

Top Inequality from the Bottom Up

Owen Zidar, Princeton and NBER

CESifo Area Conference on Public Economics

March 2021

*The views expressed here are the authors' and do not necessarily reflect those of the Treasury Department.

A “bottom up” micro-data approach to understanding top inequality in the U.S.

Linked capital income data can shed new light on inequality and policy implications

- Firm-owner-worker links (Smith, Yagan, Zidar, Zwick, 2019)
- Startup-founder-worker links (Chetty, Van Reenen, Zidar, Zwick, 2021)
- Innovative firm-owner-worker links (Kline, Petkova, Williams, Zidar, 2019)
- Interest income payer-payee links (Smith, Zidar, Zwick, 2021)

Plan for today: share ten observations on top inequality and tax policy

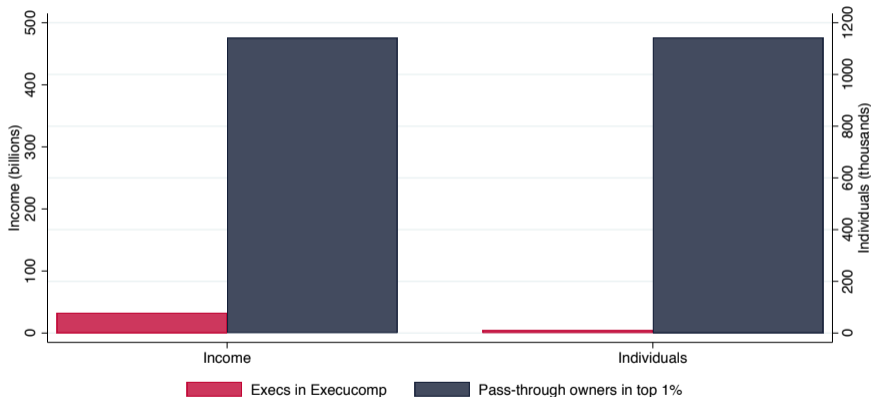
#1. The striking world of business owners at the top

What strikes me most in the United States is not the extraordinary greatness of some industrial enterprises, it is the innumerable multitude of small enterprises.

—ALEXIS DE TOCQUEVILLE (1838)

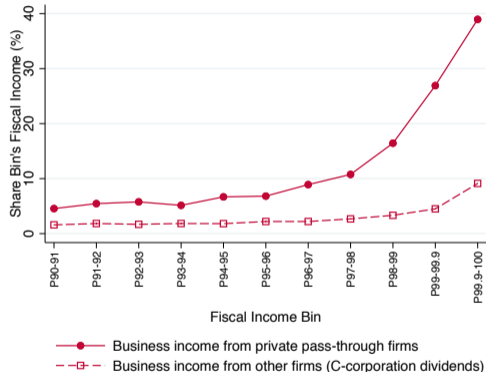
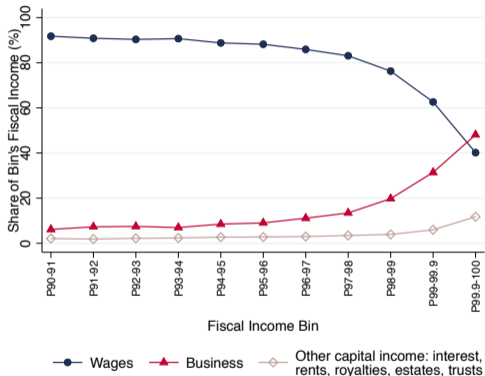
#1. The striking world of business owners at the top

Pass-through owners account for a much larger share of people and income in the top 1 percent than public company executives



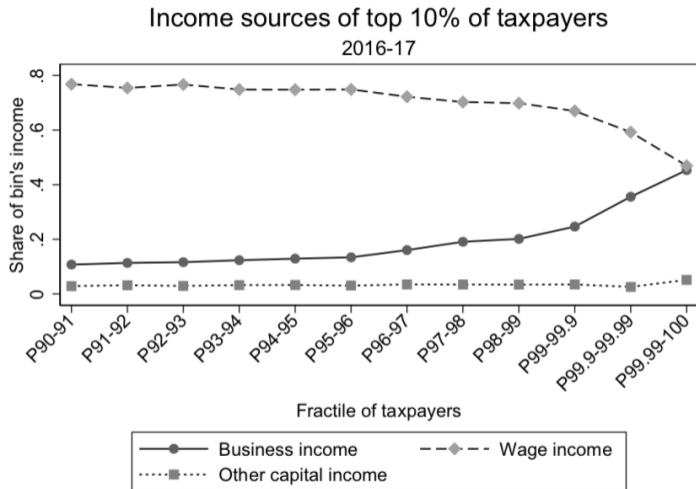
Source: Smith, Yagan, Zidar, and Zwick (2019)

