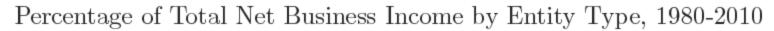
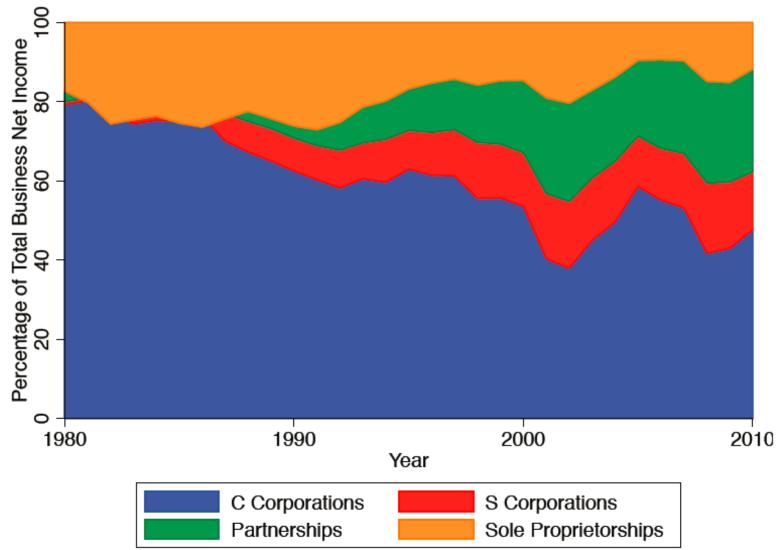
## Partnerships & Partners Who and How Much?

Michael Cooper, U.S. Treasury Department John McClelland, U.S. Treasury Department James Pearce, U.S. Treasury Department Richard Prisinzano, U.S. Treasury Department Joseph Sullivan, U.S. Treasury Department Danny Yagan, UC Berkeley and NBER Owen Zidar, Chicago Booth and NBER Eric Zwick, Chicago Booth and NBER

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

## The Rise of Pass-through Businesses





### Following the Money:

- 1. Link businesses to their owners.
- 2. Determine the tax paid for each business's activity.

To Whose Benefit:

- 1. Pass-through business income is especially concentrated.
- 2. Average federal income tax rate on pass-throughs is 19%.

## Partnerships file a business income tax return...

Depar	1065 rtment of the Treasury al Revenue Service	For cale	U.S. Return of Partnership Income ndar year 2011, or tax year beginning, 2011, ending, 20 See separate instructions.	OMB No. 1545-0099
A Prir	ncipal business activity		Name of partnership	D Employer identification number
B Prin	ncipal product or service	Print or	Number, street, and room or suite no. If a P.O. box, see the instructions.	E Date business started
C Bu	siness code number	type.	City or town, state, and ZIP code	F Total assets (see the instructions)
G	Check applicable I		(1) Initial return (2) Final return (3) Name change (4) Address change (6) Technical termination - also check (1) or (2)	(5) Amended return
н	Check accounting Number of Schedu		(1) ☐ Cash (2) ☐ Accrual (3) ☐ Other (specify) ► Attach one for each person who was a partner at any time during the tax year ►	
J	Check if Schedule			

Caution. Include only trade or business income and expenses on lines 1a through 22 below. See the instructions for more information.

	1a	Merchant card and third-party payments (including amounts reported on Form(s) 1099-K). For 2011, enter -0-	1a					
	b	Gross receipts or sales not reported on line 1a (see instructions)	1b				1	
	с	Total. Add lines 1a and 1b	1c				1	
	d	Returns and allowances plus any other adjustments to line 1a						
Ð		(see instructions)	1d					
ncome	е	Subtract line 1d from line 1c	1e					
ĕ	2	Cost of goods sold (attach Form 1125-A)	2					
-	3	Gross profit. Subtract line 2 from line 1e					 3	
	4	Ordinary income (loss) from other partnerships, estates, and trus	ts (att	ach s	state	ment)	 4	
	5	Net farm profit (loss) (attach Schedule F (Form 1040))					 5	
	6	Net gain (loss) from Form 4797, Part II, line 17 (attach Form 4797	).				 6	
	7	Other income (loss) (attach statement)					 7	
	8	Total income (loss). Combine lines 3 through 7					 8	
(su	9	Salaries and wages (other than to partners) (less employment cre	dits)				 9	
imitations)	10	Guaranteed payments to partners					 10	
Ē	11	Repairs and maintenance					11	

