EXHIBIT D

Arkansas Income Tax Policy

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Overview

- Follow-up Sales Tax Discussion
 - o Taxing Groceries at 6.5% vs. 1.5%
 - o Offsetting Options
- Why Income Tax Matters
 - Sustainability
 - o Relationship to economic growth
 - o Tax Fairness
- Specific Reform Ideas for Arkansas



Taxing Food & Credits

Offer a Targeted Credit instead of a Broad Exemption

 Grocery exemption cost approximately \$249 million in 2018

- Exemption vs. Refundable Credit:
 - Lost tax revenues
 - o Targeting
 - o Volatility
 - o Administrative costs



Impact of Taxing Groceries at 6.5%

Impact of Increasing Sales Tax Rate on Food from 1.5 to 6.5% in Arkansas

2018 Income Groups	Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Next 15%	Next 4%	Top 1%
Income	Less Than						
Range							Or More
Average Income in Group	\$ 13,000	\$ 28,000	\$ 42,000	\$ 67,000	\$ 116,000	\$ 268,000	\$ 1,280,000

Tax Change as % of Income	+0.6%	+0.5%	+0.4%	+0.3%	+0.2%	+0.1%	+0.04%
Average Tax Change	+76	+129	+162	+208	+266	+371	+527
Share of In-State Tax Change	9%	15%	18%	24%	23%	8%	3%



Credit Options

State	Description of Credit
AZ	Refundable "Increased Excise Tax Credit" for low-income taxpayers of all ages
н	"Refundable Food/Excise Tax Credit" for taxpayers with FAGI below \$50,000. In 2016, eligibility changed for single taxpayers to \$30,000 FAGI
ID	Refundable "Grocery Credit" to all families regardless of income. The credit is \$100 per family member. Elderly taxpayers receive an extra \$10 per filer
KS	Targeted, nonrefundable food sales tax credit to families with income below \$30,615 with at least one dependent or who are over 55 years of age; the maximum credit is \$125 per exemption
ME	Targeted, refundable Sales Tax Fairness Credit to low- and middle-income families dependent on family size and income; the maximum credit is \$225
NM	Refundable "Low Income Comprehensive Tax Rebate" for all low-income taxpayers
OK	Refundable "Credit/Refund of Sales Tax" for low-income taxpayers of all ages

Option 1: Hold Harmless Bottom 20% of Taxpayers

The Kansas Food Sales Tax Refund (2010)

Only taxpayers over 55, taxpayers with children under 18, and disabled taxpayers are eligible.

Income Level	Refund
\$0 to \$17,500	\$90 per person
\$17,500 to \$35,000	\$45 per person
\$35,000 or more	no refund



Option 1: Hold Harmless Bottom 20% of Taxpayers

Kansas Food Sales Tax Refund \$52 million

2018 Income	Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Next 15%	Next 4%	Top 1%
Income	Less than	\$21,000 -	\$33,000 -	\$52,000 -	\$85,000 -	\$179,000 -	\$486,000 -
Range	\$21,000	\$33,000	\$52,000	\$85,000	\$179,000	\$486,000	Or More
Average Income in Group	\$13,000	\$28,000	\$42,000	\$67,000	\$116,000	\$268,000	\$1,280,000

KS Based Grocery Credit

-							
Tax Change as % of Income	-0.7%	-0.2%	-0.04%	-0.01%	-0%	-0%	-0%
Average Tax Change	-84	-60	–19	- 5	_	_	_

Combined with Impact of Taxing Groceries

Tax Change as % of Income	-0.1%	+0.2%	+0.3%	+0.3%	+0.2%	+0.1%	+0.04%
Average Tax Change	-8	+69	+143	+203	+266	+371	+527



Taxpayers whose SNAP food purchases are exempt from the food tax still pay sales taxes on a significant portion of their food expenses

	1.	Adult	1 Adult, 1 Kid		1 Adult, 2 Kids		Adult, Kids
Annual Food							
Expenses	\$	2,986	\$ 4,394	\$	6,613	\$	8,777
Monthly							
Food Expenses	\$	249	\$ 366	\$	551	\$	731
Average							
SNAP Benefit	\$	110	\$ 220	\$	330	\$	440
Difference	\$	139	\$ 146	\$	221	\$	291

	2	Adults	2 Adults, 1 Kid		2 Adults, 2 Kids		Adults, 3 Kids
Annual Food							
Expenses	\$	5,474	\$ 6,807	\$	8,786	\$	10,702
Monthly	\$	456	\$ 567	\$	732	\$	892
Average SNAP							
Benefit	\$	220	\$ 330	\$	440	\$	550
Difference	\$	236	\$ 237	\$	292	\$	342

From: Living Wage Calucator, http://livingwage.mit.edu/states/05; and CBPP Arkansas SNAP Factsheet, https://www.cbpp.org/sites/default/files/atoms/files/snap_factsheet_arkansas.pdf



Option 2: Hold Harmless Bottom 40% of Taxpayers

The Hawaii Food / Excise Tax Credit (2013)								
Income Level	Refundable Credit (per person)							
\$0 to \$5,000	\$85							
\$5,000 to \$10,000	\$75							
\$10,000 to \$15,000	\$65							
\$15,000 to \$20,000	\$55							
\$20,000 to \$30,000	\$45							
\$30,000 to \$40,000	\$35							
\$40,000 to \$50,000	\$25							
\$50,000 or more	no refund							