#1. The striking world of business owners at the top



Source: Smith, Yagan, Zidar, and Zwick (2019)

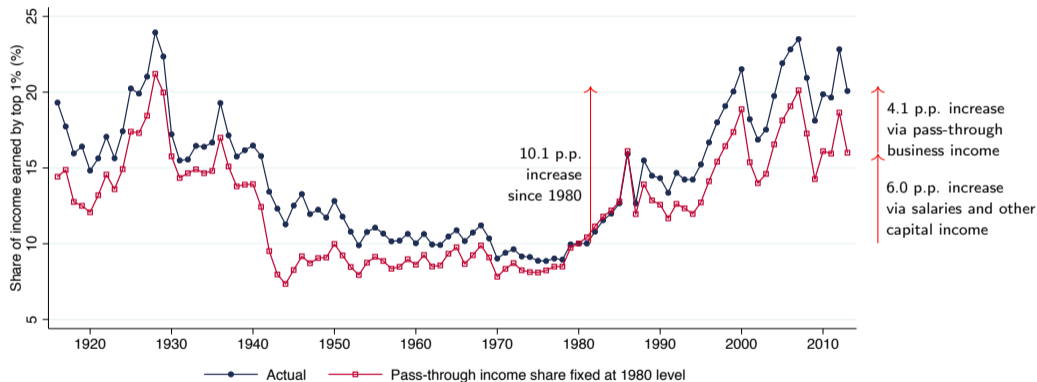
#1. The striking world of business owners at the top in the U.K.



Source: Delestre, Kopczuk, Miller, and Smith (2020)

#1. Business income growth important at top

Role of Pass-Through Income in Rising Top 1% Income Share



Source: Cooper, McClelland, Pearce, Prisinzano, Sullivan, Yagan, Zidar, Zwick (2016)

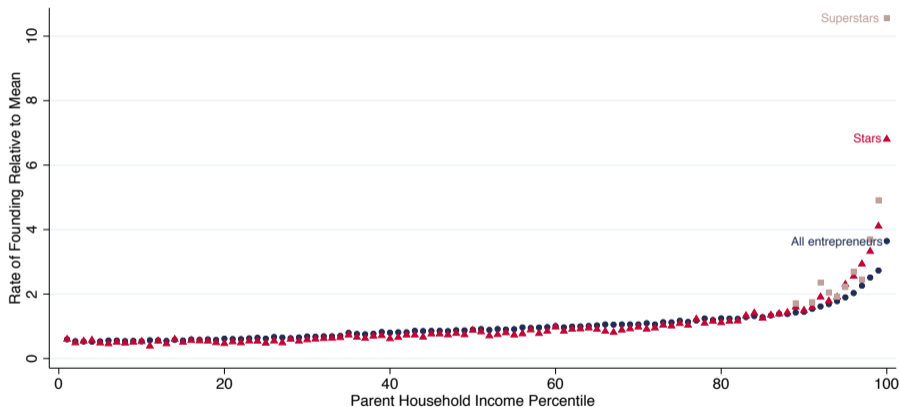
#1b. Business income growth important for measuring labor share



Source: Smith, Yagan, Zidar, and Zwick (2021)

#2. Many missing entrepreneurs

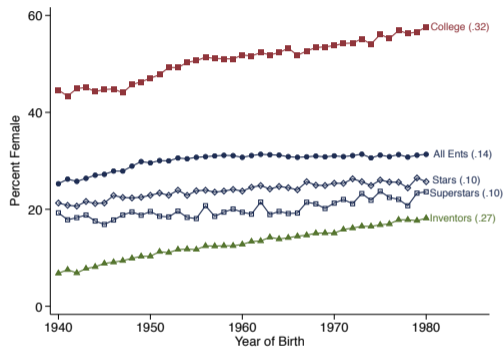
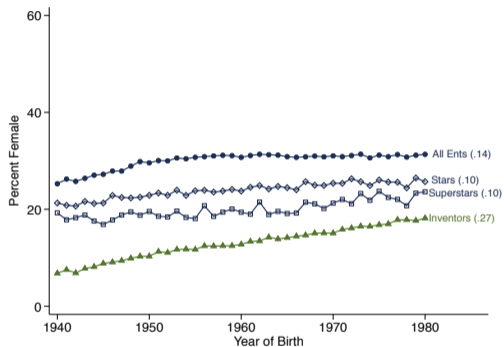
Entrepreneurship rates are lower for children of low-income families (preliminary)