# ...which lists allocations only by partner type...

Form 10	065 (2011)						Page	5
Analy	sis of Net Incon	ne (Loss)						_
1		Combine Schedule 12 through 13d, and						
2	Analysis by partner type:	(i) Corporate	(ii) Individual (active)	(iii) Individual (passive)	(iv) Partnership	(v) Exer organiza	<b>(vi)</b> Nominee/Other	r
а	General partners							
b	Limited partners							

# ...but are reflected in K-1s (issued *per partner*)

		_	_	_		
			Final K-1	Amended		OMB No. 1545-0099
Schedule K-1	2011	<b>P</b> a	artill Partn	er's Share of	Cur	rent Year Income,
(Form 1065)			Dedu	ctions, Credi	ts, a	nd Other Items
Department of the Treasury	For calendar year 2011, or tax	1	Ordinary busines	s income (loss)	15	Credits
Internal Revenue Service	year beginning, 2011					
		2	Not contail coal or	state income (loss)		
	ending, 20	~	Net rentai real es	state income (loss)		
Partner's Share of	Income, Deductions,					
Credits, etc.	See back of form and separate instructions.	3	Other net rental	income (loss)	16	Foreign transactions
oreans, etc.						
Part I Information	n About the Partnership	4	Guaranteed pay	ments		
A Partnership's employer id	lentification number	t				
		5	Interest income			
B Partnership's name, addre	ess, city, state, and ZIP code	-				
B Partnership's hame, address	ess, city, state, and ZIP code	0.0	Ordinary divider			
		6a	Ordinary dividen	us		
		6b	Qualified divider	nds		
		7	Royalties			
C IRS Center where partner	ship filed return	t				
		8	Net short-term of	apital gain (loss)		
D Check if this is a publ	licly traded partnership (PTP)	-				
	iiciy uaded partieranip (PTP)	9a	Net long-term ca	anital gain (loss)	17	Alternative minimum tax (AMT) items
Part I Information	a About the Dortney	<u>.</u>	The long-term of	apital gain (losa)		Arenabie minimum tax (Aim) rema
			0.1.171.171			
E Partner's identifying number	ber	9b	Collectibles (289	6) gain (loss)		
F Partner's name, address,	city, state, and ZIP code	9c	Unrecaptured se	ection 1250 gain		
		10	Net section 123	1 gain (loss)	18	Tax-exempt income and
						nondeductible expenses
		11	Other income (lo	(acr		
			ourier moorne (ie	,50j		
I					I	

# Linking Partnerships to Partners

• **Data Challenge**: Owners can be one of many entity types, and different kinds of returns are processed by different systems.

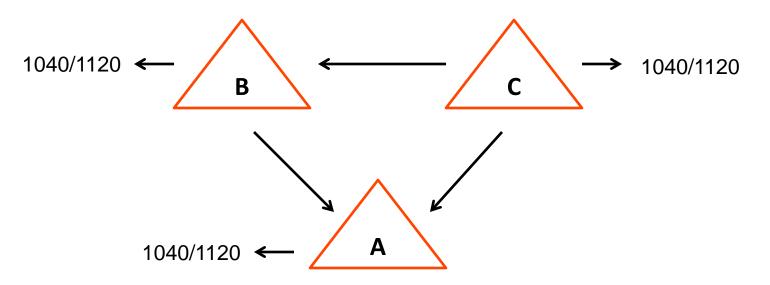
- Our Procedure: link K-1's to partnership returns by merging on the Document Locator Number (DLN).
  - > We link 25.5 million K-1s to the 3.6 million partnerships
    - Match 97.7% of partnerships to a K-1
    - Match 98% of aggregate ordinary business income

