

THE RETAIL SALES TAX IN A NEW ECONOMY

*Municipal Finance Conference
July 16-17, 2018*

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Abstract

For the second half of the 20th century, the retail sales tax was the largest single source of tax revenue to state government and the second largest source for local governments. Born out desperation during the Great Depression, the retail sales tax became the single largest source of tax revenue for the states by 1947. While consumption is an indispensable measure of household ability to pay, the U.S. retail sales tax fails to fully capture that measure in its taxable base. As a result, the tax is not economically neutral, horizontally equitable, robustly revenue-productive, or simple to collect. Since its adoption, political, social, and economic forces have created a tax that is both “too broad” or “too narrow”. We explore patterns of change and their impact on the retail sales tax. Specifically, we explore how changes in consumption, policy, and technology, particularly the internet, have made the retail sales tax less neutral, equitable, administrable, and productive. We also examine which policy options have been successful and what policy changes should be encouraged.

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Introduction

The retail sales tax represents the American approach to a general tax on household consumption expenditure, an alternative to the value-added tax levied through much of the rest of the world. The two taxes levied in their textbook formats would apply to exactly the same tax base and burden exactly the same households in exactly the same amounts. However, as what apparently is always the case, what the theory of taxation prescribes and what the lawmakers legislate turn out to be significantly different. The practice of retail sales taxation causes the tax to fall short of its considerable promise as an efficient, robust, and equitable means for distributing the cost of government across the private economy and promises to develop more problems in the economic environment of early years of the 21st century. Maybe other taxes would be better. However, the retail sales tax yields a significant share of state (and local) tax revenue and that share would be difficult to replace in a manner that is equitably, fiscally, economically, and politically feasible.¹ That suggests a clear need to attending to the problems for retail sales tax operation. Indeed, some administrative features of the typical retail sales tax may make it more compliance-robust than the value-added tax in that environment.²

The retail sales tax is important because household consumption has strong status as an ability-to-pay basis for dividing the cost of government and as a tax without some incentive issues raised by income taxation. While many analysts focus only on the Haig-Simons income standard for measuring ability to bear the cost of government, there is a strong logic for the use of personal consumption as the standard, that is, for using actual consumption as opposed to the potential consumption concept embedded in Haig-Simons. As Nicholas Kaldor explained some years ago, "...each individual performs this operation [identifying tax capacity] for himself when, in light of all his present circumstances and future prospects, he decides on the scale of his personal living expenses. Thus, a tax based on actual spending rates each individual's spending capacity according to the yardstick which he applies to himself."³ Personal assessment of current affluence, future prospects, and underlying economic status as measured by personal consumption spending would appear, in a market economy, to be an excellent indicator of economic capacity to bear the cost of government services. Whatever the individual feels he or she can afford to purchase from the private sector is a good measure of what the individual can afford to contribute to the provision of public services. Using the same standard for both private and public services seems unassailable in logic for a market economy. Therefore, it is important to create a retail sales tax structure that capitalizes on the special self-declaration advantage of this standard for taxation in the new and changing economic, demographic, and social environment. There is a fundamental logic for the tax that stands the test of tax policy: the tax is a device for dividing the cost of government according to household consumption expenditure; it is not a luxury consumption tax, a tax on

¹ One or more types of local government levy retail sales taxes in thirty-seven states. [Jared Walczak and Scott Drenkard, "State and Local Sales Tax Rates, 2018," Tax Foundation Fiscal Fact 572, February 15, 2018.] These taxes produce substantial revenue, even more than the property tax in some larger cities, but they are outside the scope of the present analysis.

² Recent studies do indicate that retail sales tax compliance rates seem to be higher than is the case for value-added taxes. See John L. Mikesell, "Comparing Operations of Retail Sales and Value-Added Taxes," *Tax Notes*, October 8, 2012, p. 188.

³ Nicholas Kaldor, *An Expenditure Tax* (London: George Allen & Unwin, 1955): 47.

business operations, a tax on business profits, or just an ad hoc way for governments to grab revenue.

The problem is that the retail sales tax faces major challenges in the early days of the 21st century. Some of these challenges can be corrected by legislative action because they emerge from errors of omission or commission that carry over from the 20th century. Others are the product of exogenous forces that have emerged from the context of the new economy, some of which help sales tax operations while others make sales tax operations more difficult. Before considering these challenges, it is useful to understand the role that this tax has had in the American fiscal system and have some idea about its future prospects.

The Fiscal Role and Fiscal Prospects for the RST

The American retail sales tax emerged from a desperation experiment in Mississippi in the midst of the Great Depression.⁴ Revenue from the property tax, the largest single source of state tax revenue at the time, collapsed, falling by 11.4 percent from 1927 to 1932 and by another 16.8 percent from 1932 to 1934. State revenue could not cover their service obligations or provide expected assistance to local governments. Mississippi (followed by West Virginia) showed that retail sales taxes could produce immediate cash collections, even in low-income jurisdictions. Other states paid attention. In 1933, eleven other states adopted the tax (two let the tax expire almost immediately). By 1938, twenty-two states (plus Hawaii, not yet a state) were collecting the tax; six others had also imposed the tax for a short time but had let them expire. Table 1 provides a complete history of state retail sales tax adoptions in the United States.⁵

State revenue data provide evidence of how substantial and quickly general sales taxes impacted state revenues. Figure 1 documents the early history of general sales tax reliance by tracking the shares of national state tax revenue from property, general sales, and individual income taxes from 1902 to 1950.⁶ Individual income taxes were in place in five states (Massachusetts, Delaware, Arkansas, Georgia, and Idaho) before the first retail sales taxes, but their revenue contribution was modest in the national perspective and apparently for each state. However, revenue from the individual income tax grew and eclipsed collections from state property taxes early in the 1940s but its share was considerably less than that from the general sales taxes through the period in the

⁴ There has been some confusion about which state enacted the first retail sales tax and when. Because statutory names do not always translate easily into fiscal concepts, taxes are considered to be retail sales taxes on the basis of their nature (i.e., general coverage of retail transactions, a mechanism to exclude many business inputs from the tax, and a means for accommodating addition of tax to prices paid by customers without having that addition to price to itself be subject to the tax), not their legal name. Here are the results from such a reading. Mississippi converted its multi-rate gross receipts tax into a tax with most features of a modern retail sales tax in 1932 and West Virginia enacted a freestanding retail sales tax in 1933. (West Virginia also enacted a pure gross receipts tax, the business and occupation tax.) Earlier taxes enacted in Mississippi, Kentucky, Georgia, and West Virginia lack important features of retail sales taxes (particularly absence of mechanisms to remove pre-retail transactions from the base) and had features not common to retail sales taxes (for instance, annual exemptions from tax subtracted in annual calculation of tax owed). These earlier taxes are operationally true gross receipts or turnover taxes, not retail sales taxes.

⁵ Some sources list Indiana as adopting a retail sales tax in 1933. That is incorrect. The tax adopted then was a gross income tax, an extremely broad tax that encompassed both gross receipts and income and lacked all features necessary to be considered a retail sales tax. Indiana did not adopt a retail sales tax until 1963. The vestiges of that earlier tax continued to complicate Census tax data for many years.

⁶ Because of how Census classifies data and how states devise their tax laws, the data for Figure 1 overstate retail sales tax revenue for some states and understate it for others. There is no feasible way to standardize these early data to a consistent retail sales tax for this earlier period – as is done for sales tax data in later discussions – so the data for this figure are illustrative only. The patterns are accurate, even though the specifics will not always be.

figure. General sales tax revenue exceeded collections from the property taxes shortly after the adoption of the earliest sales taxes. The early history thus shows the critical role that general sales tax had in the finances of state governments during the Great Depression, the World War II period, and through the middle of the twentieth century.⁷ That importance continues to the present, as more recent data show.

(I) *Data Sourcing.*

The data for Figure 1 are for all state general sales taxes, retail sales taxes as well as gross receipts (turnover) taxes, and follows the classification for data in U. S. Bureau of Census Governments Division reports. These data must be adjusted for analysis of the modern retail sales tax. Data for retail sales tax analysis begins with the annual general sales tax collection reports from the Governments Division of the U. S. Bureau of Census, a tabulation of data provided by the individual states on the taxes levied by each state. [<http://www.census.gov/govs/statetax/>].⁸ These data by themselves do not provide a basis for comparisons of retail sales taxes across states (i) because of certain Governments Division reporting conventions (e.g., collections of some retail sales taxes that do not apply throughout the state and whose revenue is designated for use only within the area that the tax applies are sometimes included with state tax collections), (ii) because of some statutory peculiarities in states (e.g., some states exempt motor vehicle sales from the general sales tax but tax them in a virtually equivalent motor vehicle excise tax collected by the Department of Motor Vehicles), and (iii) because some data included in the Census general sales and gross receipts tax category are for taxes that are not retail sales taxes (e. g., the Washington business and occupation tax). The data used are the product of that standardization procedure.⁹ In some instances, the adjustments are relatively large. In fiscal year 2016, adjusted retail sales tax data ranged from 73.2 percent to 127.6 percent of Census reported data. To fail to adjust to a standard retail sales tax concept would give a misleading of tax structure and performance across states.

Data for these adjustments come from a variety of sources. These include unpublished data graciously provided by Census, department of revenue annual reports, state comprehensive annual financial reports, state budget documents, and direct inquiries to state officials. Data from these sources do not always match perfectly with Census general sales and gross receipts data but collections data with the adjustments, even with their imperfections, provide a better basis for comparing tax revenue and base breadth across all the states than would the raw Census data. To fail to make these adjustments to standardize interstate comparisons would give a misleading view

⁷ Motor fuel taxes yielded more revenue than did general sales taxes until the mid-1940s, but these collections were usually earmarked for roads and highways and not available for general government purposes.

