



Same occupation, different pay: How wages vary

Elka Torpey | May 2015

[Professional athletes](#) make a lot of money, right? Well, some do.

The top-earning 10 percent of athletes and sports competitors made more than the [\\$187,200 cutoff](#) that the U.S. Bureau of Labor Statistics (BLS) used in estimating wages in May 2014. That includes the players who make news for signing multimillion-dollar contracts.

But the lowest earning 10 percent of athletes and sports competitors had annual wages of less than \$20,190. That's quite a bit less than the \$35,540 median for all occupations in May 2014—and nowhere near what top athletes earn.

This article focuses on occupations with big differences in high- and low-earning workers, because people exploring careers like to know whether wages vary drastically within the same occupation. The first section describes wages and why they vary. The second section presents occupations with more than a \$100,000 difference between the top- and bottom-earning 10 percent of workers. The third section suggests resources for learning more.



A word about wages

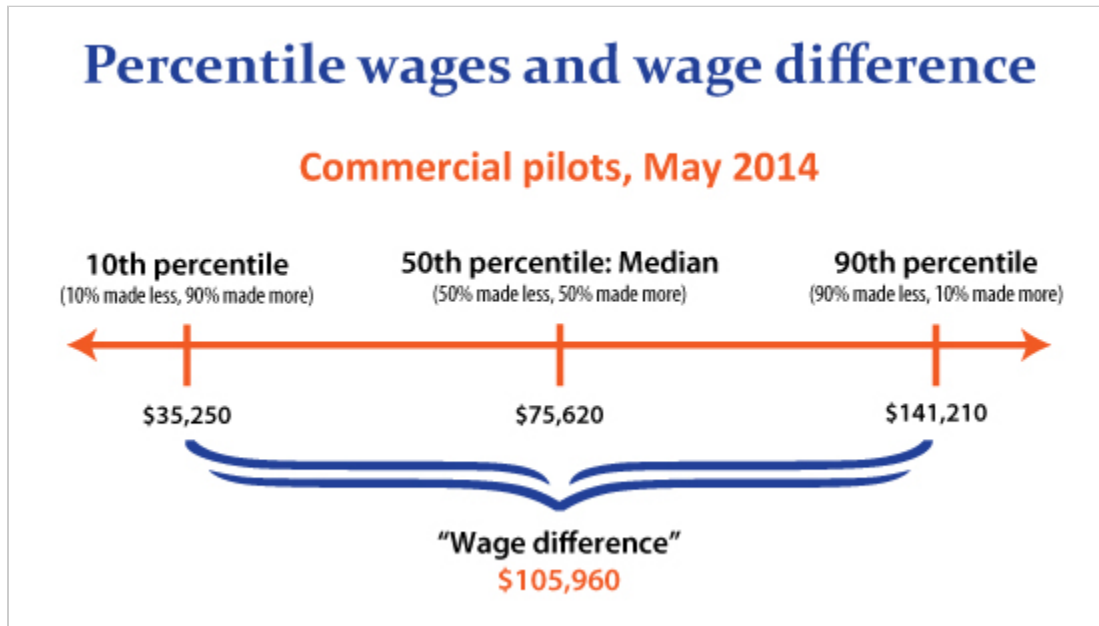
The wages in this article are from the BLS [Occupational Employment Statistics](#) (OES) survey. This survey defines wages as [straight-time, gross pay](#) including some types of incentive pay, such as commissions, production bonuses, and tips. Premium pay, such as overtime pay or shift differentials, and certain other types of bonuses, such as profit-sharing payments, are not included. This survey also does not collect data on workers who are self-employed; their wages might differ from the wages listed here.

Large differences in wages may be the result of a combination of factors, such as industry of employment, geographic location, and worker skill. To identify occupations with big wage differences, this article looks at percentile wages.

Percentiles and wage differences

Percentile wages show how workers' pay varies. As the illustration shows, the 10th percentile wage is the point at which 10 percent of workers in an occupation made less than that amount and 90 percent made more. The 90th percentile wage is the point at which 90 percent of workers in an occupation made less than that amount and 10 percent made more. The difference between those two wages—the high earners and low earners in an occupation—is referred to here as the "wage difference."

Illustration.



