QCEW Income Inequality

Labor market characteristics that predict variation in income

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Data Assembly

- Quarterly Census of Employment and Wages -- US Bureau of Labor Statistics
  - Employer reported counts of employment and wages
  - Covers 95 percent of US jobs
- The “area” files contain industry-level data for every county in the US
- So we calculated income and employment statistics for every county in the US
  - Mean, standard deviation, **coefficient of variation**
  - Share of employment in industry supersectors

Income Inequality

- Coefficient of variation in “average annual pay”

$$cv = sd / mean$$

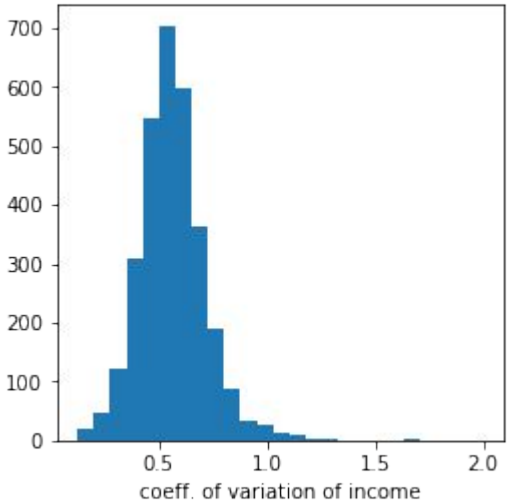
- Data is from industry averages, so it’s an imperfect measure:
  - It’s not from a household survey
  - It’s from a census of employers
- But the data is local and published regularly

A Distribution of Income Inequality

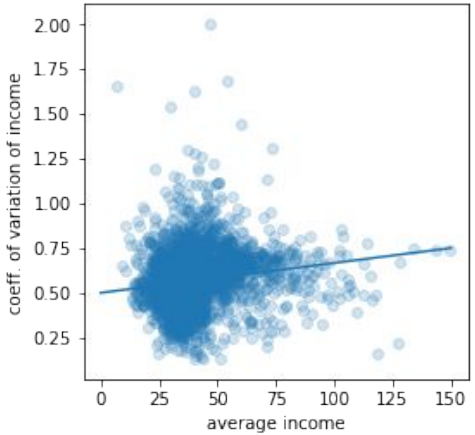
cv = sd / mean

The coefficient of variation is easy to interpret.

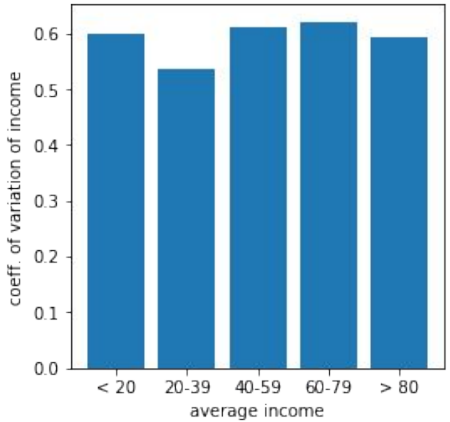
In most US counties, the variation in income (as measured by standard deviation) is less than 55 percent of average income.



Average Income and Income Inequality



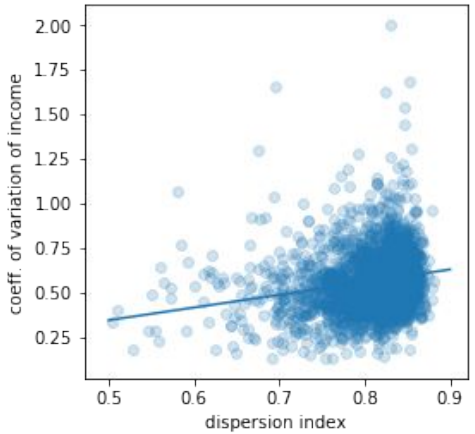
Correlation between CV of Income and Average Income: 0.14



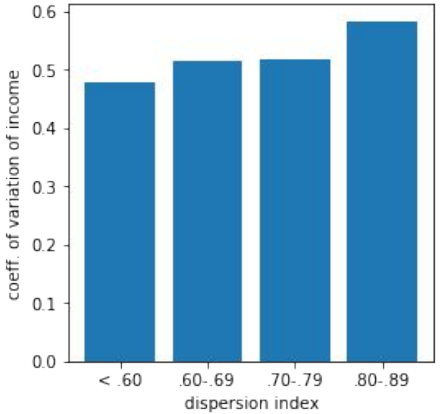
ANOVA test, H0: CV of Income does not depend on Average Income.

