

# Tax Evasion at the Top of the Income Distribution: Theory and Evidence

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<sup>1</sup>The views expressed here are those of the authors and do not necessarily reflect the official view of the Internal Revenue Service. This project was conducted through the Joint Statistical Research Program of the Statistics of Income Division of the IRS. All data work for this project involving confidential taxpayer information was done on IRS computers, by IRS employees, and at no time was confidential taxpayer data ever outside of the IRS computing environment. Reck and Risch have been IRS employees detailed under agreements made possible by the Intragovernmental Personnel Act of 1970 (5 U.S.C. 3371-3376) and the IRS Student Volunteer Program.

# Motivation

## **What is the distribution and composition of tax evasion in the United States?**

- ▷ Important for the study of inequality, distributional national accounts, and tax enforcement policy
- ▷ Key data source for empirical study of individual tax evasion: random audits (National Research Program, NRP in the US)
- ▷ Important challenge: difficulty capturing top-end evasion
  - ▷ Audits do not detect all evasion
  - ▷ Likely esp. difficult at the top: complex finances and pass-through ownership structures

# This paper

- ▷ Combine data on random audits, operational audits, and targeted offshore enforcement
- ▷ Demonstrate that random audits miss some top-end evasion
  - ▷ e.g. offshore financial accounts, pass-through businesses
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- ▷ Propose adjustments to IRS estimates of income-under reporting, tax gap
  - ▷ Adjustments modest on aggregate: adjusted tax gap = 1.1x current estimate
  - ▷ ...but large at the top: x1.5 for top 1%, >2x for top 0.1%

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  - ▷ Adjustments modest on aggregate: adjusted tax gap = 1.1x current estimate
  - ▷ ...but large at the top: x1.5 for top 1%, >2x for top 0.1%
- ▷ Provide a theoretical explanation for why random audits miss some top-end evasion: **costly concealment of evasion**

# Implications for inequality

- ▷ Accounting for federal income tax evasion increases the estimated top 1% share
- ▷ Conservative adjustments for offshore and pass-through evasion increase the top 1% income share
  - ▷  $\approx 1$  pp relative to top 1% reported income share
  - ▷ rise in top 1% share is robust to alternative specifications
- ▷ Large effect on distribution of unreported income:  $\approx 20$  pp increase in top 1% share of unreported income when including offshore and pass-through evasion

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  - ▷ Growing importance of pass-throughs at the top: Cooper et al 2016; Smith et al 2019; Smith Zwick Zidar 2020
- ▷ Propose a demand-side model of concentrated sophisticated evasion building on Allingham & Sandmo (1972)
  - ▷ c.f. supply-side model in Alstadsaeter Johannesen Zucman (2019).

# Outline

- ▷ Random audit methods & estimates
- ▷ What random audits miss at the top:
  - ▷ Offshore financial accounts
  - ▷ Pass-through businesses
- ▷ Existing estimates of undetected evasion
- ▷ Corrected aggregate estimates
- ▷ Theory

# Background: NRP random audits

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- ▷ We pool 2006–07, 2008–09, 2010–13 NRP waves (IRS 2012, 2016, 2019)
- ▷ Stratified random sample. Over-samples top & negative incomes.
- ▷ → 105,160 audited taxpayers, of which 12,053 in the top 1% of the reported income distribution.
- ▷ We use NRP weights/population estimates throughout; reported aggregates match SOI data.

# NRP data: Methods

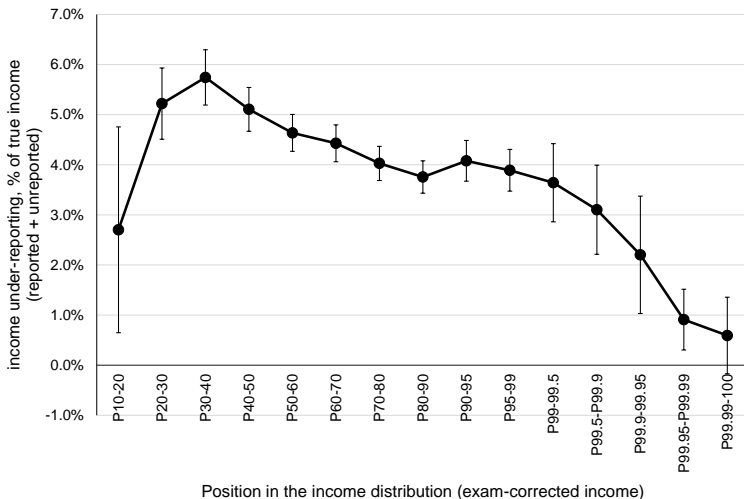
- ▷ Conditional on income, estimate:
  - ▷ **Income under-reporting gap** = total under-reporting / total true income
  - ▷ **Tax gap** = total evaded tax / total true tax
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- ▷ Rank individuals by *corrected market income* (re-ranking matters!)
- ▷ Initially: use under-reporting detected in random audits, with no adjustments.
- ▷ Then examine and incorporate sophisticated evasion (offshore + pass-through businesses)
- ▷ Then incorporate existing adjustments undetected evasion in official statistics (IRS 2012, 2016, 2019)

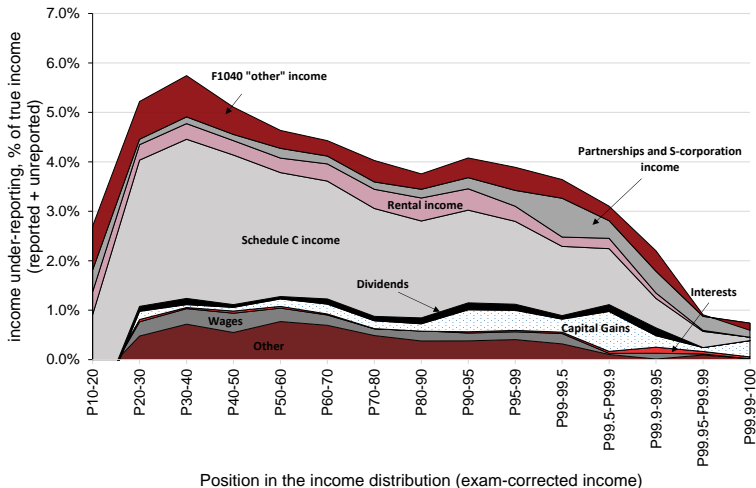


# The random-audit-detected rate of under-reporting falls sharply at the top



# Random audits detect mostly self-employment (Sch. C) non-compliance

▶ [Table](#)



# Limitations of random audit data

- ▷ These estimates are subject to two potential limitations:
  - ▷ Some auditors detect systematically more than others. Official statistics aim to capture this with “Detection Controlled Estimation” (DCE).
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  - ▷ Even thorough auditors face difficulty detecting evasion by wealthy individuals with sophisticated finances.
- ▷ Reasons to doubt the sharp dropoff in evasion within the top 1%:
  - ▷ Operational audits of  $\approx 10\%$  of taxpayers in the top 0.01% by reported income detect *more dollars of under-reporting than NRP estimates for the full population* ▶ Fig
  - ▷ Comprehensiveness of information reported by third parties declines sharply within the top 1% ▶ Fig

# Offshore Evasion: Background & Methods

- ▷ The US cracked down on tax evasion via offshore financial accounts starting in 2008
- ▷ Building on Johannesen et al (2020), create lists of individuals likely to have been non-compliant before 2008 crackdown
  - ▷ Offshore Voluntary Disclosure Program (OVDP) participants
  - ▷ Likely “quiet disclosers:” new Foreign Bank Account Reports (FBAR), w/ US addresses & tax haven accounts<sup>2</sup>

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- ▷ Describe individuals/wealth by income rank (after disclosure)

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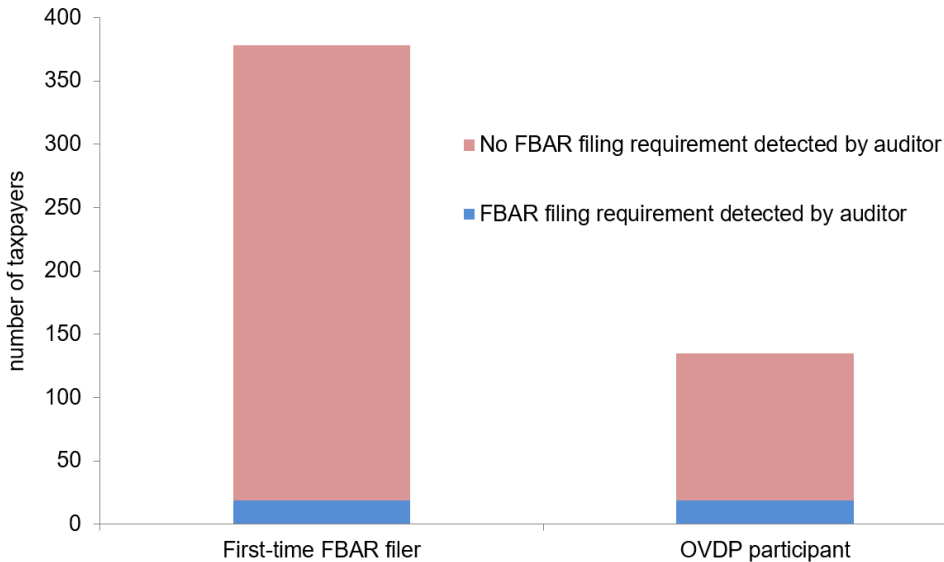
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- ▷ Describe individuals/wealth by income rank (after disclosure)
- ▷ Construct corrected estimates of under-reporting/tax gap, following Alstadsaeter Johannesen Zucman (2019) [▶ Details](#)
  - ▷ Limitation: selected data on offshore wealth
  - ▷ Conduct extensive sensitivity analysis

