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Rurality and Income Inequality in the United States, 1975-2015

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Views expressed are those of the authors and should not be attributed to the Economic Research Service or USDA.

## INTRODUCTION & MOTIVATION

- Inequality of money income in the U.S. has steadily risen since the 1970s. According to Census Bureau estimates, the most common measure of household income inequality, the Gini coefficient, has risen from 0.397 in 1975 to 0.479 in 2015, an increase of 21%.
- Recent economic and political events have focused attention on the relation between rising national inequality and the perceived widening of the economic divide between urban and rural areas.
- Yet few published analyses of U.S. income inequality address the question of rurality, and no study that we are aware of provides a clear explanation for differences in levels and trends in inequality between urban and rural areas, or assesses the role that the urban-rural distinction plays in explaining national trends in income inequality.

## OBJECTIVES

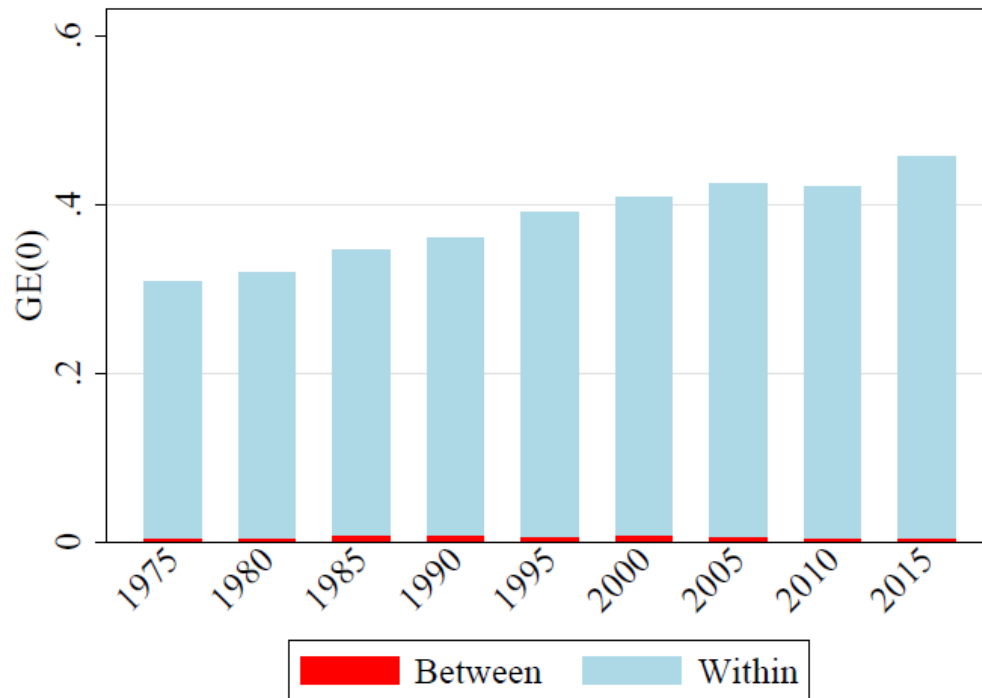
- This paper asks:
  - How much of the rise in national income inequality can be attributed to growth in the gap in average incomes *between* urban (metro) and rural (nonmetro) areas?
  - How do changes in the shares and distribution of the various sources of money income account for divergent levels and trends of income inequality *within* urban and rural areas?

## METHODS

- We analyze data from the Current Population Survey March Supplements, 1975-2015, taking account of changing questionnaire design and censoring of top incomes.
- “Within/between” decomposition analysis quantifies the contribution of the urban/rural income gap to explaining national income inequality.
- The Lerman-Yitzhaki (1985) Gini decomposition by income source is used to explain trends in income inequality within rural and urban areas.

