ which would need to be adjusted by the above over count. **However, we emphasize that our estimate was not an exact count and was developed only so that we could assess the possible magnitude of any undercount. It can not and should not be used to adjust the village’s official count. Only the bureau has the authority to certify counts from special censuses.** (See page 15.)

Management of the Special Census Could Have Been Better

During the special census, we believe that the Chicago regional office could have been more vigilant in overseeing the special census. It should have been aware of the large number of “one-person” households sooner, and it should have provided better guidance and supervision to the village on its advertising campaign. During follow-up work for the special census, regional office management should have attempted to resolve their differences with village officials by recounting all of the unverified “one-person” households.

The director of the Census Bureau’s Chicago Regional Office told us that he thought his office had provided adequate supervision during the special census. He emphasized that regional office supervision of special censuses continues until the final special census numbers are certified by bureau headquarters. Two days after the village received its preliminary special census numbers, the village informed the regional office that it did not agree with the results of the special census.

⁹We multiplied 1.64 by 204 to obtain 335 people. The average persons per occupied household found during the special census was 2.64. With “one person” already listed in the books, the difference of 1.64 persons per household is the number of persons in the “one-person” households who may have been missed during the special census.

After talking with local officials, the regional director sent a follow-up team to the village to re-enumerate selected households. While the follow-up team found that enumerators had listed hundreds of households as having just one person and had not counted some other households, it also found that most of the single-person households counted by the original special census enumerators did, in fact, contain one person. In addition, the follow-team strongly disagreed that 2,000 additional people in the village were not counted, as alleged by the mayor.

The mayor alleged that the special census supervisor and the regional office did not properly oversee the special census. He told us that he strongly believed that the regional office would probably not have performed any follow-up work had his office not challenged the preliminary special census numbers. The mayor further alleged that special census personnel acted improperly and illegally during the special census, undercounting the village by about 2,000 people. He attributed most of the alleged undercount to the bureau's excessive reporting of "one-person" households and its failure to conduct follow-up procedures on those homes to confirm that there was, in fact, only one person in each.

After completing our review, we agree that the bureau's follow-up team should have recounted all of the undocumented "one-person" households at the time it did its initial follow-up review in August and September 1998. When we discussed the preliminary findings of our review with the bureau in November 1999, the preparations for the decennial 2000 count were already well underway. According to the bureau, it could not readily adjust the village's final population to account for the unverified one-person households. To do this, the bureau said it would have to send in another follow-up team to review the 204 "one-person" households that the original follow-up team did not review. However, bureau personnel believed that such a review would be impractical with the 2000 decennial census planning well underway and the decennial count set to begin on April 1, 2000. We agree, given the relatively small size of the estimated undercount and since the decennial count is now completed. (See page 15).

As mentioned previously, we do not believe that a special census recount of some or all households in Machesney Park is warranted or feasible at this point. It has been two years since the special census was completed. More importantly, the bureau has completed its 2000 decennial enumeration of Machesney Park. Given the issues raised in this special census, we recommend that the bureau work closely with village officials to ensure that any coverage issues are addressed prior to releasing the final decennial counts for Machesney Park. (See page 21).

For future special censuses, we recommend that the bureau reinforce and revise, if necessary, some of its existing policies and procedures and develop new policies and procedures to preclude some of the problems that arose during the Machesney Park special census or during our review. We also are recommending that the bureau clarify and emphasize compliance with some of its

policies and procedures during its future training of special census workers.

On page 27, we outline our detailed recommendations to address our findings.



Responding to our draft report, the bureau agreed with all of our recommendations, except the recommendation on advertising during special censuses, and indicated that our recommendations would be adopted as appropriate. The bureau also believed that most of the 230 households corrected by the bureau's follow-up team were actually one-person households. We have provided additional comments on the advertising issue (see page 24) and the bureau's follow-up efforts on the 230 households (see page 9). We have also attached the bureau's complete response to our report beginning on page 32.

INTRODUCTION

At the request of Representative Donald A. Manzullo of the 16th District of Illinois, the Office of Inspector General conducted a review of the Bureau of the Census' conduct of the June 1998 special census of the Village of Machesney Park, Illinois. Special censuses are population and housing counts conducted by the Census Bureau at the request of local communities whose population may have increased since the last decennial census or annexation, thereby entitling them to receive additional federal and state funding. In a May 26, 1999, letter to the Inspector General, the congressman emphasized that the bureau refused to investigate the alleged improprieties when both he and the mayor of Machesney Park asked it to do so. Officials representing the Village of Machesney Park had gone to the congressman to complain that various illegal and improper activities had taken place during the special census, resulting in a serious undercount of the village's population. Our review addressed the allegations raised by the mayor of Machesney Park. We conducted our review from July 6, 1999 to January 4, 2000, including follow-up work after our November 1999 exit conference with the bureau.

Program evaluations are special reviews the OIG undertakes to give agency managers useful information about operations, including current and foreseeable problems. By highlighting problems, the OIG hopes to help managers move quickly to address them and to avoid similar problems in the future. The evaluations are also conducted to detect and prevent fraud, waste, and abuse and to encourage effective, efficient, and economical operations. Program evaluations may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere.

This evaluation was conducted pursuant to the authority of the Inspector General Act of 1978, as amended, and in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. At the conclusion of our review, we discussed our observations and recommendations with the bureau's Lead Assistant Division Chief for Surveys, Field Division; Assistant Associate Director for Field Operations; and Director of the Chicago Regional Office. We also discussed our findings with the mayor of Machesney Park and his staff.

PURPOSE AND SCOPE

The purpose of our evaluation was to examine alleged improprieties by census officials and workers that may have resulted in a serious undercount of the population of the village of Machesney Park. Since all of the alleged improprieties relate to compliance with special census procedures, our methodology was to determine whether the Chicago Regional Office followed standard operating procedures during the special census and whether those procedures were

adequate. If the bureau did in fact comply with its procedures, and those procedures were adequate, we believe there would be no reason to question the count. As part of our review, we (1) examined all available documentation pertaining to the special census including the final enumeration books, maps, e-mails, letters, and newspaper articles; (2) reviewed applicable special census manuals, guidelines, and forms; and (3) interviewed relevant personnel involved with the conduct of the special census, and those involved in meetings covered by the allegations, including some state data center personnel.¹⁰

Our review did not include verifying the accuracy of specific responses or data collected during the special census. We conducted most of our work at bureau headquarters in Suitland, Maryland; the bureau's regional office in Chicago, Illinois; and village headquarters in the Village of Machesney Park, Illinois.

BACKGROUND

Every 10 years, the Bureau of the Census conducts a census of the U.S. population, as required by the U.S. Constitution. The decennial census is used to reapportion seats in the House of Representatives, to allocate federal funds, and to provide essential demographic, social, and economic data about the nation. The bureau also performs special censuses to update housing and population counts of local communities¹¹ between decennial censuses.

When local officials believe that there has been a significant population increase in their community since the last decennial or an increase due to annexation, they may ask the bureau to certify their increases in population and households through a special census. While some states allow private groups and contractors to perform special censuses, the State of Illinois requires that *all* special censuses be performed by the Census Bureau. Therefore, a bureau special census is the only way for local communities in Illinois to change their current funding allocations. The bureau received about \$11.3 million from local governments over the past decade to conduct 437 special censuses. The bureau's Chicago Regional Office supervised the Machesney Park special census, which was conducted by staff hired from the local community.

¹⁰State data centers function as the central repository for economic and demographic information received from multiple state locations, and then respond to information requests, conduct research, and disseminate research findings to meet the needs of each state's public and private users.

¹¹We use local communities to refer to any state, county, city, or other political subdivision within a state; the government of the District of Columbia; or other possessions or areas listed in Title 13.

