

Employer Costs for Employee Compensation Relative Standard Errors

Because the Employer Costs for Employee Compensation is a sample survey, it is subject to sampling errors. Sampling errors are differences that occur between the results computed from a sample of observations and those computed from all observations in the population. The estimates derived from different samples selected using the same sample design may differ from each other. A measure of the variation among these differing estimates is the standard error. The relative standard error is the standard error expressed as a percent of the cost. It can be used to measure the precision with which an estimate from a particular sample approximates the expected result of all possible samples. The chances are about 68 out of 100 that an estimate from the survey differs from a complete population figure by less than the standard error. The chances are about 90 out of 100 that this difference would be less than 1.6 times the standard error. Footnotes have been added for estimates with relative standard errors greater than 30 percent.

For a more detailed explanation of relative standard errors, see “Measuring Trends in the Structure and Levels of Employer Costs for Employee Compensation”, (<https://www.bls.gov/opub/mlr/cwc/measuring-trends-in-the-structure-and-levels-of-employer-costs-for-employee-compensation.pdf>) Compensation and Working Conditions, Summer 1997. For a detailed explanation of how to use standard error data to analyze differences in year-to-year changes, see “Analyzing Year-to-Year Changes in Employer Costs for Employee Compensation, Compensation and Working Conditions, Spring 1998” (<https://www.bls.gov/opub/mlr/cwc/analyzing-year-to-year-changes-in-employer-costs-for-employee-compensation.pdf>). This article supplements an article from the Summer 1997 issue of Compensation and Working Conditions, “Explaining the Differential Growth Rates of the ECI and ECEC” (<https://www.bls.gov/opub/mlr/cwc/explaining-the-differential-growth-rates-of-the-eci-and-ecec.pdf>), which examined how differences in the construction of these measures contribute to differing trends.

Standard errors relate to differences that occur from sampling errors, but not from nonsampling errors. Sampling errors are differences between the results computed from a sample of observations and those computed from all observations in the population. Nonsampling errors are not measured and include survey nonresponse and data collection and processing errors. Survey nonresponse is when sample members are unwilling or unable to participate in the survey. Data collection errors include provision of inaccurate data by respondents and definitional difficulties. Processing errors include errors in recording, coding, and entering data. Although nonsampling errors are not measured, BLS quality assurance programs contain procedures for reducing such errors. These procedures include data collection reinterviews, observed interviews, computer data edits, and systematic review of reports on which data are recorded. Extensive field economist training also is conducted to maintain high data collection standards.

Obtaining information

Articles, bulletins, and other information may be obtained through the Employer Costs for Employee Compensation webpage by contacting us by email at NCSinfo@bls.gov or calling (202) 691-6199. If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Table 4. Employer Costs for Employee Compensation for private industry workers by occupational and industry group — Continued
 [June 2023]

