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Office of Inspector General



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BUREAU OF THE CENSUS

*Dress Rehearsal Activities at Menominee
Indian Reservation and Chicago Regional
Census Center Show That Improvements
Are Needed for Census 2000*

Inspection Report No. IPE-10753 / September 1998

Office of Inspections and Program Evaluations





UNITED STATES DEPARTMENT OF COMMERCE
The Inspector General
Washington, D.C. 20230

September 30, 1998

MEMORANDUM FOR: James F. Holmes
Acting Director
Bureau of the Census

FROM: Johnnie E. Frazier
Acting Inspector General

SUBJECT: Final Report: *Dress Rehearsal Activities at Menominee Indian Reservation and Chicago Regional Census Center Show That Improvements Are Needed for Census 2000 (IPE-10753)*

As a follow-up to our August 28, 1998, draft report, this is our final report on our inspection of the Bureau of the Census' dress rehearsal site in Menominee County, Wisconsin, and the Chicago Regional Census Center. The report includes comments from your September 30, 1998, written response. We commend the bureau on its responsiveness in taking quick action to address most of our concerns. Many of the issues we raised have already been resolved. In other cases, implementing actions are planned. A copy of your response is included in its entirety as an appendix to the report.

We found that the bureau's procedures for the dress rehearsal were largely being implemented as designed, and the Menominee and Chicago Regional Census Center staff appear to be dedicated, resourceful, and effectively managed. However, we found that key areas—including the dress rehearsal maps, payroll/personnel system, advertising campaign, and certain administrative operations—need correction or improvement before conducting the full Year 2000 Census. Based on our interviews, fieldwork, and analysis, this report conveys our observations about the bureau's implementation of the dress rehearsal at Menominee and Chicago, and makes recommendations to improve the bureau's ability to learn from the dress rehearsal experience.

Please provide us with an action plan, within 60 days, addressing the inspection recommendations, including when your intended actions will be completed in accordance with the procedures described in DAO 213-5. We appreciate the cooperation and courtesies extended by your staff during our inspection.

Attachment

cc: Robert J. Shapiro, Under Secretary for Economic Affairs

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EXECUTIVE SUMMARY

The U.S. Constitution requires that a population count be conducted every 10 years for the purpose of apportioning the seats in the House of Representatives among the states. The Bureau of the Census' decennial census, which is the nation's largest statistical data-gathering program, provides data for apportionment and other federal activities, as well as information for businesses, researchers, educators, and private citizens. While the decennial census count is important and useful, it is also a target of much debate, especially concerning its cost and accuracy. The 1990 decennial was the most expensive in history, at about \$2.6 billion to count about 249 million people, and the overall net undercount of the population increased to 1.8 percent.¹ The bureau, in developing and testing its plans for conducting the census in year 2000, clearly is focused on minimizing costs and reducing the undercount.

Prior to each decennial census, the bureau traditionally performs a dress rehearsal of planned operations, systems, procedures, and workflow. Although the bureau tested some planned 2000 decennial operations in 1995 and 1996, the 1998 dress rehearsal is designed to be the bureau's major test of all previously tested and some untested operations. The bureau began its 1998 dress rehearsal in December 1997, and it will continue through December 1998 at Sacramento, California; Columbia, South Carolina; and the Menominee Indian Reservation in Keshena, Wisconsin. To determine whether dress rehearsal operations were efficient and effective, and met scheduled deadlines, the Office of Inspector General is reviewing dress rehearsal operations at all three sites.²

The bureau chose the Menominee Indian Reservation, in part, because the large percentage of tribal members living on the reservation was conducive to testing new and revised techniques specifically aimed at reducing, for 2000, the significant undercount of American Indians that occurred in 1990. We conducted our inspection at the census field office in Keshena on the Menominee Indian Reservation to determine whether personnel followed dress rehearsal policies and procedures. We also visited the bureau's regional census center in Chicago to review managerial and administrative oversight and support of the Keshena office operations.

¹*Modernizing the U.S. Census*, National Research Council, 1995.

²The dress rehearsal's key activities include address listing, update/leave, non-response follow-up, and integrated coverage measurement. Address listing creates mailing lists in rural areas by identifying and listing the mailing addresses for all places where people live or could live. Update/leave is where enumerators personally deliver a census questionnaire to a household to be completed and returned by mail, and at the same time update the address list. Non-response follow-up is where enumerators visit addresses from which no questionnaire was returned by mail, from which a telephone response was not received, or for which no administrative records could be located. Integrated coverage measurement is a coverage measurement process for estimating the number of people and housing units missed or counted more than once. This report covers our review of Menominee dress rehearsal activities through the first two weeks of Integrated Coverage Measurement activities.

While we observed many favorable conditions, we also found some operational and administrative problems that have the potential, if not corrected, of reducing the efficiency and effectiveness of Census 2000. Our specific findings are as follows:

- **Dress rehearsal operation is working as intended, but office operation is not representative of Census 2000 operations.** Activities in Keshena and Chicago are meeting the objectives of the dress rehearsal to simultaneously test all procedures, work flows, equipment, applications, programs, and systems planned for Census 2000. We found that dress rehearsal operations are generally working as the bureau intended because staff at both the Keshena and regional center are learning from the experience and making efforts to correct problems as they occur. Where dress rehearsal procedures have broken down or been inadequate to achieve the desired ends, staff in the two offices appear to have handled the problems and informed the appropriate bureau headquarters officials. In addition, the Keshena and Chicago office staff appear dedicated, conscientious, and resourceful in their implementation and assessment of dress rehearsal procedures. We believe that the strong leadership of the Chicago regional director, and the Keshena and regional center managers, has greatly contributed to employee desire for a successful dress rehearsal. The Chicago regional director is especially proud of the partnership established between the Chicago regional center and the Menominee tribal government.

However, it is important to note that the Menominee dress rehearsal is not entirely representative of Census 2000 operations because (1) the Menominee and regional center office operation and lines of authority are different from the planned Census 2000 organizational structure and (2) Menominee is probably receiving much more management oversight and support now than a local office will receive in Census 2000. For Census 2000, the bureau will have 12 temporary regional centers augmenting the 12 regional offices, and about 475 local offices will be established throughout the country to manage the activities of many census tracts. However, the “field office” in Menominee is not fully representative of a “local office” because for the Menominee dress rehearsal, the Chicago regional center is carrying out many of the “local office” operations such as processing payroll and personnel forms. More importantly, for Census 2000 a typical local office will not have a regional center’s focused attention, like the Keshena office now receives from the Chicago regional center. Because the Menominee dress rehearsal is not an exact demonstration of combined operations for Census 2000, extrapolations from the Menominee dress rehearsal to Census 2000 procedures and organization must be made with care and a clear awareness of their differences (see page 6).

- **Problems with enumerator maps need to be corrected.** During dress rehearsal operations, Keshena staff experienced serious problems with the maps provided to them, including (1) inconsistencies between the maps and their associated address list printouts, and (2) maps that were not drawn to a useful scale. Although the inconsistencies between the address lists and maps were resolved during the dress rehearsal, their underlying cause may need further bureau attention before 2000. In addition, while some maps had numerous housing units that were plotted on top of one another, they were redrawn to an appropriate and useful scale.

However, it is not clear that the corrective fix implemented during the dress rehearsal would be feasible to implement in 2000 (see page 7).

- **Payroll/personnel system for Census 2000 needs to be evaluated.** The Pre-Appointment Management System/Automated Decennial Administrative Management System was designed to support payroll and personnel processing and provide information required by the bureau's management and operational personnel. For Census 2000, the system will process about 4 million personnel actions and about 30 million time and expense forms, provide reports and data outputs, and maintain historical data. The bureau's payroll/personnel system displayed numerous incorrect fields from scanned payroll and personnel forms, forcing clerks to manually correct too much data and, in many cases, scan the same batch of forms more than once (see page 11).
- **Major problems noted in the advertising campaign.** For Census 2000, the bureau initiated a national advertising campaign to raise public awareness and motivate citizens to return questionnaires. The bureau's prime advertising contractor hired an American Indian-owned advertising firm to target advertising for the American Indian and Native Alaskan communities. Television and radio spots and some print advertisements tested in the Menominee dress rehearsal were generally well received by Keshena staff, the Complete Count Committee, and the post-dress-rehearsal focus groups of Menominee citizens.³ However, some advertising products, particularly paid print advertising, had content problems and were poorly placed. In addition, there was no prior consultation and coordination with the local Complete Count Committee and the tribal chairman. If the consultation had occurred, it may have minimized problems of poster content and ad placement (see page 14).
- **Computer specialist positions were difficult to fill.** The Chicago regional center had difficulty hiring computer specialists because salaries for key positions were not competitive. The bureau's 12 regional centers need 60 computer specialists for various computer activities during the dress rehearsal. Although the Chicago regional center has filled its 5 positions, only 39 of 60 have been filled nationwide. In addition, bureau headquarters lacks a timely report of staffing levels at the regional centers and for management positions at the local offices (see page 20).
- **Delivery of office materials needs to be improved.** While at the Keshena office, we found a number of problems pertaining to supplies and promotional materials. First, training manuals and initial supplies for new operations were being delivered just as the operation was to begin, leaving little time for advance preparations and setup. Second, some equipment, furniture, and supplies were being delivered without advance notification, wasting the time of the personnel trying to accommodate the deliveries. Third, some quantities of supplies for Keshena had not been properly estimated causing an over and under supply. Finally, we noted Chicago regional center supplies sent by vendors were not always being correctly routed to

³Complete Count Committees enlist local community, religious, and business members for support of census activities.

the proper person, and some regional center supplies were being sent to another office by mistake. If these problems are not corrected, they could adversely disrupt Census 2000 operations (see page 23).

- **Partnership effort needs to be sustained throughout the dress rehearsal activities.** Census 2000 will incorporate active partnerships with state and local governments, community organizations, businesses, religious congregations, and the media to increase participation and reduce the undercount. We found that the partnership effort has made significant contributions to Menominee dress rehearsal operations to date. However, Menominee's Complete Count Committee has no planned activities to support the dress rehearsal's non-response follow-up and integrated coverage measurement operations (see page 27).
- **Integrated Coverage Measurement procedures and reporting need improvement.** ICM operations are intended to act as an independent quality check on information being gathered by the regular census enumerators. ICM creates a separate list of housing units in particular areas for comparison with the census list. Differences between the two lists are resolved by conducting interviews at ICM housing units and comparing information with that obtained by census enumerators on the same household. This information will be used to estimate the number of people and housing units missed or counted more than once in Census 2000. In order for ICM to be successful as a quality check on information gathered during the actual census, the two operations must be kept separate. However, in the Menominee field office, we found that an ICM lister violated Census procedures by inappropriately showing a resident being interviewed an ICM map, and an ICM enumerator history report incorrectly excluded an employee's dress rehearsal work experience. Accurate report information is necessary because ICM personnel with dress rehearsal experience must not be assigned to work in the same geographical assignment areas they worked during dress rehearsal. Although these incidents, in isolation, are minor, they indicate that the bureau should develop and implement strict guidance for Census 2000 to ensure that the two operations are completely separate (see page 30).
- **Other census dress rehearsal programs offered lessons learned.** Several additional problems with other census operations need resolution, including inefficient update/leave procedures and training that was sometimes repetitive. In addition, the bureau's selection criteria for Targeted Non-Sheltered Outdoor Locations enumeration was not adhered to, the role and purpose of the Be Counted program was not widely understood by Keshena office staff, and volunteers at the questionnaire assistance centers noted that few people asked for assistance (see page 33).

- **Improvements are needed in some key administrative operations.** Some key administrative operations should be improved by adhering to the procedures for employee time sheets, creating a regional center on-line scheduling tool, documenting the poor performance of employees, ensuring that employees are not hired prior to background check approval, preparing a backup plan for regional center office automation operations, and complying with supplemental payment criteria (see page 39).

On page 45 we offer detailed recommendations to address our concerns.



In responding to our draft report, the Bureau of the Census agreed with all of our recommendations except one, and the bureau has taken action, or will take action, to address those recommendations. The bureau did not concur with our recommendation to develop a training plan that is flexible enough to avoid repetition in its orientation training. We address this issue in the body of the report. The bureau provided comments on each recommendation and we have taken these comments into consideration and have made changes as appropriate. A copy of the bureau's response is included in its entirety as an appendix to this report.

INTRODUCTION

Pursuant to the authority of the Inspector General Act of 1978, as amended, the Office of Inspector General conducted an inspection of the Bureau of the Census' 1998 dress rehearsal sites in Keshena, Wisconsin, and Chicago, Illinois, to assess dress rehearsal operations, procedures, and programs. Because 1998 dress rehearsal activities are a prelude to Census 2000, the bureau's ability to assess and fine-tune operations as a result of the dress rehearsal is important.

Inspections are special reviews that the OIG undertakes to provide agency managers with timely information about operations, including current and foreseeable problems. Inspections are also done to detect and prevent fraud, waste, and abuse and to encourage effective, efficient, and economical operations. By highlighting problems, the OIG intends to help managers move quickly to address those identified during the inspection and avoid their recurrence. Inspections may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere.

We conducted our inspection from March through July 1998, with on-site visits from March 25-26, April 20-24, June 22-23, and July 6-8, in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. At the conclusion of the inspection, we discussed our observations and recommendations with the bureau's Deputy Director and Chief Operating Officer, the Principal Associate Director for Programs, the Associate Director for Administration, the Associate Director for Field Operations, and the Associate Director for Decennial Census. At the regional center, we discussed our observations and recommendations with the Chicago Regional Director, the Assistant Regional Census Manager for Operations, the Assistant Regional Census Manager for Administration, and the Area Manager for the Menominee dress rehearsal site.

PURPOSE AND SCOPE

The purpose of our inspection was to assess the bureau's dress rehearsal operations to determine whether operations are being carried out in an effective, efficient, economical, and timely manner. The scope of our inspection included (1) observing Keshena field personnel during shelter/service-based enumeration, group quarters enumeration, and Targeted Non-Sheltered Outdoor Locations enumeration; (2) determining whether the Keshena field personnel and Chicago Regional Census Center personnel followed dress rehearsal policies and procedures; (3) identifying and observing communications between Keshena field personnel, the Chicago regional center, and the bureau's headquarters; (4) interviewing and assessing the concerns of the Menominee Complete Count Committee members; (5) observing the Chicago regional center administrative and automation systems; (6) reviewing Census 1998 dress rehearsal and Census 2000 programs including training, recruiting, partnerships, and advertising; and (7) identifying procedures, operations, and programs to improve the cost and quality of the dress rehearsal and Census 2000.

In addition, the Office of Inspector General will issue separate reports on our review of dress rehearsal activities in Columbia, South Carolina, and Sacramento, California.

BACKGROUND

The mission of the bureau is to be the preeminent collector and provider of timely, relevant, and quality data about the people and economy of the United States. To obtain this information, the bureau conducts surveys to collect and analyze social, economic, and geographic data. The bureau continually conducts surveys to produce a general view and comprehensive study of the nation's social and economic conditions.

In addition, the U.S. Constitution requires that a population count be conducted every 10 years for the purpose of apportioning the seats in the House of Representatives among the states. The Bureau of the Census' decennial census, which is the nation's largest statistical data-gathering program, provides data for apportionment and other federal activities, as well as information for businesses, researchers, educators, and private citizens. While the decennial census count is important and useful, it is also a target of much debate, especially about its cost and accuracy. The 1990 decennial was the most expensive in history, at about \$2.6 billion to count about 249 million people, and the overall net undercount of the population increased to 1.8 percent.⁴ Undercounts have serious implications for legislative redistricting and funding allocation. The bureau, in developing and testing its plans for conducting the census in year 2000, clearly is focused on minimizing costs and reducing the undercount.