While special censuses and decennial censuses both rely on advance listings of addresses before enumeration,¹² questionnaires are not mailed out during special censuses. The decennial census relies on the mail-out and mail-back of questionnaires, with enumerators only visiting households that have not returned questionnaires. Special census enumerators visit *all* houses within the community to personally collect demographic information. Figure 1 outlines the 12 major procedures performed during special censuses:

Figure 1: Major Special Census Procedures

- Verify boundaries of special census area
- List all addresses in enumeration books
- Conduct enumeration
- Oversee enumerator assignments
- Match listings to address registers
- Edit address register to enumeration books
- Perform “Were You Counted” campaign
- Perform field checking and field review
- Record additions and deletions in enumeration books
- Record final population and housing counts
- Document zero population enumeration districts
- Announce preliminary numbers

Source: Special Census Supervisor’s Manual, July 1996.

The Village of Machesney Park is located in northern Illinois, about 75 miles northwest of Chicago, and comprises nine square miles in Winnebago County. Figure 2 provides the location of the Village of Machesney Park, Illinois:

¹²While a complete list of addresses is prepared prior to decennial censuses, only a sample of addresses is used for special censuses.

In September 1997, the village requested that the Census Bureau provide a cost estimate for conducting a special census in Machesney Park. Village officials estimated that the population and housing unit counts were 21,867 and 7,722, respectively, based on the number of building permits issued from 1990 through September 1997. Based on these estimates, the bureau stated that it would cost the village about \$86,000 for the special census. Of this amount, \$43,200 would be paid in advance to the bureau for its costs and \$42,887 would be held by the village to pay local enumerators. The contract between the village and bureau was finalized in December 1997, and pre-census activities, including recruiting enumerators and advertising the special census, began in January 1998.

The special census count began on June 9, 1998 and ended on July 6, 1998. On that date, the bureau provided the village with preliminary population and housing unit estimates. Two days later, the mayor questioned the results of the special census in writing to the bureau. Bureau personnel then performed follow-up work in the village during August and September 1998. The mayor asserted that he believed that the bureau would not have performed follow-up work had he not complained. However, the regional director stated that follow-up work was part of the routine procedure for completing a final special census count. The bureau sent its final population and housing counts to the village on November 17, 1998.

Figure 2: Location of Machesney Park, Illinois



The mayor questioned both the preliminary and final special census results for Machesney Park. While the number of households in the preliminary and final special census results was higher than the village's estimate, the preliminary and final results indicated lower population counts than the village estimate by approximately 12 and 9 percent, respectively.¹³ The mayor primarily questioned the "persons per household" found during the special census and the "number of single-person households."

The mayor contacted Congressman Manzullo to seek his help with the bureau.¹⁴ In a May 26, 1999, letter to the Inspector General, Congressman Manzullo stated that he had been unsuccessful in getting the bureau to address the mayor's concerns about the Machesney Park special census and requested that our office conduct a review of the concerns. Figure 3 outlines the allegations that we reviewed.

Figure 3: Mayor's Allegations Pertaining to the Machesney Park Special Census

	Allegations
1.	The special census supervisor instructed enumerators to "just put down '1' if you don't know" who lives in a household.
2.	Special census workers falsified data.
3.	Machesney Park's special census results are inconsistent with adjacent communities' special census results.
4.	A gross undercount in the initial census was validated by a follow-up study.
5.	Census regional director admitted that the special census was illegally closed out.

¹³The village's population estimate was 21,867, as compared to the special census preliminary results of 19,227, and final results of 19,831.

¹⁴The mayor initially asked that the bureau perform some follow-up work to address his concerns or that it return the village's original payment for the special census. According to the bureau's Chicago regional director, he asked the mayor if he wanted the village's payment returned. He told us that he emphasized to the mayor that if the original payment was refunded, the bureau would decertify the village's final counts. The regional director told us that the mayor declined to have the village's payment returned and the final counts decertified.

OIG FINDINGS

I. Although Mistakes Were Made, There Was No Evidence of a Substantial Undercount in the Machesney Park Special Census

We found evidence to conclude that two of the five allegations were partially supportable. However, we found no evidence to support the other three allegations. More importantly, we did not find evidence that there was a significant undercount by census workers, although we determined that the bureau had not followed some important special census procedures, including those for listing households as “last resort”¹⁵ or “unknown.”¹⁶ A summary of our findings on each allegation and additional concerns that we have about the conduct and supervision of the Machesney Park special census follow.

A. Allegation 1: The special census supervisor instructed enumerators to “just put down ‘1’ if you don’t know” who lives in a household

While the evidence indicated that some households were improperly recorded, there is conflicting testimony about whether the enumerators were improperly instructed by the special census supervisor to violate special census procedures by listing a household as having only “one person” if they could not determine who lived in the household. Two of the four crew leaders and three of the nine enumerators that we spoke with supported this allegation; however, the special census supervisor denied to us that she had told special census personnel to list unverified housing units this way.¹⁷ Nonetheless, our review found that enumerators improperly listed 434 households in the enumeration books¹⁸ as “one-person” households without following special

¹⁵When an enumerator is unable to contact someone living at an address, the enumerator is instructed to obtain as much information as possible on the household from a neighbor, apartment or condominium manager, or letter carrier. This is known as “last resort” information on the household’s occupants. Enumerators are required to make at least three visits to the household before obtaining last resort information.

¹⁶If an enumerator cannot obtain any information on an occupied household, special census procedures require enumerators to list these households as having zero persons and check the “unknown” box. The supervisor or crew leader then is supposed to return to the households to determine the number of occupants.

¹⁷The supervisor’s temporary employment with the bureau ended because there was no additional work upon the completion of the special census; she is no longer employed by the department.

¹⁸The special census enumeration books are used by enumerators to compile summary and individual population and housing information for their specific enumeration districts. Each book consists of a cover sheet with totals, an address register, data sheets for each household enumerated, and a final page for remarks. Address registers are pages where family names, addresses, and other information are listed. The bureau retains the

census procedures. Specifically, in the enumeration books, the enumerators marked, “no information available” or “unable to obtain information” for a “one-person” household.

By listing 434 households as having “one person” in instances where the enumerators could not determine who lived in them, some of these households were undercounted. The average number of persons per occupied household found during the special census was 2.64.¹⁹ A follow-up team sent by the regional office corrected the count for 230 of these 434 households by visiting the household to obtain missing information from the homeowner or from a neighbor, including family name or number of additional people in the household and added 283 people to the population count. The regional office did not visit the remaining 204 “one-person” households, leaving them in the enumeration books without supporting information. However, the number of unverified “one-person” households constituted only three percent of the 7,733 total housing units counted. That the percentage of errors was small was confirmed during our review of the enumeration books, which we found were mostly well documented and complete.

According to special census procedures, enumerators should personally interview or obtain from a neighbor or other reliable source the number of people living in a household. If enumerators cannot obtain information on a household, they should check the unknown box, list the household as having zero occupants, and provide a list of those households to their supervisor. The supervisor and crew leaders should then go back to these households to determine the number of household occupants. However, some enumerators improperly checked the last resort box instead of the unknown box, and entered “one person” for these 434 households in Machesney Park. Enumerators should have used the last resort box only if they obtained information about the households’ occupants from a neighbor, apartment manager, or other reliable source. By improperly checking the last resort box, it appeared that the 434 “one-person” households were correctly enumerated as single-person households and that the number of occupants had been verified by a reliable source.

We believe that the Chicago regional office should have increased its oversight of the conduct of the special census to help detect any anomalies, such as the large number of “one-person” households, *before* the special census counts were released. The special census supervisor should not have been allowed to issue preliminary census numbers before quality control

enumeration books, but normally discards most of the remaining documentation after the special census. The bureau does not have a records retention schedule requiring retention of special census documents.

¹⁹The average number of persons per occupied household found during the special census was 2.64. The average number of persons per total household was 2.56 persons. We used the 2.64 figure for our calculations because the bureau believes that the average number of persons per household is better represented by occupied households and should not include vacant households.

measures were performed on these households. However, regional office officials were unaware of the 434 “one-person” households because the regional office does not compile and prepare detailed analyses of special census data, including single-person households, before the preliminary results are released.