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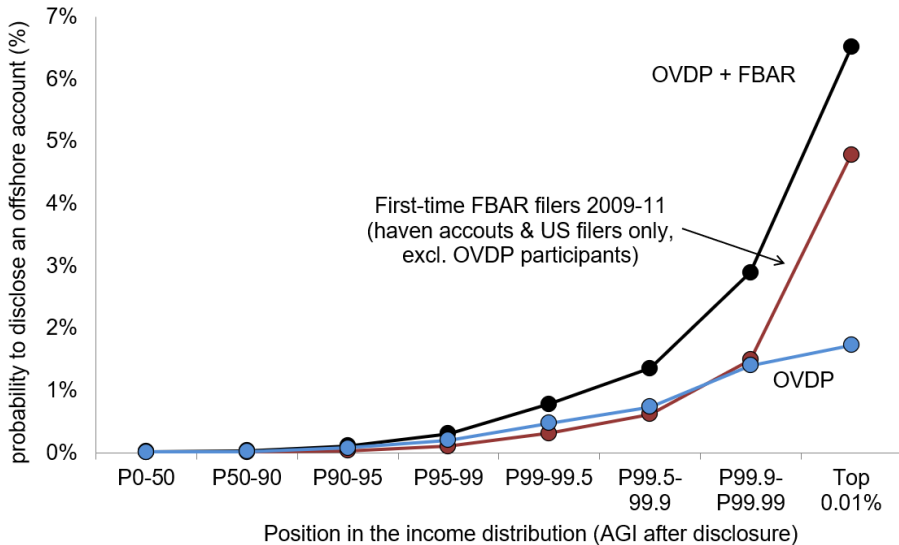
# Random audits do not detect offshore evasion that we know was happening

▶ Rare Detection of FBAR Non-Compliance

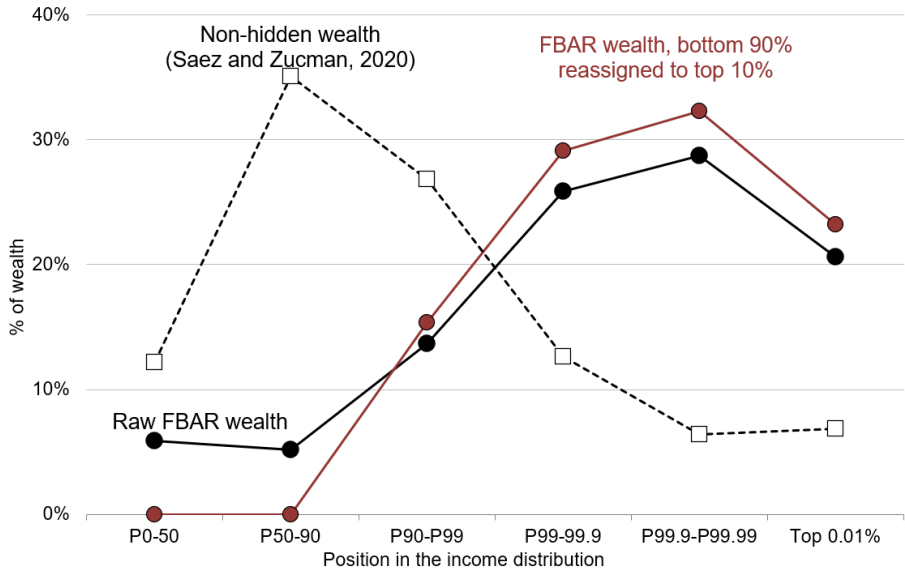




# About 7% of top earners disclosed an offshore account in these data



# Estimated distribution of hidden and non-hidden wealth



## Information from criminally prosecuted cases involving offshore tax evasion

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- ▷ Dollar amounts evaded range from hundreds of thousands to multi-millions over multiple years
- ▷ How sophisticated are the arrangements?
  - ▷ 22% involve directly held, concealed accounts; 78% held through at least one offshore company
  - ▷ Indications of complex tiered ownership structures in 35% of case records
- ▷ In  $\approx 30\%$  of cases, records suggest that pre-tax business profits were diverted offshore to dodge business income taxes
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- ▷ Note that obviously, this set of prosecuted cases is not representative

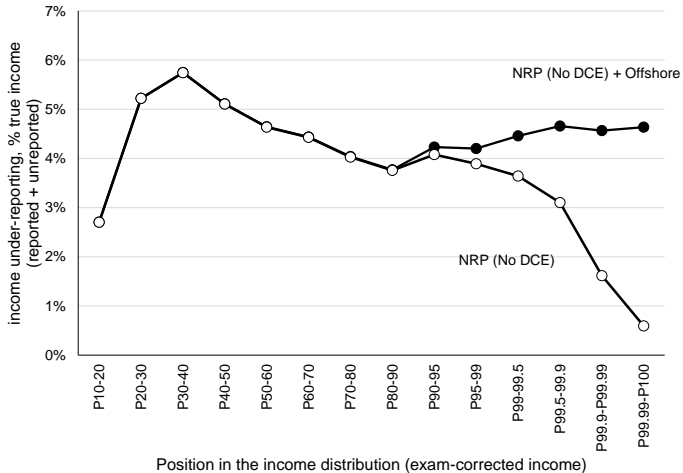
# Assumptions for estimating the importance of undetected offshore income

| Parameter                             | Lower-bound scenario | Preferred scenario         | Upper-bound scenario |
|---------------------------------------|----------------------|----------------------------|----------------------|
| Amount of US wealth in tax havens     | \$750 B              | \$1,058B                   | \$1,500B             |
| Fraction of offshore wealth concealed | 85%                  | 95%                        | 100%                 |
| Rate of return on offshore wealth     | 4.65 %               | 6%                         | 11%                  |
| Distribution of offshore wealth       | FBAR                 | Average of FBAR and Nordic | Nordic               |
| Average Marginal Tax Rate             | 20%                  | 25%                        | 30%                  |

▶ Back

# Adding unreported offshore income to detected under-reporting

► Sensitivity



# Pass-through evasion: Background

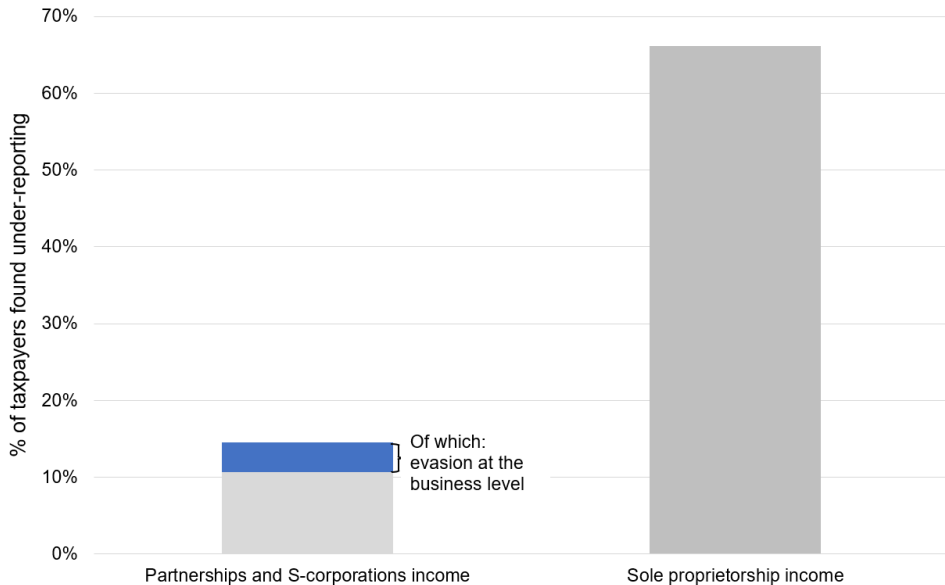
- ▷ NRP random audits primarily examine individual tax returns
- ▷ Pass-through businesses (S-corps, partnerships) file own tax returns, distribute income to their owners on Schedules K-1
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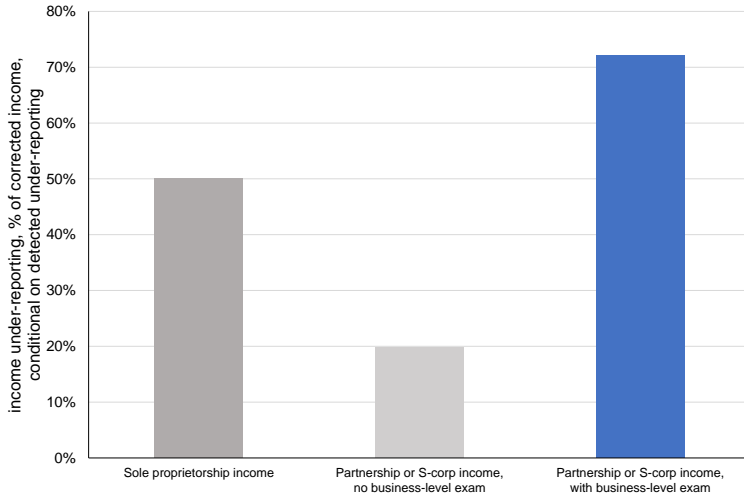
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  - ▷ NRP auditors have limited resources to examine pass-throughs
  - ▷ Pass-throughs very rarely examined in NRP audits, but when they are, auditors find significant non-compliance.
- ⇒ *NRP random audits likely do not detect all evasion via pass-through business entities*

