

## LABOR FORCE MEASUREMENTS FOR THE CENSUS 2000

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three periods - 1790 to 1860, 1870 to 1930, and 1940 to 1990 - in the history of the census.

The human resources of the United States must be fully utilized for the country to operate in an increasingly competitive world economy. In order to secure the information that the federal government needs to set policies and plan programs to maintain the United States' competitive advantage, this article recommends that a labor force utilization conceptual framework be employed in future census measurements.

Our recommendations for the census of the year 2000 address the specific task of securing data to inform work force policy decisions that are in agreement with the general welfare clause of the United States Constitution, which is to "...promote the general Welfare and secure the Blessings of Liberty to ourselves and our Posterity."

As the structure of the nation's work force changed over the past two centuries, the conceptual framework for census measurements has been adjusted to meet changing needs. Fundamental revisions of the census are sparked by wrenching social changes that so distort the relationship between the conceptual framework used for making measurements and the structure of the work force that census findings are not fully descriptive of reality.

Typically during major crises, just as policy makers demand greater resolution and scope of knowledge about the nation's work force, the facts needed to set policy and plan programs are not available from the census.

As we near the end of the twentieth century, the nation is in the midst of a period of change in work force structure. The conceptual framework for work force measurement used in the 1990 Census does not correspond with the current structure of the work force and needs to be revised for use in the year 2000. To preserve continuity, it is useful to plan for 2000 with the history of past censuses in mind. Three events - the revolution against British rule, the Civil War, and the Great Depression - mark significant turns and demarcate

### 1790 Through 1860 Censuses

The idea that human resources comprise the nation's wealth informed the first and each subsequent census. With independence, the U.S. government was left with the problem of finding an equitable plan for the distribution of the burdens of war and the allocation of power among the states. The Articles of Confederation mandated that the war's costs, as well as other expenses for the common defense and the nation's welfare, should be paid out of a common treasury which would be funded by the several states. Each state would contribute funds in proportion to the value of land within its borders. Requisitions for the number and kind of land forces were to be furnished by each state in proportion to its white population.

The Constitution, however, altered this by taking the number of humans rather than the value of land as the measure of each state's wealth and its obligation to the common treasury. The first census was conducted in 1790 simply to secure facts needed for purposes of taxation, representation, and raising of military forces. The complex institution of the census evolved out of these original simple counts.

In keeping with the principle that humans represent wealth that can be taxed for government purposes, the 1790 Census did not count Native Americans, who were not subject to taxation at this time. Each slave was counted as only three-fifths of a person. Only whites, including indentured servants, were given full weight in the census.

Possible differences in the productivity or economic value of each state's inhabitants, reflecting occupational skills or contributions, were ignored. It may have been that census designers saw no purpose in going beyond a count of persons who could work the land since the nation's population at this time was largely employed in the same occupation, agriculture. With time, the proportion of persons making their living from

farm work diminished relative to those receiving income in the form of payments (Lerner 1975).

Thomas Jefferson, speaking as President of the American Philosophical Society, did voice the need to get a better grasp of differences in the economic value of humans who secured their incomes in the form of payments rather than from operation of a farm. Specifically, he recommended that "the number of free white males, of all ages, engaged in business be counted" (Wright 1900, 19). Jefferson proposed a nine-fold classification system that foreshadows, in part, the effort made by census demographer Dr. Alba M. Edwards after the 1940 Census to complete a series of statistics by socioeconomic groups for the census years 1910 through 1940 (Edwards 1945, 176).

Except for token recognition in the 1820 Census, Thomas Jefferson's recommendations were largely ignored by Congress through the 1830 Census. Starting in 1840, censuses provided increasingly detailed statistics on the occupation of workers as well as on the demography of the population from which the work force was drawn.

The conceptual framework for census measurements through 1860 reflected the caste-like nature of the society. Freeborn persons were identified on the census schedule by name and classified by work skill. Slaves were identified by number and counted, without regard to work skill, as either living with their owner, being "fugitives from the state," or "manumitted."

#### 1870 Through 1930 Censuses

With the abolition of slavery and other social changes, the gainful worker conceptual framework was adopted as the framework for census measurements in 1870 and continued in use through 1930. The 1870 Census defined "gainful workers" as persons, whether born free or slave, who had a profession, skill, or trade, whether or not they did any work or sought work.