## CLASSIFYING PARTNERS

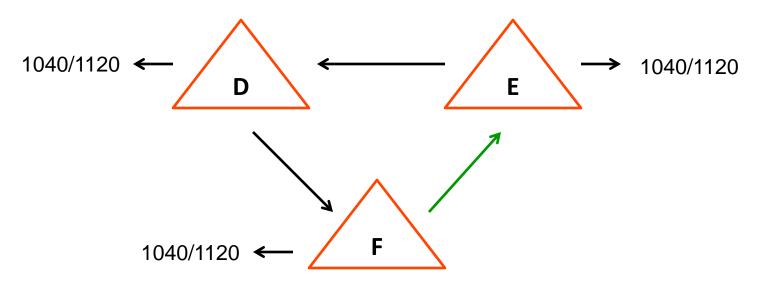
Partner Type	Form Filed					
Individual	1040					
C- and other corporations	1120, 1120 $j \forall j \in \{F,PC,L,RIC,REIT,H,C,POL,ND,SF,FSC\}$					
S-corporations	1120S					
Tax-exempt	990, 990 $j \forall j \in \{T,R,PF,ZR,C\}$					
Estate/trust	1041					
Foreign person/entity	1042, 1042S, 8805, 8288A					
Partnerships	1065, 1065B, 1066					
Unidentified EIN	Taxpayer identifier classifiable as EIN, but tax form unknown					
Unidentified TIN type	Taxpayer identifier not classifiable					

- Partnerships can be owned by other partnerships
- Not problematic for sector-wide analyses
- Problematic for industry breakdowns and possibly audits

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- Partnerships can be owned by other partnerships
- Not problematic for sector-wide analyses
- Problematic for industry breakdowns and possibly audits
- Use recursive algorithm to trace income through tiers until only 'nontransparent' partnerships remain

# Linking Other Business Types to Their Owners

#### • S-Corporations:

- Owners must not be other business entities
- Each owner receives pro-rata share of income
- Link 1120-S K-1s to Shareholder's Form 1040
  - We match 7.2 million K-1s from the 4.5 million S-corporations to 4.8 million individuals

#### • Sole Proprietorships:

Income reported directly on Form 1040

### • C-Corporations:

- > Owners are not identifiable
- Use dividend income from Form 1040 link K-1's to partnership returns by merging on the Document Locator Number (DLN).

### TAX RATES ON INCOME DISTRIBUTED TO PARTNERS Calculated Rates

$$T_{ik} = \begin{cases} T_{ik}^{OTA} = \frac{TAX_{ik}}{Y_{ik}} & \text{if } k \text{ files } form \in \{1040, 1120, 1120\} \\ T_{ik}^{Assigned} & \text{otherwise} \end{cases}$$

where

- T<sub>ik</sub> = tax rate on income type i to partner k from all partnerships p
- i ≡ income type in {capital gains, dividends, ordinary business income, interest}
- Y<sub>ik</sub> ≡ sum of payment of income type i to partner k from all partnerships
- $TAX_{ik} \equiv$  change in tax liability from the OTA tax calculator

### TAX RATES ON INCOME DISTRIBUTED TO PARTNERS Assigned Rates

$$T_{ik}^{\text{Assigned}} = \begin{cases} T_{i,1040}^{\text{OTA}} & \text{if } form \in \{1120\text{-}\mathsf{RIC}, 1120\text{-}\mathsf{REIT}, 1066, 1041\} \\ T_{i,1120}^{\text{OTA}} & \text{if } form \in \{1120j\} \forall j \in \{\mathsf{F},\mathsf{PC},\mathsf{L},\mathsf{H},\mathsf{C},\mathsf{POL},\mathsf{ND},\mathsf{SF},\mathsf{FSC}\} \\ .025 & \text{if } form \in \{8805, 1042S, 8288A, 1042\} \\ 0 & \text{if } form \in \{990, 990j\} \forall j \in \{\mathsf{T},\mathsf{R},\mathsf{PF},\mathsf{ZR},\mathsf{C}\} \\ \frac{.025 + T_{i,1120}^{\text{OTA}}}{2} & \text{if } k \text{ has unidentified EIN or tin type} \end{cases}$$

