



EMMANUEL SAEZ AND GABRIEL ZUCMAN  
PROFESSORS OF ECONOMICS  
530 EVANS HALL #3880  
BERKELEY CA 94720-3880  
[saez@econ.berkeley.edu](mailto:saez@econ.berkeley.edu)  
[zucman@berkeley.edu](mailto:zucman@berkeley.edu)

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Democracies become oligarchies when wealth is too concentrated. A progressive wealth tax is the most direct policy tool to curb the growing concentration of wealth in the United States. It can also restore tax progressivity at the very top of the wealth distribution and raise sorely needed tax revenue to fund the public good. Senator Sanders' very progressive wealth tax on the top 0.1% wealthiest Americans is a crucial step in this direction. We estimate that Sanders' wealth tax would raise \$4.35 trillion over a decade and fully eliminate the gap between wealth growth for billionaires and wealth growth for the middle class. Combining progressive wealth taxation with policies to rebuild middle class wealth is what the United States needs to ensure vibrant and equitable growth for the future.

We have analyzed Senator Sanders' proposal to impose a progressive annual wealth tax on American households with net worth (sum of all assets net of debts) above \$32 million. The tax rate would start at 1% of net worth from \$32 to \$50 million, increase to 2% on net worth from \$50 to \$250 million, 3% from \$250 to \$500 million, 4% from \$500 million to \$1 billion, 5% from \$1 to \$2.5 billion, 6% from \$2.5 to \$5 billion, 7% from \$5 to \$10 billion, and 8% on wealth over \$10 billion (the brackets apply for married taxpayers and are halved for singles). The wealth tax would have a comprehensive tax base with no exemptions and would be vigorously enforced to keep tax evasion low.

We estimate that about 180,000 American households (about the top 0.1%) would be liable for the wealth tax and that the tax would raise around \$4.35 trillion over the ten-year budget window 2019-2028. The wealth tax would raise approximately 1.6% of GDP per year (\$335 billion relative to a \$21.5 trillion GDP in 2019).

The calculations are done combining the best available data sources for the current US wealth distribution: the Survey of Consumer Finances from the Federal Reserve Board, and the Distributional National Accounts recently created by Piketty, Saez, and Zucman, which estimates wealth by capitalizing investment income from

income tax returns,<sup>1</sup> and the Forbes 400 list of the richest 400 Americans. We assume an evasion tax rate of 16%, which is achievable under the strong enforcement mechanisms in the proposal. The underlying data and program making the computations is posted online on our websites.<sup>2</sup>

The Forbes 400 data show that the wealth of the richest 400 Americans has grown at a rate of 6.6% per year from 1982 to 2018 (after adjusting for inflation). This is 4.0 points above the growth of average real family wealth (2.6% per year) during the same period. Eliminating this growth gap would require a substantial wealth tax of at least 4 percent per year at the very top of the wealth distribution. Under the Sanders wealth tax plan, the average wealth tax rate on billionaires would be around 6% per year initially and fall slowly over time as the wealth of billionaires and especially decabillionaires is eroded.<sup>3</sup> Therefore, the Sanders wealth tax plan would entirely close the gap in wealth growth between billionaires and the average American family. Paying 5% per year cuts wealth in half after 15 years relative a situation with no wealth tax (mathematically,  $(1-.05)^{15}=.46$ ). Therefore, the Sanders wealth tax would reduce the wealth of the typical billionaire in half after 15 years relative to a situation with no wealth tax. This would substantially break up the concentration of wealth and power of billionaires.

We estimate that if the Sanders wealth tax had been in place since 1982, the wealth owned by the Forbes 400 richest Americans would be only 40% of what it is today: Instead of having a wealth of \$7.2 billion on average (in 2018), they would have a wealth of \$3.0 billion on average. The share of wealth owned by the Forbes 400 would not have exploded and would only be slightly higher than it was in the early 1980s. The current top 15 wealthiest Americans would own \$196 billion (instead of the \$943 billion they own in 2018).

Gabriel Zucman  
Emmanuel Saez

<sup>1</sup> Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman, "Distributional National Accounts: Methods and Estimates for the United States", *Quarterly Journal of Economics* 133(2), 2018, 553-609. Data online at <http://gabriel-zucman.eu/usdina/>

<sup>2</sup> An interactive calculator is also available online at [http://wealthtaxsimulator.org/simulator\\_app/](http://wealthtaxsimulator.org/simulator_app/) to allow users to explore wealth taxes. The simulator uses the same brackets for married and single households. Applying the brackets for married taxpayers to all families, the simulator generates \$324 billion in revenue (in 2019). With halved brackets for singles, our data show that tax revenue would increase slightly by \$11 billion to \$335 billion (in 2019). The data (all from publicly available sources) and program underlying our calculations are posted [here](#).

