



Institute for Policy Research
Northwestern University

IPR 40th Anniversary
Distinguished Public Policy Lecture

Rebecca Blank

**"Why Does Inequality Matter
and What Should We Do About It?"**

Robert S. Kerr Senior Fellow, Brookings Institution. Former Dean of the Gerald R. Ford School of Public Policy at the University of Michigan and Henry Carter Adams Collegiate Professor of Public Policy

Changing Inequality

Rebecca M. Blank
Brookings Institution

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Long-term trend of rising inequality in U.S.

- Started in mid-1970s
 - Followed a 50-year trend of declining inequality
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Why might we care?

- Economic equality may be a goal in itself
 - May signal declines in well-being at bottom of distribution
 - May lead to reduced economic mobility
 - May affect aggregate economic growth
 - May have other social effects
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This paper

- First part: Explores rising inequality across all income components
 - Second part: Contemplates how and why the long-term trend toward increasing inequality may change
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Part 1: Changes in the Level and Distribution of Earnings and Income in the U.S.

Existing literature looks at pieces of this. Virtually no research looks at the full picture of income and all its components.

Data

- March CPS, data for 1979 and 2007
 - Based on 18-64-year-olds...person-level analysis
 - Include people living alone or in families...call these 'family units', which can contain one or more people.
 - Adjust for top-coding
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Per-capita income

- $Y_i = Y_f / N^{0.5}$

This assumes all people in family unit share income. Adjusts for 'equivalence differences' due to different family sizes.

Start by looking at earnings among workers only

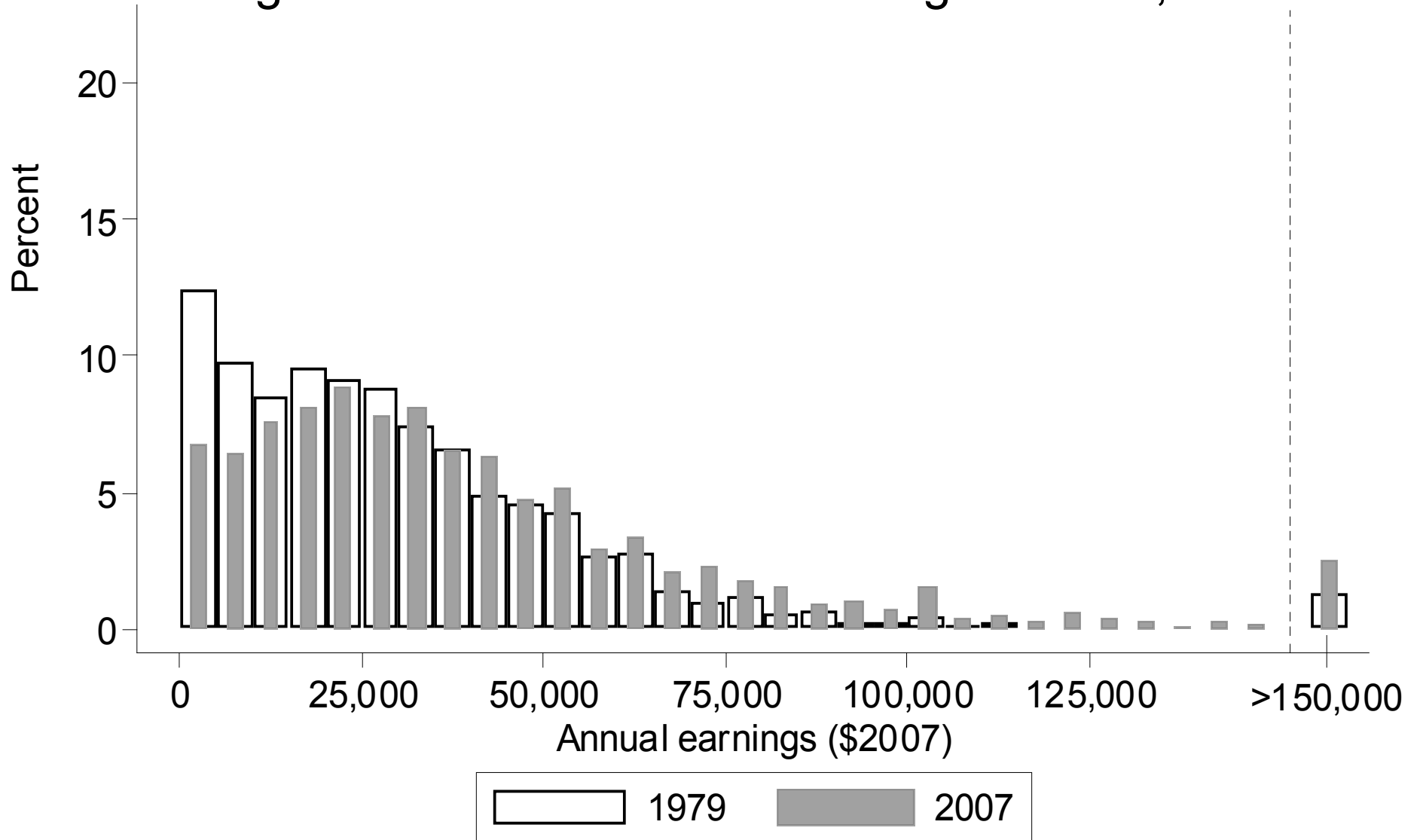
$$E_i = w_i * h_i * k_i$$

Changes in labor force participation mean that earnings changes among workers are due to both changes in labor market opportunities as well as change in worker characteristics

Earnings inequality rises...but so does the median of the distribution

<u>Total earnings:</u>	<u>1979</u>	<u>2007</u>
Median	\$25,002	\$31,000
Gini	0.45	0.46
90/50 Ratio	2.42	2.58
50/10 Ratio	6.67	4.43