Regional office personnel stated that while a special census is being conducted they receive daily information to determine whether the special census counts are running above or below estimates. They also told us that they rely on each special census supervisor to follow established special census procedures and bureau headquarters to perform detailed analyses of preliminary special census data. The Chicago regional office should have had quality control measures in place to detect the large increase in one-person households and, once the problem was apparent, it should have revisited and corrected, or verified the number of persons living in, all of these households.

To improve regional office oversight, we suggested to regional office personnel that they receive more detailed information about the results of a special census, especially in known problem areas, before the preliminary counts are released. More specifically, regional office supervisors of special censuses should review the number of single-person households, the number of single-person households obtained as last resorts, and the number of households listed as unknown, before the special census preliminary counts are released. Chicago regional office personnel agreed with our suggestion.

Despite the incidents of improper reporting of data as noted above, most of the data from the special census of Machesney Park was properly obtained. Based on information from crew leaders and our review of all 103 enumeration books, 97 percent of the total housing units were appropriately enumerated based on information from homeowners or as a last resort. Only three percent of the total housing units were improperly listed as “one-person” households. More importantly, we found that all streets in the village, except two, were listed in the enumeration books. In addition, during the enumeration, enumerators found 11 streets that were not listed by the village in maps provided to the bureau.²⁰ However, because of the 204 “one-person” households not visited by the follow-up team, some persons may have been missed during the special census. (See Allegation 4, page 13, for a discussion of the estimated magnitude of the undercount.)

After analyzing all 103 enumeration books and interviewing appropriate special census personnel, we concluded that (1) enumerators followed most, but not all, special census procedures, (2)

²⁰The 272 streets included those from the village’s six newest subdivisions, which village personnel had alleged that enumerators had not counted during the special census.

enumerators properly listed 97 percent of the total housing units based upon interviews with homeowners or other reliable sources, (3) enumerators listed all residential streets except two, and (4) the special census books were generally well-documented and complete.

Responding to our draft report, the bureau believed that most of the 230 “one-person” households corrected by the bureau’s follow-up team comprised only one-person households. However, after reviewing all 103 enumeration books, we found that this statement is inaccurate. While 34 percent of the 230 “one-person” households actually contained one person, 66 percent of the households contained additional uncounted individuals. The bureau’s follow-up team added 283 people to the population count as a result of the recount of the 230 households.

B. Allegation 2: Special census workers falsified data

As noted in our discussion of Allegation 1, we found that some special census employees had improperly listed 434 households as having “one person” in cases where no information was available for a household. Some of these enumerators stated that they knew that listing households as having “one person,” without verifying the number of occupants, violated special census procedures. However, they told us that they believed that the special census supervisor would visit these “one-person” households.

In addition to the improper listing of household data as discussed in Allegation 1, the mayor alleged that there were other instances of enumerators falsifying data or committing fraud during the special census. During our review, the mayor emphasized that he had heard that up to five enumerators had gone to the beach at Rock Cut State Park, instead of visiting households, and then wrote in false names for these households. He also alleged that several enumerators had improperly used the Machesney Park telephone directory to enumerate households. After interviewing various special census personnel and reviewing special census documentation, we found that these allegations were not supportable.

We found no evidence that up to five enumerators had gone to the beach, instead of performing their duties, and written in false names. One special census clerk alleged that one enumerator spent time at the beach instead of visiting households. The special census supervisor stated that she was not aware of any enumerator falsifying data during the special census. She emphasized that at no time, during or after the special census, did anyone from the village or the bureau provide her with information regarding alleged fraud by any individual. One enumerator acknowledged that he had spent time at the beach during some afternoons because of the heat. However, he told us that he had worked in the evenings to enumerate households, emphasizing

that he completed all of his books and accurately reported his time and hours worked. In our interviews with the enumerator's crew leader, she stated that this enumerator's districts were completely listed and his time sheets were accurate.²¹ We confirmed that this enumerator had completely listed his enumeration districts, used the flexible work schedule appropriately, and did not charge for his break time. Another crew leader and eight enumerators stated that they had not heard of or seen any improprieties, including people going to the beach and not performing their duties during the special census.

We also found no evidence that enumerators had improperly used the telephone directory to enumerate households. Part of the confusion here may have come from some misconceptions. Two clerks alleged that two enumerators had spent a lot of time in the office using the local telephone directory, believing that the two enumerators were getting names out of the directory. The crew leader for these two enumerators stated that the two enumerators used the directory in the office to obtain telephone numbers and call households for appointment times. The crew leader also stated that one enumerator enumerated three households over the telephone as a last resort. However, special census procedures permit enumerators to call for appointments and to enumerate a limited number of households over the telephone as a last resort, if enumerators have been unable to contact these individuals. The crew leader for this individual, and another crew leader, confirmed that they never observed anyone else enumerating households by telephone in the office. We found the books of the two individuals mentioned by the clerks to be well documented and complete.

C. Allegation 3: Machesney Park's special census results are inconsistent with adjacent communities' special census results

At the request of the mayor of Machesney Park, a demographer from the University of Illinois conducted independent research and analyzed the bureau's special census data on Machesney Park compared to surrounding communities. He documented 10 demographic characteristics about the village that he believed refuted the final special census numbers. For example, two of his characteristics stated that (1) the results for Machesney Park should be comparable to the 1997 and 1998 results of other special censuses in the nearby communities of Cherry Valley, Loves Park, and Winnebago Village, and (2) births in the village had increased from 1990 to 1996, as compared to declining births in the State of Illinois, the United States, Loves Park, and Rockford during the same period. The demographer expressed concern that the final special

²¹As a regular quality control measure, special census clerks called people listed in various enumerators' books to determine if the information was correct. This enumerator's books were included in the clerks' review.

census tables²² included four “irregularities” that could not be explained by a bureau demographer.

University Demographer’s 10 demographic characteristics

We found that nine of the 10 characteristics documented by the demographer were not supportable and none refuted the final census numbers.²³ We do note that characteristic four, which includes the demographer’s two estimates of the overall population, is supportable and his estimates were close to the bureau’s final population count. (Appendix A lists the 10 characteristics and our conclusions.)

University demographer’s concerns about four irregularities in the special census tables

The university demographer expressed concern that there were four “irregularities” in the special census data. He stated that (1) the population count from special census Table 4 only added up to 19,027, and not the final count of 19,831, (2) there was a doubling of single-person households from 1990 to 1998, (3) the population per occupied household size of 2.64 as compared to 2.89 in 1990 was too low, and (4) the increase in the median age of almost five years from 1990 to 1998 was extraordinary. The university demographer also stated that a census bureau demographer could not explain the four irregularities to him when he asked him to. We found that none of the four “irregularities” alleged by the demographer could be supported.

With regard to the first two “irregularities,” the demographer used the wrong special census table (Table 4) to determine his 19,027 population figure and doubling of the single-person households for the village. By using Table 3, the demographer would have obtained the final population count of 19,831 and a 56 percent increase in single-person households in the village. Table 4 counts non-family members living in a household as separate households. For example, if a homeowner living alone rented a room in his home to a single person who is not a family member, these two people would be counted as two single-person households in special census

²²There are numerous final special census tables, including Table 3, “Characteristics of Housing Units by Race and Hispanic Origin of Householder,” and Table 4, “Household and Family by Race and Hispanic Origin.”

²³As previously stated, there are still 204 “one-person” households improperly listed in the 103 enumeration books. These 204 households somewhat inflate the 1,546 single-person households and, thereby, affect some of the university demographer’s 10 characteristics. However, even if the 204 “one-person” households were deducted from the final 1,546 single-person households, our conclusions on any of the demographer’s 10 characteristics would not change. The 204 “one-person” households represent only 13 percent of the 1,546 single-person households.