⁸ Taxes are considered to be retail sales taxes on the basis of their features. For instance, the Hawaii general excise tax and the New Mexico gross receipts taxes are included as retail sales taxes because of features consistent with a retail sales tax while the Delaware gross receipts tax lacks those features and is not. The structure, not the legal name, determines whether a tax is included among the retail sales taxes.

⁹ The details of and the logic for these standardization adjustments are explained in John L. Mikesell, "State Retail Sales Taxes: Revenue Performance for Fiscal 2015," *State Tax Notes*, 71 (February 20, 2017). The adjustment factors are not the same for all years. For instance, the Indiana gross income and West Virginia business and occupation tax need to be subtracted from the Census reports for some years (both taxes have now been repealed). The Governments Division has not treated the gross receipts taxes the same in all years, so adjustments for individual states are not always the same.

of retail sales tax performance. The standardized data are not generated for years before 1970 because of problems in obtaining data needed to make the adjustments and because the number of states levying a retail sales tax prior to 1970 differs from that in later years.

(II) Retail Sales Tax Revenue in the Modern Era.

The national total retail sales tax collections exceeded the collections from every other state tax from 1947 through 2001. It was also the largest tax producer in 2003 and 2004 also (years in which individual income tax revenue was still impacted by the 2001 recession), but it was surpassed by state individual income tax revenues in other years since 2001. The increasing significance of the individual income tax probably is not surprising, in light of the fact that the individual income base would be expected to be larger than a household consumption tax base, that the income elasticity of the income tax base is somewhat higher than the elasticity for the sales tax base, and that states without individual income taxes adopted them steadily through the modern era. By fiscal 2016, total state individual income tax collections exceeded \$345 billion, compared to over \$288 billion for state retail sales taxes. However, those national totals conceal the continuing dominance of the retail sales taxes in a number of states and it is important to focus on the finances of individual states because that is where sales tax policy is made and where the impact of revenue from the tax matters for government finances. There is no national retail sales tax nor is there a single sales tax model that states follow. Responses to challenges to state finances in the 21st century are going to come from the individual states, not from some over-arching national framework.

Figure 2 provides insight into the importance of the retail sales tax in the finances of the individual states by presenting the mean sales tax reliance (retail sales tax revenue divided by total tax revenue for each state) for the forty-five states levying a retail sales tax over the 1970 to 2016 period.¹⁰ It also provides the mean individual income tax reliance for the same states. Sales tax reliance among these states, while fluctuating across some years, is actually slightly higher in 2016 (0.342) than it was in 1970 (0.320). Reliance peaked in 2002 (0.364), then declined until 2008 (0.337), increased in 2009 (0.344), declined until 2013 (0.331), and then increased to its 2016 level. Mean retail sales tax reliance over the 1970 through 2016 period has consistently and reliably been in a band between 0.32 and 0.36. That is markedly different from the path of mean individual income tax reliance. Although the path of income tax reliance is interrupted by recessions in the early 1980s, mid-1980s, 1991, 2001, and 2007-2009, the secular path has distinctly been upward, from 1970 (0.172) to 2016 (0.322). However, the individual income tax has not replaced the retail sales tax in its place of importance in state government finances. Concern about the health of state government finances cannot ignore the state of the retail sales taxes because states who levy these taxes do rely on them, on average, more than they do on the next most important tax. Any challenges to the viability of the retail sales tax base translate into challenges for the finances of individual state governments.

(III) Structural Residuals from the Depression.

Before considering the challenges and opportunities in the 21st century for the retail sales tax, it is important to understand that the present sales tax continues some residuals from its depression-era roots. Early adopting states had these features, later states copied, and inertia and political forces

¹⁰ Alaska, Delaware, Montana, New Hampshire, and Oregon do not levy a state retail sales tax. Although efforts to adopt the tax have been made in Montana and Oregon, none is likely to do so in the foreseeable future.

made change difficult. First, the tax base tends to apply broadly to purchases of tangible personal property but only selectively, if at all, to purchases of services. In the 1930s, the service component of economic activity was far less than it is today and the omission seemed not to have significant consequences. Furthermore, states were unsure about their ability to administer that portion of the tax. There was no audit trail to inventory purchases for administrators to track, making verification seem questionable and many service sellers were small and, often, informal in nature. It seemed not worth the effort to try applying the tax to services.¹¹

Second, the retail focus was on finished products. The taxes tended to exempt inventory purchases but did not broadly exempt other business inputs. The idea that the tax was not on purchase of finished products but was intended to be a tax on household purchase of finished products presented a barrier to the broad exemption of business purchases that characterizes the ideal retail sales tax as consumption expenditure tax.¹²

Third, the taxes were added at time of purchase, rather than being embedded in the shelf price of products in the way that European value added taxes usually are. Legislators understood that cooperation of retailers was critical for operation of the tax and retailers wanted to avoid being seen as responsible for the increase in price necessary to cover the tax. Hence, adding tax at time of purchase was one of the costs associated with overcoming retailer objection to the tax.¹³ That may have made the tax more obvious but probably inhibited legislative action when new revenue was needed and added an incentive to obtaining revenue in more hidden ways (like taxing intermediate goods).

Each of these structural inclinations continues today and influences how the tax operates in the 21st century. Given the significance of the tax in state government finances, a critical concern for governments in the 21st century is to maintain that revenue because of its importance in the health of state government finances. There are challenges and advantages in the new operating environment.

Challenges to the Retail Sales Tax That Are Endogenous to the Tax Laws

Tax revenue in any economic environment, traditional or new, depends on the size of the tax base because there are social, economic, and political limits on the ability to adjust statutory rates to generate a desired yield. Challenges to the retail sales tax base are an important policy concern because of the importance of that tax in state government finances, as has been demonstrated earlier. The problem is that the retail sales tax base has a pattern of disappearance as a share of the economy and this endangers its utility as a contributor to those revenue systems.

Figure 3 reports the history of mean retail sales tax breadth (implicit tax base / state personal income) across the states from 1970 to 2016. The record is one of almost constant decline, from

¹¹ Interestingly, the gross receipts (turnover) taxes that were being adopted at roughly the same time did include receipts from services in the tax base.

¹² Professor John Due who was involved in structuring the California sales tax, the principles of which a number of other states followed, told the author that a major contributor to this problem was that the primary drafters of the law were lawyers who would not accept the economic principle that the objective was to exclude business purchases that were part of input cost (to prevent pyramiding) and it was not to make sure the tax applied to all goods that were “finished.”

¹³ Being added at purchase may have less impact on consumer decisions than having the tax embedded, as research by Chetty et al finds, but it almost certainly has greater impact on lawmakers who have little interest in visible tax increases. (Raj Chetty & Adam Looney & Kory Kroft, 2009. "Salience and Taxation: Theory and Evidence," *American Economic Review*, 99(4), pages 1145-1177, September.)

49.0 percent in 1970 to 37.3 percent in 2016. That is a major reduction in revenue potential. Although there have been some disruptions to that general pattern as states change their tax structures and as economic change impacts state fiscal systems, the pattern is remarkable in its overall consistency. The typical state retail sales tax base has narrowed as a share of the economy of the state over the years and this has meant that, in order for states to maintain the place of their sales tax in their revenue systems, they have been required to gradually increase the statutory tax rate they apply to that base. Figure 4 illustrates the relationship in rather dramatic fashion: while mean reliance has remained roughly the same over the period, mean tax breadth has declined and the mean statutory rate has increased. That is a generally mechanical relationship but it is important because little good can be said about a narrow base / high statutory rate revenue policy. It is helpful to consider what might be within state power to preserve base breadth (some influences may be exogenous and more difficult to deal with are examined later) because that revenue potential will be crucial in the economy of the 21st century.

A sales tax base may be statutorily narrowed either by an exclusion (when a transaction or contribution to otherwise taxed gross receipts is omitted from the tax law) or by an exemption (when a transaction that would be included in the defined tax base is removed from taxation by an explicit provision in the tax law). An example of an exclusion appears in the California law: tax applies to gross receipts “defined as the total amount for which tangible personal property is sold, leased, or rented, valued in money.” If the transaction does not involve tangible personal property, i. e., services, real property, or intangible personal property (or anything else clever lawyers can insert within the missing group), the receipts from the transaction are not taxed. West Virginia law illustrates exemption language: the tax applies to “purchases of tangible personal property and services except for those identified as exempt for reason.” The exemption may be for type of purchase (an exemption of food purchased for at-home consumption in many states), by type of purchaser (state universities in many states), or by type of seller (cookies sold by Girl Scouts).

In terms of impact on base breadth, it probably makes no difference whether the preference is delivered by exemption or exclusion, although exclusions are probably more likely to emerge when the tax law is initially being adopted and exemptions are added over time.¹⁴

(I) *Exclusions.*

The exclusion that is most inconsistent with the general concept of a tax on household consumption is the exclusion of service purchases. There is no economic difference between a household purchase of a service and purchase of a good – each satisfies a consumer demand and each is part of household consumption expenditure. Unfortunately, many states got off to a bad start when they initially adopted their sales taxes and excluded all or almost all household service purchases from the tax base and it has proven to be difficult to correct that initial error.

Extending the retail sales tax to include at least some services is a perennial topic whenever states are seeking additional revenue or considering reforms in their tax systems.¹⁵ Often the discussion

¹⁴ A number of states produce tax expenditure budgets that include their sales tax. Most are based on the reference law definition of a normal structure for delimiting a tax expenditure and a few are based on a conceptual baseline. Those using the latter approach are somewhat more likely to identify exclusions in the tax expenditure budget estimates. [John L. Mikesell, “State Tax Policy and State Sales Taxes: What Tax Expenditure Budgets Tell Us About Sales Taxes,” *American Review of Public Administration* 42 (2, 2012): 131 – 151.]

