

# Counting the counters: effects of Census 2000 on employment

*In order to distinguish the underlying employment trends from the effects of Census 2000 hiring, the affected BLS employment estimates must be adjusted in each of the months in which intermittent census employees are hired*

Laura A. Kelter

Once every 10 years, the U.S. Bureau of the Census undertakes the constitutionally mandated Census of Population and Housing for apportioning of the House of Representatives. This decennial census is designed to collect demographic data about all persons living in the United States, Puerto Rico and the island areas.<sup>1</sup> In addition to Congressional redistricting, census figures are used for redistricting State legislatures and for distributing Federal funds for schools, housing assistance, highway construction, and programs for the elderly.<sup>2</sup> Because of its magnitude, the decennial census requires years of planning and thousands of employees to accomplish. For this reason, employment levels in the Bureau of Labor Statistics Current Employment Statistics (CES) survey, particularly in certain industries, are affected—both in the actual year in which the census is conducted and, to a lesser degree, up to 21 months prior to the census. Hiring for the census is reflected in data for Federal Government, except Postal Service, as well as in the aggregate, total nonfarm employment.<sup>3</sup> Detailing the amount of census effect within the CES data is essential to understanding the underlying employment trends in the affected industries.

### Historical overview

From its level at the end of the year prior to the census to its peak level during the census year, employment increases ranged from almost 125,000 during the 1970 census to 370,000 during the 1990 census. (See chart 1.) During each of the last four decennial censuses, Federal employ-

ment spiked between March and May of the census year, corresponding with hiring for the Nonresponse Followup portion of the census, which was conducted from April through July. In addition, prior to the census year, relatively small temporary increases in employment occur as workers are hired by the Bureau of the Census for Address List development and Preparation Field Operations.

In order to analyze the underlying employment trends in estimates affected by the decennial censuses, the affected CES employment series must be adjusted for each of the months in which intermittent census employees were hired. An example from the 1990 census helps illustrate this point. Prior to adjustment, Federal employment shows a sharp spike of growth in May and then a corresponding quick downturn 2 months later. (See chart 2.) Conversely, after adjusting for the temporary census workers, employment remained basically unchanged during the first half of the census year; it began to decline slightly in August, as the Nation entered the 1990–91 recession.

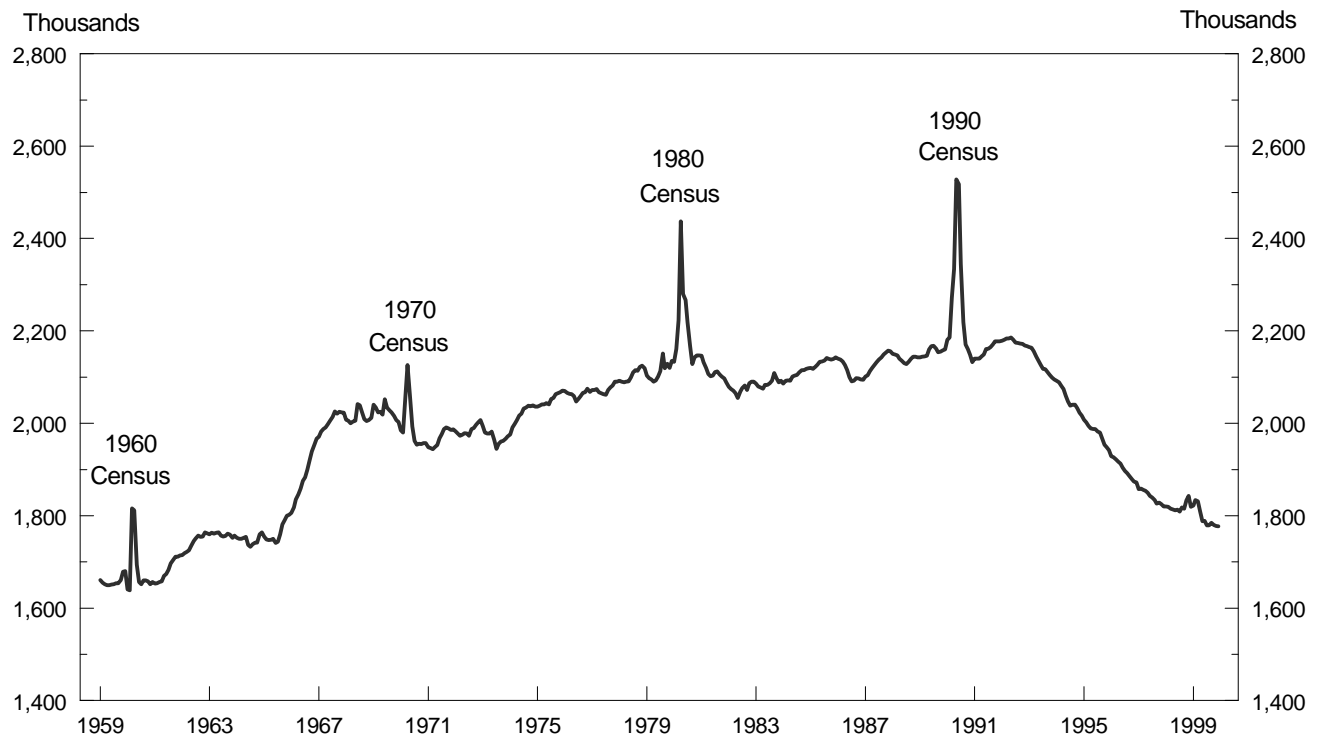
Similarly, prior to adjustment for the temporary census workers, total nonfarm employment peaked in May 1990 before declining sharply. (See chart 3.) After adjusting for the census workers, however, the increase in employment and the subsequent decline were more modest.