# Rarity of business-level audits $\implies$ Rarity of detected under-reporting for S corps and partnerships



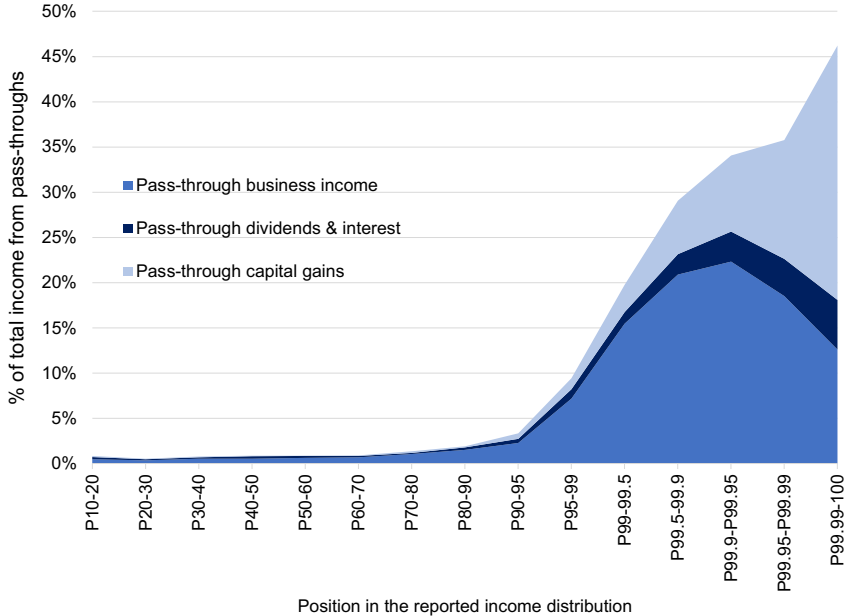
# When business-level evasion is detected, the under-reporting rate is high

The 3.8% of cases with detected entity-level under-reporting account for **58%** of all detected pass-through under-reporting.



Note: conditioning on detected under-reporting in all cases.

# Pass-through Income is Highly Concentrated [Details](#)



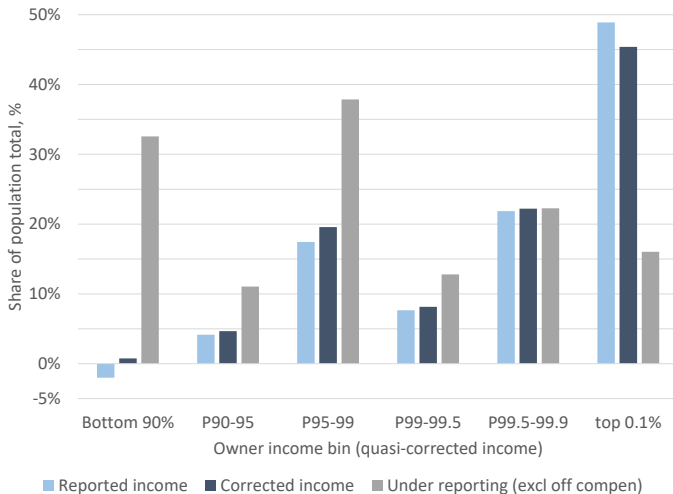
# Random Audits of Pass-Throughs

- ▷ No recurring random audit program for pass-throughs
- ▷ We study a small-scale random audit program for S corporations in TY2003-2004,  $N = 4,515$
- ▷ Overall: estimate 19.5% of true S corp net business income under-reported on entity return
  - ▷ c.f. 4.6% for entity + individual-level under-rep. according to individual random audit data
  - ▷  $\approx 60\%$  of net under-reporting is over-claiming of expenses
- ▷ We link audited S corps to owners, rank owners by income corrected for S corp non-compliance (“quasi-corrected” income)
- ▷ Make no adjustments for undetected evasion

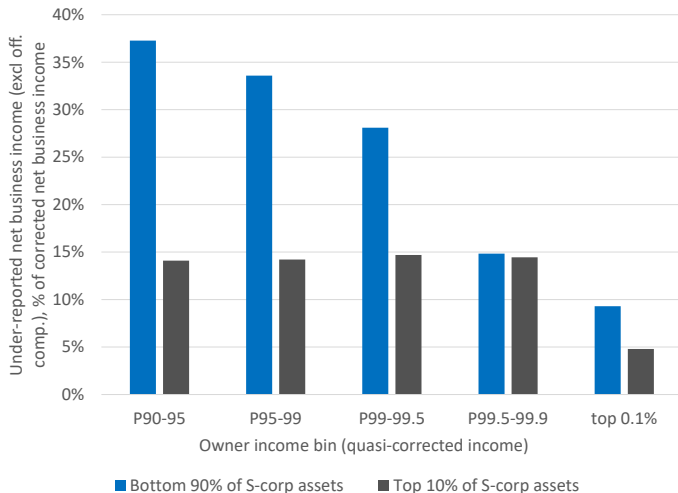
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- ▷ Most recent p-ship random audits: TCMP 1982(!), 26% under-rep rate

# Estimated unreported income is less concentrated than reported S Corp income



# Under-Reporting Rates by Firm Size and Owner Income





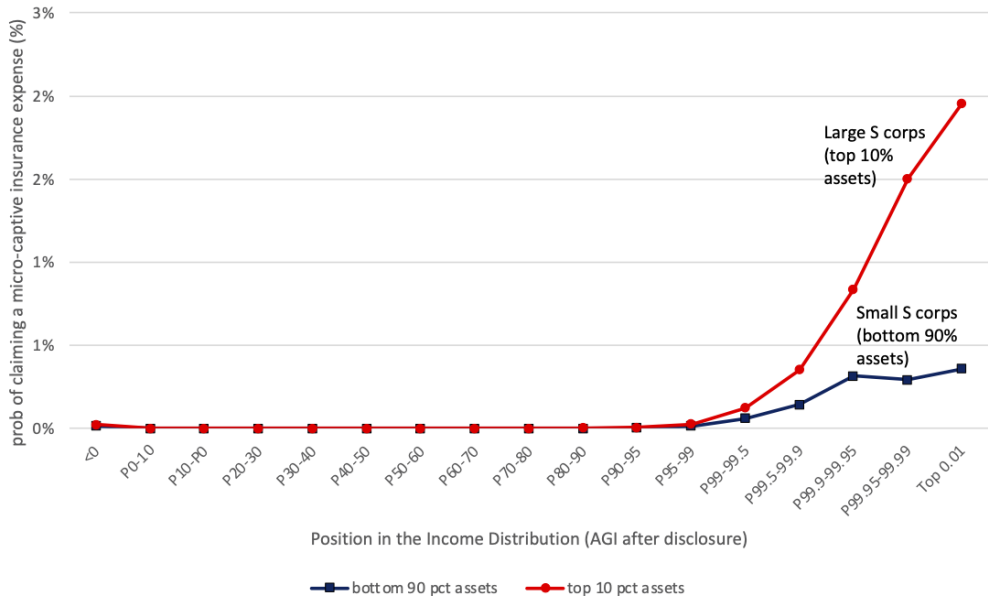
# Lessons & Limitations

- ▷ Small S Corps resemble sole props/Sch. C: high mis-reporting rate like the individual NRP for sole props (37%)
- ▷ Large S corps resemble closely held C corps: 15-18% mis-reporting rate according to tax gap studies (2016, 2019)
- ▷ Large drop in non-compliance estimated for large S corps with top 0.1% owners. Is this driven by non-detection?

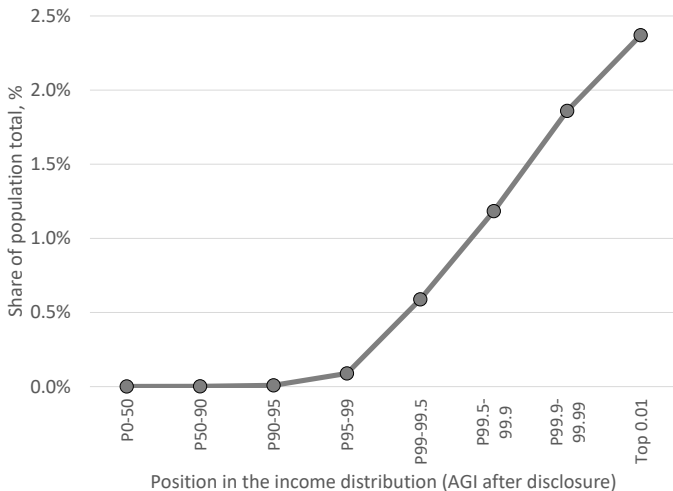
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- ▷ Supplement with two datasets on sophisticated evasion in pass-through businesses, building on internal work at IRS [▶ Details](#)
  - ▷ *Micro-captive Insurance*: claim an insurance expense for a payment to one's own (offshore) company.  $N = 11,458$  owners of S corps.
  - ▷ *Syndicated Conservation Easements*: donate over-valued development rights on land, claim a charitable contribution via a pass-through entity.  $N = 23,106$  owners.

