Sales Tax Trends and Issues

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Federation of Tax Administrators Revenue Estimating Conference - 2021

THE UNIVERSITY OF
TENNESSEE
KNOXVILLE

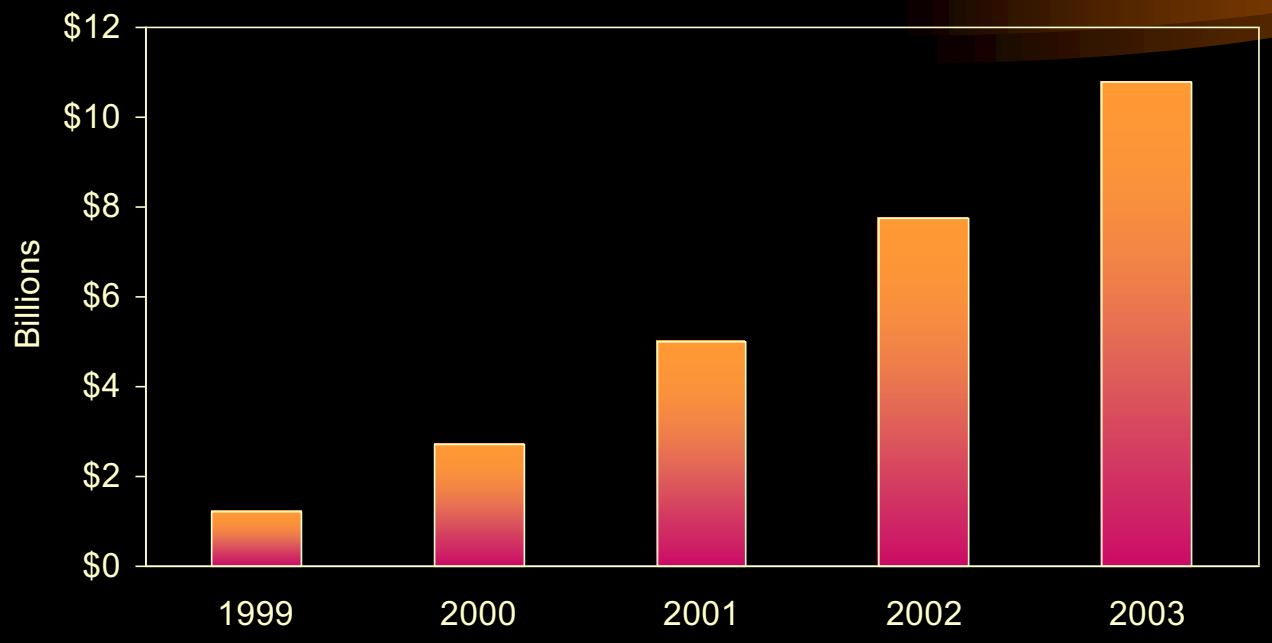
Outline

- **Revenues**: *Did we get what we thought we would?*
- **Small Businesses**: *Did we lose lots of small businesses?*
- **Geography**: *How did this affect local collections?*

Revenues

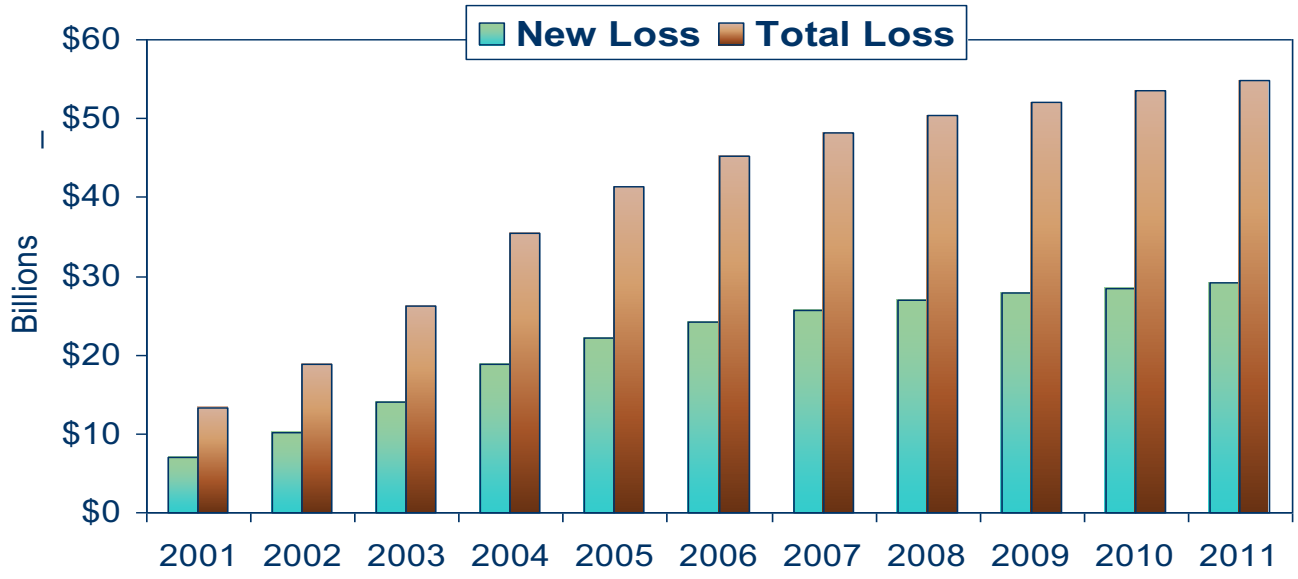
Did we get what we thought we would?