Figure 1A. Distribution of Earnings in 1979, 2007

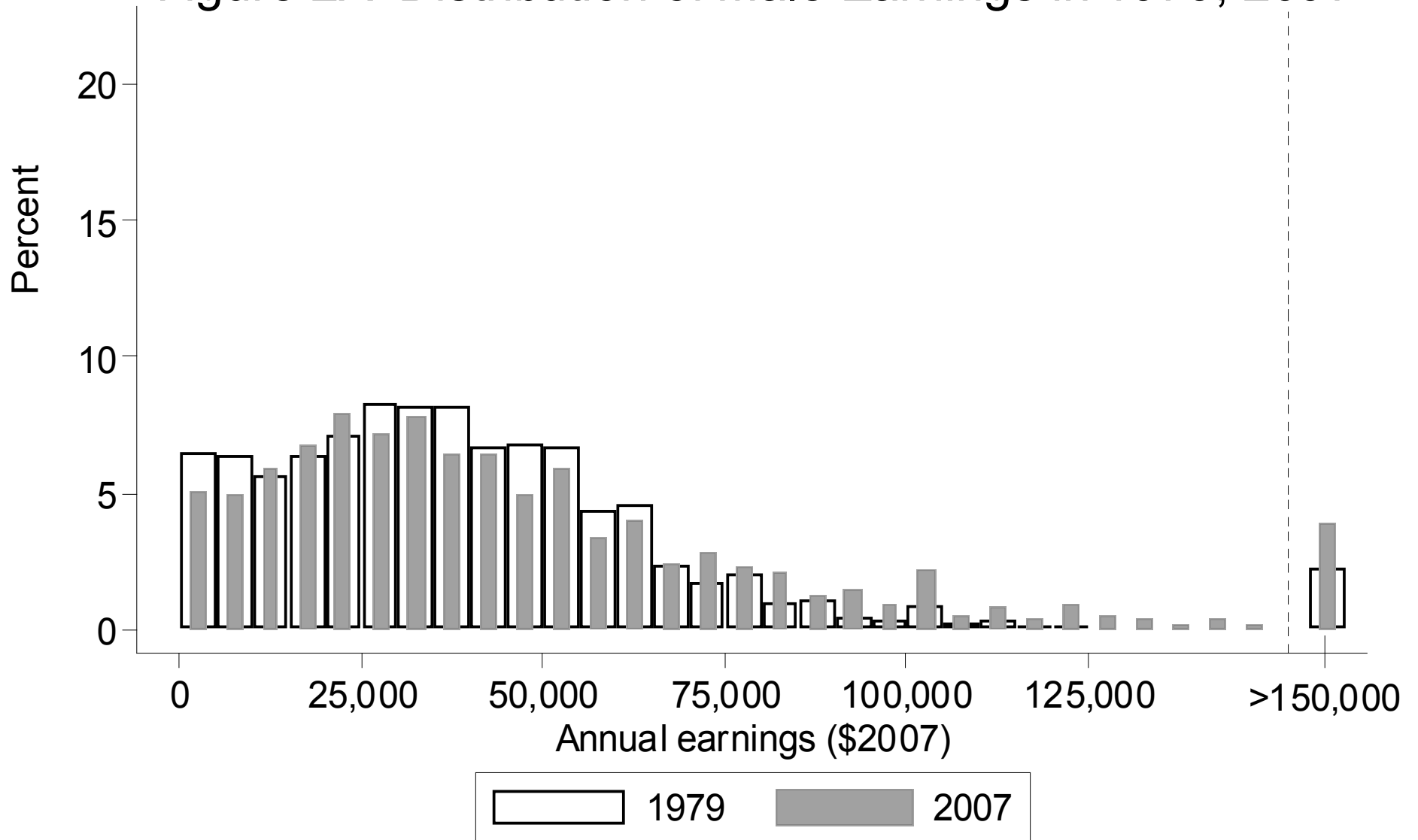


Each bin is a \$5,000 interval except the last, which includes workers making more than \$150,000. Graph includes all civilian workers, ages 18-64.

These changes are primarily due to large earnings increases among women

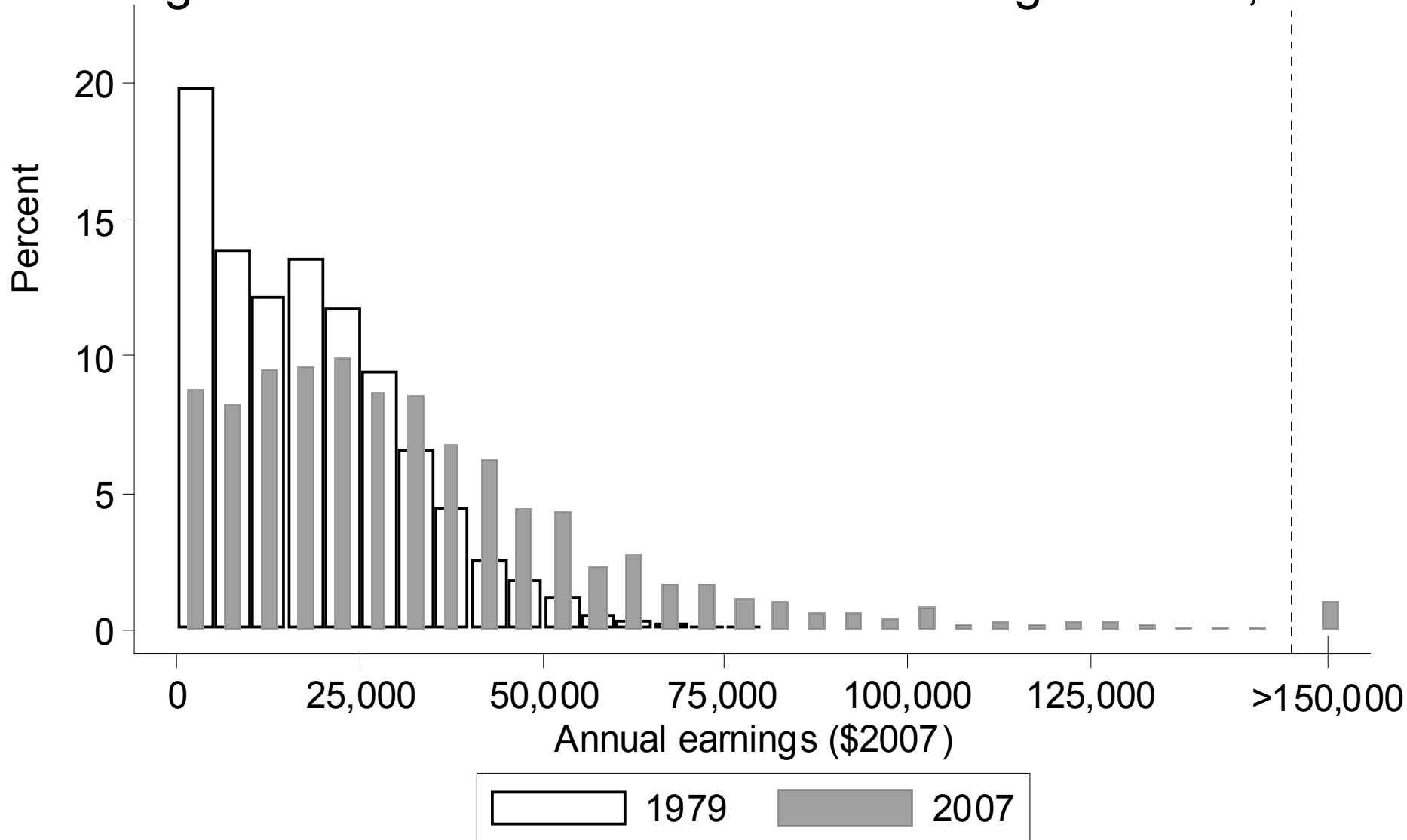
	<u>Total earnings: Women</u>		Men	
	<u>1979</u>	<u>2007</u>	<u>1979</u>	<u>2007</u>
Median	\$15,922	\$26,000	\$35,003	\$37,000
Gini	0.43	0.44	0.39	0.46
90/50 Rat.	2.34	2.50	2.07	2.70
50/10 Rat.	7.96	5.20	4.67	3.70