¹⁵ Unfortunately, many of these proposals are for taxation of services purchased almost exclusively by businesses, exactly the wrong sales tax policy.

about the change goes much further than does any actual change in the system. However, there have been some expansions in coverage of services. State sales taxes may be divided into three groups: those taxes that are limited to purchases of tangible personal property, those taxes that tax purchases of tangible personal property plus a list of services selected for taxation, and those taxes that generally tax purchases of tangible personal property and services. The division of states into these groups has changed somewhat over the past forty-eight years.

In 1971, twenty-six states excluded purchases of services from the base, seventeen applied the tax to service purchases on a selective basis, and two included services in the tax base on a basis roughly equivalent to that for coverage of purchases of tangible personal property. In 2018, only three excluded services, thirty-eight taxed service purchases on a selective basis, and four states taxed services generally.¹⁶ As the data show, the selective approach to extending the base to services is far more prevalent than elimination of the exclusion. For instance, in 2018 Kentucky selectively included the following list of services: labor and services for certain repair, installation, and maintenance of personal property; pollution control facilities, landscaping services, janitorial services, pet care veterinarian services (small animals), pet grooming and boarding services, fitness and recreational sports centers, industrial laundry services (uniforms), golf courses and country clubs, limousine services, dry cleaning and laundry services (except coin operated), linen supply, diet and weight reducing centers (non-medical), overnight trailer campgrounds, other personal care services, bowling centers, and extended warranties – and that was only after an over-ride of the Governor's veto. A somewhat different and shorter list comes from Nebraska: pest control; building cleaning and maintenance; installation or application of tangible personal property; motor vehicle towing; motor vehicle painting; security services; animal specialty services; detective services; RV park services; and repair and maintenance services. The lists illustrate two important tendencies: the omission of professional and most personal care services and the inclusion of some services almost exclusively purchased as business inputs.

Figure 5 illustrates the potential power of reducing the services exclusion for combatting the reduction in breadth of the tax base. There are three sales tax bases calculated from Bureau of Economic Analysis reported in the figure for the 1970 to 2016 period. One reflects the typical current retail sales tax base at present, one reflects the current tax base with currently-untaxed household services added, and one reflects that expanded base but without health care and education services.¹⁷ All three are adjusted relative to their levels in 1970 for easier comparison. The impact of adding services to the tax base on constraining the disappearance of the tax base is readily apparent. While the current typical sales tax base is around 20 percent narrower in 2016 compared with 1970, the base with all services added is actually about 11 percent broader, and the base without health care and education services is only 8 percent below its 1970 level. It is clear that adding services to the base, in addition to broadening the coverage at the time of the addition,

¹⁶ Data for 1971 from John F. Due, *State and Local Sales Taxation, Structure and Administration*, Chicago: Public Administration Service, 1971. Data for 2018 from IntelliConnect (online).

¹⁷ Consumption classification for national income accounts does not exactly match categories used in retail sales tax law, so the data here should be considered reasonable approximations only. The typical current tax base equals durable goods, plus non-durable goods less off-premises food and beverage, food produced and consumed on the farm, pharmaceuticals, and net expenditures abroad by U. S. residents, plus water and sewerage, electricity and gas, purchased meals and beverages, accommodations, and telecommunications. Note that some of these categories count as services in BEA accounts, although they are treated as tangible personal property purchases in most sales tax laws. The second base adds all services not already taxed, except life insurance is subtracted because of its investment elements. The third base is the second base less health care and education services.

will dramatically reduce the base narrowing (and probable rate increasing) associated with the typical base. It is not likely that the economic environment of the 21st century will show consumer behavior radically different from that of the recent past, so an important step for preserving state revenue systems would be to significantly expand the coverage of the sales tax to purchases of services. The important new economy challenges will be whether to expand generally or selectively and whether to exclude certain services, like health care and education, for non-economic reasons.

A legislative challenge is to keep services predominantly purchased as business inputs exempt to prevent tax pyramiding. This objective can be difficult to achieve because appearing to tax businesses instead of households has political charm, not to mention the attractiveness of hiding a chunk of the tax burden from the ultimate taxpayers (individuals).¹⁸

(II) Exemptions.

The second challenge to retail sales tax productivity comes from exemptions from taxation. Over the years, legislation has nibbled away coverage. Attention here will be devoted to larger household consumption exemption categories, although there are many other isolated exemptions in some states. Table 2 details how treatment of these expenditure categories has changed in the state sales taxes from 1970 to 2018 for food for at-home consumption, clothing, prescription medicines, gasoline, cigarettes, and presence of a tax holiday. All purchases made with Supplemental Nutrition Assistance Program (food stamps) benefits became exempt after 1987, a requirement for participating in the program, but it is a program well targeted to low income households. Among identified categories, only cigarettes have become more likely to be taxed by the states, and cigarette consumption is a small and dying expenditure category (from 1.24 percent of personal income in 1970 to 0.67 percent in 2016). Full taxation of these consumption categories has become rarer, as coverage declines either through full exemption or by provision of a reduced tax rate. Interest groups are perpetually finding new ideas for exempt categories and legislators are very happy to respond to those pressures as the concentrated value to the narrow interest politically overwhelms the general cost to the sales tax, the impact of which is diffuse throughout the economy. The expansion of exemption or reduced rate treatment for food for at-home consumption is particularly noxious. As Johnson and Sheffrin observe, "...because SNAP effectively targets poor households and because SNAP benefits are nontaxable, the poor really do not benefit from the sales tax exemption for food at home. Indeed, almost surely they would be better off if food at home were in the tax base and revenue-neutral adjustments were made to the sales tax rate."¹⁹

The problems with exemption are well-known – absence of targeting, high revenue loss, additional cost of compliance and administration, distortion of consumer behavior, reward for political support, etc. – and it is particularly distressing in light of the fact that the credit/rebate system normally operated through the state income tax provides an alternative relief approach that eliminates virtually all these difficulties. Currently five states (Maine, Kansas, Oklahoma, Idaho,

¹⁸ The political challenges of adding services to the tax base cannot be underestimated, nor the challenges in getting a reasonable expansion. For example, California includes few services in its tax base but Senate Bill 993 (2018) change that in exactly the wrong way. The proposal would tax all services purchased by businesses in the state, with a few exemptions and exemption for very small businesses, and would reduce the tax rate on goods. Only a politician could explain how that makes sense within the principles of sound tax policy.

¹⁹ Anna L. Johnson and Steven M. Sheffrin, "Rethinking the Sales Tax Food Exclusion with SNAP Benefits," *State Tax Notes*, (January 11, 2016), 157.

and Hawaii – operate some form of sales tax credit that returns to families some or all of sales tax paid on purchases, giving greatest relative relief to lowest income families and lesser (or no) relief to more affluent families.²⁰ That is one state fewer than the number of state offering the program in 1971 (Colorado, Indiana, Nebraska, Massachusetts, Hawaii, and Vermont), but only Hawaii offered the program in both years. The credit / rebate system promises efficiency, equity, and less revenue loss. Its apparent unpopularity is somewhat surprising, particularly in light of the spread of the earned income tax credit program, a program with some similar characteristics.

A change of particular note, more significant as a symptom of the problem than as a direct revenue loser, is the sales tax holiday, a short period in which sales tax is not collected on certain otherwise taxable purchases. These tax holidays were virtually unheard of in the United States until the New York state holiday in 1997, but they now infest the sales tax structure of almost half the states, as Table 2 shows.²¹ Targets for holidays include back-to-school supplies, clothing, computers, hurricane preparedness supplies, Energy Star appliances, and guns and some states have multiple holidays scheduled for the year. In 2017, Texas held holidays for emergency preparedness supplies, Energy Star appliances, water conserving products, and back-to-school clothing and supplies, possibly a record for number of holidays held in a single year. The holidays do cause revenue loss and Georgia and Massachusetts have recently dropped their holidays because of that problem. However, Wisconsin added a holiday for 2018. Nothing but political incentives support the holidays as evidence shows that the holidays simply shift the timing of purchases and provide no gain in overall economic activity.²²

Taking household consumption out of the tax base contributes to the previously-noted base narrowing, makes the tax more complicated for administration and compliance, and discriminates according to household preferences. Some exemptions are simply strange (e.g., exemption for purchases made by the Arkansas Poets' Roundtable) and the objectives of others could be reached more efficiently through other means (e.g., the credit/rebate for the food purchase exemption would target relief more precisely and with less revenue loss).

(III) Over-reach.

American retail sales taxes have not entirely gotten over the confusion that the tax is not on finished goods but rather should be on goods (and services) purchased for household consumption. The reality of sales taxation is that a considerable share of the overall sales tax base, roughly 40 percent on average, consists of input purchases by businesses. The tax on those purchases embeds in prices charged by those businesses, meaning that this share of the tax is effectively hidden from households, allowing legislatures to claim a statutory rate that is considerably less than the true rate borne by individuals. While hidden taxes may be popular with legislatures, they conflict with the idea that the population ought to have a clear idea of what they are paying for government

²⁰ The programs have various names: the Maine Sales Tax Fairness Credit, the Kansas Food Sales Tax Credit, the Oklahoma Sales Tax Relief Credit, the Idaho Grocery Credit Refund, and the Hawaii Refundable Food / Excise Tax Credit. A trade of a credit / refund for taxation of grocery food was seriously considered in the 2018 Arkansas legislature, but killed by opposition from the governor.

²¹ Ohio and Michigan attempted a holiday to boost domestic automobile sales in 1980, but the idea did not catch on then.

