

Capital Income as a Share of Compensation

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A separate online data Appendix is available at: <https://smlr.rutgers.edu/CompPaperOnlineDataAppendix>

ABSTRACT

How does the distribution of capital income affect average employees and citizens? This study analyzes the traditional macro topic of the distribution of income between capital and labor at the micro level of households, where for the vast majority of people capital income is an additional income stream to wages and salary income. The paper uses administrative data from the Congressional Budget Office on the distribution of household income and federal taxes based on the Internal Revenue Service's Statistics of Income (SOI) data to measure capital income as a share of household income and as a ratio relative to labor income from 1979 to 2018. Capital income per household (excluding income from one's own business) increased 47% in real terms over the period but was outstripped by increases in other household income so that capital income as a percent of household income declined slightly. From 1979 to 2018, capital income as a percent of household income went down between 58% and 69% for the bottom three quintiles. At the opposite end of the distribution, capital income increased by 164% for the top 1% and capital income relative to cash wage and salary income increased by 40% from 1979-2018. Income from one's own business could have replaced this collapse in capital income but did not play a meaningful role for the bottom four quintiles. Exploratory regressions show that changes in capital income as a percent of household income are significantly predicted by changes in real GDP and the capital gains tax rate for the top quintile, but not for the lower four quintiles. In short, the data show that lower and middle class families have largely been shut out of increases in capital income over the past 40 years.

Introduction

How does the distribution of capital income affect average employees and citizens in the US? This paper examines trends in the distribution of capital income from 1979 to 2018, focused on capital income's share in household income, and in the ratio of capital income relative to wages and salaries earned by persons in the lower and middle part of the income distribution. Given stagnant real average hourly earnings since the 1970s,¹ earnings from capital income takes on added importance. In contrast to most research on capital ownership and income that focuses on the top 1% or 10% of households, we shift focus to the contribution to capital income to the income of the “non-capitalist” part of the working population – the “working middle class” of households in the middle three quintiles of household income. Using a Congressional Budget Office (CBO) dataset on household-level income, we analyze changes in capital income and household income for households from 1979 to 2018 and relate them to changes in the larger economy and the future of compensation.

The Concentration of Capital Ownership and Wealth

Analysis of data on capital income has shown that wealth and capital ownership are highly concentrated. Using the Federal Reserve Board's Survey of Consumer Finances, Piketty noted that, “By 2010, the top decile's share of total wealth exceeded 70 percent and the top centile (i.e. 1%) was close to 35 percent,” even though “the difficulty of estimating large fortunes” may bias them downward from possibly 40% (2014: 349, Figure 10.6, Fn 14). Using different methods to measure the concentration of capital ownership and wealth, other researchers provide similar pictures of inequality of wealth. Table 1 shows that wealth share estimates have ranged from 30-42% for the top 1%, 35-49% for the next 9%, and 66-77% for the top 10%² while the bottom 50% hold 0-2% of capital ownership and the bottom 90% of households hold between 23% and 34% of all wealth.

Differences in source data and method account for the variation in estimates. Piketty's estimates (2014) were based on the Federal Reserve Board's Survey of Consumer Finances, which underrepresents the wealthiest households. Saez and Zucman (2016) capitalized the flow of capital income in a sample of

1 https://en.wikipedia.org/wiki/Real_wages

2 Disagreements over estimation methods for the top 1% are responsible for the larger range of estimates for the top 10%)

Internal Revenue Service tax returns to derive the underlying capital ownership while also adjusting for wealth that does not generate taxes to allocate the wealth reported in Financial Accounts of the Federal Reserve Board. Bricker, Goodman, Moore, and Volz (2020) used Survey of Consumer Finances data to estimate the wealth from defined benefit retirement plans. Since many lower paid workers have defined benefit retirement plans, this lowered estimates of wealth concentration at the top. Smith, Zidar, and Zwick (2021) assigned different returns to different asset holders (unlike Saez and Zucman who used similar returns) for a sample of Internal Revenue Service tax returns, leading to lower estimates of wealth concentration. Batty, Brings, Pence, Smith, and Volz (2019) distributed the Fed's quarterly estimates of wealth from its Survey of Consumer Finances to different wealth percentile groups. This reduces wealth concentration for the top 1% but shows that there is still huge inequality with the top 10% holding 77% of all wealth, the bottom 90% holding 30%, and the bottom 50% holding 1%.

Why Is Capital Income Important to Working Middle Income Families?

Capital income is important because it averages about 12% of all household income before transfers and taxes in 2018 (Table 2)³, which can impact middle-class lives significantly, and because it is the increasing part of the income distribution, which gives it a closer link to economic expansion than labor income.⁴ In 2018, capital income added 22% to wage and salary income for all households (Table 2).⁵ Which households are receiving this “raise” or supplement? To what extent do households in the working middle class receive the different variants of capital income?

3 See Online Appendix Table 2, Column AD, row 52.

4 For the national-level labor share and capital share literature, see Federal Reserve Bank of St. Louis, *Capital's Gain is Lately Labor's Loss*, showing the declining share of labor compensation in GDP on August 8, 2019; <https://fred.stlouisfed.org/series/LABSHPUA156NRUG> and *Share of Labor Compensation in GDP at Current National Prices in the United States* at <https://fred.stlouisfed.org/series/LABSHPUA156NRUG> from University of Groningen and University of California, Davis, *Share of Labour Compensation in GDP at Current National Prices for United States* As capital ownership is concentrated, the capital income on those capital assets, such as capital gains, dividends, interest, and positive rental income, should also be concentrated. [LABSHPUA156NRUG], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/LABSHPUA156NRUG>, March 12, 2022. For a historical perspective, see the Bureau of Labor Statistics, *Estimating the U.S. Labor Share* at <https://www.bls.gov/opub/mlr/2017/article/estimating-the-us-labor-share.htm>, *Monthly Labor Review*, February 2017.

5 Also, Online Appendix Table 2, Column AG, row 52.

We use data from the IRS's Statistics of Income (SOI) nationally representative sample of individual tax returns. These are the data that underlie the Congressional Budget Office (CBO) "The Distribution of Household Income" report. In August 2021, the CBO released household income data for the period 1979 -2018 (CBO, 2021)⁶ based on about 90,000 returns in the earlier years to 350,000 returns in the more recent years. The CBO developed a dataset on the components of household income.⁷ An appendix to the CBO report contains detailed definitions of the variables (CBO, 2021:39:51-2, Appendix C). Our analysis uses the raw data in a supplemental spreadsheet that is publicly available and is also in our Online Appendix as Table 1.⁸ As capital ownership is concentrated, the capital income from those capital assets, such as capital gains, dividends, interest, and positive rental income, would also be expected to be concentrated. All figures are expressed in 2018 dollars.

The CBO defines Household Income before transfers and taxes (2021:50) as the sum of (1) Labor income + (2) Business income + (3) Capital income + (4) Retirement and other income sources + (5) Social insurance benefits, where

(1) *Labor income* = wages/salaries + employer paid health premiums + employer contribution to deferred compensation plans + employer's share of payroll taxes borne by labor + Federal unemployment tax borne by labor + corporate tax borne by labor

6 The authors acknowledge the assistance of Ellen Steele of the Congressional Budget Office who generously answered data and methodological questions. The 2018 CBO report is available at: <https://www.cbo.gov/system/files/2021-08/57061-Distribution-Household-Income.pdf> The CBO report is principally devoted to household income, means-tested transfers, Federal taxes, and income inequality. There is little attention to capital income, however, Exhibit 2 (p. 7) provides data on total capital income and total labor income as a percent of some income groupings for 2018. Exhibit 5 (p. 10) shows the "Composition of Income Before Transfers and Taxes Among Households in the Top 1%, 1979 to 2018" by millions of dollars with reference to the CBO definition of "capital income and capital gains" and "labor income" and business income. Note that the definitions of "labor income" and "capital income" as used in these CBO data at the household level (CBO, 2021: 7, 51) are different concepts than the definitions of "labor share" and "capital share" in the National Income and Product Accounts of the Bureau of Economic Analysis of the Department of Commerce.

7 The sample is then weighted to represent all the tax units that filed in that year. For example, for 2018, the CBO used 68,345 unweighted households in the CPS and 359,769 individual tax units, to represent 128.6 million households and 316 million individuals. Several reports are available on the sampling and estimation techniques used. (CBO, 2021:39:44).

8 The CBO spreadsheet is available at www.cbo.gov by selecting Topics, then Income Distribution, then the report *The Distribution of Household Income, 2018*, and scrolling down to **Data and Supplemental Information**. The specific spreadsheet used as raw data for this study is **Supplemental Data**. It is called "5. Components of Income Before Transfers and Taxes, by Income Group, 1979 to 2018". The spread sheet is made available in the Online Appendix for this study as Online Appendix Table 1. Online Appendix Table 2 shows the authors' analysis of these data.

(2) *Business income* = Net income from businesses and farms operated solely by their owners, partnership income, and income from S corporations

(3) *Capital income* = Capital gains + dividends and interest + positive rental income + the share of corporate income taxes borne by capital owners + other income sources⁹

(4) *Retirement and other income sources* = Income received in retirement for past services and other nongovernmental sources of income.

(5) *Social insurance benefits* = benefits from Social Security, Medicare, unemployment insurance, and workers' compensation.