Table 4. Special census Table 3 counted only the homeowner as a single-person household and not the non-family member.

After the bureau learned that the demographer had used the wrong table to make his calculations, it sent a letter to the mayor explaining that Table 3 is the correct table to use. To avoid future misinterpretations, the bureau should revise Table 3 to explain that it reflects the correct number of single-person households, counting only the homeowners and not non-family members who live in the households. The bureau should also explain that special census Table 4 represents both the homeowners and the non-family members.

Regarding the demographer's last two "irregularities," we found that the population per household size and the median age of the village population are comparable to national and county statistics. The data on the village's population per household was consistent with the national decline in population per household. The 2.70 average persons per household estimated by the demographer was very close to the special census count of 2.64 persons per household. In addition, the mayor noted that a recent survey performed by the village found 2.60 persons per household, indicating that the special census' 2.64 persons per occupied household is reasonable. For the median age of the village, the *1998 Statistical Abstract of the United States* shows that the median age has been increasing nationally from 30.0 in 1980, to 32.8 in 1990, to 34.9 in 1997. Machesney Park's increase in median age from 30.9 to 35.4 in 1998 is consistent with this national trend.

We also found that the bureau demographer did not make any statements to the university demographer about the quality of the Machesney Park data. The bureau demographer stated that he discussed the four issues with the university demographer, but that they only discussed the issues in general terms and did not reach any mutual conclusions. The bureau demographer said he believed that he told the university demographer that he was pleased that the special census housing count for the village was almost identical to the bureau demographer's estimated count.²⁴ The university demographer confirmed that the bureau demographer never stated that the special census data was wrong.

In support of his allegation, the mayor stated that the special census count was in error because it indicated that the number of single-occupant households doubled from 1990 to 1998. However, we found that the allegation was not supportable for two reasons. First, as previously stated, the special census count was only a 56 percent increase and not a doubling of single-person

²⁴The bureau demographer compiled a housing count of 7,732 by adding the 6,723 housing units in 1990 to the 1,009 housing starts for eight years from the university demographer's analysis. The bureau demographer's housing count of 7,732 was nearly identical to the 7,733 housing units counted by the bureau.

households since 1990.²⁵ More importantly, by checking the enumeration books, we found that 87 percent of the single-person households were properly reported by the enumerators. The remaining 13 percent are the 204 “one-person” households improperly listed by enumerators and not verified by the follow-up team. While the 204 households were not properly enumerated, these households represent less than three percent of the 7,733 total housing units in the final special census count.

Second, the percentage of single-person households for the village appears reasonable and is lower than the 1990 county and 1997 national averages.²⁶ We analyzed (1) the number of single-person households as a percentage of the total population and (2) the number of single-person households as a percentage of the total households. We found that the number of single-person households as a percentage of the total population was 9.5 percent for the United States, 9.4 percent for Winnebago County, and 7.8 percent for Machesney Park. For the number of single-person households as a percentage of total households, the United States was 25.1 percent, Winnebago County was 24.5 percent, and Machesney Park was 20.6 percent.

D. Allegation 4: A gross undercount in the initial special census was validated by a follow-up study

We did not find any evidence to suggest that there was a significant undercount, as alleged by the mayor. The mayor alleged that since the special census staff from Chicago found hundreds of additional people when they reviewed 25 percent of the enumeration districts in Machesney Park, this undercount could be extrapolated across the village’s entire population. The mayor believed that extrapolating the increase in population across the entire village would produce his estimated undercount of 2,000. While the bureau’s follow-up team did add hundreds of people to the preliminary special census count, this was the result of several targeted follow-up actions and not a recount of a percentage of the enumeration districts. Thus, we found that the two main parts of this allegation were not supportable. The follow-up team did not re-enumerate 25 percent of the occupied housing units²⁷ and did not find 25 percent of the mayor’s expected increase in population in those districts.

²⁵In 1990, the village had 992 single-occupant households. The difference between the 1,546 single-occupant households found during the special census and 992 is 554, which is a 56 percent increase since 1990.

²⁶The 1997 national statistics were obtained from the bureau’s *1998 Statistical Abstract of the United States*. The 1990 county statistics are from the 1990 Census for Winnebago County.

²⁷The Village of Machesney Park comprised 56 enumeration districts during the special census. Enumerators were assigned to review the 39 occupied enumeration districts.

As part of this allegation, the mayor stated that (1) the Chicago regional director declined to perform mutually agreed upon follow-up activities and (2) bureau headquarters certified the final special census numbers without the village's review and did not inform the village of the final numbers when they were issued. We also found these two statements were not supportable.

Determining if a significant undercount occurred

The follow-up team initially reviewed and verified only the "one-person" households with no household names²⁸ for five enumeration districts. The team's supervisor then decided to review and verify all single-person households, with and without household names, for another five enumeration districts. The team specifically reviewed enumeration districts with large numbers of single-person households, which were not representative of the other enumeration districts. Therefore, while the team performed some follow-up work in 10 of the 39 occupied enumeration districts, the review was not a full recount of all people and households in 25 percent of the districts, and thus could not be extrapolated to the entire population.

The follow-up team added 604 people to the preliminary special census results. However, the 604 people were not representative of the entire population, and, therefore, cannot be extrapolated across the remaining 75 percent of the village's enumeration districts, for an additional 1,812 people.²⁹ The 604 people came from four different reviews: (1) the Were You Counted³⁰ campaign conducted by village personnel, (2) the Were You Missed³¹ campaign conducted by village personnel, (3) new households added to the preliminary count by the follow-up team,³² and (4) people added to existing households by the follow-up team.

²⁸See footnote 6.

²⁹If the 604 people were added as a result of a full recount of 25 percent of the districts, then 3 times 604 equals 1,812, which would be added for the remaining 75 percent of the village's enumeration districts.

³⁰The Were You Counted campaign was conducted by the village. The bureau sometimes suggests at the end of a special census that a local community request family information from citizens who believe that they were not enumerated during the special census. The local community followed bureau procedures for this campaign.

³¹The Were You Missed campaign is performed by the village on an ad hoc basis, and is similar to the Were You Counted campaign. The Were You Missed campaign obtained information from citizens who believed that they had not been enumerated during the special census. However, it was conducted after the Were You Counted campaign, because the village continued to believe that some people were missed.

³²Excluding people added as a result of the Were You Counted and Were You Missed campaigns, the follow-up team found an additional 104 households and 265 people.

The people added from the Were You Counted and Were You Missed campaigns cannot be extrapolated to other enumeration districts. These people came from *all* of the populated enumeration districts and represented *all* the people counted during those campaigns. In addition, the people added from new households came from the entire village, and this figure also cannot be extrapolated to other enumeration districts. As discussed on the previous page, the follow-up team's review was a targeted review and not a representative sample of the population. Most of the new households found by the follow-up team were found in just three of the 56 enumeration districts, which is not a representative sample of enumeration districts.

To address the mayor's allegation about a significant undercount, we attempted to estimate the magnitude of any such undercount. We found evidence of both an undercount and an over count of people. First, we found five corrections to the special census count that resulted in an over count of 18 people: (1) seven houses not counted with 18 people,³³ (2) 12 households and 32 people not counted during the village's Were You Counted campaign, (3) one household and seven people not counted during the Were You Missed campaign, (4) three people not counted because of clerical and mathematical errors in the enumeration books, and (5) 29 households and 78 people double counted by the bureau's follow-up team (thereby reducing the count). Second, we multiplied the Machesney Park average persons per occupied household figure of 2.64 by the 204 "one-person" households listed by enumerators. This second correction produced a potential undercount of about 335 people.³⁴ This combined with the above over count of 18 people gives a total possible estimated undercount of about 320 (1.6 percent of the final count) and not the 2,000 (10 percent) as estimated by extrapolating the results of the follow-up study. However, we emphasize that our estimate is not an exact count and was developed only so that we could assess the possible magnitude of any undercount. It can not and should not be used to adjust the village's official count. Only the bureau has the authority to certify counts from special censuses.