Figure 2A. Distribution of Male Earnings in 1979, 2007



Each bin is a \$5,000 interval except the last, which includes workers making more than \$150,000. Graph includes all male civilian workers, ages 18-64.

Figure 3A. Distribution of Female Earnings in 1979, 2007



Each bin is a \$5,000 interval except the last, which includes workers making more than \$150,000. Graph includes all female civilian workers, ages 18-64.

Is this consistent with evidence on growing wage inequality?

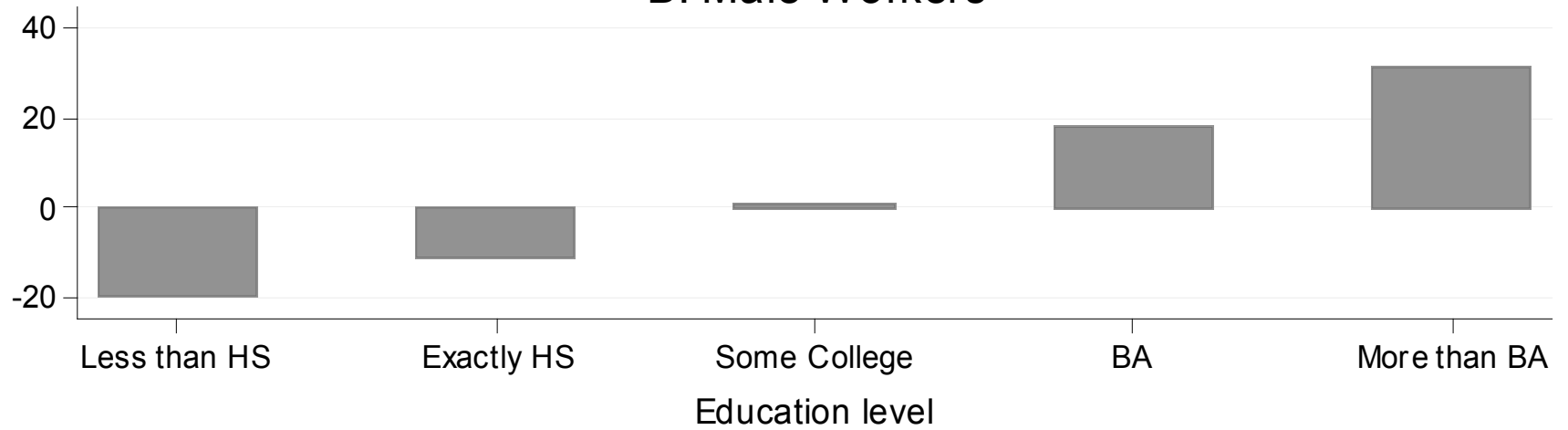
Inequality in both men and women's hourly wages grow substantially

And inequality by skill level looks just as we expect

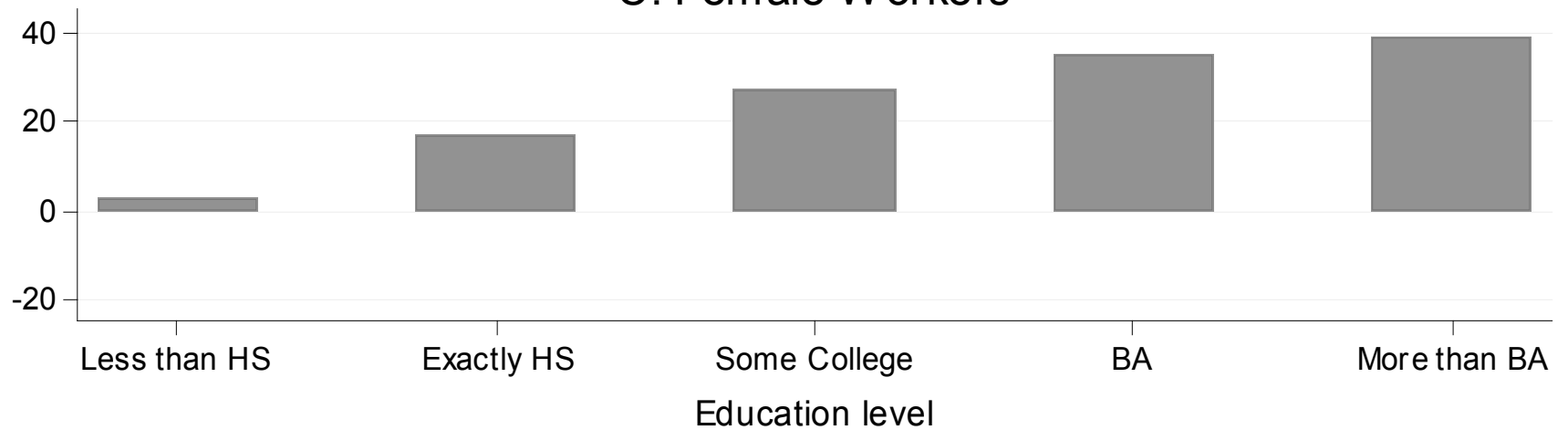
But the less-skilled are a shrinking share of the population.