The data for 1979-2018 show that total capital income in the U.S. increased from \$738 billion in 2018 dollars in 1979 to \$1.7 trillion dollars in 2018¹⁰ (see Figure 1). In 2018, estimated capital income represented 25% of total national payroll for U.S. businesses and 8.23% of Gross National Income. Per household average capital income was 21.24% of real GDP per capita.¹¹ Between 1979 and 2018, the average dollar value of capital income for all households increased 47.25% (Figure 2) but average capital income as a percent of household income fell from 13.28% in 1979 to 11.62% in 2018 (Online Appendix Table 2).^{12 13}

Components of Capital Income, 1979-2018

9 Income for past services is retirement income for and other nongovernmental sources of income. (CBO, 2021: 51).

10 Appendix Table 2, column V, rows 13-52.

11 These payroll data are from the U.S. Census SUSB at <https://www.census.gov/data/tables/2017/econ/susb/2017-susb-annual.html> Scroll down to Data by Enterprise Receipt Size and download [[U.S., 6-digit NAICS](#)]. The source data for the other comparisons are the original historical series from Knoema at www.knoema.com

12 Appendix Table 2, column R, rows 13-52 for the average dollar value of total capital income and column AF, rows 13-52 for total capital income as a percent of total household income, i.e. income before transfers and taxes.

13 This compares to 9.88% of total household income that were social insurance, including Social Security, Unemployment Insurance, Medicare and Workers Compensation. The average capital income per household in 2018 of \$13,400 was 1.7 times the total amount per household spent for health insurance and retirement which was \$8000 in 2018 (\$2500 per household for employee's contributions to 401k and other employment-based retirement plans) and \$4,000 per household for employer-paid health insurance premiums as measured by the Current Population Survey. (See Online Data Appendix Table 1.)

How have the components of capital income changed between 1979 and 2018?

In 2018, when total capital income averaged \$13,400 per household, the percentage distribution of its components was: capital gains: 53.73%; dividends: 18.65% ; interest: 11.19% share of corporate income taxes borne by capital owners: 9.70%; positive rental income: 6.71%.¹⁴

Figures 3 to 7 show the change in the components as a share of capital income. Figure 3 shows that capital gains as a percent of total capital income increased from 27.5% in 1979 to 53.7% in 2018, nearly doubling its share of capital income¹⁵. Figure 4 shows that dividends as a percent of total capital income increased moderately from 14.3% to 18.7%. By contrast, Figure 5 shows that interest as a percent of capital income decreased from 31.9% of capital income to 11.2% of capital income – a drop by almost two-thirds. Figure 6 shows that the share of corporate income taxes borne by capital owners as a percent of capital income decreased from 19.8% of capital income to 9.7% of capital income over the period. Finally, figure 7 shows that the positive rental income share of total capital income was stable at 6.6% - 6.7% over the period. In short, capital gains have increased to constitute more than half of capital income. Capital gains and dividends exceed two-thirds of capital income while the share of corporate income taxes borne by capital owners and interest decreased. As King Richard III's broker said at Bosworth field, “Your wealth, your wealth, your wealth is in capital gains and dividends”.

For the lower three quintiles of the household income distribution all components of capital income fell as a percent of household income from 1979 to 2018. Capital gains dropped from 0.6% to 0.4% of household income for the first quintile, from 0.5% to 0.4% for the second quintile while remaining stable for the third quintile. But whether falling or rising, capital gains were miniscule for the three quintiles, averaging \$100, \$200, and \$400 in 2018.

Who then obtained the capital gains increase? Capital gains went up from 0.7% to 1% of household income for the fourth quintile, and from 7% to 11% for the fifth quintile. Within the fifth quintile, the 81st to 90th percentile increased their share by 0.1% and the 91st to 99th percentile gained 0.6%, while the top 1% had a gain of 3.0%. Three quarters of the gain in the fifth quintile went to the

14 The dollar value data for the components of capital income are from the CBO spreadsheet, Online Appendix Table 1, columns L-Q for 2018.

15 See Online Appendix Table 2, columns X,Y,Z, AA, AB, AQ, AR for 2018 in row 52. □ See Online Appendix for the percent of total capital income that the different components constitute: Table 2, columns X, Y, Z, AA, AB, AQ, AR

upper 1%. By dollar value capital gains doubled for the 91-95th percentiles and 96th-99th percentiles, while increasing 400% for the top 1%.¹⁶

Dividends as a percent of household income had a similar pattern. From a barely significant base in 1979, dividends are only 0.4%, 0.4%, 0.6%, and 0.8% or an average of \$100, \$200, \$500, and \$1000 for the first four quintiles respectively. In the fifth quintile the 2018 dollar value of dividends fell as a percent of household income over the period, doubled for the 91st-90th, 91st-95th, and 96th-99th percentiles, and increased 250% for the Top 1%.¹⁷

Capital Income as a Supplemental “Raise” on Wage Compensation, 1979-2018

In 1979 the average household capital income of \$9100 was 21% of the average household wages and salaries of \$44,200. In 2018 the average household capital income of \$13,400 was 22% of the average wage and salary of \$62,100. Figure 8 shows that capital income as a percent of wages and salaries fluctuated between 15% and 30% around an average of 22%.

Figure 9 shows the ratio of capital income to wages and salaries for different quintiles of the distribution. Table 2 provides detail for all quintiles and percentiles from 1979 to 2018. Capital income as a percent of wage/salary income dropped over 53% for the first to the fourth quintiles with drops in dollar value for the first to fourth quintiles and for the 81st-90th percentiles of the fifth quintile.¹⁸ There were smaller percentage drops for the 91st-95th, the 96th-99th, and the top 1% (drops of 22%, 40%, and 22% respectively). In terms of absolute dollars, however, the top 10% expanded their capital income. To the extent that the wage and salary income of the top 1% and the top 10% pulled away from the first four quintiles over this period, capital income for the top 10% played a weaker role in percent terms, but a strong role in terms of actual dollars¹⁹.

16 See Online Appendix Table 1, columns AJ and L.

17 See Online Appendix Table 1, columns AT and O

18 The decreases *in dollar value* for the first to fourth quintile and the 81st-90th percentile, respectively can be seen in the Online Appendix Table 2, column R.

19 The expansion of average wage and salary compensation for the top 10% can be seen in Online Appendix Table 1, column E.

Capital Income as a Percent of Household Income by Quintiles and Percentiles, 1979-2018

How has capital income changed in each quintile of household income and in the top percentiles?²⁰ Overall capital income as a percent of household income has fallen for each quintile and percentile in the distribution, although less for the top 1%. In dollar value of capital income, however, it went up for the top 10%, especially for the top 1% where it increased 164%.²¹ These trends can be seen in Figure 10 and in the data for each percentile in Table 3.²²

Table 3 shows that average capital income as a percent of household income has fallen between 58% and 69% for the bottom three quartiles, while in terms of dollar value there were also drops of 43% to 60%. The fourth quintile is a transitional quintile where there is a large percentage drop but much smaller dollar value drop. While the top quintile shows a 13% decline in capital income as a percent of total household income, in dollar terms households in the top quintile saw an 80% increase in their average capital income over the period. These averages for the top quintile cloud the fact that those in the 81st-99th percentiles have largely experienced the same phenomenon as the first three quintiles, with large drops in the capital income as a percent of household income. Dollar values went down in the 81-90th percentiles but up in the other top percentiles. Large increases in household income in the top 10% led to a decrease in capital income as a percent of household income, but the dollar value increased by 24% for the 91st-99th percentile and a standout 164% for the top 1%.

20 In December 2008, Senator Max Baucus, Chairman of the Senate Finance Committee requested the CBO report on historical effective tax rates that included Table 4, *Sources of Income for All Households, by Household Income Category, 1979 to 2005*, which gave percentages on the components of total household income but did not aggregate capital income. (CBO, 2008) On June 1, 2010, the CBO gave a similar analysis for 1979-2007, and did not aggregate capital income. [available at <https://www.cbo.gov/publication/42870> scroll down to “Sources of Income by Income Category “for these data.]. Economic Policy Institute cited this report in a 2007 book. (EPI, 2007.)

21 The faster growth of the household incomes of the top percentiles can be seen in Online Appendix Table 1, column B.

22 Online Appendix Table 2 provides the data for each year by each quintile and percentile. For the dollar values by year see the original CBO data in Online Appendix Table 1, column B. For average capital income as a percent of total household income, see Online Appendix Table 2, column AF.

Concentration of Total Capital Income

As noted in Table 1, analysts have found high and increasing levels of concentration of wealth in the 2000s, often from estimates that capitalized the value of income streams, with 31-42% of wealth held by the Top 1% compared to 23-30% held by the bottom 90%. How do the CBO data on capital income connect with these estimates? Figure 11 shows the concentration of capital income in 2018. The bottom four quintiles have just 10.2% of capital income (5.7% for the fourth quintile, 2.7% for the middle quintile, 1.2% for the second quintile, and 0.6% for the lowest quintile). The top 1% has 59% of capital income²³ while the top 20% have 89.7%. The CBO data show capital income is more concentrated than overall wealth.

Figure 12 shows the shares of total capital income for quintiles and the top decile from 1979 to 2018. There is a secular decline on the percent of capital income in every quintile and percentile except the Top 1% and fifth quintile (with the gain to the top fifth attributed entirely to the Top 1%). The proportional declines or increases in total capital income by dollar value held by each quintile and top percentile over the 1979-2018 period are shown in Table 5.

Did Business Income “fill in” for Capital Income?

The CBO defines business income as “net income from businesses or farms operated solely by their owners, partnership income, or income from S corporations.” (CBO, 2021: 51). With the phenomenon of self-employment, sole proprietorships, small businesses with employees where an individual person or family is a full or partial owner (such as partnerships or C or S corporations), and entrepreneurial start-ups, it is possible that business income took a greater role in incomes for the working middle class when capital income declined.