Source: Chetty, van Reenen, Zidar, and Zwick (2021)

#2. Many missing entrepreneurs

Female entrepreneurship rates are stagnant despite growing share of college graduates (preliminary)

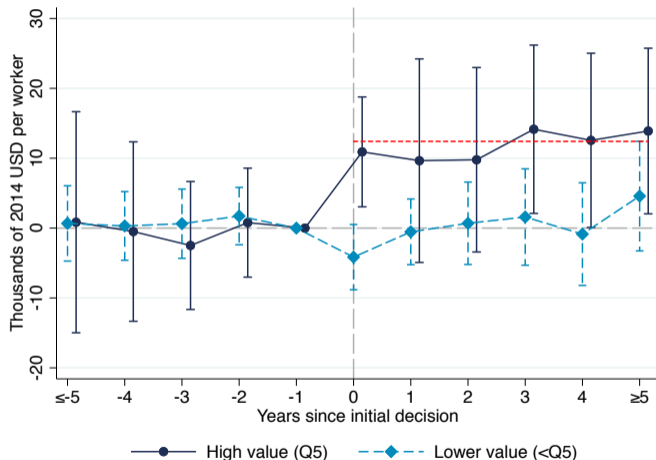


Growth rates (percentage points per year) in parentheses.

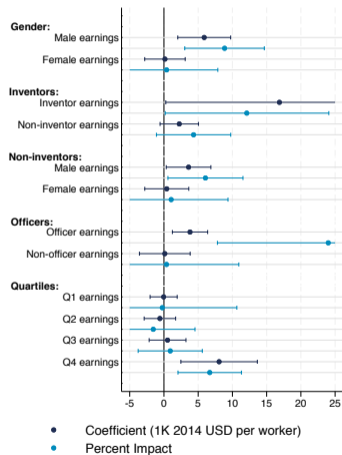
Source: Chetty, van Reenen, Zidar, and Zwick (2021)

#3. Who profits from patents? Creation & capture of rents at innovative firms

Surplus (EBITD + W2) per worker

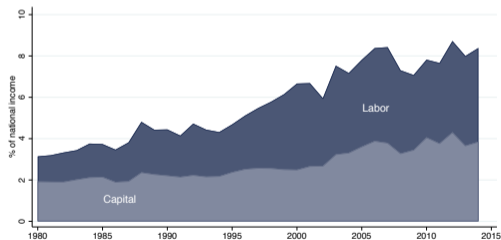
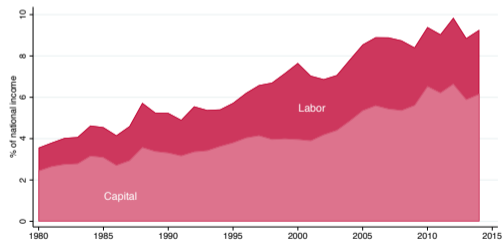
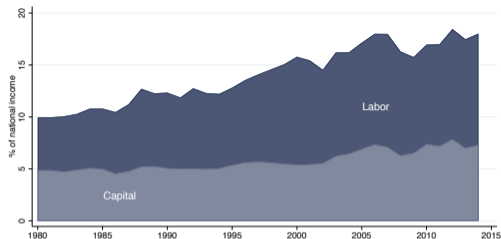
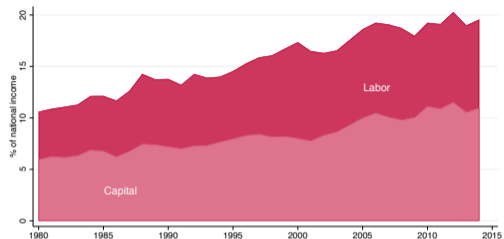


Wage impacts by worker type



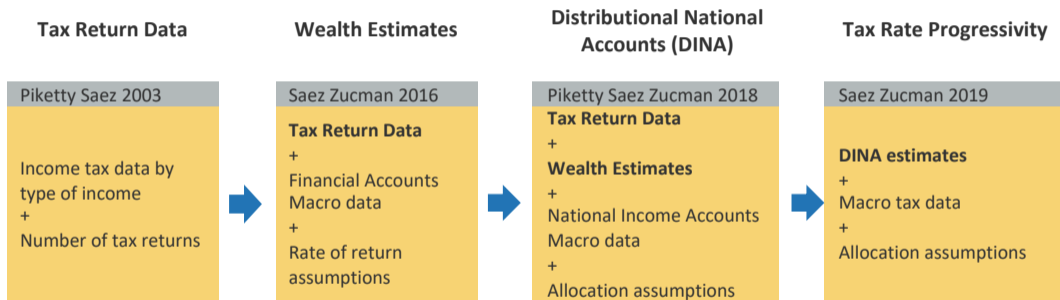
Source: Kline, Petkova, Williams, and Zidar (2019).