Figure 4. Percent Change in Median Hourly Wages from 1979 to 2007
by Education Level and Gender

B. Male Workers



C. Female Workers



Each graph includes all civilian workers, ages 18-64

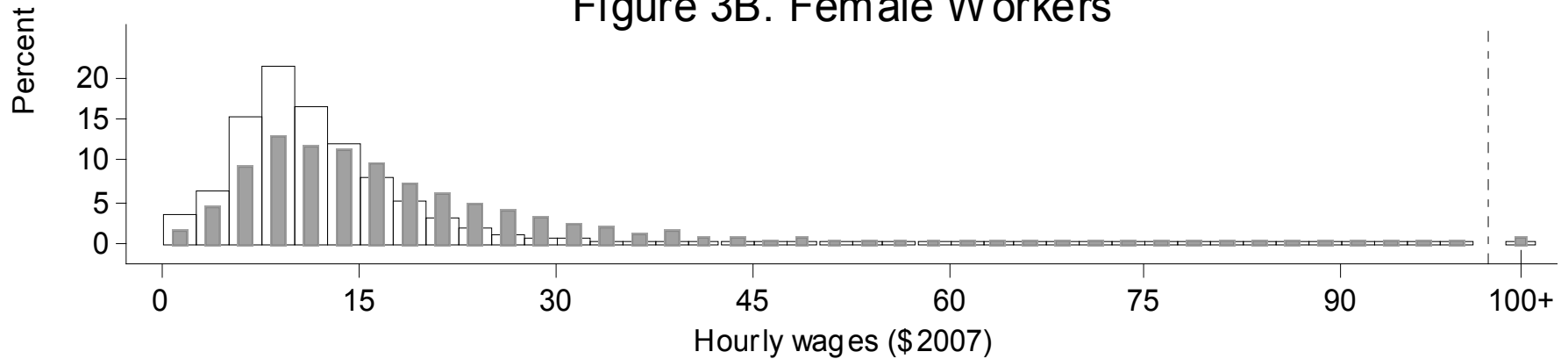
The Distribution of Hourly Wages in 1979, 2007

Figure 2B. Male Workers



Each bin is a \$2.50 interval except the last, which includes workers making at least \$100/hr

Figure 3B. Female Workers



Each bin is a \$2.50 interval except the last, which includes workers making at least \$100/hr

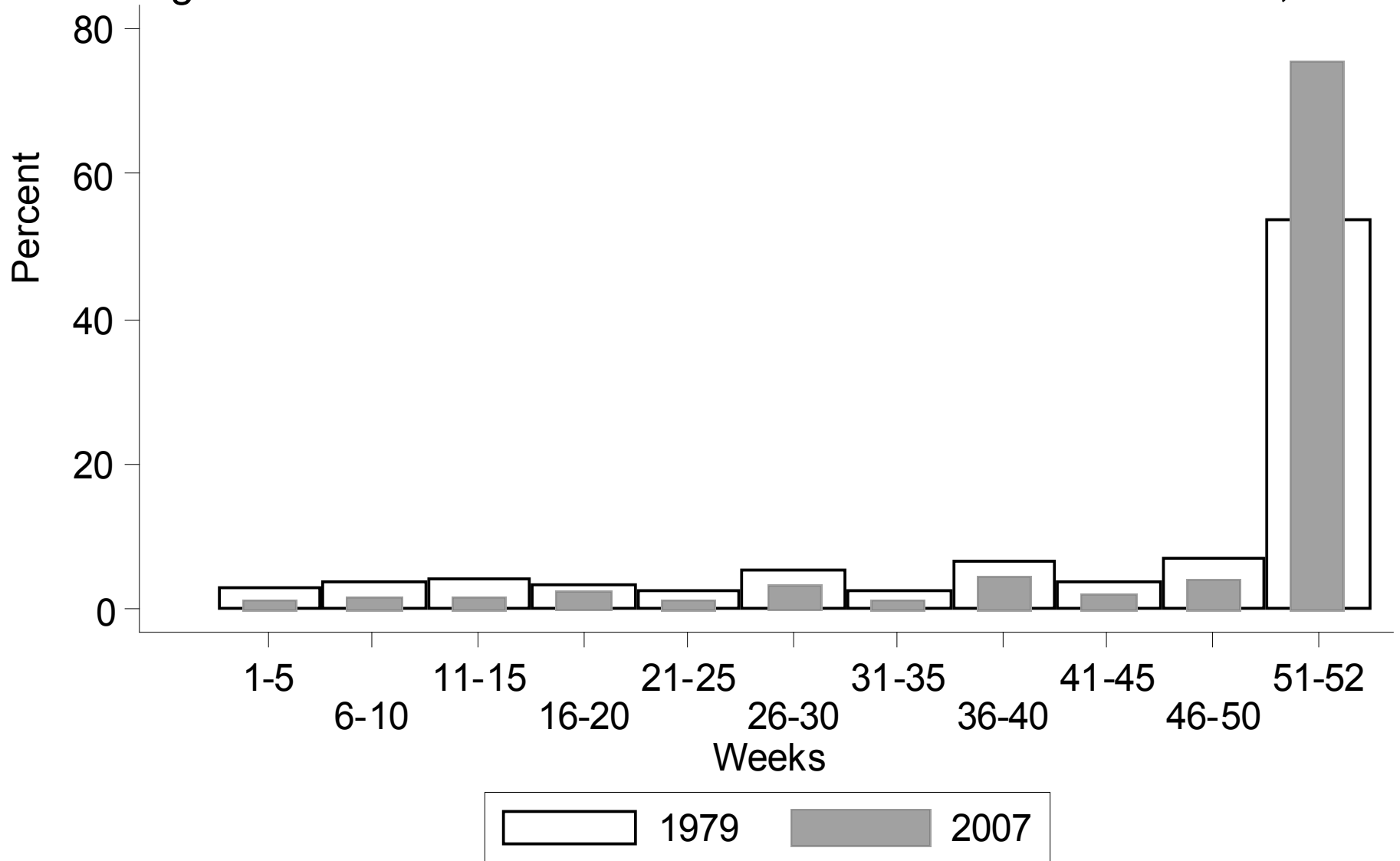


Each graph includes civilian workers, ages 18-64

Meanwhile changes in hours and weeks are equalizing

Particularly among women, there are fewer women with low annual hours of work. There's been a particularly large increase in annual weeks of work among women.

Figure 3D. Distribution of Females' Weeks Worked in 1979, 2007



Each bin is a 5 week interval.
Graph includes all civilian female workers, ages 18-64.

Reasons why inequality in earnings rises less than in wages

- Hourly wage inequality has increased markedly, but is offset by declines in inequality in annual hours worked.
 - While wages among less-educated are falling, this group is a declining share of workforce.
 - Median increases in wages, hours and weeks among women have reduced inequality in total earnings.
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Simulate effects of holding labor market behavior at 1979 levels

- Results in declines in male median earnings and wider inequality growth
 - Results in substantially smaller increases in female median earnings growth and wider inequality
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Summary

Based on annual earnings, equivalent workers doing better in 2007 than 1979. We see rising inequality, but in a distribution that's shifting upward.

