

# Income inequality in the U.S. by state, metropolitan area, and county

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**Summary:** The rise in inequality in the United States, which began in the late 1970s, continues in the post–Great Recession era. This rising inequality is not just a story of those in the financial sector in the greater New York City metropolitan area reaping outsized rewards from speculation in financial markets. It affects every state, and extends to the nation’s metro areas and counties, many of which are more unequal than the country as a whole. In fact, the unequal income growth since the late 1970s has pushed the top 1 percent’s share of all income above 24 percent (the 1928 national peak share) in five states, 22 metro areas, and 75 counties. It is a problem when CEOs and financial-sector executives at the commanding heights of the private economy appropriate more than their fair share of the nation’s expanding economic pie. We can fix the problem with policies that return the economy to full employment and return bargaining power to U.S. workers.

**What this report finds:** Income inequality has risen in every state since the 1970s and in many states is up in the post–Great Recession era. In 24 states, the top 1 percent captured at least half of all income growth between 2009 and 2013, and in 15 of those states, the top 1 percent captured all income growth. In another 10 states, top 1 percent incomes grew in the double digits, while bottom 99 percent incomes fell. For the United States overall, the top 1 percent captured 85.1 percent of total income growth between 2009 and 2013. In 2013 the top 1 percent of families nationally made 25.3 times as much as the bottom 99 percent.

**Why it matters:** Rising inequality is not just a story of those in the financial sector in the greater New York City metropolitan area reaping outsized rewards from speculation in financial markets. While New York and Connecticut are the most unequal states (as measured by the ratio of top 1 percent to bottom 99 percent income in 2013), nine states, 54 metropolitan areas, and 165 counties have gaps wider than the national gap. In fact, the unequal income growth since the late 1970s has pushed the top 1 percent’s share of all income above 24 percent (the 1928 national peak share) in five states, 22 metro areas, and 75 counties.

**What we can do to fix the problem:** The rise of top incomes relative to the bottom 99 percent represents a sharp reversal of the trend that prevailed in the mid-20th century. Between 1928 and 1979, the share of income held by the top 1 percent declined in every state except Alaska (where the top 1 percent held a relatively low share of income throughout the period). This earlier era was characterized by a rising minimum wage, low levels of unemployment after the 1930s, widespread collective bargaining in private industries (manufacturing, transportation [trucking, airlines, and railroads], telecommunications, and construction), and a cultural and political environment in which it was outrageous for executives to receive outsized bonuses while laying off workers. We need policies that return the economy to full employment, return bargaining power to U.S. workers, and reinstate the cultural taboo on allowing CEOs and financial-sector executives at the commanding heights of the private economy to appropriate more than their fair share of the nation’s expanding economic pie.

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# Executive summary

While economic inequality has been one of the hottest topics this presidential campaign season, much of the focus has been on the fortunes of the top 1 percent at the national level. This report, our third annual such analysis, uses the latest available data to examine how the top 1 percent in each state have fared over 1917–2013, with an emphasis on trends over 1928–2013. (Data for additional percentiles spanning 1917–2013 are available at [go.epi.org/unequalstates2016data](http://go.epi.org/unequalstates2016data).)

This third edition includes two new elements: We examine top incomes by metropolitan area and county in 2013.

Our analysis provides a number of major findings that confirm the widespread extent and growth of income inequality that is heightening economic anxiety among the American electorate:

**In 2013, income inequality was much higher in many states, metropolitan areas, and counties than for the United States overall. In 2013 the top 1 percent of families nationally made 25.3 times as much as the bottom 99 percent.**

- Nine states had gaps wider than the national gap. In the most unequal states—New York, Connecticut, and Wyoming—the top 1 percent earned average incomes more than 40 times those of the bottom 99 percent.
- Fifty-four of 916 metropolitan areas had gaps wider than the national gap. In the 12 most unequal metropolitan areas, the average income of the top 1 percent was at least 40 times greater than the average income of the bottom 99 percent. Most unequal was the Jackson metropolitan area, which spans Wyoming and Idaho; there the top 1 percent in 2013 earned on average 213 times the average income of the bottom 99 percent of families. The next 11 metropolitan areas with the largest top-to-bottom ratios were Bridgeport-Stamford-Norwalk, Connecticut (73.7); Naples-Immokalee-Marco Island, Florida (73.2); Sebastian-Vero Beach, Florida (63.5); Key West, Florida (58.5); Gardnerville Ranchos, Nevada (46.1); Miami-Fort Lauderdale-West Palm Beach, Florida (45.0); Midland, Texas (44.3); Glenwood Springs, Colorado (42.4); San Angelo, Texas (40.9); Las Vegas-Henderson-Paradise, Nevada (40.7); and Summit Park, Utah (40.3).
- 165 of 3,064 counties had gaps wider than the national gap. The average income of the top 1 percent was at least 45 times greater than the average income of the bottom 99 percent in 25 counties. In Teton, Wyoming (which is one of two counties in the Jackson metropolitan area), the top 1 percent in 2013 earned on average 233 times the average income of the bottom 99 percent of families.

**There is a wide variance in what it means to be in the top 1 percent by state, metro area, and county.**

- To be in the top 1 percent nationally, a family needs an income of \$389,436. Twelve states, 109 metro areas, and 339 counties have thresholds above that level.

- For states the highest thresholds are in Connecticut (\$659,979), the District of Columbia (\$554,719), New Jersey (\$547,737), Massachusetts (\$539,055), and New York (\$517,557). Thresholds above \$1 million can be found in four metro areas (Jackson, Wyoming-Idaho; Bridgeport-Stamford-Norwalk, Connecticut; Summit Park, Utah; and Williston, North Dakota) and 12 counties.

**While incomes at all levels declined as a result of the Great Recession, income growth has been lopsided since the recovery began in 2009; the top 1 percent captured an alarming share of economic growth while enjoying relatively high income growth.**

- Between 2009 and 2013, the top 1 percent captured 85.1 percent of total income growth in the United States. Over this period, the average income of the top 1 percent grew 17.4 percent, about 25 times as much as the average income of the bottom 99 percent, which grew 0.7 percent.
- In 24 states the top 1 percent captured at least half of all income growth between 2009 and 2013.
  - In 15 of those states the top 1 percent captured all income growth between 2009 and 2013. Those states were Connecticut, Florida, Georgia, Louisiana, Maryland, Mississippi, Missouri, Nevada, New Jersey, New York, North Carolina, South Carolina, Virginia, Washington, and Wyoming.
  - In the other nine states, the top 1 percent captured between 50.0 and 94.4 percent of all income growth. Those states were Arizona, California, Illinois, Kansas, Massachusetts, Michigan, Oregon, Pennsylvania, and Texas.
- In 10 states, top 1 percent incomes grew in the double digits, while bottom 99 percent incomes fell. Those states were Wyoming (55.1 percent versus -2.3 percent), Nevada (25.6 percent versus -13.3 percent), Washington (21.6 percent versus -0.8 percent), New York (20.6 percent versus -3.9 percent), Connecticut (17.2 percent versus -1.6 percent), New Jersey (15.2 percent versus -1.4 percent), Florida (15.0 percent versus -4.3 percent), Missouri (14.8 percent versus -1.8 percent), Georgia (12.3 percent versus -2.7 percent), and South Carolina (11.3 percent versus -0.1 percent).

**Lopsided income growth is a long-term trend that predates the Great Recession.**

- Between 1979 and 2007, the top 1 percent took home well over half (53.9 percent) of the total increase in U.S. income. Over this period, the average income of the bottom 99 percent of U.S. families grew by 18.9 percent. The average income of the top 1 percent grew over 10 times as much—by 200.5 percent.
- In 19 states the top 1 percent captured at least half of all income growth between 1979 and 2007. In four of those states (Nevada, Wyoming, Michigan, and Alaska), only the top 1 percent experienced rising incomes between 1979 and 2007.
- Even in the 10 states in which they captured the smallest share of income growth from 1979 to 2007, the top 1 percent still captured between about a quarter and just over a third of all income growth.

**The lopsided growth in U.S. incomes between 1979 and 2007, in which the top 1 percent's share of income grew in every state, reversed a growing equality in the half century after the Great Depression.**

- The share of income held by the top 1 percent declined in every state but one between 1928 and 1979.
- From 1979 to 2007 the share of income held by the top 1 percent increased in every state and the District of Columbia.
- The 10 states with the biggest jumps (at least 13.5 percentage points) in the top 1 percent share from 1979 to 2007 include four states with large financial services sectors (New York, Connecticut, New Jersey, and Illinois), three with large information technology sectors (Massachusetts, California, and Washington), one state with a large energy industry (Wyoming), one with a large gaming industry (Nevada), and Florida, a state in which many wealthy individuals retire.

**These trends have left us with unequal income growth spanning 1979 to 2013.**

- Between 1979 and 2013, the top 1 percent's share of income doubled nationally, increasing from 10 percent to 20.1 percent.
- The same 10 states that had the biggest jumps in the top 1 percent share from 1979 to 2007 had the biggest jumps (in this case at least 9.5 percentage points) from 1979 to 2013. Again, these are four states with large financial services sectors (New York, Connecticut, New Jersey, and Illinois), three with large information technology sectors (Massachusetts, California, and Washington), one state with a large energy industry (Wyoming), one with a large gaming industry (Nevada), and Florida, a state in which many wealthy individuals retire.
- In 15 of the other 40 states, the increase in the top 1 percent share was between 6.9 and 9.4 percentage points. In the remaining 25 states, the increase ranged between 3.1 and 6.9 percentage points.

**The unequal income growth since the late 1970s has brought the top 1 percent income share in the United States to near its 1928 peak.**

- Overall in the U.S. the top 1 percent took home 20.1 percent of all income in 2013. That share was less than 4 percentage points higher in 1928: 24 percent.
- Five states had top 1 percent income shares above 24 percent in 2013. Shares were highest in New York (31.0 percent), Connecticut (29.7), Wyoming (28.7), Nevada (27.5), and Florida (25.6).
- Twenty-two metro areas had shares above 24 percent in 2013. Shares were highest in Jackson, Wyoming-Idaho (68.3 percent); Bridgeport-Stamford-Norwalk, Connecticut (42.7 percent); and Naples-Immokalee-Marco Island, Florida (42.5 percent).
- Seventy-five counties had shares above 24 percent. Shares were highest in Teton, Wyoming (70.2 percent); La Salle, Texas (55.9 percent); and Shackelford, Texas (54.2 percent).

# Introduction

In 2012, the Economic Policy Institute and the Center on Budget and Policy Priorities jointly released *Pulling Apart*, a report on the growth of income in the top, middle, and bottom fifths of households in the United States and each state (McNichol et al. 2012). That report also included information on the incomes of the top 5 percent of earners.<sup>1</sup>

*Pulling Apart* found that the richest 5 percent of U.S. households had an average income 13 times higher than the poorest 20 percent of households.

As its authors noted, the Census data relied on by *Pulling Apart* do not permit analysis of trends in the top 1 percent of households at the state level: Sample sizes are too small in some states (even when data are pooled across multiple years), and the data are “top coded.” This means that above a certain threshold, the highest incomes are not recorded at the actual income level reported to Census survey takers. Instead, they are reported at a specified top income. Top coding is used to ensure that small numbers of *erroneous* outliers do not distort Census data, and to ensure the anonymity of particularly high-income survey respondents.

The present report *does* permit analysis of state-level trends among the top 1 percent of earners. It uses the same methodology employed by Thomas Piketty and Emmanuel Saez (2003) to generate their widely cited findings on the incomes of the top 1 percent in the United States as a whole. (The authors of this report are contributors to the World Wealth and Income Database.)<sup>2</sup> This methodology relies on tax data reported by the Internal Revenue Service for states and counties (see the methodological appendix for more details on the construction of our estimates).

Following Piketty and Saez, throughout this report we will examine trends in pre-tax and pre-transfer incomes, hereafter referred to simply as income, of tax units (single adults or married couples; hereafter referred to as families). The best way to think about this measurement of income is it represents all the taxable income people earn in market transactions, such as the income earned from working for a wage or salary at a job, through interest on a savings account, and from selling a financial asset for more than it was purchased (a capital gain). What is not included in our analysis is the impact that taxes and transfers (for example, Social Security payments or unemployment benefits) have on these market-derived incomes. While taxes and transfers do tend to reduce inequality by lowering incomes at the top and raising incomes at the bottom, the primary driver of rising inequality, even after taking into account taxes and transfers, is an increasingly unequal distribution of market incomes.<sup>3</sup>

One additional form of compensation excluded from our analysis here is nontaxable compensation such as employer contributions to pensions and health care. While these forms of nontaxable compensation have been growing over time, their exclusion does not materially close the growing gap we observe between the vast majority of people and the highest earners in our economy.<sup>4</sup>

Piketty and Saez’s groundbreaking 2003 study, now more than a decade old, increased attention to the body of work compiled since the 1980s documenting rising inequality in the United States. Their work helped inspire the Occupy Wall Street movement of 2011 and continues to resonate among the public. Growing public concern over rising inequality has also reinvigorated academic debates about whether inequality matters at all (Mankiw 2013) and about the role of finance and top executives in driving the growth of inequality (Bivens and Mishel 2013), and has spurred interest in how rising inequality limits the number of Americans who actually experience a “rags to riches” story over their lifetime (Corak 2013).

Applying Piketty and Saez’s methods to state-level data provides insight into the rise of incomes among the top 1 percent within each state (a population that significantly overlaps, but is not the same as, the national top 1 percent).<sup>5</sup> This analysis can shed light on the degree to which the growth in income inequality is a widely experienced phenomenon across the individual states.

Before we begin our analysis of state data, it is useful to briefly summarize Piketty and Saez’s updated (2015) findings with respect to U.S. income inequality overall, focusing specifically on the share of income earned by the top 1 percent of families. They find the share of income captured by the top 1 percent climbed from 9.96 percent in 1979 to 23.50 percent in 2007.<sup>6</sup> The share of income earned by the top 1 percent in 2007 on the eve of the Great Recession was just shy of 23.94 percent, the peak in the top 1 percent income share reached in 1928 (the year before the start of the Great Depression). Although the Great Recession reduced the income share of the top 1 percent, to 18.12 percent in 2009, their incomes surged ahead of the growth of incomes among the bottom 99 percent starting in 2010, with the income share of the top 1 percent reaching a peak of 22.83 percent in 2012. The 2012 peak was in part the result of high-income earners shifting income from 2013 to 2012 to reduce their tax liabilities in anticipation of higher top marginal tax rates that took effect in 2013. This tax planning helped reduce the top 1 percent’s take of all income to 20.08 percent in 2013. Income growth for the top 1 percent returned in 2014, the most recent year for which national-level data are available, with the top 1 percent taking home 21.24 percent of all income in the United States.

In the following sections we present data unique to this study by replicating Piketty and Saez’s method for each of the 50 states plus the District of Columbia and for 916 metropolitan areas and 3,064 counties. Our state data extend from 1917 to 2013, and our county and metropolitan area data are for 2013. To remain consistent with the most current national data from Piketty and Saez, all figures are in 2014 dollars.

We begin our analysis in the next section by painting a detailed picture of exactly how high the incomes of the most well-off among us are today. We then turn our attention to trends in top incomes over time, focusing first on the most recent economic recovery, then casting back our gaze to the 28 years between 1979 and 2007 and finally looking at how the fruits of economic growth have been distributed during every economic recovery since 1949. What the next three sections will reveal is that the top incomes we observe today are the direct result of a very lopsided distribution of the gains from economic growth

toward the highest earners. We conclude the paper by comparing the share of all income earned by the top 1 percent in 1928 to the share today.