Analysis of business income in the context of capital income is not straightforward because the salary that a share owner of a C or S corporation pays to themselves is counted as labor income, while the net income from the operation of these businesses is classified as “business income” according to the CBO definition. For example, entrepreneur E can pay herself \$200,000 salary as President of a Company

23 Another way of examining the issue is what percent capital income constituted of total household income in different percentiles. The CBO’s report did contain a breakout of this statistic for the top 0.01 percent that is not evident in the public data that address only the top 1%: “Among households in the top 0.01 percent, capital income was an average of 79 percent of income before transfers and taxes in 2018.” (CBO, 2021: 7).

that is 100% owned by E, yet also have net income of \$1 million from that same company as “business income.” For the purposes of this discussion, both the labor income and “business income” from companies in which E has an ownership stake is included the CBO’s definition of “total household income.” But, the definition of “capital income” used by the CBO and many others does not include this “business income.”

For examining whether business income substitutes for capital income in average working middle income households, the measurement issue is moot. Average business income per household grew from \$3100 to \$8100 from 1979 to 2018 for all households.²⁴ This represented a growth of average business income as a percent of total household income from 4.5% to 7%.²⁵ But Figure 13 shows that business income as a percent of total household income was flat for the middle three quintiles at around 2% at the beginning and the end of the period, so it could not substitute for the decline in capital incomes. Indeed, in terms of dollar values, business income did not make a meaningful dollar value difference in the second to fourth quintiles, where it added \$300 on average for the second and middle quintiles and \$600 for the fourth quintile. Business income did, however, increase as a percent of total household income for the lowest quintile from 2% to 7% of total household income for an actual dollar increase of \$120.

Figure 13 and Table 6 show that the big gain of business income as a percent of total household income occurred for the fifth quintile. However, when the data for the fifth quintile is disaggregated, business income over the 1979-2018 period was also flat for the 81st-90th, the 91st to 95th, and the 96th to 99th percentile as a percent of household income. In terms of the 2018 dollar value increase over the period, business income rose \$2100 for the 81st-90th percentile (a 54% increase), \$5250 for the 91st to 95th percentile (a 79% increase), and \$26,200 for the 96th to 99th percentile (a 135% increase).²⁶ Business income only rose significantly for the Top 1%, doubling from 11% to 22% of average household income (Table 6) and showed growth in 2018 dollars from \$61,500 to \$430,600, for a dollar growth of 600%.²⁷ Business income did not play any critical role in the household income in the lowest to fourth quintiles, or in the 81st to 99th percentiles.

24 Online Appendix Table 1, CBO data, column K.

25 Online Appendix Table 2, Authors’ analysis, column AM.

26 Online Appendix Table 1, CBO data, column K.

27 Online Appendix Table 1, CBO data, based on computations on columns L-P. This increase is the largest percentage increase in these data for capital income or business income in any percentile group. For the Top 1%, this percentage increase in business income in 2018 dollars is larger than the proportional increases over the 1979-

Drivers of Capital and Business Income

Are there factors that predict the impact of capital income and business income on household and wage and salary income?

We ran exploratory regressions to predict total capital income as a percent of household income, total capital income as a percent of wage and salary income, and total business income as a percent of household income.²⁸ The method and variables are based on prior analysis of the labor share (Hung and Hammett 2016), using annual first differences over the 1979-2018 period for both dependent and independent variables. Analysis is done separately for each decile and percentile group. The independent variables are changes in real wages (alternatively hourly or weekly) for non-managerial employees, real GDP, capital gains tax rates, and NASDAQ stock returns. Durbin-Watson statistics are calculated for each regression to test for serial correlation.

Why these variables? The slow growth of inflation-adjusted wages over the 1979-2018 period might have acted as a shock for households to shift investments into capital income and business income opportunities. Real GDP change (reflecting the business cycle) impacted the profits of companies with a positive effect on both capital income and business income. Capital gains tax rates should have influenced the choices of investors in considering opportunities for capital income and business income. Finally, it is reasonable to posit that the returns of the NASDAQ stock market, an incubator for entrepreneurial start-ups that emerged and increased in value at various times over this period, had a positive impact on capital income.

The exploratory regression results are shown in Online Appendix Table 3. Focusing first on the two capital income measures, an increase in real hourly wages of production and nonsupervisory workers is linked to a decrease in the capital income measures for the third and fourth quintiles. Real GDP growth change is positively but weakly linked to the capital income measures in the third and fourth quintiles, and strongly linked in the fifth quintile. It has no impact on households in the first and second quintiles who likely have few excess assets to invest in the capital instruments that can yield capital income.

2018 period for capital gains (+278%) and minimizes the much smaller increases in dividends, (+135%), taxable interest (+36%), tax exempt interest (+134%), and positive rental income (+91%) in dollar value for the Top 1% over the 1979-2018 period. These percentages are based on computations from Online Appendix Table 1.

28 Online Appendix Table 1, authors' computations, columns AF, AG, and AM.

Increases in the NASDAQ are weak positive predictors of capital income measures only in the fourth and fifth quintiles. Increases in the capital gains tax rate are negatively associated with the capital income measures in the top quintile, but a breakdown shows that the effect exists only for the top 1% of that quintile.

What about business income? We find that real GDP percent changes have no impact on business income in the first and second quintiles, a positive impact in the third and fourth quintiles and the 81st-90th and 91st-99th percentiles, but a negative impact for the top 1%. Increases in the capital gains tax rate positively predict business income in the 96th-99th percentiles and top percentile. One explanation is that when the capital gains tax rates shift higher, the members of households in the 96th to 99th percentile and the top 1% may seek investment opportunities involving ownership interests or partnership interests in closely-held companies.²⁹

These exploratory results will be further probed with additional predictors and more flexible specifications.

Conclusion

From 1979 to 2018, capital income as a share of household income and of compensation has largely collapsed for the “working middle class.” To the extent that capital income can be viewed as an income stream potentially augmenting wages and salaries, possibly even a “raise” on top of wages, its role has also waned greatly with a more than half decline from 1979-2018. The flip side of these shifts are a ballooning concentration of capital income going to the top 1% of households, from 39.6% in 1979 to 59.3% in 2018, while the share of capital income going to the top 20% of households increased from 76.2% in 1979 to 89.7% in 2018. Every group except the top 1% shows large decreases in their total share of capital income over the period. Business income increased in dollar value by 600% for the Top 1% of households, and doubled as a percent of household income for that group from 11% to 22%. Business income did not offset the plummeting role of capital income in the first four quintiles.

What explains this “de-capitalization” of working middle class families? It could be that differences in investment knowledge and skills have become concentrated among specialists so that the wealthy are able to earn more from their capital than others per Smith, Zidar, and Zwick (2021)? It could

29 An intriguing finding is that as the NASDAQ increased, business income as a percent of household income goes up for the first quintile.

be that greater capital investments and ownership of capital assets and capital income are due to greater access to credit to gain capital ownership? Many investments that carry outside returns and tax advantages, such as hedge funds and private equity, may also be at work? The more capital ownership concentrates at the top, the more capital income it yields, which itself can be reinvested in order to acquire more capital assets. But the reason could be even simpler: stagnant wages did not provide enough resources for working families to invest in capital to the extent that they did when wages were rising – a double whammy on the majority of people when the income distribution is shifting to capital.