### Analysis of Census 2000 data

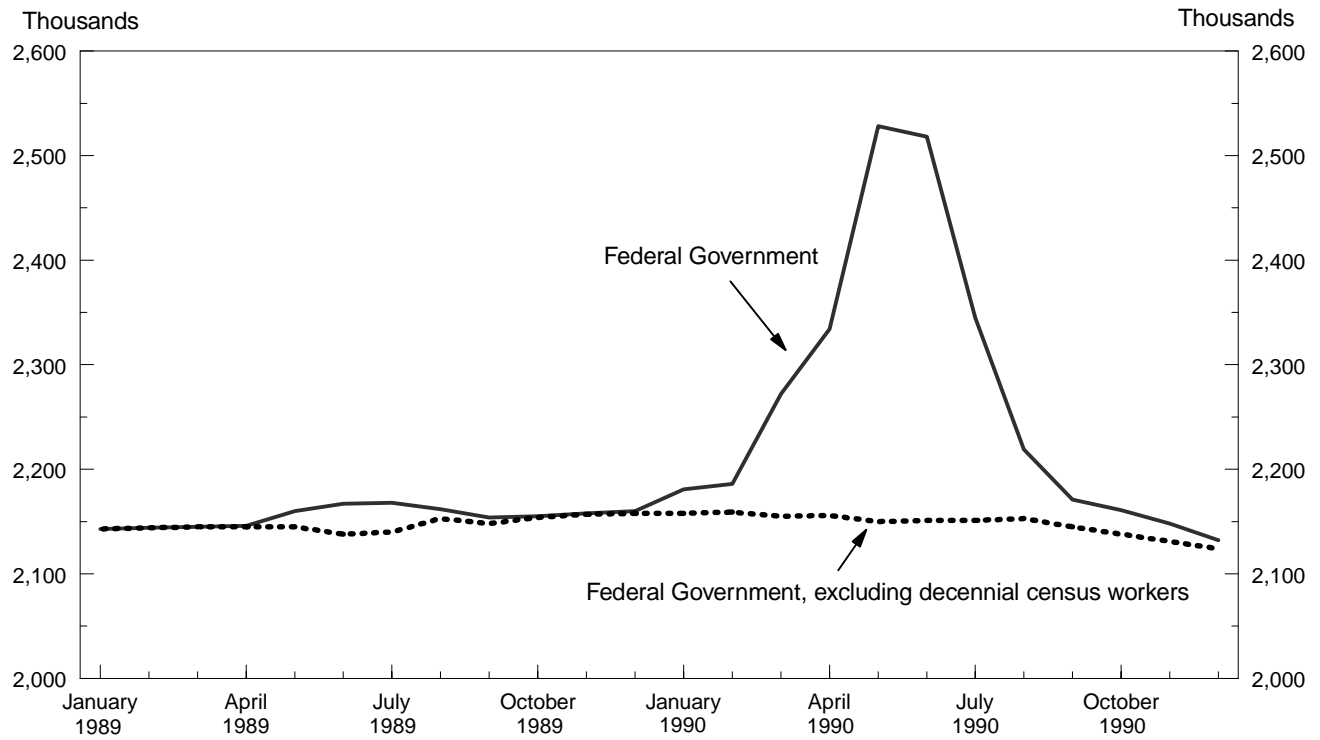
Hiring for the Census 2000 began in February 1998, but its effects did not become noticeable in the overall employment counts until August

