

Changes in Calculations for the BLS Employer Costs for Employee Compensation Data, March 2007

The BLS Employer Costs for Employee Compensation (ECEC) series produces quarterly estimates of employer costs for wage, salaries, and benefits. Data for the ECEC are collected from employers as part of the BLS National Compensation Survey (NCS). Other NCS products include the Employment Cost Index (ECI), local and national wage estimates by occupation, and data on the incidence and provisions of employee benefits. Changes to the estimation procedure for the December 2006 ECEC, released in March 2007, were introduced to standardize the estimation calculations among all NCS products.

The specific ECEC calculation change being introduced with the December 2006 data is known as the *benchmark* calculation. Benchmarking is the process of adjusting the weight of each establishment in the survey to match the distribution of employment by industry at the reference period. Because the sample of establishments used to collect ECEC data was chosen over the past several years, establishment weights reflect their employment when selected. The benchmark process updates that weight based on current employment.

The new benchmark factor being introduced into the ECEC uses data from two BLS programs: the Quarterly Census of Employment and Wages (QCEW) and the Current Employment Statistics (CES) program. Combined, these programs provide the appropriate industry coverage and currency of data needed to match the ECEC. The NCS sample is drawn from the QCEW.

The ECEC benchmark process was also refined to account for establishments that do not include any occupations. Typically, such establishments only include an owner or family members. With this enhancement, these establishments are now treated consistently with other NCS programs.

The benchmark factor for a given ECEC industry and ownership group is calculated as follows:

$$\text{Benchmark factor}_i = \frac{\text{Population employment}_i}{\sum \text{ECEC weight}_i}$$

Where:

Population employment_i is the current employment for the industry and ownership group from the QCEW and CES

ECEC weight_i is the original weight of an occupation within the industry and ownership group from the ECEC adjusted for nonresponse and other sub-sampling situations that occurred during data collection. The summation is over all ECEC sample occupations within the industry and ownership group.

i = the industry and ownership group

Benchmark factors are produced for groupings of industry and ownership, as described on the following table. The change in the ECEC benchmark procedure had a negligible effect on estimates and estimated variances.

Industry and ownership groupings used in the old and new ECEC benchmark process

Private Industry

Previous Process		New Process	
NAICS Codes	Industry	NAICS Codes	Industry
336 except 336411	Transportation Equipment Manufacturing (excl. Aircraft)	31-33, excl 336411	Manufacturing (excl. Aircraft)
336411	Aircraft Manufacturing	336411	Aircraft Manufacturing
482, 483, 486	Rail, Water, and Pipeline Transportation	48-49	Transportation and Warehousing
485, 487	Ground Transit		
515, 516	Broadcasting and Internet	51	Information
531, 533	Real Estate	53	Real Estate and Rental and Leasing
61 except 6111, 6112, 6113	Educational Services (Rest of)	61(excl 6111-6113)	Educational Services (Rest of)
6111	Elementary and Secondary Schools	6111	Elementary and Secondary Schools
6112	Junior Colleges	6112, 6113	Junior Colleges, Colleges and Universities
6113	Colleges, Universities, and Professional Schools		
3-digit NAICS (except 336,482,483,485,486,487, 515,516,531,533,611)	3-digit NAICS Industry	21	Mining
		23	Construction
		22	Utilities
		42	Wholesale Trade
		44-45	Retail Trade
		52(excl 524)	Finance (Rest of)
		524	Insurance
		54	Professional and Technical Services
		55	Management of Companies and Enterprises
		56	Administrative and Waste Services
		62(excl 622,623)	Health Care and Social Assistance (Rest of)
		622	Hospitals
		623	Nursing and Residential Care Facilities
		71	Arts, Entertainment, Recreation
		72	Accommodation and Food Services
		81(excl 814)	Other Services (except Public Administration)

State Government

Previous Process		New Process	
NAICS Codes	Industry	NAICS Codes	Industry
611	Educational Services	6111	Elementary and Secondary Schools
		6112, 6113	Junior Colleges, Colleges and Universities
		61 excl. 6111-6113	Rest of Education
622	Hospitals	622	Hospitals
92 excl. 928	Public Administration	92 excl. 928	Public Administration
All other NAICS	Rest of State Government	21, 23, 31-33	Goods-Producing
		42, 44-45, 48-49, 22	Trade, Transportation, and Utilities
		623	Nursing Homes
		62 excl. 622-623	Rest of Health and Social Services
		51, 52-53, 54-56, 71-72, 81	Other Service-providing

Local Government

Previous Process		New Process	
NAICS Codes	Industry	NAICS Codes	Industry
221	Utilities	42, 44-45, 48-49, 22	Trade, Transportation, and Utilities
48, 49	Transportation and Warehousing		
611	Educational Services	6111	Elementary and Secondary Schools
		6112, 6113	Junior Colleges, Colleges and Universities
		61 excl. 6111-6113	Rest of Education
622	Hospitals	622	Hospitals
92 excl. 928	Public Administration	92 excl. 928	Public Administration
All other NAICS	Rest of Local Government	21, 23, 31-33	Goods-Producing
		623	Nursing Homes
		62 excl. 622-623	Rest of Health and Social Services
		51, 52-53, 54-56, 71-72, 81	Other Service-providing