If the bureau's follow-up team had recounted all of the undocumented "one-person" households at the time it did its initial follow-up review in August and September 1998, this issue would be moot. When we discussed the preliminary findings of our review with the bureau in November 1999, the preparations for the 2000 decennial count were already well underway. According to the bureau, it could not readily adjust the village's final population to account for the unverified

³³We multiplied 2.64 by seven houses to obtain 18 people.

³⁴We multiplied 1.64 by 204 houses to obtain 335 people. The average persons per occupied household found during the special census was 2.64. With "one person" already listed in the books, the difference of 1.64 persons per household is the number of persons in the "one-person" households who may have been missed during the special census.

“one-person” households. To do this, the bureau said that it would have to send in another follow-up team to review the 204 “one-person” households that the original follow-up team did not review. However, bureau personnel believed that such a review would be impractical with 2000 decennial census planning taking place and the decennial count set to begin on April 1, 2000. We agree, given the relatively small size of the estimated undercount and since the decennial count is complete.

Determining if mutually agreed upon follow-up activities were performed

Bureau and village personnel discussed possible follow-up activities that could be performed on the preliminary special census numbers for the village before and after the preliminary numbers were certified by bureau headquarters in November 1998. Two days after the village received the preliminary special census numbers, village officials informed the regional office that some new housing developments in the village had not been counted, and that the number of single-person households found during the special census was inaccurate because of irregularities or wrongdoing by special census personnel. Bureau personnel stated that they asked for, but village personnel did not provide, the names of any special census personnel that they believed did not follow special census procedures or enumeration districts that had been miscounted. However, after conversations with village officials, the regional director sent a follow-up team to the village to re-enumerate selected households.

After the preliminary numbers for the village were certified by the bureau in November 1998, bureau and village personnel met to discuss additional quality control checks to be performed on the certified enumeration results. According to the mayor, during the December 1998 meeting, the regional director offered to recanvass 10 percent of the enumeration districts while the mayor wanted the regional director to recanvass 30 percent of the enumeration districts. However, the bureau and the village never mutually agreed on what additional follow-up work should be performed after the original enumeration and subsequent follow-up work.

Bureau personnel told us that the follow-up team was sent to the village to review selected enumeration districts based on the initial complaint by village personnel of an inordinate number of single-person households. However, bureau personnel emphasized that the bureau could not perform follow-up work where village households and people allegedly may have been undercounted, because village personnel did not provide the specific information and documentation on the areas that they believed were not properly enumerated. Such information, including specific enumeration districts, housing developments, and/or streets, had been requested by the bureau’s Chicago regional director. Bureau personnel stated that the mayor would not provide them with the names of special census personnel accused of alleged wrongdoing, because the mayor did not want to incriminate village personnel who worked as

enumerators during the special census.

We also asked for specific information and documentation on the areas that village personnel believed were not properly enumerated. The mayor did give us a tour of the village's new developments and the names of two special census workers who had made allegations regarding other special census workers. During the tour of the new developments, the mayor stated that he believed that these developments were not counted or fully counted by enumerators during the special census. We told the mayor that we needed any additional information regarding alleged irregularities or missed housing developments for our review. While he agreed, we subsequently did not receive any additional information from the mayor or his staff. We did later verify that the streets and occupied households in the new developments had been listed by either the enumerators or the census follow-up team.

While the follow-up team found that enumerators had listed hundreds of households as having just one inhabitant and not counted some households, team members found that most of the single-person households counted by the original special census enumerators did, in fact, contain one person. More importantly, the follow-team strongly disagreed that 2,000 additional people in the village were not counted, as alleged by the mayor.

Determining if the final special census numbers were certified without the village's review

Although the Census Bureau certified the final special census numbers without the village's review, this is the bureau's current standard operating procedure for all special censuses. The first set of preliminary numbers was compiled by special census personnel and reviewed by the village. Machesney Park officials told the bureau that they were dissatisfied with the preliminary results and the bureau agreed to do some reenumeration and follow-up work. However, the bureau certified the preliminary numbers compiled by the follow-up team *without* review by village personnel. The bureau had no obligation under its contract, nor was it a bureau policy, to allow the village to review the second set of preliminary numbers. We are recommending some change in that policy, however. If the bureau performs follow-up work, we believe that the bureau should institute a policy that allows local communities to review revised counts before they are certified by the bureau.

The mayor also stated that the village was not informed of the final special census counts when they were issued on November 17, 1998. The mayor stated that the village found out about the final special census counts from the Secretary of the State of Illinois on December 2, 1998, and not from the bureau. We determined that this statement was not supportable because the village's Director of Planning and Zoning acknowledged to us that he received a letter with the final counts from the bureau's Associate Director for Field Operations on November 17, 1998.

E. Allegation 5: Census regional director admitted that the special census was illegally closed out

We were unable to corroborate this allegation. In December 1998, village and bureau personnel met to discuss the village's concerns about the special census. Village personnel alleged that the regional director made various statements during the meeting, including acknowledging that the special census was illegally closed and that, as a result, he terminated the special census supervisor. We could not find evidence to support this allegation. We found that (1) the special census supervisor was given approval from the regional office to hold the close-out meeting and close the special census office on July 6, 1998, and (2) the special census supervisor was not terminated for cause. The special census supervisor was a term employee who performed temporary work including special censuses and other surveys for the bureau. With no additional work to perform on the Machesney Park special census, her temporary employment with the bureau ended upon the completion of the special census.

We reviewed records and interviewed all five individuals who attended the meeting in an attempt to verify the mayor's allegation, but we could not corroborate the allegation. The five attendees had widely differing recollections as to what was discussed during the meeting. Both the mayor and the village's director of community development stated that the regional director used the term "illegal closing," although neither asked the regional director what he meant by that term. In contrast, the demographer used by the village could not confirm that the regional director used that term. The regional director told us that he stated during the meeting that if the special census supervisor was instructing personnel to put down "one" for households not visited, "that would be illegal."

The regional director emphasized that the special census supervisor did not "illegally close" the special census because all of the normal close-out procedures for a special census were performed before the special census was closed. Specifically, normal close-out procedures include a final review of the special census numbers by regional office staff, final approval of the numbers by the regional director, and an official on-site close-out meeting between the special census supervisor and local community personnel. The regional director and other regional office personnel confirmed that they reviewed the village's preliminary special census numbers and allowed the special census supervisor to have the official close-out meeting with village personnel. Given the conflicting statements we received from the attendees, we could not verify that the alleged admission was made.³⁵

³⁵We asked all participants if they had handwritten notes from the meeting and a definition of what was meant by "illegal closing." None of the five participants could provide handwritten notes or a definition for illegal closing.

The mayor also alleged that the Chicago regional director disparaged the community of Machesney Park at a regional census meeting. A participant in a December 1998 meeting of state data center and census bureau personnel in Chicago alleged that the Chicago regional director made disparaging comments about the village's estimated population and housing counts³⁶ and about the mayor for pressuring bureau personnel for a specific population count. This person stated that the regional director told the meeting participants that the village's estimated counts were wrong and that the mayor had asked him what efforts would be needed to get a population count of over 20,000 people. While we talked to a number of participants at the December meeting, no other bureau or state data center individuals could corroborate this allegation.

³⁶Local communities prepare estimated population and housing counts before a special census.

II. Improvements Are Needed in the Special Census Process

During our review of the allegations involving the Machesney Park special census, we verified that special census personnel adequately performed a majority of the major special census procedures. (See page 3 for a listing of 12 of the major procedures.) However, it was difficult to determine whether some procedures were followed because the bureau eliminated most of the documentation after the special census. There is no records retention schedule for special censuses which requires that the records be kept. We used the 103 enumeration books to confirm what procedures had been performed. We found that the enumeration books were mostly well documented and complete. Specifically, we found that most of the (1) documentation for last resorts on the address register and remarks page was properly completed, (2) detailed population data from the enumeration pages was correctly summarized on data sheets in the address register, (3) totals on the address registers matched the totals on the cover sheets, and (4) issues on the remarks pages appeared to be completed.