²² Several studies have reached that conclusion. One recent one: Aladangady, Aditya, Shifrah Aron-Dine, Wendy Dunn, Laura Feiveson, Paul Lengermann, and Claudia Sahm (2017). "The Effect of Sales-Tax Holidays on Consumer Spending," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, March 24, 2017, <https://doi.org/10.17016/2380-7172.1941>.

services so that they can exercise their democratic rights with better information. Another unfortunate impact of these business taxes is that they add an extra cost on capital investment and other purchases associated with economic expansion, creating an additional barrier to growth and economic development. Unfortunately, the record for states removing business input purchases from taxation is spotty. While states generally do fully exempt purchases of inventory and component parts of product to be sold (except in Hawaii) and usually exempt at least portions of energy and supplies used in a production process, they have been less inclined to exempt purchases of manufacturing machinery and equipment used in the production process or fuel, electricity, fixtures, and furniture. This pattern is apparent in the treatment of purchases of manufacturing machinery and equipment. Because machinery and equipment are unquestionably finished goods, the inclination to tax has been strong, despite the fact that their purchase is part of business cost. Fortunately, there has been a trend for states to expand the exemption of these purchases over the past decades.

States have dealt with manufacturing machinery and equipment purchases in different ways. Some states exempt the purchases, some states tax the purchases, some states tax the purchases at a reduced tax rate, and some states limit the exemption to purchases of machinery only for new or expanding production, i. e., not for replacement. There has fortunately been a tendency toward reduced taxation of these purchases.²³

1. Exemption of machinery and equipment purchases. In 1970, thirteen states fully exempted such purchases; in 2018, the number of states had risen to thirty-six.
2. Full taxation of machinery and equipment purchases. In 1970, twenty-two states taxed such purchases; in 2018, only three states did so.
3. Taxation at reduced rate. In 1970, six states levied a reduced rate on machinery and equipment purchases; two states levied a reduced rate in 2018.
4. New and expanded industry. In 1970, four states limited the exemption to purchases for new or expanding capacity; the same number of states did so in 2018.

The pattern does show a considerable movement toward removal of these business input purchases from the tax base, thus reducing the prospects for pyramiding, hidden tax burdens, distortions, and discrimination. However, states continue to tax purchases made by other business activities. Lawmakers are inclined to try to pick favorites for tax relief and appear to like glitz. Targeted preferences for motion pictures, certain sorts of research and development, or bids for the Super Bowl are attractive to politicians because they provide identifiable credit and possibly ribbon cutting not available with general exemption. Super Bowl bids are particularly egregious. Cities that wish to bid for a Super Bowl must exempt all ticket sales from sales tax (and frequently go further by exempting purchases made by those associated with the National Football League during the event in an effort to sweeten the bid).²⁴ One suspects that a desire on the part of lawmakers to rub shoulders with personalities may have some impact on the popularity of some of these preferences. Clearly, a full exemption of all business input purchases would be

²³ Data for 1970 from John F. Due, *State and Local Sales Taxation, Structure and Administration*, Chicago: Public Administration Service, 1971. Data for 2018 from IntelliConnect (online).

²⁴ Bid specifications are generally not public. However, the specifications for Super Bowl LII (released November 2013) were leaked and provide insight into what preferred tax treatment was demanded. Some states have exempted all purchases made by the National Football League and its affiliates related to the event (see Indiana Department of Revenue, “Commissioner’s Directive Number 42,” December 2011). New Jersey collected the tax on tickets to the 2014 Super Bowl, then presented the revenue to the NFL.

considerably more efficient and less distortionary than policies that attempt to pick and choose winning activities. However, it is harder to point definitively to the development impact of a general exemption in comparison to pointing to a particular business that located in the state after an exemption was given, even if the exemption may not have been a decisive element in the location decision.

(IV) Rising Statutory Rates.

There is a final challenge from the problem of exclusions, exemptions, and consumer preferences for services that combine to narrow the tax base. If states wish to maintain desired reliance on the retail sales tax, they will need to increase their statutory sales tax rates with the narrowing. The problem is that there has been a consensus, heavily based on pre-value-added tax experience in Scandinavian countries with high-rate retail sales taxes, that retail sales tax rates much above 10 percent are likely to produce compliance issues so difficult that the tax becomes almost impossible to administer. American retail sales tax rates are drifting ever closer to that danger level, particularly when local governments add their own rates to the rate levied by the state. Table 3 shows how state statutory rates have drifted upward since 1970. Rates of 6 and 7 percent are no longer rare and a narrowing base will require more rate increases if the position of the sales tax is to be preserved (or expanded) in state revenue systems. Rates are moving toward the danger zone in which significant non-compliance begins to become more attractive and, unless states can manage the narrowing base problem, a compliance gap may become a significant challenge for state tax administrators in the first part of the 21st century.²⁵

Preservation (and expansion) of the statutory sales tax base is a challenge in the new economy that is entirely within state control. Avoiding more exemptions of household consumption purchases and elimination of some currently in place would be beneficial to state fiscal sustainability. Concern with what can be controlled by state lawmakers should be primary as they face changes from the new economy that are largely outside their control.

Challenges to Retail Sales Taxes That Are Exogenous to the Tax Authorities

Tax authorities do not have direct control over all challenges to state retail sales taxes. A technology-based economy creates a new operating environment for retail sales taxes.²⁶ Changes began in recent decades and certainly will continue into the 21st century. Because long-term forecasts are wrong and changes emerge in surprising ways, it is worthless to make distant guesses about what will develop to make sales taxation easier or more complex. However, it is possible to identify some innovations and technology that have either improved or harmed the prospects for tax collection and to make modest extensions of those changes. The concern from more difficult collection is that non-compliance will increase and, accordingly, revenue will not be received for

²⁵ A quieter revenue loser is the vendor discount, a share of total sales tax collections that vendors get to keep as compensation for remittance of the tax. Twenty-eight states provide such discounts, only sixteen of which have a maximum amount that may be retained. Paying taxes is a normal part of doing a business, so this compensation is particularly doubtful and several states have quite sensibly constrained the payments in recent years.

²⁶ The dramatic relative and absolute increase in the service sector is part of the movement from a manufacturing/goods driven economy. A response to that transition is within the scope of legislative change and was discussed in the prior section.

provision of public services and that compliant taxpayers will be put at competitive disadvantage. As is the case in many areas, most change has both positive and negative impacts.²⁷

(I) Internet and the Remote Vendor.

Since the earliest days of state retail sales taxes, states have worried about competition from out-of-state vendors able to sell without applying their sales tax. That brought the adoption of compensating use taxes to fill the gap on purchases made without payment of the state's sales tax. Initially the concern was with purchases made from adjacent no-tax or low-tax states, but the problem shifted to catalogue sales and then to sales via the internet. The ease and popularity of internet purchases made the remote vendor (vendors from outside the taxing state) a threat to the sales tax base and to local merchants. States have been unable to require vendors with no physical presence in the state to register and collect use tax on common-carrier deliveries into the state, meaning that states could only enforce the tax directly from purchasers, an approach certainly less efficient and effective than collecting the tax indirectly through the vendor. That constraint is the product of the Supreme Court rulings in *National Bellas Hess v. [Illinois] Department of Revenue* (386 U.S. 753 (1967)) and *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992), two cases that established the right of states to tax such activity but limited state ability to require vendors to collect the tax to those with physical presence in the state. To do otherwise, would place an undue burden on interstate commerce. The decisions were on catalog sales, an operation considerably different from sales transacted through the internet and that has been the hassle when states saw the considerable growth in commerce initiated via the internet by no-physical-presence vendors.²⁸ States were concerned about protecting their retailers from remote vendors able to sell without collecting sales tax and about protecting their tax base from loss to such transactions. The amount of revenue lost through remote vendor sales is unknown and there is considerable range in estimates. The Government Accountability Office (GAO) recently estimated 2016 losses at 2 to 4 percent of potential tax.²⁹ Donald Bruce, William F. Fox, and LeAnn Luna estimates the loss at around 5.2 percent (2012)³⁰ and the losses may exceed 9.0 percent when you factor in traditional mail-order shopping (2015).³¹ In sum, the loss, while unknown, ranges from big to really big and states are not unreasonable in seeking an avenue to protect their retailers and their sales tax base. Growth in this part of the new economy makes the quest to close the tax gap ever more important.³²

²⁷ A technology that changed sales tax administration dramatically and for the good was the development of bar coding with electronic cash registers in the late 1970s. Proper collection of tax no longer depended on categorization by the clerk and audit could focus on coding and inventory. There is no reason to expect that the person running a cash register is expert in sales tax law and regulations and the bar-coding system renders that expectation irrelevant.

²⁸ The principal remote vendor villain has changed over the years. For some time, L. L. Bean was the target of state complaints (and the company that spoke out regularly in defense of its non-registration position). Amazon then replaced it as that company developed a larger role in the economy. Amazon now collects tax for all forty-five sales tax states (but not local taxes) on products it sells directly but does not collect for vendors using their platform. It is interesting to speculate what company will become the prime target if the states do not prevail in the *Wayfair* case. It could be L. L. Bean again, because that company has not changed its position.

²⁹ Government Accountability Office, "Sales Taxes: States Could Gain Revenue from Expanded Authority, but Businesses Are Likely to Experience Compliance Costs," GAO-18-114: Published: Nov 16, 2017.

³⁰ Donald Bruce, William F. Fox, and LeAnn Luna, "State and Local Government Sales Tax Revenue Losses from Electronic Commerce," University of Tennessee, April 13, 2009.

³¹ Lorie Jo Brown et al., "Uncollected Sales & Use Tax from Remote Sales: Revised Figures," National Conference of State Legislatures and International Council of Shopping Centers, March 2017.