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Figures and Tables

Figure 1. Total Capital Income by Year, from 1979 to 2018

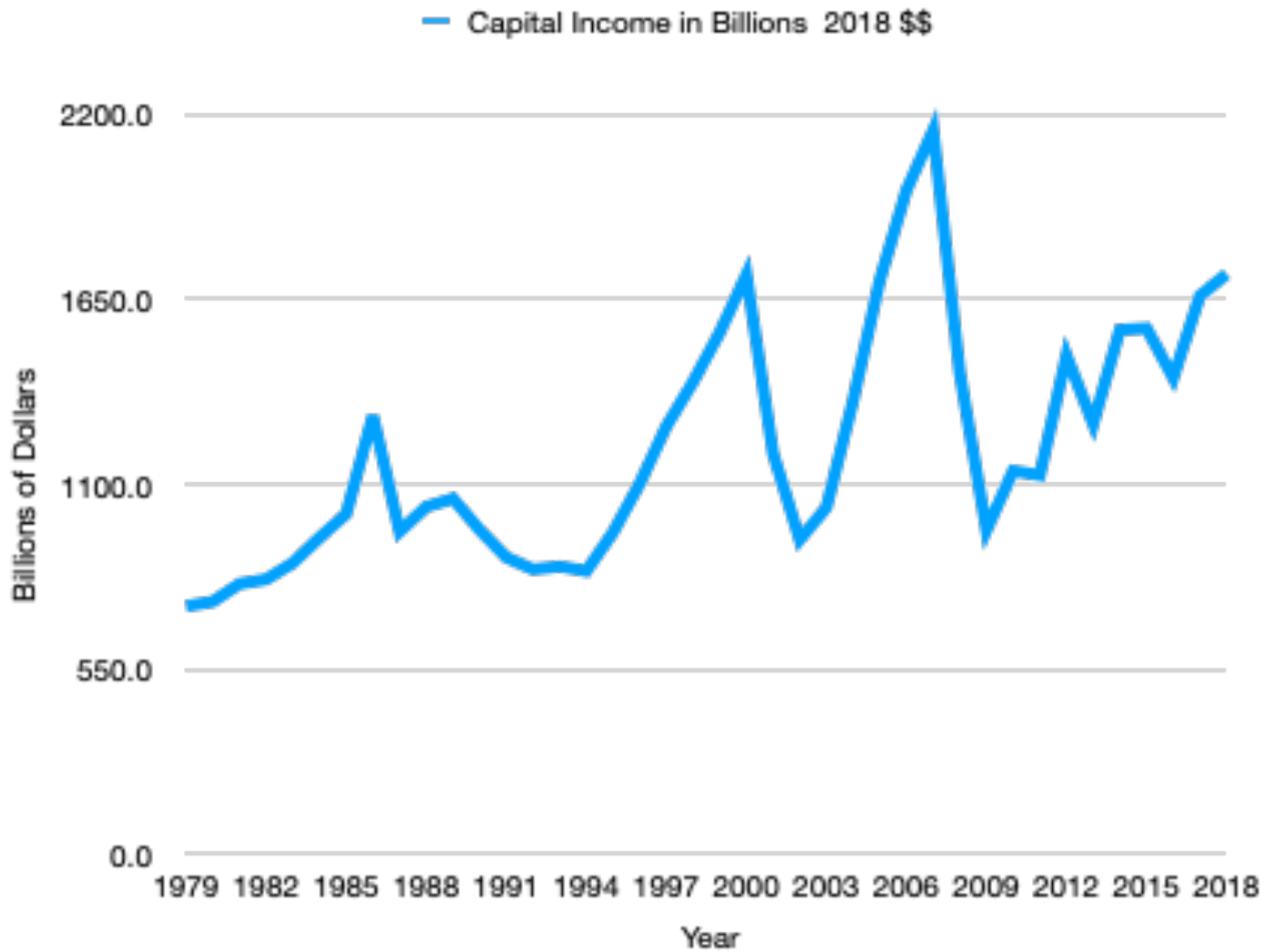


Figure 2. Average Capital Income Per Household by Year from 1979 to 2018 in Dollars

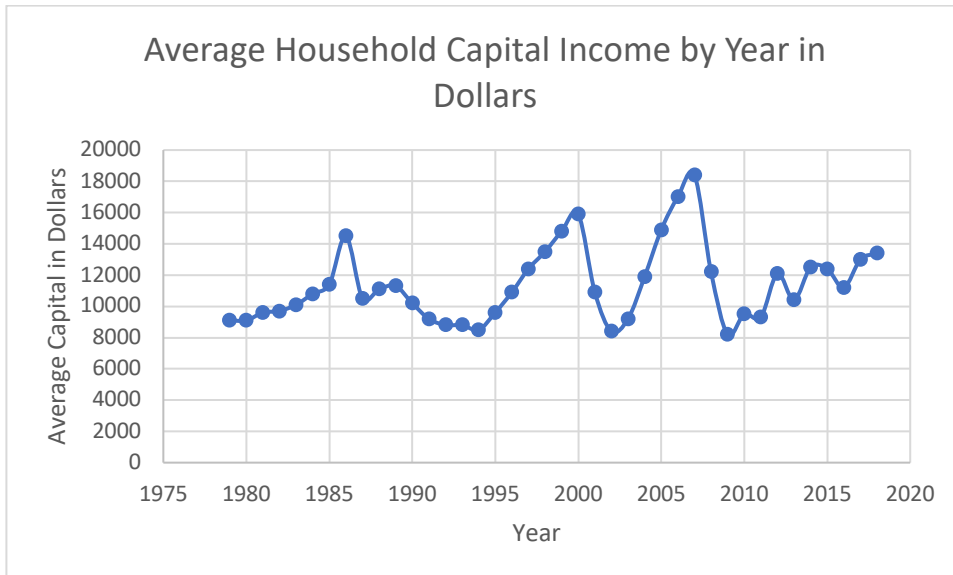


Figure 3. Capital Gains as a Percent of Total Capital Income by Year

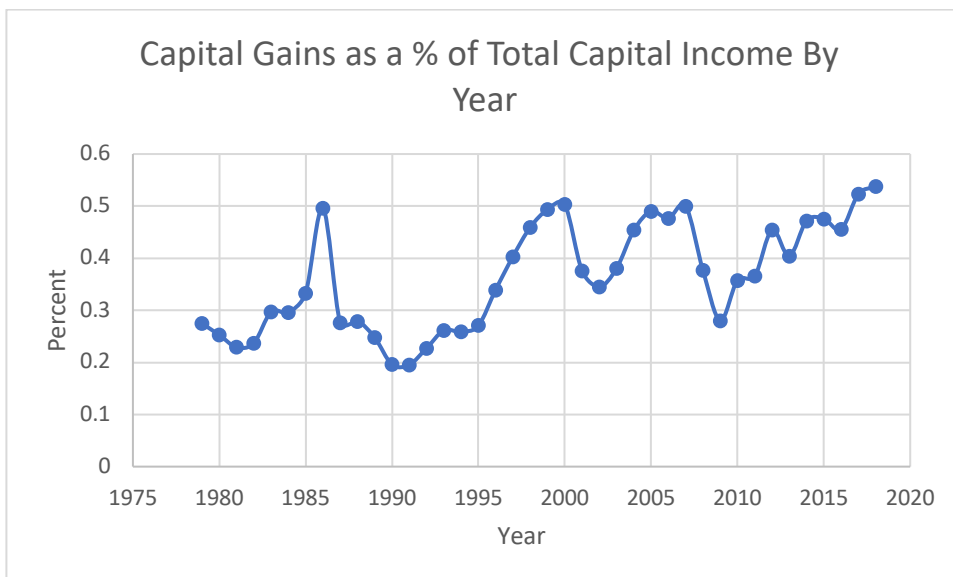


Figure 4. Dividends as a Percent of Total Capital Income by Year

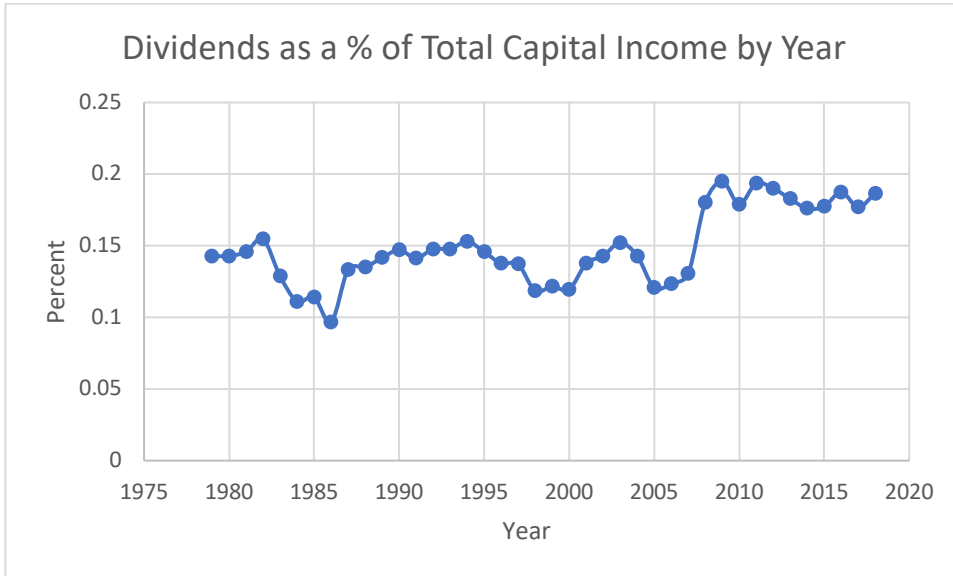


Figure 5. Interest as a Percent of Total Capital Income by Year

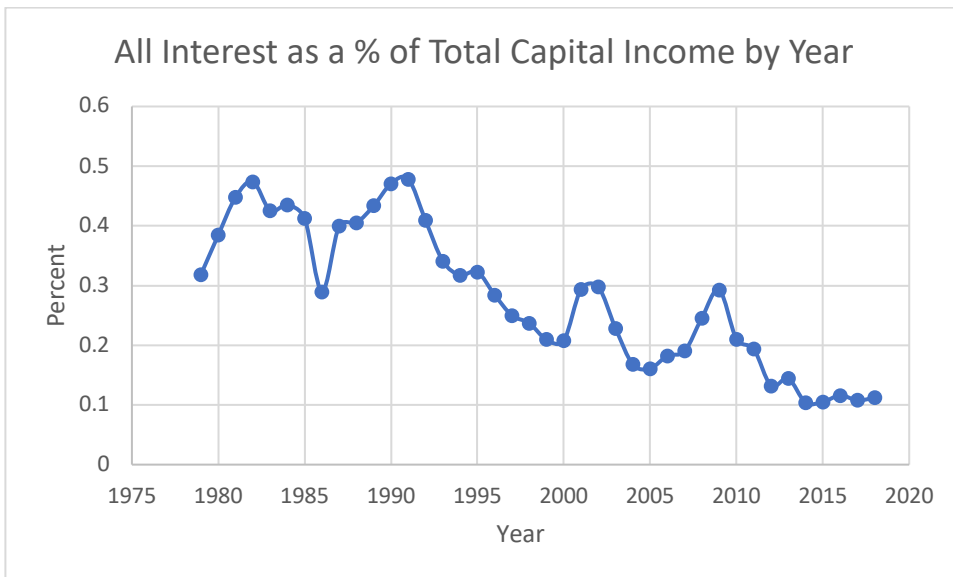


Figure 6. The Share of Corporate Income Tax Borne by Capital Owners by Year as a Percent of Total Capital Income by Year