Option 2: Hold Harmless Bottom 40% of Taxpayers

Hawaii Food/Excise Tax Credit \$121 million

2018 Income	Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Next 15%	Next 4%	Top 1%
Income	Less than	\$21,000 -	\$33,000 -	\$52,000 -	\$85,000 -	\$179,000 -	\$486,000 -
Range	\$21,000	\$33,000	\$52,000	\$85,000	\$179,000	\$486,000	Or More
Average Income in Group	\$13,000	\$28,000	\$42,000	\$67,000	\$116,000	\$268,000	\$1,280,000

HI Based Grocery Credit

Tax Change as % of Income	-1.4%	-0.4%	-0.2%	-0.02%	-0%	-0%	-0%
Average Tax Change	-175	-125	-93	–15	_	_	_

Combined with Impact of Taxing Groceries

·							
Tax Change as % of Income	-0.8%	+0.01%	+0.2%	+0.3%	+0.2%	+0.1%	+0.04%
Average Tax Change	-99	+4	+69	+193	+266	+371	+527



Option 3: Hold Harmless Bottom 60% of Taxpayers

\$50 per person refundable credit Incomes < \$75,000



Option 3: Hold Harmless Bottom 60% of Taxpayers

\$50 per person credit if income <\$75,000 \$162 million

2018 Income	Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Next 15%	Next 4%	Top 1%
Income	Less than	\$21,000 -	\$33,000 -	\$52,000 -	\$85,000 -	\$179,000 -	\$486,000 -
Range	\$21,000	\$33,000	\$52,000	\$85,000	\$179,000	\$486,000	Or More
Average Income in Group	\$13,000	\$28,000	\$42,000	\$67,000	\$116,000	\$268,000	\$1,280,000

\$50 Per Person Grocery Credit

Tax Change as % of Income	-1.0%	-0.5%	-0.4%	-0.2%	-0%	-0%	-0%
Average Tax Change	-130	-140	-179	-125	_	_	_

Combined with Impact of Taxing Groceries

Tax Change as % of Income	-0.4%	-0.04%	-0.04%	+0.1%	+0.2%	+0.1%	+0.04%
Average Tax Change	-54	-11	–17	+83	+266	+371	+527



Option 4: Enact 10% Refundable EITC

(holds bottom 40% harmless)

Arkansas Refundable EITC @ 10% of Federal

\$76 million

2018 Income	Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Next 15%	Next 4%	Top 1%
Income	Less than	\$21,000 -	\$33,000 -	\$52,000 -	\$85,000 -	\$179,000 -	\$486,000 -
Range	\$21,000	\$33,000	\$52,000	\$85,000	\$179,000	\$486,000	Or More
Average Income in Group	\$13,000	\$28,000	\$42,000	\$67,000	\$116,000	\$268,000	\$1,280,000

Enact Refundable State EITC at 10% of Federal

Tax Change as % of Income	-0.8%	-0.5%	-0.1%	_	_	_	_
Average Tax Change	- 98	-125	– 57		_	_	

Combined Changes

Tax Change as % of Income	-0.2%	-0.0%	+0.3%	+0.3%	+0.2%	+0.1%	+0.04%
Average Tax Change	-22	+4	+105	+208	+266	+371	+527



Income Tax

- Sustainability
 - O Revenue stream grows at the same pace as the services it is intended to fund; and over the long-run, both grow along with the economy.
- To achieve, tax systems must be responsive to broad economic developments that affect the tax base



- Economic developments of note
 - o Sales tax
 - Consumption moving to more services, new types of goods
 - Taxes haven't kept up and face difficult political forces when trying to modernize
 - o Property tax
 - Legal constraints
 - Since not sensitive to ability to pay, lower taxpayer tolerance for growing levies over time
 - o Gas tax
 - Stagnant gas tax rates
 - Increased fuel efficiency



- Economic developments of note, cont'd
 - o Income Tax
 - × Income growth
 - ➤ Disparate income growth across income groups over the past 40 years



- Income tax—especially progressive income taxes—are most responsive to this important economic trend
 - o Income tax yields grow as income does
 - Progressive income taxes allow lawmakers to differentiate tax burden among those whose incomes are growing at slower and faster rates
- Over the long term, progressive income taxes are the most reliable revenue source available to states, displaying more robust growth than sales, property, or excise taxes



- Volatility
- What is it?
 - o Change in tax yields from year to year (growing or falling)
- Why does it happen?
 - O Usually in response to changes in the business cycle: tax collections increase rapidly when the economy grows, and grow more slowly when the economy slows down



Why it matters

- Tax revenues are how state and local governments pay for the public services they provide each year
- The cost of providing these services tends to grow at least with inflation
- o If the cost of public investments such as education, transportation and healthcare grows each year, lawmakers will be left scrambling when tax revenues actually decline, as has happened in many states during the recent recession

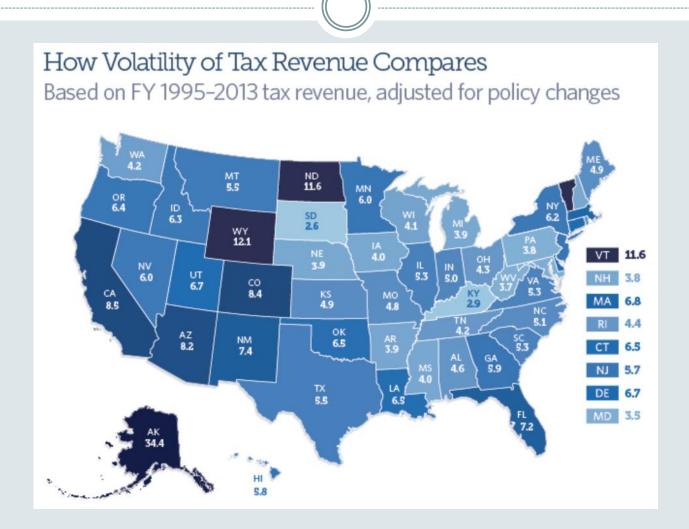


- What factors determine volatility?
 - o Volatility of individual tax streams often outside of policymakers' control
 - ➤ State economic factors: the mix of industry, natural resources, workforce, and population growth
 - Federal budget changes
 - Unforeseen events, such as natural disasters



