A New Look at Earnings Inequality

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There is a great deal of literature documenting the increase in income inequality in the United States from the mid-1970s to the present. Data from the Current Population Survey (CPS) and the Internal Revenue Service (IRS) show similar trends. In a recent presentation,[1] Dr. James R. Spletzer of the U.S. Census Bureau reviewed this data and presented new findings using data from the Longitudinal Employer-Household Dynamics (LEHD).[2]

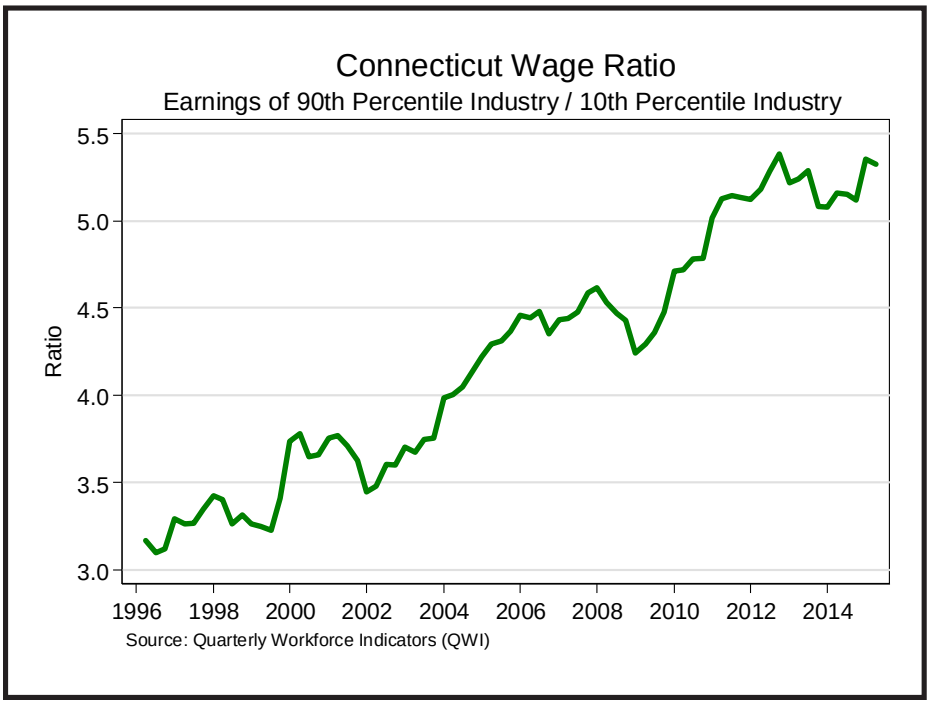
The IRS data presented by Spletzer shows that the share of income earned by the top 10% of earners has risen from around 35% in the 1970s to over 50% by 2012. The CPS data shows that the 90/10 ratio has increased significantly since the mid-1970s. (This is the ratio of the earnings of those at the 90th percentile—top 10% of all earners—to those at 10th percentile—the bottom 10% of all earners.) Virtually all of the increase in the 90/10 ratio since the mid-1990s has been due to an increase in the 90/50 ratio (the gap between earners at the 90th percentile and the median earner). The 50/10 ratio (the gap between the median earner and those at the 10th percentile) has remained flat.

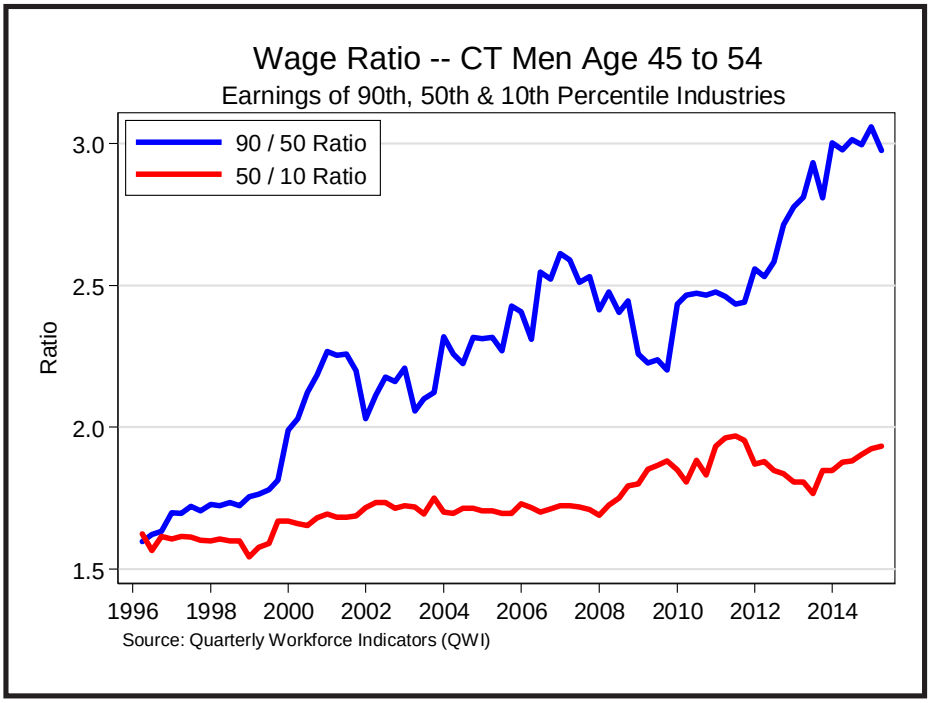
After briefly mentioning some explanations for the widening gap (skills, institutions, technology/automation), Spletzer focuses on the role of the firm. One idea is that there are good paying firms and bad paying firms. As stated in one of the articles Spletzer cites "increased variance of establishment earnings is a major pathway for the increased variance in individual earnings."[3]