#4. Top income is clearly rising, but debate about sources of rise



Source: Smith, Zidar, and Zwick (2020)

#5. Measurement matters: need to understand wealth distribution to understand distribution of national income (DINA) and tax progressivity statistics



Source: Zwick (2019).

http://www.ericzwick.com/public_goods/jec_testimony_EZ_20191016.pdf

#5b. Fixed income wealth is less concentrated than interest income

Identification problems when using the capitalization method to estimate wealth components by group

Goal: Estimate fixed income wealth for top W_{fix}^T and bottom W_{fix}^B

$$y_{fix}^T = r_{fix}^T \times W_{fix}^T \quad (1)$$

$$y_{fix}^B = r_{fix}^B \times W_{fix}^B \quad (2)$$

$$W_{fix} = W_{fix}^T + W_{fix}^B \quad (3)$$

where

- y_{fix}^T, y_{fix}^B interest are observed in tax data income of T and B
- W_{fix} total fixed income wealth is observed in Financial Accounts
- But 4 unknowns: $W_{fix}^T, W_{fix}^B, r_{fix}^T, r_{fix}^B$

Problem: Under-identified. Need assumptions to proceed (e.g., set r_{fix}^T and/or r_{fix}^B)

Comparing alternative capitalization approaches to address under-identification

Equal returns

Assumption: Aggregate yield for all

$$r_{fix}^T = r_{fix}^B = \bar{r}_{fix}$$

where

$$\bar{r}_{fix} = \frac{y_{fix}}{W_{fix}}$$

Results:

$$\hat{W}_{fix}^T = y_{fix}^T \times \frac{1}{\bar{r}_{fix}}$$
$$\hat{W}_{fix}^B = y_{fix}^B \times \frac{1}{\bar{r}_{fix}}$$

Heterogeneous returns

Assumption: Top get higher yield

$$r_{fix}^T = r_{Aaa}$$

Results:

$$\hat{W}_{fix}^T = y_{fix}^T \times \frac{1}{r_{Aaa}}$$
$$\hat{W}_{fix}^B = W_{fix} - y_{fix}^T \times \frac{1}{r_{Aaa}}$$

Comparing alternative capitalization approaches

Example with 2016 data

Equal returns

Assumption: Aggregate yield for all

$$\bar{r}_{fix} = \left(\frac{\$102B}{\$12.6T} \right) = 0.81\%$$

Results:

$$\hat{W}_{fix}^T = \$51B \times \underbrace{\left(\frac{1}{0.81\%} \right)}_{\text{Cap factor}=124} = \$6.3T$$

$$\hat{W}_{fix}^B = \$51B \times \left(\frac{1}{0.81\%} \right) = \$6.3T$$

Heterogeneous returns

Assumption: Top get higher yield

$$r_{fix}^T = r_{Aaa} = 3.66\%$$

Results:

$$\hat{W}_{fix}^T = \$51B \times \underbrace{\left(\frac{1}{3.66\%} \right)}_{\text{Cap factor}=24} = \$1.2T$$

$$\hat{W}_{fix}^B = \$12.6T - \$1.2T = \$11.4T$$

Two Approaches in Smith-Zidar-Zwick (2021) to address identification issue

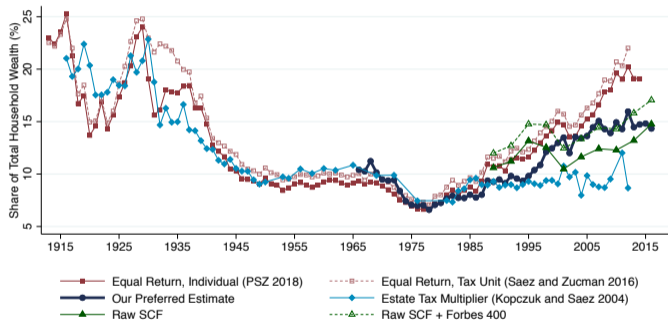
1. **New data:** build linked payer-payee data on interest income
2. **New methods:** use covariance structure of interest income, assets, & return data

[Currently working on an updated wealth series incorporating results from these approaches. Stay tuned!]