## Income inequality across the states, metropolitan areas, and counties in 2013

**Table 1** presents data by state for 2013 on the average income of the top 1 percent of families, the average income of the bottom 99 percent, and the ratio of these values. (As with all tables in this report, figures are in 2014 dollars.) In the United States as a whole, on average the top 1 percent of families earned 25.3 times as much income as the bottom 99 percent in 2013.

As shown in the table, New York and Connecticut have the largest gaps between the top 1 percent and the bottom 99 percent. The top 1 percent in 2013 earned on average 45.4 and 42.6 times the income of the bottom 99 percent of families in New York and Connecticut, respectively. This reflects in part the relative concentration of the financial sector in the greater New York City metropolitan area.

After New York and Connecticut, the next eight states with the largest gaps between the top 1 percent and bottom 99 percent in 2013 are Wyoming (where the top 1 percent earned 40.6 times as much as the bottom 99 percent, on average), Nevada (38.3), Florida (34.7), Massachusetts (30.2), California (28.9), Texas (26.9), New Jersey (25.3), and Illinois (24.8).

Even in the 10 states with the smallest gaps between the top 1 percent and bottom 99 percent in 2013, the top 1 percent earned between about 13 and 16 times the income of the bottom 99 percent. Those states include Idaho (where the top 1 percent earned 16.3 times as much as the bottom 99 percent, on average), Vermont (16.1), Delaware (15.9), New Mexico (15.6), Nebraska (15.3), Maine (14.9), West Virginia (14.2), Iowa (13.9), Hawaii (13.5), and Alaska (13.2).

In **Table 2** we present for 2013 the 25 highest and 25 lowest top-to-bottom ratios among 916 U.S. metropolitan areas, and in **Table 3** we present the 25 highest and 25 lowest ratios among 3,064 counties. See **Table B1** for top-to-bottom ratios for all the available metropolitan areas and **Table B2** for all the available counties. (Note that tables B1 and B2, as well as tables B3, B4, B5, and B6, which will be introduced in subsequent sections, are only available in the online version of this report.)

According to metropolitan-level data, the Jackson metropolitan area, which spans Wyoming and Idaho, had the largest gap between the top 1 percent and the bottom 99 percent. In Jackson the top 1 percent in 2013 earned on average 213 times the average income of the bottom 99 percent of families. The next nine metropolitan areas with the largest gaps between the top 1 percent and the bottom 99 percent are Bridgeport-Stamford-Norwalk, Connecticut (where the top 1 percent earned 73.7 times as much as the



Table 1

## Ratio of top 1% income to bottom 99% income, U.S. and by state and region, 2013

Rank (from highest to lowest)	State/region	Average income of the top 1%	Average income of the bottom 99%	Top-to-bottom ratio
1	<i>New York</i>	\$2,006,632	\$44,163	45.4
2	<i>Connecticut</i>	\$2,402,339	\$56,445	42.6
3	<i>Wyoming</i>	\$2,118,167	\$52,196	40.6
4	<i>Nevada</i>	\$1,386,448	\$36,169	38.3
5	<i>Florida</i>	\$1,265,774	\$36,530	34.7
6	<i>Massachusetts</i>	\$1,692,079	\$56,115	30.2
7	<i>California</i>	\$1,411,375	\$48,899	28.9
8	<i>Texas</i>	\$1,301,618	\$48,350	26.9
9	<i>New Jersey</i>	\$1,453,741	\$57,447	25.3
10	<i>Illinois</i>	\$1,207,547	\$48,684	24.8
11	<i>Michigan</i>	\$834,008	\$37,896	22.0
12	<i>Washington</i>	\$1,100,186	\$50,372	21.8
13	<i>Georgia</i>	\$857,728	\$40,095	21.4
14	<i>North Dakota</i>	\$1,282,551	\$61,178	21.0
15	<i>Oklahoma</i>	\$930,201	\$44,849	20.7
16	<i>Louisiana</i>	\$859,619	\$41,600	20.7
17	<i>Arkansas</i>	\$750,101	\$36,421	20.6
18	<i>Arizona</i>	\$784,469	\$38,354	20.5
19	<i>Tennessee</i>	\$820,373	\$40,156	20.4
20	<i>Pennsylvania</i>	\$926,051	\$45,781	20.2
21	<i>Colorado</i>	\$1,101,214	\$54,809	20.1
22	<i>Missouri</i>	\$833,823	\$41,641	20.0
23	<i>Minnesota</i>	\$1,035,928	\$52,689	19.7
24	<i>Kansas</i>	\$981,279	\$50,367	19.5
25	<i>South Dakota</i>	\$1,025,091	\$53,213	19.3
26	<i>Wisconsin</i>	\$888,121	\$46,669	19.0
27	<i>Utah</i>	\$940,662	\$50,367	18.7
28	<i>Rhode Island</i>	\$884,609	\$47,545	18.6
29	<i>Oregon</i>	\$754,431	\$40,719	18.5
30	<i>South Carolina</i>	\$668,739	\$36,950	18.1
31	<i>New Hampshire</i>	\$1,011,141	\$56,475	17.9
32	<i>Ohio</i>	\$752,582	\$42,391	17.8
33	<i>Virginia</i>	\$987,607	\$55,743	17.7
34	<i>North Carolina</i>	\$745,686	\$42,162	17.7
35	<i>Montana</i>	\$730,864	\$42,013	17.4
36	<i>Alabama</i>	\$665,097	\$38,854	17.1
37	<i>Maryland</i>	\$1,024,110	\$60,172	17.0
38	<i>Mississippi</i>	\$565,813	\$33,383	16.9
39	<i>Kentucky</i>	\$619,585	\$37,371	16.6
40	<i>Indiana</i>	\$717,688	\$43,426	16.5
41	<i>Idaho</i>	\$738,278	\$45,254	16.3
42	<i>Vermont</i>	\$735,607	\$45,719	16.1
43	<i>Delaware</i>	\$768,109	\$48,371	15.9
44	<i>New Mexico</i>	\$593,739	\$37,995	15.6

Table 1  
(cont.)

Rank (from highest to lowest)	State/region	Average income of the top 1%	Average income of the bottom 99%	Top-to-bottom ratio
45	<i>Nebraska</i>	\$872,892	\$57,076	15.3
46	<i>Maine</i>	\$612,494	\$41,165	14.9
47	<i>West Virginia</i>	\$488,634	\$34,407	14.2
48	<i>Iowa</i>	\$714,758	\$51,248	13.9
49	<i>Hawaii</i>	\$690,073	\$51,033	13.5
50	<i>Alaska</i>	\$833,117	\$63,226	13.2
11*	<i>District of Columbia</i>	\$1,531,432	\$63,100	24.3
	<i>United States</i>	\$1,153,293	\$45,567	25.3
	<i>Northeast</i>	\$1,564,388	\$49,108	31.9
	<i>Midwest</i>	\$914,248	\$45,539	20.1
	<i>South</i>	\$988,670	\$43,421	22.8
	<i>West</i>	\$1,188,400	\$47,396	25.1

\* Rank of the District of Columbia if it were ranked with the 50 states

**Note:** Incomes are in 2014 dollars. Data are for tax units.

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2013 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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bottom 99 percent, on average); Naples-Immokalee-Marco Island, Florida (73.2); Sebastian-Vero Beach, Florida (63.5); Key West, Florida (58.5); Gardnerville Ranchos, Nevada (46.1); Miami-Fort Lauderdale-West Palm Beach, Florida (45.0); Midland, Texas (44.3); Glenwood Springs, Colorado (42.4); and San Angelo, Texas (40.9).

In the 10 metropolitan areas with the smallest gaps between the top 1 percent and bottom 99 percent in 2013, the top 1 percent earned between 5.9 and 8.6 times the income of the bottom 99 percent of families. Those metropolitan areas include Mountain Home, Idaho (where the top 1 percent earned 8.6 times as much as the bottom 99 percent, on average); Frankfort, Indiana (8.5); Hinesville, Georgia (8.2); St. Marys, Georgia (8.1); Susanville, California (8.1); Rio Grande City, Texas (7.7); California-Lexington Park, Maryland (7.4); Los Alamos, New Mexico (6.7); Fort Leonard and Wood, Missouri (6.3); and Junction City, Kansas (5.9).

According to county-level data, Teton, Wyoming (which is one of two counties in the Jackson metropolitan area from the top of Table 2), had the largest gap between the top 1 percent and the bottom 99 percent. In Teton, Wyoming, the top 1 percent in 2013 earned on average 233 times the average income of the bottom 99 percent of families. The next nine counties with the largest gaps between the top 1 percent and the bottom 99 percent are La Salle, Texas (where the top 1 percent earned 125.6 times as much as the bottom 99 percent on average); Shackelford, Texas (117.1); New York, New York (115.6); Custer, Colorado (86.6); Fairfield, Connecticut (73.7); Franklin, Florida (73.4); Collier, Florida (73.2); Pitkin, Colorado (68.8); and San Juan, Washington (68.7).

In the 10 counties with the smallest gaps between the top 1 percent and bottom 99 percent in 2013, the top 1 percent earned between 5 and 6 times the income of the bottom 99 percent of families. Those counties include Southeast Fairbanks, Alaska (5.9); North

Table 2

### Ratio of top 1% income to bottom 99% income for the top and bottom 25 of 916 metropolitan areas, 2013

Rank (from highest to lowest)	Metropolitan area	Average income of the top 1%	Average income of the bottom 99%	Top-to-bottom ratio
1	Jackson, WY-ID	\$19,995,834	\$93,891	213.0
2	Bridgeport-Stamford-Norwalk, CT	\$6,061,230	\$82,222	73.7
3	Naples-Immokalee-Marco Island, FL	\$4,191,055	\$57,258	73.2
4	Sebastian-Vero Beach, FL	\$2,519,981	\$39,710	63.5
5	Key West, FL	\$3,193,353	\$54,615	58.5
6	Gardnerville Ranchos, NV	\$2,054,149	\$44,529	46.1
7	Miami-Fort Lauderdale-West Palm Beach, FL	\$1,789,754	\$39,778	45.0
8	Midland, TX	\$3,364,922	\$75,980	44.3
9	Glenwood Springs, CO	\$2,441,991	\$57,634	42.4
10	San Angelo, TX	\$1,645,923	\$40,287	40.9
11	Las Vegas-Henderson-Paradise, NV	\$1,459,955	\$35,895	40.7
12	Summit Park, UT	\$4,008,668	\$99,468	40.3
13	New York-Newark-Jersey City, NY-NJ-PA	\$2,156,193	\$54,895	39.3
14	Port St. Lucie, FL	\$1,393,985	\$36,015	38.7
15	Hailey, ID	\$2,226,561	\$61,404	36.3
16	North Port-Sarasota-Bradenton, FL	\$1,353,983	\$38,921	34.8
17	Victoria, TX	\$1,564,953	\$46,636	33.6
18	Reno, NV	\$1,332,600	\$39,726	33.5
19	Cape Coral-Fort Myers, FL	\$1,344,847	\$40,169	33.5
20	Fayetteville-Springdale-Rogers, AR-MO	\$1,594,106	\$48,151	33.1
21	Sterling, CO	\$1,192,457	\$36,719	32.5
22	San Jose-Sunnyvale-Santa Clara, CA	\$2,732,379	\$85,042	32.1
23	Boston-Cambridge-Newton, MA-NH	\$1,963,545	\$64,135	30.6
24	Whitewater-Elkhorn, WI	\$1,393,019	\$45,600	30.5
25	San Francisco-Oakland-Hayward, CA	\$2,168,628	\$70,994	30.5
892	Dover, DE	\$388,232	\$41,349	9.4
893	Tiffin, OH	\$332,266	\$35,560	9.3
894	Fernley, NV	\$297,456	\$31,855	9.3
895	Peru, IN	\$320,348	\$34,949	9.2
896	North Vernon, IN	\$312,371	\$34,081	9.2
897	Fort Polk South, LA	\$333,273	\$36,379	9.2
898	Juneau, AK	\$635,726	\$69,704	9.1
899	Cedartown, GA	\$248,067	\$27,248	9.1
900	Grants, NM	\$256,868	\$28,876	8.9
901	Urbana, OH	\$348,365	\$39,491	8.8
902	Del Rio, TX	\$326,749	\$37,043	8.8
903	Beatrice, NE	\$408,647	\$46,960	8.7
904	Portales, NM	\$231,775	\$26,782	8.7

Table 2  
(cont.)

Rank (from highest to lowest)	Metropolitan area	Average income of the top 1%	Average income of the bottom 99%	Top-to-bottom ratio
905	Ottawa, KS	\$363,966	\$42,234	8.6
906	Ozark, AL	\$278,929	\$32,447	8.6
907	Mountain Home, ID	\$321,410	\$37,395	8.6
908	Frankfort, IN	\$349,651	\$41,255	8.5
909	Hinesville, GA	\$219,224	\$26,697	8.2
910	St. Marys, GA	\$284,555	\$34,928	8.1
911	Susanville, CA	\$244,497	\$30,020	8.1
912	Rio Grande City, TX	\$238,805	\$30,948	7.7
913	California-Lexington Park, MD	\$482,854	\$64,837	7.4
914	Los Alamos, NM	\$534,993	\$80,038	6.7
915	Fort Leonard Wood, MO	\$226,406	\$36,144	6.3
916	Junction City, KS	\$255,704	\$43,561	5.9
	United States	\$1,153,293	\$45,567	25.3

**Note:** Incomes are in 2014 dollars. Data are for tax units.

**Source:** Authors' analysis of county and state-level tax data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012). Core Based Statistical Areas defined by the U.S. Census Bureau, Population Division; Office of Management and Budget, February 2013 delineations.

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Slope, Alaska (5.9); King George, Virginia (5.9); Robertson, Kentucky (5.9); Nance, Nebraska (5.8); Chattahoochee, Georgia (5.7); Aleutians West, Alaska (5.4); Shannon, South Dakota (5.3); Manassas Park City, Virginia (5.3); and Wade Hampton, Alaska (5.1).

Reported in **Table 4** are the threshold incomes required to be considered part of the top 1 percent by state, and by region. Table 4 also includes the threshold to be included in the top 1 percent of the 1 percent (or the top 0.01 percent). Finally, the 50 states are ranked, from highest to lowest, according to the income threshold required to be considered part of the top 1 percent.

Connecticut had the highest income threshold in 2013 for the top 1 percent, \$659,979. New Mexico had the lowest threshold, \$231,276.

**Table 5** and **Table 6** present the 25 highest and 25 lowest income thresholds required to be considered part of the top 1 percent by metropolitan area and county, respectively (to view all 916 metropolitan areas see **Table B3**, and see **Table B4** for all 3,064 counties).<sup>7</sup>

In 2013, the highest threshold for membership in the top 1 percent by metropolitan area was \$1.65 million in Jackson, Wyoming-Idaho, followed by \$1.39 million in Bridgeport-Stamford-Norwalk, Connecticut, and \$1.21 million in Summit Park, Utah. For comparison, the threshold for joining the top 1 percent for the U.S. as a whole was \$389,436 in 2013.

The lowest thresholds by metropolitan area for membership in the top 1 percent were \$126,085 in Bennettsville, South Carolina; \$136,814 in Middlesborough, Kentucky; and \$136,855 in Rio Grande City, Texas.