- What factors determine volatility?
 - o Relative reliance on each tax types
 - ➤ From FY 1995-2013, corporate income tax and severance tax on oil and minerals consistently were more volatile than other major state taxes (personal income and sales of goods and services)
 - o Mix of taxes
 - ▼ Diversification







- Are income taxes more volatile than other major tax sources?
 - O Short-term volatility effects all major tax sources levied by states
 - In recent years, states have seen a downturn in everything from the sales tax to gambling revenues to corporate income taxes
 - Academic research casts doubt on the conventional wisdom that income taxes are more volatile than sales taxes
 - o PEW Study
 - ➤ Personal income tax fluctuated more than any other type of tax in only 9 of the 41 states that levy it (less than 22%)



• Is volatility a deal breaker?

- There is a fundamental tradeoff between short-term volatility and long-term growth—the price of making your tax system less volatile is usually a diminished capacity to fund public investments in the long run
- Over the long term, progressive income taxes are the most reliable revenue source available to states, displaying more robust growth in the long run than sales, property or excise taxes
- O Volatility complicates the already difficult tasks of revenue forecasting and budgeting, yet it is not inherently bad



What can be done to mitigate volatility?

- o Sensible fiscal management strategies available to mitigate the impact of volatility
- o Best hedge is better planning
 - Improve roads and bridges, pay down debt, or build up reserves during high-receipt times
 - ➤ Harness good growth years to cushion the lean years by using a rainy day fund (deposit surplus revenue during prosperous times to be drawn upon in times of need)
- o Expand the base of other taxes
 - Leaves states less vulnerable to economic downturns and the revenue fluctuations they induce



Why Income Taxes Matter: Supporting Economic Growth

• A sustainable revenue stream made possible by an income tax pays for state services that are vital to economic growth, like education, public safety, the courts, and transportation infrastructure



Why Income Taxes Matter: Supporting Economic Growth

- Evidence that investments in public goods matter:
 - O Statistical research: Many empirical studies find positive correlation between quality of education and infrastructure (especially) and rate of state economic growth and growth in high-paying jobs
 - O Business executives: Most surveys of business executives about what's important in their location decisions find quality of local labor force and infrastructure more influential than taxes/tax incentives
 - o "Creative class": Growing body of research finding that fastest growing cities are those where highly-educated workforce is concentrated. They want good schools, parks, low crime, etc.



Why Income Taxes Matter: Tax Fairness

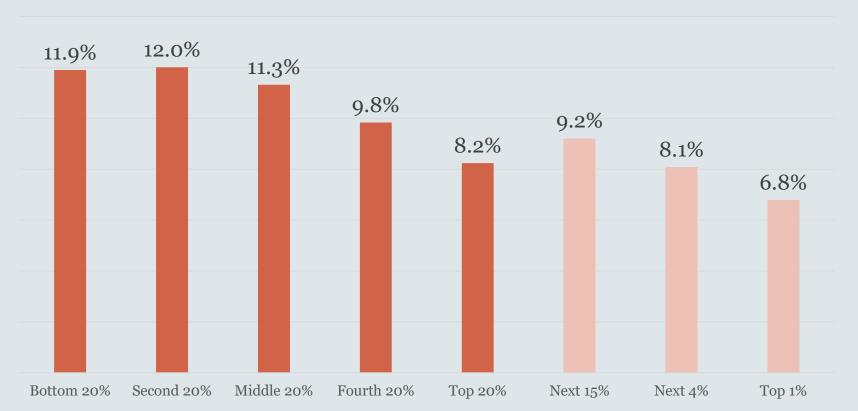
- State & local taxes are regressive
 - Make up a larger share of income for low- and middleincome families

Conceptualizing tax fairness



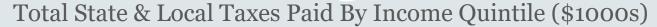
Conceptualizing Tax Fairness: Relative Impact on Individual Taxpayer

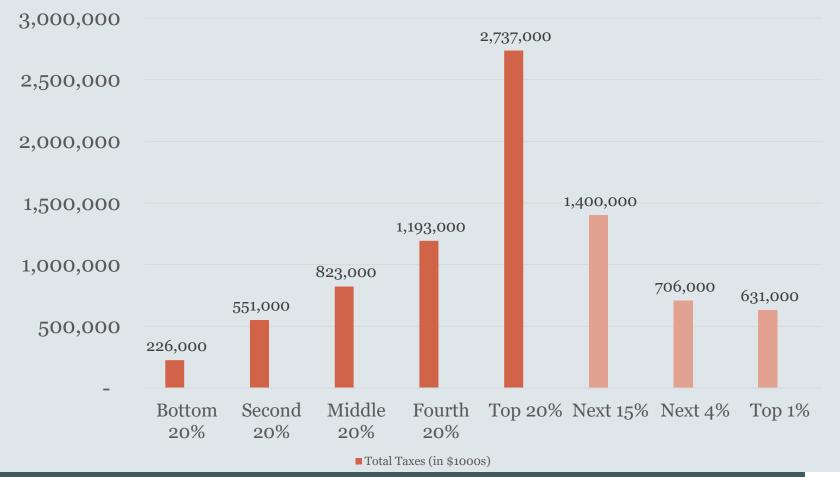
Arkansas Combined State & Local Taxes as a Share of Income By Income Quintile