³² The glib approach is to observe that the uncollected sales tax on purchases from remote sellers equals compensating use tax owed by purchasers and states only need to do their job by collecting from those purchasers. Although states do make some effort to collect these use taxes, for instance by including a reporting line for use tax on state income

In 2016, South Dakota passed a law requiring vendors lacking physical presence in the state to remit tax if (1) gross revenue of sales into South Dakota exceeded \$100,000 in the year or (2) the vendor had 200 or more transactions into the state. That brought an immediate challenge, as was the intent.³³ In *South Dakota v. Wayfair* (U. S. Supreme Court Docket Number 17-494, 2018), the state asserted that physical presence has little merit in light of changes in the economy since the court's ruling in *Quill*. In a 5-4 decision, the Court reversed precedents (specifically *Quill*) that barred states from requiring no physical presence vendors to collect and remit retail sales (use) taxes. The Court noted that its decision in *Quill* created an "arbitrary, formalistic distinction" that is artificial not just "at its edges but in its entirety". The Court was especially troubled by the fact that large retailers, with centralized operations, that readily meet the minimum sales or transactions requirement, would not be required to collect or remit retail sales tax and could effectively offer customers the tax-advantage while smaller businesses with physical presence in multiple states not only faced unfair price competition but had to comply with tax laws in every state in which it had a physical presence. In effect, the Court's decision in *Quill* allowed consumers to evade a lawful tax and created a tax shelter for businesses that intentionally limited their physical presence in a State but continued to maintain a continuous and pervasive virtual presence – something the Court conceded had become easier given advancements in technology. It concluded the physical presence rule as laid out in *Quill* was removed from economic reality and created rather than resolved market distortions.

Notwithstanding the Court's recent ruling, the states had a powerful option if the physical presence standard were not overturned. In *Direct Marketing Association v. Brohl*, the Supreme Court accepted Colorado's law that required out-of-state retailers (excluding those making less than \$100,000 in gross sales into the state) not collecting Colorado tax to (1) notify their Colorado customers of their use tax filing and payment obligations; (2) annually furnish Colorado customers with information on their prior-year purchases; and (3) annually file with the Colorado Department of Revenue a detailed statement of each customer's purchases. The Court reasoned that the prior issue of undue burden was one of requiring collection of tax and the Colorado law only required reporting of transactions, hence not creating the burden issue.³⁴ In full operation, the Colorado system closes the door on loss of tax revenue and unfair competition with in-state vendors. It combined collection from vendors, collection from purchasers, and third-party information in an effective manner. Even without an end to the physical presence standard, states had a tool to deal with the remote vendor problem and the only surprise is that only Louisiana, Pennsylvania, Vermont, and Washington had chosen to follow the Colorado route to expanding tax coverage.

Anticipating the court's ruling, several states have adopted laws patterned on South Dakota's law (including Indiana, Iowa, North Dakota, Massachusetts, Maine, Mississippi, Wyoming, and Alabama)³⁵ and similar laws are under consideration in legislatures still in session (New Jersey is one). In addition to the threshold requirements, South Dakota's law was designed to prevent discrimination

tax forms and by policing transactions without paid tax on audits, the direct approach to collecting a transaction tax is generally impossible.

³³ See <http://sdlegislature.gov/docs/legsession/2016/Bills/SB106P.pdf> (effective May 2016).

³⁴ Not as outlandish as it might seem: the Colorado system did not require that vendors know local sales tax rates or other complications in the state. They simply had to record the transactions. The state could sort out the rest.

³⁵ For example, Wyoming (legisweb.state.wy.us/2017/Enroll/HB0019.pdf accessed February 12, 2018) and Alabama (see <https://revenue.alabama.gov/wp-content/uploads/2017/05/810-6-2-.90.03-1.pdf>) approved similar measures.

against or undue burdens upon interstate commerce.³⁶ They included provisions that administration of the retail sales tax was not retroactive, adoption of the Streamlined Sales and Use Tax Agreement which reduces administrative and compliance costs including the provision of software at low or no cost provisions that would indemnify vendors who used the state's sales tax software from audit liability. While states could pass laws that disregard existing statute in South Dakota (e.g., lower threshold requirements), doing so could attract legal action on the basis of undue burden on interstate commerce.

The Court did give states a bit of a warning in their efforts to include remote vendors in the sales and use tax system. It pointed out that the South Dakota system sought to “prevent discrimination against or undue burdens upon interstate commerce.” In particular, it provided a safe harbor (threshold) to protect vendors doing only limited business in the state, it did not attempt to apply the tax retroactively, and it did participate in the Streamlined Sales and Use Tax Agreement to reduce administrative and compliance costs. The hint is clear that states not following those principles in any efforts to extend their registration and collection requirement might not be successful if subjected to an undue burden challenge. But this is speculative because many states still will need to pass legislation that reflects the new standard and many legislatures will not meet again until next year.

An unanswered question is how this ruling would apply to marketplace facilitators (i.e., entities that operate infrastructure that brings buyers and sellers together and facilitate payment processing, fulfillment or storage services, marketing (listing of products for sale), or provide customer service). The normal expectation would be that the vendor would be responsible and would be subject to requirements based on its sales. However, the marketplace facilitator presents a different possibility. Laws addressing retail sales tax collection by marketplace facilitators were recently enacted in Alabama, Arizona, Oklahoma, Pennsylvania, Rhode Island, Washington, and Minnesota and would be effective in either 2018 or 2019.³⁷ While sales into a state by a small business might fall below the threshold for registration / collection, the total sales through the marketplace would exceed the limit. What would that mean for the small business? Would the business be responsible for any tax responsibilities or would the facilitator? The Court decision was silent about market facilitators for small vendors (e.g., Etsy, eBid, ebay, or Bonanza) that do not engage in direct sales and for whom compliance with retail sales tax may cause undue burden on individual vendors.³⁸ To prevent undue burden, should thresholds apply to vendor or to facilitator?

³⁶ One strange fact is that the undue burden argument is about local use taxes, not state sales and use taxes. There are only forty-six (including the District of Columbia tax) state sales taxes for a vendor to worry about and keeping track of them is certainly within easy scope of modern technology. The problem is with the thousands of local taxes that remote vendors would need to pay attention to if they were required to register and collect. But it is not the local sales taxes that present a problem (sales taxes are collected by on-site local vendors). It is local use taxes that create the hassle – and these taxes generate relatively low revenue within the overall scope of local finances. It is a big battle over collection complexity, not revenue. Elimination of the local use tax on transactions crossing state lines, that is, making it an intra-state use tax only, would eliminate the under burden alleged to face remote vendors.

³⁷ Some decades ago, a challenge to sales taxes was the organized flea market – small, irregular, and informal vendors selling in a space provided by the market proprietor. Enforcing the tax through these small vendors presented a nearly impossible challenge and some states began making the market operators responsible for registering and collecting the tax from its vendors. That follows roughly the idea of the market facilitator approach.

³⁸ There is another internet business issue that impacts states which include transient lodging in their sales tax base. On-line travel operators maintain a sales tax advantage in hotel sales because they apply the tax rate to the room rate they pay (a wholesale price), rather than to the room rate paid by the customer (the retail price). That gives such

Finally, there is a constraint, beyond stepping over the undue burden threshold, to state action to bring remote vendors into the system. If states are unduly aggressive, for instance by applying the new standard retroactively, by doing little to simplify compliance, by imposing registration requirements on small businesses, they may attract the ire of Congress. Nothing in the Court's decision prevents legislative action to change the rules – and action to reduce remote vendor registration might be attractive because it could be seen as a tax reduction. Congress has plenary power to regulate Commerce among the States and it may at any time replace such judicial rules with legislation of its own (Justice Roberts, Dissenting). Proposals like the Remote Transactions Parity Act, Marketplace Fairness Act, Business Activity Tax Simplification Act, Digital Goods and Services Tax Fairness Act, Online Sales Simplification Act that have languished due to lack of support.³⁹ However, the conditions on the ground have changed and states are bound to act under those new conditions. Congress has the final legal authority to deal with the remote vendor question and it may take that opportunity.

(II) *The sharing economy.*

The sharing economy is an economic structure in which there is peer-to-peer transactions of goods or services facilitated by some on-line platform (for example, Airbnb or VRBO for short-term lodging, Uber and Lyft for taxi service, or Turo and Getaround for car rental). The transactions could be done without the on-line platform (accommodating tourists in an extra room was not uncommon in the 1950s and 1960s, for instance), but having the platform regularizes, organizes, and expands the market, while giving the vendor greater flexibility in regards to operation of the business. The platform makes it possible for a small business to advertise globally and to avoid concerns about payment, leaving the business operator free for other endeavors. A business that might require a large amount of administrative effort by the operator can now operate without putting having to bear that responsibility.

An expansion of small, often informal businesses has always presented a challenge for sales tax administration. In many respects, the tax issues here are those that sales tax administrators have struggled with in the past in regard to informal economic activity, casual sales, flea markets, and the like. It is not clear that the problems have been fully dealt with in the past, nor is it clear that what is referred to as the sharing economy will be successfully dealt with in the future, at least so long as the administrative model is the one used for collection of tax from fixed location, formal business enterprises. It is not clear that vendors will register as tax collectors, that taxes will be remitted appropriately, nor that pursuit of unpaid tax from particular vendors will merit the administrative cost involved. However, Airbnb does provide a model for feasible collection of the sales tax on transient lodging for its 660,000 hosts. Airbnb has agreements with a number of states (and localities in some of the states) to collect and remit taxes on behalf of their hosts. The Airbnb terms of service (effective June 27, 2018) state:

“As a Host you are solely responsible for determining your obligations to report, collect, remit or include in your Listing Fees any applicable VAT or other indirect sales taxes, occupancy tax, tourist or other visitor taxes or income taxes ("**Taxes**")....

operators a price advantage over competitors who must apply the tax to the retail price, as well as reduces revenue collected by the tax.

³⁹ On the other hand, the No Regulation Without Representation Act would codify the physical presence standard and preclude all efforts to expand tax on sales by remote vendors.

