

Earnings data from BLS

What we have and how to find it

by Elka Maria Torpey

Earnings data from the U.S. Bureau of Labor Statistics (BLS) reveal who makes what in the workplace. These data help employers set wages and help workers negotiate pay. And for many people, earnings information can be a deciding factor when choosing an occupation. No wonder, then, that questions about earnings are among those most frequently asked of BLS.

And they've come to the right place: BLS has more earnings data than any other Government agency. In fact, BLS has so much information on the subject that people might need help figuring out what is available where.

This article describes five BLS programs and the types of earnings data they provide. Key distinctions are highlighted in a table on page 40. You also have a chance to check your earnings know-how: Try the quiz on page 44.

Elka Maria Torpey is a contributing editor to the OOOQ, (202) 691-5719.

Four surveys and a census

BLS collects reams of earnings data. To better understand the different types, it helps to know a little bit about the programs that collect it.

For starters, programs vary in how they get their data. Four BLS earnings programs are surveys, and one program is a census. A survey gathers information about only some of the people or establishments in the group being studied. Based on that random sample, researchers draw conclusions about the whole group. A census, on the other hand, gathers information about every person or establishment in the group that is being studied.

Three programs—Occupational Employment Statistics (OES), National Compensation Survey (NCS), and Current Employment Statistics (CES)—ask questions directly of employers, so they are called establishment surveys. A fourth, the Current Population Survey (CPS),

is a household survey; it asks questions of individuals instead of employers. And a fifth program is a census—the Quarterly Census of Employment and Wages (QCEW)—that gets its data from employer records that are provided to the Government.

BLS programs also differ in the types of questions they ask and the frequency with which data are gathered. Remember, no one program provides everything. Each has its own strengths and limitations. The following pages describe each data source, beginning with the one that provides earnings data for the most occupations.

OES survey: Wages by occupation and industry

If you want information about how much workers earn in a given occupation, including geographic and industry detail, you probably want data from the Occupational Employment Statistics (OES) survey. This survey col-



lects wage data on more than 800 occupations in all nonfarm industries and in more than 400 metropolitan and nonmetropolitan areas, all 50 States, the District of Columbia, and the Nation as a whole.

For example, you can learn what registered nurses earn in hospitals compared with what they make in doctors' offices, or what architects make in the Santa Fe area versus the Boston area.

To provide a more accurate picture of how wages vary within an occupation or industry, the survey shows mean, median, and percentile wages. Mean wages are what is traditionally meant by "average" wages. Median wages mark the middle point of earnings: Half of all workers earned more than that amount, and half earned less. And percentile wages show the wages for the highest and lowest earning 10 percent and 25 percent of workers.

Limitations. Because of the way the data are collected, OES data are not comparable from year to year and cannot be used to show how earnings change over time.

Also, this survey's estimates do not include the earnings of self-employed workers, the owners of or partners in unincorporated firms, or household workers such as live-in maids.

Moreover, although the survey is comprehensive, providing earnings data once a year for each of the occupations and industries it covers, data are not always available for every industry that employs an occupation or for every geographic location.

Get the data. One of the easiest ways to access the results of this survey is through the OES occupational profiles. For each occupation surveyed, the profiles show overall wages and the wages of workers in the top-employing and highest paying industries, States, and metropolitan areas. For example, in May 2006, the metropolitan area with the greatest concentration of registered nurses was Iowa City, Iowa. And California offered the highest wages, with an annual mean of \$75,130.

Occupational profiles are listed under broadly defined occupational groups. So, for example, you can find registered nurses under the major group heading of "healthcare practitioners and technical." You can also search for occupations alphabetically.

A new tool on the BLS Web site lets you search for these and other detailed wage data using a form-based query. Users can also download spreadsheets of detailed data to search or use in calculations. OES data are also

published in hardcopy as bulletins.

For more information, contact:

U.S. Bureau of Labor Statistics

Office of Employment and Unemployment Statistics

Division of Occupational Employment Statistics

Suite 2135

2 Massachusetts Ave. NE.

Washington, DC 20212

(202) 691-6569

www.bls.gov/oes

NCS: Wages by job complexity and responsibility level

The National Compensation Survey (NCS) often publishes earnings data for fewer locations and occupations than the OES survey does, but it offers additional detail. For example, data from this survey show how earnings change with workers' levels of responsibility and expertise.

For each occupation, earnings are given by work level, which takes into account factors such as the knowledge required to do the job, the degree of required supervision, and the job's complexity. According to the survey, for example, a carpenter in Atlanta, Georgia, at the highest work level (level 9) made \$27.75 per hour, on average, in July 2004, more than twice the \$11.33 per hour for a carpenter at the lowest work level (level 1).

The NCS shows hourly and weekly mean, median, and percentile earnings. It offers national and regional data and data by local metropolitan area and county.

