

# Occupational Employment and Wages: 2001-2013

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**O**ccupational Employment Statistics (OES) estimates employer survey information into detailed wage data for 821 occupations that comprise 22 major categories. Extensive occupational earnings data make the survey useful to both employers and employees. This article utilizes data from 2001, 2004, 2007, 2010, and 2013 to account for the 3-year OES survey cycle. Data is examined mostly at 2-digit Standard Occupational Classification (SOC) level but also dives deeper into 6 digit levels to explain broader changes.

## Overview and Share Change

Selected 2001 to 2013 OES data show state occupational employment increased overall from 1,664,770 in 2001 to a 2007 peak of 1,682,220. Most recently available 2013 data shows employment at 1,635,590. During that 12-year span, median nominal wages rose from \$15.92 to \$20.33 per hour.

From 2001 to 2013, employment share by occupation exhibited a few distinct shifts. Overall, the largest share gains were had by the Food Prep and Serving (+1.6%), Personal Care and Service (+1.5%), and Healthcare Practitioners (+1.1%) occupational groups. The largest share contractions occurred in the Production (-2.7%), Office and Administrative Support (-2.4%), and Construction (-0.9%) occupations.

Food Preparation and Serving Related Occupations had a share

increase of 1.6 points, to 8.2 percent of total employment by 2013 and was the third largest occupational group behind Office and Administrative Support and Sales and Related Occupations. Food Preparation and Serving Related's median wages are characteristically low, increasing from \$8.28 to \$9.71 per hour. This 17.3 percent nominal wage increase is 10.4 points below the corresponding 27.7 percent increase experienced by All Occupations.

The largest employment share contraction happened in Production Occupations, which steadily fell from 8.5 percent of total employment to 5.9 percent. During this period, median wages in this occupational group increased steadily from \$13.94 to \$17.74 per hour, up 27.3 percent, in line with the growth had by All Occupations overall.

## Occupational Wage Shift

Contrasting mean and median wages is an effective way to show distributional skew and change over time. Under most circumstances, a median wage below the mean indicates a positive skew (a few outlying wage earners making far above median), a median above the mean indicates a negative skew (a few very low wage earners pulling down the mean), and a relatively close median and mean wage indicates a statistically normal wage distribution. For All Occupations the mean/median ratio was 1.29 in 2013, up 0.08 since 2001. This indicates that

higher wage earners in the state have had proportionally larger wage gains since 2001. The inner quartile range for All Occupations from 2001-13 was up 20.4 percent at the 25<sup>th</sup> percentile and up 37.6 percent at the 75<sup>th</sup> percentile.

Sales and Related Occupations has the largest mean to median ratio, 1.61 in 2013, a mean of \$21.74 and a median of \$13.50 per hour. Digging deeper into available Sales and Related Occupation data helps explain this occurrence. Fifty-five percent of this occupational employment is concentrated in Cashiers and Retail Salespersons, which have 2013 mean earnings respectively of \$10.45 and \$12.86 per hour. The skew is influenced by Securities, Commodities and Financial Services Sales Agents, which has earnings (Mean \$75.91, Median \$72.94) far above other 41-series occupations and are 6,520 workers of 167,930 classified in that sector. This concentration of Sales and Related employment at the low end of the wage scale with a high earning outlier accounts for the largest skew of 2-digit occupations in the state. The hourly wage inner quartile range for this group in 2013 was between \$9.59 and \$24.84 per hour.

## Conclusions

The OES Occupational wage data has been used to help explain labor market shifts and wage change that have occurred in Connecticut since 2001. Other variables that contribute to high ratio spreads in certain occupations not captured in the survey data include education, experience, or training requirements. Fortunately, sources exist that help match these traits to SOC occupations.<sup>1</sup> ■

For CT Occupational Employment Statistics Survey data see: <http://www1.ctdol.state.ct.us/lmi/wages/oesmain.asp> and [www.bls.gov/oes/tables.htm](http://www.bls.gov/oes/tables.htm)

<sup>1</sup> For more information about education/training requirements by occupation, see: <http://www1.ctdol.state.ct.us/lmi/careerpaths.asp> and <https://www.onetonline.org/>

**TABLE 1: Ten Largest Major Occupational Groups in Connecticut**

Occupation Type	All Occupations	Office and admin.	Sales and Related	Food prep. & serving related	Ed. & Training	Management	Healthcare Pract. & Tech	Production	Transport. & material moving	Busin. & Financial Operations	Personal Care and Service	
SOC Code	0	43	41	35	25	11	29	51	53	13	39	
Employ. Share	2013	-	15.9%	10.3%	8.2%	7.6%	6.8%	6.2%	5.9%	5.4%	3.7%	
	2010	-	16.8%	10.1%	7.7%	7.9%	6.9%	5.9%	6.0%	5.3%	3.3%	
	2007	-	17.4%	10.6%	7.3%	7.6%	6.1%	5.3%	6.8%	5.7%	2.7%	
	2004	-	18.3%	10.7%	7.0%	7.3%	4.9%	5.3%	7.2%	5.8%	2.7%	
	2001	-	18.4%	10.5%	6.5%	7.0%	5.7%	5.1%	8.5%	5.7%	4.5%	
Mean Hourly Wage (\$)	2013	\$26.16	19.54	21.74	11.61	28.06	60.13	40.11	19.56	16.82	38.59	13.73
	2010	\$24.96	18.68	21.42	11.58	27.28	54.81	37.83	18.67	15.89	37.15	13.44
	2007	\$22.92	17.40	20.23	10.99	26.05	50.51	34.23	16.92	15.07	34.01	12.87
	2004	\$21.02	16.00	19.48	10.32	23.09	49.99	30.39	16.05	14.16	31.55	12.17
	2001	\$19.21	14.97	16.89	9.64	21.44	41.31	27.70	14.97	13.31	28.28	11.27
Median Hourly Wage (\$)	2013	\$20.33	18.36	13.50	9.71	25.87	52.92	34.76	17.74	15.00	34.45	11.49
	2010	\$19.56	17.60	13.22	9.71	25.32	47.71	32.70	17.14	14.20	32.91	11.16
	2007	\$18.34	16.62	12.80	9.47	24.45	45.22	30.24	15.61	13.61	30.53	10.59
	2004	\$16.88	15.20	12.62	8.82	21.58	44.67	26.42	14.77	12.83	27.66	10.05
	2001	\$15.92	14.28	11.00	8.28	20.27	39.15	24.52	13.94	12.00	25.50	9.64
Mean-to-Median Ratio	2013	1.29	1.06	1.61	1.20	1.08	1.14	1.15	1.10	1.12	1.12	1.19
	2010	1.28	1.06	1.62	1.19	1.08	1.15	1.16	1.09	1.12	1.13	1.20
	2007	1.25	1.05	1.58	1.16	1.07	1.12	1.13	1.08	1.11	1.11	1.22
	2004	1.25	1.05	1.54	1.17	1.07	1.12	1.15	1.09	1.10	1.14	1.21
	2001	1.21	1.05	1.54	1.16	1.06	1.06	1.13	1.07	1.11	1.11	1.17