#### where

- ► form is the tax form partner k files
- T<sup>OTA</sup><sub>i,1040</sub> is the tax rate for individuals from the OTA tax calculator for income type i
- ►  $T_{i,1120}^{\text{OTA}}$  is the tax rate for C-corporations

### Aggregating Tax Rates

#### **Partnership Rates**

$$T_p = \left(\frac{\sum_{i \in \mathcal{I}} \sum_{k \in \mathcal{K}} T_{ik} Y_{ikp}}{Y_p}\right)$$

where

- the numerator is the sum of tax liabilities over income types i and partners k associated with payments from partnership p
- ▶ the denominator is the total payments from partnership p

#### Partnership Sector Rate

$$T = \left(\frac{\sum_{i \in \mathcal{I}} \sum_{k \in \mathcal{K}} \sum_{p \in \mathcal{P}} T_{ik} Y_{ikp}}{Y}\right)$$

where

- the numerator is the sum of tax liabilities from payments from partnerships
- the denominator is the total payments from all partnerships

### TAX RATES ON OTHER BUSINESS TYPES

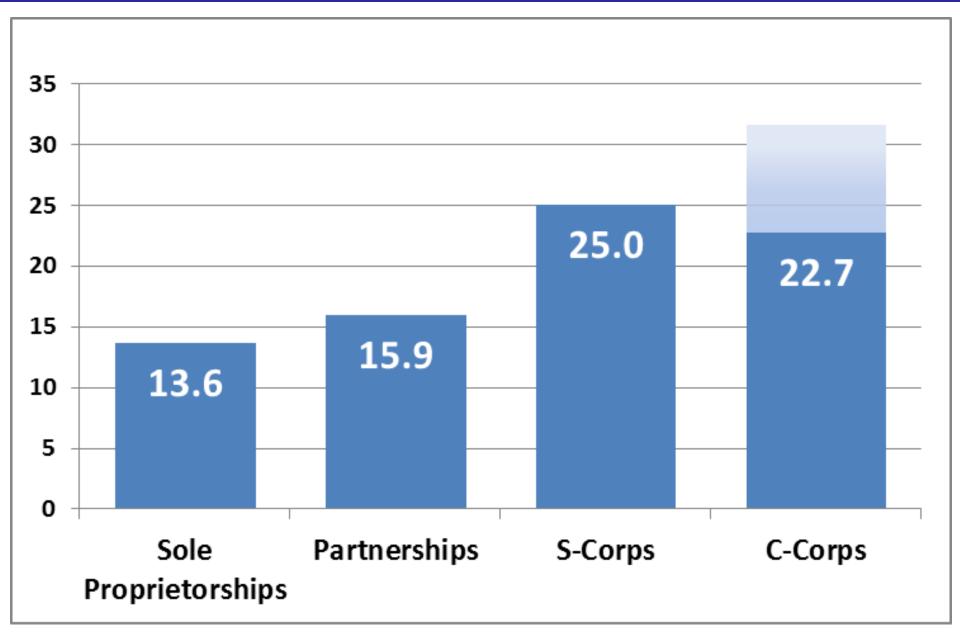
#### 1. S-Corporations

- $TAX_S \equiv$  Actual tax minus hypothetical tax with zero 1120S income
- ► Tax rate is *TAX<sub>S</sub>* divided by actual 1120S income
- 2. Sole Proprietorships
  - Same method as S-Corporations