# Probability of Using Microcaptives Increases for Top Owners of Large S Corps



# Probability of Using Syndicated Conservation Easements Also Increases at the Top



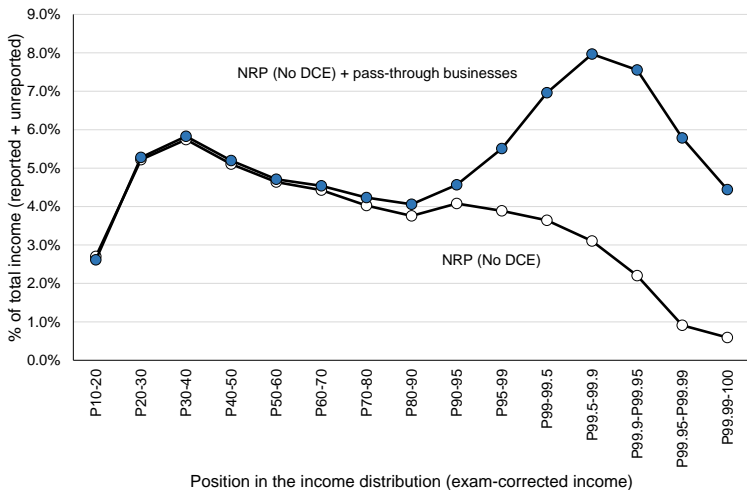
# Specifying & Distributing Pass-Through Evasion

Building on what we see in the S Corp random audit study and additional data, assume:

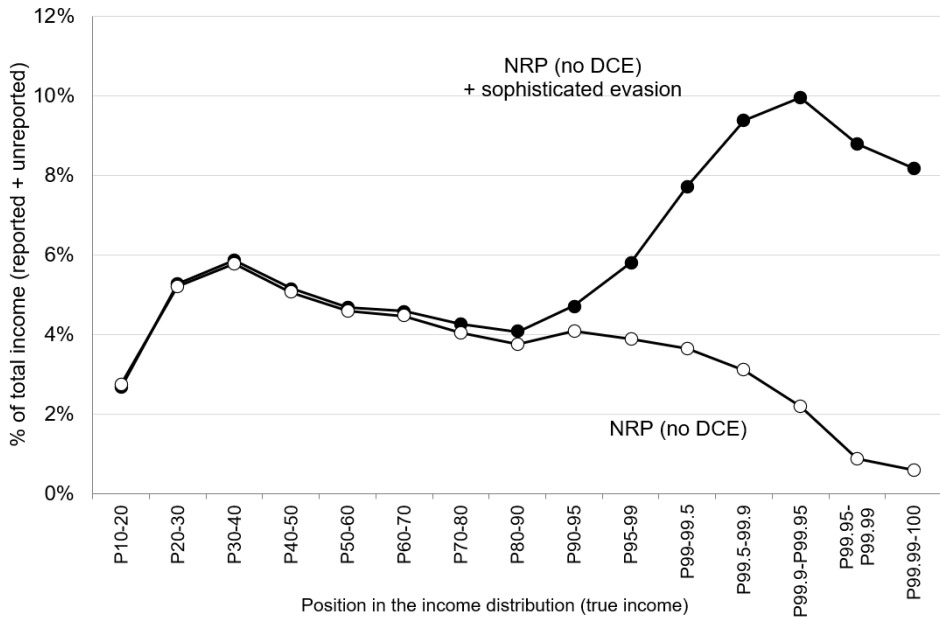
- ▷ 20% of true pass-through *business income* is under-reported
- ▷ Pass-throughs under-report *financial capital income* at same rate NRP data suggested for individuals
- ▷ Unreported pass-through income is distributed like reported pass-through income:
  - ▷ e.g. 70% of reported p-t income is in the top 1% by reported income  
⇒ 70% of unreported p-t income is in the top 1% *by true income*.
  - ▷ In sensitivity analysis: lower bound supposing S corp NRP data detects 100%, and S corps similar to partnerships [▶ Partnership Complexity](#)
- ▷ Remove 58% of detected pass-through evasion from NRP totals to prevent double counting [▶ Details](#)

# Adding Pass-Through Evasion To Random Audit Estimates (No DCE)

▸ Sensitivity



# Adding Pass-Through *and* Offshore Evasion To Random Audit Estimates (No DCE)



# Incorporating Detection-Controlled Estimation (DCE) Adjustments

- ▷ Not all undetected evasion is offshore/pass-through evasion
- ▷ Official statistics of the tax gap use DCE methods to account for undetected evasion:
  - ▷ A1: Some auditors find 100% of evasion
  - ▷ A2: Auditors as good as randomly assigned



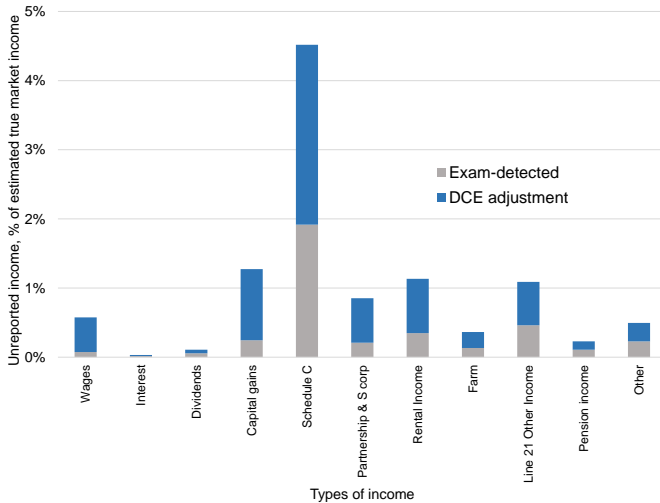
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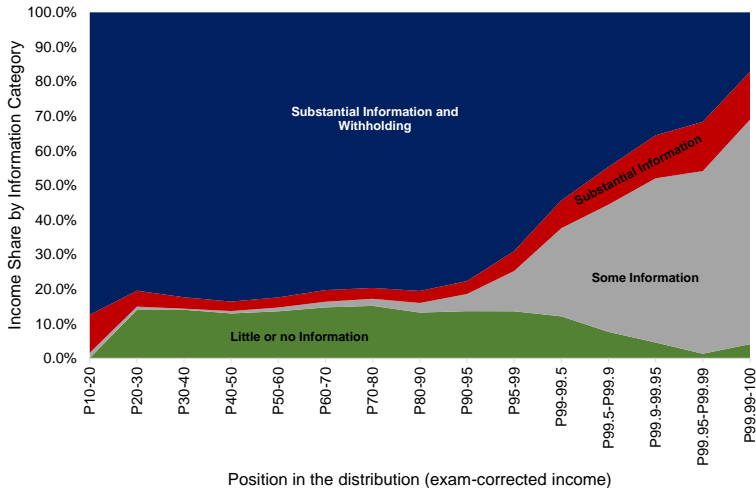
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  - ▷ Estimate a model of “auditor effects,” identifying total evasion in counterfactual where all auditors were 100% detection auditors
- ▷ DCE increases estimated evasion by  $\approx 2.8x$ 
  - ▷ Earlier results on offshore, pass-through evasion  $\implies$  A1 is too strong
  - ▷  $\implies$  official statistics under-estimate types of sophisticated evasion that are virtually never detected.
  - ▷ We incorporate DCE to account for other, “detectable” types of undetected evasion, and to reconcile our estimates to official statistics.

# Types of Income with Large Detected Evasion (& Little Third-Party Reporting) Receive Large DCE Adjustments



# The extent of third-party reporting declines with income at the very top [▶ Back](#)



⇒ many types of income receiving large DCE adjustments are relatively concentrated at the top

Note: categories of income used here based on IRS (2019). [▶ More](#)

# Distributing Undetected Evasion Implied by DCE Estimates

- ▷ DCE is primarily used in official estimates of evasion in the full population (Tax Gap studies, NIPA)
- ▷ Identifying location of undetected evasion in true income distribution requires further assumptions  $\implies$  uncertainty
- ▷ Detailed conceptual work and sensitivity analysis on this question in progress [▶ More](#)
- ▷ Our preferred specification:
  - ▷ Take official full-population estimates incorporating DCE as given  $\implies$  total DCE-identified undetected evasion
  - ▷ Suppose this undetected evasion is distributed like exam-corrected income, component-by-component
  - ▷  $\implies$  distributional neutrality for each component of overall income
- ▷ Our main finding – adding sophisticated evasion massively increases top 1% evasion – obtains for any DCE scenario.

# Benchmark Estimates of the Tax Gap

- ▷ Start from NRP with no DCE
- ▷ Add both offshore and partnership evasion (add benchmark scenario for each)
- ▷ Then incorporate DCE adjustments from official estimates
  - ▷ Distribute these adjustments like exam-corrected incomes by type
  - ▷ Remove 58% of DCE-adjusted pass-through evasion to avoid double counting

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- ▷ ...but significant adjustment at the top ( $> 2x$  in top 0.1%)
- ▷ Conduct sensitivity analysis; generally we are conservative
  - ▷ pass-through estimates were already conservative ▶ Partnership Complexity
  - ▷ only accounting for 2 forms of sophisticated evasion
  - ▷ limited re-ranking due to sophisticated evasion

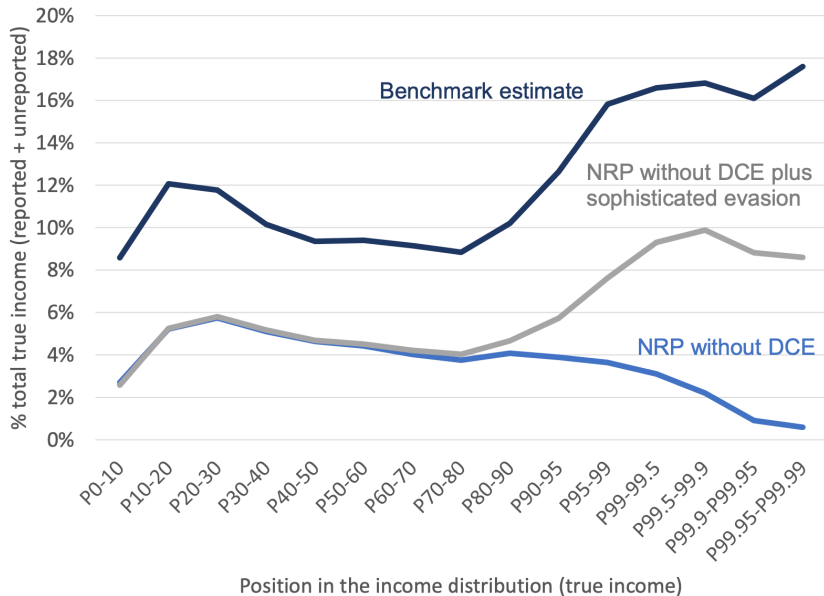


# Combined distributional estimates of under-reporting

▶ Sensitivity Over Sophisticated

▶ Sencitivity Over DCE

▶ Components



# Shares of Unreported Income 2006-2013, % of Total Unreported Income

|               | NRP  | NRP<br>Add sophisticated | NRP<br>Add sophisticated<br>Add DCE | NRP<br>No sophisticated<br>Add DCE |
|---------------|------|--------------------------|-------------------------------------|------------------------------------|
| P0-90         | 58.6 | 40.4                     | 41.9                                | 47.5                               |
| P90-95        | 12.9 | 9.7                      | 9.8                                 | 10.8                               |
| P95-99        | 15.5 | 15.0                     | 16.3                                | 16.8                               |
| P99-99.5      | 4.7  | 6.1                      | 6.0                                 | 5.6                                |
| P99.5-P99.9   | 5.0  | 10.8                     | 9.6                                 | 7.8                                |
| Top 0.1%      | 3.3  | 18.0                     | 16.4                                | 11.5                               |
| <b>Top 1%</b> | 13.0 | 34.9                     | 31.9                                | 24.9                               |

Sophisticated evasion accounted for  $\approx$  \$170 billion in income under-reported and \$50 billion in tax underpaid in total per year (in USD2012).