The survey also gives earnings data by major industry division and by the size of the employing establishment. And the survey gives separate earnings figures for workers who are full time and those who are part time, for those who belong to unions and those who don't, for workers' time and incentive pay status, and for workers employed by State and local governments and those employed by private establishments.

Limitations. The NCS publishes data on fewer occupations and industries than some other BLS programs because it surveys fewer establishments each year. Recent data are not always available for every occupation and work level.

Data are not available for all occupations in all geographic areas, either. For example, although data are available for carpenters in Atlanta, Georgia, data are not available for carpenters in Savannah. And there are no

Types of earnings data, by program

	OES	NCS	CPS	CES	QCEW
Occupational	✓	✓	✓		
Industry	✓	✓	✓	✓	✓
National	✓	✓	✓	✓	✓
State	✓		✓	✓	✓
Area	✓	✓		✓	✓
Part-time		✓	✓		
Work level		✓			
Establishment size		✓			✓
Demographics			✓		
Percentile	✓	✓	✓		

data on self-employed workers.

Get the data. Survey results are available in printed and online bulletins and from a form-based query system. Users can also download FTP files for use in statistical programs.

For more information, contact:
 U.S. Bureau of Labor Statistics
 Office of Compensation and Working Conditions
 Survey Publications, Suite 4175
 2 Massachusetts Ave. NE.
 Washington, DC 20212
 (202) 691-6199
www.bls.gov/ncs

CPS: Data by age, education, and other demographics

The Current Population Survey (CPS) is unique because it gathers data from individual households rather than from employers. Workers report about themselves and the people they live with. Because of this, the CPS is able to show how earnings vary by workers' demographic characteristics, including education level, age, sex, race, Hispanic or Latino origin, and marital status.

For example, CPS data show that median weekly

earnings of full-time wage and salary workers with a bachelor's degree were \$962 in 2006, compared with \$595 for high school graduates with no college courses. CPS data also are broken down by workers' full-time or part-time status, union affiliation, and occupation and industry.

Limitations. As in the other surveys, data from the CPS are available only if the sample size is large enough—that is, if enough of the people who are surveyed fit into a particular occupation, industry, location, or demographic group. Often, data are not available by detailed occupation or for every type of worker because too few people in that occupation or of that type were surveyed.

And because the CPS relies on workers' self-reporting or their proxy reporting—when a respondent answers questions about somebody else in the household—the earnings data that this survey collects might not be as accurate as data in other BLS surveys, which get their information from employers.

Get the data. Data from the CPS are available in quarterly news releases, the annual *Employment and Earnings*, and other special summaries and reports. These products are usually offered as hardcopies and

online. Tables can also be customized using an online query tool. Additional data may be available by contacting the program office:

U.S. Bureau of Labor Statistics
Division of Labor Force Statistics, Suite 4675
2 Massachusetts Ave. NE.
Washington, DC 20212
(202) 691-6378
www.bls.gov/cps

CES survey: Monthly industry wages

If you want monthly earnings for any one of about 850 detailed private-sector industries, the Current Employment Statistics (CES) survey might be what you're looking for. This survey provides average hourly and weekly earnings from the payrolls of business establishments. It does not collect data by occupation.

These data show, for example, that the average hour-

ly earnings of production and nonsupervisory workers in the durable goods manufacturing industry were \$18.12 in April 2007, after being seasonally adjusted.

CES data are comparable from month to month. So, for example, if you want to see whether earnings of production and nonsupervisory workers in the leisure and hospitality industry have been increasing, you would look to this survey. Its data would show that seasonally adjusted average weekly earnings increased from \$247.30 to \$263.42 between April 2006 and April 2007. Monthly data like these are often used when writing escalation clauses, the terms in employment contracts that link increases in base pay with increases in average pay for the broader market.

In addition to national data, earnings for manufacturing and natural resources and mining industries also are available by State and for many metropolitan areas and divisions.



Limitations. The CES does not collect occupational earnings data. And the industry earnings data it collects primarily cover production and nonsupervisory workers. For example, when CES data show that seasonally adjusted, average hourly earnings in the retail trade industry were \$12.75 in April 2007, this includes nonsupervisory workers, such as retail sales workers, but does not include supervisory workers, such as retail sales worker supervisors. In the future, however, the CES program might collect earnings data for all employees.

Also excluded from the survey are earnings data from government establishments and all data from agricultural establishments.

Get the data. These data are available in monthly press releases, from an online form-based query system, and in the BLS periodical *Employment and Earnings*. Additional information may be available from the program office:

U.S. Bureau of Labor Statistics
Division of Current Employment Statistics
Suite 4860
2 Massachusetts Ave. NE.
Washington, DC 20212
(202) 691-6555
www.bls.gov/ces

QCEW: Workplaces big and small

Officially named the Quarterly Census of Employment and Wages (QCEW), this program has also been called the ES-202, based on the number of a previous table summarizing employment and wages. The QCEW collects earnings by industry, type of ownership—such as government or private—and establishment size. Like the CES, this survey does not collect data by occupation.

