

Inability to Collect Sales Tax on Remote Sales Still Harms the Economy

by William F. Fox



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In this article, Fox looks at how the growth in e-commerce has eroded the sales tax

base and caused revenue losses to state and local governments.

Introduction

It is well understood that *Quill Corp. v. North Dakota*¹ prevents states from effectively collecting sales and use taxes that are owed on purchases by state residents from remote sellers. That is because *Quill* prohibits states from requiring sales tax collection by sellers that lack a physical presence in the state, even when they do substantial business in the state. Although the purchasers in such transactions still plainly owe the state's use tax, that tax is rarely paid by consumers, and the use tax is prohibitively costly for the state to enforce, particularly regarding consumers. In fact, the routine nature of tax evasion on remote purchases lowers the effective sales tax rate on such transactions to nearly zero. Businesses are more compliant, but the degree of evasion even by businesses is the greatest of any state

¹ *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).

business tax and is significant.² And because states depend heavily on the revenue associated with their sales taxes, that erosion of the tax base is hugely problematic.

In fact, given the size and growth of remote commerce, the ready tax evasion available to remote purchasers and sellers causes plain and increasing harms for state and local governments, while also harming the performance of the U.S. economy as a whole. Not only do states lose revenue, but administration and compliance costs rise (assuming compliance occurs), because sellers can comply much more easily than purchasers. Simply put, the costs of *Quill* on the states are enormous and growing, and the alternative of focusing on purchaser compliance is grossly inefficient. Moreover, the follow-on effects of the loss in state revenue tend to take a bad problem and make it even worse.

This report has four sections following this introduction. The first section summarizes the massive growth in e-commerce since 2000, which is itself nearly a decade after the Supreme Court's decision in *Quill*. Notably, while much of that growth is attributable to the inherent benefits of

² In contrast, sales tax compliance by sellers is very high: For example, the state of Washington in "2016 Compliance Study" (June 1, 2016) finds only 1.8 percent noncompliance with the sales tax insofar as it is remitted by sellers. But use tax compliance by purchasers is much lower: The same study finds 21.5 percent noncompliance by businesses as they make their use tax payments, and individual households are even less likely to comply. States use several means to encourage purchasers to comply with the use tax on purchases for which no sales tax has been assessed, such as including a line on individual income tax returns. Very little revenue is ultimately collected from those approaches, however, and it is well understood that "because of *Quill* and *Bellas Hess*, States have been unable to collect many of the taxes due on these purchases" (*Direct Marketing Association v. Brohl* (Kennedy, J., concurring)); see also Nina Manzi, "Use Tax Collection on Income Tax Returns in Other States," Policy Brief, Minnesota House of Representatives, Research Department (Apr. 2015).

e-commerce, some of it is attributable to *Quill* itself. The second section explains how, because of *Quill*, that growth has eroded the sales tax base and caused revenue losses to state and local governments. Those effects are not easy to calculate, but the evidence is quite clear that the losses are large and growing. The third section focuses on how sales tax losses and other impacts cause follow-on effects for state and local economies that further exacerbate the harms they experience under *Quill*. The fourth and final section summarizes the overall findings.

The Extent and Growth of E-Commerce Since *Quill*

When *Quill* was decided in 1992, e-commerce was a tiny segment of the U.S. economy, especially at the retail level. But U.S. Census Bureau data show that e-commerce transactions in the United States have grown rapidly since the turn of the century, much more rapidly than similar sales in the overall economy. For example, in 2000, e-commerce sales totaled \$1.06 trillion, of which only \$27.6 billion represented business-to-consumer sales — that is, conventional, retail-type sales of the kind associated with websites like Amazon.com, Overstock.com, Wayfair.com, and the like.³ By 2015, however, e-commerce had risen to \$5.71 trillion, representing a compound annual growth rate of 11.9 percent since 2000 (see Figure 1).⁴ By comparison, overall sales rose 2.2 percent

during the same window.⁵ The difference for retailers is particularly striking, with e-commerce sales rising at a compound annual rate of 18.2 percent between 2000 and 2015, a window in which non-e-commerce retailer sales grew by only 2.7 percent annually. To summarize simply, the growth in online retail has been enormous since *Quill*, far outpacing the growth in traditional retail and in the economy more generally.