- F stat: 43.4, p-value: 0.000
- so reject H0

Employment Dispersion and Income Inequality



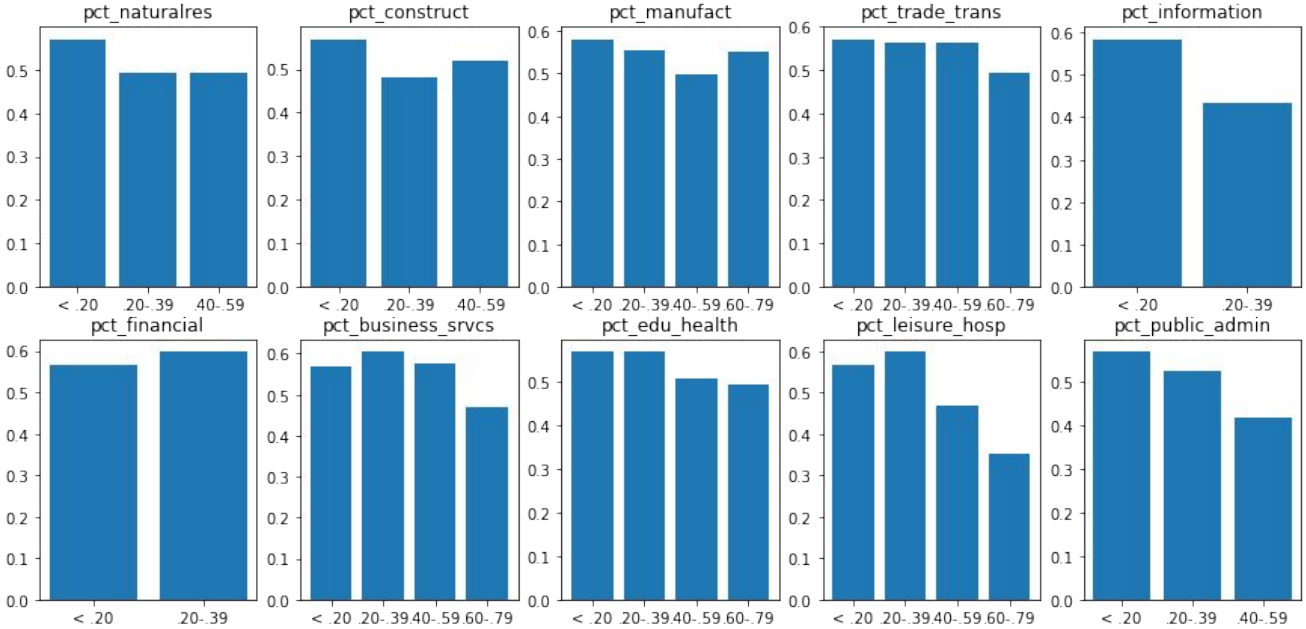
Correlation between CV of Income and Employment Dispersion: 0.25



ANOVA test, H0: CV of Income does not depend on Employment Dispersion

- F statistic: 38.1, p-value: 0.0000
- so reject H0

Supersector Share and Income Inequality



WLS Regression Models

	ln(cv pay)		ln(cv pay)		ln(cv pay)		ln(cv pay)	
ln(avg pay)	0.1383	***	0.2083	***	0.1275	***	0.2463	***
(s.e.)	(0.008)		(0.013)		(0.009)		(0.015)	
dispersion	0.9354	***	1.0987	***	0.9611	***	0.9088	***
(s.e.)	(0.075)		(0.090)		(0.073)		(0.093)	
effects	none		10 supersec.		52 state		62 both	
R^2	0.139		0.271		0.255		0.364	

Interpreting the Regressions

- 10 percent increase in Average Income associated with a 2.5 percent increase in CV of Income
- 0.01 point increase in Dispersion Index associated with a 0.9 percent increase CV of Income
- In both cases, the *t-statistics* are large enough to reject the null hypothesis that the true coefficient value is zero.
- But their economic significance is small.

Conclusions

- Counties with higher degrees of income inequality tend to have:
  - higher average income
  - greater employment dispersion
- But their effects on income inequality are small.