Using data from the LEHD, Spletzer decomposes the variance in wages (how much individual wages differ from each other) into within firm and across firm components, that is how much the wages of workers in the same company differ from each other compared to how much the wages paid at different companies differ from each other. He found that roughly half the earnings variance we observe is across firms and half within firms. However, since the mid 1990s, "93.5% of the growth in earnings variance is across firms."[4]

Spletzer noted that there are at least three possible explanations for the increased inequality in earnings among firms. One is worker-firm sorting, that is good workers end up working with other really good workers at good firms. Another is "rent sharing," that firms that earn profits share those with their workers. Some firms are more profitable than others, so some firms have more "rents" to share than others. Another possible explanation of firm differences in wages can be explained by industry differences.

The publicly available aggregate LEHD data for Connecticut does not allow us to look at earnings within individual firms. However, we can see that earnings differences among industries may indeed be growing. Ranking each industry[5] by the earnings of workers who had held a job for a least a full quarter and comparing the industries at the 10th, 50th, and 90th percentiles in terms of total employment shows that the gap between the earnings of those at 10th and the 90th percentile has been widening and that much of the increase is due to the increase in the 90/50 ratio. Of course, there are many factors contributing to this change, including the experience and education of workers. One feature of the LEHD data is it includes demographic and firm characteristics (such as age of worker and size of firm). A full analysis of the wage gap using all of these factors is a promising area for future research. For





example, just looking at men aged 45 to 54 shows that the 90/10 wage gap rose from the mid-1990s to the early 2000s and then held steady for almost a decade before rising again. Decomposing this further shows that the 50/10 ratio has remained fairly steady while, just as with the national data presented by Spletzer, the 90/50 wage gap has increased significantly.

When ranking industries by average wage, those at the top will, by definition, pay more than those at the bottom. The question for further research is why the gap between those at the top and those at the bottom has been widening – and in particular why those at the top have gained so much on those in the middle. ■

1 "Earnings Inequality Statistics from the LEHD," February 15, 2017. Available at https://www.c2er.org/ledwebinars/.

2 Information about the LEHD and the Local Employment Dynamics (LED) Partnership is available at https://lehd.did.census.gov/.

3 Barth, Bryson, Davis & Freeman, "It's Where Your Work: Increases in Dispersion of Earnings across Establishments and Individuals in the United States," *Journal of Labor Economics*, 2016, vol. 34, No. 2, pt. 2 p. S71.

4 Spletzer, James R. "Earnings Inequality Statistics from the LEHD" presentation to accompany February 15, 2017 webinar.

5 This analysis was done looking at industries at the 4-digit NAICS level.

GENERAL ECONOMIC INDICATORS

(Seasonally adjusted)	4Q 2016	4Q 2015	CHANGE NO.	CHANGE %	3Q 2016
General Drift Indicator (1996=100)*					
Leading	117.9	116.6	1.3	1.1	118.4
Coincident	117.2	117.2	0.0	0.0	117.5
Farmington Bank Business Barometer (1992=100)**	137.3	135.8	1.5	1.1	137.3
Philadelphia Fed's Coincident Index (July 1992=100)***	**Jan 2017**	**Jan 2016**			**Dec 2016**
(Seasonally adjusted)					
Connecticut	184.97	175.81	9.16	5.2	184.99
United States	181.47	176.31	5.16	2.9	181.10

*Sources: *Dr. Steven P. Lanza, University of Connecticut **Farmington Bank ***Federal Reserve Bank of Philadelphia*

General Drift Indicators are composite measures of the four-quarter change in three coincident (Connecticut Manufacturing Production Index, nonfarm employment, and real personal income) and three leading (housing permits, manufacturing average weekly hours, and initial unemployment claims) economic variables, and are indexed so 1996 = 100.

The **Farmington Bank Business Barometer** is a measure of overall economic growth in the state of Connecticut that is derived from non-manufacturing employment, real disposable personal income, and manufacturing production.

The **Philadelphia Fed's Coincident Index** summarizes current economic condition by using four coincident variables: nonfarm payroll employment, average hours worked in manufacturing, the unemployment rate, and wage and salary disbursements deflated by the consumer price index (U.S. city average).