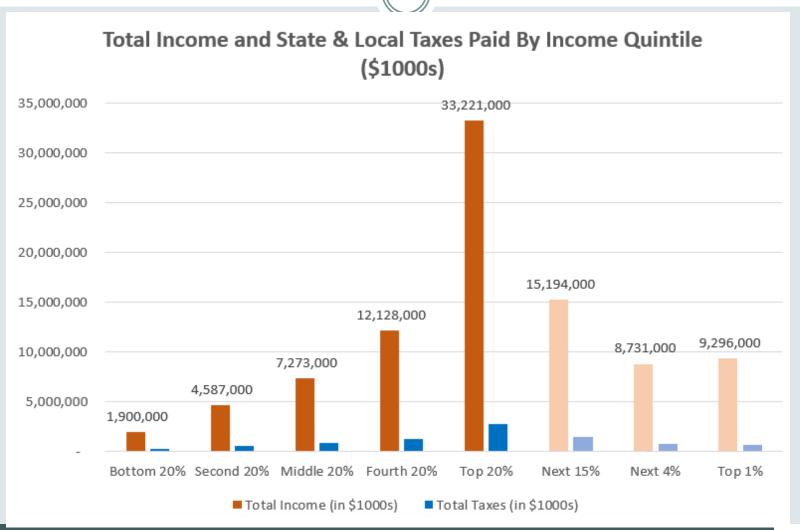
Conceptualizing Tax Fairness: Total Taxes Paid in \$s by Income Group





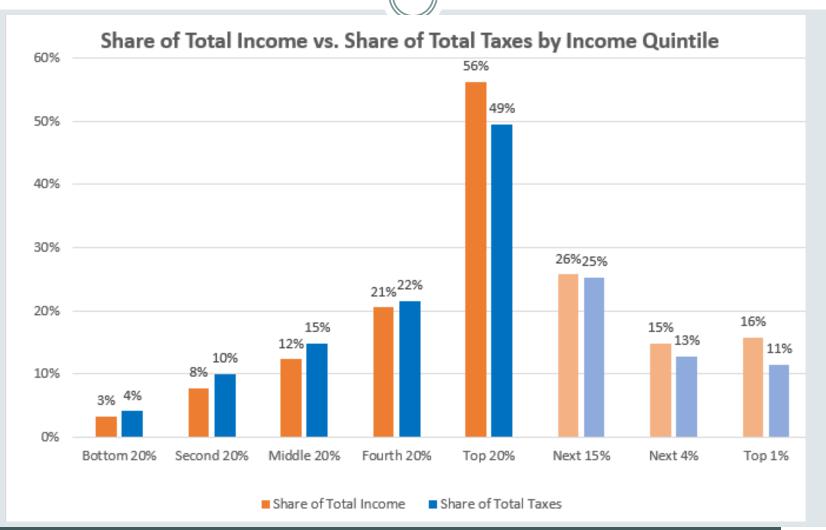


Conceptualizing Tax Fairness: Total Taxes Paid vs. Total Income by Income Group





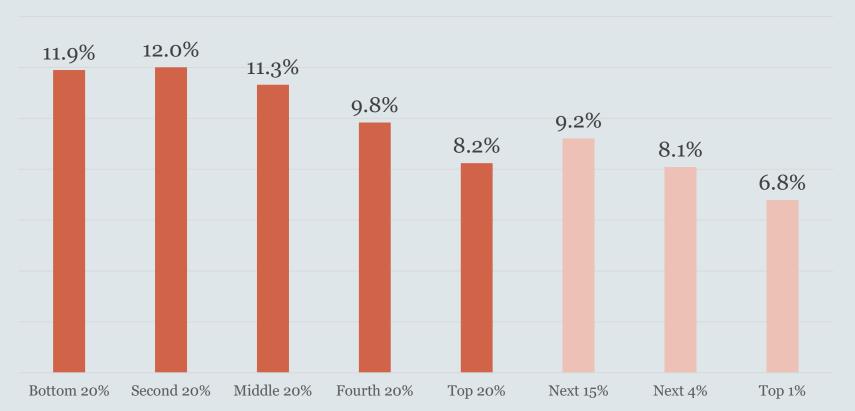
Conceptualizing Tax Fairness: % Total Income vs. % Total Taxes Paid by Income Group