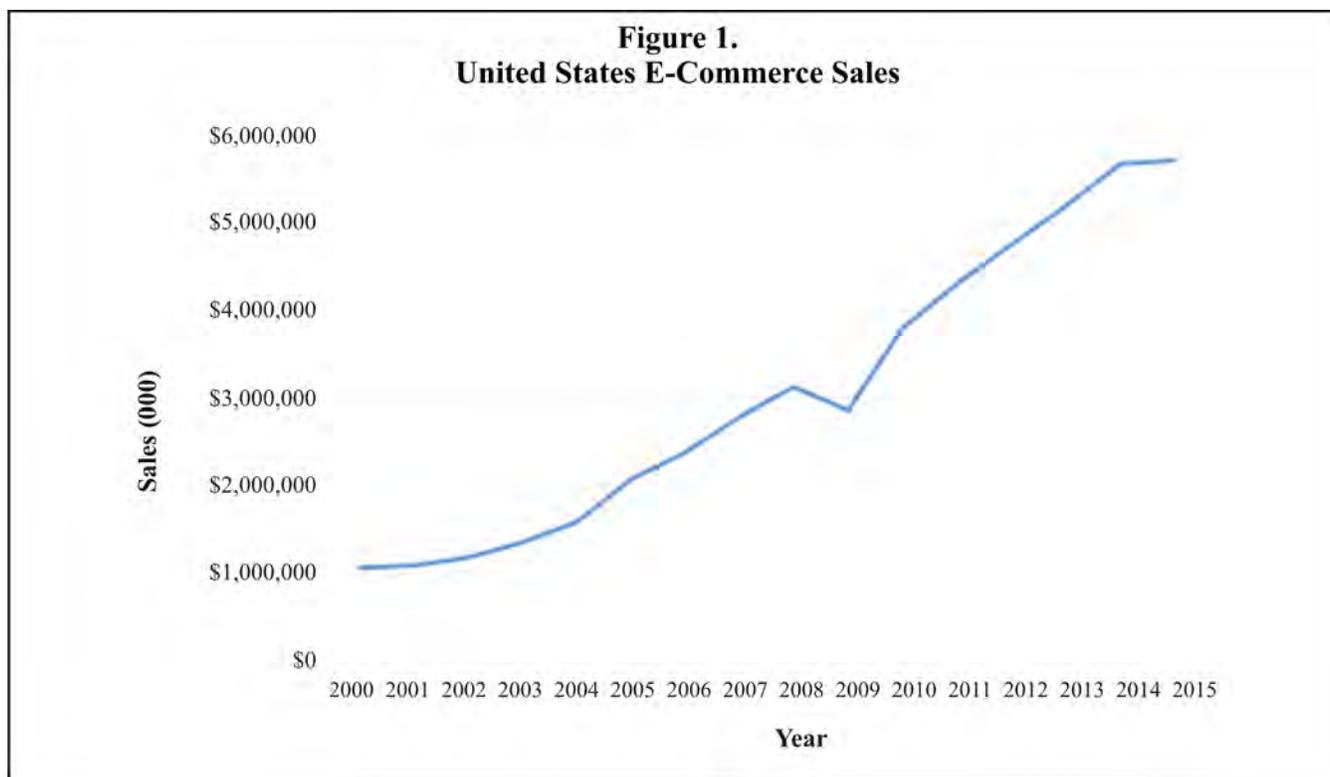
Notably, the data above, reflected clearly in this striking chart (Figure 1), span only the 15-year period from 2000 to 2015. *Quill* was decided in 1992, when the internet was in its infancy and had essentially no consumer-facing retail presence. Moreover, the growth trend indicates that an even further increase in e-commerce occurred between 2015 and the present day, and that such growth is quite likely to continue.

Of course, numerous factors contribute to the rapid growth in e-commerce, some of which are endogenous to e-commerce itself and reflect the value it brings to the table for consumers. Those include, for example, the demand for the attributes of purchasing through the e-commerce channel (say, delivery to the home or ability to shop from work or a mobile phone), as well as constant improvements in sales technology. Another important factor, however, is the tax advantage enjoyed by online sales under the *Quill* regime itself. There is no macroeconomic research directly estimating the overall effect of *Quill*'s sales tax regime on the extent and growth of e-commerce sales, but as discussed in the following pages, micro-level research shows that consumers are influenced heavily by the tax advantage. That indicates that e-commerce is rising rapidly in part because of the low effective tax rates relative to other channels.

³E-commerce is composed of the sales by manufacturers, merchant wholesalers (excluding manufacturing sales branches and offices), retailers, and service providers. For purposes of this report, manufacturers and merchant wholesalers, excluding manufacturing sales branches and offices, are treated as business-to-business e-commerce, and retailers and service providers as business-to-consumer e-commerce.