# Shares of True Income 2006-2013, % of Total Income

|               | Reported<br>Incomes | NRP<br>After exam | NRP<br>After exam<br>Add sophisticated | NRP<br>After exam<br>Add sophisticated<br>Add DCE | NRP<br>After Exam<br>No sophisticated<br>Add DCE |
|---------------|---------------------|-------------------|--|---|--|
| P0-90         | 53.5                | 54.2              | 53.2                                   | 52.6  | 53.3   |
| P90-95        | 11.8                | 11.7              | 11.5                                   | 11.4  | 11.5   |
| P95-99        | 15.6                | 15.5              | 15.5                                   | 15.6  | 15.6   |
| P99-99.5      | 4.0                 | 4.0               | 4.1                                    | 4.2   | 4.1  |
| P99.5-P99.9   | 6.3                 | 6.1               | 6.5                                    | 6.6   | 6.4  |
| Top 0.1%      | 8.8                 | 8.6               | 9.4                                    | 9.7   | 9.1  |
| <b>Top 1%</b> | 19.1                | 18.7              | 19.9                                   | 20.4  | 19.5   |

Accounting for pass-through and offshore evasion increases top 1% income share by  $\approx 1$  pp *with or without DCE*.

# Theory

- ▷ Allingham Sandmo (1972) with a binary concealment action  $a \in \{0, 1\}$
- ▷ Adopting  $a = 1 \rightarrow$  lower prob. detection  $p(a)$ , incur a *fixed* cost

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- ▷ Model nests Allingham-Sandmo when  $a = 0 \implies$  . Under  $a = 0$ :
  - ▷ CRRA  $\implies$  evasion  $e$  is a constant share of true income  $y$
  - ▷ DRRA  $\implies$  evasion is an increasing share of income

# Demand for concealment at high incomes

**Assumption 1.** As  $y$  grows arbitrarily, the preferred under-reporting rate  $e^*/y$  approaches a strictly positive constant under  $a = 0$ .

- ▷ Consistent with any risk preferences except (possibly) increasing relative risk aversion
- ▷  $\kappa/y$  becomes trivial at large  $y$ , but  $e/y$  does not...
- ▷  $\implies$  at large  $y$  the benefits of adoption outweigh the costs.

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**Proposition.** Under A1, there is a cutoff  $\bar{y}$  such that  $y > \bar{y} \implies a^* = 1$ .



# Implications for the Tax Gap

- ▷ Increasing  $p(\text{detect}|a = 0)$  *also incentivizes adoption* – audit rates are high for high-wealth individuals
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  - ▷ Other schemes? (private inurement in charities? offshore trusts?)
- ▷  $\implies$  audit-based estimates of evasion tend to **under-estimate** the tax gap at the top

# What Have We Learned?

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  - ▷ Detection of these is so rare that DCE corrections cannot capture most of this. [▶ Response to Auten/Splinter](#)
- ▷ These two forms of evasion add  $\approx$  \$50 Billion per year to the tax gap in our sample period, virtually all from the top 1%
  - ▷ Benchmark top 1% tax evasion  $\approx$  \$175 billion in 2019
- ▷ A model with costly concealment can explain why such evasion is concentrated at the top

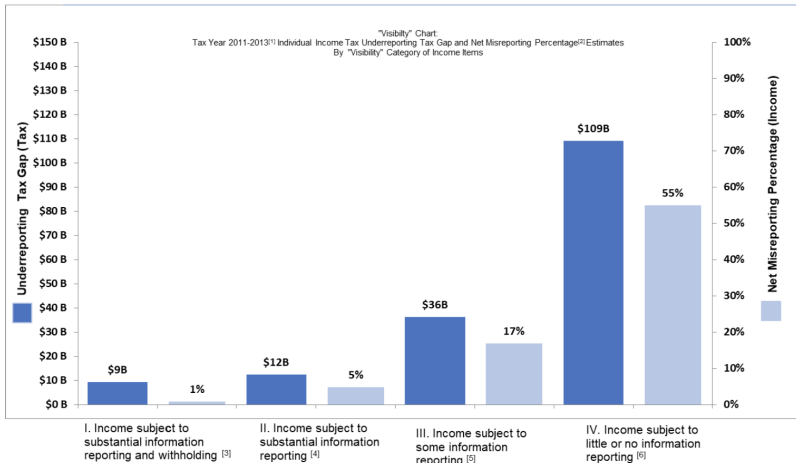
# NRP - No DCE Decompositions [▶ Back](#)

|                         | Full Population                                |  |   |  | Top 1%   |  |   |  |
|-------------------------|--|--|---|--|--|--|---|--|
|                         | Total income of this type/<br>Total income (%) | Total under-reported income of this type/<br>Total under-reported income (%) | Total under-reported income of this type/<br>Total income (%) | Total under-reported income of this type/<br>Total income of this type (%) | Total income of this type/<br>Total income (%) | Total under-reported income of this type/<br>Total under-reported income (%) | Total under-reported income of this type/<br>Total income (%) | Total under-reported income of this type/<br>Total income of this type (%) |
| Capital Gains           | 5.8  | 7.1  | 0.28  | 4.8  | 21.3   | 18.8   | 0.43  | 2.0  |
| Dividends               | 3.9  | 2.8  | 0.11  | 2.9  | 8.6  | 3.9  | 0.09  | 1.0  |
| Interest                | 1.9  | 0.7  | 0.03  | 1.5  | 3.0  | 2.0  | 0.05  | 1.6  |
| Line 21 Other Income    | 0.2  | 11.9   | 0.47  | 253.6  | 2.6  | 8.5  | 0.43  | 7.5  |
| Partnerships and S Corp | 5.6  | 6.5  | 0.26  | 4.6  | 21.7   | 18.9   | 0.43  | 2.0  |
| Rental                  | 0.7  | 8.9  | 0.35  | 48.3   | 1.6  | 5.4  | 0.12  | 7.9  |
| Schedule C              | 5.3  | 49.3   | 1.95  | 36.8   | 4.2  | 35.0   | 0.79  | 18.7   |
| Wages                   | 72.4   | 3.5  | 0.14  | 0.2  | 38.2   | 2.9  | 0.07  | 0.2  |
| Other                   | 4.1  | 9.3  | 0.37  | 0.1  | -1.0   | 4.6  | 0.10  | -0.1   |
| Total                   | 100.0  | 100.0  | 3.96  |  | 100.0  | 100.0  | 2.27  |  |

# Official Estimates (Incl DCE): Under-Reporting Strongly Related to Third-Party Information Coverage

▶ Back

Tax Gap Estimates for Tax Years 2011–2013: Attachment 3



<sup>[1]</sup> The TY 2011–2013 estimate is the annual average for the TY 2011, 2012, and 2013 timeframe. This chart displays the tax gap attributable to the underreported income category and the rate at which that income is misreported as measured by the Net Misreporting Percentage.

<sup>[2]</sup> The Net Misreporting Percentage is the ratio of the net misreported amount to the sum of the absolute values of the amounts that should have been reported, expressed as a percentage. For categories I - IV, the net misreported amount is understatements of income less overstatements of income. On net, income is understated for these categories.

<sup>[3]</sup> Includes wages & salaries.

<sup>[4]</sup> Includes pensions & annuities, unemployment compensation, dividend income, interest income, taxable Social Security benefits.

<sup>[5]</sup> Includes partnership/S corp. income, capital gains, alimony income.

<sup>[6]</sup> Includes nonfarm proprietor income, other income, rents and royalties, farm income, Form 4797 income.



# Specifying a Distribution of Undetected Non-Compliance: Micro Approaches [▶ Back](#)

- ▷ Conceptually, the distribution of undetected non-compliance should be determined by how the (dollar-weighted) probability of detection of under-reporting varies with true income
- ▷ We cannot directly estimate this probability because we do not directly observe undetected evasion
- ▷ Existing approaches to distributional DCE attempt to construct a representative set of of DCE-adjusted tax returns at the micro level
  - ▷ *DCE2001*: Johns & Slemrod (2010) apply multipliers to exam-detected individual under-reporting of each income type, building on data from NRP 2001
  - ▷ *DCE2019*: micro-simulations based on probability and (*expected*) amount of *undetected* non-compliance, conditional on tax return characteristics (IRS, 2019)

# Specifying a Distribution of Undetected Non-Compliance

▶ Back

Technical assumptions within these methods impose structure on the relationship between the detection probability and true income

- ▶ DCE2001: those with detected under-reporting from audit are also allocated undetected under-reporting.
  - ▶ i.e. primarily an “intensive margin” allocation  $\implies$  substantial re-ranking, arguably too much.
- ▶ DCE2019: those randomly simulated to have under-reported a given line item are allocated undetected under-reporting
  - ▶ i.e. primarily an “extensive margin” allocation (at the line-item level)  $\implies$  too little re-ranking

It is difficult to know what structure micro methods impose on this key relationship. We complement them with macro methods that impose transparent structure on the distribution of undetected under-reporting (cost: more opacity regarding re-ranking).