#6. Wealth inequality rising, but by less than some methods find (in progress)

Depends on government policy too (Social Security)

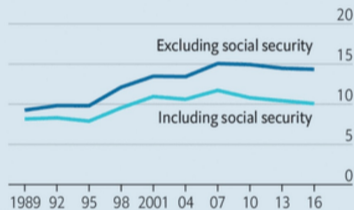
Top 0.1% Share of Total Wealth...



...Including Social Security

A wealth of estimates

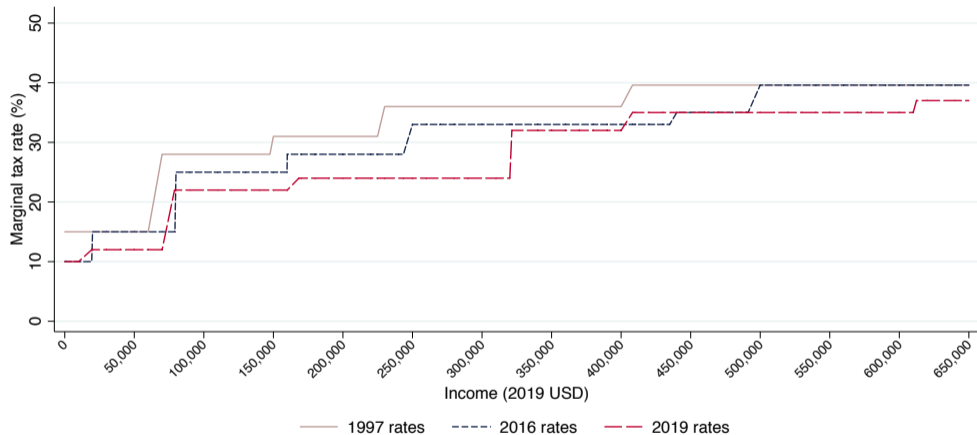
United States, share of wealth accruing to richest 0.1% of population, %



Sources: "Social Security and Trends in Inequality", by Sylvain Catherine et al.; "Top Wealth in America: New Estimates and Implications for Taxing the Rich", by Matthew Smith et al.

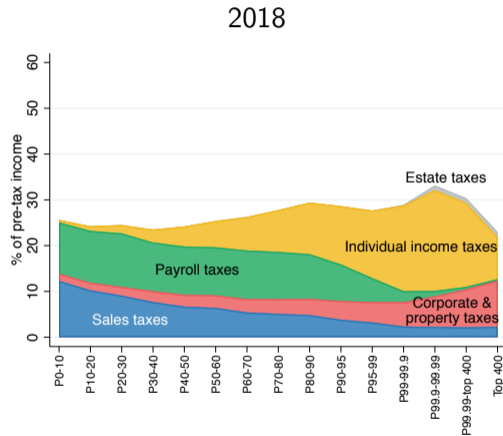
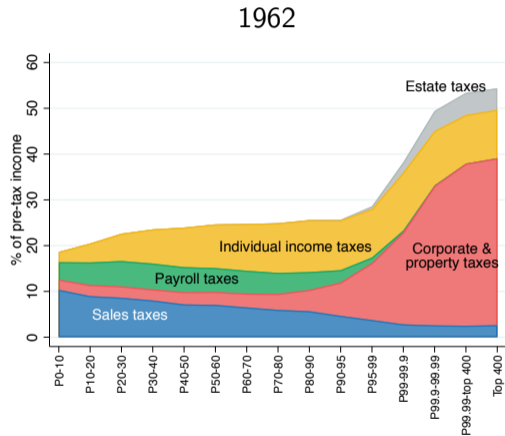
Sources: Smith, Zidar, and Zwick (2020); *The Economist* "Have the top 0.1% of Americans made out like bandits since 2000?"