This is largely because of increases in full-time work among women, a very different phenomenon than if wages were growing rapidly for all groups.

Now turn to overall per-person income

$$Y_i = Y_f / N^{0.5} = (E_f + G_f + O_f) / N^{0.5}$$

Where E = family unit earnings

G = government income

O = other income

Look at

- All persons (18-64)

And break these into three groups:

- Single individuals
- Persons in single-headed family units
- Persons in married-couple family units

As expected, more singles and single-headed and fewer married couples over this period

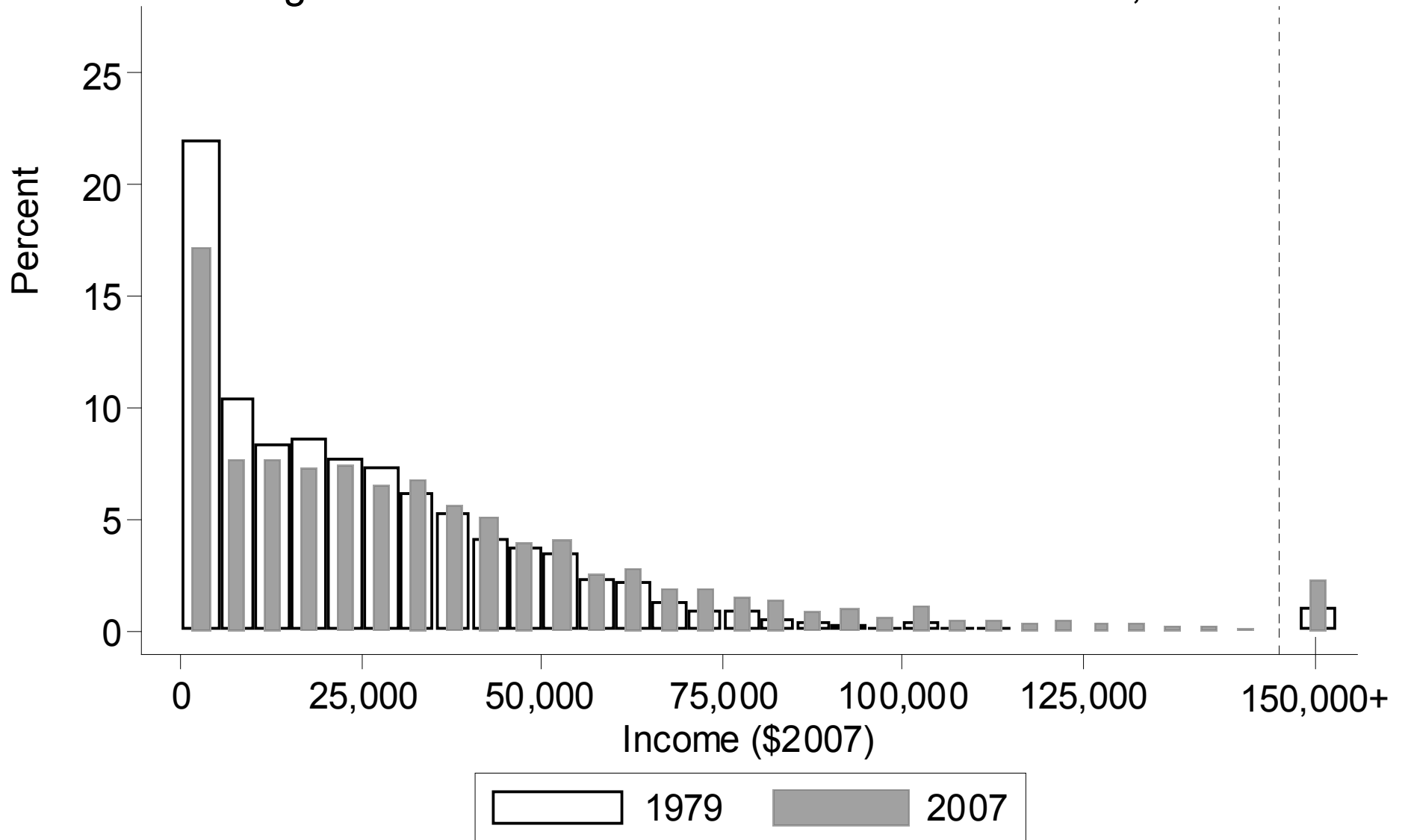
Distribution of persons by family type:

	<u>1979</u>	<u>2007</u>
% Single persons	13.42%	20.97%
% In SH family units	11.90%	16.87%
% In MC family units	74.68%	62.16%
Mean size		
All persons	3.29	2.92
Single Persons	1.00	1.00
In SH family units	3.26	3.12
In MC family units	3.71	3.51

Overall income shows increasing inequality around an upward shifting distribution

<u>Total income</u>	<u>1979</u>	<u>2007</u>
Median	\$29,753	\$36,897
Gini	0.35	0.43
90/50 Ratio	2.02	2.42
50/10 Ratio	2.97	3.69

Figure 6A. Distribution of Total Income in 1979, 2007



Each bin is a \$5,000 interval except the last, which includes all people with at least 150,000 in income. Graph includes all people, ages 18-64.

Summary on total income

In 2007, those who looked at the well-being of equivalent persons in 1979 would conclude they were better off.

But if individuals in the bottom half in 2007 made *relative* comparisons between themselves and those higher in the distribution, they would have felt worse off.