NEW REVENUE LOSSES FROM E-COMMERCE
National Forecast for 1999-2003



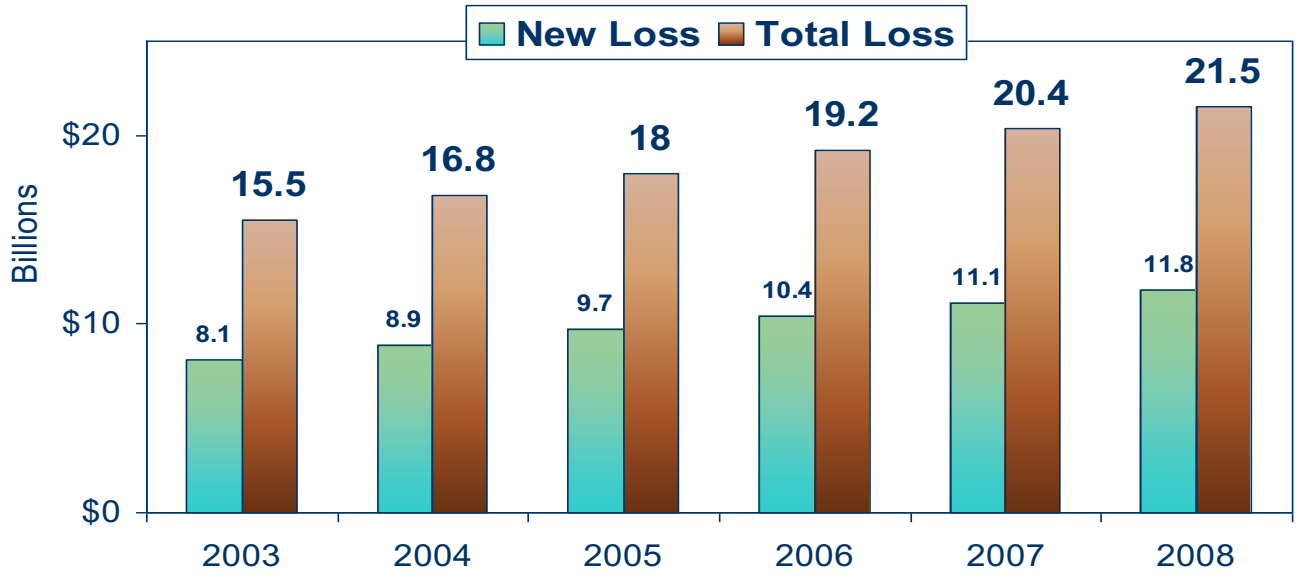
Center for Business and Economic Research, University of Tennessee

State and Local Sales Tax Revenue Losses from E-Commerce, 2001 - 2011



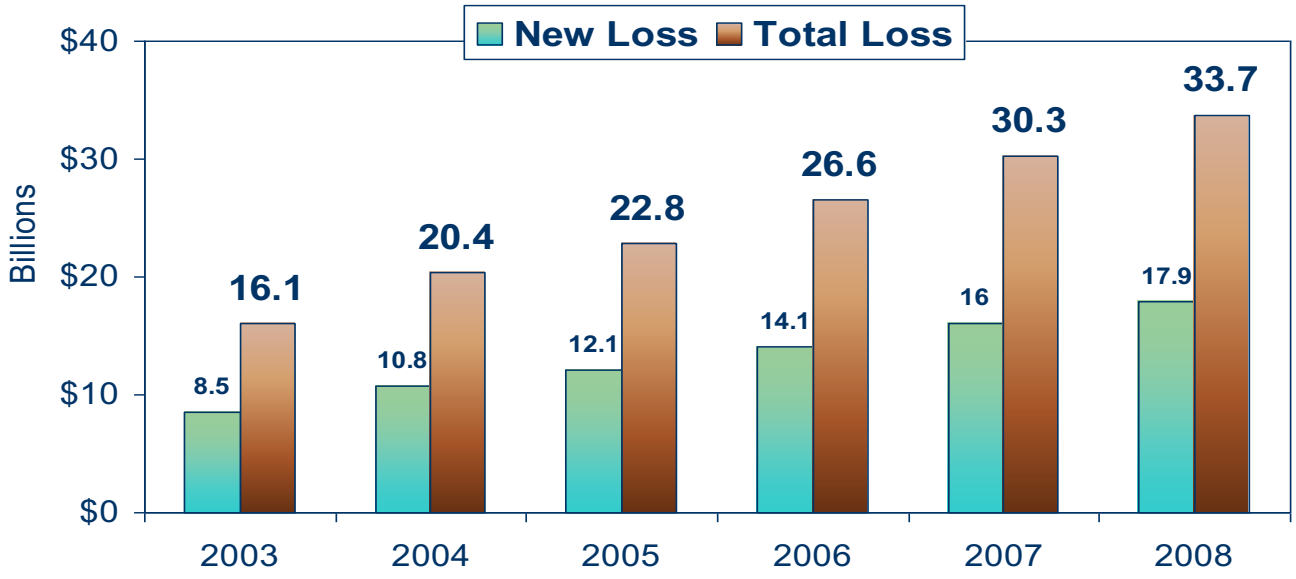
Center for Business and Economic Research - University of Tennessee

State and Local Sales Tax Revenue Losses from E-Commerce, 2003 – 2008, Low-Growth



Center for Business and Economic Research - University of Tennessee

State and Local Sales Tax Revenue Losses from E-Commerce, 2003 – 2008, High-Growth



Center for Business and Economic Research - University of Tennessee

Some people weren't happy with us.

"Our findings differ markedly from those of a recent study by a group at the University of Tennessee (**the Fox Study**), which estimated uncollected tax revenues associated with Quill at over $7.7 billion in 2008, rising to as much as $12.7 billion in 2012.

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"Our findings differ markedly from those of a recent study by a group at the University of Tennessee (**the Fox Study**), which estimated uncollected tax revenues associated with Quill at over $7.7 billion in 2008, rising to as much as $12.7 billion in 2012.

- First, the **Fox Study** substantially overstates uncollected taxes associated with business-to-business (B2B) online sales.
- Second, the **Fox Study** understates tax collections by small firms.
- Third, with respect to "out-year" projections, the **Fox Study** assumes an unrealistically high and unsustainable growth rate for online sales, especially considering the fact that the growth of broadband penetration among U.S. households – one of the primary drivers of online sales growth – is slowing as household broadband penetration approaches saturation."

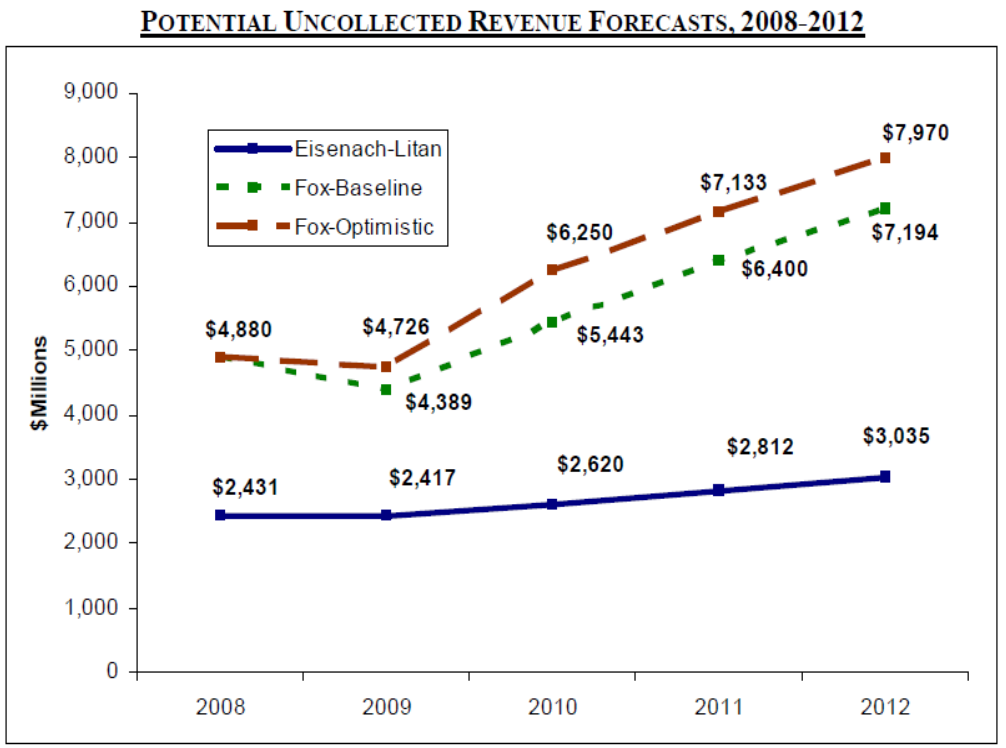
"Rather than growing rapidly, as the **Fox Study** suggests, our analysis demonstrates that uncollected revenues are, at most, growing slowly.