Prior to each decennial census, the bureau traditionally performs a dress rehearsal of planned operations, systems, procedures, and workflow under as near census-like conditions as possible.⁵ Some of the key dress rehearsal activities include address listing, update/leave, non-response follow-up and integrated coverage measurement. Figure 1 outlines key activities for the Menominee dress rehearsal site. Although the bureau tested some planned Census 2000 operations in 1995 and 1996, the 1998 dress rehearsal is designed to be the bureau's major test of all previously tested and some untested operations.

The bureau selected three sites for the dress rehearsal: the city of Sacramento, California; 11 counties in an area near and including the city of Columbia, South Carolina; and the Menominee American Indian Reservation in Keshena, Wisconsin. The bureau's strategy was to combine a large urban site, a small city-suburban-rural site, and an American Indian Reservation site to provide a comprehensive testing environment for refining and testing planned Census 2000 methodologies to determine whether the procedures, systems, techniques, and workflow will simultaneously work effectively. The rehearsal is also supposed to show what does not work and what needs improvement.

⁴*Modernizing the U.S. Census*, National Research Council, 1995.

⁵*Census 2000 Operational Plan*, July 1997.

Figure 1

MENOMINEE DRESS REHEARSAL KEY ACTIVITIES	
Governments conduct local update of census addresses review	August 31 - September 17, 1997
Open local census offices	November 3 - 14, 1997
Deliver initial questionnaires (update/leave)	March 14 - April 10, 1998
Mail reminder cards	April 7 - 11, 1998
“Be Counted” campaign	April 16 - May 1, 1998
Census Day	April 18, 1998
Contact housing units not responding by mail	May 14 - June 26, 1998
Quality check interviews	May 1 - August 21, 1998
Close local census offices	July 15 - August 12, 1998
Produce census results	December 26, 1998
Produce P.L. 94-171 products	March 31, 1999

Specifically, the bureau’s dress rehearsal and corresponding evaluation program have been designed to (1) operationally demonstrate field and office methods, procedures, and systems in a simulated decennial environment; (2) evaluate the coverage of persons and housing units and the completeness and quality of the data collected; (3) test components on a non-sampling census; and (4) validate the plans for Census 2000, including the use of sampling techniques. As part of a compromise between the Administration and Congress over the bureau’s fiscal year 1998 appropriation, the Sacramento and Keshena sites will use sampling and statistical estimation during the dress rehearsal and to improve the accuracy of the population count, while the Columbia site will attempt a 100 percent population count without the use of sampling to improve the accuracy of the count.⁶

For the three dress rehearsal sites, the bureau established two local census offices in Sacramento and Columbia, and one census field office in Keshena to perform field operations; three regional centers to provide each dress rehearsal site with managerial, technical, and administrative oversight;⁷ and one data capture center, located in Jeffersonville, Indiana, to receive and process dress rehearsal

⁶Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 1998, P.L.105-119, Nov. 26, 1997.

⁷The bureau will operate 12 regional centers for Census 2000.

questionnaires and provide other administrative support (see Appendix for glossary of terms). The regional center overseeing operations at the Menominee Indian Reservation is in Chicago, Illinois.

Menominee Indian Reservation

The Menominee Indian Reservation is located in northeastern Wisconsin, comprising about 235,000 acres of mostly heavily forested land. The Menominee Reservation and Menominee County share almost identical exterior boundaries. The bureau's official 1996 estimates for Menominee County showed a resident population of 4,609 persons and 1,899 housing units.

The bureau selected the Menominee Indian Reservation as a dress rehearsal site based on the recommendation of the Census Advisory Committee on the American Indian and Alaska Native Populations. The committee noted that the reservation's large percentage of tribal members living on the reservation would be conducive to rehearsing new and revised operations specifically aimed at reducing the large undercount of American Indians experienced during the 1990 census. During that census, the most significant undercount of any population group took place on American Indian reservations. While the total national net undercount in 1990 was estimated at 1.8 percent, the undercount for American Indians living on reservations exceeded 12 percent. In addition to the committee's recommendation, the Menominee tribal government had offered to help the bureau reduce the undercount among the Menominee and other American Indian populations across the nation, making the Menominee reservation a good place to do the dress rehearsal.

During the dress rehearsal, the Menominee Tribal Government and the members of the Complete Count Committee - appointed by the Menominee Tribal Chairman - have provided valuable assistance. Both groups have publicized the dress rehearsal, educated the community about the census, and encouraged the community to participate in the census. We discuss the partnership between the tribal government, the Complete Count Committee, and bureau staff in Section VII (see page 27). The Menominee Tribal Chairman believes that this work has been vital to the success of the dress rehearsal.⁸

Menominee Census Field Office

The field office in Keshena opened in February 1997, prior to dress rehearsal operations, and houses five office staff⁹ in about 500 square feet of office space. The bureau's plan was for the small field office to be replaced by a larger "local office," such as the ones planned for the decennial census, when local staffing needs increased. However, the bureau lacked funding for a larger office and also believed that it was not necessary because of the small geographic area covered by the Menominee dress rehearsal site. For Census 2000, each local office will have its own administrative support staff. For the dress rehearsal, administrative support for the Menominee field office was provided by the regional center located about 400 miles away.

⁸Memorandum from the Menominee Tribal Chairman to the Chicago Regional Director, August 7, 1998.

⁹The Keshena office staff included a field operations supervisor, a recruiting assistant, a partnership assistant, and two crew leaders.

Chicago Regional Census Center

The Chicago regional center opened in February 1998, with about 18,000 square feet for personnel, computers, printers, and map plotters. The regional center has provided the Keshena office with managerial oversight and administrative support. During our inspection, 120 employees were working in the regional center, with about 60 employees preparing maps in two shifts in the geography area. Most of the 120 regional center employees support the different Census 2000 activities including geographic map production, administration, automation, recruiting, partnerships, and advertising. Eight regional center personnel devote 100 percent of their time to dress rehearsal activities.

OBSERVATIONS AND CONCLUSIONS

I. Dress Rehearsal Operation Is Working As Intended, but Office Operation Is Not Representative of Census 2000 Operations

We found that activities in Keshena and Chicago are meeting the objectives of the dress rehearsal to simultaneously test all procedures and systems planned for Census 2000. Specifically, the Keshena and Chicago offices are learning from the experience and making efforts to correct problems. Where procedures have broken down or been inadequate to achieve the desired ends, we found that the two offices appear to have handled the problems and informed the appropriate bureau headquarters officials. For example, problems that the Keshena and regional center staff experienced with maps and advertising were openly discussed and, in fact, the Keshena staff have kept both the regional center managers and bureau headquarters personnel informed about most dress rehearsal issues and problems in Menominee County.

In addition, we observed that the Keshena and Chicago staff appear dedicated, conscientious, and resourceful in their implementation and assessment of dress rehearsal procedures. We believe that the strong leadership of the Chicago regional office director and the Keshena and regional center managers has greatly contributed to employee desire for a successful dress rehearsal. The regional center managers have established professional and well-functioning operations in Keshena and Chicago using their extensive prior decennial census experience. The Chicago regional director is especially proud of the partnership established between the Chicago regional center and the Menominee tribal government. As a result, the Menominee Complete Count Committee was actively engaged during the dress rehearsal efforts. Communication and problem solving are also being emphasized by regional center managers. The regional director holds daily morning meetings with his assistant managers to inform regional center staff of relevant events, promote teamwork, and exchange information on dress rehearsal activities. Finally, Keshena and regional center staff have effectively carried out their responsibilities despite the numerous challenges that have arisen and the high volume of visitors overseeing dress rehearsal operations and Census 2000 preparations.

However, it is important to note that the Menominee dress rehearsal is not entirely representative of Census 2000 operations because Menominee is probably receiving much more management oversight and support now than a local office will receive in Census 2000. The Menominee and regional center office structure and lines of authority are different from the planned Census 2000 organizational structure. For the Menominee dress rehearsal, the Chicago regional center is carrying out most of the administrative activities, such as payroll processing, that will be carried out by local offices during Census 2000.

More importantly, for Census 2000 a typical local office will not have a regional center's focused attention, like the Keshena office now receives from the Chicago regional center. Since the Menominee dress rehearsal is not an exact demonstration of combined operations for Census 2000, extrapolations from the Menominee dress rehearsal to Census 2000 procedures must be made with care and a clear awareness of their differences. We have attempted to do so in this report.

II. Problems With Enumerator Maps Need to Be Corrected

During dress rehearsal operations, Keshena staff experienced serious problems with the maps the bureau provided them, including (1) inconsistencies between the numbering and locations of map spots¹⁰ and their associated address list printouts, and (2) maps that were not drawn to a useful scale. Although the inconsistencies that occurred between the address lists and maps were resolved by local and regional personnel during dress rehearsal, their underlying cause needs further attention by the bureau before 2000. In addition, while the map scale problem also was overcome, it is not clear that such a corrective fix would be feasible to implement in 2000.

Dress rehearsal maps did not match address list registers

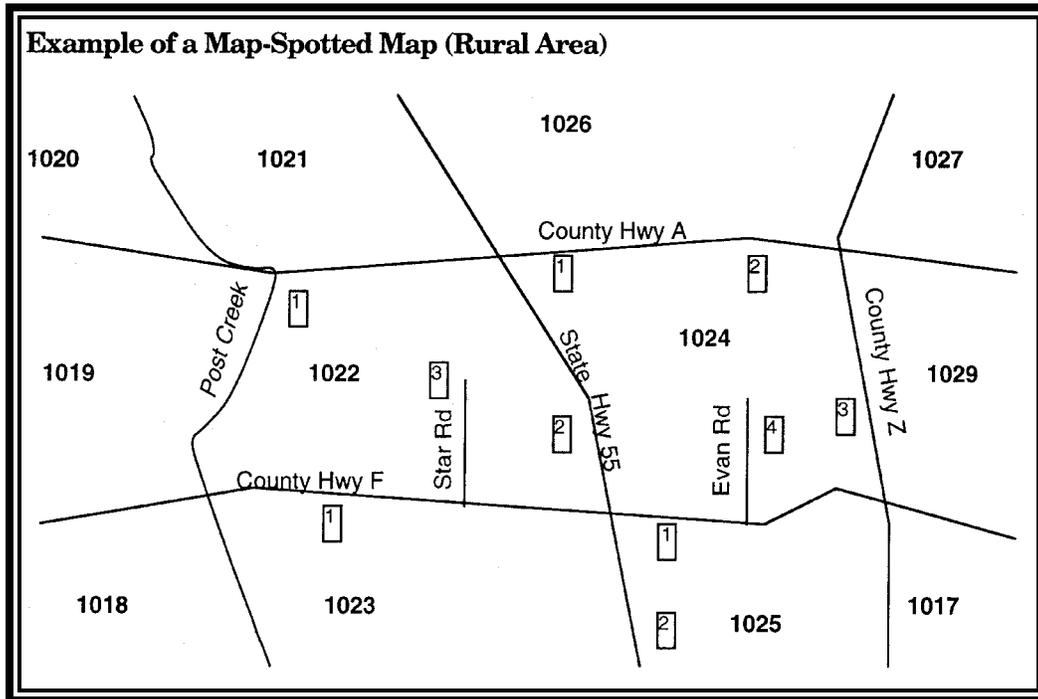
On every dress rehearsal map, each housing unit has its own map spot, plotted as a rectangle. Figure 2 illustrates a fictitious census block and corresponding map spots. Plotted map spots provide bureau employees with a common geographical reference so that (1) housing units can be found, (2) multiple visits can be coordinated, and (3) new construction or other housing unit location errors can be recorded accurately and systematically. These purposes require the maps to be legible and inclusive of sufficient land marks (locations of roads, rivers, etc.) for orientation. During dress rehearsal, address listers recorded housing unit map spots for actual housing unit locations in rural areas such as Menominee.¹¹ Depending on the circumstance and operation, the lister verified the location visually or through discussions with occupants or neighbors of the housing unit. Verification of locations took place in Menominee during several operations, including address listing and update/leave, where listers personally delivered questionnaires to households and update the address list. Where the listers found a housing unit that was not on the map, they added it to the map.

Map spots were also reviewed by a representative of the tribal government during the local review process. In August 1997, the regional center provided a set of preliminary update/leave maps to the local Menominee government liaison. The tribal government liaison relocated over 300 housing units on the Menominee maps, most involving moves from one geographic block to another. These housing unit changes were recorded at the regional center and forwarded to the bureau's data processing site in Jeffersonville, Indiana, for the processing of map revisions. However, due to funding shortages during the continuing resolution in October and November 1997, Jeffersonville was unable to hire and pay data entry staff, so the data entry changes were forwarded to bureau headquarters where they were entered. Headquarters sent new update/leave map data to the Chicago regional center, where the maps were printed and then forwarded to the Keshena office.

¹⁰Map spots designate the location of a given housing unit on a map.

¹¹This activity was performed for all "non-city-style" addresses in the country. Menominee County contains entirely non-city-style addresses.

Figure 2



Source: Local Update of Census Addresses Technical Guide, Bureau of the Census, April 1997.

Once update/leave began, the Keshena census staff began noticing that not all of the addresses on the update/leave address register were appearing on their update/leave maps. It appeared that most of the liaison's changes had been reflected in the maps but not on the address register. When this pattern of map spots not matching the address register was detected, the area manager,¹² regional center geographers, and bureau headquarters staff began trying to detect the source of the problem, quickly developing a procedural modification that allowed the update/leave operation to proceed. The modification involved having questionnaires delivered as listed on the address register. Where the map spot did not match the register, the map spot was manually revised. In this way, the address register served as the master list of housing units to which questionnaires had been delivered.

Even with the bureau's procedural fix for the address register problem, other census operations may face additional challenges as a result of the maps not matching the registers. For example, the accurate tabulation of housing units may be difficult if the geographic assignments suggested by the local liaison and approved by the bureau have subsequently been overwritten by the procedural fix during update/leave. Indeed, staff in Menominee reported to us that they observed households still listed on non-response follow-up address registers that they themselves had marked for block reassignment or, in some cases, deletion during earlier operations.

¹²Area managers hold temporary positions at each regional center for managing the dress rehearsal and Census 2000. During Census 2000, area managers will supervise a number of field offices and local offices comprising enumeration of up to 3,000,000 housing units.

We believe that the bureau should ensure that the proper map spot assignments, including housing unit/map spot numbers, have been accurately recorded in the bureau's address list databases to support the (1) consistent matching of housing unit records during various operations, and (2) correct tabulation of data according to the local government's geographic reassignments of housing units. The bureau should also determine the actual sources of the discrepancy between the update/leave maps and their address register and ensure that similar discrepancies do not occur in 2000.

Dress rehearsal maps were not drawn to useful scale

Some geographical "blocks" are larger than others, resulting in block maps being plotted at very different relative scales. We observed block maps with scales ranging from 1:1,024 to 1:19,198 for blocks ranging from 200 to about 5,000 meters (or 218 to about 5,450 yards) wide. On maps provided for very large blocks, the map scale was too small. Some adjacent housing units appeared to be plotted on top of each other. As such, some maps were not useful for locating individual housing units. One large block had 26 housing units plotted within an area less than one square inch, and housing unit numbers were indiscernible.

The maps identified as unusable were flagged by the Keshena staff, reported to the area manager, and the update/leave workload was redistributed to areas where the map scale was not a problem. The regional center and staff at bureau headquarters quickly worked to resolve the problem, and within days, had printed and sent two replacement sets of maps for the larger blocks to the Keshena office. The first set had a scale similar to the original block map, but contained new boundaries partitioning the block into smaller and numbered indexed areas. The second set included a separate map, at much larger scale, for each indexed area of the block. For some blocks, there were up to eight indexed maps in the second set, enabling the user of the map set, in effect, to "zoom in" on the area of the block where they needed more detail.