Turning to the county-level data in Table 6, the highest top 1 percent threshold in 2013 was \$2.22 million in Teton, Wyoming, followed by \$1.42 million in New York, New York, and

Table 3

### Ratio of top 1% income to bottom 99% income for the top and bottom 25 of 3,064 counties, 2013

Rank (from highest to lowest)	County	Average income of the top 1%	Average income of the bottom 99%	Top-to-bottom ratio
1	Teton, WY	\$28,163,786	\$120,884	233.0
2	La Salle, TX	\$6,021,357	\$47,941	125.6
3	Shackelford, TX	\$4,585,725	\$39,165	117.1
4	New York, NY	\$8,143,415	\$70,468	115.6
5	Custer, CO	\$3,016,497	\$34,823	86.6
6	Fairfield, CT	\$6,061,230	\$82,222	73.7
7	Franklin, FL	\$1,842,033	\$25,102	73.4
8	Collier, FL	\$4,191,055	\$57,258	73.2
9	Pitkin, CO	\$5,289,153	\$76,921	68.8
10	San Juan, WA	\$3,072,877	\$44,728	68.7
11	De Witt, TX	\$3,689,548	\$56,983	64.7
12	Indian River, FL	\$2,519,981	\$39,710	63.5
13	Palm Beach, FL	\$2,779,439	\$44,581	62.3
14	Karnes, TX	\$3,899,272	\$64,845	60.1
15	Monroe, FL	\$3,193,353	\$54,615	58.5
16	Westchester, NY	\$4,326,049	\$80,305	53.9
17	Wheeler, TX	\$2,289,881	\$43,780	52.3
18	Suffolk, MA	\$2,351,713	\$46,142	51.0
19	Martin, FL	\$2,397,656	\$47,328	50.7
20	Union, SD	\$4,106,670	\$85,543	48.0
21	Throckmorton, TX	\$1,417,813	\$30,617	46.3
22	San Miguel, CO	\$2,463,561	\$53,309	46.2
23	Douglas, NV	\$2,054,149	\$44,529	46.1
24	Walton, FL	\$1,829,740	\$40,090	45.6
25	Midland, TX	\$3,421,188	\$76,071	45.0
3040	Osage, KS	\$274,826	\$40,721	6.7
3041	Emery, UT	\$246,909	\$36,827	6.7
3042	Los Alamos, NM	\$534,993	\$80,038	6.7
3043	Northwest Arctic, AK	\$341,622	\$51,445	6.6
3044	Yukon Koyukuk, AK	\$221,714	\$33,705	6.6
3045	Wabaunsee, KS	\$309,595	\$47,134	6.6
3046	Hoke, NC	\$233,756	\$35,763	6.5
3047	Prince Georges, MD	\$373,119	\$57,543	6.5
3048	Gallatin, KY	\$218,424	\$34,148	6.4
3049	Crawford, IN	\$183,236	\$29,103	6.3
3050	Charles, MD	\$433,721	\$68,987	6.3
3051	Pulaski, MO	\$226,406	\$36,144	6.3
3052	Stafford, VA	\$480,768	\$76,940	6.2
3053	Johnson, NE	\$252,643	\$40,593	6.2
3054	Geary, KS	\$255,704	\$43,561	5.9
3055	Southeast Fairbanks, AK	\$319,151	\$54,384	5.9
3056	North Slope, AK	\$384,228	\$65,477	5.9
3057	King George, VA	\$376,935	\$64,333	5.9
3058	Robertson, KY	\$152,637	\$26,076	5.9

Table 3  
(cont.)

Rank (from highest to lowest)	County	Average income of the top 1%	Average income of the bottom 99%	Top-to-bottom ratio
3059	<i>Nance, NE</i>	\$236,440	\$40,800	5.8
3060	<i>Chattahoochee, GA</i>	\$158,749	\$27,990	5.7
3061	<i>Aleutians West, AK</i>	\$504,228	\$93,457	5.4
3062	<i>Shannon, SD</i>	\$174,433	\$32,860	5.3
3063	<i>Manassas Park City, VA</i>	\$320,851	\$60,653	5.3
3064	<i>Wade Hampton, AK</i>	\$149,639	\$29,601	5.1
	<i>United States</i>	\$1,153,293	\$45,567	25.3

**Note:** Incomes are in 2014 dollars. Data are for tax units.

**Source:** Authors' analysis of county and state-level tax data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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\$1.39 million in Fairfield, Connecticut. The lowest thresholds were \$96,674 in Holmes, Mississippi, followed by \$96,685 in Lamar, Alabama, and \$98,157 in Clayton, Georgia.

The data presented so far have painted a detailed picture of exactly how high the incomes of the most well-off among us are. We now turn our attention to trends in top incomes over time.

## Unequal income growth in the current economic recovery

Before we begin our analysis of trends in income growth overall and among both the top 1 percent and the bottom 99 percent of families over 2009–2013, it is important to note trends in income between 2012 and 2013, the most recent years for which state-level data are available. As previously mentioned, the share of income earned by the top 1 percent reached a post–Great Recession peak in 2012 thanks in part to tax planning that shifted to 2012 taxable income that would otherwise have been reported in 2013. As a result, the average income of the top 1 percent fell 14 percent between 2012 and 2013. By region, the average income of the top 1 percent fell 8 percent in the Northeast, 13 percent in the Midwest, 16 percent in the South, and 14 percent in the West.

Although tax planning significantly reduced 2013 incomes for the highest earners, we still observe between 2009 and 2013 a highly lopsided distribution of the income generated by the economy since the end of the Great Recession. Over this period, the average income of the bottom 99 percent in the United States grew by just 0.7 percent. In contrast, the average income of the top 1 percent climbed 17.4 percent. In sum, the gains of the top 1 percent have vastly outpaced the gains for the bottom 99 percent as the economy has recovered.<sup>8</sup>

As illustrated in **Table 7**, among the individual states between 2009 and 2013, we find evidence of lopsided income growth, both in terms of the top 1 percent's share of overall

Table 4

### Income threshold of top 1% and top .01%, and average income of top .01%, U.S. and by state and region, 2013

Rank (from highest to lowest threshold)	State/region	Income threshold of top 1%	Income threshold of top .01%	Average income of top .01%
1	Connecticut	\$659,979	\$18,725,678	\$69,539,454
2	New Jersey	\$547,737	\$9,902,751	\$27,543,511
3	Massachusetts	\$539,055	\$12,718,018	\$43,377,857
4	New York	\$517,557	\$15,788,964	\$61,569,466
5	North Dakota	\$481,492	\$8,604,082	\$23,092,316
6	California	\$453,772	\$10,484,559	\$34,842,377
7	Texas	\$424,507	\$9,548,502	\$30,570,824
8	Maryland	\$421,188	\$6,473,201	\$16,448,445
9	Illinois	\$416,319	\$8,634,123	\$26,432,216
10	Minnesota	\$411,022	\$6,772,630	\$18,115,219
11	Colorado	\$410,716	\$7,517,480	\$21,284,001
12	Virginia	\$406,412	\$6,244,774	\$15,852,268
13	Washington	\$387,854	\$7,805,465	\$24,270,450
14	South Dakota	\$386,622	\$6,946,192	\$19,931,296
15	Florida	\$385,410	\$9,503,505	\$31,300,153
16	Wyoming	\$368,468	\$16,294,136	\$97,682,655
17	Alaska	\$365,332	\$4,781,020	\$10,498,675
18	Pennsylvania	\$360,343	\$6,125,315	\$16,789,403
19	New Hampshire	\$359,844	\$7,123,629	\$22,258,520
20	Kansas	\$351,497	\$6,867,921	\$21,256,272
21	Nebraska	\$346,252	\$5,704,685	\$15,473,263
22	Georgia	\$345,876	\$5,435,322	\$13,716,343
23	Delaware	\$342,699	\$4,402,704	\$9,720,082
24	Rhode Island	\$336,625	\$5,958,482	\$17,125,434
25	Utah	\$333,775	\$6,606,832	\$19,579,787
26	North Carolina	\$327,549	\$4,402,239	\$10,452,087
27	Louisiana	\$325,163	\$5,717,205	\$15,290,710
28	Oklahoma	\$324,935	\$6,545,212	\$19,289,705
29	Iowa	\$317,234	\$4,190,419	\$10,051,656
30	Ohio	\$317,124	\$4,610,782	\$11,421,990
31	Oregon	\$312,839	\$4,727,899	\$12,280,193
32	Wisconsin	\$312,375	\$6,245,825	\$18,879,234
33	Nevada	\$311,977	\$10,930,356	\$51,576,310
34	Arizona	\$309,102	\$5,090,195	\$13,474,023
35	Tennessee	\$308,834	\$5,517,447	\$15,788,156
36	Michigan	\$306,740	\$5,705,460	\$16,869,663
37	Missouri	\$305,471	\$5,715,368	\$16,849,759
38	Vermont	\$299,259	\$4,657,840	\$12,055,549
39	Montana	\$297,689	\$4,628,105	\$12,429,047
40	Indiana	\$296,640	\$4,448,865	\$11,072,021
41	Idaho	\$292,324	\$4,768,525	\$12,463,428
42	South Carolina	\$288,042	\$3,988,813	\$9,403,004
43	Alabama	\$283,899	\$3,992,394	\$9,549,052
44	Maine	\$282,474	\$3,435,796	\$7,756,897

Table 4  
(cont.)

Rank (from highest to lowest threshold)	State/region	Income threshold of top 1%	Income threshold of top .01%	Average income of top .01%
45	Hawaii	\$281,620	\$4,357,613	\$11,873,650
46	Kentucky	\$267,635	\$3,716,230	\$9,130,603
47	Mississippi	\$264,952	\$3,279,541	\$7,669,070
48	West Virginia	\$244,879	\$2,522,272	\$5,312,294
49	Arkansas	\$237,428	\$5,323,445	\$20,606,219
50	New Mexico	\$231,276	\$3,853,057	\$10,579,317
2*	District of Columbia	\$554,719	\$10,349,151	\$27,941,032
	United States	\$389,436	\$8,325,378	\$26,106,656
	Northeast	\$476,408	\$11,835,549	\$40,855,345
	Midwest	\$343,059	\$6,187,048	\$17,580,287
	South	\$352,341	\$6,897,923	\$20,221,280
	West	\$393,416	\$8,685,268	\$28,227,857

\* Rank of the District of Columbia if it were ranked with the 50 states.

**Note:** Incomes are in 2014 dollars. Data are for tax units.

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2013 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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growth, and the degree by which top 1 percent income growth exceeded bottom 99 percent income growth:

*By top 1 percent share of all growth*

- In 24 states the top 1 percent captured between half and all income growth.
  - In 15 states, the average income of the bottom 99% fell while the average income of the top 1 percent increased. These 15 states (in alphabetical order) are Connecticut, Florida, Georgia, Louisiana, Maryland, Mississippi, Missouri, Nevada, New Jersey, New York, North Carolina, South Carolina, Virginia, Washington, and Wyoming.
  - In the other nine states, the top 1 percent captured between 50.0 and 94.4 percent of all income growth. Those states (in alphabetical order) were Massachusetts, California, Texas, Michigan, Kansas, Oregon, Illinois, Arizona, and Pennsylvania.
- In 19 states, the top 1 percent captured between 16.7 percent and just under half of all income growth. Those states (in alphabetical order) are Arkansas, Colorado, Idaho, Indiana, Iowa, Kentucky, Maine, Minnesota, Nebraska, New Hampshire, North Dakota, Ohio, Oklahoma, Rhode Island, South Dakota, Tennessee, Utah, Vermont, and Wisconsin.
- In five states, the incomes of the top 1 percent declined as the average income of the bottom 99 percent grew. Those states include Alabama, Alaska, Montana, New Mexico, and West Virginia.
- Finally, incomes fell over the period analyzed for both the top 1 percent and the bottom 99 percent in Delaware, the District of Columbia, and Hawaii.



Table 5

## Income threshold of top 1% for the top and bottom 25 of 916 metropolitan areas, 2013

Rank (from highest to lowest threshold)	Metropolitan area	Income threshold of top 1%
1	Jackson, WY-ID	\$1,650,902
2	Bridgeport-Stamford-Norwalk, CT	\$1,390,965
3	Summit Park, UT	\$1,206,863
4	Williston, ND	\$1,066,541
5	San Jose-Sunnyvale-Santa Clara, CA	\$964,238
6	Naples-Immokalee-Marco Island, FL	\$959,229
7	Midland, TX	\$885,806
8	San Francisco-Oakland-Hayward, CA	\$785,946
9	Key West, FL	\$773,711
10	Boston-Cambridge-Newton, MA-NH	\$701,776
11	Hailey, ID	\$690,535
12	Boulder, CO	\$683,648
13	Edwards, CO	\$680,688
14	Dickinson, ND	\$674,032
15	New York-Newark-Jersey City, NY-NJ-PA	\$672,795
16	Trenton, NJ	\$645,399
17	Glenwood Springs, CO	\$640,277
18	Sebastian-Vero Beach, FL	\$617,382
19	Steamboat Springs, CO	\$616,365
20	Houston-The Woodlands-Sugar Land, TX	\$606,286
21	Washington-Arlington-Alexandria, DC-VA-MD-WV	\$575,237
22	Vineyard Haven, MA	\$571,352
23	Easton, MD	\$559,658
24	Gardnerville Ranchos, NV	\$553,891
25	Napa, CA	\$552,799
892	Ashtabula, OH	\$160,918
893	Jackson, OH	\$159,791
894	Lumberton, NC	\$159,460
895	Fort Leonard Wood, MO	\$158,727
896	Henderson, NC	\$158,034
897	Palatka, FL	\$156,861
898	Bucyrus, OH	\$156,740
899	North Vernon, IN	\$155,223
900	Malvern, AR	\$154,742
901	Valley, AL	\$154,352
902	Newport, TN	\$154,338
903	Cedartown, GA	\$153,240
904	Las Vegas, NM	\$152,989
905	Hinesville, GA	\$152,556
906	Española, NM	\$150,842
907	Rockingham, NC	\$150,132
908	Summerville, GA	\$148,569
909	Gaffney, SC	\$147,522

Table 5  
(cont.)

Rank (from highest to lowest threshold)	Metropolitan area	Income threshold of top 1%
910	Portales, NM	\$147,232
911	Deming, NM	\$146,521
912	Fitzgerald, GA	\$145,130
913	Raymondville, TX	\$137,185
914	Rio Grande City, TX	\$136,855
915	Middlesborough, KY	\$136,814
916	Bennettsville, SC	\$126,085
	United States	\$389,436

**Note:** Incomes are in 2014 dollars. Data are for tax units.

**Source:** Authors' analysis of county and state-level tax data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012). Core Based Statistical Areas defined by the U.S. Census Bureau, Population Division; Office of Management and Budget, February 2013 delineations.

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### *By difference between top 1 percent income growth and bottom 99 percent income growth*

- In each of the top 10 states ranked by income growth of the top 1 percent, incomes grew about 20 percent or more. In contrast, only one state—North Dakota—had bottom 99 percent income growth at that threshold. Bottom 99 percent income fell in 18 states, but top 1 percent income fell in only eight states.
- In 10 states, top 1 percent incomes grew in the double digits while bottom 99 percent incomes fell. Those states were Wyoming (55.1 percent versus -2.3 percent), Nevada (25.6 percent versus -13.3 percent), Washington (21.6 percent versus -0.8 percent), New York (20.6 percent versus -3.9 percent), Connecticut (17.2 percent versus -1.6 percent), New Jersey (15.2 percent versus -1.4 percent), Florida (15.0 percent versus -4.3 percent), Missouri (14.8 percent versus -1.8 percent), Georgia (12.3 percent versus -2.7 percent), and South Carolina (11.3 percent versus -0.1 percent).