Conceptualizing Tax Fairness: Relative Impact on Individual Taxpayer

Arkansas Combined State & Local Taxes as a Share of Income By Income Quintile





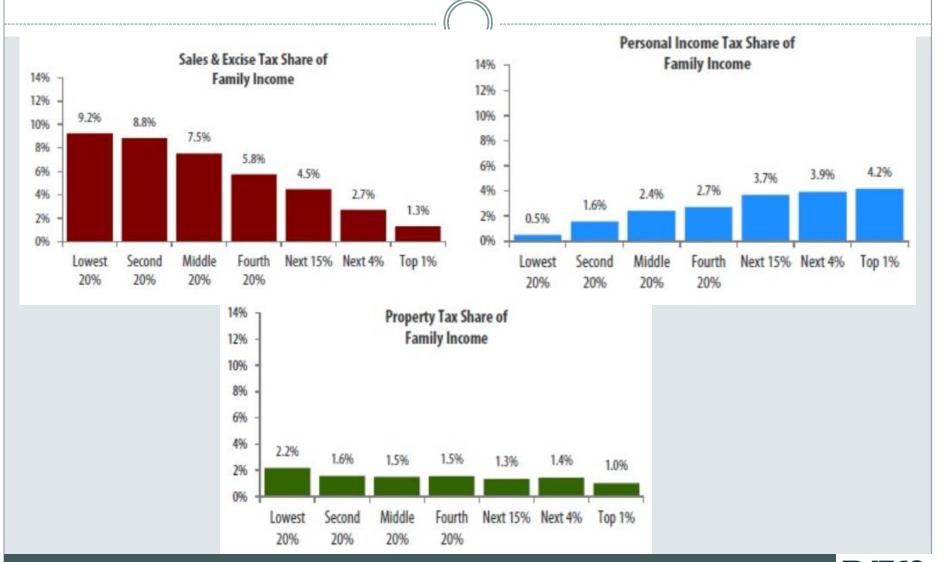
Why Income Taxes Matter: Tax Fairness

Regressivity

- o Sales and excise taxes are regressive because consumption makes up a much larger share of income for poor and middle-class taxpayers
- O Property taxes are regressive since homes and vehicles are usually the only types of property subject to tax, and the only types of property typically owned by individuals and families in the lower half of the income distribution
- A personal income tax is simply the only major revenue source available to states that can meaningfully mitigate the regressivity of sales, excise, and property taxes



A personal income tax is simply the only major revenue source available to states that can meaningfully mitigate the regressivity of sales, excise, and property taxes





Income Inequality Index

Appendix B: ITEP's Tax Inequality Index

Rank	State	Index	Lowest 20%	Middle 60%	Top 1%	Ratio of Poorest 20% to Top 1%	Ratio of Middle 60% to Top 1%
1	Washington	-12.6%	16.8%	10.1%	2.4%	687%	412%
2	Florida	-9.5%	12.9%	8.3%	1.9%	664%	429%
3	Texas	-8.5%	12.5%	8.8%	2.9%	433%	307%
4	South Dakota	-8.4%	11.3%	7.9%	1.8%	619%	431%
5	Illinois	-8.1%	13.2%	10.9%	4.6%	289%	238%
6	Pennsylvania	-7.3%	12.0%	10.1%	4.2%	286%	241%
7	Tennessee	-7.3%	10.9%	8.4%	3.0%	366%	280%
8	Arizona	-7.1%	12.5%	9.5%	4.6%	272%	207%
9	Kansas	-6.9%	11.1%	9.2%	3.6%	310%	258%
10	Indiana	-6.6%	12.0%	10.6%	5.2%	231%	204%
11	Arkansas	-6.4%	11.9%	11.1%	5.6%	212%	197%



Highest Taxes on the Poor

The 10 States with the Highest Taxes on the Poor							
State	Taxes Paid by Bottom 20%						
Washington	16.8%						
Hawaii	13.4%						
Illinois	13.2%						
Florida	12.9%						
Rhode Island	12.5%						
Arizona	12.5%						
Texas	12.5%						
Indiana	12.0%						
Pennsylvania	12.0%						
Arkansas	11.9%						



Why Income Taxes Matter: Tax Fairness

- Characteristics of income taxes that are progressive
 - A graduated rate structure that applies lower tax rates to lower-income families
 - Use of refundable tax credits to off set the impact of other regressive taxes
 - o Fair treatment of different types of income: wages, salaries, capital



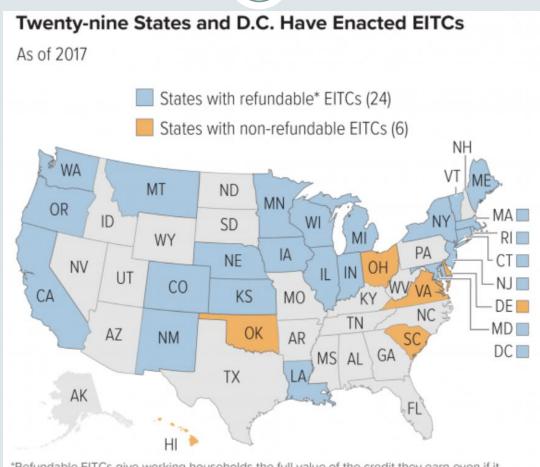
Recommended Reforms

Improvements to AR Income Tax: Enact State EITC

- Enact a refundable state Earned Income Tax Credit
 - States EITCs a standard feature of a modern income tax (29 states and DC)
 - o Effects
 - Encourages work
 - ➤ Leads to better child development, education, and earnings outcomes
 - Tool for offsetting regressivity of other state taxes
- Refundability
 - O Rebate, not wealth redistribution
 - Easier than trying to administer in the check-out line at grocery store



Earned Income Tax Credits (EITC) in the States



*Refundable EITCs give working households the full value of the credit they earn even if it exceeds their income tax liability.