The federal government's chronic concern with taxation continued to be manifest in the conceptual framework used for census measurements. Gainful worker counts were limited to persons whose work might result in a payment, i.e., a taxable event. Other persons doing work for which they would not receive payment

were excluded from the count of gainful workers. An enumeration instruction for the 1870 Census indicates that persons are only counted as gainful workers if their usual occupation is a paying job.

NOTE: The term "housekeeper" will be reserved for such persons as receive distinct wages or salary for their service. Women keeping house for their own families or for themselves without any other gainful occupation will be entered as "keeping house." Grown daughters assisting them will be reported "without occupation" (cited in Wright 1900, 159).

The gainful worker approach to census measurement envisioned a work force with limited occupational mobility whose gainful worker status, as defined by their usual occupation, persisted over time whether or not the person worked at their usual occupation, or at some other occupation, or did not work at all. To illustrate, enumerators for the 1890 Census were told about a person who worked at his usual occupation of "farm laborer" for only nine months of the year, spent two months working in a shoe shop, and remained idle for one month. The enumerator is instructed to count this person as a gainful worker by virtue of his usual occupation as a farm laborer and note the two months spent in the shoe shop and one month idle. In effect, "farm laborers are farm laborers" regardless of what else they might or might not do in the way of work.

Adoption of the gainful worker framework accommodated the shift in the structure of the work force from caste, which is determined by accident of birth, to class, which is determined by usual occupation.

While the gainful worker conceptual framework adopted in 1870 took a relatively stable society structured by class as a given, the end of the Civil War marked the start of a period of intense social instability. The structure of the nation's work force was not only wrenched by radical change associated with the emancipation of slaves, but was further transformed by continuing urbanization and industrialization. The legislation protecting the rights of former slaves was only the start of increasing government intervention to protect free access to employment for all.

The general shift from a rural population working in agriculture to an urban population working in industry brought with it the increased

exploitation of workers in terms of increased hours worked, worse working conditions, and more child labor. The widening gap between capital and labor sparked conflicts that precipitated the emergence of labor unions. Increasing intervention by the federal government to deal with these new factors called for more and more information on which to base policy decisions.

Levels of work force activity fluctuated widely in this new employment environment. Massive unemployment developed at points in the business cycle where the productive capacity of factories and farms outgrew markets created by growth in consumer incomes. These changes made the gainful worker framework less and less congruent with the real situation, in which a person's professional or technical skill was no guarantee of employment.

The acute distress brought on by massive unemployment during the Great Depression of the 1930's moved the federal government to make new labor policies and develop ameliorative programs. To expand markets and deal with mounting unemployment, the federal government generated jobs by creating agencies that hired people at subsistence wages to do work deemed useful for the common good.

The federal government's efforts to draw upon the 1930 Census to learn about unemployment revealed that the statistics, generated within the gainful worker framework were grossly inadequate as a measure of the extent and character of unemployment. Lacking an accurate measuring tool for securing usable hard data, debates about the magnitude of unemployment hampered the development of policy and programs to deal with the problem.

The United States Congress, frustrated in efforts to deal with the volume of unemployment during the early 1930's, attempted to determine the volume of unemployment by funding the Census of Partial Employment, Unemployment and Occupations: 1937. This special study was a most important experimental operation because it led to the development of the labor force concept.

### 1940 Through 1990 Censuses

The labor force conceptual framework adopted for use in the 1940 counts members of the labor force as only those persons above a lower age limit who work or actively seek work for pay or profit during a specified period of time.

Contrary to the relatively static work force modeled by the gainful worker approach, which was based on usual occupation, the labor force approach provides a more direct and objective measure of unemployment by using a model more in line with the new reality of a highly transitory work force. In the labor force model, unlike the gainful worker model, people moved into and out of the labor force simply by seeking work for pay or profit or by ceasing to work for pay or profit. Because of this, work force statistics from 1940 onward are not comparable to statistics that were developed in the 1930 and prior censuses.

The advantages of defining the U.S. worker force in terms of activity rather than status became clear when the nation mobilized to fight World War II. As young men left the civilian labor force to go into the military, the need for workers to produce goods and services to support the war effort expanded. Women, the aged, disabled persons, and everyone else who could or would work became part of the labor force, whether or not they had a usual occupation.