The median wage is the point at which half of workers earned more than that amount and half earned less. In this article, the median wage is included in occupation descriptions. Yet median wages tell only part of the story of how much workers in an occupation actually earn.

[Commercial pilots](#), for example, had a median annual wage of \$75,620—more than double the median for all occupations in May 2014. But commercial pilots' wage difference, the gap between the 90th percentile wage and the 10th percentile wage, was more than \$100,000.



Reasons wages vary

Everyone brings unique skills and abilities to a job. And no two jobs are exactly alike. Variations affect pay for jobs within the same occupation. Often, the more pronounced these variations are, the bigger the wage difference.

In contrast, occupations with less variability among workers and jobs may have smaller wage differences. [Fast food cooks](#), for example, have fairly consistent wages, and jobs in this occupation tend to involve similar tasks, industries of employment, and skill requirements.

Credentials. Workers who have advanced education or hold professional certification or licensure may earn more than other workers in the same occupation who don't have these credentials, especially when credentials are sought after by employers.

Experience and skill. Often, the longer you do a job, the more productive you become. As a result, experienced workers usually earn more than beginners. Workers who have in-demand skills also may earn more.

Industry or employer. Occupational wages vary by industry and employer. Diverse working conditions, clientele, and training requirements are among the reasons why wages might differ from one employment setting to the next.

Job tasks. Jobs for a specific occupation often have similar position descriptions, but individual tasks may vary. And jobs involving more complex tasks or greater responsibility may have higher wages than those that don't, even within the same company.

Geographic location. Some states or areas have higher wages than others for jobs in an occupation. Local demand for the work and cost of living are among the geographic factors affecting wages.

Success and performance. Some occupations are extremely competitive, and a small number of workers who are successful in them often have very high earnings. Workers whose pay depends on their job performance also might have very high wages or very low wages.

Occupations with big wage differences

This section presents occupations that had a wage difference of more than \$100,000 in May 2014, higher than the \$71,710 wage difference for all workers. These occupations are grouped as follows:

- [Arts, entertainment, and sports](#)
- [Healthcare](#)
- [Management](#)
- [Sales, business, and financial](#)
- [Science, math, and engineering](#)
- [Other](#)

Descriptions for each group include possible reasons for wage differences and illustrative examples. Median annual wages are used to point out industries or geographic locations that have high-or low-wages for workers in an occupation. Wage variations such as these often contribute to big differences in percentiles.

Arts, entertainment, and sports

Ability and success affect pay in many [arts, entertainment, and sports occupations](#). (See table 1.) These occupations often require both skill and years of practice. In many of them, relatively few people make it big.

[Actors](#), for example, had one of the biggest wage differences of any occupation in May 2014: more than \$168,000 between the top-earning 10 percent and the bottom-earning 10 percent of workers. But there aren't many jobs for these workers overall, and few people achieve the success needed to become a top-paid actor.



Table 1. Arts, entertainment, and sports occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
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See footnotes at end of table.

Table 1. Arts, entertainment, and sports occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
Actors⁽³⁾	59,210	\$41,230	\$18,720	>\$187,200	>\$168,480
Athletes and sports competitors	11,520	43,350	20,190	>187,200	>167,010
Producers and directors	97,300	69,100	31,380	>187,200	>155,820
Broadcast news analysts	4,310	61,450	28,210	182,470	154,260
Art directors	33,140	85,610	45,060	168,040	122,980
Film and video editors	24,460	57,210	25,520	145,620	120,100
Musicians and singers⁽³⁾	38,900	50,250	18,680	137,510	118,830

Footnotes: ⁽¹⁾ BLS does not publish specific estimates for percentile wages above \$187,200 per year. Where the percentile wage is greater than \$187,200, the wage is shown with a greater-than sign (>). ⁽²⁾ Wage differences with a greater-than sign (>) were calculated using \$187,200, the highest percentile wage that BLS publishes. ⁽³⁾ In occupations in which workers typically are paid by the hour and work less than the standard 2,080 hours per year, BLS reports only hourly wages. For comparison purposes in calculating wage differences, the hourly wage was multiplied by 2,080 to get an annual wage.