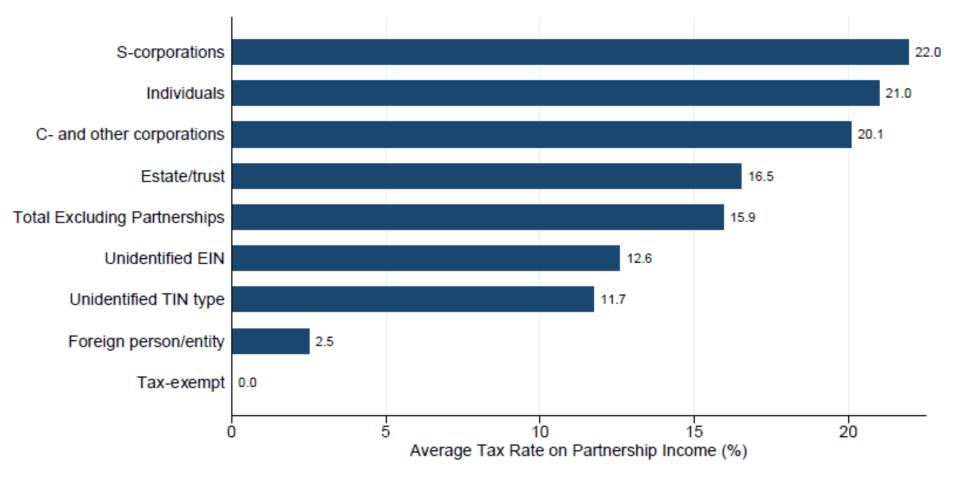
#### 3. C-Corporations

- $TAX_{C1} \equiv$  Actual taxes paid
- First layer is  $TAX_{C1}$  divided by taxable income
- $TAX_{C2} \equiv$  Estimate from Poterba (2004) for dividend+cap gains tax times income net of first layer of tax
- Final rate combines first and second layer of tax

# Average Tax Rate by Entity Type



## Average Tax Rates on Partnership Income



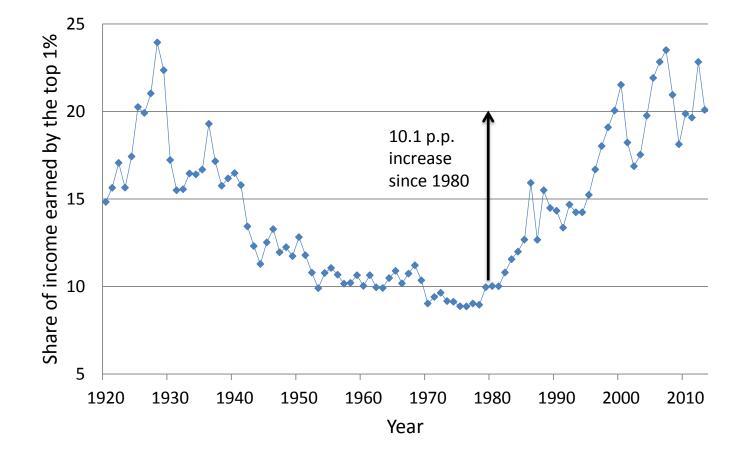
Following the Money:

- 1. Link businesses to their owners.
- 2. Determine the tax paid for each business's activity.

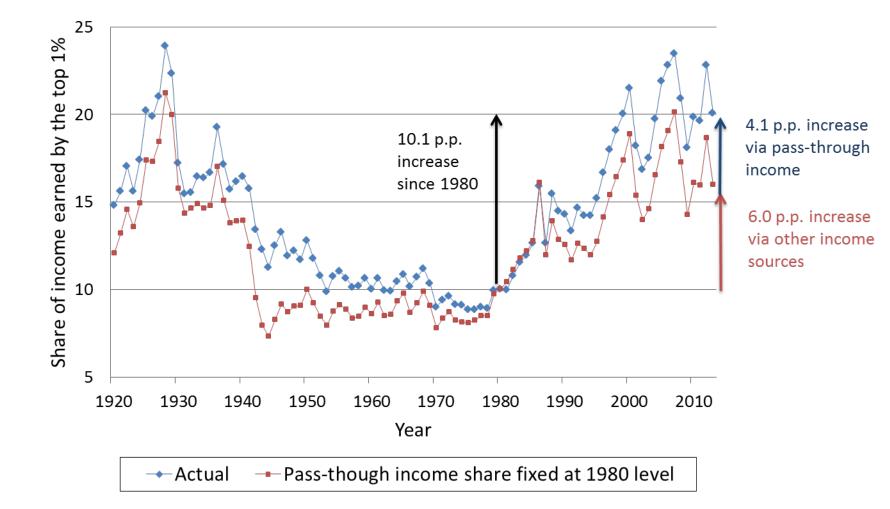
To Whose Benefit:

- 1. Who receives pass-through business income?
- 2. Average federal income tax rate on pass-throughs is 19%.
- 3. 30% of income earned by partnerships cannot be unambiguously traced to an identifiable, ultimate owner.