Given that uncollected revenues account for such a small proportion of revenues, our assessment is that state and local tax collectors would be best served by focusing their efforts on other potential revenue sources."

UNCOLLECTED SALES TAXES ON ELECTRONIC COMMERCE: A REALITY CHECK

(Eisenach and Litan, 2010, unpublished, funded by NetChoice)

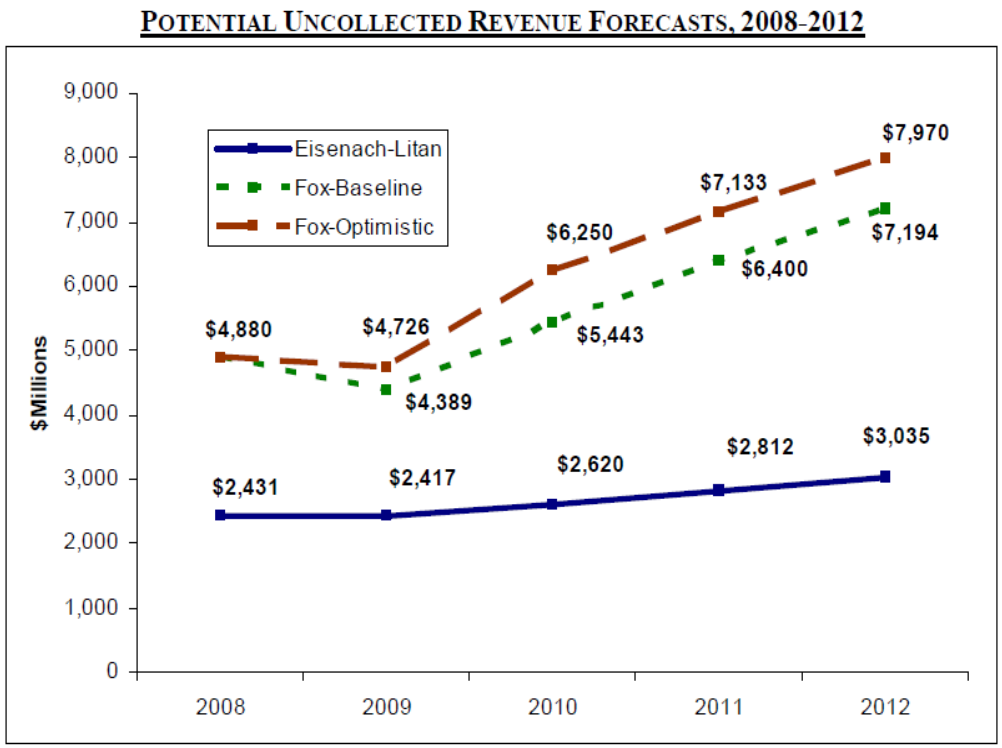
How Did We Do?


POTENTIAL UNCOLLECTED REVENUE FORECASTS, 2008-2012
$Millions
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2008
2009
2010
2011
2012
Eisenach-Litan
Fox-Baseline
Fox-Optimistic
$4,880
$4,726
$6,250
$7,133
$7,970
$4,389
$5,443
$6,400
$7,194
$2,431
$2,417
$2,620
$2,812
$3,035

How Did We Do?

Our 2012 estimate for Tennessee was **$606 million** in state and local sales and use taxes lost due to e-commerce.

(Upper bound for collections, assuming 100% compliance.)



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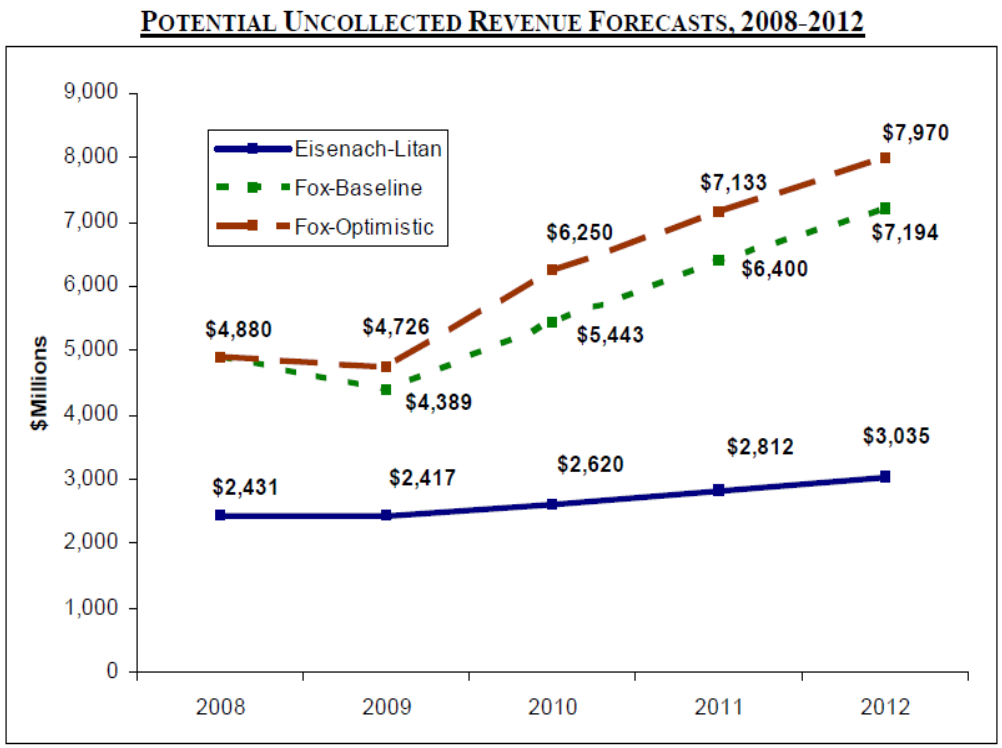
TN collections by remote sellers from April 2020 to May 2021 were **$700 million.**