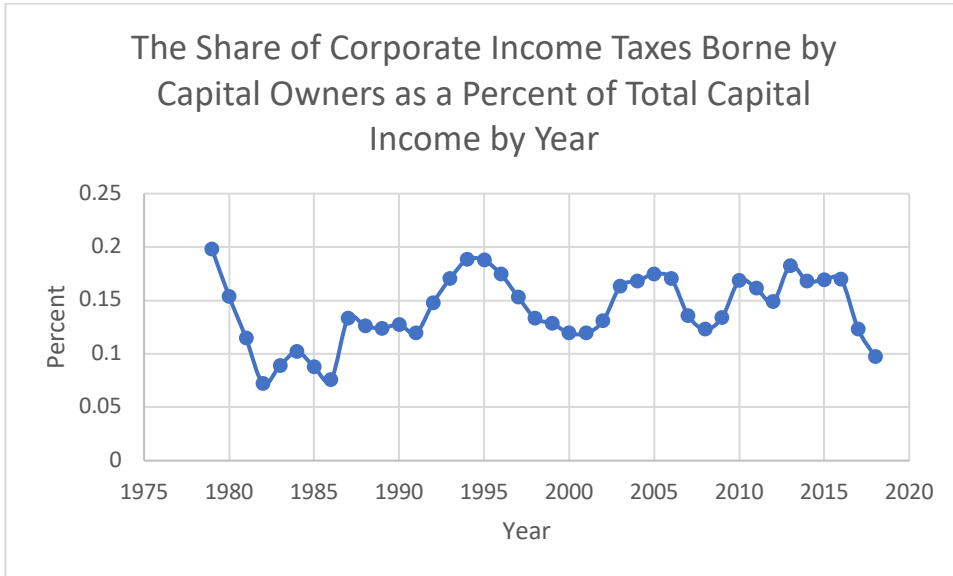


Figure 7. Positive Rental Income as a Percent of Total Capital Income by Year

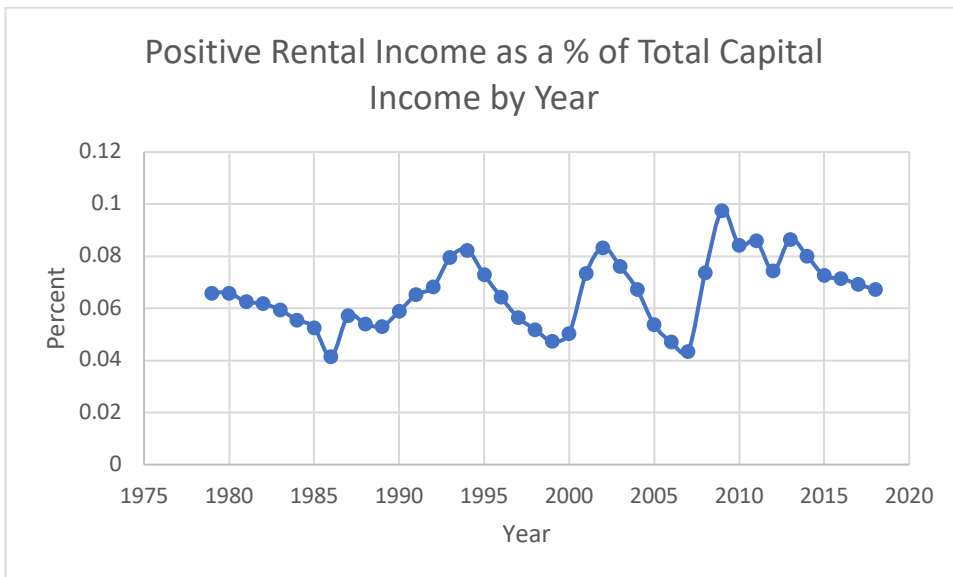


Figure 8. Capital Income as a Percent of Wages and Salaries, 1979 to 2018

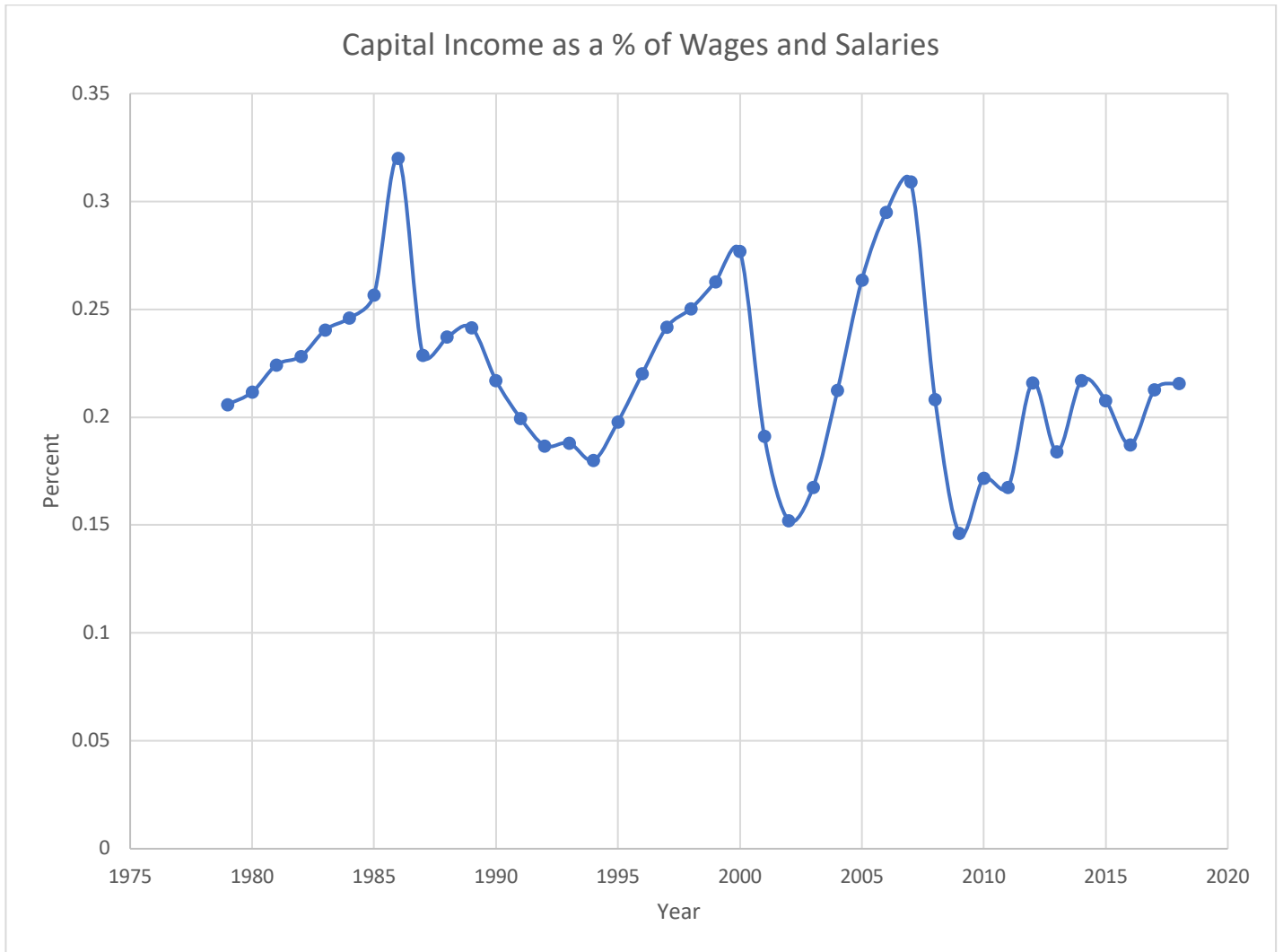


Figure 9. Capital Income as a Percent of Wage/Salary Income by Quintiles and Percentiles, 1979-2018

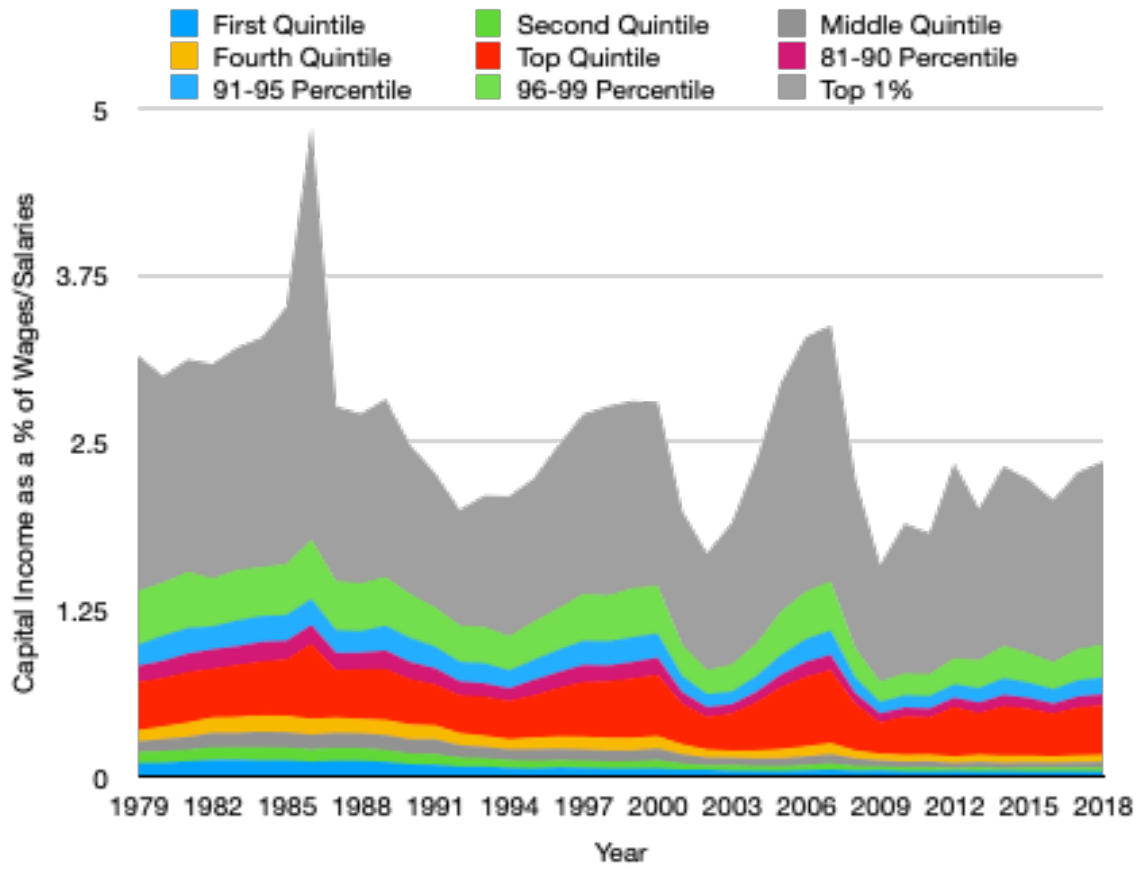


Figure 10. Capital Income as a Percent of Household Income by Quintiles and Top Percentiles, 1979 to 2018