In 2 of the 32 non-response follow-up assignment areas, the indexed maps were also required, but were not provided until local staff requested them. This contributed to a delay in completing those assignment areas. However, the indexed maps, the speed with which the regional center prepared them, and the reassignment of workers to other areas in the interim, enabled update/leave to continue without significant delay. But with the large increase in the number of maps for 2000, it will be impossible to reproduce and distribute such changes in a timely manner. In addition, because the bureau determined which blocks needed index maps by a visual inspection of each initial block map, it is doubtful that a similar process could be implemented easily in 2000 due to the volume of maps to be used. Bureau officials stated that they have a team analyzing this issue, and the team will make recommendations to address this problem later this summer. We will review those recommendations when completed.



The bureau concurred with our recommendations to (1) ensure that the proper map spot assignments, including housing unit/map spot numbers, have been accurately recorded in the bureau's address list databases, and (2) determine the actual sources of discrepancy between the update/leave maps and their address register. The bureau has established an inter-divisional team to review all maps and other geographic products. However at this time, it remains unclear whether the bureau's actions will

fully address our recommendations. In particular, we do not know whether the actual sources of the discrepancy between the update/leave maps and the address register have been identified. The bureau's observation that the problems have not recurred provides little assurance that the problems will not recur in 2000. As a result, we have asked the bureau to prepare an action plan that addresses our remaining concerns.

III. Payroll/Personnel System for Census 2000 Needs to Be Evaluated

The bureau's Pre-Appointment Management System/Automated Decennial Administrative Management System (PAMS/ADAMS) will support payroll and personnel processing and provide information required by the bureau's management and operational personnel. For Census 2000, the system will process about 4 million hiring actions¹³ and about 30 million time and expense forms, provide reports and data outputs, and maintain historical data.

For the dress rehearsal and Census 2000, the payroll and personnel forms used by the bureau and processed by PAMS/ADAMS include the "Application for a Census Job," background questionnaire, test answer sheet, employment eligibility verification, and the "Daily Pay and Work Record." During the dress rehearsal, field offices and local offices send the documents via overnight delivery to the regional centers for scanning. The bureau's reasons for selecting this system are:

- Clerical and technical support is reduced by scanning data instead of manually keypunching data, and centralizing automation processing at the regional centers.
- Automation costs are reduced by scaling back or eliminating hardware and software requirements for remote field offices.
- Information available to field offices, local offices, regional offices, and headquarters is more timely and complete.
- The time between the end of the payroll period and check disbursement is decreased.
- The availability of data collected is improved by centralizing the storage of, and access to, all field information at the regional offices.

PAMS/ADAMS uses image capturing and optical character recognition to scan and capture payroll and personnel documents at the regional offices. Scanners, which are attached to personal computers, use software that scans payroll and personnel forms, interprets scanned data using recognition software, and identifies data fields, such as name and social security number, that the software indicates are incorrect. Clerks then manually correct the scanned data fields using the actual payroll and personnel forms.

During our inspection, the Chicago regional center's PAMS/ADAMS displayed numerous incorrect data fields from scanned payroll and personnel forms, forcing clerks to manually correct much of the data, and in many cases, scan the same batch of forms again. We also found that the software limitations for one of the PAMS/ADAMS reports need to be modified.

¹³The bureau estimates that there may be as many as eight applications for every person hired. Therefore, the system will have to process about four million applications, to cover the nearly 500,000 employees it anticipates hiring between January 1997 and October 2001.

PAMS/ADAMS scanning creates problems

During our April 1998 visit to the Chicago regional center, we found that after batches of documents were scanned in, clerks spent many minutes correcting letters and numbers within data fields that were misinterpreted by the scanning software. For example, the letter “c” may have been interpreted as the letter “e.” Although clerks are expected to manually verify some data fields, they should not have to spend significantly more time scanning and verifying than if they had manually keypunched the data originally. The clerks stated that even with the Chicago regional center’s small volume of forms, this is a major annoyance, and during non-response follow-up and integrated coverage measurement, it could cause a serious backlog problem.

Regional Census Center clerks believe that the scanners are scanning data properly, but that the character recognition software is too sensitive for operational use and needs further testing. Specifically, many letters and numbers were misinterpreted by the software. Headquarters personnel stated that funding constraints only allowed the software to be tested at the bureau’s beta site in Suitland, Maryland, before its release for the dress rehearsal sites. Headquarters personnel believe that the software’s search engine¹⁴ may be inadequate for large-scale operational use. If the search engine does not meet the bureau’s needs, the bureau will have to purchase different software. To address the PAMS/ADAMS problems, Census headquarters personnel sent two teams to the Columbia and Sacramento regional centers to observe the problems with PAMS/ADAMS, perform “time and motion” studies of scanning versus keying, and determine what options are available. In addition, the bureau plans to perform an evaluation study of this issue at the conclusion of the dress rehearsal.

During our subsequent visit to the regional center in July 1998, payroll clerks stated that scanning and verification of new employee forms and current employee time sheets was still time-consuming. Since April 1998, the clerks have experienced the same volume of corrections, stating that scanning and verification of payroll batches is taking longer than keying each batch, which the bureau wants to eliminate in 2000.

To compound the scanning problem, we found that the Chicago regional center only has one software license for its two scanning systems. Regional center personnel stated that earlier in the dress rehearsal both scanners were used, but that the bureau dropped one of the software licenses in early June 1998 to save money while the new scanning system was evaluated and its problems corrected. As a result, only one scanner can be used at a time. The other computer system can be used for manually inputting payroll forms or processing payroll forms and applicant packages beyond the scanning phase.¹⁵ In the meantime, the regional center has chosen to use its one scanner and corresponding license to primarily input new employee forms, which take longer to input than payroll forms because of multiple pages. Consequently, regional center personnel estimated that about 80

¹⁴In this instance, a search engine is software that enables specific words or phrases to be recognized.

¹⁵After payroll forms are scanned, each form goes through a recognition, verification, exporting, and image uploading phase.

percent of the new applicant forms get scanned, while only 20 percent of the payroll forms are scanned. The remaining 80 percent of payroll forms are keyed in by regional center clerks.

In addition, a new system problem emerged in June 1998 and has impacted clerk efficiency. After about every third or fourth payroll batch is scanned and verified, the PAMS/ADAMS places a scanned batch "on hold," not allowing the batch to be exported. The clerks have temporarily corrected this problem by rescanning the batch. The regional center clerks do not know why this problem is occurring and have advised bureau headquarters of it. According to headquarters officials, the bureau is working on a correction.

PAMS/ADAMS reporting needs refinement

"Selection certificates" list all candidates who are qualified for a position, and it is this list that bureau managers use for determining who is available for open positions and who they want to interview. PAMS/ADAMS will allow office managers to print only the first 25 names on a selection certificate. The bureau's personnel can view information about the other candidates on the computer screen but cannot print the information. Manual viewing of data on a computer screen is very time consuming because any information being viewed that is later needed to hire the person has to be handwritten on another piece of paper. The bureau should reconfigure the PAMS/ADAMS software so that information about all candidates on a selection certificate can be readily printed in ranked order.



The bureau reports that it modified PAMS/ADAMS to generate "Selection Records," with up to 50 names of qualified applicants in rank order along with appropriate information needed by selecting clerks to contact applicants, complete the interview guide, and make job offers. This action is responsive to our recommendation.

IV. Major Problems Noted in the Advertising Campaign

For Census 2000, the bureau has initiated a national advertising campaign to raise public awareness and motivate citizens to return questionnaires. While the advertising campaign will focus on year 2000, certain aspects of it were to be tested during the 1998 dress rehearsal. The bureau's prime advertising contractor hired an American Indian-owned advertising firm to target advertising for the American Indian and Native Alaskan communities. Television and radio spots and some print advertisements tested in the Menominee dress rehearsal were generally well received by Keshena staff, the Complete Count Committee, and the post-dress-rehearsal focus groups of Menominee citizens. Census used two 30-second television spots for the general market and one for the American Indian market, all of which were well placed on three local television stations. However, some advertising products, particularly paid print advertising, had content problems and were poorly placed. In addition, there was no prior consultation and coordination with the local Complete Count Committee and the tribal chairman. If the consultation had occurred, it may have minimized problems of ad placement and poster content.

Print advertising campaign had content problems

Many of the prime contractor's print and wall posters for the general public were drawings of various peoples, including American Indians, portrayed as caricatures. One of those, a caricature drawing of three American Indians, was made for the American Indian market. However, the head of the bureau's tribal liaison program advised against using this particular poster because it could be seen as cartoon-like and stereotypical. She had two objections: (1) American Indians are sensitive to such portrayals having suffered from stereotyping in the past and (2) such an advertisement might undermine the campaign by implying that the concerns and interests of American Indians were not being taken seriously. She felt the lighthearted nature of that particular drawing and other print products was inappropriate given the seriousness of enumerating American Indians, who have lost significant revenue and services due to the undercount in 1990. Due to her strong objection to the drawing, Census management decided not to release the American Indian caricature, despite the disagreement of officials in the bureau's publicity office, the bureau's prime contractor, and the bureau's subcontractor, all of whom wanted to test the ad during the dress rehearsal.

The prime contractor and subcontractor had been given less than three months to develop a national campaign that usually takes six months. They did not, therefore, have a replacement poster when the American Indian caricature was pulled. Instead, the prime contractor tried to fill this gap with a generic rural farm scene dominated by a large cow that seemed to have little local appeal and no meaningful connection to American Indians. This poster only appeared at the local supermarket and a few other locations on the reservation (see Figure 3).

Figure 3

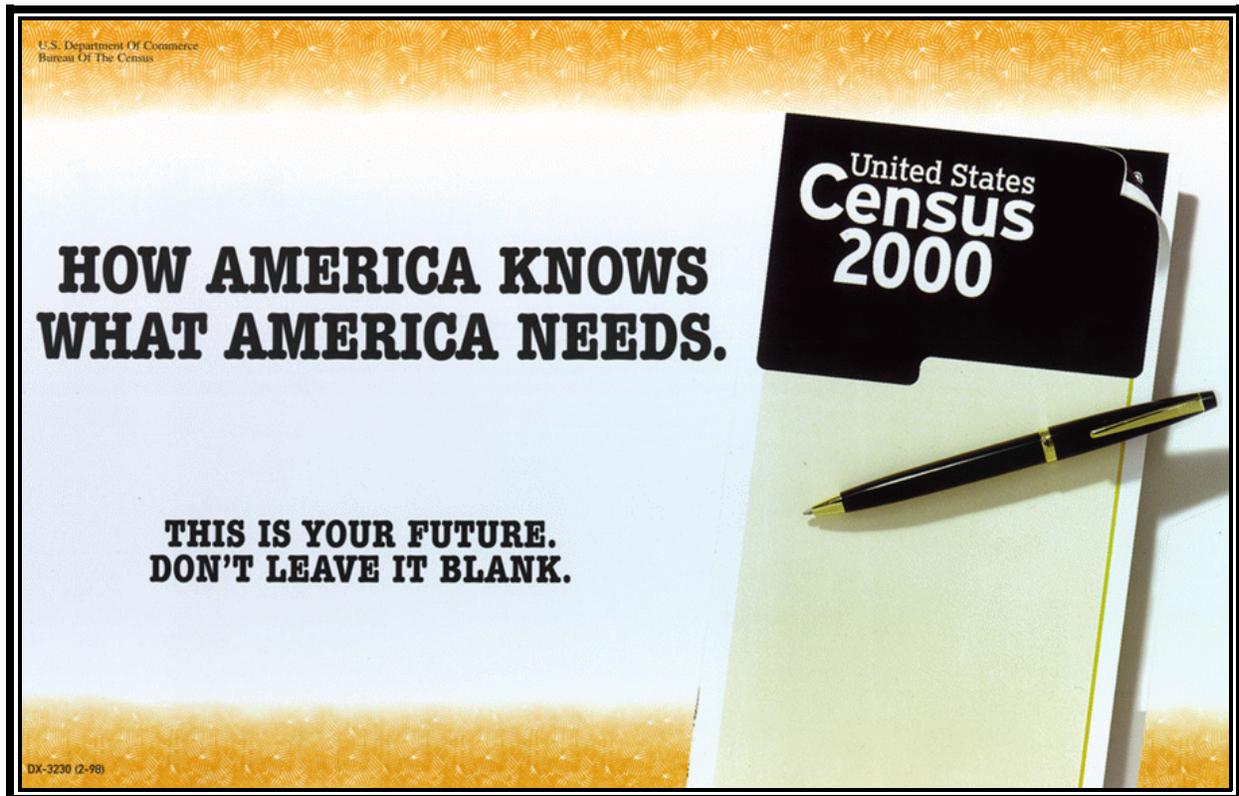


Source: Advertisement developed for Bureau of the Census, 1998.

As a supplement, the bureau provided smaller black, white, and yellow posters based on the prime contractor's artwork depicting a census form. This advertisement was originally intended for large billboards, and therefore had limited content (see Figure 4). The Keshena office and regional center staff, Menominee Complete Count Committee members, and local tribal members did not believe that these posters would motivate American Indians to fill out census forms. Unfortunately, with little else to use, the bureau's staff and volunteers widely distributed these posters to tribal offices and businesses on the reservation.¹⁶

¹⁶This is in stark contrast to 1990, when the posters were done *pro bono* by American Indian artists. The indigenous and authentic themes made some of those posters collectors' items. One poster, *Calling the Eagles, Name Your Tribe, Answer the Census, 1990*, now hangs in the Smithsonian National Museum of American Art as a vivid example of the persuasiveness of poster art.

Figure 4



Source: Advertisement developed for Bureau of the Census, 1997.

To compound the content problem, print ads in posters and newspapers, which were devised for Census 2000, never indicated that dress rehearsal Census Day was April 18, 1998. Although newspaper articles and Census brochures explained the dress rehearsal, the 1998 Census Day was never mentioned in any paid advertisement, reducing the effectiveness of the dress rehearsal posters. Both the partnership specialist and the Complete Count Committee coordinator labored to overcome this lack of focus on the dress rehearsal by placing articles in the *Menominee Nation News* and by writing "Census Day-April 18, 1998," directly on the posters.

Another content problem emerged when the Menominee focus group participants noted that the grandmother in an otherwise effective print ad was identifiably Navaho or Southwestern Indian by her dress. Participants would have preferred a Menominee Indian. While there are limits to how differentiated the targeted advertising can be, attention to regional variation, especially between Indians of the Great Plains, the Northwest and Southwest, is needed. The prime contractor and subcontractor intend to conduct regional focus groups for Census 2000 to help focus on this issue.

Placement of radio spots and print advertising was poorly executed

Ad placement was also an issue. First, the prime contractor broadcast the targeted radio spot only on the local “golden oldies” station, whereas the subcontractor wanted to use at least five additional stations to reach a broader and younger audience. Traditionally, the prime contractor relies on market research to make its decisions, such as customer profiles for each radio station. The prime contractor made its decision based on the general demographics for Wisconsin, because more detailed data to justify the additional radio stations for American Indian areas is not available. Though the subcontractor was better positioned to know the most effective marketing methods for reaching American Indians, it was not able to convince the prime contractor.¹⁷ Local bureau staff agreed with the subcontractor that the hard-to-count target audience was more likely to be reached by placing ads with a number of stations.

Second, although the subcontractor purchased advertising space from stores that routinely sell billboard and window space around Menominee County, most of the 25 ad placements ended up in the predominantly white community of Shawano,¹⁸ or in other small towns and hamlets even further away. The Complete Count Committee coordinator and the partnership specialist raised the issue of ad placement with the prime contractor, sending the prime contractor a detailed list of commercial and public places on the reservation where information is posted. However, the ad purchases off the reservation had already been made. In addition, a two-page spread of the caricatured ads was placed in a Shawano newspaper, despite the fact that a high percentage of tribal members do not read that newspaper. Much of the problem of ad placement could have been avoided if the prime contractor or subcontractor had sought local feedback prior to placing the ads.