## **Lopsided income growth from 1979 to 2007**

It is important to note that lopsided income growth is not a recent trend. Its reemergence in the recovery is a continuation of a pattern that began three-and-a-half decades ago, as evident in the following examination of trends in income growth overall, among the top 1 percent, and among the bottom 99 percent from 1979 to 2007. The data in this section start in 1979 because it is both a business cycle peak and a widely acknowledged beginning point for a period of rising inequality in the United States. We end this analysis in 2007 as it is the most recent business cycle peak.

The average inflation-adjusted income of the bottom 99 percent of families grew by 18.9 percent between 1979 and 2007. Over the same period, the average income of the top 1

Table 6

## Income threshold of top 1% for the top and bottom 25 of 3,064 counties, 2013

Rank (from highest to lowest threshold)	County	Income threshold of top 1%
1	<i>Teton, WY</i>	\$2,216,883
2	<i>New York, NY</i>	\$1,424,582
3	<i>Fairfield, CT</i>	\$1,390,965
4	<i>Mckenzie, ND</i>	\$1,381,080
5	<i>Summit, UT</i>	\$1,206,863
6	<i>Westchester, NY</i>	\$1,184,603
7	<i>Pitkin, CO</i>	\$1,144,624
8	<i>Marin, CA</i>	\$1,134,183
9	<i>San Mateo, CA</i>	\$1,128,182
10	<i>Williams, ND</i>	\$1,066,541
11	<i>Mountrail, ND</i>	\$1,031,455
12	<i>Goochland, VA</i>	\$1,021,805
13	<i>Santa Clara, CA</i>	\$979,198
14	<i>Union, SD</i>	\$963,384
15	<i>Collier, FL</i>	\$959,229
16	<i>Somerset, NJ</i>	\$956,207
17	<i>Karnes, TX</i>	\$948,752
18	<i>Kendall, TX</i>	\$929,243
19	<i>Morris, NJ</i>	\$914,465
20	<i>Norfolk, MA</i>	\$911,597
21	<i>Dunn, ND</i>	\$910,131
22	<i>Williamson, TN</i>	\$908,206
23	<i>Lake, IL</i>	\$896,371
24	<i>San Francisco, CA</i>	\$894,792
25	<i>Midland, TX</i>	\$892,217
3040	<i>McDowell, WV</i>	\$124,121
3041	<i>Hancock, TN</i>	\$123,482
3042	<i>Wade Hampton, AK</i>	\$122,286
3043	<i>Mitchell, NC</i>	\$120,882
3044	<i>Jeff Davis, GA</i>	\$120,370
3045	<i>Calhoun, MS</i>	\$119,941
3046	<i>Martin, KY</i>	\$119,911
3047	<i>Dixie, FL</i>	\$118,942
3048	<i>Taliaferro, GA</i>	\$118,495
3049	<i>Wayne, KY</i>	\$117,906
3050	<i>McCreary, KY</i>	\$117,742
3051	<i>Cedar, MO</i>	\$117,729
3052	<i>Quay, NM</i>	\$117,238
3053	<i>Murray, GA</i>	\$117,205
3054	<i>Lincoln, KY</i>	\$116,246
3055	<i>Scott, VA</i>	\$112,149

Table 6  
(cont.)

Rank (from highest to lowest threshold)	County	Income threshold of top 1%
3056	<i>Dent, MO</i>	\$111,638
3057	<i>Quitman, GA</i>	\$111,538
3058	<i>Dallas, MO</i>	\$110,811
3059	<i>La Paz, AZ</i>	\$108,005
3060	<i>Grayson, VA</i>	\$107,712
3061	<i>Adair, OK</i>	\$106,270
3062	<i>Clayton, GA</i>	\$98,157
3063	<i>Lamar, AL</i>	\$96,685
3064	<i>Holmes, MS</i>	\$96,674
	<i>United States</i>	\$389,436

**Note:** Incomes are in 2014 dollars. Data are for tax units.

**Source:** Authors' analysis of county and state-level tax data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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percent of families grew by 200.5 percent. This lopsided income growth means that the top 1 percent of families captured 53.9 percent of all income growth over the period.

**Table 8** presents estimates for the 50 states and the District of Columbia (the states in the table are ranked by the income growth of the top 1 percent). It shows that:

- In four states (Nevada, Wyoming, Michigan, and Alaska), only the top 1 percent experienced rising incomes between 1979 and 2007.
- In another 15 states, the top 1 percent captured between half and just over four-fifths of all income growth from 1979 to 2007. Those states are Arizona (where 84.2 percent of all income growth was captured by the top 1 percent), Oregon (81.8 percent), New Mexico (72.6 percent), Hawaii (70.9 percent), Florida (68.9 percent), New York (67.6 percent), Illinois (64.9 percent), Connecticut (63.9 percent), California (62.4 percent), Washington (59.1 percent), Texas (55.3 percent), Montana (55.2 percent), Utah (54.1 percent), South Carolina (54.0 percent), and West Virginia (53.3 percent).
- The lowest shares of income growth captured by the top 1 percent between 1979 and 2007 were in Louisiana (25.6 percent), Virginia (29.5 percent), Iowa (29.8 percent), Mississippi (29.8 percent), Maine (30.5 percent), Rhode Island (32.6 percent), Nebraska (33.5 percent), Maryland (33.6 percent), Arkansas (34.0 percent), and North Dakota (34.2 percent).

## Income inequality in the last 10 economic expansions

Normally during the economic expansion that follows a recession, workers make wage gains that hopefully leave them better off than before the recession started. But examining trends throughout economic recoveries in the post–World War II era demonstrates a

Table 7

### Average real income growth from 2009 to 2013, overall and for the top 1% and bottom 99%, U.S. and by state and region

Rank (by top 1% income growth, from highest to lowest)	State/region	Overall	Top 1%	Bottom 99%	Share of total growth (or loss) captured by top 1%
1	<i>North Dakota</i>	25.7%	61.7%	20.0%	32.6%
2	<i>Wyoming</i>	9.5%	55.1%	-2.3%	119.7%
3	<i>Massachusetts</i>	7.5%	32.5%	1.6%	82.5%
4	<i>California</i>	5.7%	28.1%	0.5%	92.5%
5	<i>Texas</i>	7.6%	26.4%	3.4%	63.0%
6	<i>Michigan</i>	4.2%	26.3%	0.3%	94.4%
7	<i>Nevada</i>	-5.1%	25.6%	-13.3%	‡
8	<i>Washington</i>	2.7%	21.6%	-0.8%	124.3%
9	<i>New York</i>	2.7%	20.6%	-3.9%	205.4%
10	<i>Kansas</i>	5.7%	19.6%	3.3%	50.0%
11	<i>Colorado</i>	6.5%	17.6%	4.5%	41.4%
12	<i>Ohio</i>	5.8%	17.3%	3.9%	41.2%
13	<i>Connecticut</i>	3.4%	17.2%	-1.6%	134.6%
14	<i>Minnesota</i>	8.3%	16.9%	6.7%	31.4%
15	<i>Oregon</i>	3.4%	16.1%	1.4%	65.9%
16	<i>Utah</i>	11.6%	15.9%	10.9%	20.8%
17	<i>Rhode Island</i>	4.9%	15.8%	3.1%	46.4%
18	<i>Illinois</i>	5.0%	15.2%	2.7%	55.8%
19	<i>New Jersey</i>	1.6%	15.2%	-1.4%	173.5%
20	<i>Florida</i>	0.1%	15.0%	-4.3%	3669.6%
21	<i>Missouri</i>	0.6%	14.8%	-1.8%	345.5%
22	<i>Oklahoma</i>	8.3%	13.9%	7.2%	27.7%
23	<i>South Dakota</i>	10.8%	13.6%	10.3%	19.9%
24	<i>Indiana</i>	7.3%	13.4%	6.4%	24.7%
25	<i>Idaho</i>	8.2%	13.1%	7.4%	21.6%
26	<i>Nebraska</i>	10.2%	13.0%	9.7%	16.7%
27	<i>Iowa</i>	5.7%	12.8%	4.8%	26.0%
28	<i>Tennessee</i>	4.3%	12.8%	2.7%	47.1%
29	<i>Georgia</i>	-0.3%	12.3%	-2.7%	‡
30	<i>Wisconsin</i>	5.8%	12.0%	4.7%	31.3%
31	<i>South Carolina</i>	1.5%	11.3%	-0.1%	102.8%
32	<i>Arizona</i>	3.4%	10.7%	2.0%	50.7%
33	<i>Virginia</i>	-3.7%	8.8%	-5.7%	‡
34	<i>New Hampshire</i>	7.3%	8.1%	7.2%	16.8%
35	<i>Pennsylvania</i>	1.4%	8.0%	0.2%	89.2%
36	<i>Vermont</i>	4.4%	7.6%	3.9%	23.4%
37	<i>Maryland</i>	-2.7%	7.3%	-4.3%	‡
38	<i>North Carolina</i>	0.5%	7.1%	-0.6%	219.6%
39	<i>Louisiana</i>	-0.9%	6.9%	-2.4%	‡
40	<i>Kentucky</i>	3.5%	6.3%	3.0%	25.0%
41	<i>Maine</i>	2.5%	5.7%	2.0%	28.7%
42	<i>Arkansas</i>	4.6%	5.0%	4.6%	18.4%
43	<i>Mississippi</i>	-3.8%	1.8%	-4.6%	‡

Table 7  
(cont.)

Rank (by top 1% income growth, from highest to lowest)	State/region	Overall	Top 1%	Bottom 99%	Share of total growth (or loss) captured by top 1%
44	<i>Delaware</i>	-1.1%	-0.8%	-1.1%	10.7%
45	<i>Alabama</i>	2.3%	-0.9%	2.8%	†
46	<i>Alaska</i>	3.4%	-1.1%	4.0%	†
47	<i>New Mexico</i>	2.8%	-2.0%	3.6%	†
48	<i>Montana</i>	7.8%	-3.9%	10.1%	†
49	<i>Hawaii</i>	-3.6%	-9.5%	-2.7%	33.8%
50	<i>West Virginia</i>	4.0%	-14.1%	7.2%	†
48*	<i>District of Columbia</i>	-0.7%	-2.1%	-0.3%	60.4%
	<i>United States</i>	3.7%	17.4%	0.7%	85.1%
	<i>Northeast</i>	3.0%	17.5%	-1.0%	125.9%
	<i>Midwest</i>	5.7%	16.8%	3.7%	44.8%
	<i>South</i>	2.2%	12.6%	0.1%	97.4%
	<i>West</i>	4.9%	22.2%	1.3%	78.2%

\* Rank of the District of Columbia if it were ranked with the 50 states

† Top 1% incomes fell while overall incomes grew over this period.

‡ Overall income declined even as top 1% incomes grew over this period

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2013 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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startling pattern in which the top 1 percent is capturing a larger and larger fraction of income growth. Between 1949 and 2013 there have been 10 economic expansions, with four occurring since 1979. Following Tcherneva (2014), **Figure A** presents the share of overall income growth captured by the top 1 percent of families during each of those expansions for the United States and by region. As the figure makes clear, prior to the mid-to late 1970s, the share of growth captured by the top 1 percent was much smaller than in each of the expansions since 1979. Through the 1975–1979 expansion, the top 1 percent’s share of income growth averaged between a low of 8.7 percent in the West to a high of 13.9 percent in the Northeast. In the four economic expansions since 1979, the top 1 percent’s share of average growth ranged between 43.6 percent in the Midwest to 71.4 percent in the West.

For ease of presentation, instead of presenting data for each expansion for all 50 states, **Table 9** presents four averages: the average share of income growth captured by the top 1 percent and bottom 99 percent in the six expansions up to 1979, and the same averages over the four expansions starting in 1982.<sup>9</sup> It shows that:

- The 10 states in which the top 1 percent captured the largest share of income growth in economic expansions after 1979 are Nevada (where 130.1 percent of all income growth was captured by the top 1 percent), Missouri (115.7 percent), New York (94.4 percent), Wyoming (87.2 percent), North Carolina (81.8 percent), Connecticut (79.8 percent), Washington (79.1 percent), California (74.6 percent), New Jersey (72.9 percent), and Oregon (62.0 percent).

Table 8

## Average real income growth from 1979 to 2007, overall and for the top 1% and bottom 99%, U.S. and by state and region

Rank (by top 1% income growth, from highest to lowest)	State/region	Overall	Top 1%	Bottom 99%	Share of total growth (or loss) captured by top 1%
1	Connecticut	72.6%	414.6%	29.5%	63.9%
2	Massachusetts	82.1%	366.0%	51.7%	43.1%
3	New York	60.5%	355.1%	22.2%	67.6%
4	Wyoming	31.5%	354.3%	-0.8%	102.3%
5	New Jersey	62.6%	264.7%	41.3%	40.3%
6	Washington	31.2%	222.3%	13.9%	59.1%
7	Florida	38.8%	218.8%	13.8%	68.9%
8	Vermont	42.4%	217.0%	27.8%	39.5%
9	South Dakota	44.8%	216.0%	30.5%	37.2%
10	New Hampshire	53.2%	215.9%	37.6%	35.5%
11	Utah	31.0%	214.9%	15.4%	54.1%
12	Virginia	58.2%	214.8%	44.6%	29.5%
13	Illinois	31.4%	211.6%	12.2%	64.9%
14	Maryland	51.0%	202.1%	37.0%	33.6%
15	Colorado	37.4%	200.8%	21.2%	48.3%
16	Idaho	30.1%	197.6%	16.3%	49.9%
17	California	31.5%	191.8%	13.2%	62.4%
18	Pennsylvania	40.0%	184.9%	25.2%	42.8%
19	Tennessee	35.3%	178.0%	20.2%	48.4%
20	Minnesota	44.4%	175.9%	30.9%	36.8%
21	North Carolina	44.8%	172.0%	32.1%	34.8%
22	Georgia	37.5%	170.9%	23.5%	43.3%
23	Rhode Island	53.8%	170.3%	40.4%	32.6%
24	Nevada	8.6%	164.0%	-11.6%	218.5%
25	South Carolina	25.4%	163.5%	12.8%	54.0%
26	Nebraska	43.5%	160.3%	31.8%	33.5%
27	Alabama	33.7%	158.8%	20.5%	44.9%
28	Arizona	17.0%	157.8%	3.0%	84.2%
29	Wisconsin	28.5%	150.4%	17.4%	44.0%
30	Oklahoma	33.9%	149.6%	20.3%	46.6%
31	Maine	39.9%	149.4%	30.2%	30.5%
32	North Dakota	33.7%	147.8%	24.0%	34.2%
33	Montana	22.3%	146.8%	10.9%	55.2%
34	Missouri	31.9%	140.5%	20.3%	42.5%
35	Kansas	37.0%	132.3%	26.6%	35.0%
36	Oregon	13.5%	127.2%	2.7%	81.8%
37	Texas	26.6%	124.1%	13.5%	55.3%
38	Delaware	31.5%	122.6%	21.2%	39.7%
39	Arkansas	35.0%	121.6%	25.6%	34.0%
40	New Mexico	14.0%	119.3%	4.2%	72.6%
41	Alaska	-10.3%	118.6%	-17.5%	F
42	Hawaii	12.4%	118.0%	3.9%	70.9%

Table 8  
(cont.)