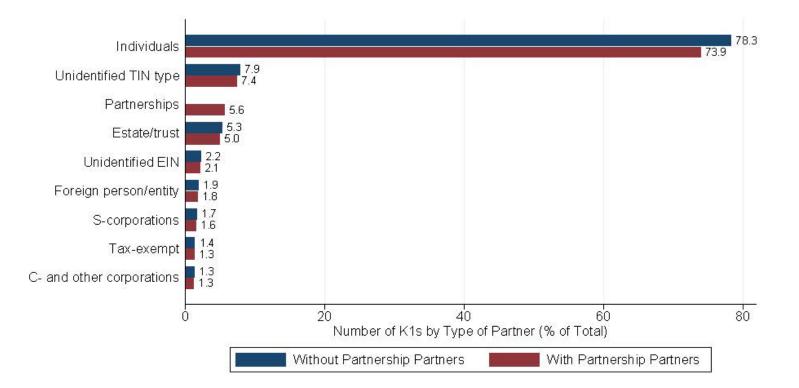
## The Top 1% Income Share



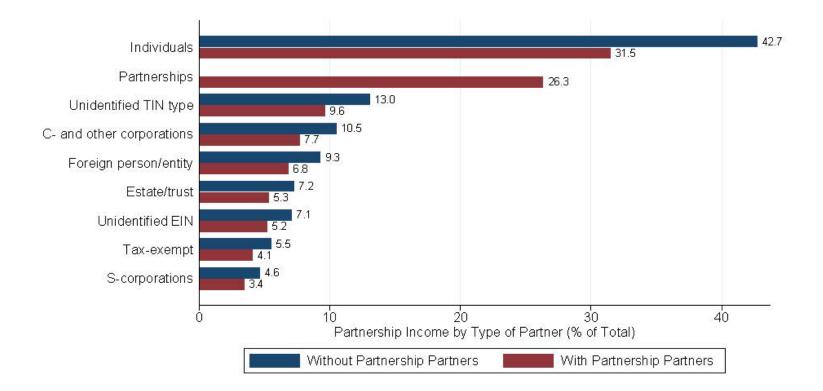
## Pass-through Income and the 1% Income Share