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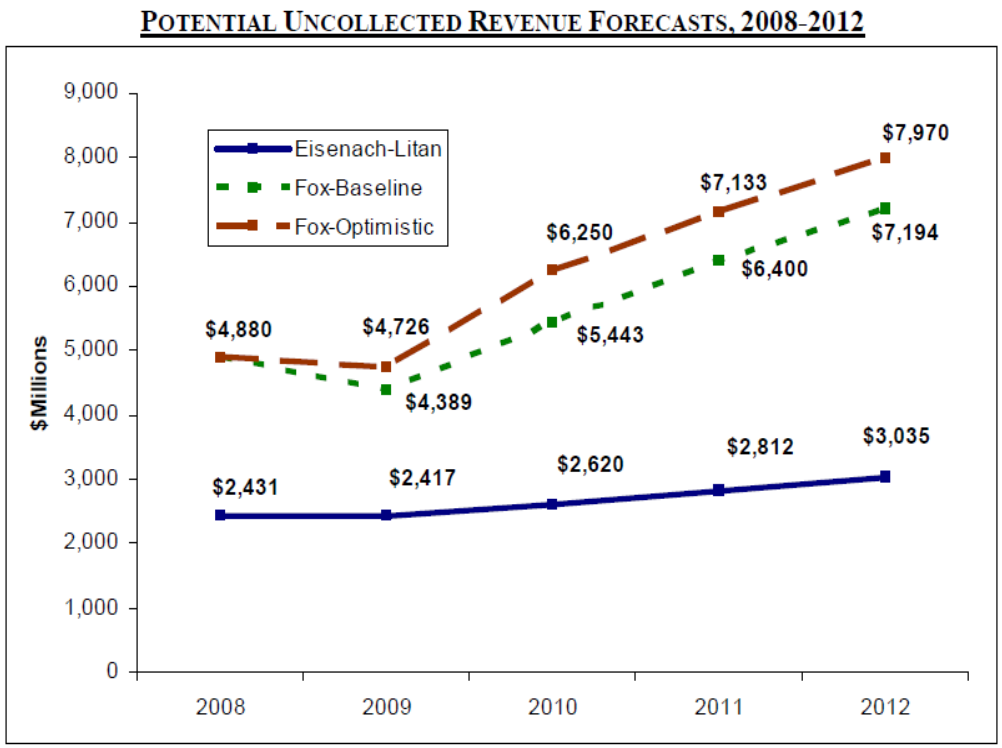
Not too shabby.



Small Businesses

Did we lose lots of small businesses?

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Failure to launch: Measuring the impact of sales tax nexus standards on business activity ☆

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ABSTRACT

We present the first empirical analysis of the relationship between sales tax collection obligations, or nexus, and business activity. The recent Supreme Court decision in the Wayfair case upended the long-standing physical presence requirement for sales tax nexus, and opened the door for states to enforce sales tax collection obligations on remote sellers that have sufficient economic presence in the buyer's state. In an effort to inform the ongoing policy discussion, we make use of state-level panel data to explore the extent to which changes in sales tax nexus were associated with changes in firm activity between 1979 and 2014. Our results suggest that increasing sales tax base breadth by 1 percentage point generates 0.14 percent additional firms and establishments and 0.2 percent higher employment levels. Furthermore, increasing the share of online companies with nexus by 1 percentage point translates into 0.1 percent additional (small) firms as the sales-tax-collection obligation is dispersed among a larger share of firms. Results from a simulation show that unwinding half of the observed base narrowing could have generated as many as 90,350 firms, 113,600 establishments, and 2.9 million jobs during the time period. These results provide suggestive evidence of the future impact of sales tax base recovery that will result from more neutral nexus standards in the post-Wayfair world.

The shift in the retail landscape

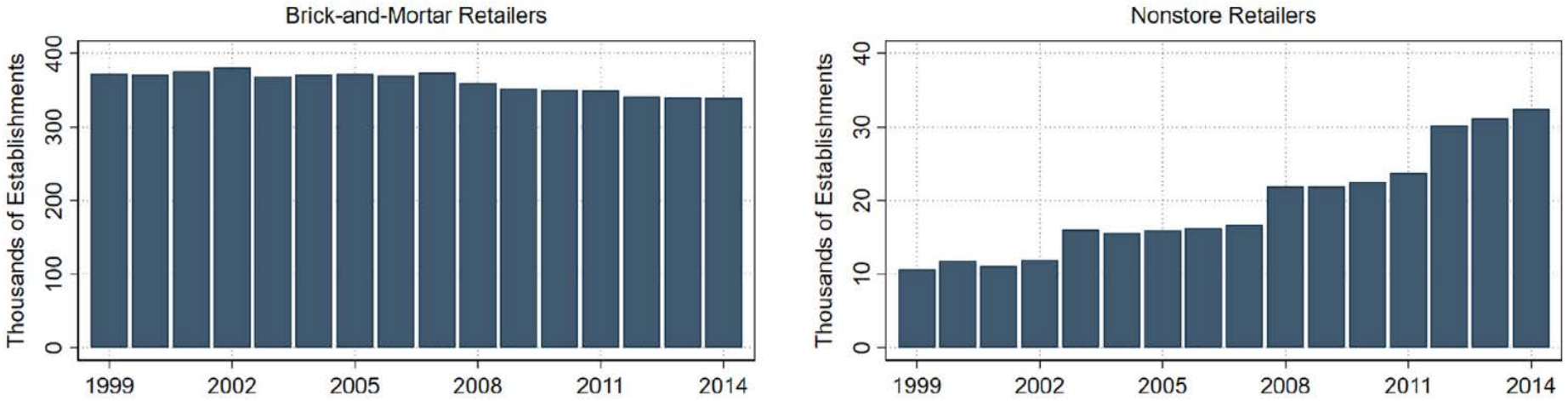

Fig. 1. The Partial Replacement of Traditional Retail Stores. *Note:* Data are from the County Business Patterns. Brick-and-mortar retailers include furniture stores (NAICS 4421), electronics and appliance stores (NAICS 4431), grocery stores (NAICS 4451), clothing stores (NAICS 4481), sporting goods, hobby and music stores (NAICS 4511), book stores and news dealers (NAICS 4512) and office supplies, stationary and gift stores (NAICS 4532). Nonstore retailers are classified under NAICS 4541.