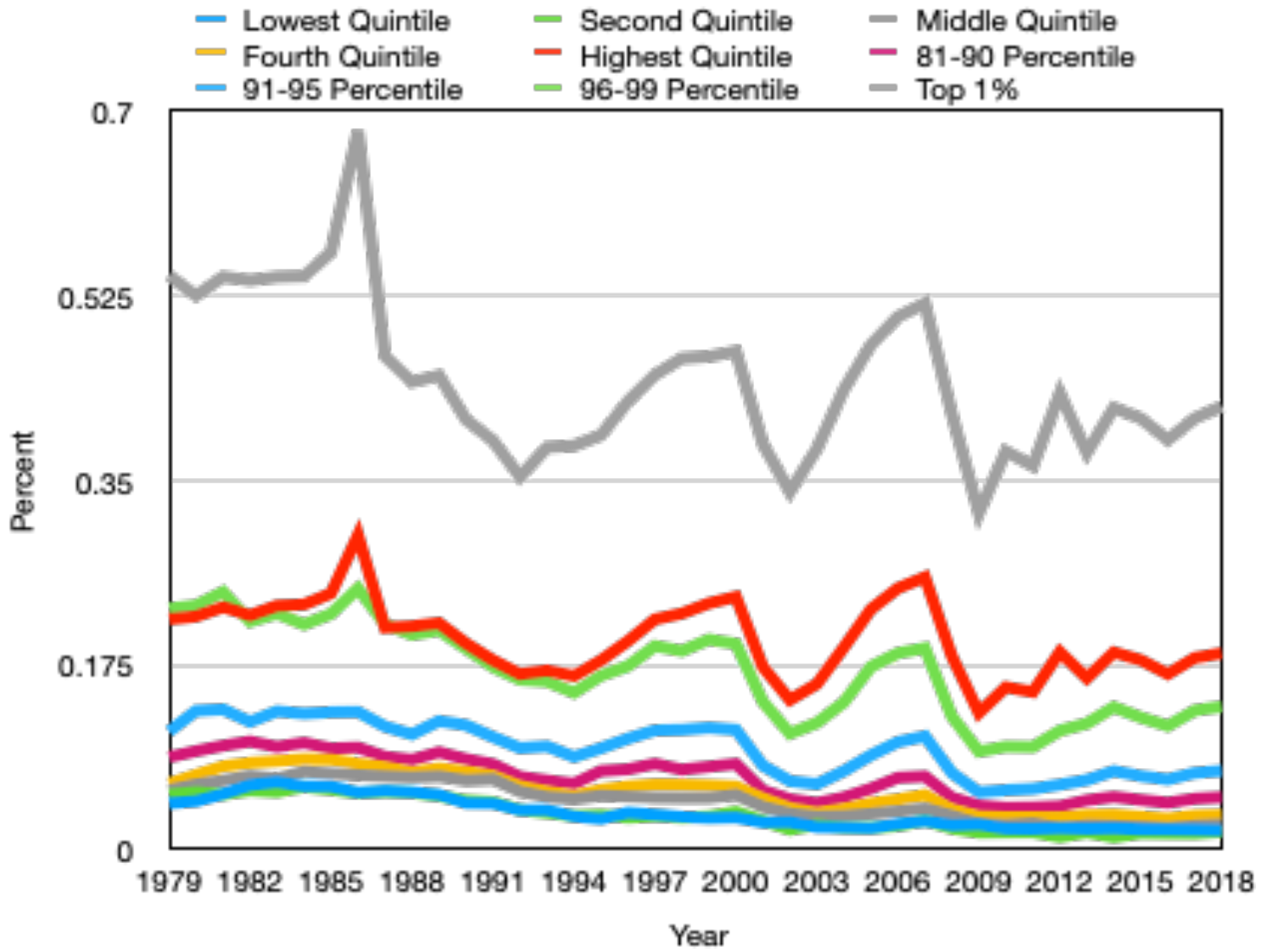


Figure 11. The Concentration of Total Capital Income by Quintiles and Percentiles in 2018



Figure 12. The Concentration of Capital Income by Quintile and Top Percentiles: 1979-2018

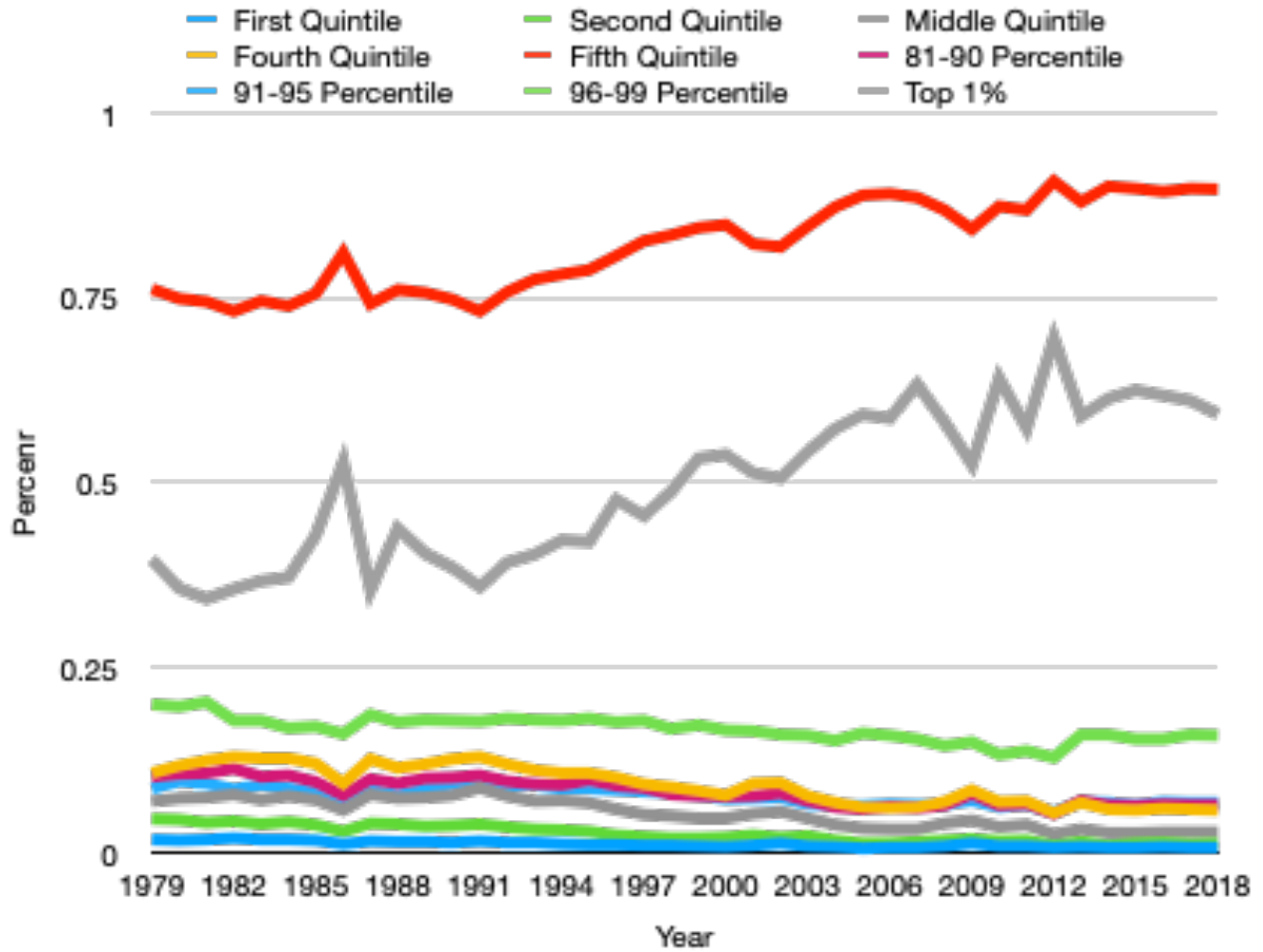


Figure 13. Business Income as a Percent of Household Income by Quintile and Top Percentiles