Belatedly, the subcontractor recognized the lack of billboard space on the reservation, and contracted for a truck with two large billboards bearing the phrase, “The Future Takes Just a Few Minutes to Complete. This Is Your Future: Don’t Leave It Blank,” to drive around the reservation (see Figure 5). Although the billboards were large, once again there was no mention of the 1998 dress rehearsal. When the Complete Count Committee coordinator called the prime contractor to inquire about the truck’s availability for upcoming events on the reservation, she discovered that the truck was already scheduled by the contractor to spend most of the time off the reservation in Shawano. The coordinator was able to reschedule the truck for three weeks on the reservation. It should be noted that, although the coordinator corrected this problem, prior local consultation by the prime contractor probably would have been prudent. Other tribal communities may not have local committee members who are quite as adept in working with the media.

¹⁷Although the prime contractor and subcontractor are working together, a member of Census’ American Indian and Alaska Native Advisory Committee recently noted that communication between the bureau, the Advisory Committee, the prime contractor, and subcontractor could be improved. The subcontractor had not yet consulted with the Chair of the American Indian and Alaska Native Advisory Committee, even though both parties are only a few blocks apart in Albuquerque, New Mexico.

¹⁸Shawano is seven miles from the reservation where tribal members often go shopping, but only for a few hours each week.

Figure 5



Source: Complete Count Committee Coordinator photograph, 1998.

The tribal chairman was not consulted on advertising

The prime contractor did not initially consult with the chairman of the Menominee tribal government, who expected to have more local input on media issues. Like the bureau's tribal liaison program officer, the tribal chairman believes a serious, focused campaign is needed for American Indians, emphasizing the importance of the Census and reducing their fears about enumeration. The tribal chairman in speaking about the census, told the *Chicago Tribune*, "Our people are extremely suspicious, extremely hostile to federal agents. Federal agencies mean criminal investigations. They mean nothing but heartache and financial woes to tribal members, that's what they represent." In order to enumerate those tribal members who are naturally suspicious and hard-to-reach, the chairman believes that a serious campaign should address their misgiving about the census, including the issue of confidentiality, by emphasizing that bureau procedures prohibit data about individuals or households from being sought or released for non-census purposes.

On the other hand, bureau officials at headquarters, the prime contractor, and the subcontractor believe that the advertising campaign should be based on market research rather than on individual responses. However, we believe that paid advertising at Menominee, and by extension to many other reservations, should be crafted to address local misgivings about the census and supported by all relevant local parties. The shortcomings in the bureau's "research-based" advertising campaign were noted by the Keshena and Chicago office staff, the Complete Count Committee, and members of the tribal government. For Census 2000, the bureau should ensure that there is closer coordination and prior consultation between the tribal leaders, tribal liaisons, partnership specialists, the Complete

Count Committees, the prime contractor, and the subcontractor to strengthen the advertising campaign.



In its response to our draft report, the bureau outlined a number of steps it is taking to ensure that the advertising campaign is based on input and insights from a number of stakeholders, including tribal leaders, tribal liaisons, and Complete Count Committees, as well as advisory committee members. The bureau's partnership specialists will meet with every federally recognized American Indian Tribe to plan, coordinate, and consult on paid advertising and other issues. The regional offices will play a key role in gathering and passing along information to the Census 2000 Publicity Office. These actions are responsive to our recommendation. In its action plan, the bureau should provide an update and timetable for specific steps it will take to address our recommendation.

V. Computer Specialist Positions Were Difficult to Fill

Recruiting efforts at the regional center were slowed because salaries for key computer specialists were not competitive with those in the private sector. Because the dress rehearsal and Census 2000 rely heavily on automation, computer personnel with specific skills are needed. The bureau determined that the 12 regional centers need 5 computer specialists each, or 60 nationwide, for UNIX,¹⁹ local area networks, and other computer activities to support both Census 2000 and dress rehearsal operations in fiscal year 1998. In addition, we noted that bureau headquarters does not have a timely report of staffing levels at the regional centers and for management positions at the local offices.

The bureau's salaries for key positions are not competitive

Recruiting for the five computer specialist positions at the Chicago regional census center and across the nation has been difficult. While the Chicago regional census center has been able to fill all 5 of the computer specialists positions, only 39 of the 60 nationwide computer specialist positions for fiscal year 1998 have been filled as of August 7, 1998 (see Table 1). If this problem continues to exist for Census 2000, when the bureau plans to hire 108 computer specialists nationwide, the bureau may be faced with a significant lack of computer expertise.

Regional center personnel stated that the reason for the hiring problems was that the bureau's salary ranges were not competitive with the private sector. For example, initially the bureau offered a salary of \$40,000 to \$48,000 per year for a UNIX computer specialist with at least one year of experience. However, officials at bureau headquarters estimated that the same position in the private sector pays \$10,000 to \$15,000 more per year. We observed a recruiting magazine for the Chicago area that advertised the bureau's UNIX computer specialist position at \$40,000 to \$48,000, placed directly opposite a private firm's advertisement for a UNIX technical consultant paying \$40,000 to \$65,000.

¹⁹UNIX is a computer operating system with unique command language and utilities.

Table 1: Regional Census Center Staffing in Fiscal Year 1998 as of August 7, 1998

Computer Specialist Positions	Nationwide		Chicago Regional Census Center	
	Authorized	Filled	Authorized	Filled
UNIX Computer Specialists	24	10	2	2 ^a
Network Computer Specialists	12	9	1	1
Other Computer Specialists	24	20	2	2
Total	60	39	5	5

^a One position was filled by a contractor.

The bureau attempted to address salary disparities by offering an “administratively determined pay rate” for the UNIX computer specialist positions. All regional centers have the option to offer this pay rate. For example, the pay rate for a UNIX computer specialist without experience would start at about \$37,000 per year, increasing to \$43,000 annually after year one, and to \$50,000 annually after year two. By using an administratively determined pay rate, the bureau hopes to recruit recent college graduates who are seeking the work experience and faster pay raises after the first year. The pay rate provides a higher starting salary for a candidate with no experience and offers guaranteed pay increases, after year one and year two. In addition, for those UNIX computer specialists with prior work experience, the bureau offers a higher starting salary and step adjustments commensurate with experience, but does not offer guaranteed pay increases after year one.

Bureau officials believe that the administrative pay rate has been effective for some regions, but as of August 7, 1998, the bureau has been able to fill only 10 of the 24 UNIX computer specialist positions. On the other hand, in Chicago, both UNIX computer specialist positions have been filled even though the administratively determined rate was not offered. One of the two UNIX computer specialist positions in Chicago was filled by a contractor; and the other was filled with a less experienced Grade 9 UNIX computer specialist, rather than the advertised Grades 11 or 12.

For all the computer specialist positions, the bureau is trying to increase the number of qualified candidates by paying candidates up to a 15 percent signing bonus to be paid within 60 days of starting service. An employee must work one year or pay back a portion of the signing bonus for the time they did not work. The bureau began offering this salary package in May 1998, and if it is not effective in recruiting qualified candidates, the bureau will consider contracting for the network computer specialist positions. By the end of August 1998, the bureau expects to evaluate the feasibility of contracting for these positions.

Recruiting report is not timely

Bureau headquarters does not have a timely report of staffing at the local offices and regional centers. Although the bureau has a regional center "Staffing Summary" report to monitor hiring at those offices, this report is manually updated every two weeks using data that is four weeks old. The bureau's geography branch in the field division has developed a more timely weekly status report by region, entitled the "Geography and Partnership Staffing Report," but it only applies to geography and partnership positions, and again, it is prepared manually by collecting current data from the regional centers by E-mail. Bureau officials recognize that they need a better reporting tool to monitor the progress of all staff recruiting at the regional centers and local offices. In July 1998, the bureau implemented a new on-line regional center staffing report to be updated daily by a regional center staff person. The report will be maintained on a network shared by the regional center and headquarters, enabling headquarters to obtain current regional center staffing information anytime. The bureau needs to ensure that this automated nationwide report is accurate and timely and reflects all hiring information for regional center staff and local office manager positions.



In its response to our draft report, the bureau stated that it has redesigned its staff reporting system to provide more timely, accurate information on staffing levels in the Regional Census Centers. The system will be expanded to include Local Census Office management positions. Using this new reporting system, the Regional Census Centers should be able to update files as individuals are hired and headquarters should be able to generate staffing reports as needed. This action is responsive to our recommendation.

VI. Delivery of Office Materials Needs to Be Improved

During our review of the Keshena office, we found a number of problems pertaining to supplies and promotional materials. First, training manuals and initial supplies for new operations were being delivered just as the operation was to begin leaving little time for advance preparations and setup. Second, some equipment, furniture, and supplies were being delivered without notification, wasting the time of the personnel trying to accommodate the deliveries. Third, some quantities of supplies for Keshena had not been properly estimated causing an under supply. Finally, we noted Chicago regional center supplies sent by vendors were not always being correctly routed to the proper person, and some regional center supplies were being sent to another office by mistake. If these problems are not corrected, they could adversely impact Census 2000.

Training manuals and other census materials for new operations are not always delivered with sufficient lead time

We noted that the Keshena office did not receive training manuals until just before each new dress rehearsal operation. During our inspection, training manuals for non-response follow-up arrived on the Friday before the Monday of scheduled training, allowing the area manager very little time to read the training manual before performing the training. More importantly, without knowledge of when the training manual was to arrive, it was difficult for the area manager to plan and prepare for the training.

Bureau officials explained that the training manuals for Census 2000 were still being written during the start up of the dress rehearsal. Due to late decisions on training manual content and approach, the manuals were not delivered until just before the training sessions. To prevent potential training delays during Census 2000, the bureau intends to require that all training manuals be received by the data capture center in Jeffersonville six months prior to the deadline for delivery to the regions. However, we recognize that the bureau may need to make updates and improvements to the training materials closer to the training dates for Census 2000. If the training manuals are still being updated near the training dates for Census 2000, the bureau needs to provide better notification to the regions concerning when the training manuals can be expected to be delivered, so that local managers can make the appropriate arrangements for assembling the materials and providing quality control.

Also, although the non-response follow-up assignment packets arrived in Keshena at the beginning of the initial non-response follow-up training, the associated maps did not arrive until later in the week. The maps did not arrive in time for tentative assignments to be made to trainees so that they might make use of the material during training. When the maps did arrive, the crew leaders reported having to spend the night numbering each map for each assignment to avoid possible mix-ups later on and to have the packets ready for the staff the next day. However, the late arrival of the maps did not prevent the assignments from being made or delay the enumerators from beginning their scheduled work.

Equipment, furniture, and supplies were delivered without notification

Keshena and regional center personnel stated that they did not always know what equipment, furniture, and supplies were to be delivered and the expected delivery date. Many times items arrived without prior notification. This made it difficult to plan the work and wasted staff time on trying to accommodate the deliveries. To address this problem, the bureau has made short-term corrections and is preparing a long-term plan. In February 1998, the bureau hired three logisticians to manually track the arrival of supplies, equipment, and furniture delivered from all bureau locations including headquarters, the data capture center in Jeffersonville, the General Services Administration, and commercial vendors. By telephone, the logisticians are obtaining expected arrival dates and times from the sender of the supplies, equipment, and furniture and are then forwarding this information to the recipient of the delivery. Since this process has been implemented, the Chicago regional center has noted that delivery status has improved because the regional center is much more informed about the arrival of expected supplies, equipment, and furniture. On a long-term basis, the bureau has replaced this manual process with an on-line tracking system where the status of deliveries, including quantities and delivery dates, is tracked. The bureau implemented this on-line tracking system in June 1998. This system will enable the regions to provide real time feedback to bureau headquarters about deliveries, as well as schedule their work around anticipated deliveries.

Quantity of supplies is not always commensurate with needs

The quantity of supplies for specific Menominee dress rehearsal operations has sometimes been significantly more or less than needed. For example, the Keshena office did not receive enough training manuals for update/leave training, requiring them to request more copies from the data capture center in Jeffersonville. The bureau initially determined that 12 training manuals for the Keshena office would be sufficient based on twice the number of people expected for training. The bureau assumed that six people would be needed for the operation and would be trained during the initial week, and that another six would be trained during the next week as replacements. However, the bureau's estimate did not include copies of training manuals for selected regional center staff and the field operations supervisor. As a result, the Keshena office had to order an additional eight copies from Jeffersonville to cover all their needs. This subsequent order of manuals was received in time for the training.

While update/leave training and operations for Menominee were not affected by the shortage of manuals, the inability to properly estimate the number of training materials at dress rehearsal has implications for Census 2000. For example, if training manuals are unavailable during any training for Census 2000, this could adversely affect the schedule and quality of the decennial census. In order to eliminate future shortages, bureau officials are considering sending training materials for three times the number of individuals expected for training. However, this could result in significant oversupply and expense. We believe that for Census 2000, the bureau should develop and implement a more accurate system for estimating the number of training manuals needed by trainees and staff for initial training and replacement training. We also found that the Keshena office ran out of non-response follow-up training evaluation forms, reducing the number of comments the bureau received from enumerators on its training format and content. Headquarters underestimated the number of forms needed, and Keshena staff did not know the count was low until it came time to use the forms.

Some Regional Census Center supplies and promotional materials were not routed correctly

We found two problems with the Chicago regional center's flow of supplies. First, some supplies sent by vendors are not being correctly routed to the appropriate regional center person because the bureau does not consistently follow the same procedures when ordering supplies from vendors. The name of the census operation is the primary point of reference for routing a delivery once the shipment has been received by the regional center. For example, a package with a packing slip identifying the dress rehearsal operation would be correctly routed to the area manager for Menominee. However, the bureau is not always providing vendors with the name of the census operation. As a result, some vendors are able to specify the name of the census operation on the packing slip, while other vendors are not. Without the name of the census operation on the package, it is difficult to identify the responsible person within the regional center to receive the delivery. Determining the appropriate recipient causes some delivery delays and wasted time for regional center administrative staff.

This problem persists even though the bureau has procedures in place to minimize deliveries that do not specify a census operation. For example, the bureau requires all procurement requests sent to vendors by bureau headquarters personnel to specify a name and applicable census operation. In addition, if the name and operation are not provided on the procurement request, the bureau attempts to provide this information to the vendor prior to shipment. However, the bureau is not contacting all vendors prior to shipment, and as a result, some deliveries from vendors do not specify an operation. The bureau needs to establish consistent policies and procedures to ensure that all deliveries are promptly routed to the proper individual once deliveries have been received by a census office.

The second problem is that some supplies designated for the temporary regional center in Chicago are being incorrectly sent to the regional office, which is about 20 miles away. The regional office has been rerouting the deliveries back to the regional center, with one or two day delays. Bureau officials stated that prior to the regional center opening in February 1998, some supplies and equipment were sent to the regional office in order to meet delivery deadlines. Bureau officials emphasized that since the regional center opened, headquarters no longer routes regional center deliveries to the regional office. However, regional center personnel stated that a few deliveries intended for the regional center were still incorrectly delivered to the regional office. This will be a larger problem for Census 2000, because the bureau plans to deliver some supplies and equipment to the regional centers prior to the field offices having formal addresses. Therefore, the bureau should implement policies and procedures as soon as possible to reduce the volume of supplies and equipment delivered to the wrong location, particularly after the proper offices for the deliveries have opened.