We also found that other parts of the special census may need to be improved. Specifically, we found that (1) advertising for the special census was not documented or effective, (2) there is no special census guidance for follow-up activities, and (3) the process for local community review of special census numbers is not well defined. We made recommendations to address these issues, as appropriate.

A. Some current special census policies and procedures need to be revised and others need to be developed

We found that some changes were needed in a few special census policies and procedures. Some were not well documented or not always followed, indicating that they may need revision. There also is a need for a records retention schedule for special censuses. The bureau lacked documentation on the following four procedures: (1) address matching, (2) field checks and field review, (3) tracking the enumeration books, and (4) zero population and housing enumeration districts. A records retention schedule would mandate that certain documentation be saved for a specified time period.

Address matching is a procedure that involves comparing addresses listed before and during the special census to look for discrepancies. Special census personnel use Form SC-21, *Listing and Matching Record*, to identify discrepancies, such as addresses not enumerated, and additional follow-up work and/or editing that will be required. Crew leaders list a sample of addresses before the enumeration on Form SC-21 as a quality control measure. The supervisor then matches the address listings against those completed by enumerators to identify any missed housing units. In addition, after a crew leader reviews an enumeration book, he or she may

identify additional work that could be completed to improve the quality of the enumeration. This additional work, called field checking and review, may be needed to deal with listing and matching discrepancies, outstanding households to be revisited, and a high vacancy rate. Supervisors use Form SC-16, *Enumeration District Control*, to determine whether field checking or field reviews are required. The information from both Forms SC-21 and SC-16 are then recorded on Form SC-22, *Office Processing Control*, to track outstanding work on enumeration districts.

Bureau officials stated that these three forms are not retained after the special census numbers are certified. Consequently, we could not independently verify that these three procedures were performed. While the special census supervisor's notes stated that field checks were performed, her notes did not specify which enumeration districts were field-checked. Also, we have only anecdotal evidence that the matching procedure was completed. The bureau should institute a document retention schedule for special censuses, requiring that Forms SC-21, SC-16, and SC-22 be retained at least until the deadline for a community to review the special census results has passed.

As noted previously, we also found that some enumerators did not properly follow last resort or unknown procedures, when the enumerators were unable to contact someone living at an address. We found four problems pertaining to documentation of last resorts. Enumerators incorrectly labeled a few vacant households as last resort, incorrectly checked several data sheets as last resort, did not label a few data sheets as last resort, and did not document all last resort information on some household data sheets. The lack of proper documentation of last resort data, and inappropriate use of both last resorts and unknowns, indicate that the existing procedures may not be practical, or that the procedures may have been misunderstood by special census personnel during training.

We do not believe that a special census recount of some or all households in Machesney Park is warranted or feasible at this point. It has been two years since the special census was completed. More importantly, the bureau has completed its 2000 decennial enumeration of Machesney Park. Given the issues raised in this special census, we recommend that the bureau work closely with village officials to ensure that any coverage issues are addressed prior to releasing the final decennial counts for Machesney Park. To minimize the clerical and mathematical errors and the double counting of people in future special censuses, we suggest that the bureau should reinforce during special census training and supervision, and revise if necessary, its (1) quality control procedures and guidance for listing last resort and unknown households and (2) special census procedures for editing and tabulating the enumeration books.

The bureau also lacked documentation for enumeration districts without population, called "zero-

population” enumeration districts. The special census supervisor’s manual states that the supervisor must list the zero-population enumeration districts on a transmittal form to the bureau’s data processing center in Jeffersonville, Indiana. However, special census personnel did not include any information on zero-population enumeration districts on the transmittal form. In addition, special census personnel are not required to list the streets in enumeration districts. Therefore, we could not readily determine what streets were included in each zero-population enumeration district. We had to personally inspect many streets to determine whether they were populated or not.

Without names for streets in zero-population enumeration districts, enumerators assigned to conduct interviews may waste time and money by driving to zero-population enumeration districts. To maintain a better documentation trail and avoid potential enumerator confusion and waste of time, the bureau should amend the special census procedures to require that a list be created of all street names in the zero-population enumeration districts. In addition, the bureau should require that the list of streets in zero-population enumeration districts be included in the document retention schedule.

B. Advertising for the special census could have been more effective

In accordance with census procedures, Machesney Park was responsible for the advertising before and during the special census. While the village informed some residents about the special census, the content and quantity of the village’s advertising campaign appears to have been inadequate. Enumeration books contained 729 last resort households, representing 10 percent of occupied households. We believe that a 10 percent rate³⁷ for last resorts is a significant portion of occupied households and may demonstrate that the public did not adequately understand the importance of the special census or that household members were reluctant to provide information. In addition, village and bureau personnel did not maintain proper documentation of the village’s advertising campaign. We believe that the village should have contributed more to advertising the special census, and the regional office should have better monitored the village’s advertising to ensure that it was adequate.

The public’s response to the special census enumeration was probably affected by the village’s incomplete advertising effort. Village personnel stated that they tried to follow bureau guidelines for the advertising campaign. However, the village appears to have only minimally advertised the special census. Village personnel stated that they arranged one cable television broadcast, issued flyers, and one newspaper article was run in the local daily paper and local weekly paper before the special census took place. Village personnel also told us that they did not advertise the

³⁷Bureau personnel stated that last resorts are normally no more than five percent of all households.

special census on the radio as suggested by bureau guidance. By being uninformed, some people may not have understood the special census' importance and, thus, did not cooperate, forcing enumerators to obtain last resort information or have no information for these households. Crew leaders and enumerators stated that some residents did not answer doors or respond to the call-back cards. One crew leader told us that she believed that additional advertising would have increased the number of people answering their doors to enumerators.

The village's advertising campaign could have been more effective if the village had placed more advertisements in newspapers, sent out more flyers, and arranged for more television and radio messages, both before and during the special census to improve awareness of the special census throughout the operation. The village could have emphasized that a high citizen response rate to the special census is very important to the local community, because much federal revenue is allocated on a per capita basis, based upon the bureau's certified count. The more people counted by the bureau during a special census, the more revenue potentially available to the local community for improvements, such as roads and public services.

The effectiveness of the village's advertising campaign was also affected by the bureau's inadequate advertising guidance to the village. The guidance consists of a basic recruiting "kit" with sample newspaper articles, flyers, and community letters, and the planning letter sent by the regional director to the local community prior to the start of the special census. The letter emphasizes the importance of advertising to the local community and the types of advertising to use. However, the recruiting kit and the letter do not address such things as the timing and frequency of advertising activities, and how the bureau will monitor these activities. For example, the bureau's advertising guidance to the local community does not specify that the regional and on-site census supervisors should be involved in and can help support advertising activities during the special census.

The bureau's advertising guidance also includes a special census supervisor's manual. While the manual states that the regional office should provide guidance to local communities, it does not specify what this guidance should entail. The manual also does not require the on-site supervisor to review advertising efforts as they are taking place or to provide examples of circumstances when additional advertising would be required. Lastly, the manual requires the on-site supervisor to obtain copies of the advertisements at the end of the special census when it is too late to make any changes.

The bureau should have provided more advertising direction before and during the special census, such as reviewing the content, timing, and the type of advertising being used. The assistant regional census manager in Chicago stated that the regional supervisor should provide advertising advice to the local community until the on-site special census supervisor arrives. The

on-site supervisor also should provide any direction that the local community needs. The assistant regional census manager also stated that before and during the special census, the regional and on-site supervisors are both responsible for appropriate advertising by the local community. However, while the bureau may have provided some valuable advertising assistance to Machesney Park officials, we found no documentation outlining the bureau's participation in advertising or support for the regional census manager's statements regarding the regional and on-site managers' roles.