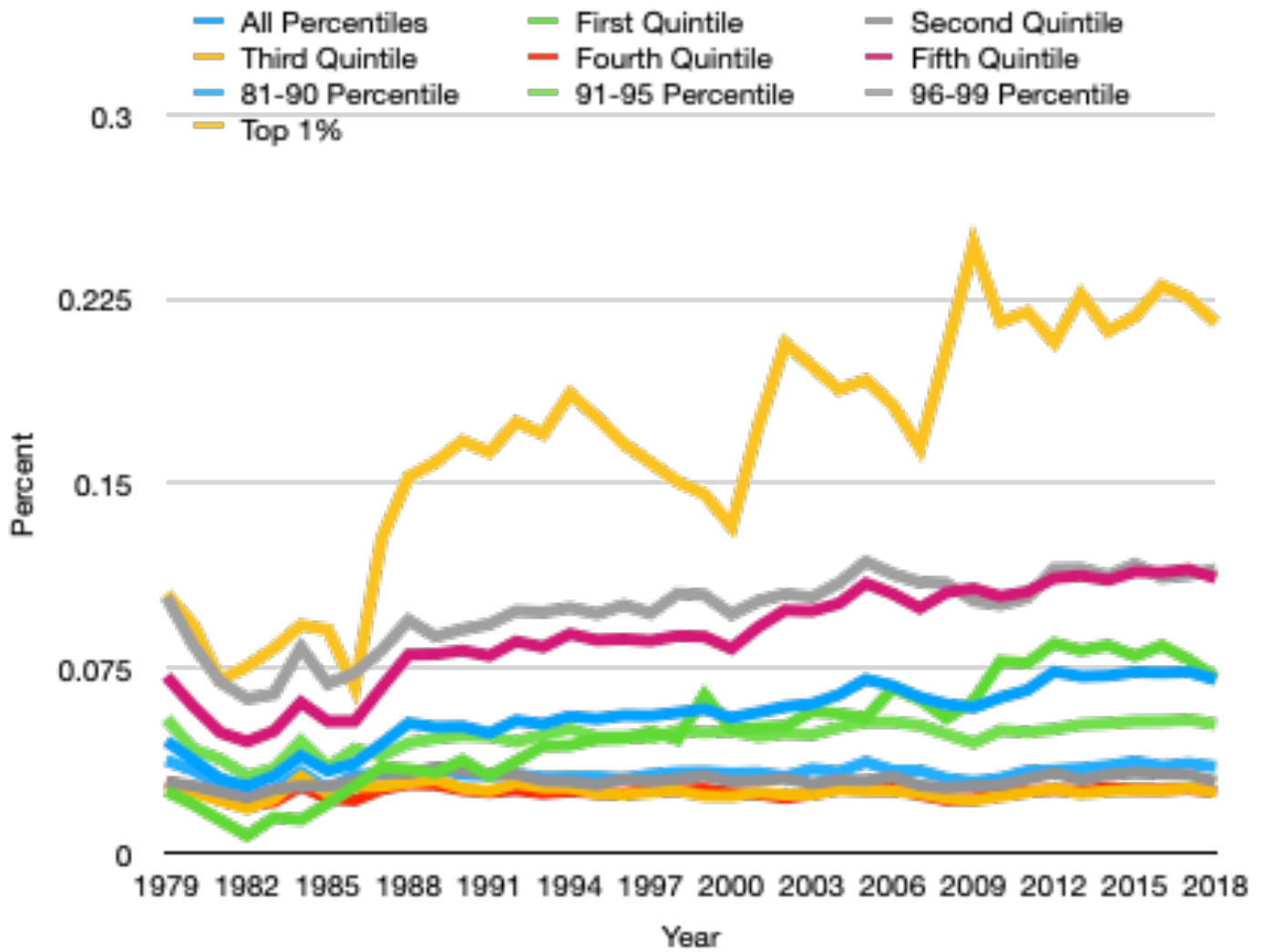


Table 1. Estimates of Wealth Concentration in the 2000s

	Piketty 2010	Survey of Consumer Finances (SCF) The Fed 2019	SCF 2019 Plus Defined Benefit Pension Wealth The Fed	World Inequality Database 2016	Smith, Zidar, & Zwick/IRS 2016	Saez & Zucman IRS 2012	Distributional National Accounts The Fed 2019
Top 0.01%	-	-	-	-	-	11.2%	-
Top 0.1%	-	-	-	-	15%	22%	-
Top 1%	35%	37%	33%	37%	30%	42%	31%
Next 9%		39%	38%	35%	36%		39%
Top 10%	70%	76%*	71%*	72%*	66%*	77%	
Next 40%	-	22%	27%	28%	-	-	29%
Bottom							
50%	-	1%	2%	0%	-	-	1%
Bottom							
90%	-	23%*	29%*	28%	-	23%	30%*

Notes: Piketty (2014: 349, Figure 10.6); Bricker, Goodman, Moore, and Volz (2020: Figure 2) for the Survey of Consumer Finances; Smith, Zidar, and Zwick (2021: 3, 58, Figure 1A and B); Saez and Zucman (2016: 552, Table 1); Batty, Briggs, Pence, Smith, and Volz (2020) for the Distributional National Accounts; Piketty, Saez, and Zucman (2018). *indicates the sums were arrived at by adding the Top 1% and the next 9% or the next 40% and the bottom 50%, as provided in the original source.

Table 2. Capital Income as a Percent of Wages and Salaries for Quintiles and Percentiles, 1979-2018

Year	All Households	First Quintile	Second Quintile	Third Quintile	Fourth Quintile	Fifth Quintile	81-90 Percentile	91-95 Percentile	96-99 Percentile	Top 1%
1979	0.206	0.096	0.085	0.079	0.084	0.363	0.119	0.158	0.403	1.757
1980	0.212	0.099	0.090	0.088	0.096	0.363	0.128	0.188	0.399	1.543
1981	0.224	0.111	0.086	0.095	0.109	0.380	0.136	0.192	0.422	1.587
1982	0.228	0.123	0.096	0.103	0.116	0.366	0.143	0.172	0.361	1.602
1983	0.240	0.125	0.095	0.102	0.121	0.391	0.138	0.192	0.380	1.664
1984	0.246	0.118	0.101	0.113	0.125	0.402	0.145	0.194	0.368	1.715
1985	0.257	0.120	0.097	0.110	0.124	0.425	0.137	0.193	0.384	1.923
1986	0.320	0.107	0.093	0.110	0.119	0.564	0.139	0.194	0.445	3.084
1987	0.229	0.116	0.098	0.109	0.115	0.357	0.126	0.170	0.370	1.303
1988	0.237	0.114	0.097	0.108	0.108	0.372	0.123	0.162	0.358	1.268
1989	0.241	0.105	0.091	0.111	0.115	0.382	0.136	0.185	0.367	1.328
1990	0.217	0.088	0.082	0.105	0.112	0.341	0.126	0.181	0.330	1.111
1991	0.200	0.084	0.081	0.109	0.106	0.307	0.120	0.162	0.295	1.001
1992	0.187	0.071	0.070	0.090	0.092	0.284	0.102	0.146	0.274	0.862
1993	0.188	0.071	0.065	0.082	0.085	0.294	0.097	0.151	0.273	0.981
1994	0.180	0.060	0.060	0.079	0.078	0.287	0.092	0.134	0.258	1.045
1995	0.198	0.055	0.060	0.085	0.088	0.319	0.114	0.149	0.287	1.070
1996	0.220	0.065	0.055	0.084	0.094	0.364	0.117	0.167	0.313	1.218
1997	0.242	0.061	0.057	0.080	0.097	0.411	0.125	0.181	0.353	1.342
1998	0.250	0.056	0.054	0.081	0.096	0.425	0.116	0.182	0.344	1.413
1999	0.263	0.056	0.055	0.080	0.095	0.448	0.120	0.186	0.369	1.399
2000	0.277	0.057	0.063	0.086	0.094	0.460	0.126	0.181	0.358	1.372
2001	0.191	0.047	0.048	0.067	0.076	0.305	0.084	0.121	0.236	0.996
2002	0.152	0.048	0.034	0.057	0.061	0.245	0.071	0.098	0.182	0.870
2003	0.168	0.039	0.043	0.053	0.055	0.280	0.067	0.095	0.203	1.056
2004	0.213	0.038	0.038	0.054	0.061	0.363	0.076	0.117	0.246	1.361
2005	0.264	0.037	0.038	0.057	0.070	0.467	0.091	0.147	0.327	1.708
2006	0.295	0.042	0.041	0.062	0.077	0.522	0.109	0.171	0.357	1.903
2007	0.309	0.048	0.049	0.066	0.084	0.549	0.112	0.183	0.368	1.912
2008	0.208	0.040	0.036	0.055	0.062	0.350	0.077	0.116	0.221	1.264
2009	0.146	0.043	0.030	0.043	0.052	0.234	0.066	0.086	0.155	0.869
2010	0.172	0.035	0.031	0.042	0.052	0.290	0.064	0.092	0.164	1.118
2011	0.168	0.035	0.031	0.044	0.052	0.280	0.064	0.093	0.164	1.053
2012	0.216	0.037	0.023	0.037	0.052	0.373	0.066	0.100	0.197	1.453
2013	0.184	0.035	0.031	0.041	0.055	0.312	0.076	0.108	0.211	1.131
2014	0.217	0.036	0.022	0.039	0.056	0.372	0.082	0.125	0.244	1.343
2015	0.208	0.034	0.029	0.038	0.052	0.354	0.077	0.115	0.223	1.296
2016	0.187	0.035	0.028	0.036	0.049	0.322	0.073	0.109	0.204	1.208
2017	0.213	0.035	0.029	0.039	0.054	0.360	0.079	0.121	0.235	1.322
2018	0.216	0.033	0.031	0.041	0.055	0.371	0.081	0.124	0.245	1.369

Table 3. Changes in Average Capital Income by Percent of Average Household Income and Dollar Value in 2018 dollars 1979-2018