<sup>3</sup> Initially, the tax rate on billionaires would be 6.1% based on calculations made on the Forbes list of 608 American billionaires.

## Addendum: Comparison of the Warren and Sanders wealth tax proposals

Elizabeth Warren proposed a wealth tax with a tax rate of 2% for wealth between \$50 million and \$1 billion, and 3% above \$1 billion (using the same brackets for married and single taxpayers). The table below lists basic statistics on the two wealth tax proposals by brackets. Our data show that the Warren wealth tax raises \$200 billion (in 2019) while the Sanders wealth tax raises \$335 billion (in 2019).<sup>4</sup> Hence the Sanders tax raises \$135 billion more (68% more) than the Warren wealth tax.

Basic Statistics on the Sanders and Warren Wealth Tax Plans

Tax Brackets	Marginal tax rate in each bracket	Number of taxpayers in each bracket (in 2019)	Total reported wealth (\$ billion in 2019) (with 16% evasion rate)	Total tax paid (\$ billion in 2019)	Average tax rate = col (5)/col (4)
(1)	(2)	(3)	(4)	(5)	(6)
<b>A. Bernie Sanders Wealth Tax Plan</b>					
Listed thresholds below are for married taxpayers (thresholds halved for singles in Sanders plan)					
\$32 million-\$50 million (\$16m-\$25m for singles)	1%	101,551	3,664	6.0	0.2%
\$50 million-\$250 million (...)	2%	71,020	6,203	72.0	1.2%
\$250 million-\$500 million (...)	3%	6,094	1,747	35.2	2.0%
\$500 million-\$1 billion (...)	4%	2,519	1,568	43.6	2.8%
\$1 billion-\$2.5 billion (...)	5%	909	1,069	38.9	3.6%
\$2.5 billion-\$5 billion (...)	6%	203	649	30.7	4.7%
\$5 billion-\$10 billion (...)	7%	67	441	24.6	5.6%
\$10 billion and over (\$5b+ for singles)	8%	36	1,129	83.3	7.4%
<b>All</b>		<b>182,399</b>	<b>16,470</b>	<b>334.4</b>	<b>2.0%</b>
<b>B. Elizabeth Warren Wealth Tax Plan</b>					
Same thresholds for married and single taxpayers					
\$50 million-\$1 billion	2%	69,205	9,286	116.5	1.3%
\$1 billion and over	3%	982	3,147	83.6	2.7%
<b>All</b>		<b>70,187</b>	<b>12,433</b>	<b>200.1</b>	<b>1.6%</b>

Notes: The table presents basic statistics on the Sanders (Panel A) and Warren (Panel B) wealth tax proposals. Column (1) lists the thresholds for each bracket. In the Sanders plan, thresholds are halved for singles (hence the first bracket is \$16m-\$25m for singles instead of \$32m-\$50m for married, etc.). Therefore, the number of taxpayers in the \$50m-\$1bn Warren bracket is not the same as the sum of taxpayers in the \$50m to \$1bn Sanders brackets. Column (3) lists the number of taxpayers in each bracket. Col. (4) lists the total wealth of taxpayers in each bracket. Col. (5) lists the total wealth tax paid by taxpayers in each bracket. Col. (6) lists the average wealth tax rate for taxpayers in each bracket (defined as col. (5) divided by col. (4)). The computations assume that each wealthy family can hide 16% of its wealth through tax evasion and tax avoidance (which is a realistic number with strong enforcement as laid out in the proposals). Therefore, the tax rate in col. (6) should be reduced by 16% to measure the tax burden relative to true wealth. The underlying data combines the Distributional National Accounts data and the Survey of Consumer Finance data for 2016 (and aged to 2019) along with the Forbes list of the richest 400 Americans in 2018. The underlying data and the program making the computations is posted online for users.

<sup>4</sup> The online simulator is available at [http://wealthtaxsimulator.org/simulator\\_app/](http://wealthtaxsimulator.org/simulator_app/) and allows users to quickly assess the revenue impact of any graduated wealth tax. Note that the simulator uses the same brackets for single and married taxpayers. We have also posted the underlying data and program online [here](#) that allow to differentiate between married and single taxpayers (and rebuild the exact table presented here). All the data comes from publicly available sources. Note that the scoring of the Warren tax plan differs very slightly from the original scoring that was based on averaging data from the SCF and the Distributional Accounts and an extrapolation on the number of billionaires from the Forbes 400 data. The initial scoring came at \$210 billion in 2019, and estimated that about 75,000 households would be liable.