⁴The growth rate is imprecise to some extent because services sold via e-commerce are included in 2015 but not 2000. Total services estimates are only available for 2010 through 2015. The growth rate is 11.1 percent when services are entirely excluded from the calculation. On the other hand, the growth rate is significantly diminished because the total value of both all manufacturing shipments and of manufacturing e-commerce shipments fell significantly in the 2015 data. The decline in manufacturing e-commerce shipments is more than fully explained for by the decline in shipments of petroleum and coal products manufacturing, and that category mostly accounts for the decline in overall manufacturing shipments as well. That category of manufacturing has little implication for sales taxation since the median state in the 2009 survey by Donald Bruce, William F. Fox, and LeAnn Luna indicated that only 7 percent of sales in that category were taxable. It should be noted that retail e-commerce continued its very strong growth rate in 2015, rising more than 13 percent. All calculations are made by the author using data from <https://census.gov/data/tables/2015/econ/e-stats/2015-e-stats.html>.

⁵The overall sales combine sales by manufacturers and sales by retailers. Parallel sales values for services and wholesale trade providers are not available from the Census Bureau for 2000.



That is problematic. Shifts from traditional bricks-and-mortar retailers to e-commerce that are rooted in changing consumer demands or lower production costs make the economy more efficient, because capital flows to the firms that operate most efficiently in giving consumers what they want. But shifts in purchasing patterns induced by differential taxation, and that are not the result of changes in underlying demands or production costs, make the economy less efficient, diminishing well-being and resulting in one example of what economists refer to as excess burdens.⁶ Differential taxation likely creates economic rents for firms that are not required to collect the sales tax since those firms are able to sell more of their product because they have an after-tax price advantage (and of course they do not bear the compliance costs imposed on firms with nexus). Those rents are available only to firms that sell into a state where they have no physical presence. Large retailers with both bricks-and-mortar stores and in-state e-commerce sites do not benefit from those rents. The bottom

line is that the tax advantage leads the economy to overinvest in very specific, tax-advantaged forms of online retail, rather than the most efficient businesses as such.⁷

Some of the growth in e-commerce is undoubtedly attributable to both desired features of e-commerce and the distortions created by the tax advantage for e-commerce. For example, e-commerce now greatly exceeds the use of mail-order houses, both of which benefit from *Quill*.⁸ But there is significant evidence that a

⁷ See Wojciech Kopczuk et al., "Does Tax-Collection Invariance Hold? Evasion and Pass-Through of State Diesel Taxes," 8 *American Economic Journal: Economic Policy*, 251-286 (2016), for an example of those rents developing in the gasoline market based on where tax is levied in the supply chain. They theoretically develop a framework in which low tax evaders can be driven from business by the high economic rents available to high evaders. In the e-commerce context, the argument is that firms best able to facilitate evasion can drive those less able from business, or at least reduce their market share.

⁸ Retail e-commerce was \$340.4 billion in 2015 versus \$138.9 billion in mail-order shopping (and other non-store retailing). U.S. Census Bureau. As discussed in Bruce, Fox, and Luna (2009, 2012), e-commerce is heavily dominated by business-to-business sales in which the online component is even greater relative to mail order. See, Bruce, Fox, and Luna, "State and Local Sales Tax Revenue Losses From E-Commerce," *State Tax Notes*, May 18, 2009, p. 537; Bruce, Fox, and Luna, "State and Local Government Sales Tax Revenue Losses from Electronic Commerce: An Update," Draft Report (Jan. 6, 2012).

⁶ See David Agrawal and Fox, "Sales Taxes in an E-Commerce Generation," 24(5) *Int'l Tax & Pub. Fin.*, 903-926 (2017).

substantial portion of that growth is also attributable to *Quill* itself.

For example, research into consumer activity indicates that the tax advantage enjoyed by online sales diverts a lot of business to that particular marketing channel. Research to date suggests that the consequences for commodity-specific sales are very large. In other words, the tax differences either result in a much greater level of e-commerce sales than would occur simply because buyers want to shop via e-commerce or a large transition in the firms from which purchases take place. Several recent studies find that buyers are very sensitive to the after-tax price differences arising when the seller does not collect sales taxes on purchases. Essentially that means that many buyers shift their purchases toward out-of-state e-commerce vendors. Einav et al.⁹ estimate that every 1 percent increase in the sales tax rate raises state residents' out-of-state e-commerce purchases by almost 2 percent. In-state retailers are harmed because they must collect taxes in their stores and on their online sales. Einav et al. determined that online purchases from in-state retailers fall by 3 to 4 percent with a 1 percent sales tax rate increase. Conversely, Baugh, Ben-David, and Park¹⁰ found that purchases from Amazon fell significantly when Amazon began to collect sales taxes for Ohio, further indicating that a substantial portion of Amazon's sales were rooted in its tax advantage.