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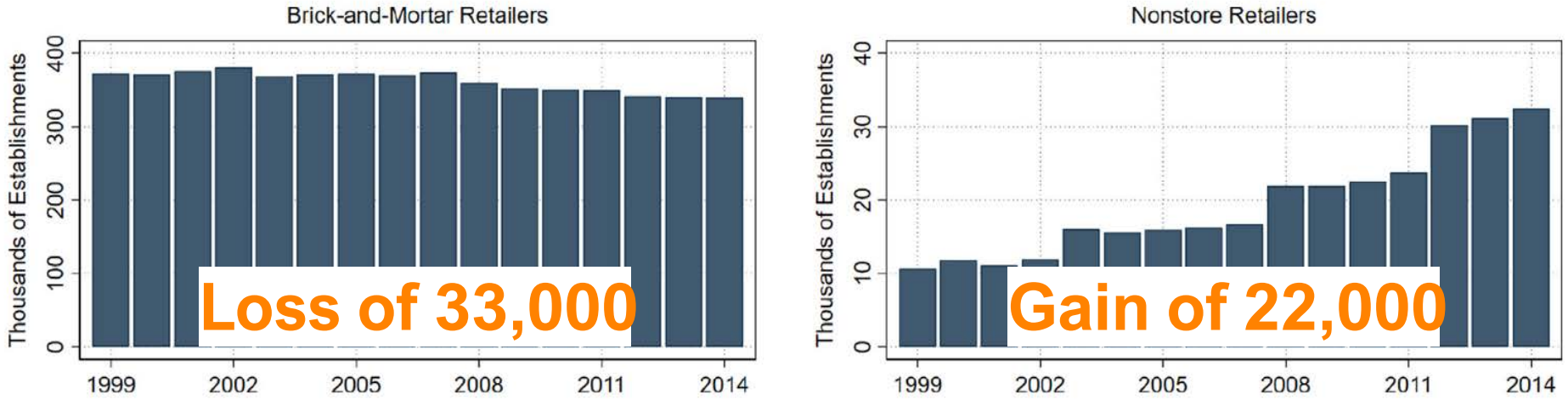

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Sales tax base breadth and business activity

Table 3
Baseline Estimation Results.

	(1) ln(*Firms*)			(2) ln(*Establishments*)			(3) ln(*Employment*)		
	Small	Large	Total	Small	Large	Total	Small	Large	Total
Sales Tax Base Breadth	0.0014**	0.0017**	0.0014**	0.0014**	0.0015**	0.0014**	0.0018**	0.0021	0.0020**
	(0.0007)	(0.0007)	(0.0007)	(0.0006)	(0.0006)	(0.0006)	(0.0007)	(0.0014)	(0.0009)
Within R-Squared	0.340	0.373	0.339	0.337	0.340	0.342	0.407	0.395	0.433
Observations	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fixed Effect (state)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fixed Effect (year)	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: Small firms employ fewer than 500 workers as per the Small Business Administration definition. Large firms are those with at least 500 employees. Controls include the service-providing share of GDP, the number of broadband Internet connections, the share of the sales tax paid by producers, an indicator of full SSTP membership, the property crime rate (per 100,000 persons), the jobless rate, educational attainment, government spending, the top corporate income and personal income tax rates, an indicator measuring whether the state is a right-to-work state, the share of income held by the top 10 percent of income residents, oil production (thousands of barrels), and coal production (thousands of tons). The estimation sample period is 1979 to 2014. Standard errors are clustered at the state level. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$.

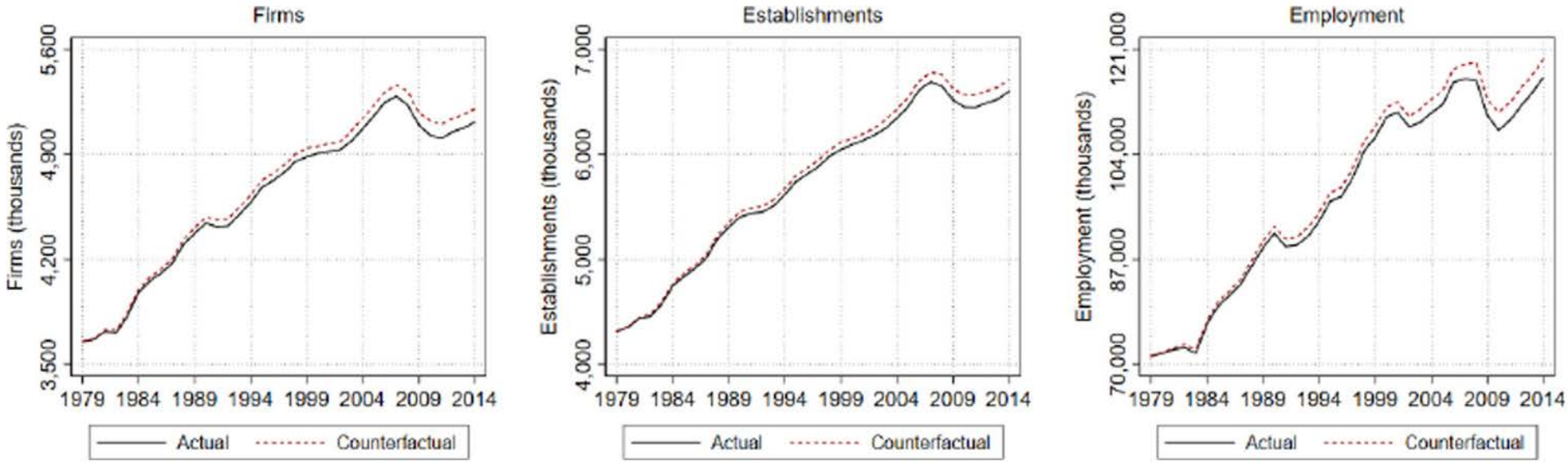


Fig. 6. Simulated Business Activity under 50 Percent Sales Tax Base Breadth Recovery Scenario. *Note:* This figure shows *actual* firm, establishment, and employment levels for the nation compared to *simulated* levels constructed under the assumption that half of the observed decline in sales tax base breadth is recovered throughout history. Each counterfactual path is constructed using the estimated coefficient for sales tax base breadth from Eq. 1 and the difference between actual base breadth and its level under the 50-percent recovery scenario. In this alternative scenario, the national economy could have recorded an additional 90,350 firms, 113,600 additional establishments, and 2,941,031 additional jobs in 2014. The scenarios that assumes full base breadth recovery yields larger gains in business activity.

Table 18
Base Breadth Recovery Simulation Results.

