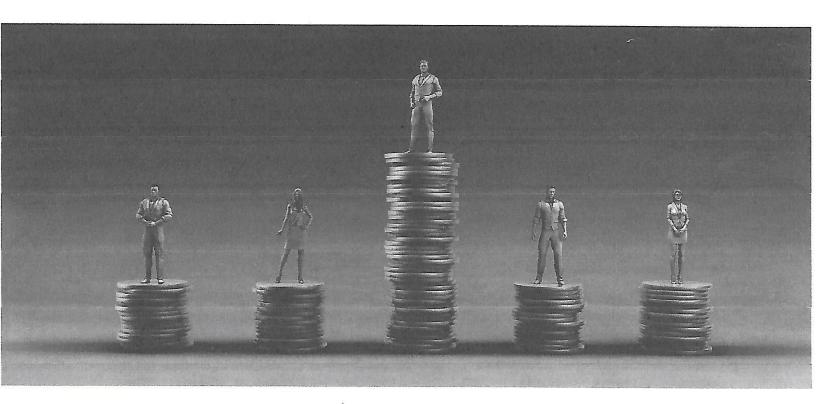
Free U.S. Salary and Income Data Resources

Uses and Comparisons

By Roger Magnus

Information about income and salaries is useful for many reasons. Job seekers need grounding in what range of salaries they should expect for the positions for which they are applying. Conversely, companies need to know realistic salary ranges for jobs they post. When choosing a major, students might consider the income they could receive after graduation. Researchers rely on income and salary data in support of a variety of research projects.





his article covers a representative sample of the major sources of big-picture U.S. income and salary-related data. Note that it's aggregate data. It won't reveal the actual salary of your next-door neighbor or co-worker. It also won't answer the question, "How, on their income, can they afford that boat/car/vacation?"

Locating relevant income and salary data is complex as data resources are numerous and extremely varied in geographic scope, definitions of terms, and research methodology. Geographic coverage concepts such as Census Tract, Block Group, and ZCTA (ZIP Code Tabulation Area), MSA (Metropolitan Statistical Area), and Congressional District, and why they are useful, should be understood in addition to nation, state, county, and city/town. For example, a Census Block Group covers a small population while an MSA can overlap more than one state.

Terminology is crucial for proper interpretation of the numbers. Salary, income, wages, earnings, and compensation are often used interchangeably and synonymously but can be quite different from each other. For instance, earnings are typically a component of income. Furthermore, the same term can be defined differently by different sources. A good example is income, which is computed somewhat differently by the Census Bureau, Bureau of Economic Analysis, and the IRS.

Some of the resources have income at the personal, family, and/or household level, so those distinctions and how they affect the size of the numbers need to be well-understood. In addition, an average number could mean a median or a mean—this may not be clear.

Ideally, research methodology should be explained in detail with limitations, such as sample size, margins of error, and time period of data, mentioned.

Each resource has its own particular strength or niche. Some are better sourced than others.

BUREAU OF LABOR STATISTICS

The major agency within the U.S. government that collects salary and income statistics is the Bureau of Labor Statistics (BLS), which shares extensive data by both occupation and industry.

Occupational Employment Statistics (OES; bls.gov/oes): According to its webpage, the OES contains annual "employment and wage estimates" for 800 occupations from the 2010 Standard Occupational Codes created by the Office of Management and Budget. Data are available at the national, state, and metropolitan/nonmetropolitan area levels and are derived from a twice-yearly non-farm workplaces survey. Wages include regular pay and tips but do not include overtime, bonuses, or reimbursements (such as educational tuition).

Current data are from May 2018, and numbers go back to 1988. These data also underpin the popular and well-known *Occupational Outlook Handbook* (bls.gov/ooh). To access, scroll down to the link for OES Data.