Source: CBPP analysis



EITC Options



2018 Income	Lowest 20%	Second 20%	Middle 20%
Income	Less than	\$21,000 -	\$33,000 -
Range	\$21,000	\$33,000	\$52,000
Average Income in Group	\$13,000	\$28,000	\$42,000

% Taxpayers w/Cut 21%

EITC Options: Percent of Federal

10% Refundable Credit									
Tax Change as % of Income	-0.7%	-0.4%	-0.2%						
% with Income Tax Cut	43%	32%	27%						
Avg. Tax Cut for Those w/Cut	-197	-344	-263						
Share of Tax Cut	30%	39%	25%						

State Tax Change (\$1000) -76,000

15% Refundable Credit			
Tax Change as % of Income	-1.0%	-0.6%	-0.3%
% with Income Tax Cut	43%	32%	27%
Avg. Tax Cut for Those w/Cut	-302	-525	-404
Share of Tax Cut	30%	39%	25%

State Tax Change (\$1000) -115,000

30% Refundable Credit								
Tax Change as % of Income	-2.1%	-1.2%	-0.5%					
% with Income Tax Cut	43%	32%	28%					
Avg. Tax Cut for Those w/Cut	-616	-1,068	-818					
Share of Tax Cut	30%	39%	26%					

State Tax Change (\$1000) -235,000



Improvements to AR Income Tax: Repeal Exclusion for Capital Gains

- Special tax break that favor investors' capital gains income over the wages and salaries earned by working families
 - O Vast majority of gains recognized by the wealthiest
 - x 72% of benefit of CG exclusion in Arkansas realized by top 1% (incomes → \$486,000)
- Exacerbates regressivity
- Already receive preferential treatment at federal level



Improvements to AR Income Tax: Repeal Exclusion for Capital Gains

- Flawed strategy for promoting economic growth
 - O General state capital gains tax breaks are unlikely to benefit that state's economy, since any new investment encouraged by the break could take place anywhere in the United States or the world
- Recent changes
 - o Expansion in Arizona and Arkansas
 - o Elimination in Rhode Island
 - Reductions in Vermont and Wisconsin



Improvements to AR Income Tax: Repeal Exclusion for Capital Gains

• Incidence Analysis from repeal of AR exclusion for longterm capital gains

2018 Income	Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Next 15%	Next 4%	Top 1%
Income	Less than	\$21,000 -	\$33,000 -	\$52,000 -	\$85,000 -	\$179,000 -	\$486,000 -
Range	\$21,000	\$33,000	\$52,000	\$85,000	\$179,000	\$486,000	Or More
Average Income in Group	\$13,000	\$28,000	\$42,000	\$67,000	\$116,000	\$268,000	\$1,280,000

Repeal Capital Gains Exclusion									
Tax Change as % of Income	_	_	_	+0.01%	+0.04%	+0.1%	+0.4%		
Average Tax Change	_	_	_	+4	+42	+323	+5,119		
% with Income Tax Increase	_	_	_	5%	14%	36%	43%		
Avg. Tax Increase for Those w/Increase	_	_	_	+91	+295	+904	+11,778		
Share of Tax Increase	_	_	_	1%	9%	18%	72%		

State	Tax Change	(\$1000)
	.00 000	

% Taxpayers w/Increase					
6%					

Note: Doesn't include estimate for cost of exclusion for capital gains >\$10 million



Improvements to AR Income Tax: Maintain Progressivity of Graduated Rate Structure

- Top rate cuts increase regressivity of current tax system
 - O Cutting top income tax rate from 6.9% to 6.0% for taxable incomes >\$75,000 results in a \$168 million tax cut for 7% of Arkansans—those entirely in the top 20%
 - o Average value of cut for those with cut ranges from \$542 \$7,368

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t Tan Data from 6 00/ to 60/ for Tayah	la lucamas	¢75.000					
it Top Rate from 6.9% to 6% for Taxab	ie incomes	>\$75,000					
Tax Change as % of Income	_	_	ı	1	-0.1%	-0.4%	-0.5%
Average Tax Change	_	_	1	1	-106	-1,021	-6,587
% with Income Tax Cut	_	_	ı	-	20%	88%	89%
Avg. Tax Cut for Those w/Cut	_	_	ı		-542	-1,160	-7,368
Share of Tax Cut	_	_	_	_	13%	33%	54%



Improvements to AR Income Tax: Maintain Progressivity of Graduated Rate Structure

- Compare to 2017 "Low Income" Rate Cut for perspective...
 - Our estimates show \$41 million tax cut with average tax cut of \$41 for the target beneficiaries with incomes under \$21,000

2018 Income	Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Next 15%	Next 4%	Top 1%
Income	Less than	\$21,000 -	\$33,000 -	\$52,000 -	\$85,000 -	\$179,000 -	\$486,000 -
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2017 "Low-Income" Tax Cut								
Tax Change as % of Income	-0.1%	-0.1%	-0.1%	-0.1%	-0.03%	-0.02%	ı	
Average Tax Change	-8	-23	-29	-55	-34	-47	1	
Avg. Tax Cut for Those w/Cut	-41	-41	-40	-67	-42	-79	ı	
Share of Tax Cut	5%	15%	19%	37%	17%	6%	_	

State Tax Change (\$1000)



Improvements to AR Income Tax: Maintain Progressivity from Graduated Rate Structure

• Moderate slightly by combining top rate cut with elimination of capital gains exclusion

Share of Tax Cut

o Brings the top 20% tax cut down to \$81 million from \$168 million

ZUTO INCUIRE	LOWEST 2070	Second 20%	Middle 2070	Fourth 20%	Next 1070	NEXL470	10p 176	
Income	Less than	\$21,000 -	\$33,000 -	\$52,000 -	\$85,000 -	\$179,000 -	\$486,000 -	
Range	\$21,000	\$33,000	\$52,000	\$85,000	\$179,000	\$486,000	Or More	
Average Income in Group	\$13,000	\$28,000	\$42,000	\$67,000	\$116,000	\$268,000	\$1,280,000	
Cut Top Rate from 6.9% to 6% for Taxal	ole Incomes	>\$75,000 &	Eliminate (Capital Gain	s Exclusio	1		State Tax Change (\$1000)
Tax Change as % of Income	_	_	_	_	-0.1%	-0.3%	-0.2%	-81,000
Average Tax Change	_	_	_	_	-65	-733	-2,132	•
% with Income Tax Cut	_	_	_	_	19%	84%	82%	% Taxpayers w/Cut
Avg. Tax Cut for Those w/Cut	_	_	_	ı	-521	-1,082	-3,115	7%
·								