We are recommending several improvements in the bureau's oversight of the advertising campaign for special censuses. The bureau should develop improved guidance for local communities and clarify the responsibilities of regional and local bureau officials to help ensure that each local community performs the recommended advertising activities during the special census. In addition, the bureau should:

- Amend the supervisor's manual to require that each supervisor obtain copies of the advertisements used during the special census, and provide feedback to the community about the advertising campaign in time to make improvements when they are necessary.
- Improve advertising guidance to local government officials to include: (1) instructions on the content, targets, media, timing, and amount of advertising that each local community should provide, (2) a statement that the bureau's regional office and the on-site supervisor are required to provide advertising assistance, such as suggestions for additional advertising, and (3) specific documentation that each local community must provide on its advertising campaign to the bureau.
- Ensure that the name of the bureau supervisor(s) who will be responsible for oversight of the advertising activities, and the time periods for providing this advertising assistance, are provided to both the local census supervisor as well as the local community.
- Require its document retention schedule to include copies of all advertisements.

While the bureau responded that advertising for special censuses is "always encouraged and extremely useful," it indicated that publicizing the special census was the responsibility of the local community. However, we continue to believe that the bureau should improve its guidance so that the local officials better understand their role and responsibilities. As part of this guidance, the bureau should clarify the local responsibilities to help ensure that each local community performs the recommended advertising activities during the special census. As a result, we reaffirm our recommendation.

C. *Procedures are needed for special census follow-up work*

The bureau has no procedures for special census follow-up activities. Specifically, there are no procedures to (1) help determine what follow-up should be done, (2) require documentation of the follow-up activities, or (3) require issuance of a second preliminary letter to the local community. On July 6, 1998, the bureau provided the village with preliminary population and housing unit estimates. Two days later, the mayor questioned the results of the special census in writing to the bureau.

After talking with local officials, the regional director sent a follow-up team to the village to re-enumerate selected households. However, the bureau's follow-up team provided no documentation to verify the procedures they performed or specific work they completed in Machesney Park. As a result, we could not determine what information had been changed, such as the number of people previously counted in a household; or verify the work of the second team. Without adequate documentation, the work of the follow-up team cannot be readily verified and validated. The bureau needs to establish standard operating procedures for conducting and documenting follow-up activities, if they are performed. This should include some consultation with the local officials, especially if they have questions regarding a preliminary count.

As mentioned previously, the bureau also has no procedures or requirement for sending a second preliminary letter to a local community if follow-up work is performed. The mayor of Machesney Park was unhappy that the bureau did not send the village a second preliminary letter before the final counts were certified. By not sending a second preliminary count letter, if there is follow-up work, the bureau cannot obtain feedback from the local community and consequently risks damaging its relationship with the local community and rejection of the revised special census. The bureau should provide a local community with a second preliminary count letter for its review if follow-up work is performed, and require that the community provide any comments regarding the second preliminary count to the bureau within a specific time period.

D. *Guidance is needed on local communities' review of preliminary special census counts*

While the standard contract for special censuses between local communities and the bureau provides for alternative dispute resolution to settle disputes arising under the terms of the contract, the contract does not allow communities to challenge the final special census numbers. The contract states, "in the event a dispute arises under or related to the terms of this Agreement and before any legal action is taken, the Parties mutually agree to select a forum for alternate resolution of the dispute." The contract also states that "The contractor shall accept as final the

official population count and other statistical results when provided by the Government.” Despite this clause in the contract, the bureau allows each local community to review its preliminary population and housing counts. However, the letter received by local communities with their preliminary special census counts does not provide specific steps to follow if local communities have questions regarding their special census numbers.

Without a defined process, local communities do not know where and how to ask questions regarding their preliminary counts. Hence, questions, concerns, and potential disputes may go unresolved. We believe that the bureau should define its preliminary review process by issuing guidance on whom to contact at the bureau to ask questions regarding special census results, what actions each party is required to perform, and the deadline for each of these actions.

RECOMMENDATIONS

Since we believe that a recount of the Machesney Park special census is not warranted or feasible at this time, we recommend that the Director of the Bureau of the Census take the following actions:

For Machesney Park:

1. During the 2000 decennial census of Machesney Park, work closely with village personnel to ensure that any coverage issues are addressed prior to releasing the final counts for Machesney Park (see page 21).

For future special censuses:

2. Reinforce and revise, as appropriate, special census procedures for single-person, last resort, and unknown households:
 - a. Require regional office personnel to review details of preliminary special census results, especially in known problem areas, to determine the need for any remedial actions before the preliminary counts are released, including a review of the number of single-person households, the number of single-person households obtained as last resorts, and the number of households, if any, listed as unknown (see page 8).
 - b. Revise Table 3 to explain that it reflects the correct number of single-person households counting only the homeowners, and not non-family members who live in the households. In addition, explain that special census Table 4 represents both the homeowners and non-family members (see page 12).
 - c. Reinforce during special census training and supervision, and revise if necessary, the (1) quality control procedures and guidance for listing last resort and unknown households and (2) procedures for editing and tabulating the enumeration books to minimize clerical and mathematical errors and the double counting of people (see page 21).
3. Develop a document retention schedule and revise zero-population enumeration district procedures for special censuses:
 - a. Include the requirement that the Enumeration District Control (Form SC-16),

- Listing and Matching Record (Form SC-21), and Office Processing Control (Form SC-22) forms be retained at least until the deadline for a community to review the special census results has passed (see page 21).
- b. Amend the special census procedures to require that a list be created of all street names in the zero-population enumeration districts, and require that this list of streets be included in the document retention schedule (see page 22).
4. Develop improved advertising campaign guidance for local communities, and clarify the responsibilities of regional and local bureau officials, to help ensure that each local community performs the recommended advertising activities during the special census (see page 24).
 5. Revise special census procedures for follow-up activities:
 - a. Institute a policy that allows local communities to review revised counts before they are certified by the bureau, through a second preliminary count letter, if the bureau performs follow-up work (see page 17).
 - b. Establish standard operating procedures for conducting and documenting follow-up activities for special censuses, if they are performed, including some consultation with the local officials, especially if they have questions regarding a preliminary count (see page 25).
 - c. Require the local community to provide any comments regarding the second preliminary count to the bureau within a specific time period (see page 25).
 6. Issue guidance for the preliminary review process for special censuses, which covers how local communities can contact the bureau if they have questions regarding special census results, what actions each party is required to perform, and the deadline for each of these actions (see page 26).

APPENDIX A: OIG Analysis of the University Demographer’s 10 Characteristics


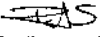
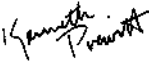
	Characteristic	Conclusion	Rationale
(1)	Births in Machesney Park from 1990 to 1996 have increased, as compared to declining births in the State of Illinois, the United States, Loves Park, and Rockford for the same period.	Not supportable	Age group data from the special census was comparable to, and actually exceeded, the births in Machesney Park from 1990 to 1997 (i.e., the actual persons counted in the age group 1-7 years old exceeded the number of births recorded in that time period).
(2)	The special census count of 207 for the under one-year-old category is low, as compared to the 236 documented births in Machesney Park in 1996.	Not supportable	The 207 and 236 are not comparable. Children born in 1996 would not be in the under one-year-old category as of special census day, June 9, 1998. Children would be no younger than 1½ years old, and no older than 2½ years old, if they were born in 1996. Births occurring in 1996 should be compared to the one- and two-year-old categories and not the under one-year-old category. The special census counts in the one- and two-year-old categories were similar to the 1996 birth data.
(3)	Elementary school enrollment has increased, indicating that growth is taking place in Machesney Park.	Not supportable	Increase in school enrollment cannot be attributed solely to Machesney Park, because all three elementary schools in the village are open to children from other communities.
(4)	The population of Machesney Park is estimated at 20,270 and 20,264.	Supportable	The university demographer’s estimate was close to the final population count of 19,831, and thus supports the final census number. He estimated the population of Machesney Park at 20,270 and 20,264, based upon two different methodologies related to the growth in net dwelling units for Winnebago County. The bureau’s final population count was 19,831. The difference between 20,264 and 19,831 is 433 people, or only two percent.