The bureau concurred with our recommendations to (1) develop and implement a more accurate system for estimating the number of training manuals needed by trainees and staff for initial and replacement training and (2) establish consistent policies and procedures to ensure that all deliveries are promptly routed to the proper individual and reduce the volume of supplies and equipment delivered to the wrong location. First, the bureau said that it had established a new, automated on-

line tracking system to enable the regional offices and bureau headquarters to communicate better and resolve shipping and supply needs, including training manual deliveries. Second, the bureau reported that it has implemented an RCC Administrative Memorandum advance notification process to improve delivery problems. In addition, for Census 2000, materials and kits will be packaged centrally at the Jeffersonville National Processing Center and shipped to the regions, rather than assembled on-site at the local offices, as was done in the Dress Rehearsal. These actions, if properly implemented, should address our concerns. The bureau should provide additional details in its action plan.

VII. Partnership Effort Needs to Be Sustained Throughout the Dress Rehearsal Activities

For Census 2000, the bureau plans to incorporate active partnerships with state and local governments, community organizations, businesses, religious congregations, and the media to increase participation and reduce the undercount. The partnership concept stems from bureau officials' recognition that a decennial census is too large a task for bureau staff alone. Complete Count Committees will enlist local community, religious, and business assistance while tribal government liaisons will ensure that tribal concerns and interests are addressed.

The partnership effort has made significant contributions to Menominee dress rehearsal operations to date. Specifically, we found that the Menominee tribal government liaisons and the Complete Count Committee²⁰ have been active and productive volunteer partners. The Menominee tribal government liaisons have functioned as unpaid technical advisors and are knowledgeable end-users of census data. They have been able to correct, redraw, and update address lists and feature boundaries on Census 2000 maps, and explain operations to the tribal government and tribal members.

In addition, the committee members and the regional center's partnership specialist assisted dress rehearsal operations by (1) placing notices in church bulletins, (2) discussing the dress rehearsal on various radio shows, (3) answering reporters' questions, (4) mailing Census 2000 announcements in tribal government employee pay envelopes, (5) arranging locations for Be Counted boxes and staff for questionnaire assistance centers, (6) helping target publicity and promotional efforts, and (7) adding a Census 2000 presentation to a tribal council's meeting. The committee also organized an impressive dress rehearsal kick-off ceremony at the Menominee Indian High School and sponsored a poster contest at the Neopit Intermediate School. These youth outreach efforts emphasize the importance of Census 2000 to students so they will encourage their parents and family members to fill out their questionnaires.²¹ Regional center officials believe that an effective partnership has been formed between the bureau and the Complete Count Committee. Through these activities, the committee has helped the bureau raise community awareness.

Despite these positive efforts, we noted that the committee was slow to support non-response follow-up and did not sufficiently understand integrated coverage measurement operations. While it may be unreasonable for any Complete Count Committee to fully absorb the complexity of the census, the Menominee committee lacked an overview of the full range of local census operations and

²⁰The Menominee committee includes the tribal coordinator; tribal liaison; tribal legislator; tribal government personnel manager; the superintendent of the Menominee Indian School District; representatives from the Menominee County office, South Branch community organization, and the religious community; and representatives from Menominee Enterprises, the tribally-owned supermarket, the casino/bingo/hotel complex, and the Woodland Youth Center. Other community members have also participated in dress rehearsal activities.

²¹However, the superintendent of the Menominee School Board was disappointed that Census 2000 teaching materials from a subcontractor to the bureau's prime contractor for advertising were delivered too late to allow teachers to gear up for dress rehearsal Census Day. This meant that fewer teachers saw or requested these materials, such as a very large wall-sized Census 2000 map (provided by the subcontractor as part of the teaching kits). Thus, much of the anticipated gain of teacher participation was lost.

their interactions. Bureau staff briefed tribal members at a September 1997 workshop and provided a timetable of key activities and ongoing coordination. However, the bureau did not reiterate and reinforce information about non-response follow-up and integrated coverage measurement operations sufficiently to the committee, nor specifically solicit its support in advance for the followup activities. Thus, the committee did not inform county residents about ongoing census activities and continue to encourage them to keep their doors open to enumerators.

Although the committee had a flurry of activities through the dress rehearsal Census Day, we learned that four of the five most currently active committee members believed their job was largely done on April 18, 1998. Committee members seemed content to rely on mail-in response rate as a test of their efforts, and they expressed little concern about the two upcoming operations, non-response follow-up and integrated coverage measurement. In June 1998, we learned from further conversations with tribal officials, that committee members were still not fully aware of the duration or extent of census operations that would continue in Menominee County until December 15, 1998. Committee members only became aware of non-response follow-up shortly before that phase was to begin. The committee then quickly put out information about the operation in both a mass mailing to county residents and a memo that was inserted in tribal employees' salary envelopes. With earlier notice, however, committee members believed they could have done more.

Furthermore, committee members appeared unaware of the integrated coverage measurement operations underway during our June visit, until we raised the subject with them. Integrated coverage measurement operations were, therefore, not integrated into any of the committee's public announcements. Although bureau documents listed all the major operations, we question whether the bureau adequately emphasized the importance of a sustained partnership effort to committee members and community leaders. Bureau officials at headquarters stated that committee involvement was supposed to end on Census Day. However, given the modest questionnaire response rate in Menominee, it was clear to the local office managers and staff that committee efforts should be sustained. In any case, bureau staff and the committee coordinator were focused on one stage at a time, and this prevented the coordinator from actively planning and executing an integrated approach of committee activities to encompass the critical non-response follow-up and integrated coverage measurement processes, when census workers are still making sustained efforts to complete the count. The bureau should advise the Complete Count Committees to make every effort to sustain their work throughout all Census operations. Specifically, the committee should address any specific local or tribal barriers that may exist to getting everyone to participate in the census, reiterate the importance of Census 2000 to collective tribal interests, and encourage the American Indian community to participate in the crucial non-response follow-up and integrated coverage measurement phases.



The bureau reports that it has recently mailed to every local jurisdiction its new *Census 2000 Complete Count Committee Handbook for Local Governments*. This provides guidelines for Complete Count Committees to follow through Census 2000, including post-Census Day operations.

The bureau is also planning to cover the need for continued involvement of the Complete Count Committees in its required training sessions as a priority matter for partnership staff. These actions are responsive to our recommendation.

VIII. Integrated Coverage Measurement Procedures and Reporting Need Improvement

Integrated Coverage Measurement operations are intended to act as an independent quality check on information being gathered by the regular census enumerators. ICM creates a separate list of housing units in particular areas for comparison with the census list. Differences between the two lists are resolved by conducting interviews at ICM housing units and comparing information with that obtained by census enumerators on the same household. This information will be used to estimate the number of people and housing units missed or counted more than once. During independent address listing, field staff canvass the ICM blocks and create a list of all housing units, independent of all census operations. During Housing Unit Followup operations, the differences between the independent address list and the update/leave list are reconciled, by comparing information recorded on both lists and maps, and performing a visual check of housing unit locations and other information. Brief interviews with occupants of housing units are also sometimes required. During our inspection, the primary part of ICM independent address listing was already complete, and the housing unit followup was underway.

We noted that while ICM and dress rehearsal operations are designed to be independent, one ICM lister showed an ICM map to a resident being interviewed, which, according to procedures, is not appropriate. Also, an ICM enumerator history report incorrectly excluded the name of an employee with dress rehearsal work history. Although these incidents, in isolation, are minor, they indicate that the bureau should develop and implement strict guidance for Census 2000 to ensure that the two operations are completely separate.

ICM materials were sent to the Keshena office instead of to personal residences

While in Keshena, we met with the ICM crew leader twice, observed an individual housing unit followup case in the field, questioned numerous full-time and temporary bureau employees concerning what they knew about ICM operations, and had extensive conversations with the Chicago regional ICM coordinator. Temporary bureau employees correctly identified themselves as either working for the "Census" or for "ICM." All temporary employees understood that ICM is also run by the bureau, but that ICM and the census are separate operations. More importantly, temporary employees working for the census appeared very aware of how important it was that they not compromise ICM independence by getting involved in ICM operations. While few bureau employees, including the ICM employees, could articulate the precise role that the ICM operation might play in the census, they viewed ICM as a "quality check" on the regular census operations.

To perform ICM's quality check on Census 2000, the bureau needs to ensure that ICM and census operations are independently conducted. However, we found that the Keshena office is used for ICM postal and express deliveries and correspondence with the Chicago regional center. According to ICM headquarters officials, all ICM materials are to be both shipped from and received at the personal residences of ICM staff. Regional ICM officials stated that ICM materials for Menominee were being received by and sent out of the Keshena office for three reasons. First, most of the local ICM staff have post office boxes for addresses, and the overnight delivery services cannot deliver materials without a "mailing address" such as a house number and street name, which the Keshena office has. Second, because ICM materials are confidential, tracking them is very important, and the

overnight delivery services do this much better than regular mail delivery. Third, ICM personnel found that when some materials needed to be delivered quickly, it could be accomplished better through overnight delivery than regular mail delivery.

Even though all materials have reportedly been sent and received sealed and clearly labeled for either "ICM" or "census," the bureau needs to determine whether its policy that all ICM materials are to be both shipped from and received at personal residences is valid for rural areas. If the policy is not valid for rural areas, the bureau needs to develop procedures identifying how office personnel will handle the collocation of ICM and census materials in 2000.

ICM employees were slowed by update/leave maps

Because ICM staff rely on update/leave maps, the problems with the update/leave maps as discussed on page 7 of this report affected housing unit followup operations. With numerous handwritten corrections made by bureau address listers directly on update/leave maps, housing unit followup listers had difficulty reading copies of the maps—including the many handwritten map spot numbers. The crew leader stated that the lack of clarity did not prevent any housing unit followup operations from taking place, but the listers required additional time to discern handwritten map spot numbers accurately.

ICM address lister inappropriately showed interviewee ICM map

While observing an actual housing unit followup case, an ICM lister verified the location of a housing unit on an "ICM Block Cluster Map" by showing the map to the occupant of the housing unit, pointing to the unit's map spot, and asking whether that was the correct location of the house. We are concerned that if the occupant noticed the title of the map, the occupant might have been able to infer that his housing unit was within the ICM sample. However, there was likely no adverse effect of showing the map since the interviewer did not identify the unit as within the sample and the map itself does not explicitly identify which block on the map is within the sample. Regardless, we remain concerned about this apparent lapse in procedures.

ICM enumerator history report incorrectly excluded employee with dress rehearsal work experience

The enumerator history report is used to designate assignment areas for ICM housing unit followup operations and is meant to be a list of all ICM employees with dress rehearsal experience. To maintain independence between ICM and dress rehearsal operations, employees with dress rehearsal experience may be hired for ICM housing unit followup operations, but these employees may not work on the same assignment areas as they did for the census. We reviewed an ICM enumerator history report that incorrectly excluded information about an employee's prior work on dress rehearsal operations. If the enumerator history report does not have accurate data about a person's prior dress rehearsal activities and, in particular, what geographical assignment areas were worked,

there is a risk that an ICM employee with dress rehearsal work experience may be assigned to the same assignment area for ICM housing unit followup operations. The result would be a possible compromise of the independence of the ICM operation.²²

Fortunately, the employee's dress rehearsal work experience was identified by ICM personnel even though the automated system failed and the enumerator history report was incomplete. Personnel at bureau headquarters are investigating how the reporting gap occurred and how to improve internal system controls. The bureau needs to immediately correct the problem in the enumerator history report to ensure that prior dress rehearsal experience is known about any persons hired for ICM operations.



The bureau concurred with our recommendation concerning the shipping of integrated coverage measurement materials. Although the bureau reaffirmed its policy that ICM sample-specific materials are to be shipped from and received at personal residences, we found no assurance that this policy is carried out in practice. During our review, we found materials had been shipped to places other than personal residences. The bureau needs to document how it will enforce this policy in its action plan.

The bureau also concurred with the intent of our recommendation to ensure its guidelines for maintaining integrated coverage measurement independence are carried out. The bureau maintained that the instance where the enumerator showed the respondent the map was not a breach of independence. The bureau explained that from time to time when there was no unique identifiable address, the enumerator needed to show the respondent the map to help determine whether the house was within the block cluster.

²²*Modernizing the U.S. Census*, National Research Council, 1995.

IX. Other Census Dress Rehearsal Programs Offered Lessons Learned

During our work on the dress rehearsal operations, we noted several other problem areas that need the bureau's attention. We found that some update/leave procedures were inefficient and some training was repetitive. We also noted that there were problems with the bureau's selection criteria for Targeted Non-Sheltered Outdoor Locations enumeration, the role and purpose of the Be Counted program were not widely understood by Keshena office staff, and volunteers at the Questionnaire Assistance Centers were receiving few requests for assistance.

A. *Procedures and assignments required some unnecessary driving and cost*

Update/leave requires listers²³ to revise the bureau's mailing list while delivering questionnaires. Procedures for this operation require that listers visit block units in the order they are listed on the "address register." Unfortunately, the block numbering sequence in Menominee did not always follow a geographic route that the listers would normally take while driving block to block. In areas around Legend Lake in Menominee County, where the shorefront creates a large number of inlets and peninsulas, following the numerical sequence on the lists required listers to double-back repeatedly. We observed this problem first-hand when we participated in update/leave operations during a brief initial visit to Menominee in March 1998. Also, during our second visit to Menominee, we interviewed the Keshena office staff about update/leave operations and reviewed maps used during operations.

The regional center area manager decided to relax the sequencing requirement and let the crew leader decide when it was more appropriate to allow a lister to proceed with block clusters geographically rather than numerically. Listers reported saving a great deal of time as a result of the decision. The original procedures may have been intended as an extra precaution to ensure quality, but the revised procedure may also have had an unintended positive impact on quality, particularly in the Legend Lake area where, according to staff, staff morale and efficiency significantly improved. We believe that the bureau should reevaluate the requirement that listers deliver questionnaires in strict adherence to the order listed on their address register, and determine under what circumstances, if any, it might be permissible for a crew leader or other appropriate staff member to approve delivery in some other order.

In addition, the initial assignments for non-response follow-up were assigned to enumerators without regard to where they lived. This violated the regional director's policy of having temporary staff members work primarily in the areas and neighborhoods where they live. According to the local staff, the initial assignments required significant amounts of additional travel time and cost. After regional center officials complained about the production rate, staff were subsequently given assignments closer to their homes to reduce travel times.

²³"Lister" is the term used during the update/leave operation. "Enumerator" is used during non-response follow-up and integrated coverage measurement.

Furthermore, the Keshena staff reported that their assignment areas overlapped geographically, so that different enumerators found themselves visiting housing units in the same neighborhoods and even on the same block. This suggests that assignment areas could be created differently to increase the efficiency of follow-up and the effectiveness of efforts to collect information from neighbors by reducing the chance that multiple bureau employees will visit the same household to collect last resort information on households.

B. Training can be improved

New employee orientation was repeated for current employees

At the beginning of lister and enumerator training sessions for each new operation, employees are given about 1-2 hours of training in basic administrative procedures including how to complete certain federal employment forms and daily pay records. However, several employees who had worked on earlier dress rehearsal operations participated in, and were paid for, training that they had already received. There may be some benefit in repeating training for some employees, such as reinforcing administrative procedures or fostering an atmosphere of teamwork in a short period. But it is hard to justify the cost, especially during Census 2000 when the total number of trainees will be so much greater. The bureau needs to develop a training plan that is flexible enough to avoid repetition in its orientation training and allow employees with recent census experience to arrive for training after the administrative portion of the new employee training is completed.