# Specifying a Distribution of Undetected Non-Compliance: Macro Methods [▶ Back](#)

Distribute exam-detected under-reporting according to exam-detected income rank, as in pre-DCE figures. Take overall DCE adjustments by type of income as given & allocate them through the income distribution in proportion to:

- ▷ 1. Exam-corrected income shares (benchmark)
  - ▷ Underlying idea: undetected under-reporting distributed like exam-detected under-reporting
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- ▷ 2. Reported income shares (  $\implies$  undetected under-reporting distributed like reported incomes)
- ▷ 3. Exam-detected under-reporting shares
  - ▷ Idea: undetected under-reporting distributed like detected under-reporting
  - ▷ Likely overly conservative: insufficient re-ranking, increasing sophistication with income  $\implies$  regard as lower bound
  - ▷ Coincides with DCE2019 due to the extensive margin allocation rule.

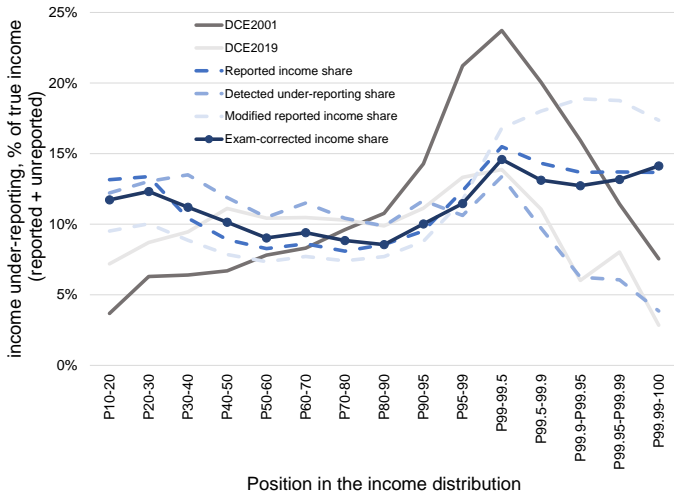
# Specifying a Distribution of Undetected Non-Compliance: Macro Methods [▶ Back](#)

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- ▷ 4. Rep. inc. shares, pooling all business income (Sch. C, p-ship, S corp).
  - ▷ Reallocates some Schedule C under-reporting to (more concentrated) pass-through businesses.
  - ▷ Idea: suppose compliance is similar across types of business income. Regard as upper bound.

# Sensitivity Analysis: Distributional DCE Estimates

▶ Back



# DCE Sensitivity Analysis: Takeaways

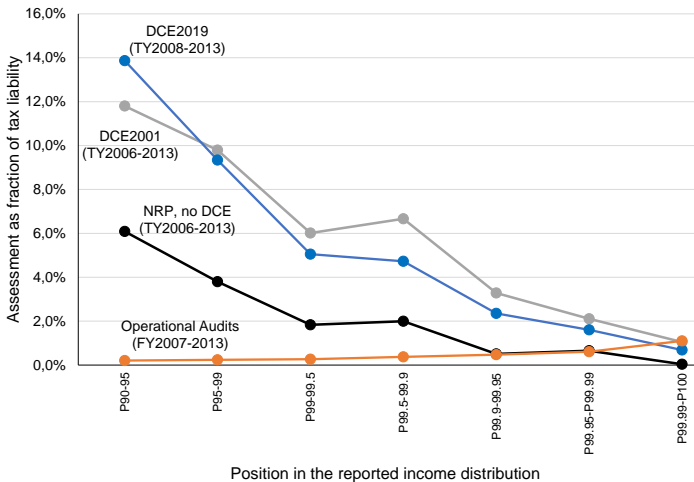
- ▷ In most specifications, estimated under-reporting increases to  $\approx 13 - 18\%$  of income at  $\approx p99$  and then declines (c.f. offshore)
- ▷ DCE2019 simulations distribute undetected under-reporting like exam-detected under-reporting
- ▷ DCE2019 and detected under-reporting shares imply similar inequality statistics (corrected top 1% income shares, top 1% under-reporting shares etc)
- ▷ DCE2001 and reported income share specifications also imply similar top 1% statistics
  - ▷ (sizable differences between these *within* the top 1% or bottom 99%)
- ▷ Incorporating sophisticated evasion implies a massive adjustment in the top 1% for any of these  $\implies$  our main finding is robust



# Operational audits of 10% of top 0.01% taxpayers detect more than NRP estimates for the full population

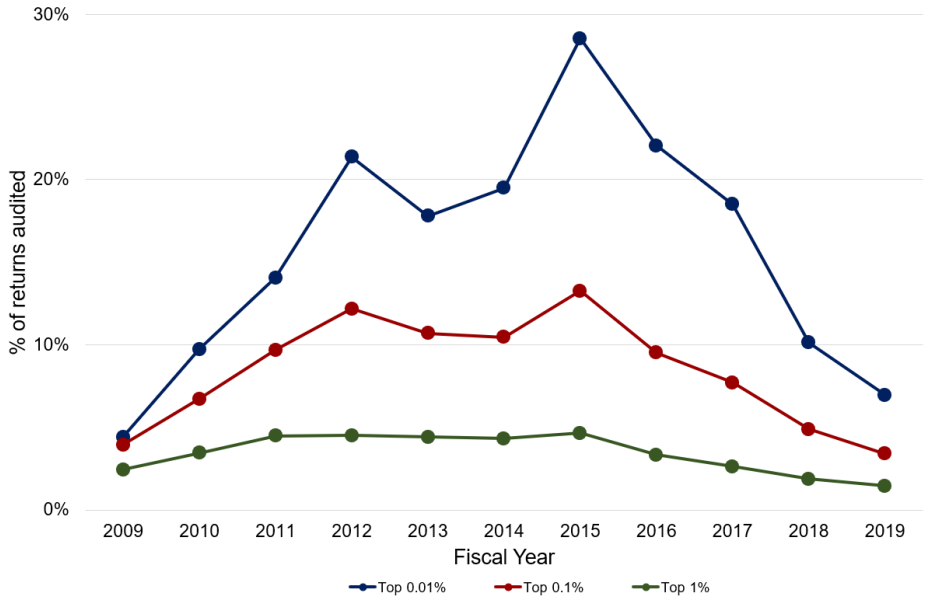
[Details](#)

[Back](#)



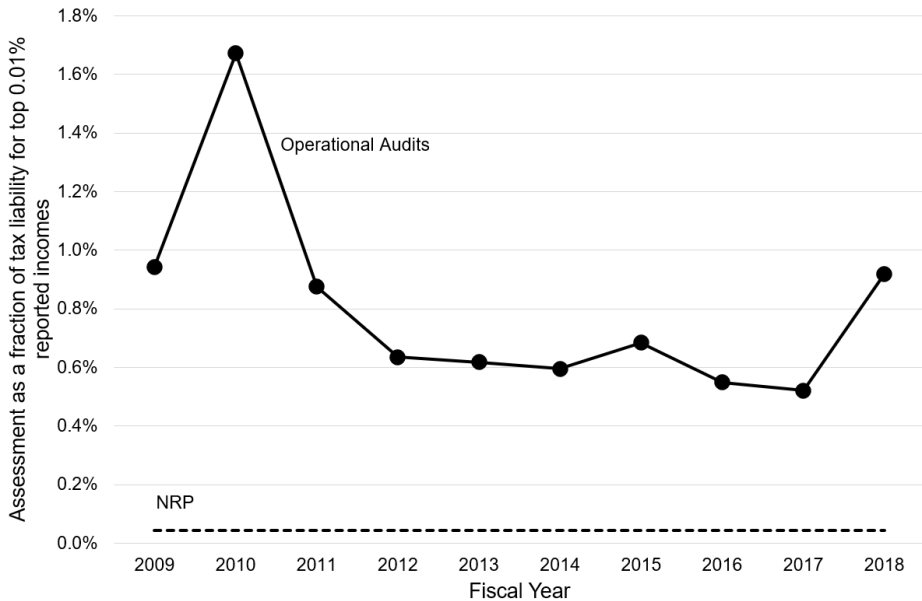
# Top income audit rates over time

[▶ Back](#)



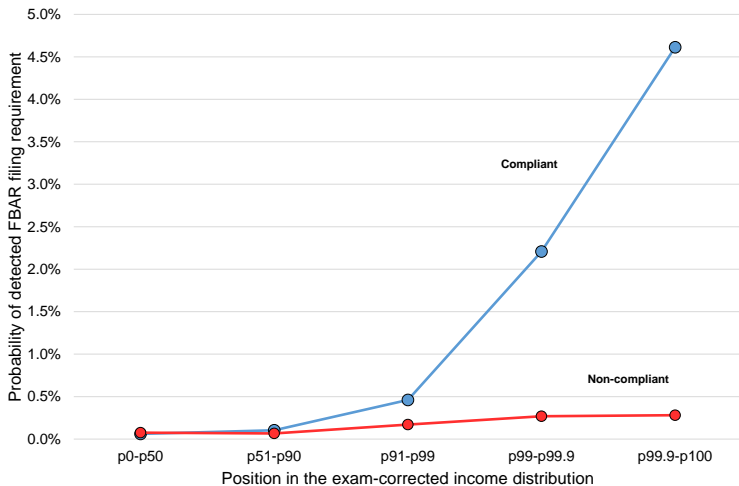
# We find something similar in every year of operational audit data