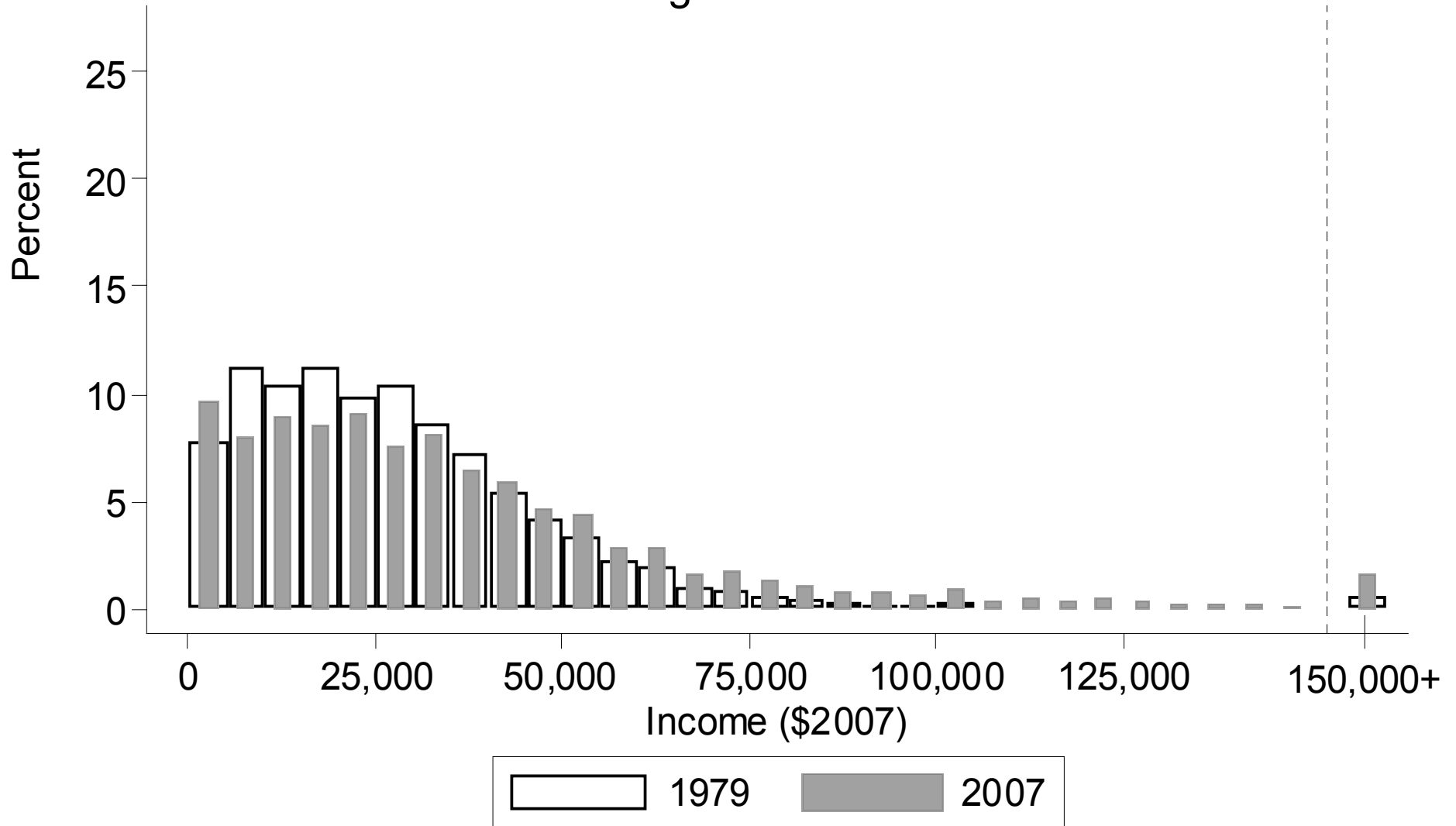
Differences by family type

	<u>Total income:</u>		<u>Single-hd</u>		<u>Married-couple</u>	
	<u>Single</u>		<u>family unit</u>		<u>family unit</u>	
	<u>1979</u>	<u>2007</u>	<u>1979</u>	<u>2007</u>	<u>1979</u>	<u>2007</u>
Median	\$24,210	\$28,000	\$18,679	\$23,336	\$32,376	\$44,159
Gini	0.41	0.47	0.41	0.44	0.32	0.39
90/50	2.23	2.61	2.33	2.57	1.95	2.26
50/10	4.04	5.60	3.65	4.10	2.42	2.89

Results suggest

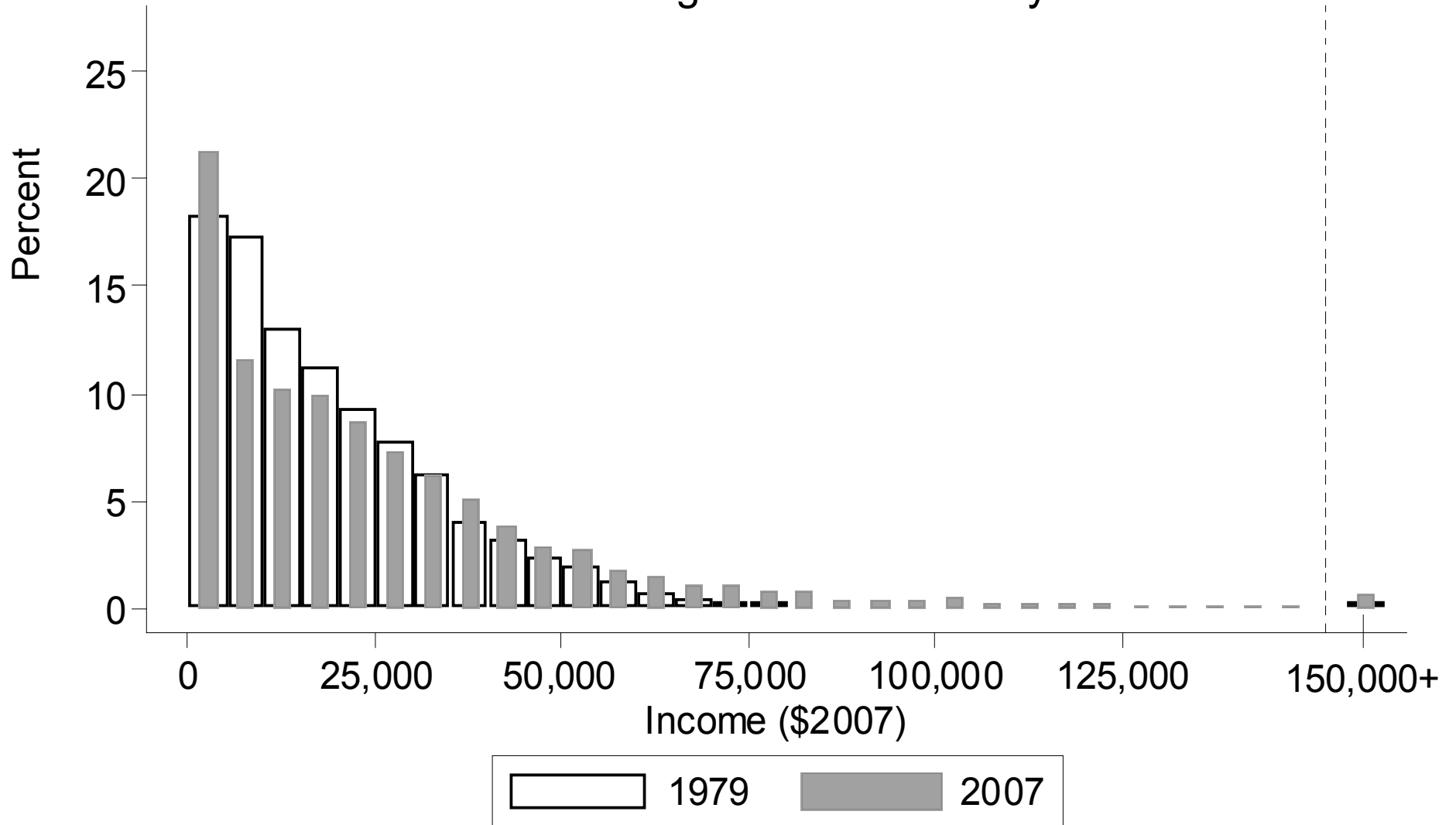
- Single individuals showed a moderate increase in the median and moderate increase in inequality.
 - Single-headed family units were lower-income, but saw quite large median increases. Smaller shift in earnings inequality as earnings (and work effort) increased a lot.
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Figure 7A. Distribution of Total Income in 1979, 2007
Single Individuals