	Small Firms	Large Firms	All Firms
Panel A. Foregone Firm Formation			
Base Breadth Recovery = Full	176,841	4,378	180,699
Base Breadth Recovery = 75%	132,631	3,284	135,524
Base Breadth Recovery = 50%	88,420	2,189	90,350
Base Breadth Recovery = 25%	44,210	1,095	45,175
Panel B. Foregone Establishment Formation			
Base Breadth Recovery = Full	186,428	40,451	227,200
Base Breadth Recovery = 75%	139,821	30,338	170,400
Base Breadth Recovery = 50%	93,214	20,226	113,600
Base Breadth Recovery = 25%	46,607	10,113	56,800
Panel C. Foregone Employment Creation			
Base Breadth Recovery = Full	2,598,416	2,785,263	5,882,055
Base Breadth Recovery = 75%	1,948,812	2,088,947	4,411,543
Base Breadth Recovery = 50%	1,299,208	1,392,631	2,941,031
Base Breadth Recovery = 25%	649,604	696,315	1,470,511

Note: This table provides estimates of foregone business activity assuming various degrees of recovery in sales tax base breadth. Full recovery in base breadth assumes no base breadth erosion during the 1979–2014 period. Estimates for all firms do not necessarily equal the sum of small and large firms. Each simulated level of business activity is generated from the size-specific nexus coefficient from estimating Eq. (1). Small firms employ fewer than 500 workers as per the Small Business Administration definition. Large firms are those with at least 500 employees. Estimates are for the year 2014.

Unwinding just half of the sales tax base narrowing that took place between 1979 and 2014 could create

- *90,000+ firms,*
- *113,000+ establishments, and*
- *2.9+ million jobs*

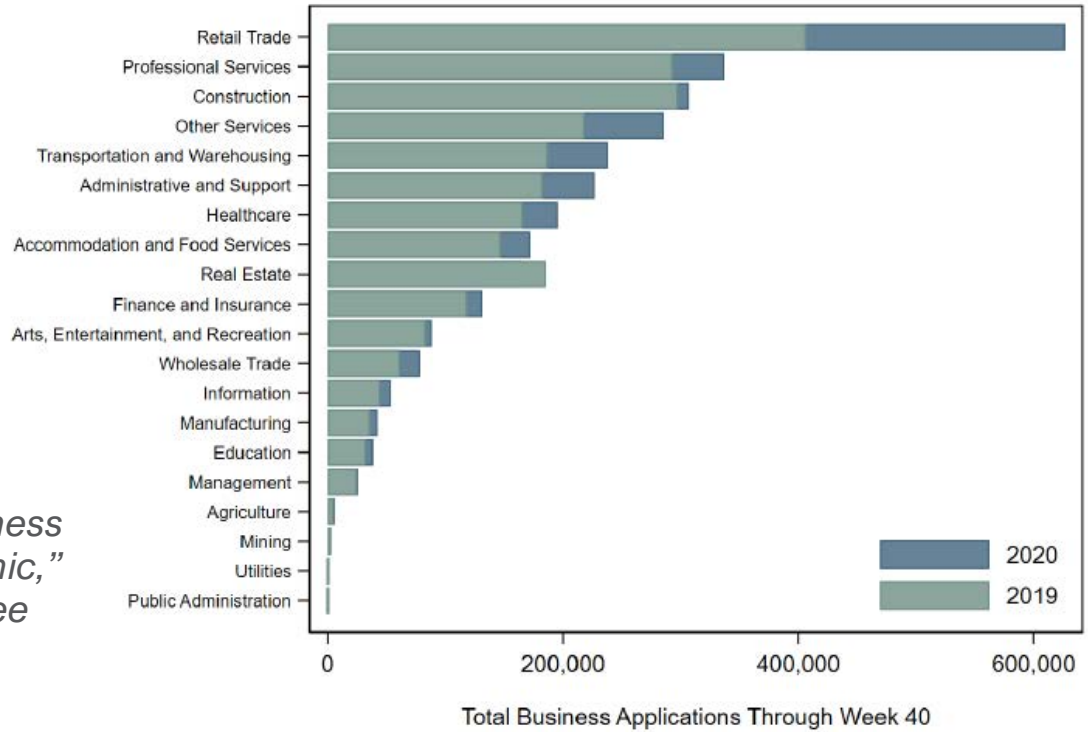
Beem and Bruce, *Journal of Public Economics* 201, 2021.

THE UNIVERSITY OF TENNESSEE KNOXVILLE

Checking the recent data on startups
(Census: Business Formation Statistics)

"The Entrepreneurial Resurgence: Business Formation During the COVID-19 Pandemic," by Richard Beem, University of Tennessee Boyd Center for Business and Economic Research White Paper, November 2020.

Figure 4: Business Applications by Industrial Sector



RICHARD BEEM JR

Economics Ph.D. Candidate, The University of Tennessee (Knoxville)

Hi, I'm Rich Beem and I'm an economist studying state and local taxation, the Digital Divide, and their impact on small business activity. I'd be happy to talk to you about my recently published work on sales tax nexus standards or discuss how the rollout of broadband Internet boosts business activity.

I'm a Research Assistant with the Boyd Center for Business and Economic Research at the University of Tennessee in Knoxville. Before that, I was a Research Fellow at the FDIC (Boston, MA) and Regional Economist at IHS Markit (Philadelphia, PA), formerly Global Insight.

I will be on the job market during the 2021-22 academic year. If you're interested in talking about my research, or yours, contact me!

- Email: rbeem1@vols.utk.edu
- Office: Stokely Management Center, Room 721A

Geography

How did this affect local collections?

Forum

TAXING GOODS AND SERVICES IN A DIGITAL ERA

David R. Agrawal and William F. Fox

Taxing consumption in the digital economy poses unique challenges for fiscal authorities. Recent institutional reforms, such as states changing remittance rules for the sales and use tax following the Supreme Court decision in South Dakota v. Wayfair, *were enacted to increase tax revenue collections and create a more neutral tax system. Although these reforms induced more remote vendors to remit taxes on a destination basis, the revenue gains were modest, consistent with most large online vendors remitting taxes prior to the reforms. Instead, following the recent large shock to online shopping from the COVID-19 pandemic, the shift to destination-based taxation has redistributed revenues between large and small local jurisdictions. Increased online shopping raises revenue growth in small jurisdictions while contracting revenues in large jurisdictions. But* Wayfair *is not the end of the story: technological changes that induce new consumption patterns promise new challenges for fiscal authorities. Critical challenges for the next decades include limiting administrative and compliance costs of enforcing taxes in a digital world, determining filing thresholds, dealing with online marketplaces and facilitators, and taxing the consumption of digital services from two-sided platforms. With respect to digital services, we discuss whether consumption taxes should be imposed on both monetized platforms and nonmonetized platforms, such as social media, and the mechanisms for doing so.*

Keywords: sales tax, e-commerce, online shopping, enforcement, compliance, South Dakota v. Wayfair, *consumption tax, digital services, platforms*

JEL Codes: H2, H7, K3, L8, R5

I. INTRODUCTION

Many classic problems in public finance concern the breadth of the tax base, the scope for tax evasion, administrative and compliance costs, the behavioral

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 https://doi.org/10.1086/712913