Source: Occupational Employment Statistics survey, BLS

Among other factors that may affect wage differences in these occupations are hours worked, industry of employment, and job location. For example, many [musicians and singers](#), like actors, do not work full time, year round, and so the wage difference for these workers may be even greater than the estimates in the table indicate.

In some arts, entertainment, and sports occupations, the more lucrative the industry that employs these workers, the higher their wages. For example, [producers and directors](#) in advertising, public relations, and related services had a median annual wage nearly twice that of producers and directors in theater companies and dinner theaters, \$90,690 a year compared with \$49,280.

And perhaps equally unsurprising, the median annual wage for [art directors](#) in New York, where the cost of living is relatively high and where jobs may be more prestigious than in other locations, was \$114,070. In South Carolina, where the cost of living is much lower and there are fewer of these highly paid jobs, the median annual wage for art directors was \$44,120.

Healthcare

Big wage differences in the [healthcare occupations](#) in table 2 might reflect workers' diverse credentials and levels of experience. Before qualifying for a license, some healthcare practitioners must complete a residency program, a period of on-the-job training that typically lasts from 1 to 8 years. During that time, pay is usually much lower than it would be for licensed, experienced workers.



[Podiatrists](#), for example, must earn a Doctor of Podiatric Medicine degree and complete a 3-year residency program, after which they qualify for licensure. And once they are licensed, podiatrists' wages are likely to increase as they continue to gain experience. With a wage difference of more than \$136,770, these workers had one of the biggest gaps in wages of any healthcare occupation.

Table 2. Healthcare occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage ⁽¹⁾	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
Podiatrists	8,910	\$120,700	\$50,430	>\$187,200	>\$136,770
Optometrists	33,340	101,410	52,270	>187,200	>134,930
General internists	48,390	>187,200	60,880	>187,200	>126,320
Psychiatrists	25,080	181,880	61,600	>187,200	>125,600
General dentists	97,990	149,540	69,910	>187,200	>117,290
Prosthodontists	630	100,280	69,930	>187,200	>117,270

See footnotes at end of table.

Table 2. Healthcare occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage ⁽¹⁾	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
Family and general practitioners	124,810	180,180	72,190	>187,200	>115,010
Chiropractors	29,830	66,720	31,440	143,760	112,320
Orthodontists	6,190	>187,200	78,960	>187,200	>108,240
Veterinarians	62,470	87,590	52,530	157,390	104,860

Footnotes: ⁽¹⁾ BLS does not publish specific estimates for percentile wages above \$187,200 per year. Where the percentile wage is greater than \$187,200, the wage is shown with a greater-than sign (>). ⁽²⁾ Wage differences with a greater-than sign (>) were calculated using \$187,200, the highest percentile wage that BLS publishes.

Source: Occupational Employment Statistics survey, BLS

Number of clients, geographic location, and industry of employment are among the other factors influencing wages for these occupations. [Chiropractors](#) who have many clients, for example, are likely to earn more than those who have fewer clients.

As with many occupations, wages for healthcare workers vary by geographic location. For example, [veterinarians](#) in the Ventura, California, metropolitan area had a median annual wage of \$171,670, more than 4 times the \$40,420 median annual wage of veterinarians in and around College Station, Texas.

And in some healthcare occupations, industries that pose potential injuries to workers may pay more than ones that do not. For example, [psychiatrists](#) who worked in psychiatric and substance abuse hospitals had a median annual wage of \$171,700, and psychiatrists who worked for insurance carriers had a median annual wage of \$97,590.

Management

[Managers](#) with different job tasks and qualifications often are grouped together in the same occupation. This variation might be one of the reasons for the big wage differences in the occupations shown in table 3.

[Advertising and promotions managers](#), for example, may have vastly different pay depending on the types of accounts they handle. A highly paid worker in this occupation might coordinate all of the advertising for a large, multinational corporation, and another worker might make much less overseeing the classified ads department of a local newspaper. As a result, the wage difference—more than \$142,140—for this relatively small and competitive occupation was among the highest of any type of manager.

Table 3. Management occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
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See footnotes at end of table.