	Characteristic	Conclusion	Rationale
(5)	There is no explanation as to why the number of one-person households doubled since 1990, since housing growth in the village during this time period has been primarily in single family homes, with little growth in housing units for seniors or singles. (The university demographer implied that single family homes are typically occupied by more than one person, while seniors and singles tend to live alone.)	Not supportable	This characteristic is not supportable for two reasons. First, the number of single-person households in Machesney Park increased by 56 percent and not 100 percent since 1990. ³⁸ Second, the percentage of single-person households in Machesney Park was comparable to the percentage of single-person households in neighboring areas, 1998 national statistics, and 1990 census statistics for Winnebago County.
(6)	The age profile of Machesney Park does not support the “doubling” of people living alone, as reported by the special census.	Not supportable	This allegation also is not supportable. As discussed above, the number of single-person households did not double in Machesney Park from 1990 to 1998. During this period, the number of single-person households in Machesney Park actually increased by 56 percent and not 100 percent. The university demographer used the wrong special census table to calculate the increase in single-person households. In addition, age data from the special census was comparable with (1) age data from the U.S. population, (2) 1990 age data in Machesney Park, and (3) data on births provided by the community.
(7)	Machesney Park is very strong in “traditional family” age groups (i.e., married couples with children).	Not supportable	The university demographer had only limited observations and no analysis documenting this assertion.

³⁸To derive the number of single persons in Machesney Park in 1998, the bureau added two numbers from special census Table 3. The number of single persons in owner occupied housing units of 1,203, was added to renter occupied housing units of 343, for a total of 1,546 single persons. We compared this total to the 992 single persons in 1990, for an increase of 56 percent. However, the university demographer used Table 4 to estimate that the number of single person households “doubled” from 1990 to 1998. Special census Table 4 indicates that there were 1,862 single person households in 1998, for an increase of 88 percent from 1990. (See page 11 for explanation of Tables 3 and 4 and the difference between them.)

	Characteristic	Conclusion	Rationale
(8)	Births in Machesney Park in 1996 were at a recent low of 236, and data for 1997, now available, shows 258 births.	Not supportable	Special census age data is consistent with the number of births in Machesney Park from 1990 through 1997. The number of children who were born in 1990 through 1998 would either be 0 to 7 or 1 to 8 years old, as of special census day, June 9, 1998. The special census results for each of these age groups was higher than the documented births in Machesney Park from 1990 to 1997, including 236 in 1996 and 258 births in 1997.
(9)	The strongest residential growth has occurred during the past four years. From 1995 to 1998, 693 new housing units were added, compared with only 447 units in the prior five years.	Not supportable	Machesney Park has had strong residential growth in the last four years. We saw new housing developments and homes under construction during our visit to the village. The university demographer claimed that 693 new housing units were added from 1995 to 1998, based on housing permits. However, some of his 693 units were not occupied as of special census day (June 9, 1998). The bureau only counts occupied homes during a special census. After examining the village's final building inspections and certificates of occupancy, we found that 7 percent of the homes started in 1997 were not occupied on June 9, 1998, and 67 percent of the homes started in 1998 were not occupied on June 9, 1998. The number of households found during the special census was more than the village's estimated number of houses, indicating that the bureau may not have missed many households. We believe that the 2000 decennial will reflect the addition of homes in the village after June 9, 1998.
(10)	The results for Machesney Park (up 4.2 percent) should be comparable to the results of other special censuses in local communities in 1997 and 1998, such as Cherry Valley (up 32.6 percent), Loves Park (up 21.7 percent), and Winnebago Village (up 32.2 percent).	Not supportable	Growth in Machesney Park is comparable to growth in Winnebago County where Machesney Park is located. Winnebago County grew only 5.8 percent between 1990 and July 1, 1998, based upon a bureau population estimate issued on March 12, 1999.

APPENDIX B: Bureau Response to Draft Report

	
UNITED STATES DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. Census Bureau Washington, DC 20233-0001 OFFICE OF THE DIRECTOR	
SEP 7 2000	
MEMORANDUM FOR	Jill Gross Assistant Inspector General for Inspections and Program Evaluations
Through:	Robert J. Shapiro  Under Secretary for Economic Affairs
From:	Kenneth Prewitt  Director
Subject:	Draft Inspection Report: Bureau of the Census— <i>Review of the Special Census of the Village of Machesney Park, Illinois</i> (IPE- 12045)
<p>This is in response to your memorandum addressing the above referenced draft inspection report. We agree that there was no "substantial" undercount in the Machesney Park Special Census and that the allegation of having missed 2,000 residents was not supported by the evidence. In addition, we agree that a recount of some or all of the households is not warranted or feasible at this point. In fact, the 434 one-person households in question (230 were redone and most were found to be correct) represent only 5.6 percent of the total counted and are part of a reasonable final total of one-person households as established in the report.</p> <p>We agree that there is no evidence to substantiate the mayor's claim that 2,000 people were missed and uncounted during the special census, and the report should clearly emphasize the following:</p> <ol style="list-style-type: none">(1) Ninety-seven percent of the total households and all but two residential streets were listed properly. (Although the city planner reviewed the maps in advance, we discovered and added 11 new streets in the field.)(2) The 103 enumeration books were generally well documented and complete.(3) Employees followed special census procedures with some exceptions.(4) Of the mayor's five allegations, only two were PARTIALLY supportable and those were based on conflicting testimony.(5) Only ONE of the University Demographer's TEN analytic assertions was supportable (this was the total population estimate within 2 percent of the final count).	
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- (6) In response to local concerns, the regional office sent a follow-up team to review selected one-person households, but they did more than that because they added new households.
- (7) In the absence of specific, detailed procedures to review one-person households at the field level, items (1)-(6) above indicate that local oversight was reasonable and responsive to local concerns.

To put the matter in the proper context, we had successfully administered 437 special censuses from 1992 through 1998, which was an increase of 72 over the period 1982-1989. This increased demand is a direct result of customer satisfaction. Of the 437, this is the only instance where this level of review was performed. Overwhelmingly, our customers have been satisfied with our results and how we interacted with them throughout the process with the current procedures. We believe that our record, put in context, is excellent and should be noted.

With respect to the undercount of about 320 people, we recognize that it "was not an exact count and was developed only so that we could assess the possible magnitude of any undercount." This estimate was based primarily on multiplying 1.64 by the 204 single person households that were not reviewed by the follow-up team and other minor modifications after the initial counts were presented. If this were the case, these 204 households would have been removed from the 1,546 one-person households, making both the percentage of one-person households to the total and the percent of the total population represented by them to be much less than the comparison in the report that compares these to the national and Winnebago County results. The chart below illustrates the changes in parentheses.

Jurisdiction	% of One Person Households	% of Population Represented
US Total 1998	25.1	9.5
Winnebago County 1990	24.5	9.4
Machesney Park 1998	20.6 (17.9)	7.8 (6.6)

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The following should be clarified on page 3 in the draft report:

Whereas, the decennial census prepares a complete list of addresses in advance as the basis for enumeration, the advance listing for special censuses is a sample of residential units, used for quality control.

While the exact truth is never known in any census, it does appear worthwhile to put the "undercount" estimate into perspective considering that the ORIGINAL count was deemed "reasonable" in the report.

With respect to the recommendations, for Census 2000 we have worked with Machesney Park, like those from all other places, to ensure a complete count. While we agree that publicity is always encouraged and is extremely useful, it is up to the resources and desires of the local community to make it happen, regardless of our guidelines. All other recommendations are reasonable and will be adopted as appropriate.

Thank you for the opportunity to respond.

cc: US/EA