There are three differences between the Warren and the Sanders wealth taxes, two small differences and a big one.

The first small difference is that the Sanders tax halves the brackets for single taxpayers (relative to married taxpayers) while the Warren tax uses the same brackets for singles and married. As mentioned above, the halving of the brackets for singles increases the wealth tax revenue by \$11 billion (in 2019), which accounts for 8% of the \$135 billion difference in revenue (in 2019) between the two plans.

The second small difference is that the Sanders wealth tax starts at \$32 million with a tax rate of 1% before ramping up at 2% at \$50 million while the Warren wealth tax starts directly with a 2% rate at \$50 million. This implies that the Sanders tax applies to the richest 180,000 families (top .1%) while the Warren tax applies to the richest 70,000 families (top .04%). This extra 1% tax bracket from \$32 million to \$50 million raises only \$19 billion in extra tax revenue (in 2019) and hence accounts for only 14% of the \$135 billion difference in revenue (in 2019) between the two plans.

Hence, below the ultra rich, the Sanders and Warren plans are very similar.

The big difference is that the Sanders wealth tax applies a much more progressive tax on the ultra rich (the top .005% or richest 8000 families with wealth above \$250 million) with graduated rates from 3% (starting at \$250 million) up to 8% (above \$10 billion). This extra progressivity raises an extra \$106 billion (in 2019) and accounts for 78% of the \$135 billion difference in revenue (in 2019) between the two plans. This additional graduation can have a large impact on very top fortunes in the long-run as we illustrate below drawing on our recent work where we use the Forbes 400 data since 1982 to simulate the long-term impact of wealth taxation on top fortunes.<sup>5</sup> The wealth tax erodes fortunes over time. Billionaires still arise but under a wealth tax but they cannot stay billionaires (and especially deca-billionaires) for as long.

The table below lists the name, source of wealth, and wealth in 2018 of the top 15 richest Americans (Forbes magazine estimates). The last two columns depict what their wealth would have been if the Warren wealth tax and the Sanders wealth tax had been in place since 1982 (the tax thresholds apply in 2018 and are indexed to the average wealth per family economy wide in prior years). Both taxes have a strong impact in the long-run on top wealth holders. The richest 15 own \$943 billion. Under the Warren tax, their wealth would be halved down to \$434 billion. Under the Sanders tax, their wealth would be halved twice down to \$196 billion. Under the Sanders tax, most decabillionaires would still be multi-billionaires but not decabillionaires anymore.

<sup>5</sup> Saez, Emmanuel and Gabriel Zucman "Progressive Wealth Taxation." *Brookings Papers of Economic Activity*, forthcoming Fall 2019, available [here](#).