Table 3. Management occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
Advertising and promotions managers	29,340	\$96,720	\$45,060	>\$187,200	>\$142,140
General and operations managers	2,049,870	97,270	45,130	>187,200	>142,070
Sales managers	358,920	110,660	53,620	>187,200	>133,580
Public relations and fundraising managers	56,920	101,510	55,420	>187,200	>131,780
Compensation and benefits managers	16,380	108,070	58,370	>187,200	>128,830
Financial managers	518,030	115,320	62,480	>187,200	>124,720
Postsecondary education administrators	131,070	88,390	50,240	174,000	123,760
Human resources managers	116,610	102,780	60,440	183,590	123,150
Marketing managers	184,490	127,130	65,980	>187,200	>121,220
Training and development managers	29,870	101,930	57,920	178,360	120,440
Natural sciences managers	53,290	120,050	70,020	>187,200	>117,180
Chief executives	246,240	173,320	72,750	>187,200	>114,450
Computer and information systems managers	330,360	127,640	78,470	>187,200	>108,730
Purchasing managers	70,840	106,090	60,840	169,000	108,160
Medical and health services managers	310,320	92,810	55,890	161,150	105,260
Architectural and engineering managers	179,320	130,620	83,580	>187,200	>103,620
Administrative services managers	268,730	83,790	45,590	149,180	103,590
Industrial production managers	167,200	92,470	56,290	158,170	101,880

Footnotes: ⁽¹⁾ BLS does not publish specific estimates for percentile wages above \$187,200 per year. Where the percentile wage is greater than \$187,200, the wage is shown with a greater-than sign (>). ⁽²⁾ Wage differences with a greater-than sign (>) were calculated using \$187,200, the highest percentile wage that BLS publishes.

Source: Occupational Employment Statistics survey, BLS

Additional factors, such as industry of employment, education level, and job performance might also contribute to differences in pay. Generally, the more technical an industry is, the better paid its managers are. For example, [general and operations managers](#) in research and development in the physical, engineering, and life sciences had

median annual wages that were nearly 3 times those of workers in gasoline stations, \$173,160 compared with \$57,920 in May 2014.

Varying education levels also contribute to big wage differences for these workers. For example, some jobs that typically require a masters or doctoral degree at the entry level may be open to [natural sciences managers](#) who have advanced education. These jobs are likely to pay more than other jobs for natural sciences managers that require a bachelor's degree or less education.

And [sales managers](#) can boost their wages through bonuses or commissions made by meeting performance goals.

Sales, business, and financial

Many [sales](#) and [financial workers](#) are paid a commission, usually after selling a specific amount of goods or services. A commission may be earned in addition to or instead of a salary and can lead to big differences in pay among workers in the same occupation.



[Real estate brokers](#), for example, earn most of their income from commissions on property sales—usually a percentage of those sales—so those who sell expensive properties or have higher sales volumes are likely to earn more than those who don't. And these workers had one of the biggest wage differences of any sales occupation in May 2014—\$154,890. (See table 4.)

Table 4. Sales, business, and financial occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
Agents and business managers of artists, performers, and athletes	11,860	\$64,200	\$27,640	>\$187,200	>\$159,560
Securities, commodities, and financial services sales agents	316,340	72,070	32,170	>187,200	>155,030
Real estate brokers	38,720	57,360	23,880	178,770	154,890
Personal financial advisors	196,490	81,060	35,500	>187,200	>151,700
First-line supervisors of non-retail sales workers	248,770	71,600	36,130	148,430	112,300
Wholesale and manufacturing technical and scientific products sales representatives	335,540	75,140	37,430	149,010	111,580
Financial analysts	262,610	78,620	48,170	154,680	106,510
Sales engineers	68,080	96,340	55,850	160,250	104,400
Management analysts	587,450	80,880	45,360	148,110	102,750
Financial examiners	36,830	76,310	44,660	146,190	101,530

See footnotes at end of table.