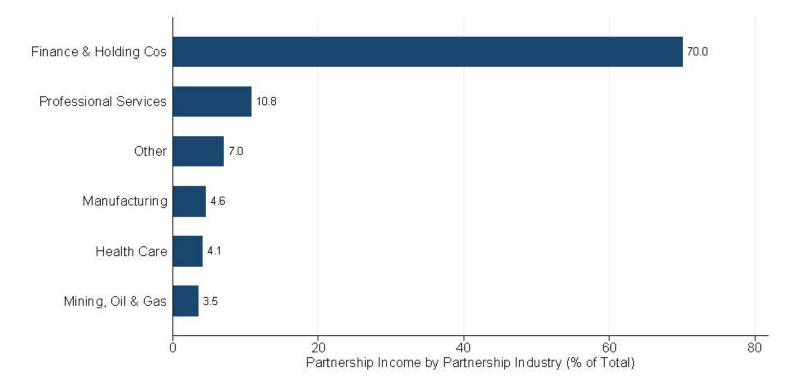
### NUMBER OF K1S BY TYPE OF PARTNER



### INCOME SHARES BY TYPE OF PARTNER

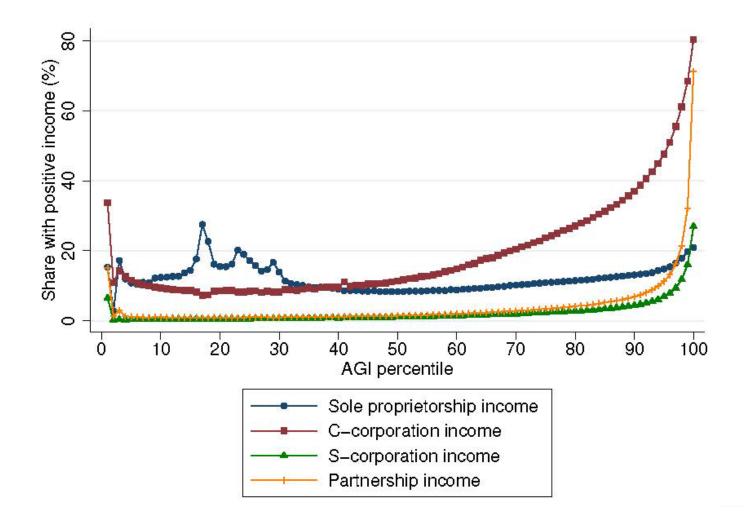


### PARTNERSHIP INCOME SHARES BY INDUSTRY

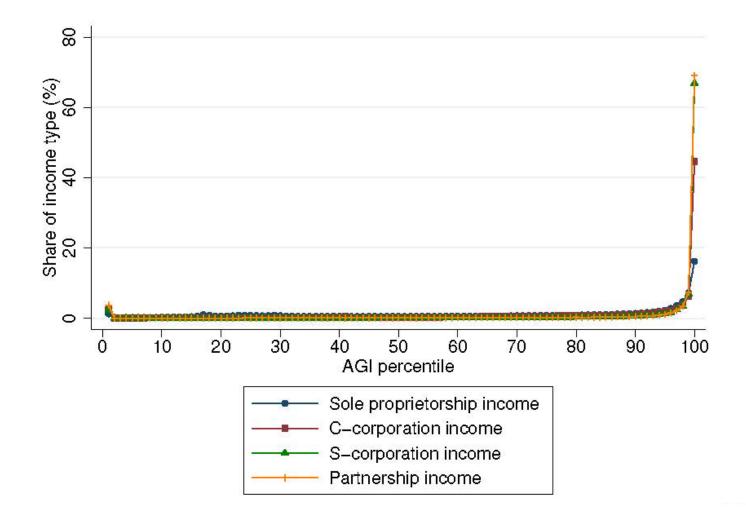


Note: "Finance & Holding Cos" includes real estate and rental partnerships ( $\approx 3.1\%$  of total)

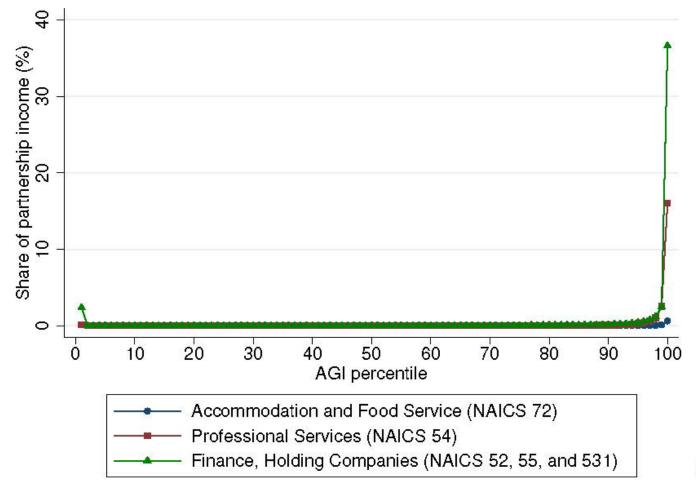
### BUSINESS PARTICIPATION RATES BY AGI PCTILE