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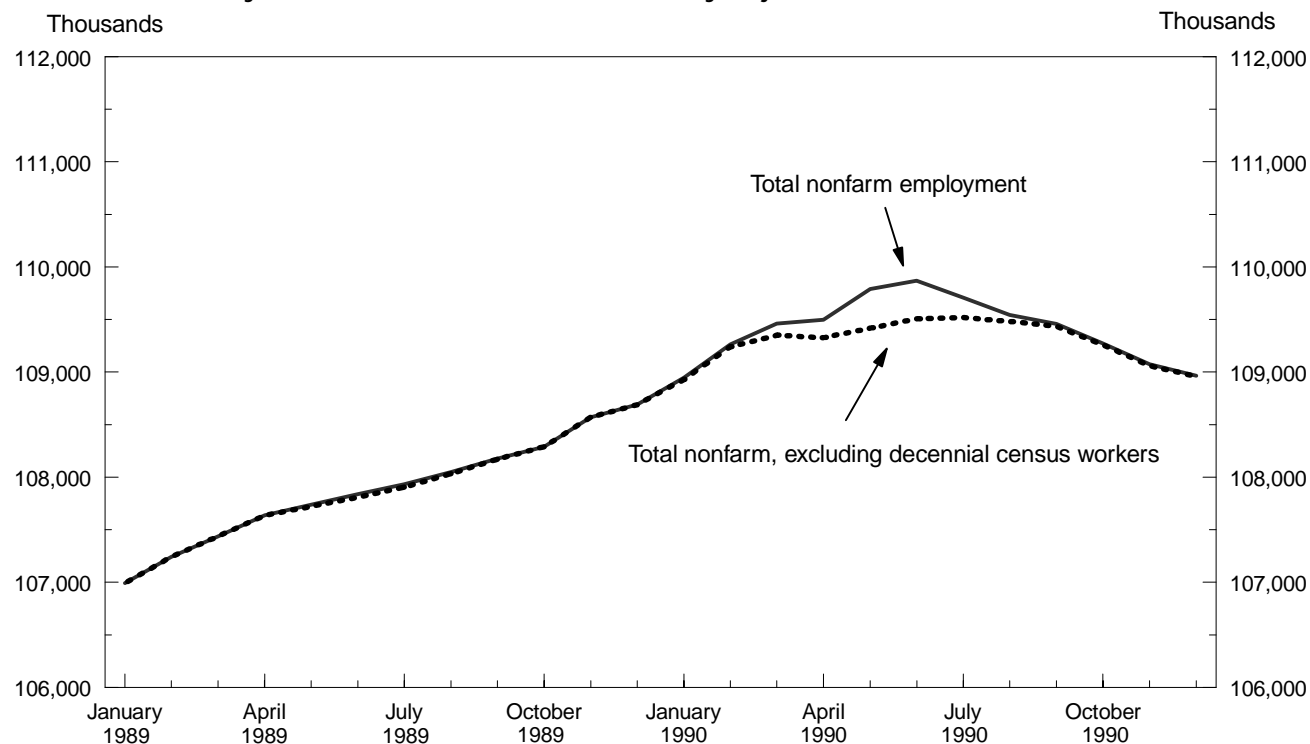
**Chart 1.** Employment in Federal Government, 1958–99, seasonally adjusted



