

hen looking for work in your area or in a new city, it's helpful to know where the jobs are-and how much they pay. Occupation profiles from the U.S. Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES) program offer this information and more.

Using occupation profiles, jobseekers can see which industries employ the most workers in a particular field, which geographical areas have high concentrations of those jobs, and how wages differ by industry and geographical area. These OES data are useful as part of an overall evaluation in making career decisions. Keep in mind, however, that many other factors are involved in choosing an occupation.

This article gives an overview of the data in the OES occupation profiles. It describes different jobseeking situations and shows how employment and wage data could be useful in each case. The first section describes how to use the three types of data in each profile: national, industry, and geographic. The second section explains how to get additional data by creating customized tables. The final section provides more information, including how to use industry profiles of occupations.

# How to use occupation profiles

To find the most recent OES occupation profiles, start with the list of occupations at www.bls.gov/oes/current/oes\_stru.htm. If you don't know which major group an occupation is in, use your browser's search feature or the "Search OES" tool to the left of the list of major groups.

Each profile begins with a description of the occupation. Then it provides employment and wage data in three separate sections: with national information, by industry, and by geographic location.

#### Using national information

National estimates in each profile show employment and wage data for the occupation. (See illustration 1 below.) This information provides a snapshot of the overall occupation, including the number of U.S. workers employed and the annual and hourly wage. The wages section includes both what workers earn, on average (mean wage estimates), and what the highest and lowest ranges are (percentile wage estimates).

## Chris Cunningham

### Illustration 1: Employment and wage data for telemarketers, May 2012



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National wage estimates can give a general idea of what an occupation pays. For example, suppose there's a job advertised for an entry-level telemarketer, but there's no information about how much the job pays. As a potential applicant, you could use the OES occupation profile for telemarketers to find a typical wage for this job.

The occupation's description at the top of the page, which states that telemarketers "solicit donations or orders for goods and services over the telephone," is likely to be similar to the job description in the want ad. Below that description, there are national employment, mean wage, and percentile wage estimates for telemarketers.

The mean hourly wage for telemarketers in May 2012 was \$12.29. The percentile wages show that telemarketers had a median hourly wage of \$10.74—meaning half of telemarketers earned more than that amount, and half

earned less. Wages ranged from \$8.17 per hour for the lowest paid 10 percent (10th percentile) to \$18.58 per hour for the highest paid 10 percent (90th percentile).

Because the advertised position is entrylevel, the starting wage is likely to fall in the lower ranges. If the telemarketing position were for a more experienced worker, the starting wage might be closer to the mean or median wage estimate.

But experience isn't the only factor affecting wages. For example, wages often vary by industry and geographic area. Additional data in the profiles give this specific information.

#### Using industry data

If you want a job in a specific field, such as healthcare, you might want to look at employment and wage data for that field. These fields are known as industries, and OES data show the types of businesses that employ



#### Illustration 2: Top paying industries for graphic designers, May 2012

## 27-1024 Graphic Designers

Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.

National estimates for this occupation Industry profile for this occupation \ Geographic profile for this occupation

Top paying industries for this occupation:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Federal Executive Branch (OES Designation)	1,650	0.08	\$36.56	\$76,040
Facilities Support Services	30	0.03	\$31.76	\$66,050
Aerospace Product and Parts Manufacturing	380	0.08	\$31.39	\$65,300
Securities and Commodity Contracts Intermediation and Brokerage	200	0.04	\$30.41	\$63,260
Scientific Research and Development Services	1,100	0.17	\$29.38	\$61,110

occupations—such as, for healthcare-related occupations, hospitals.

Every profile has an industry section that shows industries with the most overall employment for the occupation, industries with the most concentrated employment for the occupation, and industries that pay the most for the occupation.

The industry data show which industries have the highest wages for an occupation. Let's say, for example, that you're an experienced graphic designer working for a commercial printer. You're unhappy with your annual salary of \$40,000 after learning at a recent trade show that many of your colleagues in other industries earn more than you do. Using the OES occupation profile for graphic designers, you can research wages by industry.

By scanning the national employment and wage estimates at the top of the page, you'll notice that your current salary is below the

mean annual wage of \$48,730 for this occupation. Click on the "Industry profile for this occupation" link or scroll down the page for the industry section.

Illustration 2 above shows the employment and the hourly and annual mean wages of the top-paying industries for graphic designers in May 2012. The mean annual wage for these industries fell between \$61,000 and \$77,000, well above your salary. These wages are comparatively high, but employment of graphic designers in these industries was small—and three industries employed fewer than 500 workers: facilities support services, aerospace product and parts manufacturing, and securities and commodity contracts intermediation and brokerage. The top-paying industry that employed the largest number of graphic designers was the federal executive branch (1,650), followed by scientific research and development services (1,100).