Rank (by top 1% income growth, from highest to lowest)	State/region	Overall	Top 1%	Bottom 99%	Share of total growth (or loss) captured by top 1%
43	Indiana	21.4%	115.3%	12.6%	46.5%
44	Ohio	20.4%	111.2%	11.3%	49.4%
45	Iowa	30.9%	110.5%	23.7%	29.8%
46	Kentucky	19.9%	105.1%	11.2%	48.8%
47	Michigan	8.9%	100.0%	-0.2%	101.7%
48	Mississippi	31.8%	93.4%	24.8%	29.8%
49	Louisiana	35.4%	84.6%	29.5%	25.6%
50	West Virginia	12.9%	74.1%	6.6%	53.3%
6*	District of Columbia	88.1%	239.4%	65.8%	34.8%
	United States	36.9%	200.5%	18.9%	53.9%
	Northeast	59.0%	301.2%	31.0%	52.9%
	Midwest	26.5%	147.1%	14.4%	50.7%
	South	37.6%	167.5%	22.6%	46.1%
	West	27.3%	186.2%	10.5%	65.2%

\* Rank of the District of Columbia if it were ranked with the 50 states

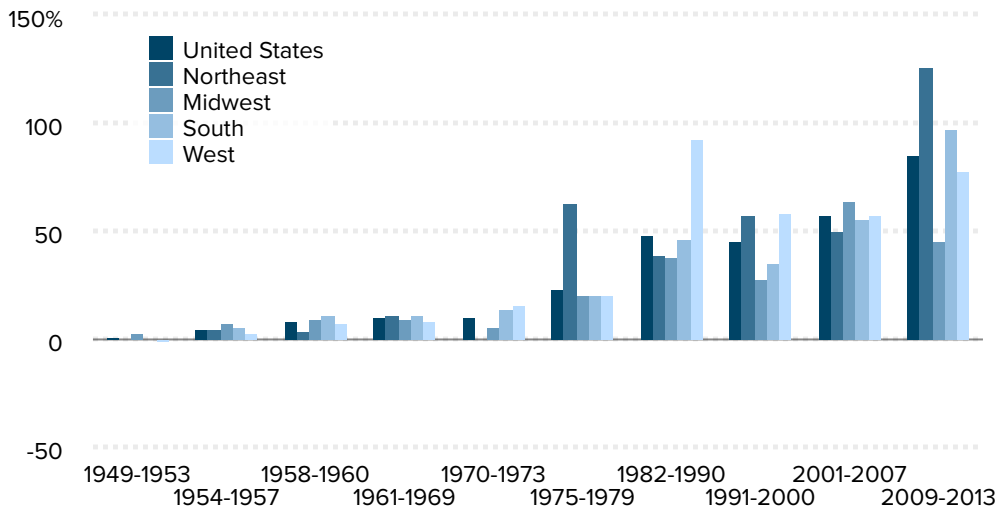
† Only the incomes of the top 1% grew over this period.

Source: Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2007 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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Figure A

### Top 1 percent's share of average income growth during expansions, by region



Source: Author's analysis of state-level tax data from Sommeiller (2006) extended to 2012 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), Piketty and Saez (2015), and Tcherneva (2014)

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Table 9

## Share of overall income growth captured by the top 1% and bottom 99% in pre- and post-1980 expansions

Rank (by share of overall income growth captured by top 1% in post-1980 expansions)	State/region	Share of total growth captured by top 1%		Share of total growth captured by bottom 99%	
		Pre-1980 expansions	Post-1980 expansions	Pre-1980 expansions	Post-1980 expansions
1	Nevada	11.6%	130.1%	88.4%	-30.1%
2	Missouri	8.4%	115.7%	91.6%	-15.7%
3	New York	-6.4%	94.4%	106.4%	5.6%
4	Wyoming	3.0%	87.2%	97.0%	12.8%
5	North Carolina	11.0%	81.8%	89.0%	18.2%
6	Connecticut	16.5%	79.8%	83.5%	20.2%
7	Washington	10.8%	79.1%	89.2%	20.9%
8	California	9.2%	74.6%	90.8%	25.4%
9	New Jersey	14.0%	72.9%	86.0%	27.1%
10	Oregon	6.6%	62.0%	93.4%	38.0%
11	Florida	15.2%	61.0%	84.8%	39.0%
12	Colorado	6.4%	58.9%	93.6%	41.1%
13	Arizona	11.1%	58.7%	88.9%	41.3%
14	Texas	11.0%	57.2%	89.0%	42.8%
15	Illinois	12.3%	56.6%	87.7%	43.4%
16	Georgia	11.1%	56.2%	88.9%	43.8%
17	Massachusetts	20.1%	55.4%	79.9%	44.6%
18	South Carolina	10.5%	55.3%	89.5%	44.7%
19	Utah	7.9%	53.1%	92.1%	46.9%
20	Pennsylvania	7.1%	52.1%	92.9%	47.9%
21	Tennessee	8.6%	51.8%	91.4%	48.2%
22	Michigan	7.7%	50.6%	92.3%	49.4%
23	Delaware	-8.1%	47.4%	108.1%	52.6%
24	Kansas	10.3%	44.3%	89.7%	55.7%
25	Hawaii	6.0%	41.6%	94.0%	58.4%
26	Alaska	14.1%	38.8%	85.9%	61.2%
27	Kentucky	7.0%	37.9%	93.0%	62.1%
28	Idaho	6.5%	36.7%	93.5%	63.3%
29	Oklahoma	10.0%	36.5%	90.0%	63.5%
30	Ohio	8.7%	36.0%	91.3%	64.0%
31	Wisconsin	9.0%	34.9%	91.0%	65.1%
32	Rhode Island	16.7%	34.5%	83.3%	65.5%
33	Minnesota	10.0%	34.4%	90.0%	65.6%
34	New Hampshire	6.4%	34.3%	93.6%	65.7%
35	Indiana	7.4%	34.2%	92.6%	65.8%
36	Nebraska	13.9%	33.3%	86.1%	66.7%

Table 9  
(cont.)

37	<i>Maryland</i>	7.1%	33.0%	92.9%	67.0%
38	<i>Vermont</i>	7.6%	32.6%	92.4%	67.4%
39	<i>South Dakota</i>	5.8%	32.3%	94.2%	67.7%
40	<i>Alabama</i>	7.8%	31.1%	92.2%	68.9%
41	<i>Virginia</i>	7.3%	29.7%	92.7%	70.3%
42	<i>Maine</i>	6.8%	28.6%	93.2%	71.4%
43	<i>Arkansas</i>	4.6%	27.8%	95.4%	72.2%
44	<i>Iowa</i>	9.2%	26.6%	90.8%	73.4%
45	<i>Mississippi</i>	9.5%	22.2%	90.5%	77.8%
46	<i>Montana</i>	6.1%	21.2%	93.9%	78.8%
47	<i>North Dakota</i>	-7.8%	20.3%	107.8%	79.7%
48	<i>Louisiana</i>	14.3%	19.4%	85.7%	80.6%
49	<i>West Virginia</i>	3.9%	11.5%	96.1%	88.5%
50	<i>New Mexico</i>	10.0%	0.9%	90.0%	99.1%
23*	<i>District of Columbia</i>	11.5%	47.7%	88.5%	52.3%
	<i>United States</i>	9.5%	58.9%	90.5%	41.1%
	<i>Northeast</i>	13.9%	68.0%	86.1%	32.0%
	<i>Midwest</i>	8.8%	43.6%	91.2%	56.4%
	<i>South</i>	10.4%	58.5%	89.6%	41.5%
	<i>West</i>	8.7%	71.4%	91.3%	28.6%

\* Rank of the District of Columbia if it were ranked with the 50 states

**Note:** The analysis in Table 9 was performed after excluding 26 state expansions. See endnote 9 for more detail.

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2013 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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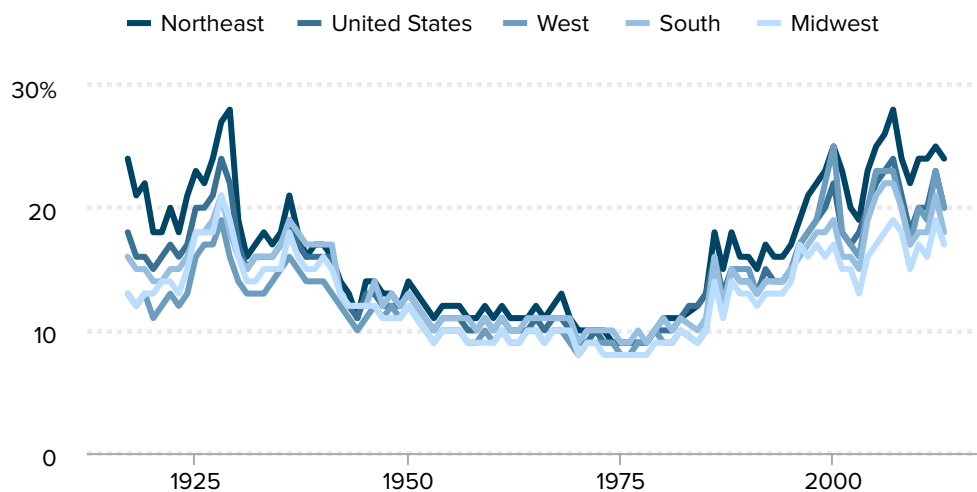
- The 10 states in which the top 1 percent captured the smallest share of income growth in economic expansions after 1979 are New Mexico (where 0.9 percent of all income growth was captured by the top 1 percent), West Virginia (11.5 percent), Louisiana (19.4 percent), North Dakota (20.3 percent), Montana (21.2 percent), Mississippi (22.2 percent), Iowa (26.6 percent), Arkansas (27.8 percent), Maine (28.6 percent), and Virginia (29.7 percent). In 49 states (New Mexico is the exception) and the District of Columbia, the share of income growth captured by the top 1 percent is higher in the post-1980 recoveries than in the pre-1980 recoveries.<sup>10</sup>

## Inequality back at levels not seen since the late 1920s

This lopsided income growth means that income inequality has risen in recent decades. **Figure B** presents the share of all income (including capital gains income) held by the top 1 percent of families between 1917 and 2013 for the United States and by region. As the figure makes clear, income inequality reached a peak in 1928 before declining

Figure B

## Share of all income held by the top 1%, United States and by region, 1917–2013



**Note:** Data are for tax units. Tax data from 1983 to 1985 were unavailable, hence the gap in regional figures. Income includes capital gains income.

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2013 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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rapidly in the 1930s and 1940s and then more gradually until the late 1970s. The 1940s to the late 1970s, while by no means a golden age (as evident, for example, by gender, ethnic, and racial discrimination in the job market), was a period in which workers from the lowest-paid wage earner to the highest-paid CEO experienced similar growth in incomes. This was a period in which “a rising tide” really did lift all boats. This underscores that there is nothing inevitable about top incomes growing faster than other incomes, as has occurred since the late 1970s. The unequal income growth since the late 1970s has brought the top 1 percent income share in the United States to near its 1928 peak.

The patterns of income growth over time in individual states reflect in broad terms the national pattern. **Table 10** presents four snapshots of the income share of the top 1 percent in each state and the District of Columbia: in 1928, 1979, 2007, and 2013. The table shows that:

- Between 1928 and 1979, in 49 states plus the District of Columbia, the share of income held by the top 1 percent declined, following the national pattern.<sup>11</sup>
- From 1979 to 2007 the share of income held by the top 1 percent increased in every state and the District of Columbia.
- Even factoring in the impact of the Great Recession by examining the period from 1979 to 2013, the share of income held by the top 1 percent still increased in every state and the District of Columbia. And as national data for 2014 have shown, top 1

percent incomes are moving higher as the economy continues to recover (the share of income held by the top 1 percent in the U.S. climbed to 21.2 percent).

- The 10 states with the biggest jumps (at least 9.5 percentage points) in the top 1 percent share from 1979 to 2013 include four states with large financial services sectors (New York, Connecticut, New Jersey, and Illinois), three with large information technology sectors (Massachusetts, California, and Washington), one state with a large energy industry (Wyoming), one with a large gaming industry (Nevada), and Florida, a state in which many wealthy individuals retire. In 15 of the other 40 states, the increase in the top 1 percent share is between 6.9 and 9.4 percentage points. In the remaining 25 states, the increase ranges between 3.1 and 6.9 percentage points.

Also for 2013, we present in **Tables 11** and **12** the share of income going to the top 1 percent and bottom 99 percent for the top 25 and bottom 25 metropolitan areas and counties (ranked by top 1 percent share of income. (See **Table B5** for the top income share in all 916 metropolitan areas and **Table B6** for all 3,064 counties.)

By metropolitan area the top 1 percent share of all income was highest in Jackson, Wyoming-Idaho at 68.3 percent, followed by 42.7 percent in Bridgeport-Stamford-Norwalk, Connecticut, and 42.5 percent in Naples-Immokalee-Marco Island, Florida. Overall in the U.S. the top 1 percent took home 20.1 percent of all income in 2013. Among metropolitan areas the lowest top income shares were 5.6 percent in Junction City, Kansas; 6.0 percent in Fort Leonard Wood, Missouri; and 6.3 percent in Los Alamos, New Mexico.

By county the top 1 percent took home 70.2 percent of all income in Teton, Wyoming; 55.9 percent in La Salle, Texas; and 54.2 percent in Shackelford, Texas. The lowest share of all income held by the top 1 percent was 4.9 percent in Wade Hampton, Alaska, and 5.1 percent in both Manassas Park City, Virginia, and Shannon, South Dakota.

## Conclusion

The rise in inequality experienced in the United States in the past three-and-a-half decades is not just a story of those in the financial sector in the greater New York City metropolitan area reaping outsized rewards from speculation in financial markets. While many of the highest-income families do live in states such as New York and Connecticut, IRS data make clear that rising inequality and increases in top 1 percent incomes affect every state. Between 1979 and 2007, the top 1 percent of families in *all* states captured an increasing share of income. And from 2009 to 2013, in the wake of the Great Recession, top 1 percent incomes in most states once again grew faster than the incomes of the bottom 99 percent.

