The Effects of Expanding North Carolina's Sales Tax Base
(Executive Summary)

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Executive Summary

Policy Question

How should North Carolina improve its sales tax?

Policy Context

Since 2013, North Carolina has enacted significant tax reform. The state replaced its previous three individual income tax brackets, which ranged from 6 to 7.75 percent, with a flat rate that currently stands at 5.75 percent. Beginning in March of 2016, the state expanded its sales tax to include repair, maintenance, and installation services to offset lost income tax revenue. Although the merits of reducing income taxes are debatable, economists agree that states should levy sales taxes on both goods and services. Among other benefits, economists claim that including services in the sales tax base promotes greater tax equity and allows states to reduce rates while maintaining revenue. My analysis uses the Bureau of Labor Statistics' Consumer Expenditure Survey (CEX) to test the veracity of these claims.

Methods

The CEX is a national survey that tracks consumption and income for over 7000 households each year. After reweighting the CEX to match North Carolina's population, I calculated the proportion of income North Carolina households pay in sales tax. The proportion between tax expenditures and income is referred to as tax incidence. A household's tax incidence entails sales taxes paid or accrued directly out of pocket (direct sales taxes) and the sales taxes businesses pass on to consumers via higher prices (cascading~~indirect~~ sales taxes). The cascading sales tax rates were calculated using input/output tables from the Bureau of Economic Analysis.

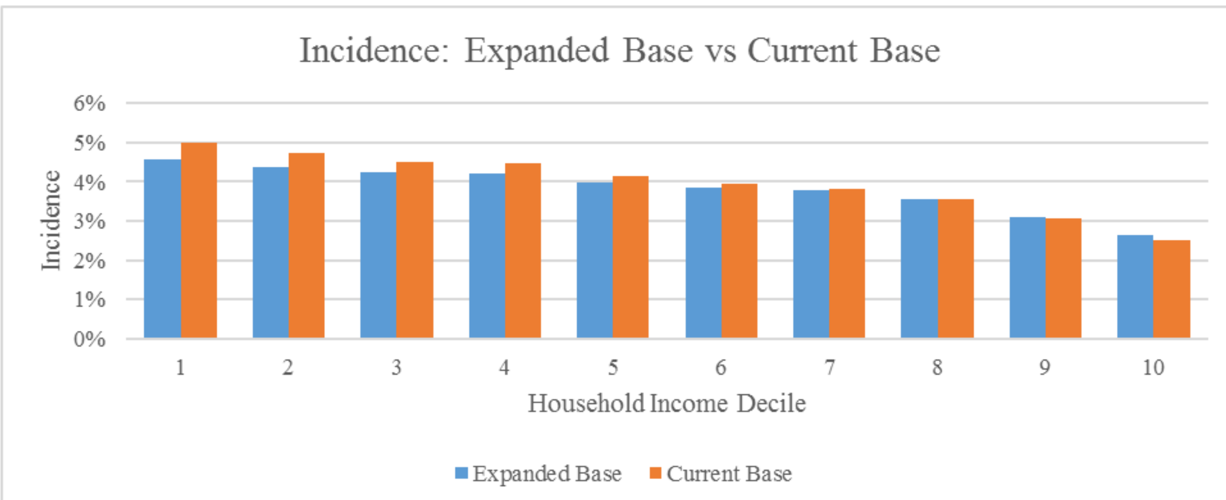
By applying the tax rates (direct and cascading) to household purchases recorded in the CEX, I calculated the yearly total sales tax revenue collected from personal consumption and the average annual tax incidence by household income decile. I then determined the hypothetical rate needed to maintain sales tax revenue if North Carolina levied taxes on both goods and most services. The hypothetical rate was then applied to goods and services to recalculate the average annual household tax incidence by income decile.

Results

By expanding the sales tax base to include most services, North Carolina could reduce the combined state and county sales tax rate from 6.93 to 5.38 percent while maintaining total sales tax revenue. More specifically, the North Carolina state government could reduce its sales tax rate from 4.75 to 3.69 percent and maintain current revenue.

Expanding the base and lowering the rate would result in a more progressive sales tax, with households in the poorest decile decreasing their incidence from 4.98 to 4.55 percent and households in the most affluent decile increasing their incidence from 2.51 to 2.65 percent. Enacting a broad-based sales tax at a lower rate would, on average, save households in the fourth decile $98 per year – the largest gains among all deciles. Households in the eighth decile and higher would lose money from expanding the sales tax base, with families in the tenth decile, on average, losing $292 dollars per year.

Household Income		Total Incidence		Annual Income Change
Decile	**Average Income**	**Current Base**	**Expanded Base**	**Expanded Base**
1	$14,825	4.98%	4.55%	$63
2	$22,674	4.72%	4.39%	$75
3	$30,449	4.50%	4.25%	$78
4	$38,019	4.45%	4.20%	$98
5	$47,120	4.13%	3.99%	$63
6	$57,538	3.95%	3.85%	$59
7	$70,532	3.81%	3.79%	$14
8	$88,065	3.54%	3.56%	-$15
9	$115,530	3.07%	3.09%	-$24
10	$213,102	2.51%	2.65%	-$292



Recommendations

I recommend North Carolina expand its sales tax base to include services not related to health or education. This expansion would allow the state to lower its tax rate from 4.75 percent to 3.69 percent while still maintaining current revenue. A lower tax rate would increase equity and would eliminate the current tax code's unjustified bias toward goods.