[▶ Back](#)



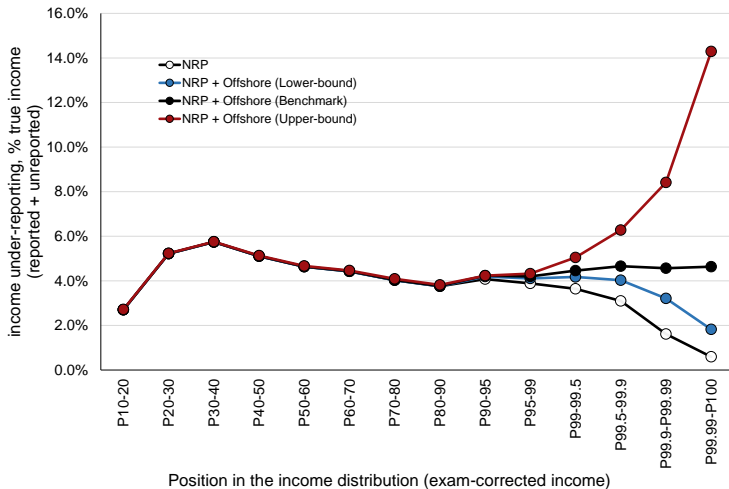
# FBAR non-compliance is virtually never detected in NRP random audits

[▶ Back](#)



# Adding unreported offshore income to random audit estimates

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# Details on allocation of pass-through income

- ▷ Business income shares for partnerships from Cooper et al (2016), TY2011
- ▷ Business income shares for S corps from SOI tabulations of S corp returns (Saez and Zucman 2020)
- ▷ Allocate financial capital income for pass-throughs as follows:
  - ▷ Total pass-through interest from SOI / Total interest in TY2011
  - ▷ Assume pass-through share is constant through income distribution (conservative wrt concentration)
  - ▷  $\implies$  distribute total pass-through interest according to overall individual interest income shares
  - ▷ Similarly for dividends, cap gains

# Summary and Sensitivity [▶ Back](#)

- ▷ In aggregate, the pass-through correction (1.3% of true income)  $\approx$  2x larger than the offshore correction (0.7%)
- ▷ Top 1% inc under-reporting rate increases from 2.3% (NRP no DCE) to 6.6% (c.f.  $\approx$  % for full pop)

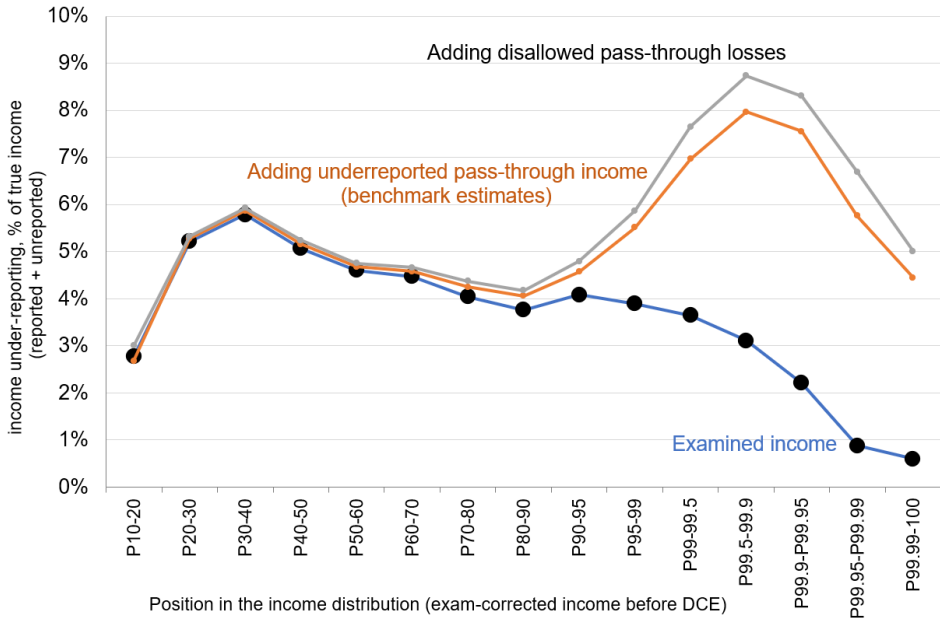
# Summary and Sensitivity [▶ Back](#)

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- ▷ These estimates are conservative in a number of respects
- ▷ Dropoff within top 0.1% due to assumed low evasion rates for cap gains, could assume higher
- ▷ Other sensitivity checks in the paper:
  - ▷ Disallow 20% of pass-through losses and allocate to the top [▶ Fig](#)
  - ▷ Add 2/3 of income in circular partnerships [▶ Fig](#)
  - ▷ Vary under-reporting rates: 12%-28% business income  
0-10% cap gains, 0-6% dividends/interest [▶ Fig](#)



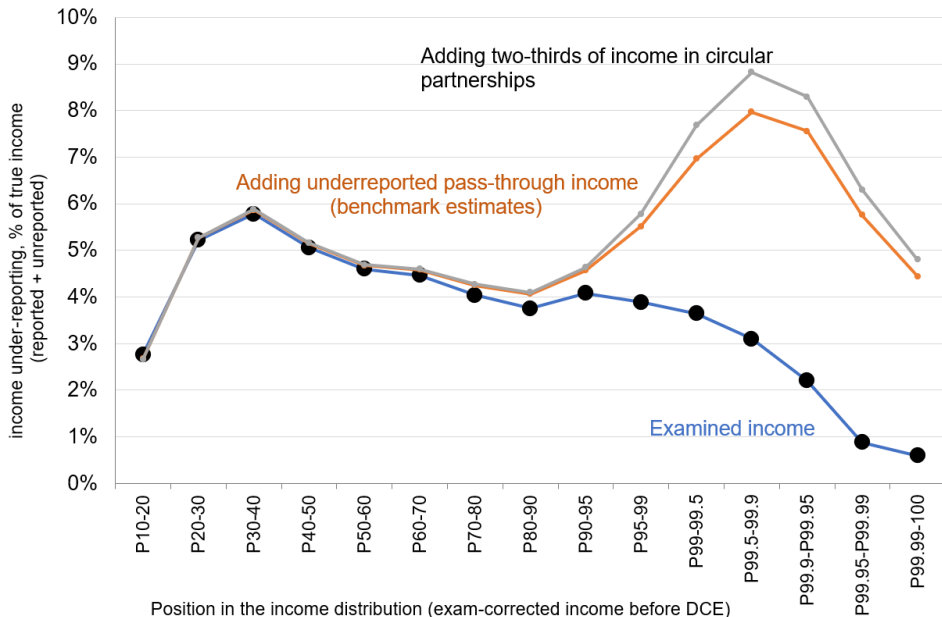
# Adding disallowed pass-through losses

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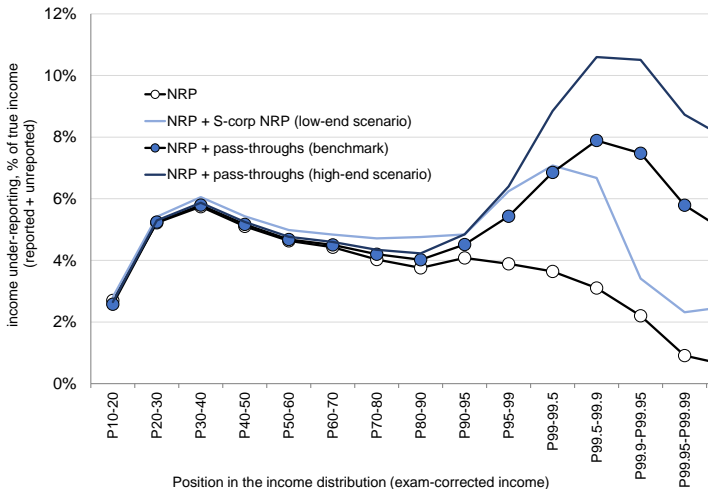
# Adding 2/3 of circular partnership income

▶ Back



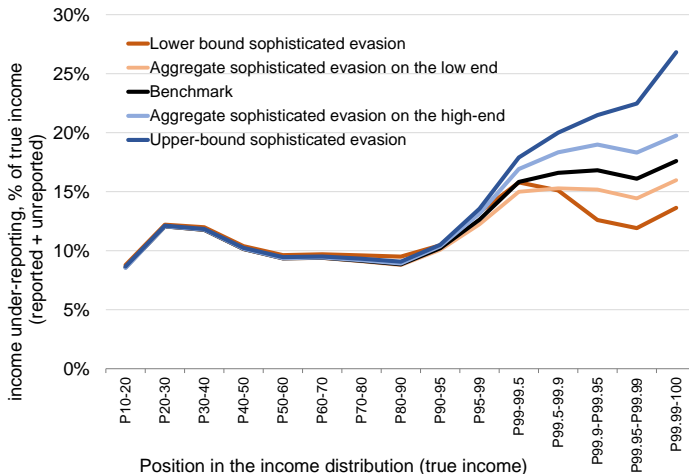
# Sensitivity analysis: partnership misreporting rates

[▶ Back](#)