As an example, wage data from Springfield, MA-CT Metropolitan Statistical Area from May 2018 Marketing Managers (SOC 11-2021) shows a Median Hourly Wage of \$53.79, a Mean Hourly Wage of \$57.66, and an Annual Mean Wage of \$119.930. By clicking on the occupational title link, we can compare this to more detailed national-level wage data and

maps comparing several wage variables by state and Metropolitan/Nonmetropolitan areas.

Quarterly Census of Employment and Wages (QCEW; www.bls.gov/cew): On its webpage, the QCEW says it "publishes a quarterly count of employment and wages reported by employers covering more than 95 percent of U.S. jobs" by industry codes at the national, state, and MSA levels.

The data go back for quarterly and annual averages in Excel format back to 1990 and, in some cases, to 1975 (www.bls. gov/cew/downloadable-data-files.htm).

To access current data, go to State and County Wages and then Tables. On the left panel, there are many options; on the right half, Annual Averages are available under Quarter. I selected 19 (One area, one industry, annually) and found MSAs listed under all the individual counties to find the numbers below.

As an example, look at median wage data for private Marketing Consulting Services (NAICS 541613) industry in the Springfield, MA MSA for 2018, which was \$57,489. Contrast this figure with Marketing and Opinion Polling industry which was \$86,892.

Bureau of Labor Statistics-Overview of BLS Wage Data by Area and Occupation (www.bls.gov/bls/blswage.htm): Data are available for more than 800 different occupations based on Standard Occupational Classification (SOC; www.bls.gov/ soc) at the national, state, and Metropolitan (and Nonmetropolitan) Statistical Area levels. National-level data are also available for about 400 industries based on the North American Industry Classification System (NAICS; www.bls.gov/bls/ naics.htm) and a male-female median earnings breakdown for about 200 occupations. Selected Metropolitan estimates also contain some data breakdowns for full- and part-time employees. These numbers are compiled from three different

surveys: National Compensation Survey and Occupational Employment Statistics Survey, both from the BLS, and the Current Population Survey, from the Census Bureau.

OTHER U.S. GOVERNMENT AGENCIES

The Bureau of Economic Analysis, the Census Bureau, and the IRS also provide salary and income data.

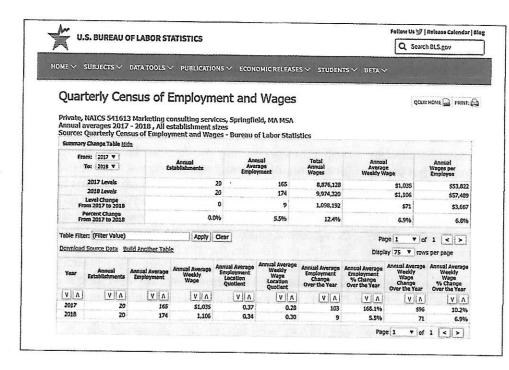
Bureau of Economic Analysis (BEA; bea.gov): Several types of income are available via Excel downloads. Data terms are defined and are sourced from administrative data, surveys, and Census information. To access, look under Data and then Income and Savings.

Per Capita Income for persons is available for Counties, MSAs, States, and the United States for the years 2016 to 2018, with percentage changes shown. This income covers wages, employer insurance, business ownership, rental property, Social Security and government benefits, plus interest and dividends. Note: It does not include capital gains from stock sales.

Real Per Capita Personal Income is available for MSAs, States, and United States. It is adjusted for regional price differences and inflation. Disposable Income (after taxes) is only available at the national level and not available per capita. As an example, Per Capita Income in the Springfield, MA MSA for 2017 was \$50,057, and Real Per Capita Personal Income was \$30,088.

From the Census Bureau, we have American Community Survey and Current Population Survey. Data in both can be accessed by respondent numbers, monetary ranges, or average figures.

American Community Survey (ACS; census.gov/programssurveys/acs): Income and, to some extent, salary/wages/earnings, can be found at different individual/group (Personal,



Results of a search on the Bureau of Labor Statistics' Quarterly Census of Employment and Wages for median wage data for private Marketing Consulting Services (NAICS 541613) industry in the Springfield, MA MSA for 2018.