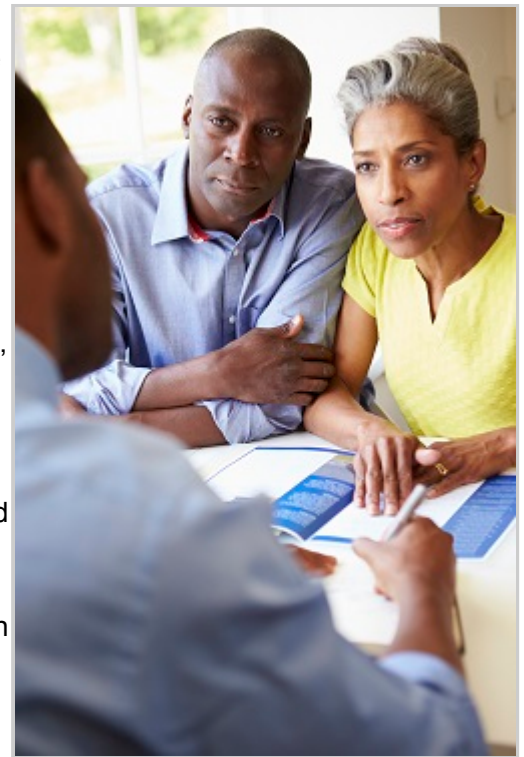
Footnotes: ⁽¹⁾ BLS does not publish specific estimates for percentile wages above \$187,200 per year. Where the percentile wage is greater than \$187,200, the wage is shown with a greater-than sign (>). ⁽²⁾ Wage differences with a greater-than sign (>) were calculated using \$187,200, the highest percentile wage that BLS publishes.

Source: Occupational Employment Statistics survey, BLS

In addition to performance-based pay, factors such as experience, industry of employment, and education level may also play a role in large wage differences for sales, business, and financial occupations. For example, [management analysts](#) who have several years of experience often command high pay as they take on additional responsibilities, such as overseeing teams of other analysts.

The clientele that an industry serves may also influence wage potential for workers in an occupation. [Personal financial advisors](#) in the securities, commodity contracts, and other financial investments and related activities industry—which often serves the financial needs of wealthy clients—had a median annual wage of \$90,970. That was more than double the median wage of \$37,710 for advisors working in individual and family services, whose clients were more likely to have low incomes.

And the diverse education levels of supervisors might lead to variations in their pay. For example, those who supervise [wholesale and manufacturers' sales representatives of technical and scientific products](#) may be more likely to have a bachelor's degree or higher—and may earn more than those who supervise [telemarketers](#).



Science, math, and engineering

Varying education levels is among the reasons for big wage differences in certain [science](#), [math](#), and [engineering occupations](#).

Jobs requiring more advanced education are more likely to have higher pay. Some [geoscientists](#), for example, have a bachelor's degree, and others have a master's or doctoral degree. But education alone may not be the reason geoscientists had one of the largest wage differences (more than \$140,800) of the occupations in table 5: geoscientists who travel to remote locations or spend months out at sea, who often work long days or irregular schedules, may earn higher wages than others in the occupation.

Table 5. Science, math, and engineering occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
Geoscientists, except hydrologists and geographers	34,000	\$89,910	\$46,400	>\$187,200	>\$140,800
Physicists	16,790	109,600	54,930	184,650	129,720
Actuaries	21,490	96,700	58,080	180,680	122,600
Economists	18,680	95,710	50,440	170,780	120,340

See footnotes at end of table.

Table 5. Science, math, and engineering occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
Petroleum engineers	33,740	130,050	73,990	>187,200	>113,210
Astronomers	1,660	105,410	52,160	162,630	110,470
Mining and geological engineers, including mining safety engineers	8,200	90,160	52,780	159,010	106,230
Medical scientists, except epidemiologists	100,740	79,930	43,150	148,210	105,060
Biochemists and biophysicists	31,350	84,940	44,220	149,130	104,910
Mathematicians	3,130	103,720	54,830	157,090	102,260
Political scientists	5,640	104,920	52,150	153,960	101,810

Footnotes: ⁽¹⁾ BLS does not publish specific estimates for percentile wages above \$187,200 per year. Where the percentile wage is greater than \$187,200, the wage is shown with a greater-than sign (>). ⁽²⁾ Wage differences with a greater-than sign (>) were calculated using \$187,200, the highest percentile wage that BLS publishes.

Source: Occupational Employment Statistics survey, BLS

Credentials, experience, and industry of employment might influence wages as well. [Actuaries](#), for example, must pass a series of exams over several years to become fully qualified. When they first start out, they usually work as trainees and have lower wages than experienced actuaries. Gradually, trainees receive higher salaries as they gain credentials.