### BUSINESS INCOME SHARES BY AGI PCTILE

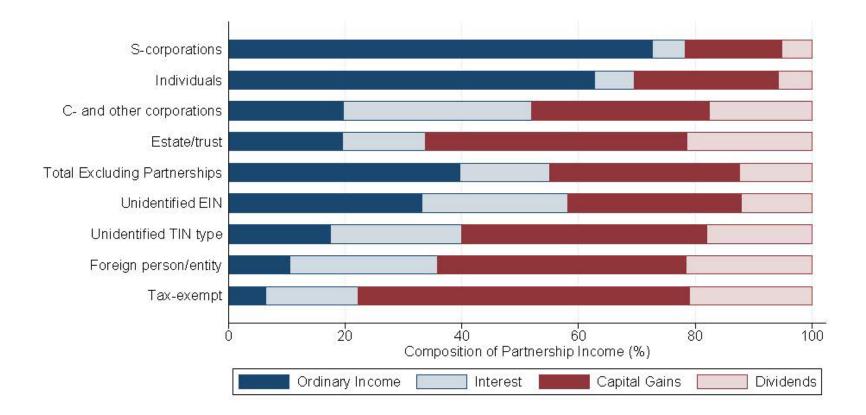


### PARTNERSHIP INCOME SHARES BY AGI PCTILE Three Sample Industries

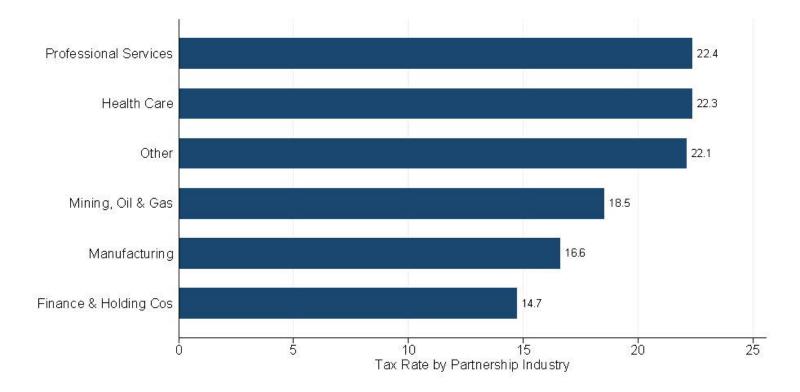


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### PARTNERSHIP INCOME TYPE DISTRIBUTION By Type of Partner

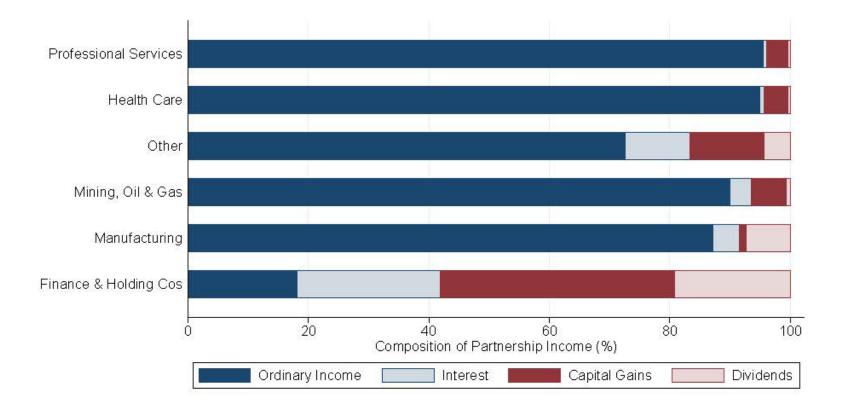


### TAX RATES ON PARTNERSHIP INCOME By Industry



Note: "Finance & Holding Cos" includes real estate and rental partnerships ( $\approx$  3.1% of total)

### PARTNERSHIP INCOME TYPE DISTRIBUTION By Industry



Note: "Finance & Holding Cos" includes real estate and rental partnerships ( $\approx 3.1\%$  of total)

## Partnership Ownership is Opaque

In many cases, we can not directly link the business activity of partnership to the ultimate owner.

- 20% of income earned by unclassifiable partners
  - We can not match 2.4 million K-1s to a tax return for the partner
  - Use income type allocations to "guess" applicable rate
- Not all partnership income can be uniquely linked to an originating partnership
  - > 22,417 partnerships lack definitive linkages between firm and all owners
  - > They account for approximately \$100 billion in income
  - > The average tax rate on this income is 8.8%.

# Conclusion

- 1. The Rise of Pass-throughs: U.S. business activity is migrating from corporations to pass-throughs.
- 2. Who Owns Partnerships?
  - About half of partnership income taxed on individual returns.
  - $\blacktriangleright$  At least 15% to foreign or tax exempt entities with little tax.
  - ➢ At least 10% to C-corporations.
  - Remaining ownership is opaque.
- 3. How Much Tax Do They Pay?
  - In 2011 the average tax rate on pass-through income was 19%.
- 4. Implication: The rise of pass-throughs has lowered the average tax rate on business income and as a result tax receipts are lower than they would otherwise be.