Materials for Targeted Non-Sheltered Outdoor Locations training can be improved

The Targeted Non-Sheltered Outdoor Locations training materials were late, not well organized, and incomplete. The purpose of TNSOL is to try to reach and count some of the hard to reach people who have no fixed address and are living on the streets. TNSOL sites include parks and under bridges that are open to the elements and show evidence that people are living there. The late delivery of the training materials did not cause postponement of the training. However, confusion during the training due to typographic errors and other problems with how the training materials were written may have been caught and dealt with more appropriately had the area manager and training staff had more time to review the materials. For example, the TNSOL training materials referred trainees to a number of attachments to the training handout, but at least two key documents were not attached. Also, the "role-playing scenarios" used to prepare and teach enumerators how to act and respond were stapled to the final quiz handout rather than as part of the main training handout. As a result, they were not found in time and the field operations supervisor had to skip the role-playing exercise called for before the quiz. Finally, samples of flash cards "A" and "B," used during enumeration to aid in the self identification of race and ethnicity, were not included in the packet, despite the fact that they were referred to throughout the training.

We also noted that TNSOL training materials, including the misplaced role-playing documents, did not address or prepare trainees for meeting uncooperative respondents during their enumeration operation. In smaller communities like Menominee, where the staff already joke about how "everybody knows everybody," the impact on the quality of coverage data may be minimal. The

materials did stress, appropriately, the crucial role that the “gatekeeper”²⁴ to the TNSOL site played in the enumeration procedure. However, the materials did not address what the crew or team leader should do in the event that a “gatekeeper” was unavailable. (See Section C below.) Furthermore, enumerators in the Keshena office did not have gatekeepers identified for their TNSOL sites.

Map spotting training possibly out of place in non-response follow-up training

Non-response follow-up training in Menominee was provided in the evenings over a five-day period. The fourth day was designated for “field training,” where the trainees went into the field to work with trainee maps. On the fifth day, the course covered map spotting and updating, as well as adding and deleting addresses. Much of the staff we interviewed in Keshena believed that the field day exercise would have been much more productive had it come after the class time spent on map spotting. They suggested that the fourth and fifth day of training be switched, or that at least the map spotting part of the curriculum be covered prior to the field day exercise.

C. Targeted outdoors enumeration does not appear to meet bureau’s selection criteria

According to bureau documents, one of the criteria for selecting Targeted Non-Sheltered Outdoor Locations sites is a location where 15 or more people are likely to congregate. TNSOL enumeration in the dress rehearsal involved visits to 11 sites that were identified in late 1997 by the Menominee tribal government liaison. We were told by the regional center’s area manager that about six weeks before the TNSOL operation, the regional technician visited the 11 sites to verify their location. The technician, hiking in snow to visit some of the sites, was not surprised to find no individuals at any of the sites in that weather. TNSOL procedures required the team leaders to contact the listed gatekeeper for each TNSOL site prior to enumeration to arrange enumeration times. However, no gatekeepers had been identified by the tribal government liaison. During the visit six weeks prior to TNSOL night, the regional technician found no gatekeepers at any of the sites, and the tribal liaison had left the tribal government by that time. A gatekeeper, if identified, may have been able to provide more accurate information about the number of people likely to be found at a given TNSOL site.

TNSOL procedures stated that each TNSOL team should visit no more than two sites in one day, and each team should comprise seven enumerators. Therefore, based on 11 sites identified by the tribal government liaison and a two-day period to complete TNSOL enumeration, the formula indicated that 42 enumerators would be needed for Menominee. However, 42 enumerators would be more than are even planned for non-response follow-up, which is the largest dress rehearsal activity in Menominee. The area manager appropriately consulted with the regional center and bureau headquarters about this problem and received approval to hire just 14 TNSOL enumerators, rather than 42. For Menominee’s TNSOL operation, 12 were hired, 8 showed up for training, and for TNSOL enumeration, the 8 were split into two teams.

²⁴A gatekeeper is someone identified by the local/tribal government who serves as a contact person for TNSOL sites. The gatekeeper is familiar with the individuals that frequent the TNSOL site and, therefore, may encourage the individuals to cooperate with the enumerator.

One team visited six sites and found no one to enumerate, while the other team visited five sites and enumerated five individuals. These sites clearly failed to meet the TNSOL criteria since according to the TNSOL staff, it is not likely that any homeless persons would congregate at many of the 11 sites during a typically cold April day in Wisconsin. One individual was observed at two different sites. Because the same team visited both sites, he was enumerated only once. However, in larger communities for Census 2000, repeat encounters are more likely to happen, having the inadvertent effect of over-counting population in this and other related operations, such as shelter- and service-based sites.

According to headquarters staff responsible for the TNSOL operation, the bureau trusts that the local/tribal governments will adhere to the TNSOL criteria for selecting sites and is not prepared to second guess their site selection. However, we believe that the lack of adherence to the explicit TNSOL criteria could be a source of unnecessary cost growth in 2000. We are recommending that the bureau review the TNSOL guidelines, site selection criteria, procedures, and dress rehearsal data to (1) reassess the cost and effectiveness of the operation, (2) improve the process by which TNSOL sites are identified and verified, particularly in the colder climates or rural areas, and (3) develop alternative procedures for situations in which no gatekeeper is identified or available.

D. Be Counted forms and boxes were placed according to procedures

The bureau has designated "Be Counted" sites where mail-back forms will be placed to encourage participation by persons who traditionally are undercounted in the decennial census or who think that they may have been missed. As part of the bureau's process of identifying where Be Counted boxes and forms would be placed, in February 1998, the Keshena office's regional technician requested eight boxes and associated forms for the Menominee dress rehearsal site. When more than three times this many boxes were inexplicably sent to the Keshena office, the partnership specialist added 4 additional sites for a total of 12 -- 2 post offices, 2 senior citizen centers, 2 churches, 4 stores, a health clinic, and a community center.

We visited 11 of the 12 sites, and verified that the boxes were accessible and that the Be Counted forms were well-stocked. The attendants working near the boxes were aware that the forms were intended for citizens who believed that they would not be enumerated. The attendants also stated that the boxes were delivered a day or two before dress rehearsal Census Day, which complied with Be Counted procedures. Although the boxes were accessible, at several sites they did not stand out because they were placed on a cluttered counter or adjacent to a crowded bulletin board where someone might not readily see the box. Based on actual counts of forms at nine sites (about 450 questionnaires), we estimate that over 100 Be Counted forms had been taken from the boxes by the seventh day of the program, and about one-half of those had been taken from only three locations.

The bureau plans to perform evaluations of different dress rehearsal activities and programs, including the Be Counted program. As key measures of the program's success, the bureau will use the total number of forms distributed at Be Counted sites and total number of addresses added to the Master Address File from Be Counted forms. The bureau will not be able to complete its evaluation of the program's effectiveness until it gets an accurate count of both numbers. The final evaluation report is planned for January 1999. However, we found that the role and purpose of the Be Counted program

were not widely understood by Keshena office staff. Few on the staff knew about the form or could explain its purpose. If the staff did have a better understanding of Be Counted forms and boxes, they may have been able to actively promote the program. The bureau should include the description and purpose of the Be Counted program in staff training materials, if the program is retained.

E. Questionnaire Assistance Centers not heavily used

We visited all three of the questionnaire assistance centers on the Menominee reservation, and interviewed a center's volunteer at two sites. The volunteer at the third site reportedly stopped coming because no one had ever asked her for questionnaire assistance. The two volunteers interviewed appeared to appreciate the potentially important role they might play in improving the quality of coverage and household survey data in the area. Both volunteers reported being asked for very little help, although one of them said she was quite pro-active in her community, encouraging neighbors to complete their questionnaires. The small scale of Menominee operations may result in relatively few questionnaire responses being attributed to the centers.



The bureau did not concur with our recommendation to develop a training plan that is flexible enough to avoid repetition in its orientation training. The bureau cited five reasons for believing strongly that its current policy to require all employees, whether new or experienced, to arrive for training at the same time is a valid policy. These reasons included reinforcing administrative procedures, updating project codes or other administrative details that may have changed, allowing former workers to bring their unique experiences to newer employees, keeping previously trained employees from disrupting training by arriving late, and fostering an atmosphere of teamwork.

However, we wonder whether the bureau has fully considered the cost effectiveness of including previously trained employees in orientation training. For Census 2000, if there are numerous employees repeating training for one to two hours multiplied by the number of operations and bureau locations, this could be a significant cost to the bureau. In the training we observed, nearly two hours was spent walking trainees through how to complete basic administrative paper work. There was little, if any, discussion during that period about the specific operation the employees would work on and the group took a break before proceeding with the actual TNSOL training module. Thus, several of the reasons cited by the bureau in its response do not appear to support the current practice of repeating basic training. We maintain that due to the potential cost of this policy, the bureau should either provide more information on the cost effectiveness of continuing the current practice or develop a training plan flexible enough to avoid the unnecessary repetition of orientation and administration information. We have revised our recommendation accordingly.

In addition, the bureau concurred with our recommendations to (1) review the Targeted Non-Sheltered Outdoor Locations guidelines, site selection criteria, procedures, and dress rehearsal data and (2) include the description and purpose of the Be Counted program in staff training materials. First, the bureau expects to develop a final plan on TNSOL enumeration by February 1999. We would like to review the bureau's plan and working group's approach to evaluating the program prior to February 1999. The bureau should include a timetable for our review in its Action

Plan. Second, the bureau indicates that it will include a description of the Be Counted program in its *Census 2000 Partnership Implementation Plan* and ensuring that a description is included in subsequent partnership training materials. However, we stated in our draft report that the Keshena staff did not understand the role and purpose of the Be Counted program. We believe that the bureau should clarify in its action plan its intent to reach the local, non-partnership, staff during Census 2000 and the timing of this activity.

X. Improvements are Needed in Some Key Administrative Operations

We found that improvements were needed in some key administrative operations: (1) procedures for employee time sheets need to be followed, (2) the regional center could benefit from an on-line scheduling tool, (3) the poor performance of employees must be documented, (4) employees must not be hired prior to background check approval, (5) the regional center needs a backup plan for its office automation operations, and (6) the non-response follow-up supplemental pay criteria need to be better defined.

A. *Procedures for preparing, reviewing, and approving employee time sheets are not always followed*

We reviewed 54 Daily Pay and Work records to determine (1) whether employee time and attendance data entered into the payroll system was accurate, (2) how errors were detected, and (3) what corrective actions were taken if errors are found.²⁵ Although we found that the employees we sampled were paid the correct salary and mileage rates, we noted that not all employee time sheets were audited or signed by an authorized supervisor. According to bureau time and attendance guidelines, payroll clerks must audit or review all employee time sheets for completeness and accuracy. In addition, some people have been over-paid. Lastly, we noted that some time sheets have illegible entries and hours are not correctly calculated based upon the start and end times entered. While these problems have not revealed any significant errors to date, they do indicate a weakness in internal controls that may result in potentially larger problems if not corrected.

“Audits” of time sheets are not always documented

The payroll system’s operating guide requires that all time sheets be “audited,” and the clerk who audits the time sheet must initial and date it and provide any pertinent remarks. The clerk must initial the form only if all entries are determined to be correct. If there is an error, the clerk makes a correction in red ink and returns the form to the appropriate crew leader. However, without a proper audit, time sheets may be inaccurate and result in incorrect paychecks. Audits of employee time sheets, after being submitted to the regional center, are not being properly documented for every time sheet. For example, one ICM crew leader’s time sheets from December 10, 1997, through March 27, 1998, did not have audit clerk initials indicating an audit was performed. Also, there were no audit clerk initials on time sheets for one field operations supervisor during February and March 1998, and several other employee time sheets lacked audit clerk initials for as long as two months.

Some time sheets are not properly signed

Employee time sheets are not always certified, as would be evidenced by employee and supervisor signatures. For example, even though a field operations supervisor did not sign one of her time sheets, her supervisor still signed the time sheet, and the time sheet was processed. In addition, many

²⁵The Daily Pay and Work Record (Form D-308) documents the hours worked by each employee and expenses to be reimbursed to each employee.

other time sheets had no supervisor signature at all, or were signed or initialed by other employees who were not authorized to approve time sheets. Finally, some of the time sheets that lacked the proper supervisor's certification were audited, processed, and paid without being returned to obtain the proper signature. According to the administrative manual used by the Menominee field office and regional center, both the employee and supervisor must certify the legibility, completeness, and accuracy of the time sheet, and determine whether the hours, mileage, and expenses are accurate. In addition, the payroll system's operating guide specifically states that the auditor should not process the payroll form if it lacks employee and supervisor signatures.

Overtime for one timesheet was not accurate

We found that overtime hours on one time sheet was incorrectly calculated. The employee recorded overtime without working the required 40 regular hours. As a result, the employee incorrectly charged two hours of overtime. We are concerned that this timesheet was audited and the employee paid. As a result of our finding, the bureau is sending an overpayment letter to this employee.

Number of hours worked does not always represent number of hours paid

We also noted that the number of hours worked on some time sheets did not match the hours paid. For example, one employee was paid for eight hours but only worked seven hours, and the clerk performing the audit did not correct this error. On another employee's time sheet, the time of day worked is illegible, making it difficult to determine the accuracy of hours worked. Although no audit was performed to correct the illegible entry, the payroll system's operating guide states that auditors may disallow illegible entries.

Overall, our observations concerning time sheets indicate that without adherence to the guidelines for preparing, approving, auditing, and correcting time sheets, there is a risk that paychecks will be incorrect and the bureau could potentially overpay or underpay some employees for Census 2000. As a result, the bureau needs to ensure that established procedures for preparing, reviewing, and approving employee time sheets are followed.

B. Manual scheduling of tasks at Regional Census Center is burdensome

During our visit to the Chicago regional center, we noted that bureau headquarters regularly provides a printed schedule to the center that shows the beginning and end dates for each operation over a three-month period. For example, the personal interviewing for integrated coverage measurement and the non-response follow-up media campaign are two activities shown on the schedule. However, the schedule does not provide any scheduling details about each task that the regional center needs to accomplish under those individual operations.

The regional center must, therefore, maintain a separate manual schedule of the tasks for each operation. Each time the bureau headquarters' schedule slips, such as when training manuals are late, the regional center has to manually adjust its task schedule. The regional center is faced with a time-consuming process every time schedules change, and changes appear to occur frequently. An on-line scheduling tool would save administrative time and enable regional center staff to be more available

to perform census operations. The bureau should evaluate the feasibility of providing an on-line scheduling tool for the regional centers and local offices that would enable them to better schedule or reschedule tasks.

C. Poor employee performance is not being documented

The regional center did not document the poor performance of at least one employee who separated without being terminated for cause. This increases the risk that a poor performer could be rehired. Employees who separate without being terminated for cause are those who leave on their own accord and/or at the end of an operation. Between December 1997 and July 1998, no one was terminated for cause at Menominee, but 11 people were later separated at the end of an operation. One of the 11 separated people was identified by the area manager as a poor performer. However, no regional center personnel entered any information into the employee's file or the automated administrative system to indicate that this employee's performance was not adequate.

The local census office's administrative manual requires the supervisor to communicate to the employee how his/her work performance is unacceptable and document this on Form D-282, "Documentation of Performance and/or Conduct Problems." However, the supervisor did not verbally communicate the performance problem to the employee because the employee began working late in the operation and her poor performance was not noted until the end of the operation. In addition, the supervisor did not enter any information into the employee's file. Without documentation of poor performance, there is a risk that the poor performer could be rehired in the future. The bureau should emphasize the importance of documenting poor performance in the automated administrative system for all employees whose performance is not acceptable.

D. One employee was hired prior to background check approval

The Keshena office hired one applicant before receiving Decennial Applicant Name Check clearance. The bureau uses DANC to obtain any prospective employee information and a criminal record check from the Federal Bureau of Investigation. Because the field operations supervisor incorrectly informed the applicant that she was hired, the applicant attended non-response follow-up training. Usually, regional center staff recruit for the Keshena office by telephone from Chicago. However, the Keshena staff assisted the regional center with non-response follow-up recruiting because many candidates were difficult to contact by telephone from Chicago. The Keshena staff used a recruiting list provided by the regional center to contact applicants; however, one name on this list had not cleared DANC.