Even highly educated workers in these occupations might make less if they are in entry-level positions. For example, [biochemists and biophysicists](#) who have a Ph.D. frequently start out in temporary postdoctoral research positions and may increase their earnings as they gain experience.

And in some occupations, wages vary by industry. [Economists](#) in banking, for example, had a median annual wage of \$124,540 in May 2014. That was more than twice that of their counterparts in state-government-owned colleges, universities, and professional schools: \$52,840.



Other occupations

Wages for occupations related to [law](#), [teaching](#), and [air transportation](#) vary widely due to a number of factors.

[Judges, magistrate judges, and magistrates](#) had one of the biggest wage differences of the occupations shown in table 6—\$147,440. Job tasks for these workers vary by levels of authority, from handling simple infractions or disputes to presiding over complex legal cases on appeal, which may contribute to wage differences.

Table 6. Other occupations with more than \$100,000 wage difference, May 2014

Occupation	Employment	Median wage	10th percentile wage	90th percentile wage ⁽¹⁾	Wage difference ⁽²⁾
See footnotes at end of table.					
Judges, magistrate judges, and magistrates	28,090	\$115,140	\$31,480	\$178,920	\$147,440
Lawyers	603,310	114,970	55,400	>187,200	>131,800
Airline pilots, copilots, and flight engineers	75,760	118,140	64,780	>187,200	>122,420
Administrative law judges, adjudicators, and hearing officers	14,140	87,980	41,510	156,750	115,240
Postsecondary teachers	1,522,210	63,010	28,950	138,720	109,770
Commercial pilots	38,170	75,620	35,250	141,210	105,960
Air traffic controllers	22,860	122,340	67,070	172,000	104,930
Footnotes: ⁽¹⁾ BLS does not publish specific estimates for percentile wages above \$187,200 per year. Where the percentile wage is greater than \$187,200, the wage is shown with a greater-than sign (>). ⁽²⁾ Wage differences with a greater-than sign (>) were calculated using \$187,200, the highest percentile wage that BLS publishes.					
Source: Occupational Employment Statistics survey, BLS					

Additional factors affecting wages for the occupations in the table include worker qualifications, industry of employment, and job location. To qualify for higher paying jobs, for example, [airline and commercial pilots](#) usually need more experience and credentials than lower paying jobs require.

Within educational services, the public sector pays more than the private sector for some teaching jobs. [Postsecondary computer science teachers](#) in state-government-owned colleges, universities, and professional schools, for example, had a median annual wage of \$87,960, while those in privately owned business schools and computer and management training had a median annual wage of \$51,810.

Geography often matters for some workers in this "other occupations" category. For example, [lawyers](#) in the Washington, D.C., metropolitan area had a median annual wage of \$154,160. By comparison, lawyers in the Western Montana nonmetropolitan area had a median annual wage of \$37,530.

Exploring more

[OES profiles](#) have lots of information about employment and wages—including percentile, industry, and geographic wage data—for hundreds of occupations.

Other OES publications can help you understand [percentile wages](#) and some of the [factors that might affect wages](#) in an occupation.

Learn more about the occupations in this article and about many others in the [Occupational Outlook Handbook](#), which describes occupations' job tasks, work environment, education and training, pay, outlook, and more.

[America's Career InfoNet](#) also has a [tool](#) for finding OES wage data by occupation and local area.

Check with your [state labor market information office](#) for additional data specific to where you live.

This article explores differences in pay based on many reasons—but does not include wage discrimination based on factors such as race, sex, or disability. For answers to questions about those topics, contact the [Equal Employment Opportunity Commission](#).

Why a cutoff of \$187,200?

The [Occupational Employment Statistics](#) (OES) program receives wage-rate data for the federal government, the U.S. Postal Service, and some state governments. For other industries, OES survey respondents are asked to report the number of employees paid within 12 wage intervals. Because the highest wage interval is open-ended, it is not always possible to produce median wage estimates for some high-paying occupations. If a median (or other percentile wage) for an occupation falls into the open interval, OES can determine only that the percentile falls at or above the lower bound of the open interval but cannot assign a specific value to that percentile. When this happens, the percentile wage estimate is noted as equal to or exceeding the lower bound of the open interval. Currently, this note is assigned to percentile wages above \$90 per hour or \$187,200 per year.

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