Each bin is a \$5,000 interval except the last, which includes all people with at least \$150,000 in income. Graph includes all single individuals, ages 18-64.

Figure 8A. Distribution of Total Income in 1979, 2007
Persons in Single-Headed Family Units



Each bin is a \$5,000 interval except the last, which includes all people with at least \$150,000 in income. Graph includes all people in single-headed family units, ages 18-64.

Married couples show large median income increases and rising inequality

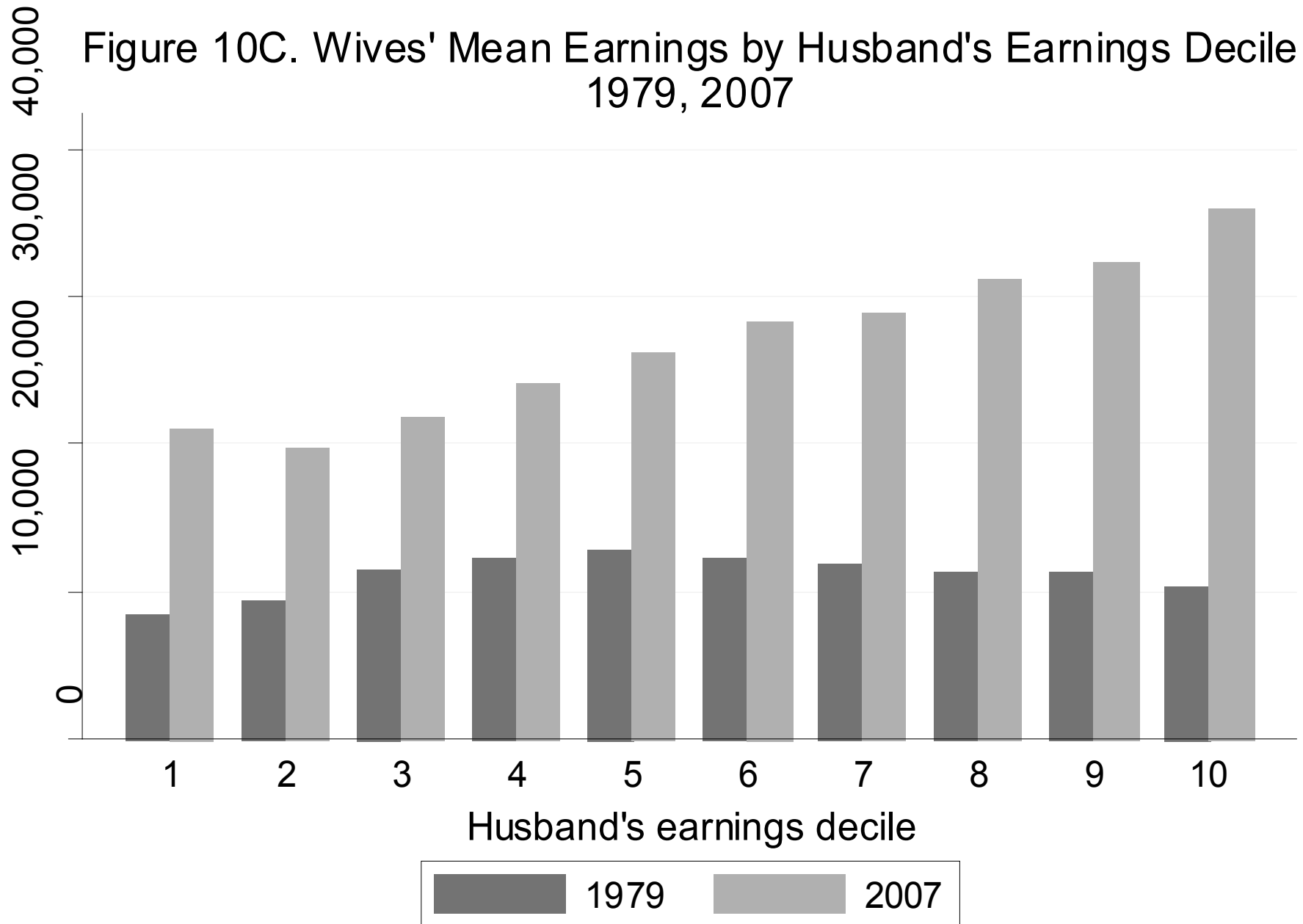
Median incomes rise:

- Selectivity out of marriage among less-skilled persons
- Big increase in two-earner couples

Inequality rises:

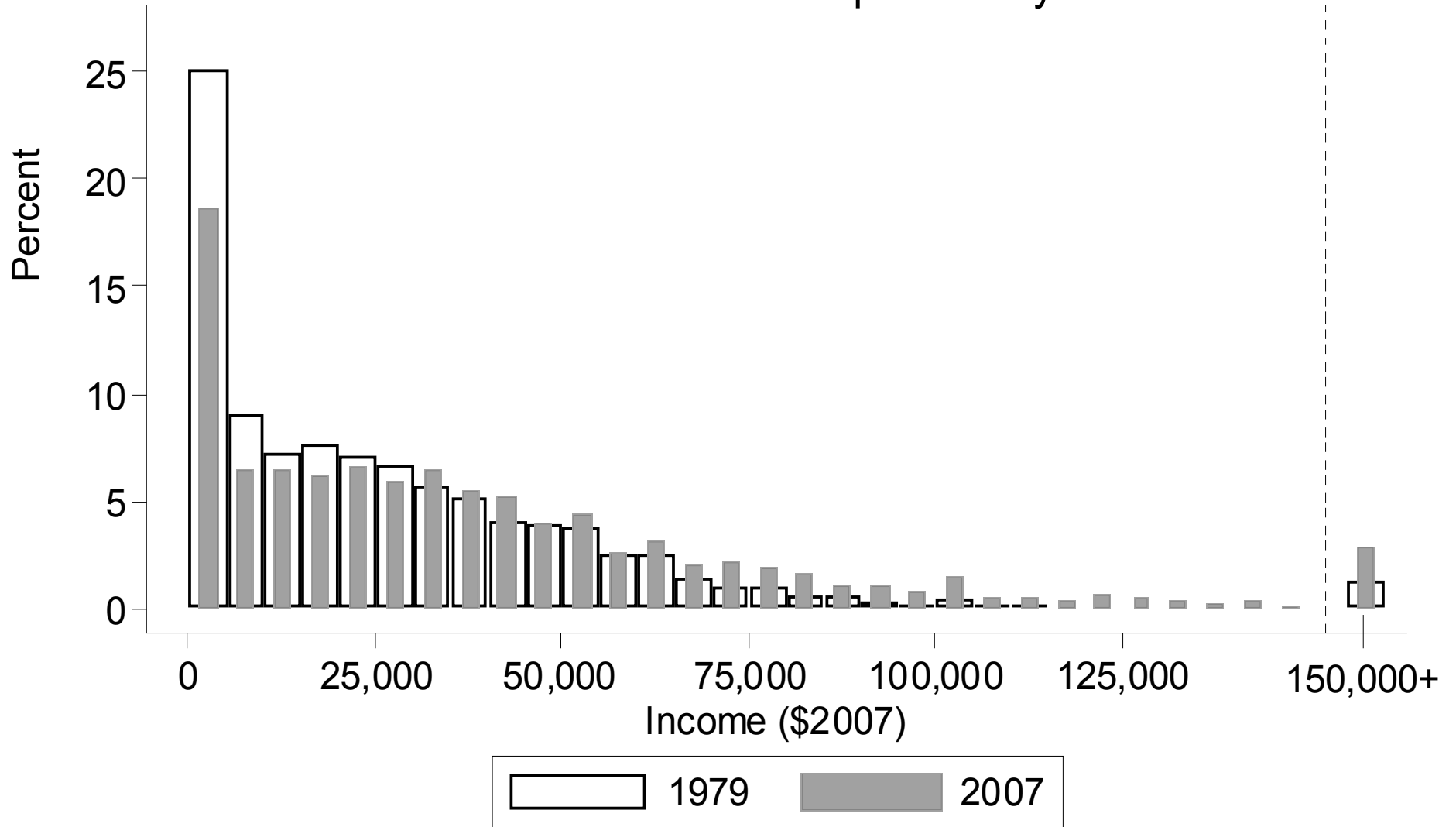
- Wives of high-earning husbands have shown the greatest increases in income over time
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Figure 10C. Wives' Mean Earnings by Husband's Earnings Decile
1979, 2007



Graph includes all husbands and wives in a married-couple family unit where the husband is age 18-64.

Figure 8A. Distribution of Total Income in 1979, 2007
Persons in Married-Couple Family Units



Each bin is a \$5,000 interval except the last, which includes all people with at least \$150,000 in income. Graph includes all members of married-couple headed families, ages 18-64.

What drives changes in total income inequality?

- Changes in family size and composition:
 - Within married-couple and single-headed families, family size is falling. This will raise incomes within these families.
 - Across family types, there's a shift away from married-couple families. This will lower incomes, since other family types have lower average income.

This accounts for roughly 1/3 of the rise in the Gini coefficient. These changes alone led to a net decline in median income.

What drives changes in total income inequality?

- Changes in the distribution of income, exclusive of changes in family size and composition

Most of this comes through changes in earnings.

Holding the level and distribution of income unchanged from 1979, this accounts for 2/3 of the rise in the Gini coefficient and more than 100% of the rise in median income.

Summary of income changes

- Rising income inequality is occurring, primarily due to rising earnings inequality...

But the whole distribution of income is also shifting upward (median per-person income rises by \$7000).

Are families better or worse off?

Would prefer to raise income through rising real wages rather than rising work effort. Suggests that one wants to look at time use, family stress and satisfaction, etc., to evaluate the full effects of these changes.

Part 2: What Shifts Long-term Trends in Inequality?

“Economic shock”: Political, economic, or technological change that alters the economic constraints of a nation

Catastrophic shock: A shock that typically occurs quickly within a defined time period

Economic shocks shift constraints by changes in

- Human capital. Changes population size (war or disease) or changes skill levels
- Physical capital
- Land or resource constraints

These changes interact with the political economy

Catastrophic shocks

- War
 - Pandemic disease
 - Natural disasters
 - Deep economic recession
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Conclusions on catastrophic shocks

- Effects on inequality can go either way
 - Short-run and long-run effects may differ
 - May open up new wealth-creation opportunities in the longer run
 - May lead to a change in political thinking that changes policy options
 - May have long-term population repercussions (often through health)
-

Economic shocks that unfold over time

These are often a process or series of events that follow each other, not a single event

This may include:

- Technological change
- Changes in skills and human capital
- Opening up of new frontiers
- Climate change

Policy changes interact with these and are endogenous

Effects of unfolding economic shocks

May increase or decrease inequality:

- Shift in wealth creation opportunities
 - The political economy is quite crucial to the effects
 - Short-run and long-run effects may differ
 - These shocks may change the political economy in ways that reinforce or alter inequality trends
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Will current rising inequality continue?

Yes if:

- Ongoing technological change remains skill-biased
 - Greater international competition further affects skill-biased demand in the U.S.
 - The political environment retains the Reagan-era hostility towards redistribution
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Part 3: Will current rising inequality continue?

No if:

- Recent steep wealth losses are sustained over the longer-term
 - Current outcry over bank president salaries (and the recession effects on business) reduces high-end relative pay
 - High and sustained unemployment shifts political environment towards more redistribution
 - Demand for higher taxes grows
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In a developed country, long-term inequality trends don't 'just happen'

The effects of economic shocks are determined by when and how they happen and how the policy environment responds. Nothing mandates that the effects of a deep recession will raise or lower inequality. The nation can make real choices that will affect long-term growth in inequality.