### Long-term Effect of Wealth Taxation on Top 15 Wealth Holders

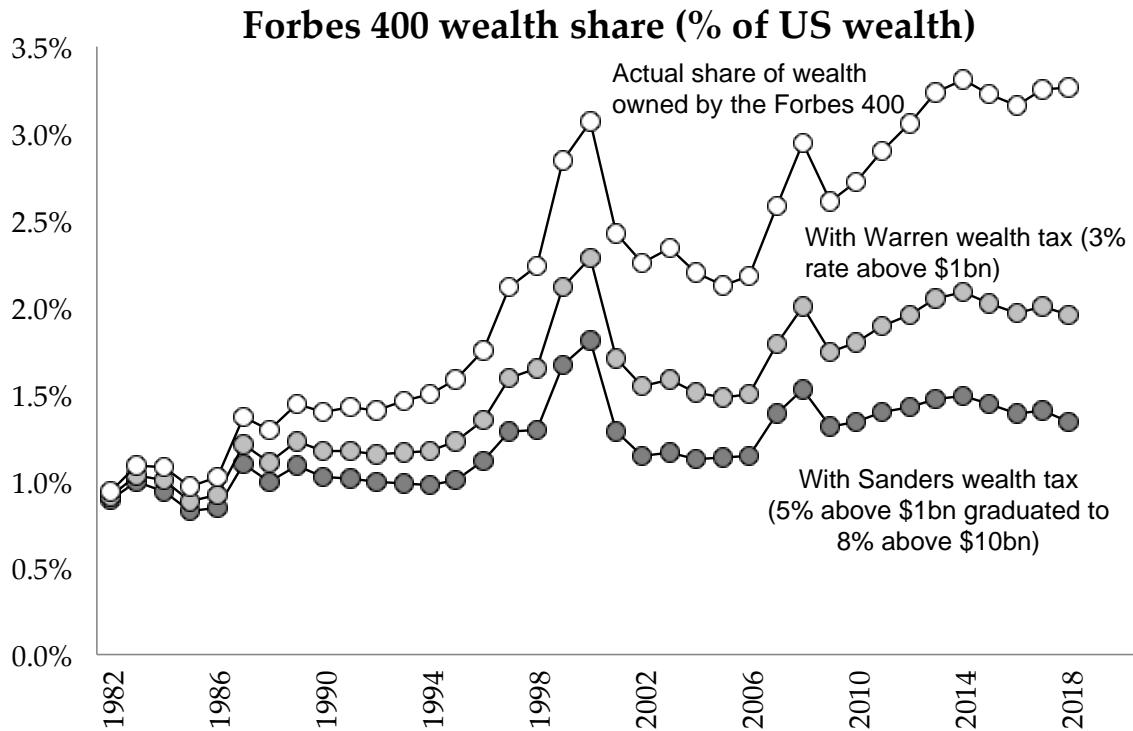
Top Wealth Holder	Source	Current 2018 wealth (\$ billions)	With Warren wealth tax since 1982 (3% above \$1b)	With Sanders wealth tax since 1982 (5% above \$1b graduated to 8% above \$10b)
1. Jeff Bezos	Amazon (founder)	160.0	86.8	43.0
2. Bill Gates	Microsoft (founder)	97.0	36.4	9.9
3. Warren Buffett	Berkshire Hathaway	88.3	29.6	8.2
4. Mark Zuckerberg	Facebook (founder)	61.0	44.2	28.6
5. Larry Ellison	Oracle (founder)	58.4	23.5	8.5
6. Larry Page	Google (founder)	53.8	35.3	19.5
7. David Koch	Koch industries	53.5	18.9	8.0
8. Charles Koch	Koch industries	53.5	18.9	8.0
9. Sergey Brin	Google (founder)	52.4	34.4	19.0
10. Michael Bloomberg	Bloomberg LP (founder)	51.8	24.2	11.3
11. Jim Walton	Walmart (heir)	45.2	15.1	5.0
12. Rob Walton	Walmart (heir)	44.9	15.0	5.0
13. Alice Walton	Walmart (heir)	44.9	15.0	4.9
14. Steve Ballmer	Microsoft (CEO)	42.3	18.2	7.5
15. Sheldon Adelson	Las Vegas Sands (founder)	35.5	18.4	9.3
Total (top 15)		943	434	196

Notes: The table lists the name, source of wealth, and wealth in 2018 of the top 15 richest Americans (Forbes magazine estimates). The last two columns show what their wealth would have been if the Warren wealth tax and the Sanders wealth tax had been in place since 1982. The Warren wealth tax has a 2% marginal tax rate above \$50 million and a 3% marginal tax rate above \$1 billion. The Sanders wealth tax has a 1% marginal tax rate above \$32 million, 2% above \$50m, 3% above \$250m, 4% above \$500m, 5% above \$1 billion, 6% above \$2.5b, 7% above \$5b, 8% above \$10b. The tax thresholds apply in 2018 and are indexed to the average wealth per family economy wide in prior years. The wealth tax has a much larger cumulative effect on inherited and mature wealth than on new wealth.

The figure below depicts the share of total wealth owned by the top 400 richest Americans since 1982 from Forbes magazine. The figure shows that the share of wealth owned by the top 400 has exploded from about 1% in the early 1980s to about 3.3% in recent years. The figure also depicts what their wealth share would have been if the Warren or Sanders wealth tax had been in place since 1982. With the Warren wealth tax in place since 1982, the Forbes 400 wealth share would have been 2.0% in 2018, substantially lower than the current 3.3% but still about twice as high as in the early 1980s. With the Sanders wealth tax in place since 1982,

the Forbes 400 wealth share would have been around 1.3% in 2018, much lower than the current 3.5% and still slightly higher than in early 1980s.

Which of the Warren and Sanders wealth tax--or none at all--is preferable is for the American people to decide. In this note, we wanted to lay out the facts so that a well informed democratic debate can take place.<sup>6</sup>



<sup>6</sup> Interested readers can find a much longer discussion of the merits and demerits of progressive taxation in our recent paper: Saez, Emmanuel and Gabriel Zucman "Progressive Wealth Taxation." *Brookings Papers of Economic Activity*, forthcoming Fall 2019, available [here](#).