The administrative operating guide specifically states that applicants who do not successfully pass DANC are considered unacceptable risks and will not be hired. When regional center personnel notified the field operations supervisor that this person had not cleared DANC, the person was let go. The bureau needs to reinforce its procedures to prevent hiring individuals who have not obtained DANC clearance.

E. Backup plan for office automation systems has not been prepared

We found that neither the Chicago regional center nor the bureau had prepared contingency plans for the uninterrupted operation of the regional center's automation systems, including payroll, personnel, and geography. Bureau headquarters personnel stated that they are aware of this problem and are discussing proposed solutions, including having the regional center's processing done at headquarters or at other regional centers should a system go down. One option is to use the bureau's beta site, located at headquarters, which is now being used to answer user questions and solve information technology problems. The beta site has the same equipment and software as the regional centers. Bureau personnel stated that another option is to have the regional centers provide backup support for one another.

Office of Management and Budget Circular A-130 requires that appropriate contingency plans be developed and maintained by information technology users to ensure that users can maintain their operation if planned or actual information technology support is interrupted. The bureau should therefore prepare a contingency plan for its office automation systems at the regional centers as soon as possible, including (1) emergency response procedures to cover the appropriate response to a disastrous event, (2) backup operations procedures to ensure that essential data processing operational tasks can be conducted after disruption to the primary facility, and (3) recovery action procedures to facilitate the rapid restoration of a facility following physical destruction, major damage, or loss of data. Although the Chicago regional center has not had a power disruption, the regional center should make interim backup arrangements until a bureau-wide backup plan is prepared.

F. Some non-response follow-up supplemental payment criteria are not clearly defined

The bureau has implemented a supplemental payment program for non-response follow-up that offers additional pay if employees meet certain production and quality requirements. During non-response follow-up, workers conduct personal visits to households to complete dress rehearsal questionnaires that have not been returned. Each personal visit is considered one case. Under the supplemental pay program, employees earn additional pay for cases on both a piece-rate and end-of-operation basis. The piece-rate payment of \$1.00 per completed case is offered to enumerators if they meet the following criteria: (1) complete all assignments, (2) maintain a minimum per hour production rate of 1.75 cases per hour, (3) remain available for additional assignments, (4) pass re-interview successfully,²⁶ and (5) work at least six hours on weekends. However, we found that two of the five criteria for piece-rate supplemental pay are not clearly defined. In addition, although we examined how supplemental payments were made, we did not evaluate the effectiveness of the incentive program.

²⁶Re-interview is a quality assurance procedure that is conducted at the same time as non-response follow-up to detect data falsification. During re-interview, either a telephone or personal visit is made to verify the occupancy status and household roster from a sample of households.

We found that the Keshena office is not complying with the first piece-rate criteria for completing all assignments. The Keshena office made piece-rate payments to at least two enumerators with cases outstanding. Because the administrative manual and supplemental pay flyers lack a thorough definition of what completing all assignments means, the area manager interpreted the criteria in this manner: she explained that with new work always being assigned, "completing all assignments" does not mean finishing all work assigned, but making satisfactory progress on the work assigned.

According to the supplemental pay flyers, the piece-rate payment is to be paid on a weekly basis. However, it takes longer than a week to complete all the cases in a typical non-response follow-up assignment. This dilemma is contributing to the confusion related to "completing all assignments" and how to pay employees appropriately. If the criteria for completing all assignments is not clarified, employees may not understand what is required to earn the additional pay, and the intent of the supplemental pay incentive may be lost.

The criteria for employees successfully passing the re-interview phase is also not being properly followed. Specifically, we found that piece-rate payments are being paid prior to determining if the employee has successfully passed the re-interview phase for the same week of work. The administrative manual and supplemental pay flyers do not define *when* an employee must pass the re-interview phase successfully in order to be paid supplemental pay, resulting in different interpretations of this criteria. For example, the area manager reviews the employee's re-interview experience prior to the week that the supplemental payment is made. She told us that a weekly supplemental payment would not be paid if an employee had not passed all re-interview phases up until that week. However, the area manager does not review the employee's re-interview experience for the same week that the supplemental pay was paid. Thus, there is no mechanism to prevent the payment of a weekly piece-rate payment to an employee who may subsequently fail the re-interview phase for the same week of work. During our inspection, we did not find any such cases. Clearly, however, the criteria for successfully passing the re-interview phase needs clarification

The bureau will evaluate the supplemental pay program at the conclusion of dress rehearsal and will then determine whether to retain the program. If it decides to retain the supplemental pay program for Census 2000, the bureau needs to clarify the policies and procedures on supplemental pay and disseminate them to employees. The policies and procedures should include thorough definitions of the criteria for completing all assignments and successfully passing the re-interview phase, to ensure that all regional centers are administering the supplemental pay program properly and consistently.



The bureau will assess administrative procedures, including timesheet procedures, and notify regional directors of findings and corrective actions needed to address problem areas. In addition, the Field Division recently revised its guidance for obtaining a DANC waiver to provide additional clarification of the documentation requirements and to reiterate the bureau's policy that prohibits selecting and appointing applicants outside of the PAMS/ADAMS operating system without the required documentation and clearances. Also, a group of technical experts has been convened to design the systems and procedures necessary to ensure full recovery capabilities for the regional centers and local offices for Census 2000.

In addition, the bureau agreed with our recommendation to emphasize the importance of documenting poor performance in the automated administrative system for all employees whose performance is not acceptable. The bureau recently modified PAMS/ADAMS to exclude previous employees who have been terminated for cause. Only former employees who were separated from the bureau on good terms will be listed as experienced employees on the selection certificates. However, the bureau's response to our recommendation was unclear about documenting poor performance in PAMS/ADAMS. As a result, the bureau needs to clarify its response in its action plan.

RECOMMENDATIONS

We recommend that the Acting Director of the Bureau of the Census ensure that the following actions are taken.

1. Ensure that the proper map spot assignments, including housing unit/map spot numbers, have been accurately recorded in the bureau's address list databases to support the (1) consistent matching of housing unit records during various operations, and (2) correct tabulation of data according to the local government's geographic reassignments of housing units (see page 9).
2. Determine the actual sources of the discrepancy between the update/leave maps and their address register and ensure that similar discrepancies do not occur in 2000 (see page 9).
3. Reconfigure the PAMS/ADAMS software so that information about all candidates on a selection certificate can be readily printed in ranked order (see page 13).
4. Ensure that there is closer coordination and prior consultation between the tribal leaders, tribal liaisons, partnership specialists, the Complete Count Committees, the prime contractor, and the subcontractor to strengthen the advertising campaign (see page 18).
5. Ensure that the new automated regional center staffing report is accurate and timely and reflects all hiring information for regional center staff and local office manager positions (see page 22).
6. If training manuals are still being updated near the training dates for Census 2000, the bureau needs to provide better notification to the regions concerning when the training manuals can be expected to be delivered, so that local managers can make the appropriate arrangements for assembling the materials and providing quality control (see page 23).
7. Develop and implement a more accurate system for estimating the number of training manuals needed by trainees and staff for initial training and replacement training (see page 24).
8. Establish consistent policies and procedures to ensure that all deliveries are promptly routed to the proper individual once deliveries have been received by a census office (see page 25). In addition, implement policies and procedures to reduce the volume of supplies and equipment delivered to the wrong location, particularly after the proper offices for the deliveries have opened (see page 25).
9. Advise the Complete Count Committees to make every effort to sustain their work throughout all Census operations (see page 28).
10. Determine whether its policy that all integrated coverage measurement materials are to be both shipped from and received at personal residences is valid for rural areas. If the policy is not valid for rural areas, the bureau needs to develop procedures identifying how office

- personnel will handle the collocation of integrated coverage measurement and census materials in 2000 (see page 31).
11. Ensure that Census guidelines for maintaining integrated coverage measurement independence are carried out (see page 31).
 12. Immediately correct the problem in the integrated coverage measurement enumerator history report to ensure that prior dress rehearsal experience is known about any persons hired for integrated coverage measurement operations (see page 32).
 13. Reevaluate the requirement that listers deliver questionnaires in strict adherence to the order listed on their address register, and determine under what circumstances, if any, it might be permissible for a crew leader or other appropriate staff member to approve delivery in some other order (see page 33).
 14. Develop a training plan that is flexible enough to avoid repetition in its orientation training and allow employees with recent census experience to arrive for training after the administrative portion of the new employee training is completed. Alternatively, the bureau should further justify the cost effectiveness of its current practice (see page 34).
 15. Review the Targeted Non-Sheltered Outdoor Locations guidelines, site selection criteria, procedures, and dress rehearsal data to (1) reassess the cost and effectiveness of the operation, (2) improve the process by which sites are identified and verified, particularly in the colder climates or rural areas, and (3) develop alternative procedures for situations in which no gatekeeper is identified or available (see page 36).
 16. Include the description and purpose of the Be Counted program in staff training materials, if the program is retained (see page 37).
 17. Ensure that established procedures for preparing, reviewing, and approving employee time sheets are followed (see page 40).
 18. Evaluate the feasibility of providing an on-line scheduling tool for the regional centers and local offices that would enable them to better schedule or reschedule tasks (see page 41).
 19. Emphasize the importance of documenting poor performance in the automated administrative system for all employees whose performance is not acceptable (see page 41).
 20. Reinforce procedures to prevent hiring individuals who have not obtained Decennial Applicant Name Check clearance (see page 41).
 21. Prepare a contingency plan for office automation systems at the regional centers as soon as possible, including emergency response procedures, backup operations procedures, and recovery action procedures. The Chicago regional center should also make interim backup arrangements until a bureau-wide backup plan is prepared (see page 42).

22. Clarify the policies and procedures on supplemental pay and disseminate them to employees, including thorough definitions of the criteria for completing all assignments and successfully passing the re-interview phase, to ensure that all regional centers are administering the supplemental pay program properly and consistently (see page 43).

APPENDIX A Glossary of Terms

Address listing

Address listing is performed in rural areas (with predominately non-city style addresses) to create mailing lists by identifying and listing the mailing addresses for all places where people live or could live.

Census Field Office

A field office is a small office that establishes the bureau's urban or rural presence for a short time period prior to the census. Field offices oversee census operations in one or more counties, or in part of a very densely populated county or jurisdiction. The bureau plans to open 425 to 450 temporary field offices for Census 2000 to cover address listing field work and to conduct local recruiting. Because all work elements scheduled for the field offices will be automated by the bureau's regional centers, field offices will not have any automation. Assignments will be generated within the regional centers and distributed to the field offices via U.S. Postal Service and overnight mailings.

Data Capture Center

The data capture center is one of four decentralized Census Bureau facilities (one permanent in Jeffersonville, Indiana; three temporary) that will check in Census 2000 questionnaires returned by mail, create images of all questionnaire pages, and convert data to computer readable format. The data capture centers also will perform other computer processing activities, including automated questionnaire edits, work flow management, and data storage.

Geocoding

Geocoding is the assignment of an address, structure, key geographic location, or business name to a location that is identified by one or more geographic codes.

Group quarters

Group quarters is a place where people live that is not the typical household-type living arrangement. The Census Bureau classifies all persons not living in households as living in group quarters. Institutional group quarters include nursing homes, prisons, and nursing homes. Noninstitutional group quarters include college dormitories, hotels, and motels.

Housing unit

A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that has its own kitchen facilities, a separate entrance, and is occupied as a separate living quarters or, if vacant, intended for occupancy as a separate living quarters.

Integrated Coverage Measurement

Integrated Coverage Measurement is a coverage measurement methodology that will be used to determine the number of people and housing units missed or counted more than once in Census 2000. This information is combined with the initial data collection results before producing a single set of official census results (the one-number census).

Using a sample of block clusters in urban and rural areas, enumerators will perform the following:

- Independent listing: create a list of housing units by identifying and recording the addresses for places where people live or could live in ICM areas.
- Housing unit followup: resolve differences between the ICM list of housing units and the census list.
- Person interview: conduct interviews at housing units in ICM areas and compare census household members with those obtained in the ICM interview.

Local Census Office

A local census office is a large office (about 6,500 square feet) that establishes the bureau's urban and rural presence in an area during the entire enumeration period. The bureau will have about 475 temporary local offices in 2000.

Master Address File

The master address file is a computer file based upon a combination of the addresses in the 1990 census address file and current versions, supplemented by address information provided by state, local, and tribal governments. The MAF is being updated throughout the decade and will provide a basis for creating the Census 2000 address list.

Non-response Follow-up

Non-response Follow-up is a census followup operation in which temporary field staff, known as enumerators, visit addresses from which no questionnaire was returned by mail, from which a telephone response was not received, or for which no administrative records could be located. Enumerators help individuals fill out questionnaires at each location.

Questionnaire Assistance Center

Questionnaire Assistance Centers are places where specially trained and sworn volunteers, or bureau employees, assist persons who may have questions or who may otherwise need help in completing their questionnaire.

Regional Census Center

A regional census center is one of 12 temporary Census Bureau offices established to manage local office activities and to conduct geographic programs and support operations such as automated map production.

Service-based enumeration

Service-based enumeration is an operation designed to enumerate people at facilities where they might receive services, such as shelters, soup kitchens, health care facilities, and other selected locations. This operation targets the types of services that primarily serve people who have no usual residence.

Targeted Non-Sheltered Outdoor Locations

Targeted Non-Sheltered Outdoor Locations is a program that compiles transient persons at locations, such as parks and under bridges, that are open to the elements and show evidence that people are living there.

Update/leave

Update/leave is a method of data collection in which enumerators personally deliver a census questionnaire to a household to be completed and returned by mail, and at the same time update the address list.

APPENDIX B
Bureau of the Census Response

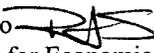


UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

OFFICE OF THE DIRECTOR

SEP 30 1998

MEMORANDUM FOR Johnnie E. Frazier
Acting Inspector General

Through: Robert J. Shapiro 
Under Secretary for Economic Affairs

From: James F. Holmes 
Acting Director

Subject: Dress Rehearsal Activities at Menominee Indian Reservation
and Chicago Regional Census Center Show that Improvements
are Needed for Census 2000
Draft Report No. IPE-10753

This is in response to your memorandum dated August 28, 1998, transmitting the above referenced draft audit report regarding the Menominee Indian Reservation and Chicago Regional Census Center. The purpose of the Dress Rehearsal is to identify any technical and operational difficulties in the Census 2000 plan with the full expectation that there will be some difficulties. The success of the Dress Rehearsal can be gauged by its ability to provide the Bureau with information about what worked well and what areas need improvement. A successful Dress Rehearsal will also provide the Bureau with ideas with how to improve operations that did not function as well as expected. On this measure, the Dress Rehearsal has been a success, not only because the Census Bureau was able to hire sufficient staff, achieve targeted mail response rates, and complete operations on schedule, but also because we did learn about areas where we need make improvements, some of which have already been addressed. Indeed, the Office of Inspector General (OIG) has been very helpful in working with the Bureau to identify these areas of concern, and the Bureau is appreciative of the OIG's input.

Your report includes the following recommendations:

- 1) *Ensure that the proper map spot assignments, including housing unit/map spot numbers, have been accurately recorded in the Bureau's address list databases to support the (1) consistent matching of housing unit records during various operations, and (2) correct tabulation of data according to the local government's geographic reassignments of housing units.*

The Bureau concurs: The Geography Division has established an interdivisional Geographic Products Quality Assurance Team that includes staff from the Field, Decennial Statistical Studies, and Decennial Management Divisions. This team has been reviewing all maps and other geographic products since mid-July, and the maps provided for recent field

operations, such as the nationwide Address Listing operation, have not had the types of problems that affected the Dress Rehearsal.

- 2) *Determine the actual sources of discrepancy between the Update/Leave maps and their address register and ensure that similar discrepancies do not occur in 2000.*

The Bureau concurs: The steps described in response number 1 apply to this issue.