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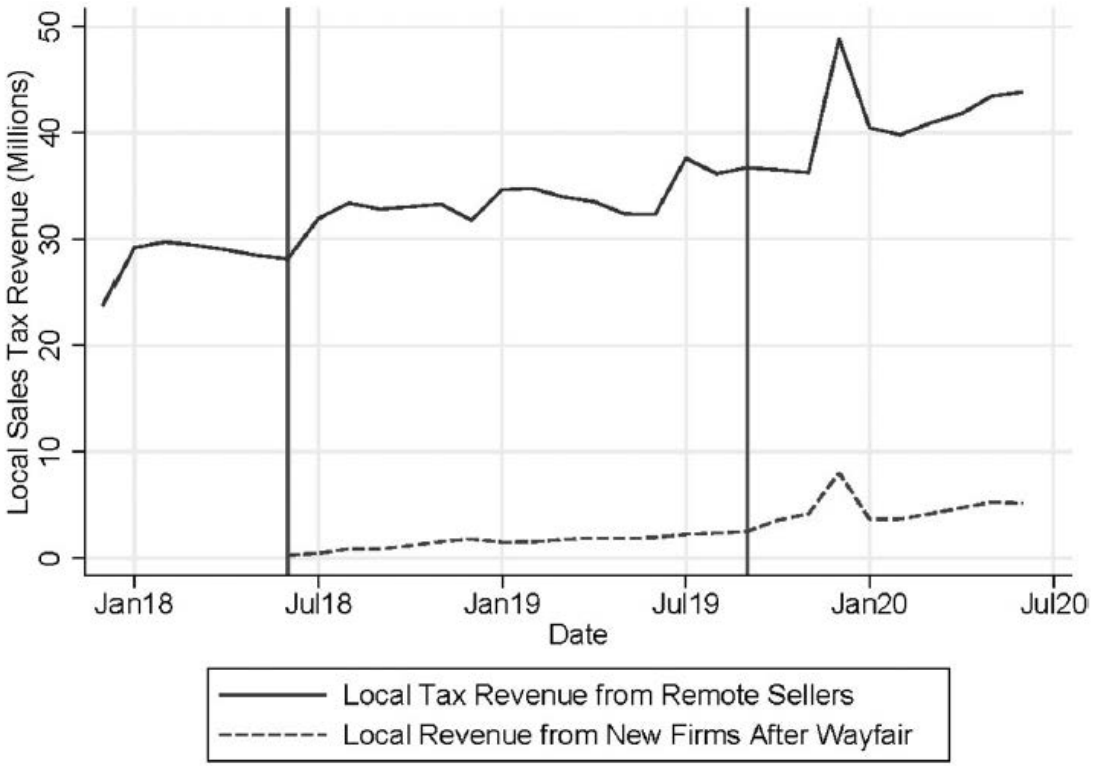


Figure 2. Local tax Revenue from remote sellers in Tennessee. This figure shows the total amount of local sales tax revenue from remote sellers and the total amount of local sales tax revenue from newly registered vendors after the *Wayfair* decision in Tennessee. Both series rely on self-reported information by the vendor. Local sales tax revenue from remote sellers is adjusted by removing month fixed effects. The first vertical line corresponds to the *Wayfair* decision. The second vertical line corresponds to the month prior to Public Chapter 491 going into effect and firms with economic nexus being required to remit under Public Chapter 429. Source: Tennessee Department of Revenue. A color version of this figure is available online.

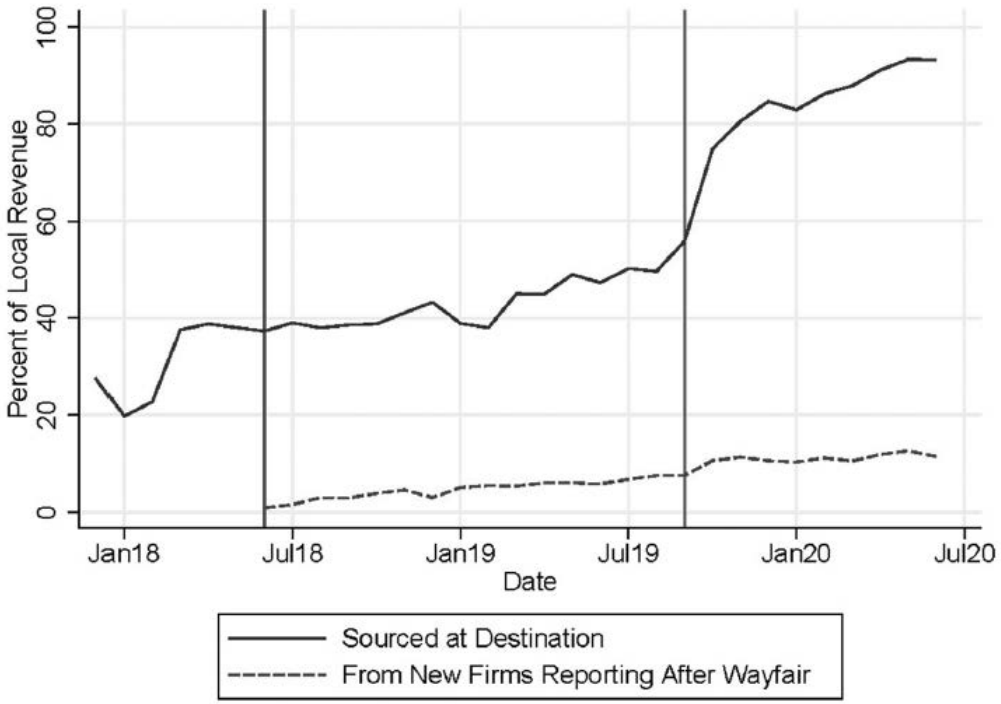


Figure 3. Percent of local revenue from remote sales that is sourced at destination or from new vendors. This figure shows the percent of local sales tax revenue from remote vendors that is sourced at destination in Tennessee. Prior to Public Chapter 491, remote vendors could source local taxes using a single rate or based on the destination rate. This figure does not include data for online vendors making within-state sales. In addition, the figure shows the percent of local sales tax revenue from remote vendors that is collected from vendors that newly registered after *Wayfair*. The first vertical line corresponds to the *Wayfair* decision. The second vertical line corresponds to the month prior to Public Chapter 491 going into effect and firms with economic nexus being required to remit under Public Chapter 429. Source: Tennessee Department of Revenue. A color version of this figure is available online.