#7. Big tax cuts in recent decades at the top



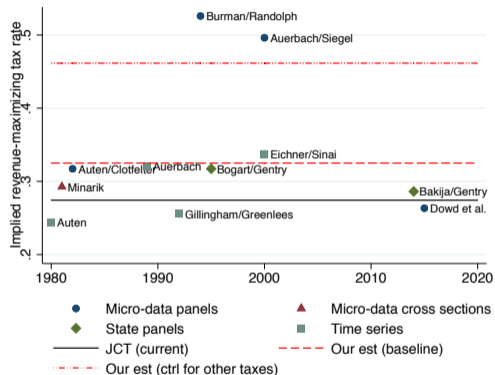
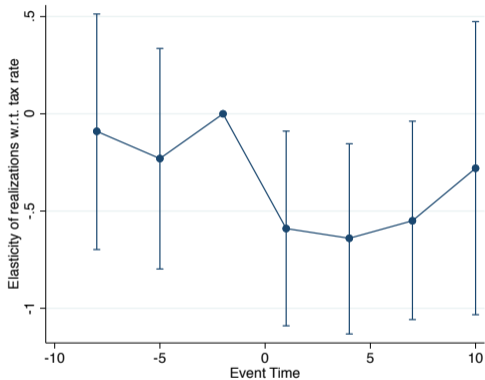
Source: Zidar and Zwick (2020)

#8. The U.S. collects much less revenue from the top than in the past



Source: Saez and Zucman (2019) "Tax Justice Now."

#9. The revenue potential of top capital gains taxes is larger than many believe



Source: Sarin, Summers, Zidar, and Zwick (2021); Agersnap and Zidar (AER: Insights, Forthcoming).

#9. The revenue potential of top capital gains taxes is larger than many believe

1. Many prior studies focus primarily on short-run taxpayer responses, and so miss revenue from gains that are deferred when rates change
2. Composition of capital gains has shifted in recent years, such that the share of gains that are highly elastic to the tax rate has likely declined
3. Fiscal spillovers from decreasing the preferential tax treatment for capital gains
4. Base-broadening reforms, like eliminating stepped-up basis and making charitable giving a realization event, will decrease the elasticity of the tax base to rate changes

Source: Sarin, Summers, Zidar, and Zwick (2021).

#9. The revenue potential of top capital gains taxes is larger than many believe

Unofficial estimates of revenue potential from taxing capital gains at ordinary income levels

Source	Revenue estimate (\$B)	Elasticities	Notes
Penn Wharton Budget Model	382	With step-up in basis: -0.66 Eliminating step-up in basis: -0.53	Reported estimate includes \$178B from taxing capital gains and dividends at ordinary rates, and \$204B from repealing step-up in basis
Tax Foundation	469	Long-run: -0.79 Transitory: -1.2 (year 1) and -1.0 (year 2)	Tax capital gains and dividends at the same rate as ordinary income for those with income \$1M+ and repeal step-up in basis
Tax Policy Center	373	With step-up in basis: -0.7 Eliminating step-up in basis: -0.4	Tax capital gains and dividends at the same rate as ordinary income for those with income \$1M+ and tax unrealized gains at death

Notes: From Sarin, Summers, Zidar, and Zwick (2021). All rows present 10 year revenue estimates for raising the tax on capital gains and dividends to ordinary rates (39.6%) for income above \$1 million and eliminating the step-up in basis at death.

#9. The revenue potential of top capital gains taxes is larger than many believe

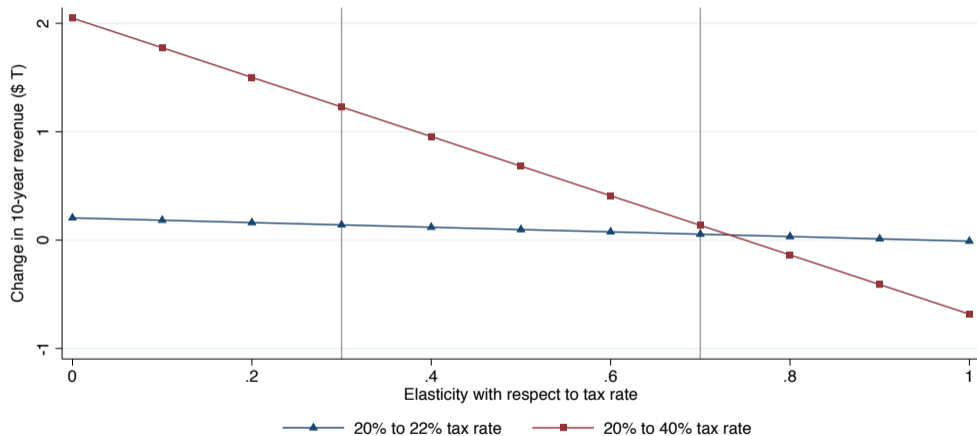
Realization and revenue estimates for 2 p.p. and 20 p.p. tax rate increases, by elasticity