1	Tabl	e 1. Per Capita Per	sonal Incor	ne by Cou	inty, 2016	- 2018		
2		1	Per capita personal			Percent chan	ge from pred	eding period
3			Dollars		Rank in State	Percent co	hange	Rank in State
4		2016	2017	2018	2018	2017	2018	2018
5	United States	49,870	51,885	54,446	-	4.0	4.9	
6								
7	Alabama	39,224	40,467	42,238	=	3,2	4.4	-
	Autauga	39,561	40,450	41,618	10	22	2.9	61
Opposite	Baldwin	42,907	43,989	45,596	4	2.5	3.7	55
10	Barbour	31,595	33,048	35,199	41	4.6	6.5	2
11	Bibb * *	28,799	29,081	30,254	66	1.0	4.0	etinialistinininininininininininininininininini
12	Blount	32,389	33,533	34,976	43	3.5	4.3	MERCHANISMONDO TOTAL
13	Bullock	26,655	27,442	28,797	67	3.0	4.9	
14	Butler	33,501	34,733	36,450	32	3.7	4.9	SANCES AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO
15	Calhoun	34,774	35,721	37,120	26	2.7	3.9	AND DESCRIPTION OF THE PERSON
16	Chambers	32,470	32,583	33,859	49	0.3	3.9	Marine Property of the Park State
17	Cherokee	32,826	33,852	35.505	39	3.1	4.9	CHARLESTON AND ADDRESS OF
18	Chilton	32,204	33,416	34,798	45	3.8	4.1	40

Per Capita Income by County from the Bureau of Economic Analysis is downloadable as an Excel spreadsheet.

Family, Household) and geographic levels (down to Block Group—an area of about 600 to 3,000 persons). Income includes salary, interest, dividends, rental, royalty, trusts and estates, Social Security, welfare, and more. Salary/wages/earnings are synonymous and include money earned as an employee or self-employed person minus certain income tax deductions. Detailed cross-tabulations are available on the data such as by education, race, or place of birth. Limitations for this product include only 5-year average data for geographies under 65,000 population, margins of error for reported numbers, issues when adding and comparing the numbers with other Census data, and year-to-year income adjustments for inflation.

Extensive variable definitions and yearly changes are provided. Data come from required survey responses to a rolling monthly sample of more than 3.5 million households (or about one of 40) and more than 160,000 group facilities per year.

To access ACS data, use data.census.gov, which is fully replacing American FactFinder by the spring of 2020. Search on Median Earnings and select Table S24011 – OCCUPATION BY SEX AND MEDIAN EARNINGS IN THE PAST 12 MONTHS and drill down by Geography and Subcounty to find these data for Springfield, MA. An example is Median Earnings for Sales and Related Occupations, \$19,401 +/-\$3,421. This figure is higher for males, at \$24,896 +/-\$3,196.

Current Population Survey (CPS; census.gov/programs-surveys/cps.html or bls.gov/cps): The CPS is produced jointly by the Census Bureau and Department of Labor. Annual estimates for income and earnings are available at the national and state level, with detailed cross-tabs such as age, education, Hispanic origin, race, rent or own home, work experience, and more. Income and earnings based on the survey questions are defined similarly to the ACS, with earnings equaling amount made from work before "taxes and other deductions" and income equaling "money from jobs, net income from business, farm or rent, pensions, dividends, interest, Social Security payments and any other money income received." The Annual Social and Economic (ASEC) Supplement is the basis for the various data breakdowns that are available.

Variable definitions are provided. Data comes from a volunteer monthly survey of about 60,000 households. Data can be

accessed at the CPS Data Creator (www.census.gov/cps/data/cpstablecreator.html) or a series of Excel tables can be downloaded (www.census.gov/programs-surveys/cps/data-detail. html) under the Annual Social and Economic Supplement. The former will provide state-level data back to 2003, while the latter data goes back to 1994, although both are only national in scope. For example, the 2017 personal earnings in Massachusetts for those who are Black Alone and working full-time is \$33,000.