To resolve the issue of classifying persons who actively engaged in work but not for pay or profit, the census adopted the procedure of classifying as part of the labor force only those "unpaid family workers" who reported spending 15 hours or more during the survey week working on the family farm or in the family business, without seeking or engaging in other work for pay or profit. Those working less than 15 hours were counted as engaged in incidental chores and excluded from the labor force (Goldfield, Lowman, and Shapiro 1947).

The disparity between the public's and the federal government's perception of work created problems in making measurements using the labor force framework. The public definition of work includes any effort to accomplish something useful for a household or society. But the federal government defines work exclusively as that which

is done for pay or profit. A significant labor force undercount occurred in 1940 because the questions used actually screened out people who worked or sought work for pay or profit, but who reported nonremunerated work first and did not mention paid work. As a result, the 1940 Census missed 1,440,000 persons - about 60 percent female and 40 percent male - in its labor force count for the census week March 24 through March 30, 1940 (Goldfield, Lowman, and Shapiro 1947). To remedy the undercount, a new approach was adopted in the July 1945 sample survey conducted by the Census to develop statistics for the Monthly Report on the Labor Force. The first question in the interview procedure asked respondents to describe, in open fashion, the main activity during the census week of each household member above a lower age limit. Persons not identified immediately as working or seeking work for pay or profit but described as students, housewives, or retired were subjected to further questions: "In addition did...(this person) do any work for pay or profit last week (or without pay on family farm or business)" (cited in Goldfield, Lowman, and Shapiro 1947, 5).

In the post-World War II years, as long as the reduction of unemployment and the creation of jobs was the major desideratum of federal government policy, the labor force framework worked very well for making measurements. However, with the passage of time, growth in the work skills of the population outpaced growth in the capacity of the economy to employ those skills and a number of members of the work force were not able to find work that employed their highest level of skills. That is to say, they became "underemployed" by virtue of "mismatch."

The shift in the structure of employment away from full time towards part time, temporary, and contract employment resulted in the "partial employment" of massive numbers of persons who could not find all the work that they desired. Simultaneously, and ironically, advances in technology created barriers to the employment of persons who failed to secure appropriate education or training. This resulted in the creation of what is popularly and pejoratively called an "underclass." As under-employment spread and

the underclass grew, the narrow concept of unemployment became inadequate for measuring the real situation (Myrdal 1968, cited in Hauser 1974).

In 1971 the International Labor Organization (ILO) convened a meeting to develop ways to secure facts relevant for setting policy and planning programs for inadequately utilized work forces. At this meeting, and resulting from discussions among members of the work group, Professor Philip M. Hauser developed the labor force utilization framework for studying the work force and its problems. The labor force utilization conceptual framework and methodology was designed to be used within the standard labor force approach if, simultaneously, supplementary information is obtained about education, training, and income or a proxy for income (Hauser 1974, 5).

Under the stimulation of the ILO's request to study the underutilization of labor in developing countries, Professor Hauser created instruments to obtain measurements of both visible and invisible underemployment in undeveloped as well as industrialized countries such as the United States.

Professor Hauser (1974) subjected existing data from the 1970 Census of the United States to analysis within the labor force utilization framework and found 20.0 percent of the male and 18.8 percent of the female U.S. work force to be underutilized.

Subsequently, two of Professor Hauser's former graduate students at the University of Chicago, Professors Clifford C. Clogg and Teresa A. Sullivan (1983), used the labor force utilization framework and found that utilization of the work force declined progressively during the decade of the 1970's from 77.0 percent in 1969 to 67.4 percent in 1980, with the traditionally unemployed accounting for 20 percent of the underutilized workers in 1980, less than half the 44 percent accounted for by mismatch.

The government is making some halting progress in developing statistics demonstrating that unemployment alone is a poor indicator of work force utilization. A March 1993 report shows that in addition to the 8.9 million unemployed workers, there were 6.2 partially employed and 1.1 discouraged workers (Bureau of Labor Statistics

1993). There were also 6.6 million working poor persons in 1990 (Gardner and Herz 1993, 1).

Even without taking into account the considerable number of workers underutilized by virtue of "mismatch," these data on the underemployed workers make it is clear that unemployment is not a good index of labor force utilization. U.S. government policy makers recognize and bear public witness to the fact that they are not adequately informed, either by the regular census or continuing sample surveys, of the true extent of the utilization or underutilization of the nation's work force.

