

02c. American Incomes Before (and After) the Revolution

Econ 373: US Economic History

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The standard of living in the United States

- Sometimes hardest thing in economics (and economic history) is knowing answer to simple question in absence of sophisticated models or statistics
- **Question:** *What was standard of living at (or just before) American Revolution? How did standard of living change after 1776?*
- Define a measure of the “standard of living” \rightsquigarrow income
- Lindert & Williamson (2013) construct income per capita in the United States for two benchmark years in 1774 and 1800 for comparison to 1840

	<i>New England</i>		<i>Middle Atlantic</i>		<i>South Atlantic</i>		<i>All Three Regions</i>
<i>Gross personal income per capita (in 1840 prices)</i>							
Baseline 1774	53.68	(73)	64.08	(87)	91.77	(124)	74.02
Baseline 1800	49.20	(85)	59.66	(101)	64.46	(107)	59.19
Alternative 1800	52.09	(85)	64.02	(102)	69.02	(107)	63.30
Weiss-Easterlin 1840	129.28	(118)	120.19	(109)	84.84	(77)	109.89
<i>Per annum growth, 1774–1800 (%)</i>							
Using baseline 1800	–0.33		–0.27		–1.35		–0.86
Using alternat. 1800	–0.12		–0.00		–1.08		–0.60
<i>Per annum growth, 1800–1840 (%)</i>							
Using baseline 1800	2.44		1.77		0.69		1.56
Using alternat. 1800	2.30		1.59		0.51		1.39
<i>Per annum growth, 1774–1840 (%)</i>							
	1.34		0.96		0.12		0.60

Real Income Per Capita, 1774–1840

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- Annual real income p.c. growth was 0.60 percent between 1774 and 1840
 - “Rule of 72” \rightsquigarrow 120 years for income p.c. to double
 - New England > Middle Atlantic > South Atlantic

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 - “Rule of 72” \rightsquigarrow 120 years for income p.c. to double
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- US economy contracted severely after Independence (1774-1800) and then expanded rapidly over the subsequent forty years (1800-1840)
 - Contraction and expansion varied significantly by region
 - Reversal of fortune \rightsquigarrow North pulled ahead and South fell behind

Using social tables

- Important to understand how Lindert & Williamson produce their results
- Starting point is to obtain counts of the number of people by region, occupation, age, gender, urban/rural and slave/free in a given year
- Because this was an agricultural and slave economy it is critical to incorporate earnings associated with farms, slaves, and other forms of property
- For 1774 (1880), Lindert & Williamson use sources described in Table 1

Data Sources and Adjustments for Occupational Shares

(A) Population, labor force Local censuses, labor force participation rates for 1800 supplied by Thomas Weiss, expanding on his estimates in Weiss (1992).

(B) Occupations of household heads and of the labor force

New England (CT, MA, ME, NH, RI, VT)

- Big city = Boston
 - Boston 1780 shares from Main (1965), backed by Boston 1790 shares from Price (1974) and the downloaded Boston 1800 occupational directory
- 19 lesser cities & rural
 - Use the 1771 Massachusetts-Maine tax returns to estimate the shares of land-owning farmers, non-land-owning farmers, and others with positive vs. zero realty. Then for the towns, apply the nonfarm, non-big city occupation mix from Lancaster, PA 1800 to lesser cities in 1774, and the Chester County, PA rural occupation mix of non-farmers in 1800 to the rest of New England 1774.

Excerpt of Main Data Inputs for 1774 Income Estimates

Using social tables

- Within each group (and for each year), the goal is to obtain the amount of total income, the number of people, and then to aggregate both to the region level

	<i>New England</i>	<i>Middle Atlantic</i>	<i>South Atlantic</i>	<i>All Thirteen Colonies (15 states + DC)</i>
<i>Gross income, millions of current dollars (\$4.44/£ sterling)</i>				
<i>Circa 1774</i>				
FTE free own-labor income	31.09	28.85	62.81	122.75
Ditto, part-time (see the text)	28.16	27.26	58.27	113.70
Slave retained earnings	0.13	1.06	12.18	13.37
Gross property income	4.84	8.37	23.83	37.04
Gross total income	36.06	38.28	98.81	173.16
Ditto, with part-time	33.13	36.69	94.28	164.11
<i>Circa 1800</i>				
FTE free own-labor income	73.65	84.20	87.77	245.62
Ditto, with part-time	66.57	76.91	80.88	224.36
Slave retained earnings	0.07	2.10	37.34	39.51
Gross property income	21.39	47.83	89.77	158.99
Gross total income	95.11	134.13	214.88	444.12
Ditto, with part-time	88.03	126.83	208.00	422.86
<i>Relevant denominators</i>				
Free labor force 1774	185,999	156,875	195,938	538,812
Total labor force 1774	188,230	175,655	436,136	800,021
Free population 1774	657,567	582,134	719,875	1,959,577
Total population 1774	661,563	613,685	1,101,151	2,376,399
Free labor force 1800	334,685	380,162	402,504	1,117,351
Total labor force 1800	335,500	404,900	835,590	1,575,990
Free population 1800	1,231,671	1,423,924	1,428,695	4,084,290
Total population 1800	1,233,011	1,464,548	2,222,221	4,919,780

Estimated American Personal Incomes, 1774 and 1800

Using social tables

- Within each group (and for each year), goal is to obtain amount of total income, number of people, and aggregate both to region
- Nominal estimates needed to be adjusted for cost of living
- Lindert & Williamson also give alternative estimates of property and income
- Result is estimates of new real income p.c. and assessment of inequality in early United States (and comparison with Western Europe)