- Income taxes (corporate and personal) popular targets among proponents of tax cuts
- Thinking behind it? Theoretical predictions:
 - O Demand-side: With fewer taxes, businesses will hire more people, invest in new facilities; individuals will spend more on goods and services that indirectly provide employment and income to the businesses/people furnishing them.
 - Supply-side: Changes incentives businesses have to make an investment/create a job/locate to a particular state and the incentives individuals have to work/live in a state



- Problems with the demand-side argument
 - O Every dollar cut for a business or household is one dollar in taxes raised on someone else or a dollar matched in spending cuts—money that is more likely to have been spent within the local economy
 - × Previous spenders of state payments have to take it out of local economy immediately while recipient may not inject it immediately at all
 - Save or spend on out of state expenses
 - ➤ Invest in out of state pay bonuses, dividends



- Theoretically, supply-side benefits are supposed to offset negative demand-side effects of tax cuts
 - ➤ Tip the balance towards investment/jobs that wouldn't otherwise have happened at all: Tax cuts increase profitability of business investments, thus incentive to make them; can turn marginally-unprofitable investment into a marginally profitable one
 - ➤ Shift location of a business or investment and associated jobs into the state
 - ➤ Induce individuals to reside in one state rather than another (indirect impact on economic development due to shift in location of household spending)



- Difficulties facing the supply-side argument in practice?
 - o Cutting taxes for businesses
 - ➤ State and local taxes paid by corporations make up a small share of total expenses (2-4%). Even substantial cuts won't move the needle much on profitability
 - ➤ Business investment responds primarily to anticipated demand for products, not small cut in tax expense or marginal rate
 - Taxes aren't a disincentive for hiring since wages are already fully deductible
 - Relocating is costly, rare, and makes up a tiny share of net job growth



- Difficulties facing the supply-side argument in practice, cont'd
 - o Cutting taxes for businesses
 - ➤ Job growth among states based on ability to support start-ups that develop innovative technologies, products or business models and that grow rapidly (Facebook/Google/Amazon)
 - x Tax cuts don't help these businesses takeoff because they earn little in any profit in the early years (money goes into R&D, marketing, etc.)
 - ▼ Lots of other things important to location decisions
 - Businesses: Distance to suppliers/customers; skill level of workforce; road quality
 - Households: Climate, school quality, distance to family/relatives/jobs



- Difficulties facing the supply-side argument in practice, cont'd
 - o Cutting personal income taxes for individuals
 - Most people don't own businesses and most small and startups don't earn enough profit to get much from PIT cuts
 - Most small businesses don't employ anyone other than themselves and don't have any intention of ever doing so (not job creators)
 - ➤ PIT cuts don't attract entrepreneurs—they almost never move before starting their business. They start where they live, have local relationships, know the market, where industry is already clustered
 - Cutting family/friend ties is painful. New houses costly. New job hunting difficult and risky



- What does the research show?
 - Relationship between state tax levels and state economic performance has been studied extensively by economists
 - ➤ People on both sides of the debate can point to well-done studies by reputable economists published in peer reviewed journals supporting the assertion that relative state tax levels do and don't affect relative rates of economic growth, job creation, etc.
 - Results aren't robust; several replications of widely-cited earlier studies have completed undermined them
 - Results are contradictory; one study will find CIT matters and PIT doesn't, and the next will find exactly the opposite
 - ➤ The weight of academic research concludes that state and local tax levels have, at most, a small impact on relative rates of state economic performance



- What does the research show?
 - o Business taxation
 - Considerable statistical research supports the conclusion that business tax cuts don' have *major impact* on state economic performance
 - Bartik's summary of the literature
 - 10% cut in total business taxes required to produce 2-3% boost in long-run (15-20 years) economic output and jobs, assuming quality of public services needed by business doesn't decline (have to offset by raising taxes on households instead of just cutting services)
 - Effects = \$20,000 per job paying less than \$40,000 (large subsidy)
 - 20-50% of jobs go to in-migrants instead of residents; 80% in the long-term go to in-migrants (who need roads, sewers, schools)
 - Significant revenue loss for small number of jobs



- What does the research show?
 - Personal income tax
 - Don't have same robust statistical summary of literature
 - ➤ Proponents of tax cuts can cite a couple of studies that find some inverse relationship between state PIT level and economic performance, but the majority find none



Key Takeaways

- O Theoretically-possible positive incentive effects of cutting business taxes and PITs are so small that in short run they are not powerful enough to overcome negative impact on growth of reducing state spending to finance tax cut; net combined effect on state economic growth likely to be negative
- Across-the-board tax cuts are not a cost-effective means of stimulating state economic growth/job creation
- O Preserving high-quality state and local services needed by businesses, especially education and infrastructure, should still be the primary economic growth strategy for states to pursue



- Key Takeaways, cont'd
 - o If states are going to use more narrow tax incentives to stimulate economic growth, they really can't afford for them to take a form that isn't directly conditioned on in-state investment (e.g., capital gains tax cuts, single sales factor, and domestic production deduction conformity are misguided)