	CBO Projections		t = 22%						t = 40%					
			Realizations			Revenue			Realizations			Revenue		
	Realizations	Revenue	e = 0	e = -0.3	e = -0.7	e = 0	e = -0.3	e = -0.7	e = 0	e = -0.3	e = -0.7	e = 0	e = -0.3	e = -0.7
2020	1,013	203	1,013	984	945	223	216	208	1,013	810	540	405	324	216
2021	1,009	202	1,009	980	942	222	216	207	1,009	807	538	404	323	215
2022	1,004	201	1,004	975	937	221	215	206	1,004	803	535	402	321	214
2023	987	197	987	959	921	217	211	203	987	790	526	395	316	211
2024	986	197	986	958	920	217	211	202	986	789	526	394	316	210
2025	996	199	996	968	930	219	213	205	996	797	531	398	319	212
2026	1,016	203	1,016	987	948	224	217	209	1,016	813	542	406	325	217
2027	1,043	209	1,043	1,013	973	229	223	214	1,043	834	556	417	334	223
2028	1,074	215	1,074	1,043	1,002	236	230	221	1,074	859	573	430	344	229
2029	1,110	222	1,110	1,078	1,036	244	237	228	1,110	888	592	444	355	237
SUM	10,238	2,048	10,238	9,945	9,555	2,252	2,188	2,102	10,238	8,190	5,460	4,095	3,276	2,184

Source: Sarin, Summers, Zidar, and Zwick (2021).

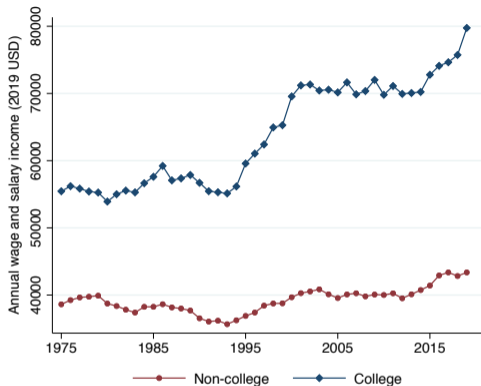
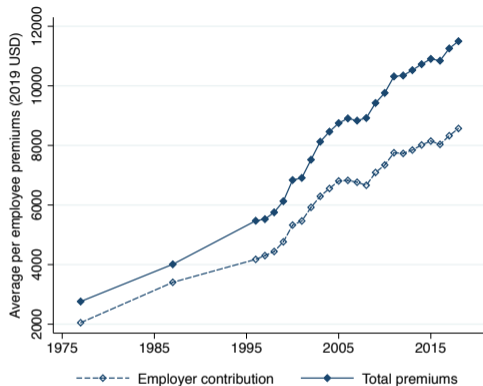
#9. The revenue potential of top capital gains taxes is larger than many believe

Illustrative revenue estimates for different elasticities



Source: Sarin, Summers, Zidar, and Zwick (2021).

#10. Growing Health wedge exacerbates U.S. labor market inequality

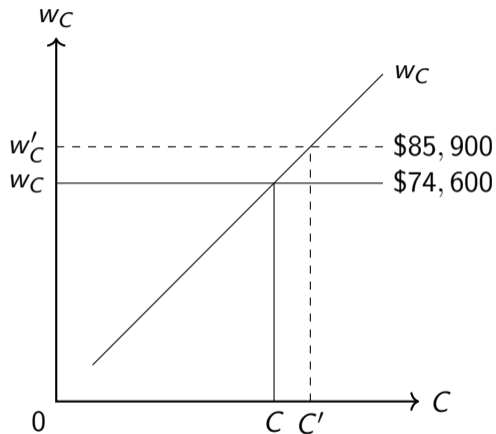
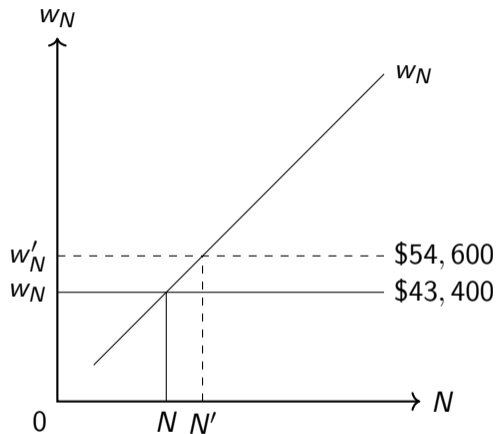


Sources: Finkelstein, Zidar, and Zwick (2021). Health premia from Medical Expenditure Panel Survey. Wage data from American Community Survey.