Evidence from the markets for certain commodity products helps to isolate that effect. Ellison and Ellison¹¹ find, for example, that a 1 percent increase in the sales tax rate increases buyers' propensity to purchase memory modules from a remote seller by about 6 percent. They note that a 5.7 percent average state sales tax rate translates into about a 30 percent increase in purchases from remote sellers.

It is important to emphasize those effects here, however, because they bear on the issues

discussed below, including the loss of state and local revenue and the related effects on state economies from the *Quill* rule. In particular, they demonstrate that those harms to the states arise from the *Quill* rule in two different but mutually reinforcing ways. First, of course, there is the fact of the lost revenue itself. But second, the tax advantage itself encourages even more business to divert to online transactions in which there is no tax paid, resulting in even more loss to the state and local revenue and economy. And to the extent that states respond to that erosion in the sales tax base by increasing the sales tax rate (as they have, as explained below), that cycle is self-reinforcing and can become worse and worse over time. Finally, property and income tax revenue might be lower because of reduced local retail commerce.

State and Local Revenue Losses

The foregoing shows that e-commerce has exploded since *Quill* and that some of that growth is likely attributable to *Quill* itself. This section attempts to estimate the resulting losses to the states. It is, of course, well understood that the effective collection rate on use taxes due on sales from out-of-state vendors is very low.¹² Although estimating the exact amount of loss attributable to *Quill* is complicated, this paper will turn to those calculations after a few preliminary points.

First, state governments are particularly reliant on sales taxes as a revenue source, second only to the personal income tax in states that impose both. On average, sales taxes raised 31.5 percent of state tax revenue in 2015-2016.¹³ Those states that do not have an individual income tax rely even more heavily on the sales tax. Moreover, while property taxes dominate local (that is, county, parish, or municipal) government tax revenue, sales taxes provide modest revenue diversity, and so are important in providing some bulwark against changes in property values for local governments.

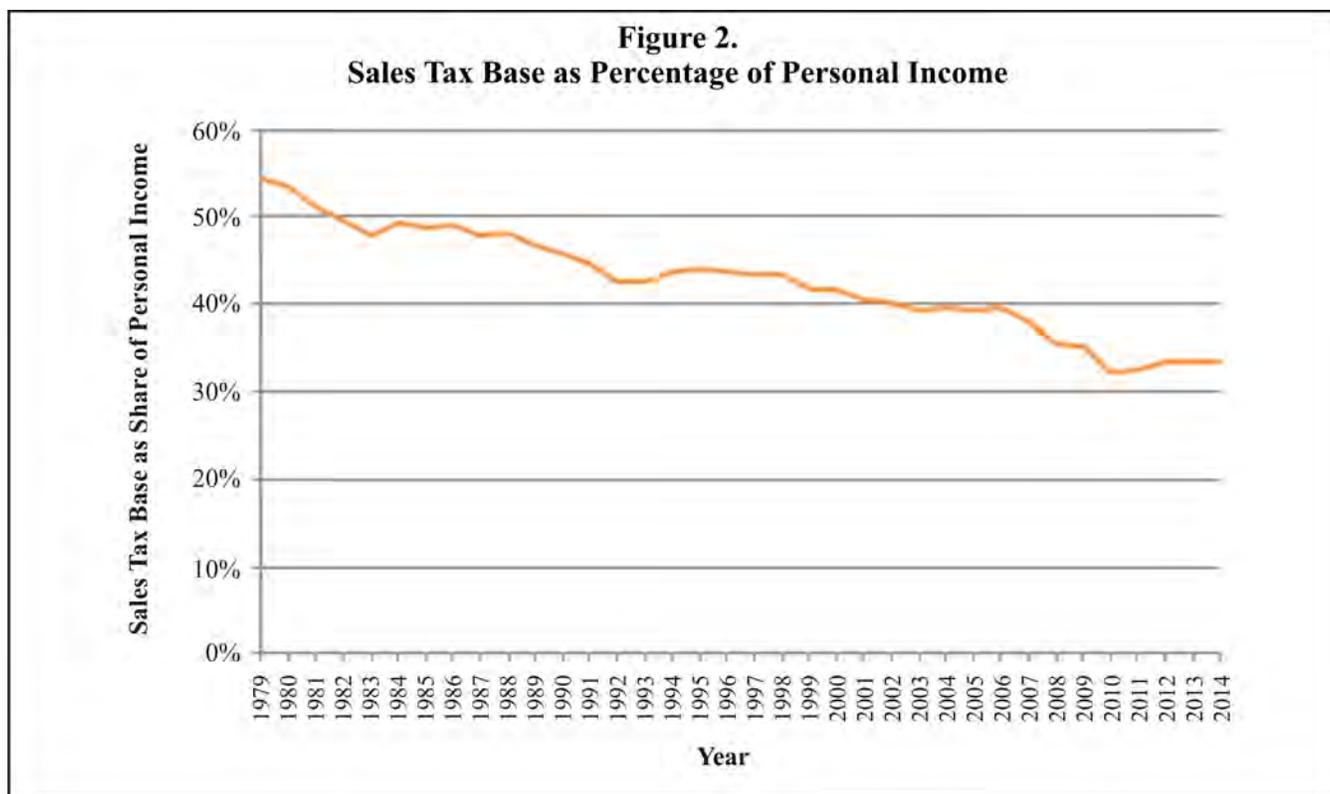
⁹ Liran Einav et al., "Sales Taxes and Internet Commerce," 104(1) *Am. Econ. Rev.* 1-26 (2014).