Quintile/ Percentile	1979 % of Total HI	2018 % of Total HI	% Point Decline	Percent Decrease	Av 1979 \$\$	Av 2018 \$\$	Av \$ Change	% CI \$ Change
1st Q	4.30%	1.80%	-2.50%	-58.10%	\$700	\$400	(\$300)	-43%
2nd Q	5.20%	1.60%	-3.60%	-69.20%	\$2,000	\$800	(\$1,200)	-60%
3rd Q	5.60%	2.30%	-3.30%	-59%	\$3,300	\$1,800	(\$1,500)	-46%
4th Q	6.20%	3.40%	-2.80%	-45.20%	\$5,000	\$3,800	(\$1,200)	-24%
Top Q	21.84%	18.90%	-2.90%	-13.30%	\$33,200	\$59,800	\$26,600	+80%
81-90	8.70%	4.90%	-3.80%	-43.70%	\$9,100	\$8,500	(\$600)	-7%
91-95	11.20%	7.40%	-3.80%	-34%	\$14,400	\$17,800	\$3,400	+24%
96-99	22.80%	13.50%	-7.30%	-32%	\$42,600	\$53,600	\$11,000	+24%
Top 1%	54.40%	42%	-12.40%	-22.80%	\$318,200	\$839,500	\$521,300	+164%

Notes: Based on authors' analysis of Congressional Budget Office data. For the average dollar value change column the amount in parentheses indicates the decrease in dollar value.

Table 4. Concentration of Capital Income by Quintiles/Top Percentiles from 1979 to 2018, Detail

Year	First Quintile	Second Quintile	Third Quintile	Fourth Quintile	Fifth Quintile	81-90 Percentile	91-95 Percentile	96-99 Percentile	Top 1%
1979	0.017	0.045	0.069	0.107	0.762	0.102	0.086	0.200	0.396
1980	0.016	0.044	0.073	0.117	0.749	0.106	0.096	0.197	0.357
1981	0.017	0.040	0.074	0.124	0.745	0.107	0.093	0.203	0.343
1982	0.019	0.042	0.078	0.129	0.732	0.113	0.085	0.178	0.356
1983	0.017	0.038	0.071	0.127	0.746	0.102	0.091	0.178	0.367
1984	0.017	0.041	0.076	0.127	0.739	0.104	0.086	0.168	0.372
1985	0.016	0.037	0.071	0.120	0.756	0.095	0.084	0.170	0.429
1986	0.011	0.028	0.057	0.093	0.811	0.077	0.069	0.160	0.527
1987	0.015	0.039	0.078	0.126	0.742	0.099	0.085	0.186	0.355
1988	0.014	0.038	0.073	0.114	0.761	0.093	0.077	0.176	0.438
1989	0.014	0.035	0.074	0.119	0.757	0.100	0.086	0.179	0.404
1990	0.013	0.036	0.077	0.126	0.748	0.101	0.092	0.178	0.385
1991	0.015	0.038	0.087	0.129	0.732	0.104	0.090	0.177	0.359
1992	0.013	0.034	0.076	0.119	0.758	0.096	0.089	0.181	0.392
1993	0.013	0.031	0.069	0.111	0.775	0.092	0.091	0.179	0.403
1994	0.011	0.030	0.070	0.107	0.782	0.091	0.086	0.178	0.422
1995	0.010	0.028	0.067	0.107	0.788	0.098	0.086	0.181	0.420
1996	0.010	0.023	0.058	0.101	0.807	0.090	0.084	0.176	0.477
1997	0.009	0.021	0.051	0.092	0.827	0.087	0.082	0.178	0.455
1998	0.009	0.019	0.049	0.088	0.835	0.078	0.080	0.167	0.488
1999	0.008	0.019	0.046	0.083	0.845	0.076	0.077	0.172	0.533
2000	0.007	0.020	0.046	0.077	0.849	0.075	0.072	0.165	0.538
2001	0.009	0.023	0.052	0.093	0.823	0.076	0.073	0.164	0.513
2002	0.012	0.020	0.055	0.094	0.819	0.080	0.074	0.159	0.506
2003	0.008	0.022	0.046	0.076	0.847	0.069	0.065	0.158	0.542
2004	0.007	0.016	0.037	0.067	0.873	0.061	0.063	0.151	0.573
2005	0.005	0.012	0.032	0.061	0.889	0.058	0.063	0.161	0.592
2006	0.006	0.012	0.031	0.060	0.891	0.062	0.065	0.158	0.587
2007	0.006	0.014	0.031	0.061	0.886	0.060	0.064	0.153	0.633
2008	0.008	0.016	0.039	0.068	0.869	0.063	0.064	0.144	0.582
2009	0.012	0.018	0.043	0.084	0.843	0.079	0.070	0.149	0.525
2010	0.008	0.015	0.034	0.068	0.874	0.063	0.061	0.132	0.641
2011	0.008	0.016	0.037	0.069	0.869	0.065	0.064	0.137	0.574
2012	0.006	0.009	0.024	0.053	0.908	0.052	0.054	0.128	0.695
2013	0.007	0.014	0.031	0.067	0.880	0.070	0.068	0.159	0.590
2014	0.006	0.009	0.026	0.058	0.901	0.064	0.067	0.159	0.614
2015	0.006	0.012	0.026	0.057	0.898	0.063	0.064	0.153	0.625
2016	0.007	0.013	0.027	0.059	0.894	0.065	0.068	0.153	0.618
2017	0.006	0.011	0.027	0.058	0.898	0.064	0.067	0.159	0.611
2018	0.006	0.012	0.027	0.057	0.897	0.064	0.067	0.158	0.593

Table 5. Proportional Increase/Decrease in the Share of Total Capital Income by Quintile & Percentile, from 1979-2018.

First Quintile: -65%

Second Quintile: -73%

Third Quintile; -61%

Fourth Quintile: -47%

Fifth Quintile: +18%

81-90 Percentile: -37%

91-95 Percentile: -22%

95-99 Percentile: -21%

Top 1%: +50%

Table 6. Business Income as a Percent of Household Income for Quintiles and Percentiles, 1979 to 2018

(Percent rounded up at the first decimal place)

Year	All Percentiles	First Quintile	Second Quintile	Third Quintile	Fourth Quintile	Fifth Quintile	81-90 Percentile	91-95 Percentile	96-99 Percentile	Top 1%
1979	5%	2%	3%	3%	3%	7%	4%	5%	10%	11%
1980	4%	2%	3%	2%	3%	6%	3%	4%	8%	9%
1981	3%	1%	2%	2%	2%	5%	3%	4%	7%	7%
1982	3%	1%	2%	2%	2%	5%	2%	3%	6%	8%
1983	3%	1%	3%	2%	2%	5%	3%	3%	6%	8%
1984	4%	1%	3%	3%	3%	6%	3%	5%	8%	9%
1985	3%	2%	3%	2%	2%	5%	3%	3%	7%	9%
1986	4%	3%	3%	3%	2%	5%	3%	4%	7%	7%
1987	4%	3%	3%	3%	3%	7%	3%	4%	8%	13%
1988	5%	3%	3%	3%	3%	8%	3%	4%	9%	15%
1989	5%	3%	3%	3%	3%	8%	3%	5%	9%	16%
1990	5%	4%	3%	3%	3%	8%	3%	5%	9%	17%
1991	5%	3%	3%	2%	2%	8%	3%	5%	9%	16%
1992	5%	4%	3%	3%	3%	9%	3%	4%	10%	17%
1993	5%	4%	3%	3%	2%	8%	3%	5%	10%	17%
1994	6%	4%	3%	3%	2%	9%	3%	5%	10%	19%
1995	5%	5%	3%	2%	2%	9%	3%	5%	10%	18%
1996	6%	5%	3%	2%	2%	9%	3%	5%	10%	17%
1997	6%	5%	3%	2%	3%	9%	3%	5%	10%	16%
1998	6%	5%	3%	3%	3%	9%	3%	5%	11%	15%
1999	6%	6%	3%	2%	3%	9%	3%	5%	10%	15%
2000	5%	5%	3%	2%	2%	8%	3%	5%	10%	13%
2001	6%	5%	3%	2%	2%	9%	3%	5%	10%	17%
2002	6%	5%	3%	2%	2%	10%	3%	5%	11%	21%
2003	6%	6%	3%	2%	2%	10%	3%	5%	10%	20%
2004	6%	6%	3%	3%	3%	10%	3%	5%	11%	19%
2005	7%	5%	3%	3%	3%	11%	4%	5%	12%	19%
2006	7%	7%	3%	2%	3%	11%	3%	5%	11%	18%
2007	6%	6%	3%	2%	2%	10%	3%	5%	11%	16%
2008	6%	5%	3%	2%	2%	11%	3%	5%	11%	20%
2009	6%	6%	3%	2%	2%	11%	3%	4%	10%	25%
2010	6%	8%	3%	2%	2%	10%	3%	5%	10%	22%
2011	7%	8%	3%	2%	2%	11%	3%	5%	10%	22%
2012	7%	9%	3%	3%	3%	11%	3%	5%	12%	21%
2013	7%	8%	3%	2%	2%	11%	3%	5%	12%	23%
2014	7%	8%	3%	2%	3%	11%	4%	5%	11%	21%
2015	7%	8%	3%	3%	3%	11%	4%	5%	12%	22%
2016	7%	8%	3%	3%	3%	11%	4%	5%	11%	23%
2017	7%	8%	3%	3%	3%	12%	4%	5%	11%	23%
2018	7%	7%	3%	2%	2%	11%	3%	5%	12%	22%