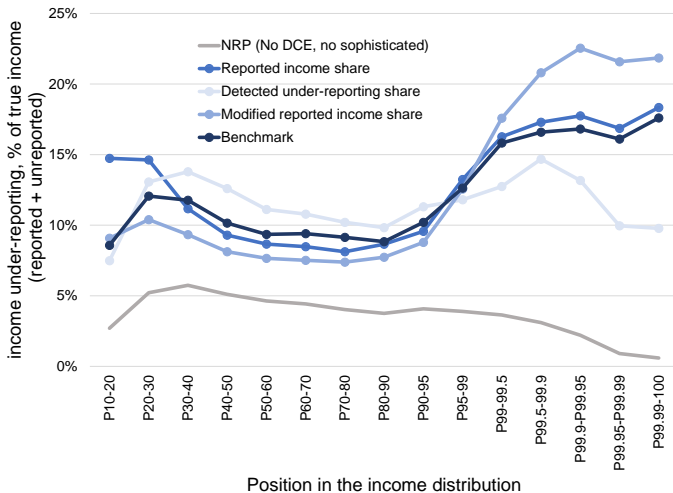
# Combined Estimates: Sensitivity Analysis Over Sophisticated Evasion

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# Combined Estimates: Sensitivity Analysis Over DCE Allocation

[▶ Back](#)



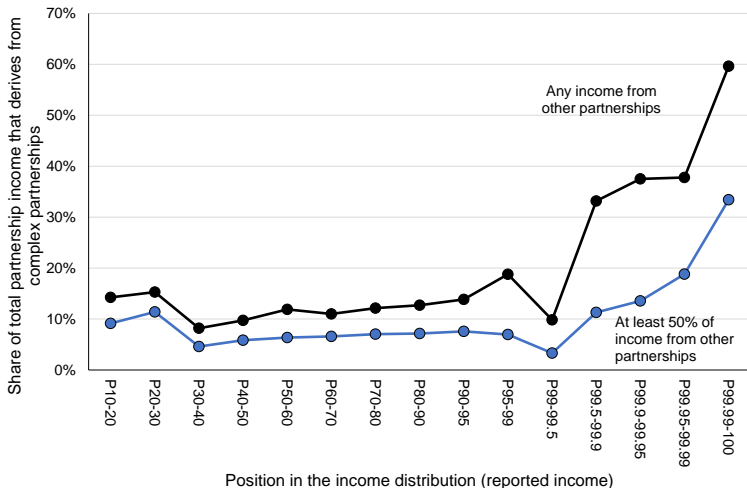
# Importance of Complex (Tiered) Partnership Structures Increases

With Income At the Very Top

[▶ Back to Pass-Throughs](#)

[▶ Back to Benchmark](#)

[▶ Back to Theory](#)

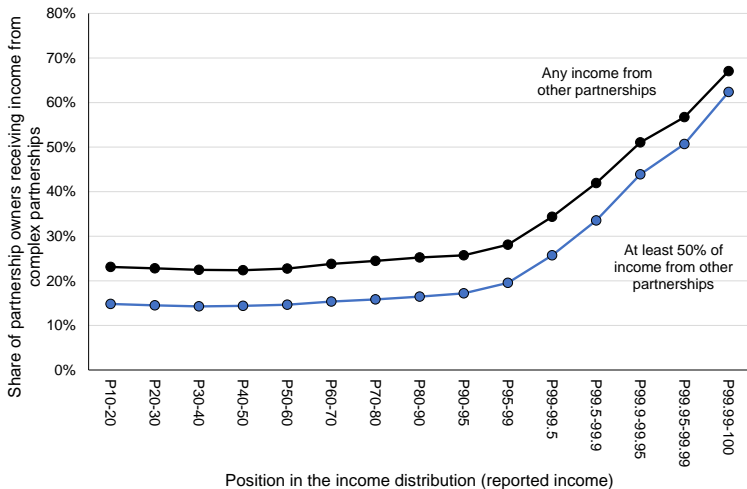


# Most Top 0.1% Partnership Owners Receive Income from Complex Partnerships

[▶ Back to Pass-Throughs](#)

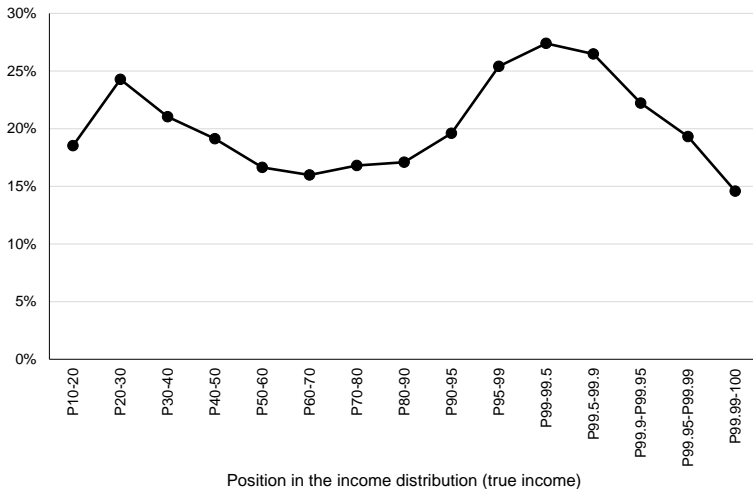
[▶ Back to Benchmark](#)

[▶ Back to Theory](#)



# Benchmark Combined Estimates: Tax Gap (% of Taxes Owed)

[▶ Back](#)



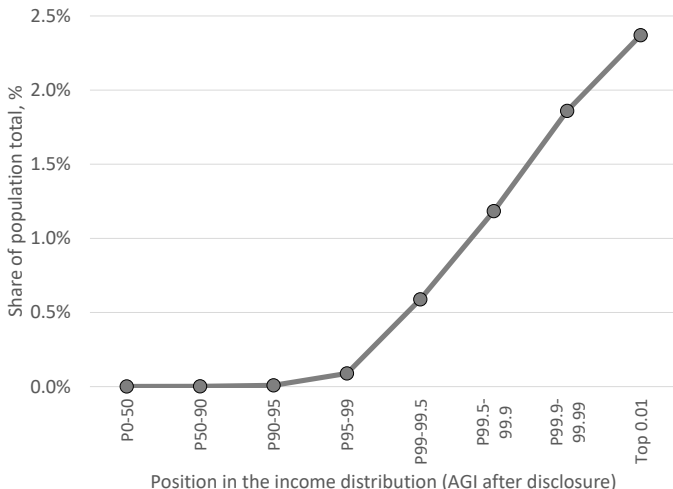


## Examining the profile of participation in two other sophisticated evasion schemes [▶ Back](#)

- ▷ **Syndicated Conservation Easements:** I invest in a company that purchases land & donates development rights to conserve it. I claim a charitable deduction on (massively inflated) value of forgone development rights (see e.g. Senate Finance 2020)
- ▷ **Micro-captive Insurance:** I purchase “insurance” from an offshore company I own, deduct this as a business expense. The offshore company does not actually provide insurance (see e.g. GAO 2020)
- ▷ We obtained lists of individuals whose behavior indicates they participated in one or the other of these schemes.
  - ▷ Syndicated Conservation Easement: Internal analysis of tax returns
  - ▷ Microcaptive Insurance: Behavioral responses to an enforcement letter campaign
- ▷ Like offshore lists, these lists are only a subset of all individuals using these schemes.

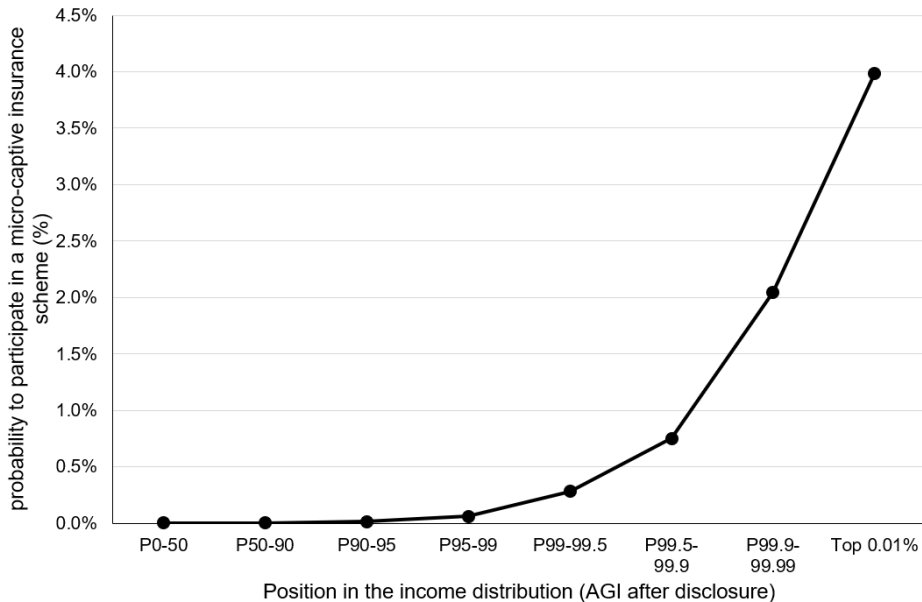
# The probability of participating in a syndicated conservation easement increases sharply at top incomes

▶ Back



# The probability of participation in a micro-captive insurance scheme increases sharply at top incomes

[▶ Back](#)



The paper makes three main empirical claims:

1. NRP random audits are ill-suited to estimate evasion at top incomes
2. Offshore and pass-through evasion are important forms of top-end evasion missed by random audits
3. These two matter quantitatively for macro aggregates:  
under-reporting/tax gap at the top, top 1% fiscal income shares
  - ▷ Auten & Splinter dispute the quantitative magnitude of 3
  - ▷ We acknowledge there is ample quantitative uncertainty here
  - ▷ But in our view the uncertainty goes in both directions, and our benchmark is reasonably conservative.
    - ▷ We only incorporate two forms of sophisticated evasion
    - ▷ We use a small evasion rate for pass-through financial capital income
    - ▷ Partnership complexity could imply even more concentrated evasion
    - ▷ We do not account for responses to recent, large drops in audit rates