The rise between 1979 and 2007 in top 1 percent incomes relative to the bottom 99 percent represents a sharp reversal of the trend that prevailed in the mid-20th century. Between 1928 and 1979, the share of income held by the top 1 percent declined in every state except Alaska (where the top 1 percent held a relatively low share of income throughout the period). This earlier era was characterized by a rising minimum wage, low

Table 10

## Top 1% share of all income, U.S. and by state and region, 1928, 1979, 2007, 2013

Rank (by change in share over 1979–2007)	State/region	Change in income share of the top 1% (percentage points)							Rank by change in share over 1979–2013
		1928	1979	2007	2013	1928–1979	1979–2007	1979–2013	
1	Connecticut	24.2	11.2	36.0	29.7	-13.0	24.8	18.4	3
2	Wyoming	12.5	9.1	33.9	28.7	-3.3	24.8	19.5	1
3	New York	30.2	11.6	35.3	31.0	-18.6	23.7	19.5	2
4	Nevada	18.3	11.6	30.2	27.5	-6.7	18.7	15.9	4
5	Florida	22.7	12.3	30.4	25.6	-10.5	18.1	13.3	6
6	Massachusetts	24.8	9.7	26.8	23.0	-15.0	17.0	13.3	5
7	Illinois	23.1	9.7	24.7	19.8	-13.4	15.0	10.1	9
8	California	20.5	10.3	24.6	22.3	-10.2	14.3	12.0	7
9	Washington	15.2	8.3	22.0	17.8	-6.9	13.7	9.5	10
10	New Jersey	23.5	9.6	23.1	20.1	-13.9	13.5	10.5	8
11	Arizona	17.9	9.1	21.6	16.9	-8.8	12.5	7.8	17
12	Utah	16.4	7.9	20.3	15.7	-8.5	12.4	7.8	16
13	Colorado	19.8	9.0	21.3	16.6	-10.7	12.2	7.6	18
14	Tennessee	21.1	9.6	21.3	16.9	-11.5	11.7	7.2	21
15	Idaho	10.4	7.7	18.8	14.0	-2.7	11.2	6.3	33
16	Pennsylvania	22.6	9.3	20.4	16.7	-13.3	11.1	7.4	20
17	Vermont	17.9	7.8	18.6	13.8	-10.2	10.8	6.0	36
18	Texas	19.2	11.9	22.7	21.1	-7.2	10.8	9.1	12
19	New Hampshire	19.3	8.8	19.5	15.1	-10.5	10.7	6.3	32
20	Georgia	20.8	9.6	20.2	17.5	-11.3	10.7	8.0	15
21	Oklahoma	20.1	10.6	21.3	17.1	-9.5	10.7	6.5	29
22	South Carolina	15.3	8.4	19.1	15.2	-6.8	10.6	6.8	27
23	South Dakota	12.9	7.8	18.2	16.1	-5.2	10.5	8.3	14
24	Alabama	18.0	9.6	20.0	14.5	-8.4	10.4	4.9	42
25	Oregon	15.5	8.7	18.7	15.5	-6.8	10.0	6.9	26
26	Montana	16.0	8.4	18.3	14.7	-7.6	9.8	6.3	31
27	Minnesota	20.2	9.3	19.2	16.3	-10.9	9.8	7.0	23
28	Maryland	27.1	8.5	18.3	14.5	-18.5	9.8	6.0	37
29	Missouri	21.9	9.7	19.0	16.6	-12.2	9.3	6.9	25
30	North Carolina	17.2	9.1	18.4	14.9	-8.0	9.3	5.8	39
31	Rhode Island	24.2	10.3	19.5	15.6	-13.9	9.2	5.3	41
32	Wisconsin	17.2	8.4	17.6	15.9	-8.9	9.2	7.5	19
33	Virginia	19.2	8.0	17.2	15.0	-11.2	9.1	7.0	24
34	New Mexico	17.5	8.6	17.7	13.4	-8.9	9.1	4.9	43
35	Michigan	21.4	9.1	17.9	17.9	-12.4	8.8	8.9	13
36	Nebraska	15.3	9.1	17.8	13.2	-6.2	8.7	4.1	48
37	Alaska	5.3	5.3	13.9	11.6	0.0	8.6	6.3	34
38	Delaware	46.1	10.3	18.7	13.6	-35.9	8.4	3.4	50
39	Hawaii	21.5	7.5	15.7	11.9	-14.0	8.2	4.3	46
40	Kansas	16.1	9.9	18.0	16.2	-6.3	8.1	6.4	30
41	Ohio	21.7	9.1	17.2	15.0	-12.6	8.1	5.9	38
42	Indiana	17.6	8.7	16.5	14.1	-8.9	7.9	5.4	40

Table 10  
(cont.)

Rank (by change in share over 1979–2007)	State/region	Change in income share of the top 1% (percentage points)							Rank by change in share over 1979–2013
		1928	1979	2007	2013	1928–1979	1979–2007	1979–2013	
43	Kentucky	19.9	9.3	17.1	14.1	-10.6	7.8	4.9	44
44	North Dakota	13.2	7.8	15.6	17.2	-5.3	7.8	9.4	11
45	Arkansas	14.3	9.8	17.4	17.0	-4.5	7.5	7.1	22
46	Maine	21.0	8.2	15.7	12.9	-12.8	7.5	4.7	45
47	West Virginia	16.9	9.3	15.4	12.4	-7.6	6.1	3.1	51
48	Iowa	16.4	8.4	14.5	12.2	-8.1	6.1	3.8	49
49	Mississippi	14.0	10.2	16.1	14.4	-3.8	5.9	4.2	47
50	Louisiana	18.7	10.8	15.8	17.0	-8.0	5.0	6.3	35
14	District of Columbia	24.7	12.9	25.0	19.4	-11.8	12.1	6.5	28
	United States	23.9	10.0	23.5	20.1	-14.0	13.5	10.1	
	Northeast	27.0	10.4	28.2	24.0	-16.6	17.8	13.6	
	Midwest	21.1	9.2	19.3	16.6	-11.9	10.1	7.5	
	South	20.9	10.4	21.8	18.4	-10.5	11.3	8.0	
	West	19.2	9.6	23.2	19.9	-9.6	13.6	10.3	

\* Rank of the District of Columbia if it were ranked with the 50 states

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2013 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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levels of unemployment after the 1930s, widespread collective bargaining in private industries (manufacturing, transportation [trucking, airlines, and railroads], telecommunications, and construction), and a cultural and political environment in which it was outrageous for executives to receive outsized bonuses while laying off workers.

Today, unionization and collective bargaining levels are at historic lows not seen since before 1928 (Freeman 1997). The federal minimum wage purchases fewer goods and services than it did in 1968 (Cooper 2013). And executives in companies from Hostess (Castellano 2012) to American International Group (AIG) still expected—and were awarded—bonuses after bankrupting their companies and receiving multibillion-dollar taxpayer bailouts (Andrews and Baker 2009).

Policy choices and cultural forces have combined to put downward pressure on the wages and incomes of most Americans even as their productivity has risen (Bivens et al. 2014; Levy and Temin 2007). CEOs and financial-sector executives at the commanding heights of the private economy have appropriated a rising share of the nation's expanding economic pie, setting new norms for top incomes often emulated today by college presidents (as well as college football and basketball coaches), surgeons, lawyers, entertainers, and professional athletes.

The yawning economic gaps in today's "1 percent economy" have myriad economic and societal consequences. For example, growing inequality blocks living standards growth for the middle class. The Economic Policy Institute's *The State of Working America, 12th Edition* found that between 1979 and 2007, had the income of the middle fifth of

Table 11

## Total share of all income held by the top 1% for the top and bottom 25 of 916 metropolitan areas, 2013

Rank (by top 1% share)	Metropolitan area	Bottom 99% breakdown				Top 1% (99th–100th percentiles)
		Bottom 90%	90th–<95th percentiles	95th–<99th percentiles	Bottom 99%	
1	Jackson, WY-ID	17.3	4.6	9.8	31.7	68.3
2	Bridgeport-Stamford-Norwalk, CT	27.2	10.8	19.3	57.3	42.7
3	Naples-Immokalee-Marco Island, FL	27.6	10.7	19.1	57.5	42.5
4	Sebastian-Vero Beach, FL	30.7	11.2	19.1	60.9	39.1
5	Key West, FL	34.8	10.2	17.9	62.9	37.1
6	Gardnerville Ranchos, NV	39.2	11.6	17.5	68.2	31.8
7	Miami-Fort Lauderdale-West Palm Beach, FL	38.3	11.9	18.5	68.8	31.2
8	Midland, TX	43.0	9.6	16.5	69.1	30.9
9	Glenwood Springs, CO	44.9	9.2	15.9	70.0	30.0
10	San Angelo, TX	46.1	11.0	13.7	70.8	29.2
11	Las Vegas-Henderson-Paradise, NV	42.9	13.0	15.0	70.9	29.1
12	Summit Park, UT	41.8	11.1	18.3	71.1	28.9
13	New York-Newark-Jersey City, NY-NJ-PA	41.3	11.5	18.8	71.6	28.4
14	Port St. Lucie, FL	41.4	13.0	17.5	71.9	28.1
15	Hailey, ID	44.9	10.8	17.6	73.2	26.8
16	North Port-Sarasota-Bradenton, FL	41.0	13.3	19.6	74.0	26.0
17	Victoria, TX	49.4	11.3	14.0	74.7	25.3
18	Reno, NV	43.1	13.2	18.4	74.7	25.3
19	Cape Coral-Fort Myers, FL	42.6	12.8	19.2	74.7	25.3
20	Fayetteville-Springdale-Rogers, AR-MO	47.8	11.2	16.0	74.9	25.1
21	Sterling, CO	49.4	13.3	12.6	75.3	24.7
22	San Jose-Sunnyvale-Santa Clara, CA	44.4	12.2	19.0	75.5	24.5
23	Boston-Cambridge-Newton, MA-NH	45.8	12.0	18.6	76.4	23.6
24	Whitewater-Elkhorn, WI	51.8	11.6	13.0	76.4	23.6
25	San Francisco-Oakland-Hayward, CA	45.2	12.3	18.9	76.4	23.6
892	Dover, DE	63.8	14.0	13.5	91.3	8.7
893	Tiffin, OH	64.6	12.7	14.0	91.4	8.6
894	Fernley, NV	60.2	14.9	16.3	91.4	8.6
895	Peru, IN	63.7	13.4	14.4	91.5	8.5
896	North Vernon, IN	64.9	12.8	13.9	91.5	8.5
897	Fort Polk South, LA	64.0	12.9	14.6	91.5	8.5
898	Juneau, AK	69.2	9.9	12.4	91.6	8.4
899	Cedartown, GA	59.9	15.0	16.7	91.6	8.4
900	Grants, NM	62.3	13.9	15.6	91.8	8.2
901	Urbana, OH	66.0	12.4	13.4	91.8	8.2
902	Del Rio, TX	64.9	12.8	14.2	91.8	8.2
903	Beatrice, NE	67.0	11.1	13.8	91.9	8.1

Table 11  
(cont.)

Rank (by top 1% share)	Metropolitan area	Bottom 99% breakdown			Top 1% (99th–100th percentiles)	
		Bottom 90%	90th–<95th percentiles	95th–<99th percentiles		
904	Portales, NM	60.1	14.6	17.3	92.0	8.0
905	Ottawa, KS	66.5	12.1	13.5	92.0	8.0
906	Ozark, AL	62.1	14.2	15.7	92.0	8.0
907	Mountain Home, ID	66.5	12.1	13.4	92.0	8.0
908	Frankfort, IN	66.1	12.3	13.7	92.1	7.9
909	Hinesville, GA	62.0	14.3	16.1	92.3	7.7
910	St. Marys, GA	62.5	14.2	15.6	92.4	7.6
911	Susanville, CA	58.1	16.5	17.8	92.4	7.6
912	Rio Grande City, TX	67.2	12.2	13.4	92.8	7.2
913	California-Lexington Park, MD	68.1	11.7	13.2	93.0	7.0
914	Los Alamos, NM	67.5	12.6	13.5	93.7	6.3
915	Fort Leonard Wood, MO	67.5	12.8	13.7	94.0	6.0
916	Junction City, KS	72.8	10.4	11.2	94.4	5.6
	<b>United States</b>	51.1	12.3	16.5	79.9	20.1

**Source:** Authors’ analysis of state and county-level tax data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012). Core Based Statistical Areas defined by the U.S. Census Bureau, Population Division; Office of Management and Budget, February 2013 delineations.

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households grown at the same rate as overall average household income, it would have been \$18,897 higher in 2007—27.0 percent higher than it actually was. In other words, rising inequality imposed a tax of 27.0 percent on middle-fifth household incomes over this period (Mishel et al. 2012). Thompson and Leight (2012) find that rising top 1 percent shares within individual states are associated with declines in earnings among middle-income families. Roy van der Weide and Milanovic (2014) find that high levels of inequality reduce income growth among the poor and boost the income growth of the rich.

Additionally, increased inequality may eventually reduce intergenerational income mobility. More than in most other advanced countries, in America the children of affluent parents grow up to be affluent, and the children of the poor remain poor (Corak 2012). Today’s levels of inequality in the United States raise a new “American Dilemma,” to borrow a phrase from Gunnar Myrdal’s landmark study of American race relations (Myrdal 1944): Can rising inequality be tolerated in a country that values so dearly the ideal that all people should have opportunity to succeed, regardless of the circumstances of their birth?

Millions of Americans feel tremendous anxiety about their grasp on the American Dream. As observers of the 2016 presidential primaries have noted, anxiety could be channeled into support for policies that promote broadly shared prosperity—or into a darker, more divisive politics reminiscent of early 20th century European politics.

Since the “1 percent economy” is evident in every state, every state—and every metro area and region—has an opportunity to demonstrate to the nation new and more equitable policies. We hope these data on income inequality by state, metro area, and county will spur more states, regions, and cities to enact the bold policies America needs to become, once again, a land of opportunity for all.



Table 12

## Total share of all income held by the top 1% for the top and bottom 25 of 3,064 counties, 2013

Rank (by top 1% share)	County	Bottom 99% breakdown				Top 1% (99th-100th percentiles)
		Bottom 90%	90th-95th percentiles	95th-99th percentiles	Bottom 99%	
1	Teton, WY	15.7	4.5	9.6	29.8	70.2
2	La Salle, TX	26.7	5.6	11.7	44.1	55.9
3	Shackelford, TX	25.9	7.5	12.5	45.8	54.2
4	New York, NY	19.1	9.3	17.7	46.1	53.9
5	Custer, CO	31.7	10.2	11.4	53.3	46.7
6	Fairfield, CT	27.2	10.8	19.3	57.3	42.7
7	Franklin, FL	29.4	11.6	16.4	57.4	42.6
8	Collier, FL	27.6	10.7	19.1	57.5	42.5
9	Pitkin, CO	32.2	9.5	17.3	59.0	41.0
10	San Juan, WA	31.6	10.2	17.3	59.0	41.0
11	De Witt, TX	33.0	9.9	17.7	60.5	39.5
12	Indian River, FL	30.7	11.2	19.1	60.9	39.1
13	Palm Beach, FL	31.5	11.1	18.8	61.4	38.6
14	Karnes, TX	33.5	10.4	18.3	62.2	37.8
15	Monroe, FL	34.8	10.2	17.9	62.9	37.1
16	Westchester, NY	33.4	11.6	19.7	64.8	35.2
17	Wheeler, TX	39.7	9.7	16.1	65.4	34.6
18	Suffolk, MA	38.0	10.7	17.3	66.0	34.0
19	Martin, FL	34.8	11.7	19.7	66.1	33.9
20	Union, SD	43.7	8.5	15.2	67.3	32.7
21	Throckmorton, TX	36.4	12.4	19.3	68.1	31.9
22	San Miguel, CO	40.2	10.3	17.7	68.2	31.8
23	Douglas, NV	39.2	11.6	17.5	68.2	31.8
24	Walton, FL	36.1	12.4	19.9	68.4	31.6
25	Midland, TX	42.7	9.6	16.5	68.8	31.2
3040	Osage, KS	67.8	12.5	13.3	93.6	6.4
3041	Emery, UT	66.2	13.4	14.1	93.7	6.3
3042	Los Alamos, NM	67.5	12.6	13.5	93.7	6.3
3043	Northwest Arctic, AK	67.4	13.5	12.8	93.7	6.3
3044	Yukon Koyukuk, AK	65.6	13.8	14.4	93.8	6.2
3045	Wabunsee, KS	69.6	10.3	13.9	93.8	6.2
3046	Hoke, NC	67.4	12.7	13.7	93.8	6.2
3047	Prince Georges, MD	69.4	11.7	12.7	93.9	6.1
3048	Gallatin, KY	65.8	13.9	14.3	93.9	6.1
3049	Crawford, IN	65.5	13.9	14.7	94.0	6.0
3050	Charles, MD	70.4	11.3	12.3	94.0	6.0
3051	Pulaski, MO	67.5	12.8	13.7	94.0	6.0
3052	Stafford, VA	69.6	11.8	12.7	94.1	5.9
3053	Johnson, NE	69.2	12.1	12.8	94.1	5.9
3054	Geary, KS	72.8	10.4	11.2	94.4	5.6

Table 12  
(cont.)