- Dangers of "triggered" tax cuts
 - Are based on inadequate information about projected revenues and spending
 - Need multi-year forecasts on cost of cuts when take effect and cost of services to responsibly evaluate impact
 - ▼ Best forecasts can't predict change in state needs, citizen preferences, and lawmaker priorities
 - Can take effect even during economic downturns or at other times when revenues are particularly needed
 - ➤ If based on achieving model revenue growth in a single year, cuts can take effect as soon as state's economy starts recovering despite being below pre-recession levels



- Dangers of "triggered" tax cuts, cont'd
 - o Typically fail to account for state fiscal needs
 - ➤ Cuts triggered in most states even if recent revenue growth not enough to offset inflation, population growth, or other factors that affect cost of current services
 - ▼ Don't account for need to maintain adequate reserves for fiscal emergencies



- Dangers of "triggered" tax cuts, cont'd
 - Offer no meaningful benefits compared with deferring action on tax cuts until closer to the implementation date, when policymakers will know more about whether they are affordable
 - ➤ Benefits from knowing future tax rates likely quite limited when it comes to state taxes
 - State tax rates are low to begin with and unlikely to tip investment decisions
 - Most enacted in recent years involve personal income tax, and only a small minority of income tax payers are business owners making significant capital decisions



- Dangers of "triggered" tax cuts, cont'd
 - Enable policymakers to claim credit for cutting taxes while avoiding accountability for the consequences
 - ➤ Enacting an income tax cut with a future effective date whether or not a trigger is attached effectively acknowledges that the cut is not affordable now
 - ➤ Irresponsible to take political credit for approving the tax cuts, even if taxpayers won't actually benefit for years, and gamble that the cuts will turn out *not* to harm public services or the state's financial stability down the road
 - Lawmakers who agree to cut state revenues without knowing whether the cuts will be affordable abdicate their responsibility to prudently manage state finances, often at significant cost to the state's future



- Alternative to triggers
 - o If you really want to cut taxes, figure out how to pay for it now and take responsibility for its consequences (fiscally and politically)



Lessons from Kansas

- Kansas Gov. Brownback and legislators enacted a nearly \$800 million personal income tax cut
 - O Exempted all pass through income from PIT
 - o Repealed low-income tax credits
 - o Reduced tax rate structure from three brackets to two and lowered rates.
 - O Later hiked sales and cigarette taxes

Impact of Kansas Tax Changes Between 2012 and 2015

	Lowest	Second	Middle	Fourth	Next	Next	
2015 Income Group	20%	20%	20%	20%	15%	4%	Top 1%
Tax Change as % Income	1.5%	0.2%	-0.1%	-0.4%	-0.7%	-1.2%	-1.9%
Average Tax Change	\$197	\$66	-\$29	-\$316	-\$983	-\$3,587	-\$24,632



Lessons from North Carolina

- Hoped for economic gains haven't happened
 - O Before 2014 cuts, NC outpaced nation and performed in line with neighboring states even with highest income tax rates in the region (and higher rates than today).
 - o Since 2014 cuts, lagging GA & SC in GDP and private sector job growth and lagging nation's growth
- The budget crisis is coming



Lessons from North Carolina



Growth in private-sector gross domestic product, Oct. 2013-Sept. 2017, adjusted for inflation Growth in private-sector jobs, Dec. 2013-Dec. 2017



Source: Bureau of Economic Analysis and Bureau of Labor Statistics

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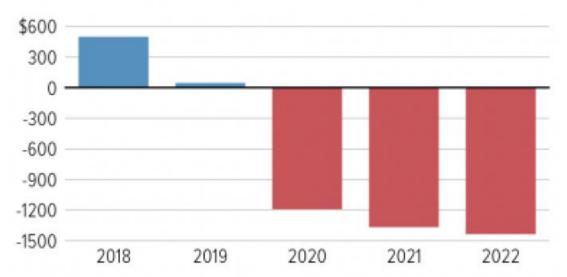


Lessons from North Carolina



Large Budget Shortfalls Loom for North Carolina Due to Tax Cuts

Estimated end-of-year general fund balance, in millions



Note: Assumes that current laws remain in effect, including the tax cuts, and that policymakers fund current levels of services in programs, as adjusted by inflation and growth in enrollment. Estimate excludes one-time revenue, such as withdrawals from the "rainy day" fund or unused appropriations.

Source: Fiscal Research Division, North Carolina General Assembly

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Summary

- Income tax important tool for revenue sustainability and thus funding public investments essential to economic growth (education, infrastructure)
- Income tax is the only major tax source that can improve tax fairness
 - O Tools: EITC, maintain graduated rates, tax capital gains income same as other income
- Volatility can be managed
- Figure out how to pay for tax cuts now
- Narrowly tailored tax cuts should be conditioned on in-state investment



Questions?

Thank you for your time and attention!



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About the ITEP Microsimulation Model

- A tax incidence model. Built in 1994-1996, but still evolving in 2016
- Designed to:
 - Predict the distributional effect of proposed tax changes on taxpayers at different income levels
 - Predict the revenue gain (loss) from proposed tax changes
 - Estimate the impact of current state and local taxes in all 50 states
 - Measure the interaction between state and federal tax changes
- Employs the same technology used by the US Treasury, Congressional Joint Committee on Taxation, Congressional Budget Office, and some state departments of revenue (e.g. TX, MN, ME)
- Consists of four basic modules: personal income tax, property tax, consumption tax, and business tax



Data Sources