- 3) *Reconfigure PAMS/ADAMS software so that information about all candidates on a selection certificate can be readily printed in ranking order.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. The Census Bureau has modified the PAMS/ADAMS system to generate "Selection Records" (Form D-425), with up to 50 names of qualified applicants in rank order along with appropriate information needed by selecting clerks to contact applicants, complete the interview guide, and make job offers.

- 4) *Ensure that there is closer coordination and prior consultation between the tribal leaders, tribal liaisons, partnership specialists, the Complete Count Committees, the prime contractor, and the subcontractor to strengthen the advertising campaign.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. The Census Bureau's Partnership Specialists are meeting with every federally recognized American Indian Tribe to plan, coordinate, and consult on a variety of Census 2000 activities, including overall partnership issues, recruitment, and the paid advertising program. Partnership Specialists also will meet with tribes that are not federally recognized to ensure their awareness and support of Census 2000 activities.

In particular, the Census Bureau is taking steps to ensure that the advertising campaign is based on input and insights from a number of stakeholders, including tribal leaders, tribal liaisons, and Complete Count Committees, as well as advisory committee members. The regional offices play a key role in gathering and passing along this information to the Census 2000 Publicity Office (C2PO). C2PO then analyzes the information and formulates specific instructions for the contractor. These steps include:

Meetings with Regional Office Staff and Advisory Committee Members—As of October 9, 1998, C2PO, along with the advertising team (Young & Rubicam Inc., J. Curtis and Company, Gray & Gray, Bravo Group, Mosaica), will have visited every region for 1-2 day meetings to get input and present plans for the 2000 campaign. Members of the Census 2000 Advisory Committee and of the Race and Ethnic Advisory Committees were invited to the meeting held in their region. Partnership Specialists described the special needs of their regions and their specific population groups. The exchange of information was very

valuable, and clear channels for future communication through C2PO were established.

Media Planning—As the OIG reported, media placement is critical for a successful advertising campaign. To optimize the placement of our ads, we plan to seek input from the regions, who in turn will seek input from such stakeholders as tribal leaders and Complete Count Committee members, at several points in the media planning and buying schedule.

- 1) July-October 1998—Regional meetings (described above). Regional offices supplied lists of local media for consideration by the contractor.
- 2) November or December 1998—Regional Directors' Conference. Regional directors meet with C2PO and contractor to provide feedback and any updated information on local media.
- 3) June/July 1999—Review media plans. Contractor submits media plans outlining types of media and estimated amounts of time and space to be bought. Regions review and provide comments to C2PO.
- 4) December 1999/January 2000—Media Launch Books. Contractor distributes actual media schedules after the media buy. Regions review and provide input to C2PO for possible last-minute adjustment. Note that any added media at this time will have to have strong justification, since buying individual spots is very expensive and labor-intensive.
- 5) Ongoing. At any time, stakeholders are welcome to provide input to the Contracting Officer's Technical Representative, Mauro Cooper, in C2PO, either directly or through the regions.

Joint Advisory Committee Meeting—On October 26, 1998, members of the Census 2000 Advisory Committee, the Race and Ethnic Advisory Committees, and the Professional Advisory Committees will have an opportunity to meet the contractors and discuss any issues concerning the advertising campaign. Members of the public also can attend and will have an opportunity to speak. Key stakeholders are represented by these committees. For example, the National Congress of American Indians, the League of United Latin American Citizens, the National Urban League, and the National Coalition for an Accurate Count of Asians and Pacific Islanders are some of the groups represented.

Review of Advertisements—The Census Bureau plans to get input on the creative designs and messages primarily through the advisory committee and regional office structure. Each of the Race and Ethnic Advisory Committees has been asked to designate someone to work with us on the advertising campaign. Along with a subgroup of the Census 2000 Advisory Committee and regional directors, they will be invited to observe focus group research and to look at creative concepts then.

Additional Input from the American Indian Community - In addition, the Census Bureau's American Indian Specialist in the Customer Liaison Office serves as an advisor to C2PO on the advertising campaign and will bring together resources as needed for additional input.

Meetings with Regional Directors—The Regional Directors' Conference will provide regular opportunities for C2PO to report on the progress of the advertising campaign and to get additional feedback from the regional directors.

Direct Communication with C2PO—Stakeholders can call or write to Mauro Cooper with their insights or suggestions.

There is considerable interest in the advertising campaign among the over 500 tribal governments, the thousands of Complete Count Committees that will be established, and many others. We believe that the steps outlined above provide extensive opportunity for consultation and coordination in an orderly and workable format at the grass-roots level.

- 5) *Ensure that the new automated Regional Census Center staffing report is accurate and timely and reflects all hiring information for Regional Census Center staff and local office manager positions.*

The Bureau concurs: The redesigned staff reporting system was implemented to provide more timely, accurate information on staffing levels in the Regional Census Centers (RCCs). The system will be expanded to include Local Census Office (LCO) management positions. The RCCs will be able to update files as staff is hired. Headquarters will be able to generate staffing reports as needed.

- 6) *If training manuals are still being updated near the training dates for Census 2000, the Bureau needs to provide better notification to the regions concerning when the training manuals can be expected to be delivered, so that local managers can make the appropriate arrangements for assembling the materials and providing quality control.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. The Census 2000 Dress Rehearsal has provided valuable lessons regarding quality control needs for shipping and receiving supplies, kits, and other Census 2000 products. Due to the significant operational burden placed on regional staff during the Dress Rehearsal, the Census Bureau has reevaluated its procedures for supply and kit delivery. In Census 2000, materials and kits will be packaged centrally at the Jeffersonville National Processing Center and shipped to the regions, rather than assembled on-site at the local offices, as was done in the Dress Rehearsal.

In addition, quality control needs associated with materials, supplies, equipment, and all other regional deliveries have been improved significantly as a result of an on-line, automated tracking system that the Bureau put into place this summer. As the OIG has indicated in its report on the Menominee Dress Rehearsal, this system will enable the regions to provide real-time feedback to Bureau headquarters about deliveries and better manage their schedules and work around anticipated deliveries.

The Census Bureau also has instituted a RCC Administrative Memorandum series that notifies regional offices in advance of specific shipments and provides an anticipated

delivery time for equipment, materials (i.e., manuals), supplies, etc. These tools will enable the Bureau and the regions to better monitor and be informed of the status of materials delivery in Census 2000.

- 7) *Develop and implement a more accurate system for estimating the number of training manuals needed by trainees and staff for initial and replacement training.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. The new automated, on-line tracking system and RCC Administrative Memorandum notification process discussed in response No. 6 will enable the regional offices and Census Bureau headquarters to communicate better and resolve shipping and supply needs, including training manual deliveries. The advance notification process will provide the regions an opportunity to modify shipments and inform the Bureau when there is a need to adjust the number of materials expected. The Census Bureau will incorporate lessons learned from the Dress Rehearsal to better estimate the number of materials needed for initial and replacement training for Census 2000.

- 8) *Establish consistent policies and procedures to ensure that all deliveries are promptly routed to the proper individual once deliveries have been received by a census office. In addition, implement policies and procedures to reduce the volume of supplies and equipment delivered to the wrong location, particularly after the proper offices for the deliveries have opened.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. Based on the experiences of the Census 2000 Dress Rehearsal, the Census Bureau has revised its entire shipping and delivery procedures as reflected in the response number 7 above. The advance notification process and the automated tracking system identified in response No. 6 are expected to greatly improve delivery problems experienced during the Census 2000 Dress Rehearsal.

- 9) *Advise the Complete Count Committees to make every effort to sustain their work throughout all Census operations.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. In April 1998, the Census Bureau released the *Census 2000 Complete Count Committee Handbook for Local Governments*. The handbook provided recommended guidelines for Complete Count Committees to follow through Census 2000, including post-Census Day operations. This guidebook has been mailed to every local jurisdiction in the United States (39,000). The Census Bureau also is incorporating this need into regional training sessions as a priority matter for partnership staff.

- 10) *Determine whether its policy that all integrated coverage measurement materials are to be both shipped from and received at personal residences is valid for rural areas. If the policy is not valid for rural areas, the Bureau needs to develop procedures identifying how office personnel will handle the collocation of integrated coverage measurement and census materials in 2000.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. The Census Bureau has determined that its policy to ensure that ICM sample-specific materials are shipped from and received at personal residences is indeed a valid process for rural areas. The Census Bureau plans to continue this practice in Census 2000.

- 11) *Ensure that Census guidelines for maintaining integrated coverage measurement independence are carried out.*

The Bureau agrees with the intent of the recommendation: Census 2000 ICM office and field manuals and training activities will include specific and strongly worded cautions regarding the independence of ICM operations. The Bureau also intends to ensure complete separation of ICM operations from other census activities by providing separate local office space for ICM activities. The instance provided by the OIG in this particular report, however, was not an independence issue. The enumerator in question showed the respondent the map to help the individual determine whether his or her house was inside or outside of the boundary block cluster. This occurs from time to time when there is no unique identifiable address for a housing unit, or if there is lack of clarity in an address.

Moreover, all ICM respondents know in advance that they are participants in the ICM component of the Census 2000 Dress Rehearsal. They are given letters in advance and informed about the quality check operation. The Census Bureau does not concur, therefore, that this matter was a breach of ICM independence. The Census Bureau does agree, however, that other questions concerning ICM independence, which have been raised by the OIG, are valid and warrant the Census Bureau's full attention.

- 12) *Immediately correct the problem in the integrated coverage measurement enumerator history report to ensure that prior dress rehearsal experience is known about any persons hired for integrated coverage operations.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. The Census Bureau has confirmed the OIG's claim that the enumerator history for one of the staff hired to work an ICM operation did not reflect the staff person's prior work history on census operations. The file for this individual was inadvertently deleted. The ICM 2000 system is correctly programmed, however, to prevent an inadvertent assignment. Chicago regional office ICM staff are working closely to monitor the work history report to ensure that the work history of census staff appears as required.

- 13) *Reevaluate requirement that lists deliver questionnaires in strict adherence to the order listed on the address register and determine under what circumstances, if any, it might be permissible for a crew leader or other appropriate staff member to approve delivery in some other order.*

The Bureau concurs: The Census Bureau will review these requirements and reevaluate our procedure regarding this field activity. At the beginning of address listing, the initial instructions were to list in block order. When the inefficiencies associated with these instructions were brought to the Census Bureau's attention, the procedures were changed to allow field staff to list in a manner that was most practical and efficient to that particular region.

- 14) *Develop a training plan that is flexible enough to avoid repetition in its orientation training and allow employees with recent census experience to arrive for training after the administrative portion of the new employee training is completed.*

The Bureau does not concur: The Census Bureau believes strongly that the current policy to require all employees to arrive for training at the same time is a valid policy for the following reasons:

- It allows the Bureau to reinforce administrative procedures particularly to employees who may have been separated from the Bureau for long periods and require refreshment of administrative procedures.
- Project codes or other administrative details and/or procedures may change from one operation to another.
- Former workers bring their unique experiences and raise important questions that benefit newer employees.

- Allowing staff to enter a training period once it has started is disruptive to the training process and to new trainees.
- The Census Bureau is attempting to foster an atmosphere of teamwork and bonding in a short, but intense, time period. An uninterrupted training session with all trainees present *at the same time* will help the Bureau foster this type of work environment.

For these reasons, the Bureau is not inclined to implement this recommendation.

- 15) ***Review the Targeted Non-Sheltered Outdoor Locations guidelines, site selection criteria, procedures, and dress rehearsal data, to (1) reassess the cost and effectiveness of the operation, (2) improve the process by which sites are identified and verified, particularly in the colder climates or rural areas, and (3) develop alternative procedures for situations in which no gatekeeper is identified or available.***

The Bureau concurs: The Census Bureau is reassessing enumeration procedures for Targeted Nonshelter Outdoor Locations (TNSOLs), the outdoor component of the Service-Based Enumeration (SBE) operation. Since the Dress Rehearsal demonstration of TNSOL enumeration, the Census Bureau has established an internal work group to fully assess TNSOL operations and procedures. The work group consists of representatives from the Director's Office, Field Division, Decennial Management Division (DMD), Geography Division, Population Division, and regional representatives, including selected regional directors. Issues such as TNSOL definition, selection and crew size are among the issues currently being reviewed as well as issues unique to rural areas. The Bureau expects to develop a final plan on TNSOL enumeration by February 1999.

- 16) ***Include the description and purpose of the Be Counted program in staff training materials, if the program is retained.***

The Bureau concurs: The Census Bureau has included a description of the Be Counted program in its *Census 2000 Partnership Implementation Plan* (issued in March 1998). This document was provided to all regions and partnership staff as a primary tool in establishing an effective regional partnership program. The Census Bureau will ensure that a description is included in subsequent partnership training materials.

- 17) ***Ensure that established procedures for preparing, reviewing, and approving employee timesheets are followed.***

The Bureau concurs: The Census Bureau (Field Division), will assess administrative procedures, including timesheet procedures, and notify regional directors of findings and corrective actions needed to address problem areas.

- 18) *Evaluate the feasibility of providing an on-line scheduling tool for the regional centers and local offices that would enable them to better schedule or reschedule tasks.*

The Bureau concurs: The Census Bureau will assess the costs and benefits of this recommendation.

- 19) *Emphasize the importance of documenting poor performance in the automated administrative system for all employees whose performance is not acceptable.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. The Census Bureau has recently modified the PAMS/ADAMS system to exclude previous employees who have been terminated for cause (within the preceding six months) from the form D-425, Selection Record. Only former employees who were separated from the Bureau on good terms will be listed as experienced employees on the selection certificates. This will allow census selection officials to reemploy desirable, experienced employees. We will also review training materials and strengthen those sections dealing with documenting performance and conduct problems.

- 20) *Reinforce procedures to prevent hiring individuals who have not obtained Decennial Applicant name Check clearance.*

Problem Resolved: The Bureau concurs with this recommendation and has resolved this problem. The PAMS/ADAMS system is programmed to prevent the hiring of applicants who do not clear the Decennial Applicant Name Check (DANC) process. These applicants will not show on the D-25, Selection Certificate. On May 7, 1998, the Field Division issued RCC Administrative Memorandum No. 98-D-33 providing procedural guidance for obtaining DANC waivers. The Field Division recently revised its guidance for obtaining a DANC waiver to provide additional clarification of the documentation requirements and to reiterate the Bureau's policy that prohibits selecting and appointing applicants outside of the PAMS/ADAMS operating system without the required documentation and clearances.

- 21) *Prepare a contingency plan for office automation systems at the regional centers as soon as possible, including emergency response procedures, backup operations procedures, and recovery action procedures. The Chicago regional center should also make interim backup arrangements until a Bureau-wide backup plan is prepared.*

The Bureau concurs: We acknowledge that adequate systems were not in place during the Dress Rehearsal to handle all emergency situations that could have occurred. Fortunately, we did not have any emergencies during the Dress Rehearsal for which these procedures would have been required.

Plans for 2000: A group of technical experts has been convened to design the systems and procedures necessary to ensure full recovery capabilities for the RCCs and LCOs for Census 2000. A draft report detailing this contingency plan is under review by the group.

- 22) *Clarify the policies and procedures on supplemental pay and disseminate them to employees, including thorough definitions of the criteria for completing all assignments and successfully passing the re-interview phase, to ensure that all regional centers are administering the supplemental pay program properly and consistently.*

The Bureau concurs: The Census Bureau will establish a "Supplemental Pay Work Group" consisting of Dress Rehearsal administrative and operations staff, regional directors, and headquarters staff to review all issues related to supplemental pay. The work group will review existing supplemental pay procedures and the criteria for supplemental payment. The work group will develop recommendations regarding the future of the Census 2000 Supplemental Pay Program.