## FINDINGS

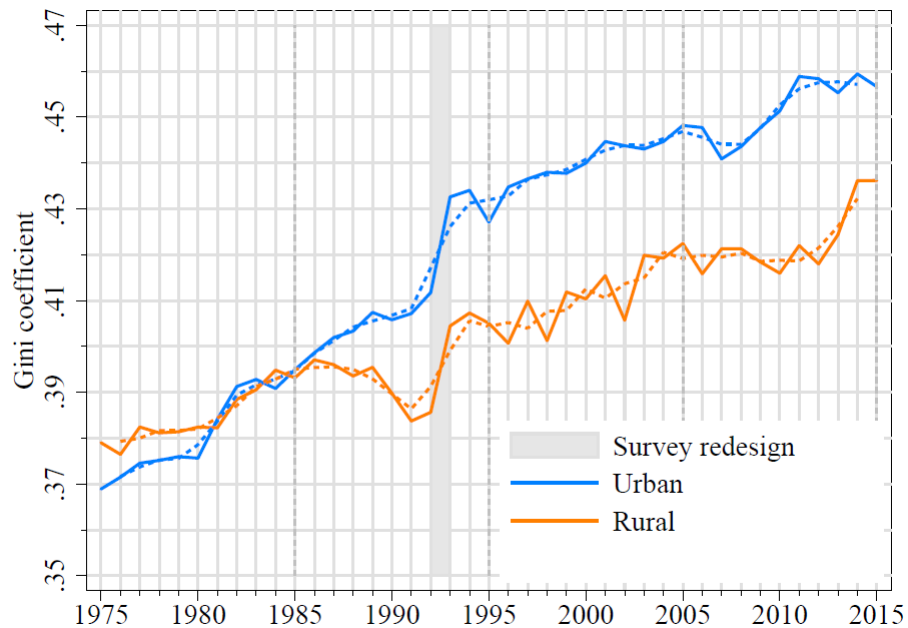
- The gap in average incomes between urban and rural areas has varied over time, but these changes make no contribution to the rise in national income inequality. The chart shows the “between area” and “within area” contributions to inequality as measured by the Generalized Entropy measure, GE(0). Other measures yield similar results.



Note: GE(0) is defined as  $-\frac{1}{N} \sum_{i=1}^N \ln \frac{y_i}{y}$

Source: Authors' analysis of Current Population Survey March Supplements, 1975-2015

- Instead, rising national income inequality is explained by rising inequality *within* both urban and rural areas. The chart shows the urban and rural Gini coefficients, from 1975 through 2015. (Note: A change in the survey instrument led to an exaggeration of the rise in income inequality between 1992 and 1993).



Source: Authors' analysis of Current Population Survey March Supplements, 1975-2015

- Income inequality was comparable, and rising, in urban and rural areas between 1975 and 1985, but thereafter rural inequality grew more slowly. This was due to:
  - A decrease in the share of rural income derived from self-employment, which is a highly unequally distributed source of income; and
  - Faster growth in wage and salary income inequality in rural areas.
- In the table below, the decline in self-employment income is seen to slow the growth of rural income inequality by 2.5 Gini points between 1975 and 1992 (compared to 0.6 points for urban areas), while the rise in wage inequality increased rural income inequality by just 0.7 Gini points in rural areas (compared to 2.4 points in urban areas).

## Contributions of Income Sources to Changes in Rural and Urban Income Inequality

Income Source	Rural Gini Coefficients			Urban Gini Coefficients		
	Change	Change	Total	Change	Change	Total
	'75 to '92	'93 to '15		'75 to '92	'93 to '15	
Wages and Salaries	0.007	0.020	0.027	0.024	0.017	0.040
Self Employment	-0.025	-0.016	-0.042	-0.006	-0.011	-0.017
Asset Incomes	0.005	-0.002	0.003	0.009	-0.005	0.004
Social Security	0.005	0.007	0.012	0.005	0.005	0.011
Retirement Income	0.008	0.017	0.025	0.004	0.014	0.018
Other Cash Transfers	0.007	0.005	0.012	0.008	0.003	0.011
Total	0.007	0.032	0.038	0.043	0.024	0.067

- While the role of rising wage and salary inequality has been widely noted, other income sources have also contributed to the rise in national income inequality. In particular, changes in the level and distribution of *retirement incomes* added 2.5 points to the rural Gini between 1975 and 2015 (1.8 points in urban areas). Changes in the levels and distribution of *social security*, and *other cash transfers*, have also added more than one Gini point each to both urban and rural inequality.

### CONCLUSIONS & DISCUSSION

- Although there are significant economic differences between urban and rural areas, changes in average incomes across the urban/rural divide do not explain rising national income inequality. Rising national inequality is driven by rising inequality *within* both urban and rural areas.
- Rising inequality of wage and salary incomes has been the focus of most analyses of income inequality, but our findings show that the decline of rural self-employment accounts for much of the emergence, around 1985-1990, of the current urban/rural inequality gap.
- The contributions of retirement incomes, social security, and other cash transfers have also gone largely unremarked, despite their magnitudes. They have generated higher income inequality largely because they are less progressively distributed (i.e. more highly correlated with other income sources) at present than in the past.
- Both social security and other cash transfers are policy-driven income streams, and changes in their distribution formulae could have a large impact on household money income inequality.
- While further research is needed to validate this hypothesis, the shift from defined-benefit to defined-contribution retirement plans may explain why retirement incomes have contributed to rising national income inequality, in both urban and rural areas.

### REFERENCES

Lerman, R. I., and S. Yitzhaki (1985): "Income inequality effects by income source: A new approach and applications to the United States," *The Review of Economics and Statistics*, pp. 151–156.