▶ [Data details](#)

#10. Growing Health wedge exacerbates U.S. labor market inequality

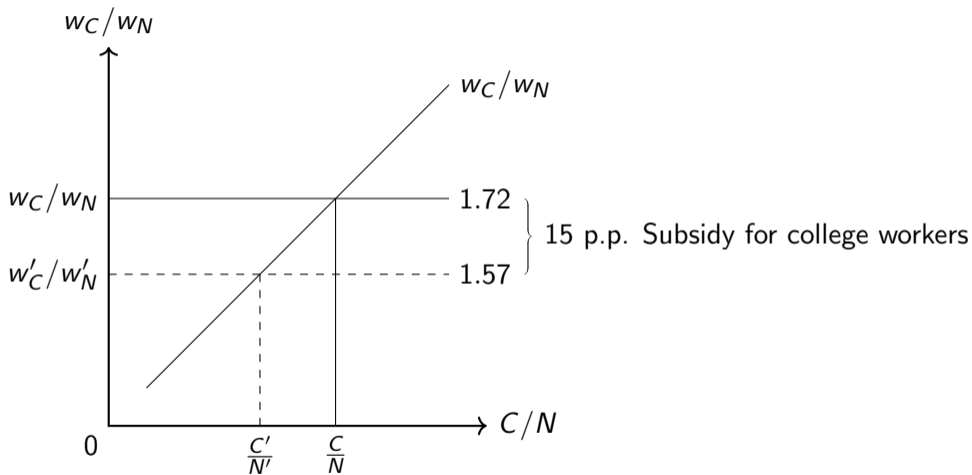
Calibration with 2017 values in stylized linear demand model with college and non-college workers



Source: Finkelstein, Zidar, and Zwick (2021).

#10. Growing Health wedge exacerbates U.S. labor market inequality

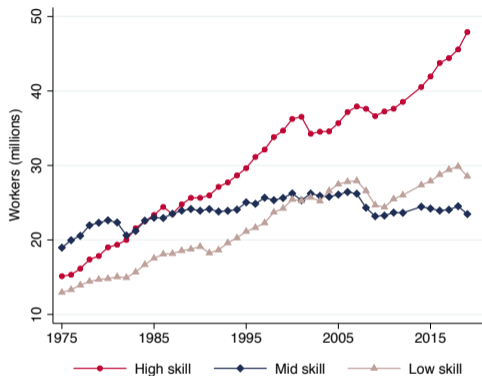
Calibration with 2017 values in stylized linear demand model with college and non-college workers



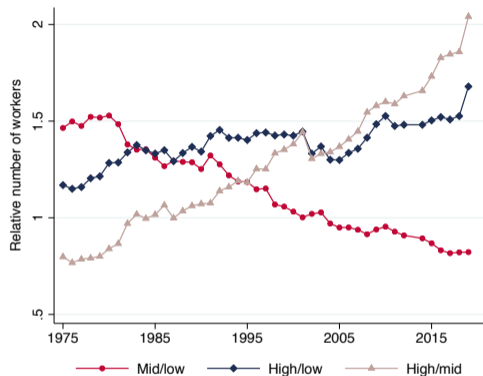
Source: Finkelstein, Zidar, and Zwick (2021).

#10. Growing Health wedge also exacerbates hollowing out of labor market

Workers by skill group



Relative skill group frequencies



Notes: Finkelstein, Zidar, and Zwick (2021). Quantities from CPS retrieved via IPUMS. Skill groups defined following Dorn (2019). “Low-skill” = Health & personal services, Clean & protect services, Operator/laborer. “Mid-skill” = Production, Office/administration, Sales. “High-skill” = Technicians, Professionals, Managers.

Concluding Summary: Ten Observations on Top Inequality and Taxation

1. The striking world of business owners at the top
2. Many missing entrepreneurs
3. Earnings effects of innovative firms mainly to men and top of wage distribution
4. Top income is clearly rising, but debate about sources of rise
5. Measurement matters and wealth is upstream of key inequality statistics
6. Wealth inequality rising, but magnitudes depend on heterogeneity assumptions
7. Big income tax cuts in recent decades at the top
8. U.S. collects much less revenue from the top than in the past
9. Revenue potential of top capital gains taxes is larger than many believe
10. Growing health wedge exacerbates U.S. labor market inequality

Thanks!

Details on data

- Income/earnings data from CPS ASEC via IPUMS
- “College” group has “Some college” or more education
- Sample comprises individuals aged 18-64 working 30+ hours per week at single job for 50-52 weeks per year
- Exclude self-employed, public sector employees (public administration as well as active-duty military)

▶ [Go back](#)