Series	Total compensation ¹		Wages and salaries		Total benefits		Paid leave		Supplemental pay		Insurance		Retirement and savings		Legally required benefits	
	Cost (\$)	RSE ²	Cost (\$)	RSE ²	Cost (\$)	RSE ²	Cost (\$)	RSE ²	Cost (\$)	RSE ²	Cost (\$)	RSE ²	Cost (\$)	RSE ²	Cost (\$)	RSE ²
Management, professional, and related occupations.....	67.70	4.0	48.47	3.9	19.23	4.3	6.04	4.9	2.34	8.4	3.99	3.7	2.40	6.6	4.45	3.2
Management, business, and financial occupations.....	78.43	3.9	55.76	4.0	22.67	3.9	7.33	4.8	3.09	8.3	4.48	3.1	2.83	7.5	4.94	2.9
Professional and related occupations.....	53.90	5.7	39.10	5.3	14.81	6.8	4.38	8.0	1.38	11.0	3.36	6.6	1.86	10.4	3.82	4.6
Sales and office occupations.....	27.46	2.0	20.77	2.1	6.69	2.2	1.52	4.0	0.74	3.7	1.63	3.0	0.64	5.1	2.16	1.6
Sales and related occupations..	26.09	2.5	20.26	2.5	5.83	2.7	1.31	5.7	0.71	4.5	1.21	2.6	0.51	6.0	2.08	1.9
Office and administrative support occupations.....	32.55	1.4	22.66	1.3	9.89	2.2	2.28	2.6	0.88	7.0	3.16	3.5	1.11	7.1	2.45	1.4
Service occupations.....	22.74	2.6	16.87	2.2	5.88	4.5	1.11	6.4	0.68	10.1	1.45	6.2	0.66	7.9	1.97	2.7
Natural resources, construction, and maintenance occupations...	47.32	2.8	31.59	2.4	15.73	3.8	3.39	4.5	1.75	5.6	3.98	4.7	2.79	7.6	3.81	2.6
Installation, maintenance, and repair occupations.....	47.66	3.0	31.95	2.5	15.72	4.3	3.45	4.7	1.78	6.6	3.94	5.2	2.73	8.4	3.82	2.7
Production, transportation, and material moving occupations....	35.71	3.0	24.26	2.7	11.44	3.7	2.27	5.1	1.25	3.8	3.28	2.7	1.61	12.5	3.02	1.5
Transportation and material moving occupations.....	35.81	3.2	24.36	2.9	11.45	4.0	2.27	5.4	1.23	4.1	3.28	2.9	1.64	13.5	3.03	1.6
Wholesale trade industry.....	47.66	3.2	33.89	3.3	13.77	3.5	3.67	4.7	1.86	4.2	3.25	4.1	1.49	6.6	3.50	2.6
Sales and office occupations. ...	49.88	4.9	36.31	5.3	13.57	4.4	3.72	7.1	1.58	6.9	3.23	4.2	1.56	9.6	3.48	4.4
Office and administrative support occupations.....	33.88	2.7	23.83	2.5	10.06	3.7	2.50	5.5	1.19	10.8	3.06	4.1	0.82	7.7	2.49	3.2
Production, transportation, and material moving occupations.....	31.14	3.5	21.40	2.9	9.74	5.1	1.90	5.9	1.43	5.5	2.76	6.8	0.87	11.9	2.77	2.8
Transportation and material moving occupations.....	31.07	4.2	21.38	3.6	9.69	6.3	1.87	6.9	1.38	6.9	2.72	7.9	0.94	14.0	2.78	3.4
Retail trade industry.....	24.67	1.3	18.90	1.2	5.78	2.0	1.25	3.4	0.66	3.8	1.38	2.7	0.44	4.3	2.04	1.0
Sales and office occupations. ...	21.65	1.1	17.05	1.0	4.59	1.8	0.92	2.4	0.54	5.3	1.01	3.0	0.30	5.0	1.81	0.9
Sales and related occupations.....	21.16	1.1	16.77	1.0	4.39	1.9	0.85	2.6	0.54	5.6	0.92	3.5	0.29	5.2	1.79	0.9
Office and administrative support occupations.....	26.79	2.2	20.06	1.7	6.72	5.1	1.66	6.5	0.58	12.7	1.97	9.4	0.43	11.2	2.08	1.8
Production, transportation, and material moving occupations.....	23.58	0.9	17.22	0.8	6.36	1.5	1.21	2.6	0.63	4.2	1.88	2.3	0.60	4.6	2.04	1.0
Transportation and material moving occupations.....	23.28	0.9	17.06	0.8	6.22	1.6	1.18	2.6	0.62	4.4	1.83	2.6	0.58	5.1	2.02	1.1
Transportation and warehousing industry.....	45.08	4.5	29.84	4.1	15.25	5.4	3.17	7.0	1.49	6.1	4.42	4.7	2.53	13.7	3.64	2.7
Utilities industry.....	77.39	2.2	47.31	2.3	30.07	2.4	6.94	3.8	2.73	7.5	7.39	2.9	7.69	4.2	5.32	2.2
Information industry.....	70.30	2.9	45.96	2.5	24.34	4.2	6.93	5.1	3.27	6.1	6.20	3.9	3.53	10.5	4.42	2.5
Management, professional, and related occupations.....	89.04	3.0	59.00	2.8	30.04	4.1	9.45	6.4	4.54	7.0	7.15	3.7	3.46	8.0	5.45	2.5

See footnotes at end of table.