Rank (by top 1% share)	County	Bottom 99% breakdown			Bottom 99%	Top 1% (99th-100th percentiles)
		Bottom 90%	90th–<95th percentiles	95th–<99th percentiles		
3055	Southeast Fairbanks, AK	71.6	13.2	9.7	94.4	5.6
3056	North Slope, AK	71.8	10.9	11.8	94.4	5.6
3057	King George, VA	69.5	12.2	12.7	94.4	5.6
3058	Robertson, KY	63.5	14.8	16.1	94.4	5.6
3059	Nance, NE	70.0	12.0	12.5	94.5	5.5
3060	Chattahoochee, GA	67.5	12.9	14.2	94.6	5.4
3061	Aleutians West, AK	77.5	8.0	9.3	94.8	5.2
3062	Shannon, SD	72.5	10.5	11.9	94.9	5.1
3063	Manassas Park City, VA	71.7	10.7	12.5	94.9	5.1
3064	Wade Hampton, AK	69.3	12.1	13.7	95.1	4.9
	United States	51.1	12.3	16.5	79.9	20.1

Source: Authors' analysis of state and county-level tax data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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## About the authors

**Estelle Sommeiller**, a socio-economist at the Institute for Research in Economic and Social Sciences in France, holds two Ph.D.s in economics, from the University of Delaware and the Université Lumière in Lyon, France. Thomas Piketty and Emmanuel Saez both approved her doctoral dissertation, *Regional Inequality in the United States, 1913-2003*, which was awarded the highest distinction by her dissertation committee. This report is based on, and updates, her dissertation.

*The Institute for Research in Economic and Social Sciences (IRES) in France is the independent research center of the six labor unions officially granted representation nationwide. Created in 1982 with the government's financial support, IRES is registered as a private nonprofit organization under the Associations Act of 1901. IRES's mission is to analyze the economic and social issues, at the national, European, and international levels, of special interest to labor unions. More information is available at [www.ires.fr](http://www.ires.fr).*

**Mark Price**, a labor economist at the Keystone Research Center, holds a Ph.D. in economics from the University of Utah. His dissertation, *State Prevailing Wage Laws and Construction Labor Markets*, was recognized with an honorable mention in the 2006 Thomas A. Kochan and Stephen R. Sleigh Best Dissertation Awards Competition sponsored by the Labor and Employment Relations Association.

**Ellis Wazeter** was an intern with the Keystone Research Center in the summer of 2015. He is a sophomore pursuing a bachelor's degree in Industrial and Labor Relations at Cornell University.

*The Keystone Research Center (KRC) was founded in 1996 to broaden public discussion on strategies to achieve a more prosperous and equitable Pennsylvania economy. Since its creation, KRC has become a leading source of independent analysis of Pennsylvania's economy and public policy. The Keystone Research Center is located at 412 North Third Street, Harrisburg, Pennsylvania 17101-1346. Most of KRC's original research is available from the KRC website at [www.keystoneresearch.org](http://www.keystoneresearch.org).*

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## Methodological appendix

The most common sources of data on wages and incomes by state are derived from surveys of households such as the Current Population Survey and the American Community Survey. These data sources are not well-suited to tracking trends in income by state among the highest-income households, especially the top 1 percent. Trends in top incomes can be estimated from data published by the IRS on the amount of income and number of taxpayers in different income ranges (Internal Revenue Service SOI Tax Stats various years). **Table A1** presents this data for Pennsylvania in 2011. New to the third edition of this report we have assembled SOI Tax Stats for most counties for the years 2010 to 2013.<sup>12</sup> County-level data is then aggregated to generate metropolitan-level data.

Knowing the amount of income and the number of taxpayers in each bracket, we can use the properties of a statistical distribution known as the Pareto distribution to extract estimates of incomes at specific points in the distribution of income, including the 90th, 95th, and 99th percentiles.<sup>13</sup> With these threshold values we then calculate the average income of taxpayers with incomes that lie between these ranges, such as the average income of taxpayers with incomes greater than the 99th percentile (i.e., the average income of the top 1 percent).

Table A1

## Individual income and tax data for Pennsylvania, by size of adjusted gross income, tax year 2011

	Number of returns	Adjusted gross income (thousands)	Share of aggregate adjusted gross income
<i>All returns</i>	6,183,225	\$348,612,836	100%
<i>Under \$1</i>	82,325	-\$4,608,529	-1%
<i>\$1 – &lt; \$25,000</i>	2,419,804	\$28,102,112	8%
<i>\$25,000 – &lt; \$50,000</i>	1,458,749	\$52,856,101	15%
<i>\$50,000 – &lt; \$75,000</i>	859,952	\$52,954,678	15%
<i>\$75,000 – &lt; \$100,000</i>	543,875	\$47,004,707	13%
<i>\$100,000 – &lt; \$200,000</i>	633,858	\$84,200,638	24%
<i>\$200,000 – &lt; \$500,000</i>	151,006	\$43,064,934	12%
<i>\$500,000 – &lt; \$1,000,000</i>	23,476	\$15,763,810	5%
<i>\$1,000,000 or more</i>	10,180	\$29,274,384	8%

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2011 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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Calculating income earned by each group of taxpayers as well as the share of all income they earn requires state-level estimates in each year between 1917 and 2013 of the total number of families and the total amount of income earned in each state. Piketty and Saez (2015) have national estimates of families (referred to from here forward as tax units)<sup>14</sup> and total income (including capital gains), which we allocate to the states.<sup>15</sup>

In the sections that follow we describe in more detail the assumptions we made in generating our top income estimates by state. We will then review errors we observe in our interpolation of top incomes from 1917 to 2013 and compare our interpolation results with top income estimates obtained from the Pennsylvania Department of Revenue. Next we will briefly illustrate the calculations we used to interpolate the 90th, 95th, and 99th percentiles from the data presented in Table A1. Finally, the last section of the appendix will present our top income estimates for the United States as a whole, alongside the same estimates from Piketty and Saez (2015).

## Estimating tax units by state, county, and metropolitan area

Tax units are an estimate of the universe of potential taxpayers (the total number of single adults and married couples in each state, county, or metropolitan area). In order to allocate Piketty and Saez's national estimate of tax units to the states, we estimate each state's share of the sum of married men, divorced and widowed men and women, and single men and women 20 years of age or older. From 1979 to 2013, tax unit series at the state level are estimated using data from the Current Population Survey (basic monthly microdata). From 1917 to 1978, the state total of tax units had to be proxied by the number of household units released by the Census Bureau, the only source of data available over this time period.<sup>16</sup> For interdecennial years, the number of household units is estimated by

linear interpolation. From 2010 to 2013 we use each county's share of statewide total households from the American Community Survey in order to generate from our statewide tax unit counts and county-level tax units.<sup>17</sup> Metropolitan area tax units are calculated as the sum of the county tax units that make up each metropolitan area.

## Estimating total income (including capital gains)

We allocate Piketty and Saez's total income to the states using personal income data from the Bureau of Economic Analysis (BEA). From 1929 to 2012 we calculate each state's share of personal income after subtracting personal current transfer receipts.<sup>18</sup> These shares are then multiplied by Piketty and Saez's national estimate of total income (including capital gains) to estimate total income by state over the period. Because BEA personal income data are not available prior to 1929, we inflate total income derived from the tax tables for each state in each year from 1917 to 1928 by the average of the ratio of total taxable income to total personal income (minus transfers) from the BEA from 1929 to 1939. The resulting levels are summed across the states, and a new share is calculated and multiplied by Piketty and Saez's national estimate of total income (including capital gains). For the county-level data (2010 to 2013) we allocate state total income to individual counties using each county's share of statewide adjusted gross income as reported by the IRS. Metropolitan-area total income is calculated as the sum of the county total income for each county in a metropolitan area.

## Pareto interpolation

In a study of the distribution of incomes in various countries, the Italian economist Vilfredo Pareto observed that as the amount of income doubles, the number of people earning that amount falls by a constant factor. In the theoretical literature, this constant factor is usually called the Pareto coefficient (labeled  $b_i$  in Table A5).<sup>19</sup> Combining this property of the distribution of incomes with published tax data on the number of tax units and the amount of income at certain levels, it is possible to estimate the top decile (or the highest-earning top 10 percent of tax units), and within the top decile, a series of percentiles such as the average annual income earned by the highest-income 1 percent of tax units, up to and including the top 0.01 percent fractile (i.e., the average annual income earned by the richest 1 percent of the top 1 percent of tax units).<sup>20</sup>

Our data series here matches most closely what Piketty and Saez (2001) label as "variant 3," a time series of average top incomes and income shares that includes capital gains. In generating their "variant 3" time series Piketty and Saez make two key adjustments to top average incomes. We will now describe those adjustments.

## From net to gross income, and the yearly problem of deductions

After an estimate of top incomes was obtained via Pareto interpolation, Piketty and Saez adjusted average incomes upward to account for net income deductions (1917 to 1943) and

adjusted gross income adjustments (1944–2012).<sup>21</sup> We followed Piketty and Saez and made the same adjustments uniformly across the states.

The IRS definition of income has varied over time. The IRS used the term “net income” until 1943, and “adjusted gross income” (AGI) from 1944 on. In the net income definition, the various deductions taken into account (donations to charity, mortgage interests paid, state and local taxes, etc.) were smaller over 1913–1943 than over 1944–2012. As a result, income estimates from 1913 to 1943 had to be adjusted upward.

To a lesser extent, incomes between 1944 and 2012 also had to be adjusted upward, as the term “adjusted” in AGI refers to various income deductions (contributions to individual retirement accounts, moving expenses, self-employment pension plans, health savings accounts, etc.). As Piketty and Saez note (2004, 33, iii), AGI adjustments are small (about 1 percent of AGI, up to 4 percent in the mid-1980s), and their importance declines with income within the top decile.

## The treatment of capital gains across states, 1934–1986

The second major adjustment to incomes made by Piketty and Saez to their “variant 3” series were corrections to take into account the exclusion of a portion of capital gains from net income from 1934 to 1986.

Replicating Piketty and Saez’s capital gains adjustments uniformly across the states would, because of the concentration of income by geography, understate top incomes in high-income states such as New York and overstate top incomes in low-income states such as Mississippi. Unfortunately, state-level aggregates of capital gains income are not available at this time.

Instead, as a proxy we take each state’s deviation of top incomes from the U.S. average top income,<sup>22</sup> and use this figure to adjust up or down the coefficients Piketty and Saez employ to correct for the exclusion of a portion of capital gains income from net income and AGI from 1934 to 1986.

## Interpolation errors

Data users should exercise some caution in analyzing the full data series (provided online at [go.epi.org/unequalstates2016data](http://go.epi.org/unequalstates2016data)). We have identified 19 instances where our Pareto interpolation generated an income threshold that was higher than the next-higher income threshold. For example, in Wyoming in 2010 by Pareto interpolation we estimate the 90th percentile income to be \$123,834, but also by Pareto interpolation we estimate the income at the 95th percentile as \$119,168. Both estimates cannot be correct. The average incomes interpolated for groups between these thresholds will also be affected by this error. **Table A2** presents the percentiles affected in each state by this error as well as the year in which the error occurred. Data users making comparisons over time should examine the entire time series for a state before drawing conclusions about time trends from a single point-to-point comparison.

Table A2

### States and percentiles affected by errors in Pareto interpolations used to generate income thresholds, 1917–2011

States	Percentiles					Total number of errors
	90>95	95>99	99>99.5	99.5>99.9	99.9>99.99	
<i>Alaska</i>	1948, 1949, 1950, 1955, 1982	1918, 1919, 1920, 1921, 1922, 1923	1932, 1933			13
<i>Idaho</i>					1960	1
<i>New Mexico</i>			1965			1
<i>West Virginia</i>	1951, 1952					2
<i>Wyoming</i>	2010					1

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2011 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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Table A3

### Percentiles affected by errors in the estimation of interfractile average incomes, 1917–2011

Errors	Number
90–95>95	221
95–99>99	1
99–99.5>99.5	14
99.5–99.9>99.9	5
99.9–99.99>99.99	3

**Note:** This table does not include errors reported in Table A2.

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2011 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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Even when our estimates of each threshold are lower than the next-higher threshold (in other words, the 90th percentile is lower than the 95th percentile, and so on), errors can still arise in our calculation of the average incomes that lie between those percentiles. For example, in 2011 we estimate the average income between the 90th and 95th percentiles in Alabama was \$119,120, while estimating the 95th percentile income as \$109,260. **Table A3** summarizes the number of such errors in our data set, excluding those that result from the errors reported in Table A2. Most of these errors occur in the bottom half of the top 10 percent.<sup>23</sup>

## Comparing imputed top incomes to actual top incomes

The methods discussed here to estimate top incomes from the data contained in Table A1 are not as precise as actually having a database of all individual tax returns from which to calculate average incomes for the highest-income taxpayers. The Pennsylvania

Table A4

## Comparing projections of top incomes in Pennsylvania with actual levels, 2000–2011

Year	Projections based on Internal Revenue Service data		Actual levels as reported by the Pennsylvania Department of Revenue		Percentage-point difference between actual and projected income share of top 1%	Projected average income of top 1% as share of actual
	Income share of the top 1%	Average income of the top 1%	Income share of the top 1%	Average income of the top 1%		
2000	17.5%	\$988,702	19.6%	\$1,112,708	2.1	89%
2001	15.5%	\$823,838	16.9%	\$901,064	1.4	91%
2002	14.7%	\$751,226	16.6%	\$847,263	1.9	89%
2003	15.3%	\$795,846	17.6%	\$916,052	2.3	87%
2004	16.0%	\$876,640	18.9%	\$1,033,381	2.9	85%
2005	17.9%	\$994,689	21.2%	\$1,180,531	3.3	84%
2006	18.3%	\$1,042,094	21.8%	\$1,238,940	3.5	84%
2007	18.9%	\$1,115,166	21.6%	\$1,273,945	2.7	88%
2008	16.9%	\$918,147	19.9%	\$1,086,298	3.0	85%
2009	15.9%	\$814,912	18.3%	\$936,591	2.4	87%
2010	17.4%	\$905,113	20.1%	\$1,052,402	2.7	86%
2011	17.0%	\$882,574	19.8%	\$1,023,723	2.8	86%
<i>% change, 2009–2011</i>		8.3%	9.3%			
<i>Average, 2000–2011</i>					2.6	87%

**Note:** Data are for tax units.

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2011 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), Piketty and Saez (2012), and the Pennsylvania Department of Revenue (various years)

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Department of Revenue has generated and published more-precise top-income figures for Pennsylvania taxpayers filing their state tax returns in recent years. This allows us to compare the actual income data with the results of estimates using our standard method (the standard method being our only option for generating estimates in the other 49 states and for Pennsylvania in earlier years). It turns out that our methods underestimate the actual rise in top incomes.