	<i>New England</i>		<i>Middle Atlantic</i>		<i>South Atlantic</i>		<i>All Three Regions</i>
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American incomes

- The South experienced a significant absolute (1774-1800) and relative to the North (1800-1840) decrease in real income p.c. over this entire period
- The decrease between 1774 and 1800 is combined with a boom during the 1790s, which suggests the decade or so after Independence was particularly bad due to:
 - Destruction from war, hyperinflation and dysfunctional financial system
 - The disruption of overseas trade
 - *A crisis at the top*

Region:	All Thirteen Colonies	All Thirteen Colonies	New England	Middle Colonies	South	South
Households:	All	Free Only	All	All	All	Free Only
Gini coefficient:	0.437	0.400	0.354	0.381	0.464	0.328
Income shares in % of total income						
Top 1% of HHs:	7.1	6.1	3.8	6.4	7.9	6.3
Top 5%:	22.2	21.6	11.4	19.3	25.6	21.3
Top 10%:	30.8	29.6	20.1	28.3	34.3	30.8
Top 20%:	47.3	43.8	35.7	43.8	49.1	42.3
Next 40%:	40.3	41.6	52.5	40.1	39.4	35.7
Bottom 40%:	12.3	14.6	11.8	16.1	11.4	21.9
Household income levels in \$ (at \$4.44/£ sterling)						
Mean:	345	406	278	289	411	620
Median:	282	377	371	274	322	585
Top 1% of HHs:	2,379	2,471	1,059	1,862	3,243	3,910
Top 5%:	1,272	1,754	631	1,118	2,105	2,635
Top 10%:	859	1,202	559	818	1,410	1,910
Top 20%:	776	890	496	634	1,011	1,312
Next 40%:	369	339	365	290	406	694
Bottom 40%:	104	230	82	117	118	199

Western Europe, as a comparison group						
Region: (All households)		England & Wales	England & Wales		Holland	Netherlands
Year:		1759	1802		1732	1808
Gini coefficient:		0.522	0.593		0.610	0.563
Income shares in % of total income						
Top 1% of HHs:		17.5	14.6		13.7	17.0
Top 5%:		35.4	39.2		37.0	39.5
Top 10%:		45.1	48.8		50.9	51.3
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Bottom 40%:		12.5	9.0		8.5	12.5
Household income levels						
Mean:	£	43.4	90.6*	fl.	67.8	319.3
Median:	£	25.0	55.0	fl.	35.0	150.0

Inequality in the American Colonies, 1774

American inequality

- Southern incomes per capita were higher in 1774 than elsewhere in the United States and there were relatively few poor white people

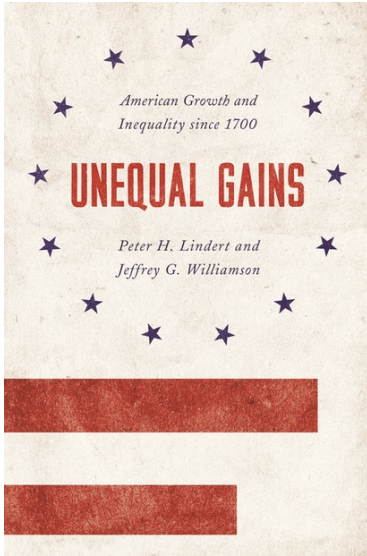
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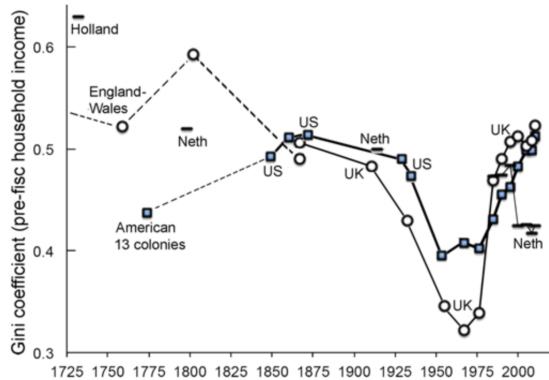
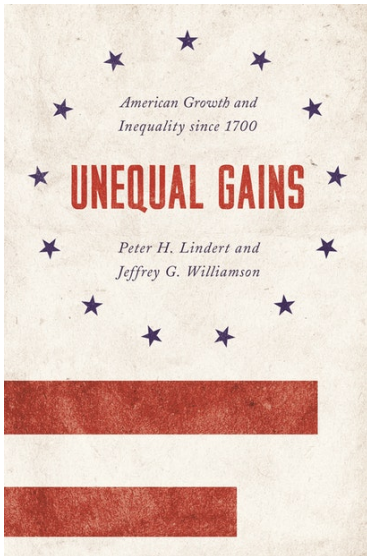
Inequality in the American Colonies, 1774

American inequality

- Southern incomes per capita were higher in 1774 than elsewhere in the United States and there were relatively few poor white people in the South
- Comparisons relative to England in 1774:
 - Free American colonists had more equal incomes than households
 - The American colonists had higher purchasing power (except at the top 1 percent)
- In short, Colonial America was among the very richest places in the world and for that also had an egalitarian distribution in the context of the late 18thC



- The paper by Lindert & Williamson became part of a book on American incomes and inequality since 1700
- Broadly, the book is interesting and innovative for its focus on incomes that are paid to “average” individuals by occupation and not classes or factors of production
- Thematically, the book highlights unevenness in the growth process across people and regions so that increases for the average person are not shared by all



- In terms of long run patterns:
 - ↑ inequality 1700s to 1850s, since 1970s
 - ↓ inequality 1850s to 1950s