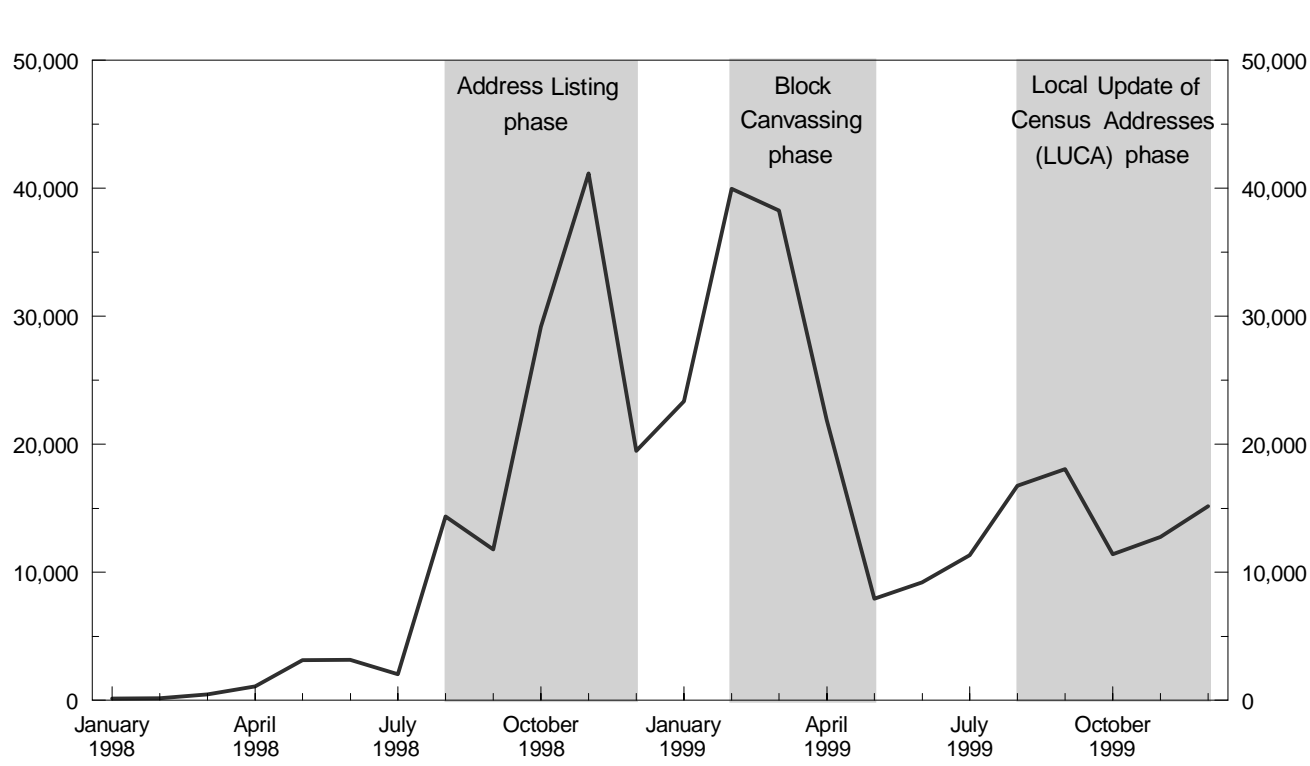
**Chart 2.** Employment in Federal Government, including and excluding decennial census workers, January 1989 to December 1990, seasonally adjusted