**Table A4** presents, using two different methods, the share of all income held by the top 1 percent as well as the average income of the top 1 percent for Pennsylvania. The first two columns present our projections based on IRS tax tables. The second two columns present the actual data on top incomes published by the Pennsylvania Department of Revenue for the years 2000 to 2011. Based on our projections using IRS data, top incomes in Pennsylvania grew by 8.3 percent between 2009 and 2011. Actually reported Pennsylvania Department of Revenue data show a rise of 9.3 percent. Between 2000 and 2011, our estimate of the share of income held by the top 1 percent was 2.6 percentage points lower than the actual figures. Likewise, from 2000 to 2011 our projection of the average income of the top 1 percent averaged 87 percent of the actual figures.



Table A5

## An example of Pareto interpolation for Pennsylvania in 2011

Row #	Income brackets	Lower bound (si)	Number of returns (Ni)	Cumulative # of returns (Ni*)	Adjusted gross income (Yi)	Cumulative adjusted gross income (Yi*)
1	No income	<= 0	82,325	6,183,225	-4,608,529	348,612,835
2	1-<25,000	1	2,419,804	6,100,900	28,102,112	353,221,364
3	25,000-< 50,000	25,000	1,458,749	3,681,096	52,856,101	325,119,252
4	50,000-< 75,000	50,000	859,952	2,222,347	52,954,678	272,263,151
5	75,000-< 100,000	75,000	543,875	1,362,395	47,004,707	219,308,473
6	100,000-< 200,000	100,000	633,858	818,520	84,200,638	172,303,766
7	200,000-< 500,000	200,000	151,006	184,662	43,064,934	88,103,128
8	500,000-<1,000,000	500,000	23,476	33,656	15,763,810	45,038,194
10	1,000,000 or more	1,000,000	10,180	10,180	29,274,384	29,274,384
11	Total		6,183,225		348,612,836	

Row #	$(y_i = Y_i^* / N_i^*)$	Pareto Coefficient $(b_i = y_i / s_i)$	$a_i = (b_i / (b_i - 1))$	$p_i \% = N_i^* / N^*$	$k_i = s_i * [p_i \text{ power}(1/a_i)]$
1	56,380				
2	57,897			91.77	
3	88,321	3.53	1.39	55.37	16,363
4	122,512	2.45	1.69	33.43	26,139
5	160,973	2.15	1.87	20.49	32,166
6	210,506	2.11	1.90	12.31	33,301
7	477,105	2.39	1.72	2.78	24,952
8	1,338,192	2.68	1.60	0.51	18,242
10	2,875,676	2.88	1.53	0.15	14,586

Row #	Min [ Abs(pi - 10) ]	P90 = $k_i / [0.1 \text{ power } 1/a_i]$	Min [ Abs(pi - 5) ]	P95 = $k_i / [0.05 \text{ power } 1/a_i]$	Min [ Abs(pi - 1) ]	P99 = $k_i / [0.01 \text{ power } 1/a_i]$
1	2.31		2.22		0.49	
2	81.77		86.77		90.77	
3	45.37		50.37		54.37	
4	23.43		28.43		32.43	
5	10.49		15.49		19.49	
6	2.31	\$111,535	7.31		11.31	
7	7.22		2.22	\$142,150	1.78	
8	9.49		4.49		0.49	\$326,426
10	9.85		4.85		0.85	

**Note:** Money amounts are in thousands of dollars. N\* or tax units for Pennsylvania in 2011 is 6,648,369.

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2011 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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## Calculating the 90th, 95th, and 99th percentiles for Pennsylvania

Listed in **Table A5** are the calculations we use to interpolate the 90th, 95th, and 99th percentile incomes for Pennsylvania.<sup>24</sup> For brevity we present only the equations for calculating the average incomes by fractiles in **Table A6**.

Table A6

## Formulas for estimating average incomes by fractile (P=percentile)

$$P90-100=bi * P90$$

$$P95-100=bi * P95$$

$$P99-100=bi * P99$$

$$P99.5-100=bi * P99.5$$

$$P99.9-100=bi * P99.9$$

$$P99.99-100=bi * P99.99$$

$$P90-95=2 (P90-100) - (P95-100)$$

$$P95-99=[ 5 (P95-100) - (P99-100) ] / 4$$

$$P99-99.5=2 (P99-100) - (P99.5-100)$$

$$P99.5-99.9=[ 5 (P99.5-100) - (P99.9-100) ] / 4$$

$$P99.9-99.99=[ 10 (P99.9-100) - (P99.99-100) ] / 9$$

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2011 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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## Comparison of Piketty and Saez to Sommeiller and Price

**Table A7** presents the data from the tables in the main body of the report for the United States alongside the same figures as reported by Piketty and Saez.

Table A7

## Comparison of Piketty and Saez's results with Sommeiller and Price's U.S. results

From Table 1. Ratio of top 1% income to bottom 99% income, U.S. and by state and region, 2013

Source	Average income of the bottom 99%	Average income of the top 1%	Top-to-bottom ratio
<i>Sommeiller and Price</i>	\$45,567	\$1,153,293	25.3
<i>Piketty and Saez</i>	\$44,997	\$1,119,315	24.9

From Table 4. Income threshold of top 1% and top .01%, and average income of top .01%, U.S. and by state and region, 2013

Source	Income threshold of top 1%	Income threshold of top .01%	Average income of top .01%
<i>Sommeiller and Price</i>	\$389,436	\$8,325,378	\$26,106,656
<i>Piketty and Saez</i>	\$391,960	\$8,460,500	\$24,988,251

From Table 7. Income growth from 2009 to 2013, overall and for the top 1% and bottom 99%, U.S. and by state and region

Source	Average real income growth			Share of total growth (or loss) captured by top 1%
	Overall	Top 1%	Bottom 99%	
<i>Sommeiller and Price</i>	3.7%	17.4%	0.7%	85.1%
<i>Piketty and Saez</i>	3.5%	14.7%	1.0%	76.3%

From Table 8. Income growth from 1979 to 2007, overall and for the top 1% and bottom 99%, U.S. and by state and region

Source	Average real income growth			Share of total growth (or loss) captured by top 1%
	Overall	Top 1%	Bottom 99%	
<i>Sommeiller and Price</i>	36.9%	200.5%	18.9%	53.9%
<i>Piketty and Saez</i>	37.3%	224.0%	16.6%	59.8%

From Table 10. Top 1% share of all income, U.S. and by state and region, 1928, 1979, 2007

Source	1928	1979	2007	Change in income share of the top 1% (percentage points)	
				1928–1979	1979–2007
<i>Sommeiller and Price</i>	23.4%	9.9%	21.8%	-13.4	11.8
<i>Piketty and Saez</i>	23.9%	10.0%	23.5%	-14.0	13.5

**Note:** The income shares reported in Table 10 are indexed to Piketty and Saez (2015) as requested for submission of our state-level estimates to the World Wealth and Income Database. The income shares reported above are the top income shares from our analysis before indexing to the national estimates.

**Source:** Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2013 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012)

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# Endnotes

1. Berube and Holmes (2016) produce similar statistics for the 100 largest metropolitan areas and cities.
2. The [World Wealth and Income Database](#) is maintained by Facundo Alvaredo, Tony Atkinson, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman.
3. Analysis by the Congressional Budget Office in its 2011 report, *Trends in the Distribution of Household Income Between 1979 and 2007*, finds that three-fourths of the rise in income inequality between 1979 and 2007 as measured by the Gini coefficient was driven by the increasing concentration of market incomes. Notably, although taxes and transfers do reduce inequality at any point in time, changes in the distribution of taxes and transfers between 1979 and 2007 led to an increase in inequality.
4. Thomas Piketty, Emmanuel Saez, and Gabriel Zucman will release later this year a national time series of top incomes that incorporates non-taxable compensation like health care and pensions, according to a presentation they made in January of this year (Piketty, Saez, and Zucman 2015).
5. The top 1 percent nationally includes more than 1 percent of the population from the states with a big share of people with very high incomes (e.g., New York State) and less than 1 percent of the population in states with a small share of people with very high incomes.
6. There are trivial differences between our estimates of top incomes and top income shares for the United States as a whole, and those calculated by Piketty and Saez. See Table A7 in the appendix for a comparison of results from the two sources.
7. We opted not to summarize the threshold to be included in the top 0.01 percent and the average income of the top 0.01 percent for county and metropolitan areas because in places with fewer than 10,000 families, the number of families in the top 0.01 percent would be less than one. Users interested in those thresholds for larger areas can find them at [go.epi.org/unequalstates2016data](http://go.epi.org/unequalstates2016data).
8. Saez's latest estimate, which incorporates data from 2014, is that the top 1 percent captured 58 percent of all income growth over 2009–2014. The average income of the top 1 percent over this period grew 27 percent, while the average income of the bottom 99 percent grew 4.3 percent. We will see a similar improvement in the fortunes of the bottom 99 percent in most of the individual states when the 2014 state data are released later this year. Each year that the economy continues to expand, we should see stronger earnings growth among the bottom 99 percent. The key question is whether this expansion will end up distributing the fruits of economic growth more unequally than the last three economic expansions. See the section *Income inequality in the last 10 economic expansions* for more on this topic.
9. The analysis in Table 9 was performed after excluding 26 state expansions. Twenty expansions were dropped from the analysis because overall income growth was negative while top 1 percent incomes grew and bottom 99 percent incomes fell: Alaska (1982–1990), Colorado (1982–1990), Delaware (1975–1979), District of Columbia (1975–1979), Georgia (2009–2013), Hawaii (1970–1973), Hawaii (1975–1979), Hawaii (1991–2000), Louisiana (1982–1990), Louisiana (2009–2013), Maryland (2009–2013), Michigan (2001–2007), Mississippi (2009–2013), Montana (1982–1990), Nevada (2009–2013), New Mexico (1982–1990), Oklahoma (1982–1990), Texas (1982–1990), Virginia (2009–2013), and Wyoming (1982–1990). Another four state expansions (three from 1975 to 1979

and one from 2009 to 2013 in Florida) were excluded because the share of income growth captured by the top 1 percent was so high it biased upward the pre- and post-1980 state averages.

Specifically in New York, Maryland, Montana, and Florida, there were slight gains in overall income but declines in income for the bottom 99 percent. As a result, the top 1 percent share of overall income growth was 1,248 percent in New York, 302 percent in Maryland, 301 percent in Montana, and 963 percent in Florida. These figures raised the average share of growth captured by the top 1 percent during pre-1979 expansions from -6 percent to 203 percent in New York, from 7 percent to 56 percent in Maryland, and from 6 percent to 55 percent in Montana. Similarly, so far in the current expansion (2009–2013) the top 1 percent share of overall income growth in Florida is 3669.6 percent. This raises the average share of growth captured by the top 1 percent during post-1979 expansions in Florida from 61 percent to 963 percent. Finally, two additional state expansions from 2009–2013, for Delaware and Hawaii, were excluded. In both states so far in the current expansion incomes for both the top 1 percent and bottom 99 percent have fallen and were thus excluded from the analysis in Table 9. None of the exclusions discussed above were applied to the regional (Northeast, Midwest, South, and West) calculations.

10. Although our analysis in Table 9 excludes the 1982 to 1990 expansion in New Mexico (see footnote 9), where only the average income of the top 1 percent increased, calculating the average growth in the income of the top 1 percent in New Mexico over all four post-1980 expansions still yields slightly slower income growth of 6 percent for the top 1 percent, compared with 6.7 percent average income growth for the bottom 99 percent.
11. The share of income captured by the top 1 percent in Alaska was 5.3 percent in 1928 and 1979.
12. We present county and metropolitan statistics for only 2013 in the main body of the report because our substate time series is not available in 2009, the first year of the recovery. County and metropolitan data for all available years (2010 to 2013) are accessible online at [go.epi.org/unequalstates2016data](http://go.epi.org/unequalstates2016data).
13. Sorting all incomes from the least to the highest, the 90th percentile income is greater than 90 percent of all incomes and less than 10 percent. Similarly, the 99th percentile income is greater than 99 percent of all incomes and less than the top 1 percent.
14. See Piketty and Saez (2001, 36–37) for discussion of why they choose to use tax units rather than individuals.
15. See Table A0, column six of <http://eml.berkeley.edu/~saez/TabFig2014prel.xls> for total income (including capital gains), and see column one for tax units.
16. The decennial censuses do not provide a count of households in Alaska and Hawaii before 1960. We used the number of occupied dwelling units to estimate each state's share of U.S. tax units from 1917 to 1959. Occupied dwelling units were available for both states from the 1950 Census of Housing (General Characteristics, Part 7) for both Alaska and Hawaii; the 1940 Census of Population for Alaska in 1940; and the 1940 Census of Housing (General Characteristics, Part 7) for Hawaii in 1940, 1930, and 1920.
17. The numbers of households in each county for 2013 were derived from the 2009 to 2013 American Community survey, for 2010 from the 2006 to 2010 ACS, for 2011 from the 2007 to 2011 ACS, and for 2012 from the 2008 to 2012 ACS.
18. The BEA does not publish personal income data for Alaska and Hawaii prior to 1950. We estimate Alaska's and Hawaii's shares of total income (including capital gains) from 1917 to 1949 based on their respective shares of U.S. total income (minus transfers) in 1950.

19. See Atkinson and Piketty (2007) for a discussion of Pareto interpolation.
20. We use the Pareto interpolation method to move from a varying number of income groups (as displayed in Table A1) to a fixed number of income fractiles, 17 in total: six top income thresholds (percentiles 90, 95, 99, 99.5, 99.9, and 99.99); six average income levels (percentiles 90–100, 95–100, 99–100, 99.5–100, 99.9–100, and 99.99–100); and five average income levels for intermediary fractiles (percentiles 90–95, 95–99, 99–99.5, 99.5–99.9, and 99.9–99.99) by state from 1917 to 2012. A detailed discussion of this technique can be found in Piketty (2001).
21. Emmanuel Saez graciously provided the precise adjustments that were made for net income deductions (1917–1943), adjusted gross income adjustments (1944–2012), and capital gains (1934–1986).
22. Our adjustment is:  $(\text{state's } i \text{ top income} - \text{U.S. average top income}) / \text{U.S. average top income}$ . For example, the average income of the highest-earning 0.01 percent of families in Delaware in 1939 was almost 10 times (9.4) the national average. Saez's coefficient correcting the inconsistencies of capital gains over time is equal to 1.091 for that fractile. Inflating Saez's coefficient yields  $1.194 = 1.091 * (1 + 9.4 / 100)$ . We apply this adjustment to all percentiles between 1934 and 1986.
23. Analysis of microdata from the American Community Survey suggests that linear interpolation, when possible, may be a more accurate way to estimate the 90th and 95th percentiles. One limitation of linear interpolation is that the 90th and 95th percentiles must fall somewhere below the uppermost income bracket of the tax tables.
24. The differences between the figures for the 90th, 95th, and 99th percentiles reported in Table A7 and the final thresholds for Pennsylvania of \$112,671 (90th), \$143,601 (95th), and \$329,763 (99th) reflect upward adjustments to incomes to account for downward adjustments to AGI for deductions such as IRAs, moving expenses, etc.

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