IRS (irs.gov/statistics/soi-tax-stats-individual-income-taxreturn-form-1040-statistics): Data are currently available going back from 2017 in Excel files for actual number of returns filed by different Adjusted Gross Income (AGI) ranges for US (under General Statistical Tables) and States, Counties, Congressional District and ZIP Codes (under Data by Geographic Areas). There are also AGI ranges for components (salaries, dividends, interest, refunds, etc.) of income at many of these geographic levels. Average AGI and component figures are not available directly, though they can be computed from Amount/Number of Returns. AGI equals Gross Income minus certain deductions. It is not the same as Taxable Income, which includes the Standard Deduction or Itemized Deductions and specific Exemptions. In my ZIP code, 01002, there were 9,530 returns filed in 2017, with 900 having an AGI of \$200,000 or more.

INDUSTRY SECTOR-SPECIFIC

The government is far from the only entity interested in salary and income data. Industry groups also report regularly on their sectors. Many of these reports can be found with a Google or Bing search. Below is a sample of industry-related salary reports.

Nonprofits: Nonprofit Salary Data (TSNE Mission Works; tsne.org/salary-data): TSNE Mission Works (formerly Third Sector New England) provides 2017 salary data by variables such as job title, organizational budget range, number of employees, area of service, and location (limited to parts of Massachusetts and Connecticut). Data are clearly sourced above the database search form and come from more than 340 nonprofits representing 35,000 employees. I found an

Accounting Supervisor across all nonprofits made a Median Salary of \$61,607. Multiple percentiles were provided as well as number of employees and organizations surveyed. When I tried to limit to Boston and Cambridge, only a small number of employees and organizations participated, so the salary data were not displayed.

Note: A 2019 national-level report on a subset of executive titles is available from Candid (candid.org), which is the new name of the merged GuideStar and Foundation Center, but costs \$399.

Medicine: Medscape Physician Compensation Report (med scape.com/slideshow/2019-compensation-overview-6011286): This report of 30 slides is compiled from 19,238 doctors from 30 medical areas who answered a 10-minute online survey from Oct. 25, 2018, through Feb. 14, 2019, per the Methodology slide. Income is broken down by gender, primary care physicians and specialists, race/ethnicity, specialty, and highest-paying states. For example, Orthopedics make the highest annual salary at \$482,000, and Oklahoma is the highest-paying state for physicians at \$337,000.

There is also a slideshow for Massachusetts physicians at medscape.com/slideshow/2018-compensation-massachu setts-6010436#22 that provides similar data and methodology.

It appears users must register to have access to either of these Medscape slideshows.

Law: 2018 Salary Guide for Legal Professionals (Robert Half Legal; roberthalf.com/sites/roberthalf.ca/files/docu ments/2018_salary_guide_CA_legal.pdf): This 33-page report provides national and Canadian data on different types of lawyers and other legal specialists broken down into percentiles and ranges for years of experience. For example, the median pay for a lawyer working in a law firm with 10-plus years of experience is \$124,500. For state and selected cities, there is a composite percentage differential for all positions which may be very approximate. The data are not directly sourced in the report but probably come from the employee placement firm's clients, since this firm has a 70-year history of providing salary data.

GENERAL

Outside of the government and industry-specific sectors, two sites stand out as popular places to consult regarding salary and income data.

Salary.com: This all-purpose site caters both to businesses figuring out compensation plans and individuals figuring out salary data benchmarks and comparisons. Under a link to Individuals - What am I worth?, you can search by Job title or keyword and Location. A search on Librarian and Amherst, MA or ZIP code 01002 provides a Median Salary of \$67,685 or Median Salary or Bonus of \$68,207. There is also a link to Benefits valued at \$95,777 and includes monetary values for not only median salary and bonus but also different employee benefits such as retirement, medical insurance, vacation, and other leave, etc., with a percentage breakdown for each.