¹⁰ Brian Baugh, Itzhak Ben-David, and Hoonsuk Park, "The Amazon Tax: Empirical Evidence From Amazon and Main Street Retailers," *J. Fin.* (forthcoming).

¹¹ Glenn Ellison, and Sara Fisher Ellison, "Tax Sensitivity and Home State Preferences in Internet Purchasing," 1 *Amer. Econ. J.: Econ. Pol'y* 53-71 (2009).

¹² See, e.g., *DMA v. Brohl*, (Kennedy, J. concurring) citing California State Board of Equalization, Revenue Estimate: Electronic Commerce and Mail Order Sales, Rev. 8/13, at 7 (2013) (Table 3).

¹³ Data reported here are based on author calculations using information obtained from <https://www.census.gov/govs/statetax/> on Sept. 15, 2017.



Second, state and local governments finance the bulk of state and local services exclusively from self-generated revenue. The federal government provided 22.5 percent of the general financing for state and local governments in 2014-2015, and state and local governments generated the remaining 77.5 percent themselves.¹⁴ Much of the federal financing focuses on transfer programs, such as Medicaid and Supplemental Nutrition Assistance Program, and is not available for general service provision, making state and local governments even more responsible for most public service delivery.

Reductions in sales taxes because of inability to collect liabilities thus create a significant problem for financing key services. The actual sales tax base (as opposed to the statutory sales tax base) has eroded from 53.2 percent of personal income in 1979 to 33.3 percent in 2014 (Figure 2). Base erosion has caused the sales tax to diminish

from providing 33.3 percent of total state tax collections in 1995 to 31.5 percent in 2016 (despite a series of sales tax rate increases). Even more important, state sales tax revenue was 1.77 percent of GDP in 1996, and had declined to 1.61 percent by 2014-2015. Thus, sales tax revenue was nearly *\$30 billion lower* compared with the economy than in 1996. Inability to collect sales taxes on remote sales is one important reason for erosion of the actual sales tax base.

States have responded to those base declines with higher tax rates. The median rate rose from 4 percent in 1980 to 5 percent in 1990 to 6 percent today,¹⁵ but even that has been insufficient to maintain sales tax revenue as a share of the economy or of tax revenue. The overall policy trend to narrower tax bases and higher tax rates expands the perverse effects of the tax and runs counter to common advice on good tax policy, which is to tax consumption broadly at low tax

¹⁴ General revenue excludes utility revenue, liquor store revenue, and insurance trust revenue. The federal share of financing would be even lower if those were in the calculations. Data reported here are based on author calculations using information obtained from <https://www.census.gov/govs/local/> on Sept. 15, 2017.

¹⁵ Today, at least 25 states levy a state sales tax rate of 6 percent or above. See <https://www.taxadmin.org/assets/docs/Research/Rates/sales.pdf>. Also, local governments in 38 states impose sales taxes, with Louisiana having the highest combined state and local sales tax rate of 9.98 percent. See <https://taxfoundation.org/publications/facts-and-figures/>.

rates. As explained above, greater incentives to evade the tax by purchasing from out of state are one outcome of the recent trend toward higher rates and narrower bases that creates a downward spiral in the tax base.