Federal Reserve Board Chairman Alan Greenspan dismissed government statistics in testimony before Congress: "Don't look at the data and say everyone is in good shape...because they clearly are not" (cited in Uchitelle 1992).

Thomas Plewes, Associate Commissioner for the Bureau of Labor Statistics, testified that "it is quite clear that our employment statistics no longer fully explain what is going on out there" (cited in Uchitelle 1992).

Robert Reich, in testimony before Congress to confirm his appointment as Secretary of Labor, condemned the practice of not including discouraged workers in counts of the unemployed (Greenhouse 1993).

Policy makers are again deprived of needed information because the focus continues to be on unemployment, the problem of the 1930's, rather than on underutilization, the main problem facing labor policy makers in the 1990's. As a result there is now, as in the 1780's, 1860's, and 1930's, no agreement on the magnitude and anatomy of U.S. work force problems.

#### Census for the Year 2000

This paper recommends that the labor force utilization framework be adopted for making and analyzing work force measurements in the Census for the year 2000. This framework encompasses and goes further than the conceptual frameworks used in prior census measurements by taking simultaneous account of both the wealth of human resources at the federal government's disposal and the extent to which the federal government

discharges its obligations to its people by providing for their general welfare.

Of the six groups recognized in the labor force utilization framework, one - the adequately employed, which comprise those working at their highest level of skill with incomes above the poverty line - is the group from whom the nation realizes full potential economic value and to whom the nation gives the means for living without the restraints imposed by poverty.

The five remaining components of the labor force utilization framework are underutilized as well as underserved:

Unemployed - Persons who actively seek but do not find any work for pay or profit during the census measurement period.

Partially employed - Persons working part-time for pay or profit during the measurement period, but who desire full time employment.

Discouraged workers - Persons who do not seek work because of some real or perceived circumstances that leads them to believe that no work is available.

Mismatched workers - Persons who work for pay or profit but not at their highest level of skill.

The working poor - Persons who work but do not earn enough to live above the poverty line.

The methodology associated with the labor force utilization framework is well enough developed to be ready for use in the Census of the year 2000 with minimal further modification.

Four of the five components of the underemployed - the unemployed, the partially employed, discouraged workers, and the working poor - can be measured directly using operational techniques from prior censuses and from the continuing sample surveys.

Work previously conducted by Professors Hauser, Sullivan, Clogg, and others provides a basis for creating theoretical structures and operating procedures for ranking occupations in a way that permits comparisons between what workers actually do and their highest potential as measured by education and skill.

Measurements of the adequately employed are derived by deducting the net sum of these five underutilized groups from the total labor force.

Census labor force utilization measurements should be presented to policy makers in three

contexts for use in setting policy and in planning and administering programs.

1. For monitoring labor force utilization as a whole. We recommend that the federal government publish estimates of labor force utilization divided broadly between those who are and those who are not adequately employed. Workers who are not adequately employed should be classified further by providing estimates for each of the five underutilized components: unemployed, partially employed, discouraged workers, mismatched, and working poor.
2. For monitoring the effects of discrimination. The government should publish separate estimates of labor force utilization by race, ethnicity, gender, age, and disability to make sure that persons in each segment of the work force that has traditionally been subject to discrimination and whose access to employment is protected by law are adequately utilized and well served.
3. For monitoring the vitality of the nation's social structure. The federal government should publish measurements of utilization and underutilization for combinations of adults living in families, households, and the other basic economic units that need to be taken into account in setting policy and planning programs. Consideration should be given to gathering data on work that is not done for pay or profit, particularly rearing children which replenishes the work force, as well as "volunteer" work which contributes to the wealth of society.

In order to test and hone the methodology, we recommend that a large sample study of labor force utilization be conducted as soon as possible, with results available for use in time for planning the census for the year 2000. Conduct and analysis of this special study would help census designers make the changes necessary for the year 2000 in the same way that the special Census of Partial Employment, Unemployment, and Occupations: 1937 served the designers of the 1940 Census.

History shows that policy makers who habitually and continuously rely on the same conceptual framework for measuring the labor force eventually find themselves awash in a sea of useless statistics. This is because social realities are always subject to change. When the labor force's structure changes fundamentally, policy makers will not have a reliable basis for decision making until the conceptual framework for making labor force measurements is appropriately revised.

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