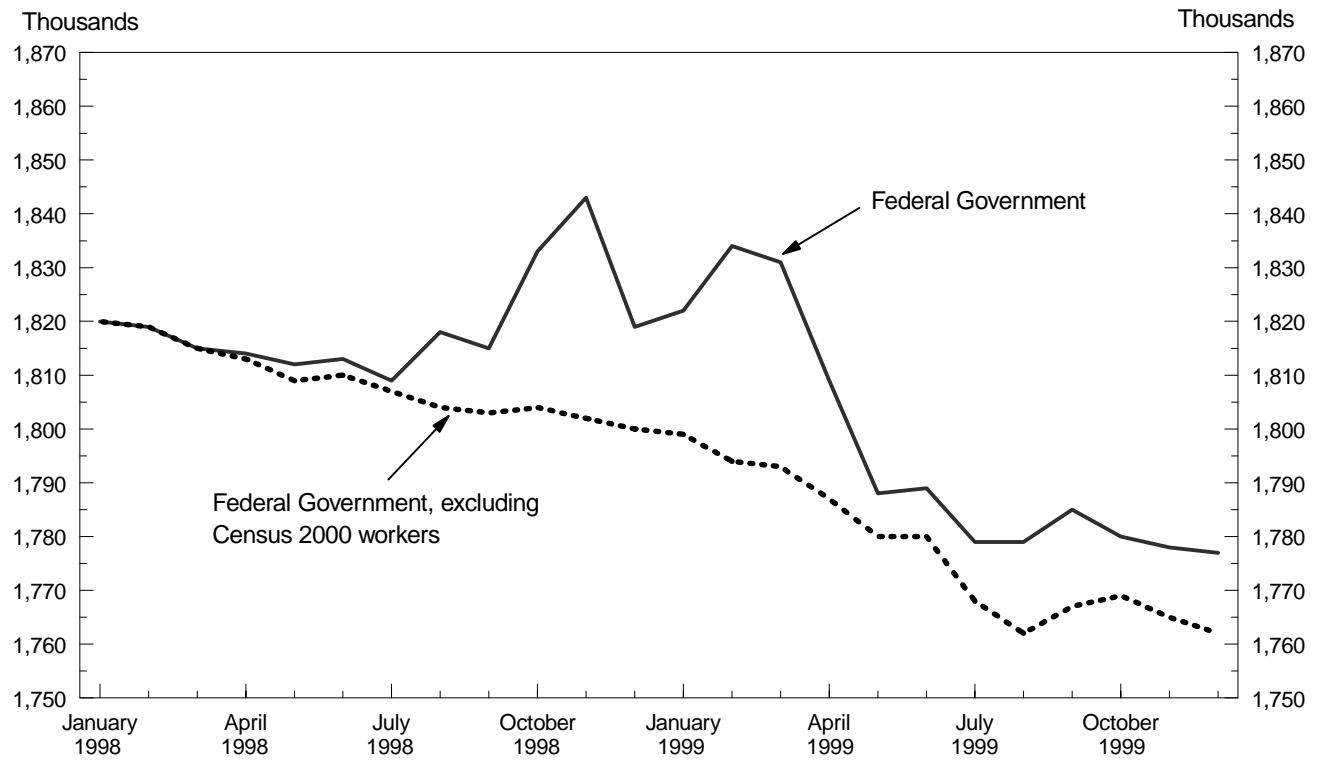
**Chart 3.** Total nonfarm employment, including and excluding decennial census workers, January 1989 to December 1990, seasonally adjusted