“In certain jurisdictions, Airbnb may decide in its sole discretion to facilitate collection and remittance of Occupancy Taxes from or on behalf of Guests or Hosts, in accordance these Terms ("**Collection and Remittance**") if such jurisdiction asserts Airbnb or Hosts have an Occupancy Tax collection and remittance obligation. In any jurisdiction in which we decide to facilitate direct Collection and Remittance, you hereby instruct and authorize Airbnb (via Airbnb Payments) to collect Occupancy Taxes from Guests on the Host's behalf at the time Listing Fees are collected, and to remit such Occupancy Taxes to the Tax Authority. The amount of Occupancy Taxes, if any, collected and remitted by Airbnb will be visible to and separately stated to both Guests and Hosts on their respective transaction documents. Where Airbnb is facilitating Collection and Remittance, Hosts are not permitted to collect any Occupancy Taxes being collected by Airbnb relating to their Accommodations in that jurisdiction.”

Lodging guests are charged the relevant tax at the time of booking and Airbnb remits the tax to the jurisdiction according to the relevant due dates for payment. States currently with such agreements for retail sales tax, according to Airbnb, include Arizona, Arkansas, Colorado, Idaho, Kansas, Kentucky, Louisiana, Maine, Michigan, Mississippi, North Carolina, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Washington, Wisconsin, and Wyoming.⁴⁰ (That does not include all states levying their sales tax on transient lodging.) The collection agreements also apply to state and local lodging excises that may be levied in addition to or instead of the retail sales tax. Using the platform as tax collector presents a practical approach to dealing with both compliance and administration of the tax.

Applying the retail sales tax to the other notable sharing enterprise – ride sharing or transportation network companies – is more complicated. First, thirty-one states do not include taxi services among the list of taxable services.⁴¹ That means that applying tax to ride sharing operations would involve either treating this set of service providers differently from the treatment received by their competitors, a bad idea that creates distortions and inequities, or balancing out treatment by taxing both ride share service and regular taxi service. Either option creates a special interest block that makes legislation particularly difficult. Unless the legislation is buried in a larger base revision program, in which the static from winners and losers cancels out, the expansion empirically has only minimal chance of approval. The first phase for dealing with the ride sharing sector of the new economy would be to include the service involved in the sales tax base. Only a handful of states have taken that step.

Second, ride share operators are small businesses, there are many of them, many operate only intermittently, and many likely have little experience with sales tax compliance. Uber and Lyft are private companies and they do not provide data on how many driver-partners – vendors, in sales tax terminology – are in their systems. However, some indication is available for Uber. According to a report done for the company by Jonathan Hall and Alan Krueger, at the end of 2014, the company had 162,000 driver-partners (individuals who had at least four trips in the last

⁴⁰ Airbnb has similar arrangements concerning many national value-added taxes. Given the statutory rates involved with these taxes, to fail to include them in charges collected by the Airbnb with booking could create significant problems for hosts.

⁴¹ States taxing taxi services include Arizona, Connecticut, Georgia, Hawaii, Maryland, Massachusetts, Nevada, New Mexico, New York (special equivalent tax), Ohio, Pennsylvania, Rhode Island, South Dakota, and West Virginia. Wisconsin and Washington tax the lease of the taxi by the driver from a cab company but not the taxi fare.

month) and 40,000 new driver-partners had joined in December of that year.⁴² That means that, in addition to the numbers of driver-partners being large, that there has to be considerable churn in the numbers who are active at any time. There are not as many Lyft drivers as there are Uber drivers and a number of drivers are in both platforms. However, the total businesses in this portion of the shared economy is a considerable number and the active participants keeps changing.

Sales tax compliance systems require that all drivers in either system for some portion of the year would be registered and that, according to their periodic sales volume, would be subject to a regular reporting schedule. The most efficient approach would be for the sales network platform that arranges the match between driver and customer and collects from the customer be responsible, in other words, adds sales tax to the fare and remits collections according to the prescribed schedule. Just as there is inconsistency across states in whether transportation services (like shared rides) is taxed, it appears that platforms and revenue departments have not reached an agreement about how the sales tax will function. No single compliance profile applies in all states and the range of arrangements is considerable. In some states (Rhode Island is one), the applicable sales tax is added to the customer's bill and the platform handles remittance to the state. In other states, (Ohio is one), Uber disputes its responsibility for collecting the tax. It argues that it merely provides an App that connects drivers and riders and certainly does not provide transportation services, so it has no responsibility for the tax. The Ohio case is with the state Board of Tax Appeals. In another state (New York), the applicable sales tax appears to be deducted from the fare to be received by the driver, rather than being added to the pre-tax taxi fare. In other places (Hawaii), the tax may be up to the driver or the responsibility of the transportation network company, depending on contract terms.⁴³ Most reports from drivers come from Uber operations, but there appears to be variation across states in how Lyft deals with the tax. What is clear is that sales tax treatment of this portion of the shared economy has not been resolved and, should more states move toward inclusion of taxi services in the tax base to keep up with trends in the new economy, the problems will increase. Leaving the sales tax responsibility up to the driver promises great problems of compliance and administration because many drivers would have small and irregular tax liabilities, many operators are not familiar with sales tax obligations, and there is much churn in the active driver population from month to month. It would be a repeat of problems in drawing the line between untaxed casual sales and taxable business operations. The Airbnb approach would seem to afford the best solution to the dilemma: have the platform (Uber or Lyft) collect the relevant sales tax when it charges the customer and remit all tax collections to the relevant jurisdiction as they become due.⁴⁴ However, there clearly is resistance to this approach, possibly because neither firm wants to be at competitive disadvantage. Turo and Getaround take the position that they are merely platforms and not subject to anything from the state (Maryland passed a law in 2018 that makes them subject to the same taxes as regular car rental firms.)

(III) Sales Suppression Technology (Zappers and Phantomware)

Sales suppression technology (phantomware and zappers) modifies software used to support electronic cash registers (ECRs) to suppress business transactions. The technology has its origin in Europe, as the high value-added tax (VAT) rates make tax evasion more attractive to businesses.

⁴² Jonathan Hall and Alan Krueger, "An Analysis of the Labor Market for Uber's Driver-Partners in the United States," [https://s3.amazonaws.com/uber-static/comms/PDF/Uber_Driver-Partners_Hall_Krueger_2015.pdf]

⁴³ Hawaii is unique in providing a specific guidance for taxation of ridesharing services. See *Tax Information Release* No. 2018-01, Hawaii Department of Taxation, January 8, 2018.

⁴⁴ There are issues as to whether tips would be in the tax base.

When installed on ECRs, the software will purge retail transactions thereby allowing the owner to make it appear that sales volume has been less than it actually was and electronically skim the taxes collected on the zapped transactions. The software will then adjust inventory and other records to make all traces of the transaction disappear.⁴⁵ In some instances the software has been found to alter the nature of the transaction (e.g., the software can alter sales records including removing higher priced menu items and substituting the entries with lower priced items). Certain versions of the software also allow vendors to zap credit and debit card transactions by routing records through international firms. With widespread use of cloud-based services, there are concerns users would be able to install and update phantomware remotely or give users the ability to manipulate records remotely.⁴⁶ This is a major problem for tax administrators as they have long regarded records from an electronic system to be accurate.

Widespread use of sales suppression software (phantomware and zappers) has led to billions of dollars in lost sales (and income) tax revenues. In Quebec, a recent report estimated CAD 417 million in losses for 2007-2008. Sweden carried out about 2,000 audits including restaurants, hairdressers, clothing stores, food stores etc. Underpayment of VAT, income, and employment taxes was approximately EUR 150 million (citation). While there is no clear evidence of how widespread the use of sales suppression software is in the United States, as our sales tax rates are considerably lower than the European value-added tax rates, making the skim less profitable,⁴⁷ recent cases suggest that vendors in the U.S. have access to and have used the software to evade retail sales taxes. The most recent and notable cases being *Washington v. Wong*, Wash. Super. Ct., No. 16-1-00179-0 and *U.S. v. Yin*, W.D. Wash., No. 2:16-cr-00314-RAJ.⁴⁸ To curtail revenue losses, states will need to say ahead of the game by making investments in training and audits.⁴⁹ In fact, in the case of *Washington v. Wong*, retail tax agents with training were able to identify point-of-sale (POS) data that had been erased and estimated the value of transactions erased by the zapper program.

No certain defense is available to prevent the operation of suppression technology and every state sales tax system is vulnerable. Because the devices suppress sales and alters business records, it also manipulates employee records and subsequently affects income taxes (federal, state, and local), FICA, unemployment, workers compensation and related corporate or business income tax – therefore the impact is far-reaching. A search for zapper systems has become a necessary step in all audit and enforcement actions and audit may entail making sample purchases to determine whether they were correctly included in vendor records. To date, it is illegal to possess sales tax suppression software in 24 states, including Arizona, Arkansas, California, Connecticut, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maine, Michigan, North Carolina, North Dakota, Oklahoma, Rhode Island, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia,

⁴⁵ Because phantomware alters business records, it also manipulates employee records and subsequently affects income taxes (federal, state, and local), FICA, unemployment, workers compensation and related corporate or business income tax.

⁴⁶ Richard T. Ainsworth, “Automated Sales Suppression (Zappers): A Real Threat to Pennsylvania’s Sales and Use Tax,” *Pittsburgh Tax Review* 29 (2010).

⁴⁷ Richard Ainsworth is the expert on use of zappers in sales tax evasion. See Richard T. Ainsworth, “Zappers and Phantomware: Are State Tax Administrators Listening Now?” *State Tax Notes* 49 (July 14, 2008).

⁴⁸ See *Washington v. Wong*, Wash. Super. Ct., No. 16-1-00179-0.