Illustration 3 below shows data for the five industries that employed the most graphic designers in May 2012. Your industry, printing and related support activities, is among the largest; however, it paid the least among these top five industries. Two other industries shown—specialized design services and advertising, public relations, and related services—paid, on average, at least \$10,000 more than your current salary.

These data from the OES occupational profile show that you have several options for increasing what you earn as a graphic designer. By changing industries, you might be able to increase your annual salary.

#### Using geographic data

Each profile also has a geographic section with maps and tables showing the states and metropolitan areas (defined as one or more urban areas with 50,000 or more people) that have the most overall employment, the most concentrated employment, and the top pay for the occupation. For nonmetropolitan areas, the same type of information is provided in tables that are below the maps.

State and area data help jobseekers who are considering relocation. For example, suppose you're a tool and die maker earning \$21 per hour in Augusta, Georgia, and you're thinking about relocating. Your preference to relocate to the Northeast or Midwest, where you have family, may depend on which locations pay the highest wages for tool and die makers.

The OES profile for tool and die makers shows, at the top of the page, that your current wage is below the May 2012 national

#### Illustration 3: Top employing industries for graphic designers, May 2012

## 27-1024 Graphic Designers

Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.

National estimates for this occupation Industry profile for this occupation  $\leftarrow$ Geographic profile for this occupation

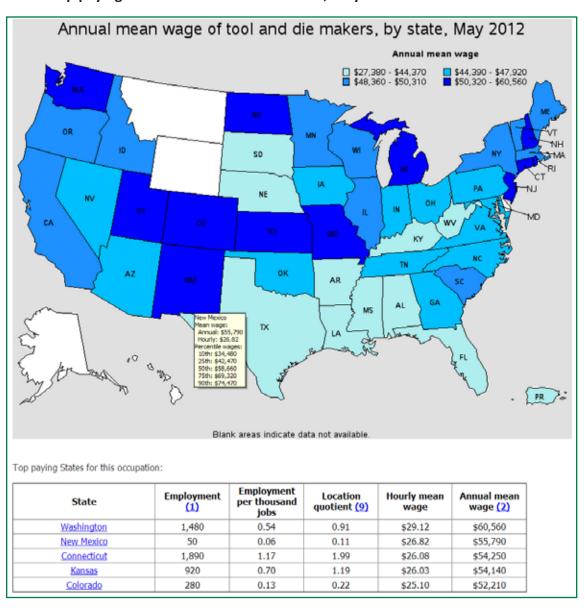
#### Industry profile for this occupation: Top

Industries with the highest published employment and wages for this occupation are provided. For a list of all industries with employment in this occupation, see the Create Customized Tables function.

Industries with the highest levels of employment in this occupation:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Specialized Design Services	25,140	21.60	\$24.67	\$51,300
Newspaper, Periodical, Book, and Directory Publishers	23,410	5.09	\$20.90	\$43,470
Advertising, Public Relations, and Related Services	20,560	4.77	\$24.32	\$50,590
Printing and Related Support Activities	16,290	3.50	\$18.60	\$38,690
Other Miscellaneous Manufacturing	7,670	2.84	\$19.49	\$40,530

Chart: Top paying states for tool and die makers, May 2012



hourly wages of \$23.31 (mean) and \$22.60 (median). The national wage data tell you that there are areas of the country that pay more. To find out which areas these are, click on the "Geographic profile for this occupation" link or scroll down the profile for the geographic section.

The first map in the geographic section shows that several states in the Midwest and Northeast employed a high number of tool and die makers in May 2012. The table below the map shows that Michigan, Ohio, Indiana, Illinois, and Pennsylvania employed the most

tool and die makers. The map also shows that many tool and die makers were employed in Connecticut, New York, and Wisconsin.

The third map (see chart above) in the geographic section shows wages by state for tool and die makers in May 2012. Among the five top-paying states, Connecticut had a mean hourly wage of \$26.08 and employed about 1,900 tool and die makers.

However, the map indicates that Michigan also paid a relatively high mean wage. To help narrow your choices, you can look at metropolitan area data for the states with the largest employment and highest wages. Three metropolitan areas in Michigan and one each in Illinois, Ohio, and Wisconsin employed at least 1,400 tool and die makers in May 2012. Scrolling down further, you can see that Detroit-Livonia-Dearborn, which was among the highest employing metropolitan areas for this occupation, is also one of the highest paying areas, with a mean hourly wage of \$29.37 in May 2012.

After examining the OES profile for tool and die makers, you can make an informed decision about where to focus a job search.

# How to create customized tables

The OES occupation profile page gives an informative snapshot of employment and wages. But what if jobseekers need even more detail?

OES has more data than what appears on each profile page. Jobseekers can create



customized tables using the Multi-Screen Data Search tool. This tool is accessible from within the occupation profiles and from the main OES homepage. It allows jobseekers to choose the geographic or industry data they want for one or more occupations and then download the tables.