The QCEW gathers its data from the forms that employers fill out to comply with the unemployment insurance program. BLS reports the wage data it collects, being careful that individual employers cannot be identified.

Types of earnings data available from this program include total wages, average weekly wages, and average annual pay. Data are available for the Nation, States, metropolitan statistical areas, and counties. For example, private industry workers in Sussex County, Delaware, employed in natural resources and mining made an average of \$33,299 a year in 2005, while similar workers in Houston County, Texas, made \$37,486. QCEW data also

show earnings by establishment size. Data reveal, for example, that people who work for large establishments tend to make more than those who work for smaller establishments.

Because the QCEW program is a census, it collects data from all employers covered by unemployment insurance. It does not need to estimate average earnings based on a sample like other BLS surveys do.

Industry earnings figures from this survey are often quite different from those of the CES described above, largely because QCEW earnings include all types of paid compensation, including bonuses and exercised stock options, whereas CES earnings measure only base pay.

Limitations. In some ways, this program provides a more complete picture of industry earnings than the CES does. But its data may be less up-to-date, as data are collected every 3 months, rather than every month.

Get the data. These data are available online in many forms, including pre-made tables and tools set up to extract customized data. QCEW data are also published in quarterly news releases and in the annual *Employment and Wages* bulletin. For more information, contact:

U.S. Bureau of Labor Statistics
OEUS/DASLT, Suite 4840
2 Massachusetts Ave. NE.
Washington, DC 20212
(202) 691-6567
www.bls.gov/cew

What are earnings?

Each of the five programs discussed has its own way of defining earnings. For example, CPS weekly earnings data include overtime pay only if a respondent reports that such pay is usual. NCS and OES wage data, in contrast, do not include overtime pay. And OES and CPS figures incorporate tips, while NCS data exclude them. All of the programs, however, include the largest portion of earnings: base wages and salaries.

Additionally, earnings aren't the only way workers are compensated. Employee benefits, such as paid holidays, health insurance, and retirement plans, are part of many employees' pay. Data on benefits are collected in the National Compensation Survey. (For more information, see "An overview of employee benefits" in the summer 2005 *OOQ*. The article is available online at www.bls.gov/opub/ooq/2005/summer/art02.pdf.)

Data BLS does not have

BLS programs cover a lot when it comes to earnings, but they don't provide every type of earnings information. For example, BLS data can't tell you:

- Starting salaries (although data by work level from NCS or data on the lowest earning percentiles from OES might offer approximations)
- Earnings by college major
- Changes in occupational earnings from month to month or week to week
- Earnings by specific job title.

Instead, occupational earnings data correspond with titles in the Standard Occupational Classification Manual.

But you might still find some of this information—gathered from sources outside of BLS—in BLS career guidance publications like this one.

Think you've got a handle on where to get earnings information? Take the quiz on the next page to find out!



Earnings quiz

Each of the questions below can be answered by a BLS survey or census. Test your data know-how by seeing if you can identify which BLS program answers which question.

- 1. How much did the average registered nurse make in Colorado Springs, Colorado, in May 2006?**
- 2. What is the difference in pay for an experienced welder or cutter and for an entry-level one?**
- 3. What are commercial banking wages in Manhattan, NY (NY County), versus Manhattan, Kansas (Riley County)?**
- 4. Did earnings in retail trade increase from March to April 2007?**
- 5. How much do male elementary and middle school teachers make a week, on average?**

Answers:
1. OES. The mean annual wage was \$54,230. **2.** NCS. The hourly rate in January 2001 for a level 8 welder or cutter was \$17.76; the hourly rate for a level 1 welder or cutter was \$8. **3.** QCEW. The annual average weekly wage in 2005 was \$2861 for NY County and \$541 for Riley County. **4.** CES. Yes, seasonally adjusted average hourly earnings of production and nonsupervisory workers increased from \$12.72 to \$12.75. **5.** CPS. In 2006, the median weekly earnings of full-time wage and salary workers were \$920.

BLS Employment Projections Online

www.bls.gov/emp

Federal Government's Premier Career Guidance Publications

Occupational Outlook Handbook

Career Guide to Industries

Occupational Outlook Quarterly

Occupational Projections and Training Data

People Are Asking

What are the fastest growing occupations and industries?

Which occupations will add the most new jobs?

Publications

Projections-related articles

Special features: "Charting the projections" and

"The job outlook in brief"

Searchable Databases

Occupational Employment, Training,
and Earnings

National Employment Matrix
tables created by BLS

Related Links

BLS career information for
young people

State employment projections

Contacts

Telephone listings for industry and
occupational experts at the Office of
Occupational Statistics and Employ-
ment Projections