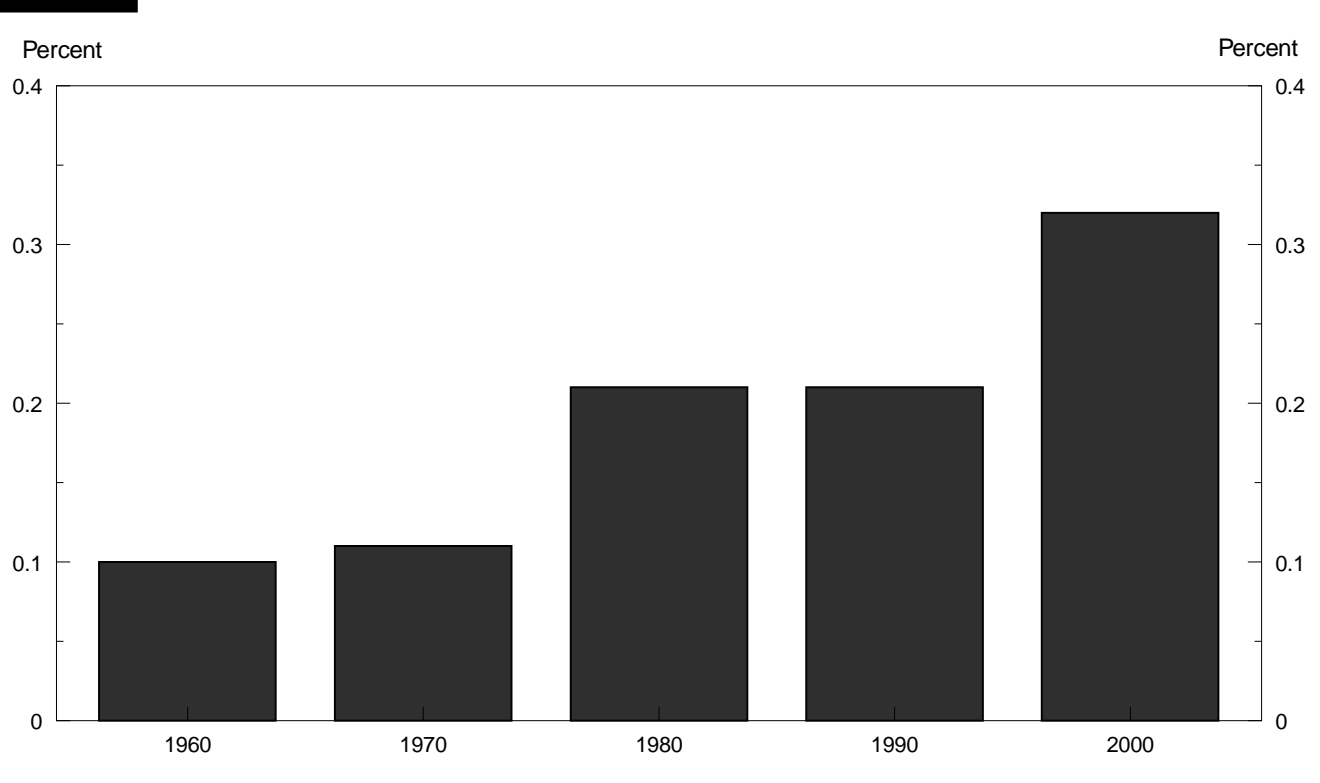
**Chart 4.** Employment of Census 2000 workers and phases of census, January 1998 to December 1999



**Chart 5.** Employment in Federal Government, including and excluding Census 2000 workers, January 1998 to December 1999, seasonally adjusted



**Chart 6.** Decennial census workers as percent of population, 1960–2000



1998, when the level of census enumerators grew by more than 12,000 workers over the month. (See chart 4.) This was the beginning of the agency's Address Listing phase of the census. Through Address Listing, the Bureau of the Census develops an address list for areas with non-city-style addresses, such as rural routes and box numbers. Address Listing allows census workers to document, on census maps, the street address or comparable location, the mailing address if different from the street address, and the census block location of all living quarters in the United States, Puerto Rico, and the island areas. In areas with non-city-style addresses, census workers canvassed assigned areas door-to-door, identifying each mailing address and describing its physical location. Employment during Address Listing peaked in November 1998 at a level of more than 41,000 jobs; the level then dropped back down to around 20,000 jobs in December.

Following Address Listing, the Bureau of the Census began its Block Canvassing phase for city-style areas with street and number addresses (about 94 million addresses.) In this phase, employees covered 100 percent of the ground, knocking on every third door. (In multiunit structures, all units were visited.) Also during this phase, census workers verified addresses, asked if there were additional units at the address or on the property, and inquired about surrounding addresses. Employment during Block Canvassing reached a peak of nearly 40,000 employees in February and March 1999 and then rapidly declined to fewer than 8,000 employees by May.

Following Block Canvassing and progressing through the end of 1999, the Bureau of the Census initiated its Local Update of Census Addresses (LUCA) operation. During this phase, local government officials were given an opportunity to review and provide updates to the address list of housing units, special places, and group quarters for their jurisdiction, as well as to update census maps. To that end, the Accuracy and Coverage Evaluation Survey and the Special Place Facility Questionnaire Operation were conducted. Employment of census workers reached a peak of approximately 18,000 workers during this phase.