There is also a section for Detailed Job Info which includes a field for Similar Job Titles that presents a nice graphic of median salary for each. A full report can also be purchased. In addition, under Personal and then Salaries, you can find

_	MissionW Partners in	social change	H A D W	SEARCH
► Programs + Services for Nonprofits	► Learning with our Community	► Insights for the Sector	► Spaces + Places	► About Us
Nonprofi	it Salary Da	ata		
lew 2017 salary data by ositions from 342 orga	organization budget, employ	yee population, location, o	AND THE RESERVE OF THE PARTY OF	nation represents 171 types of
lew 2017 salary data by ositions from 342 orga	organization budget, employ	yee population, location, o 35,000 individual salaries	. Return to the report.	nation represents 171 types of
lew 2017 salary data by ositions from 342 orga Overview of using t	y organization budget, employ nizations, reporting on nearly his database	yee population, location, o 35,000 individual salaries	. Return to the report.	nation represents 171 types of
lew 2017 salary data by ositions from 342 organ Overview of using the Job Title m searching salary ata to: *	y organization budget, employ nizations, reporting on nearly his database	yee population, location, o 35,000 individual salaries	. Return to the report.	
lew 2017 salary data by ositions from 342 organ Overview of using the Job Title	y organization budget, employ nizations, reporting on nearly his database	yee population, location, o 35,000 individual salaries	. Return to the report.	

The TSNE Mission Works website provides 2017 salary data for New England nonprofits searchable by many variables.



Just a few free resources can cover just about any salary or income-related datapoint or component someone would need to know about an employment or location field.

nationwide data for a job; there is also a Benefits Calculator and Cost-of-Living Comparisons. Under Personal and then Salary Research, there are sections to review Popular Jobs, Companies, and Skills replete with salary data.

The sources of the data are not completely clear. They appear to come from various Compdata Surveys (U.S. pay and benefits), IPAS Surveys for international data in 100 countries, and Benefits Surveys that can be purchased. The company also sells Market Data and Executive Pay Data for 50,000 public company executives.

Payscale.com: There is link near the top of the main page for salary-seekers called What Am I Worth? Get Your Pay Report. From there, you can search on Current Job, Job Offer, or Just Exploring. Clicking Just Exploring walks you through a series of questions about type of job sought, skills possessed, location, education, years of experience, etc., and then provides a salary range, bonus percentiles, and salary history. To read the results, free registration is needed.

On the main page, you can also scroll down to Do Your Research, which can provide U.S. (you can also browse a small group of pre-selected professions by state and city) salary data by occupation. I entered Librarian and obtained an average (median) nationwide salary of \$49,803, bonus of \$1,034, and profit sharing of \$50. You can also break down these numbers by many major cities, tiers of experience, and a sampling of employers.

Data are self-reported by individuals (payscale.com/about/methodology), with 150,000 submitting surveys each month. However, to see the questions asked and complete a survey, it appears that you have to register.

ABUNDANT FREE RESOURCES

Just a few free resources can cover just about any salary or income-related datapoint or component someone would need to know about an employment or location field. From occupation title to industry type to cost of living adjustment to detailed cross-tabulations by demographic, work-related, and tax return variables, the number of possibilities is truly dizzying.

While not every salary or income question someone asks will be answered, almost all can find something close. In many cases, it may be a question of finding multiple numbers for the same question and deciding through subject coverage and resource methodology which figure makes the most sense or if they seem equivalent, applying a range instead of one number. While this type of research often seems simple, when it is boiled down to one number or a small range, there is a lot to understand that makes this distillation happen.

Roger Magnus (magnusrog@yahoo.com) is the owner of Roger Magnus Research based in Amherst, Mass.

Comments? Email the editor-in-chief (marydee@xmission.com).