⁴⁹ Richard T. Ainsworth, “Automated Sales Suppression (Zappers): A Real Threat to Pennsylvania’s Sales and Use Tax,” *Pittsburgh Tax Review* 29 (2010).

and Wyoming. The statutes prohibit the possession, use, or sale of tax zapping devices and impose criminal and civil penalties against violators.⁵⁰

Discussion and Conclusions

The retail sales tax emerged during the Great Depression as a means for state fiscal survival. It became a stalwart of state government revenue systems through the second half of the twentieth century. Despite significant increases in state reliance on individual income taxes, the retail sales tax remains the most important tax source for several states and a major contributor in all the forty-five states levying such taxes. It serves as an important device for limiting over-reliance on the individual income tax. The tax would be difficult to replace with revenue from other options available to the states.

Sales tax collections are challenged by some elements of the new economy and sales taxes must change to keep the tax entirely relevant. After twenty years or more of struggle, states finally have a legal authority to enforce sales tax collection on remote vendors with no in-state physical presence. Development of the shared economy makes administration more complicated because of the expansion of near-informal vendors on the market who can use the internet to solicit business virtually globally. Commerce emerging through the internet complicates enforcement – how can the tax be collected if it must be collected from the hundreds of thousands of customers rather than the few thousand vendors? New mechanisms for skimming make enforcement take steps that have not seemed necessary in the past. Nevertheless, expansion of the cashless economy potentially makes enforcement somewhat easier. Cooperation from market platforms may simplify collection from shared economy vendors. The new economy is not necessarily all gloom and doom for the sales tax.

It may be argued that the forces of the new economy are outside the control of legislators and administrators and there is considerable truth to that view. However, it is undoubtedly the case that a considerable share of the challenge to state retail sales taxes lies fully within the control of state lawmakers. States continue the Great Depression era focus of the sales tax on the purchase of tangible personal property and covering purchases of services, a dramatically growing share of consumer expenditures, selectively at best. That means that the sales tax base covers a declining share of economic activity as years go by. In addition, states insist on dealing with perceived equity and incentive issues with exemptions, rather than using the more efficient, less expensive, and more equitable credit / rebate approach. States are able to maintain reliance on the sales tax only by increasing the statutory tax rate on that diminishing base. A high rate – narrow base policy is not good policy. That is what state lawmakers have tacitly adopted. While there are certainly concerns from the changes brought by the new economy, the first round of protection of the retail sales tax in the twenty-first century would be to make the traditional portion of the tax base more consistent with the realities of that new economy.

Both endogenous and exogenous challenges affect the equity, efficiency, and productivity of the retail sales tax. There are difficult issues in devising a robust tax, but none seems insurmountable

⁵⁰ Not all new economy transitions make for sales tax problems. Prospects for a “cash less” society have interesting implications. The growth in the use of debit and credit cards likely makes sales tax enforcement somewhat easier. Payments in cash are easier to make disappear than are the electronic records associated with use of cards. That would make verification of records easier – a second flow of data to check – and complicate successful skimming. It will be interesting to see whether “cash only” restaurants in some large cities change their policies, i.e., will access to the “cash less” customers overwhelm the prospects for sales tax skimming?

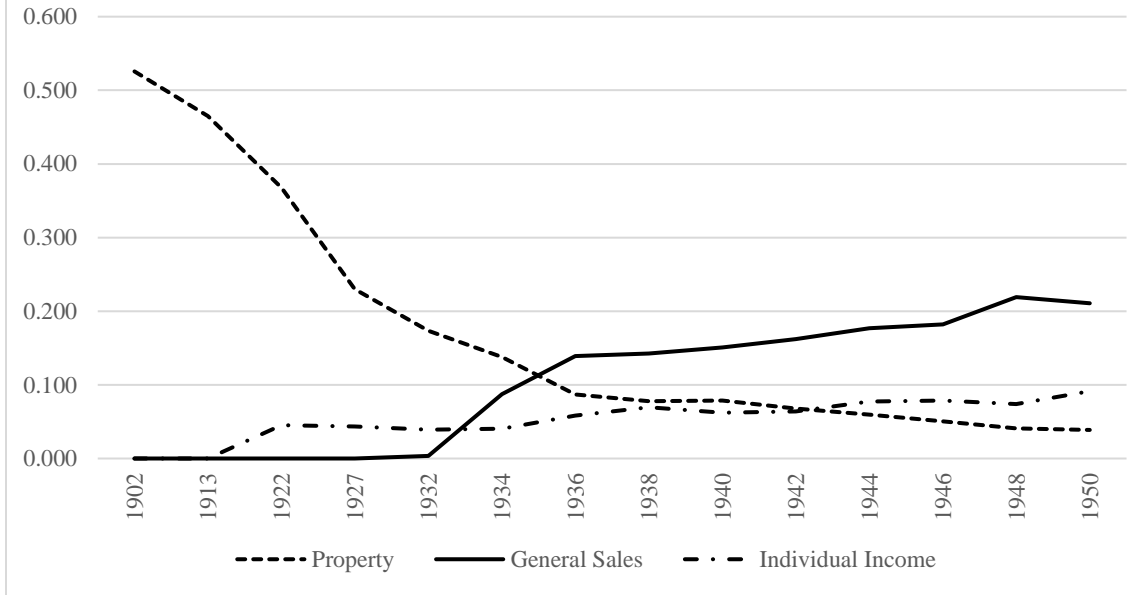
with sales tax system restructuring to deal with the challenges. Rather, the problems are heavily political because solutions may impact members of organized interest groups, but some states have had modest success at fruitful restructuring. The sales tax future much depends on the design of strategies to enact identified solutions to structural, behavioral, and administrative threats. None is impossible.

Table 1. YEARS OF INTRODUCTION OF STATE RETAIL SALES TAXES

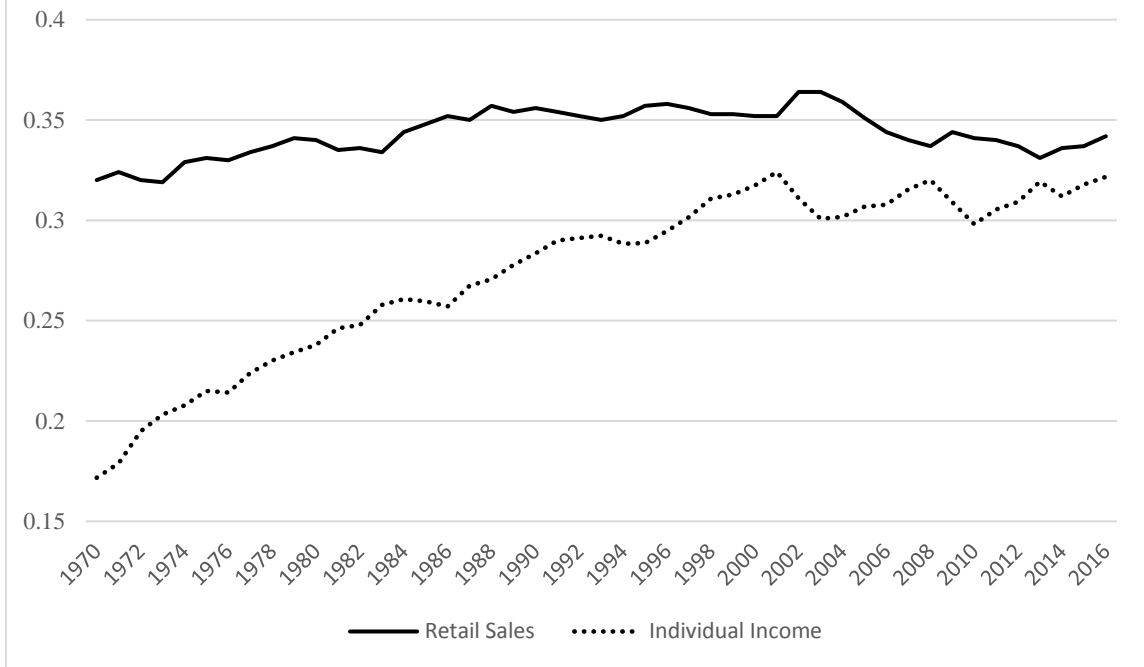
Taxes That Became Permanent		Taxes That Were Allowed to Expire		
Year Tax Became Effective	State	State	Year of Expiration	Year of Reinstatement
Prewar				
1932	Mississippi	Pennsylvania	1933	1953
1933	Arizona, California, Illinois, Michigan, North Carolina, Oklahoma, South Dakota, Utah, West Virginia	New York	1934	1965
1934	Iowa, Missouri, New Mexico	Kentucky	1936	1960
1935	Arkansas, Colorado, Hawaii, North Dakota, Ohio, Washington, Wyoming	Maryland	1936	1947
1937	Alabama, Kansas			
1938	Louisiana (repealed 1940)			
1942	Louisiana			
Postwar				
1947	Connecticut, Maryland, Rhode Island, Tennessee			
1949	Florida (and District of Columbia)			
1951	Georgia, Maine, South Carolina			
1953	Pennsylvania			
1955	Nevada			
1956	Pennsylvania		1955	1956
1960	Kentucky			
1961	Texas			
1962	Wisconsin			
1963	Indiana			
1965	Idaho, New York			
1966	Massachusetts, New Jersey, Virginia			
1967	Minnesota, Nebraska			
1969	Vermont			

SOURCE: John F. Due and John L. Mikesell, *Sales Taxation, State and Local Structure and Administration*, Second edition. (Washington, D.C.: Urban Institute Press, 1994): 3.