Employment in Federal Government including the decennial census workers declined by 43,000 jobs between January 1998 and December 1999. When the decennial census workers are excluded, however, the industry declined at a slightly faster rate—58,000 jobs over the 2-year period. Even though both series were at about the same employment levels by December 1999, the hiring of Census 2000 workers clearly masked a downward trend in Federal employment. (See chart 5.) Decennial census workers averaged an additional 15,000 jobs per month during the period. Effects of the census hiring during 1998 were too small to be noticed at the total nonfarm employment level, with the exception

of the few peak months during Address Listing and Block Canvassing phases of the census. Most of the significant effects will come in 2000.

During preliminary work for the 1990 census, the pattern was similar, although not as dramatic during the early phases of the census. The hiring of the 1990 decennial census workers made employment in Federal Government appear to have grown when actually it had remained basically unchanged.

## Expectations for Census 2000

As the size of the population has increased, it has taken more employees to conduct the census (See chart 6.) The Bureau of the Census has stated that, to account for the anticipated 118 million housing units in the United States and a population expected to reach 275 million people, more than half-a-million census takers and support personnel will be needed. The temporary positions can last from as little as one day to several weeks, and most census workers will fill two or three of the more than 860,000 field positions needed to accomplish Census 2000.<sup>4</sup>

Forecasting its employment requirements has been difficult, for several reasons. First, the Supreme Court ruled in January 1999 that the Bureau of the Census could not use statistical sampling to supplement any count used to allocate Congressional seats. Second, the most labor intensive field operation, Nonresponse Followup, depends upon the actual percentage of census forms returned by the U.S. public.

Significant hiring for Census 2000 is planned to begin in March 2000 as preparations are made to conduct major field operations. Following Census Day—April 1, 2000—and continuing through early July, the agency will proceed into its Nonresponse Followup operation, the most labor-intensive field operation. Judging from the past, peak census employment, as measured by the CES, should occur between March and May 2000.<sup>5</sup> Following peak employment, significant layoffs should occur the following month and continue through December 2000.

THE CES EMPLOYMENT REPORT is a major coincident economic indicator. It is important that analysts understand the magnitude of Census 2000 hiring to distinguish underlying employment trends from this special activity that occurs once a decade. The most significant period of employment increases and subsequent declines due to Census 2000 will occur between March and September 2000. Throughout the period, the monthly BLS Employment Situation news release, which publishes data from the CES and the Current Population Survey, will identify the impact of census workers on the employment estimates. Early in 2001, BLS will publish a detailed account of the effects of Census 2000 on employment. □

## Notes

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<sup>1</sup> The island areas include the Northern Mariana Islands, Guam, American Samoa, and the U.S. Virgin Islands.

<sup>2</sup> See Census 2000 Home Page, on the Internet at <http://www.census.gov/dmd/www/2khome.htm>, accessed February 2000. The Census 2000 Home Page is part of the official Bureau of the Census website at <http://www.census.gov>.

<sup>3</sup> For the purpose of this article, the series, "Federal Government, excluding Postal Service," is used for Federal workers. Universe counts for Federal workers are provided to the CES survey by the United States Office of Per-

sonnel Management, Office of Workforce Information. The data reflect the number of temporary decennial census workers receiving at least one paycheck during the reference month.

<sup>4</sup> Census 2000 Home Page, on the Internet at <http://www.census.gov/dmd/www/2khome.htm>, accessed February 2000.

<sup>5</sup> A peak is reached in the month in which the employment trend changes from positive to negative. For example, during the 1990 census, employment in the series continued to expand through its peak level in May before declining in June.

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## Erratum

In the article, "Industry output and employment projections to 2008," by Allison Thomson (*Monthly Labor Review*, November 1999), some data in tables 1, 2, and 4 are incorrect. Therefore, some quantitative comparisons in the article may be incorrect. However, the qualitative analyses and conclusions remain unchanged. A revised version is on the Internet at:

<http://www.bls.gov/opub/mlr/mlrhome.htm>

For a reprint of the article, contact [mlr@bls.gov](mailto:mlr@bls.gov) or James Franklin, Office of Employment Projections, Bureau of Labor Statistics, Washington, DC 20212; telephone: 202-691-5709.

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