#### **Creating geographic tables**

Relocating for one person's career can be difficult. Adding another person's career into the decisionmaking process can make relocating twice as challenging. A customized geographic table can pull together data for two occupations to help with planning.

For example, let's say you and your spouse have started thinking about retirement. Both of you want to work a few more years, but you'd like to relocate first. You've decided to trade the cool summers and frigid winters of Upstate New York for the milder yearround climate of Scottsdale, Arizona.

Check the OES occupation profiles to find wage levels that are close to your current ones. With many years of experience as an electrical engineer, for example, your current salary of \$111,500 annually is near the 75th percentile wage estimate of \$110,850 for this occupation nationally in May 2012. Your spouse, a dental assistant with fewer years in the labor force, earns \$34,900 annually—higher than, but close to, the median annual wage of \$34,500 for this occupation nationally in May 2012.

By hovering your mouse over the annual mean wage maps in each occupation profile, you learn that your wages are fairly typical for your state. Electrical engineers in New York had an annual wage of \$112,970 at the 75th percentile in May 2012, and dental assistants earned a median wage of \$34,690 annually. Compared with your current employers, employers in Arizona appear to have paid higher wages for electrical engineers and similar wages for dental assistants. Now it's time to get specific data about Scottsdale, which is part of the Phoenix-Mesa-Glendale metropolitan area.

You can create one customized geographic table that shows May 2012 wages for



both of your occupations in the Phoenix area by doing the following:

- From either occupation profile, scroll up from the wage map and click "Create Customized Tables" under "Geographic profile for this occupation."
- Select "Multiple occupations for one geographical area" as the search type.
- On the next page, choose "Metropolitan or nonmetropolitan area" as the geographic type.
- From the list of areas on the next page, select "Phoenix-Mesa-Glendale" under Arizona.
- The next page has a list of occupations; find and click on "electrical engineers 172071" and then, while holding the Ctrl key on your keyboard, find and click on "dental assistants 319091."
- Finally, select "May 2012" as the release date, "Annual median wage," and then, while holding the Ctrl key on your keyboard, select "Annual 75th percentile wage."

The customized table will shows that electrical engineers in the Phoenix area had an

annual wage of \$118,270 at the 75th percentile in May 2012. Dental assistants had a median annual wage of \$34,760. The data suggest that you may be able to expect a salary increase when you relocate, although your spouse's wage should stay about the same. This information can help both of you make decisions in your relocation and jobseeking efforts.

## **Creating industry tables**

If you're a college student majoring in accounting, you may want to research your earning prospects before you enter the labor force. Start with the data on the OES occupation profile for accountants and auditors.

The national estimates for this occupation show that the mean annual wage was \$71,040 in May 2012. Although wages vary by industry and location, you should expect a lower starting salary in an entry-level position something closer to the 10th percentile wage of \$39,930.

In the industry section of the profile, you notice that in May 2012, accountants and auditors in the five top-paying industries had a wage that was higher than the national mean.

Retrieve data for the 10th percentile wage in the highest paying industries for accountants and auditors by clicking the "Create Customized Tables" link under "Industry profile for this occupation" and doing the following:

- To select a search type, choose "One occupation for multiple industries."
- · On the next page, find "accountants and auditors 132011" in the occupations list.
- The next two pages allow you to choose the sectors and industries for which you would like to see data—including, for the broad search you're doing, an option to select "All sectors in this list," and then "All industries in this list."
- On the last page, choose "May 2012" as the release date, "Annual 10th percentile wage" for type of data, and "Excel" for the type of output.

You can sort the Excel file by the wage column, from largest to smallest, to identify which industries paid the highest wages for accountants and auditors at the 10th percentile in May 2012. From these data, you can target your job search to focus on positions more likely to offer above-average salaries for entry-level accountants.

## For more information

The OES occupation profiles are one of many sources of OES data. For example, you may be interested in working in a particular industry but are willing to work in a variety of occupations within that industry. In that case, the OES industry tables (www.bls.gov/ oes/current/oessrci.htm) are a good starting point. For each industry—such as construction, healthcare, or banking—the profile lists occupations in the field, employment, and average wages. The tables can be sorted so that they show which occupations are the largest and which are the highest paying.

OES occupational employment and wage data are also available as charts, maps, databases, and in a variety of publications. To find more, go to www.bls.gov/oes.

The Occupational Outlook Handbook (OOH) uses OES employment and wage data in profiles for hundreds of occupations. These profiles also include information about each occupation's duties, work environment, education or training requirements, job outlook, and more. Find the *OOH* online at www.bls.gov/ ooh.  $\infty$ 





No trees were harmed in the making of the OOQ online: www.bls.gov/ooq