Figure 1. National Shares of State Tax Revenue from Property, General Sales, and Individual Income, 1902 - 1950



**Figure 2, Mean State Retail Sales and Individual Income Tax Reliance
Among the 45 Sales Tax States, 1970 - 2016**



**Figure 3. Mean State Sales Tax Breadth (Base Relative to Personal Income), 1970
- 2016**

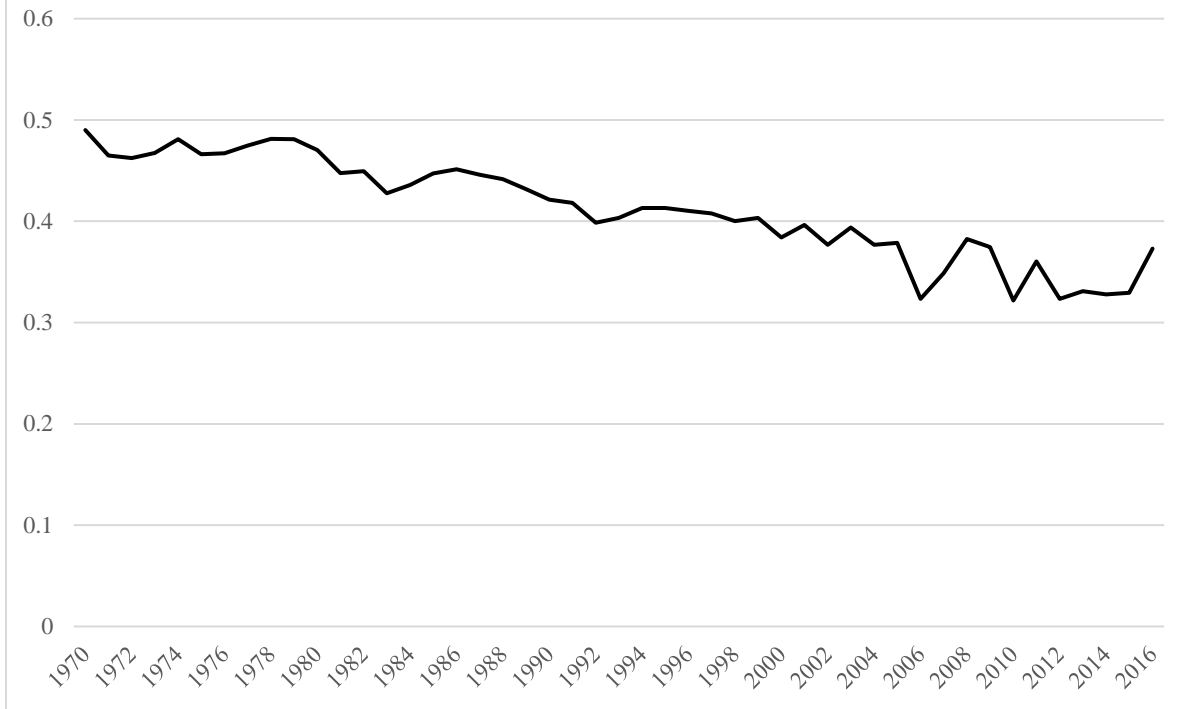


Figure 4. Retail Sales Tax Reliance, Breadth, and Effective Rate, State Aggregate Relative to 1970, 1970 - 2015

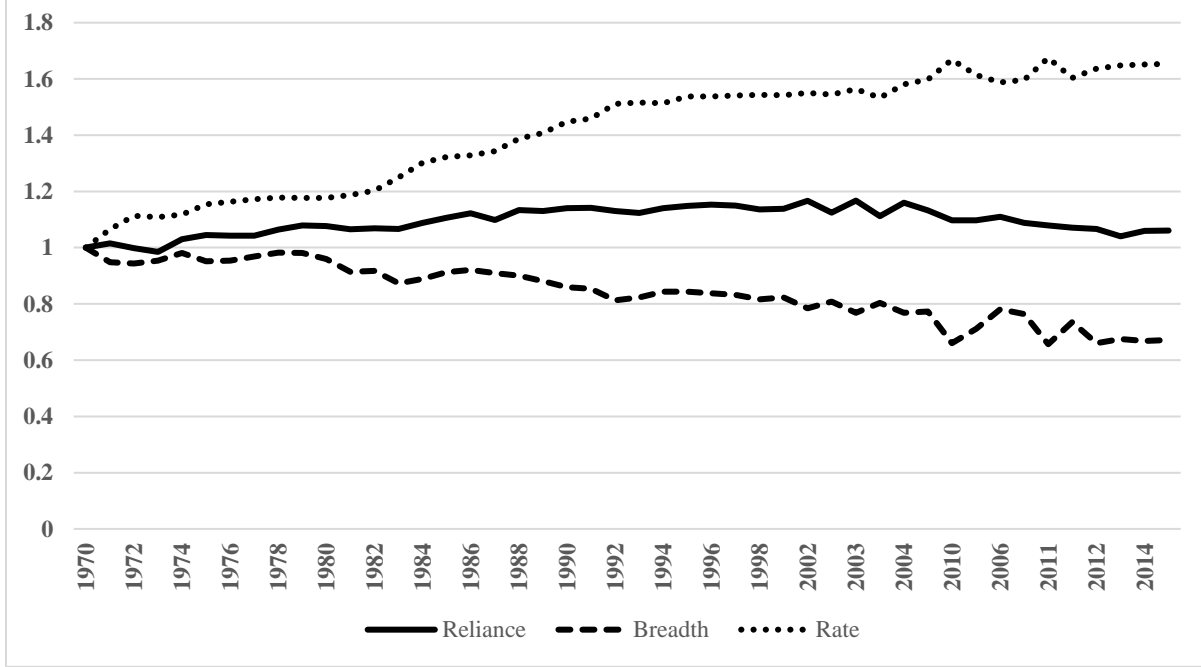


Figure 5. Sales Tax Base Relative to Personal Income: Current Typical Base, Current Base Plus Untaxed Household Service, and Base Plus Services Except Health Care and Education (Relative to 1970)

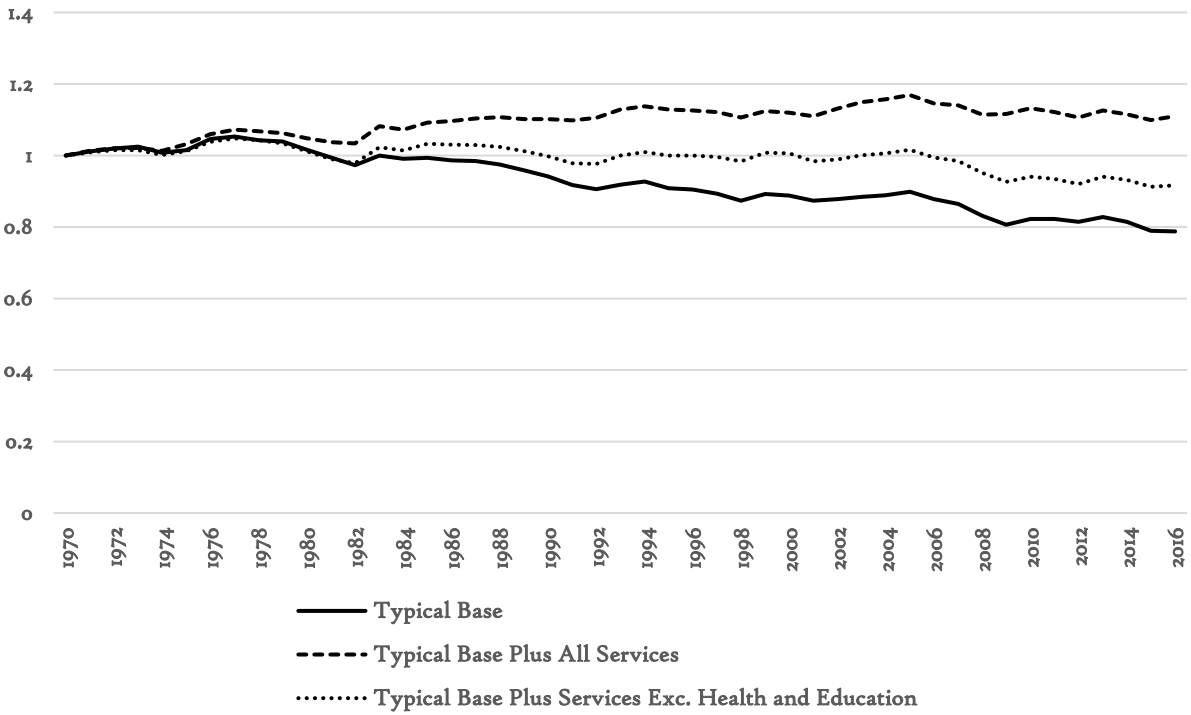


Table 2. Household Consumption Exemptions in Individual States, 1970 and 2018 (E = category is exempt; RR = category is taxed at reduced rate; T = category is taxed at standard rate)

	Status in 1970	Status in 2018
Food for at-home consumption	E: 16; RR: 1; T: 28	E: 32; RR: 6; T: 7
Clothing	E: 4; E-children: 1; T: 40	E: 7; T: 38
Prescription medicines	E: 26; RR: 2; T: 17	E: 44; RR: 1
Gasoline	E: 38; T: 7	E: 36; RR: 6; T: 3
Cigarettes	E: 15; RR: 6; T: 24	E: 2; RR: 3; T: 40
Sales tax holiday	No states	One holiday: 10 states; two holidays: 5 states; 3 holidays: 1 state; 4 holidays : 1; zero holidays: 28

Sources: Data for 1971 from John F. Due, *State and Local Sales Taxation, Structure and Administration*, Chicago: Public Administration Service, 1971. Data for 2018 from IntelliConnect (online).

Table 3. Statutory State Sales Tax Rate Distribution Across States, 1970 – 2018 (January 1)

Rate	1970	1980	1990	2000	2010	2018
2 % and fractions	5	1			1	1
3% and fractions	19	17	4	2		
4% and fractions	15	18	15	13	11	11
5% and fractions	5	6	15	14	9	8
6% and fractions	1	2	10	14	18	21
7% and fractions		1		2	6	4
8% and fractions			1			