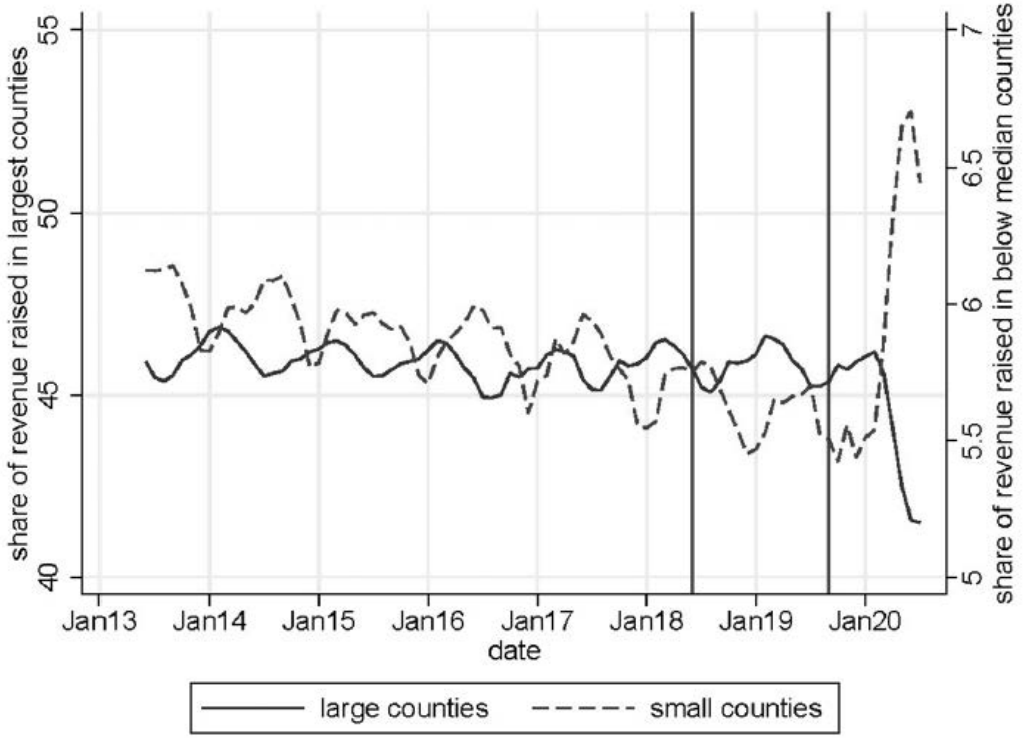
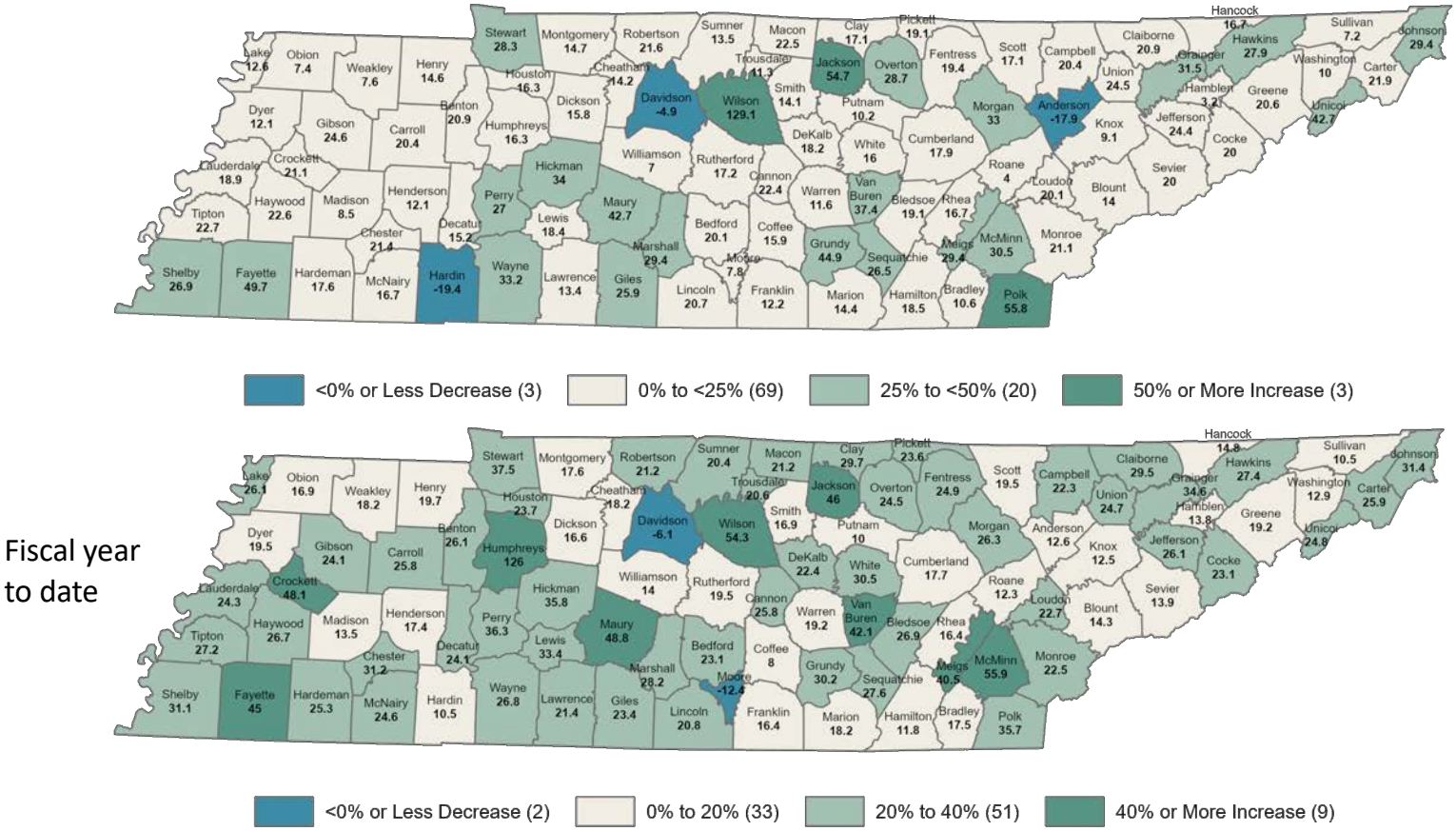


Figure 4. Share of total revenue raised in large and small counties. This figure shows the percent of local sales tax revenue raised in large and small counties over time in Tennessee. Large counties are defined as the four counties housing the four largest principal cities (Memphis, Nashville, Knoxville, and Chattanooga) of Tennessee's metropolitan areas. Small counties are defined as the smallest 50 percent of counties based on population size. The first vertical line corresponds to the *Wayfair* decision. The second vertical line corresponds to the month prior to Public Chapter 491 going into effect and firms with economic nexus being required to remit under Public Chapter 429. COVID-19 began to shut down state economies in March/April 2020. Source: Tennessee Department of Revenue. A color version of this figure is available online.

Figure 15: Local Option Sales Tax Revenue Growth by County, Dec. 2019-Dec. 2020

Updated monthly; last revision 1/12/21.



Source: Tennessee Department of Revenue, *Monthly Revenue Collections.*

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