As one would expect from those observations, all available data suggest that the losses to state and local revenue caused by the *Quill* rule are large and growing. In his recent opinion, Justice Anthony M. Kennedy cited research from Bruce, Fox, and Luna (2009)¹⁶ estimating the loss to Colorado at \$170 million in 2012. The nationwide annual losses we estimated for 2012 in this study were *more than \$11 billion* for e-commerce alone.

An updated paper that Bruce, Fox, and Luna coauthored in 2012 forecast the expected sales tax losses in 2015, given the ever-growing role of e-commerce in the economy. About \$68.8 billion in state and local sales taxes was expected to be due on those e-commerce sales, of which most will be collected either because the vendor has nexus or the buyer remits use tax. Still, *\$17.4 billion was estimated to go uncollected*, a massive increase from the \$11.4 billion we had earlier anticipated for 2012.¹⁷ That research anticipates that the revenue losses are growing relatively fast as e-commerce sales expand so rapidly. Moreover, the revenue losses we estimated pertain only to e-commerce and do not include revenue losses associated with other forms of remote commerce, such as business-to-business and business-to-consumer mail-order purchases.

An example from one state is instructive. Bruce, Fox, and Luna (2009) estimated the state and local sales tax loss in Tennessee attributable to e-commerce at \$410 million. Tennessee is a relatively small state, but the size of that loss reflects the fact that Tennessee has no personal income tax and instead relies very heavily on its sales tax revenue to fund state and local services. The revenue loss associated with e-commerce alone is several percentage points of the entire state budget: The Census Bureau reports that total Tennessee state tax revenue for 2012 was \$11.4 billion; a \$410 million loss from *Quill* and e-commerce is 3.5 percent of all state tax revenue. Compare that effect with Massachusetts, where the loss was estimated as

\$131 million, out of \$22.8 billion in total state revenue, for a loss of 0.6 percent. The latter is still extremely costly for the state, but the comparison demonstrates just how serious an effect *Quill* is having on some states in light of the explosion in e-commerce since that decision.

If they were prepared today, the loss estimates would be affected by several factors that are changing in that rapidly evolving sector of the economy. First, our loss estimates through 2015 were purposely based on a conservative forecast for e-commerce sales, which relied on the most recent known U.S. Census Bureau data at the time (which was 2009 sales). Our estimate for total e-commerce sales in 2015 was \$5.6 trillion, which is about \$100 billion lower than the now known 2015 Census data for e-commerce, despite the significant reduction in e-commerce associated with manufacturing of oil and coal products noted above. The Bruce, Fox, and Luna estimates were particularly low for business-to-consumer e-commerce, which has much more implications for sales tax revenue. New revenue loss estimates would be greater with the higher e-commerce sales that are taking place.

Second, the business-to-consumer share of e-commerce is much greater than anticipated by Bruce, Fox, and Luna. The shifting shares have happened in part because more business-to-consumer sales are captured as the Census Bureau improves its data on e-commerce, especially as they pertain to services provided over the internet. The 2015 Census e-commerce data suggest that 84.4 percent of e-commerce is business-to-business transactions and the remaining 15.6 percent is business-to-consumer sales. Bruce, Fox, and Luna assumed 9.1 percent business-to-consumer sales. The difference is important because the business-to-consumer sales are *more likely* to be taxable under the sales tax and *less likely* to have use tax compliance.

One offsetting effect is that, relative to the estimates used in our previous research, e-commerce vendors today are probably more likely to have nexus in the destination state and so be required to collect sales taxes, even under *Quill*. That effect is traceable in large part to legal changes in the states expanding their definitions of physical presence to require collection when sellers are quite marginally “present” through a sales affiliate or the like along with Amazon’s expanded presence and

¹⁶ *Supra* note 8.

¹⁷ Bruce, Fox, and Luna (2012), *supra* note 8.

decision to collect sales tax on its own sales in all states. To be sure, that factor would tend to reduce e-commerce sales tax losses, though about one-half of sales transacted on the Amazon website are made for other vendors. But — when combined with the other factors described above — e-commerce losses are at least as large as previously estimated. Moreover, using that offsetting effect as an economic defense of the *Quill* rule is quite ironic; it amounts to saying that the rule is less problematic insofar (and only insofar) as the states can effectively subvert or work around it by trivializing the physical presence it requires.

Effects on State and Local Service Provision

State and local governments deliver almost all public services that affect people's daily lives and provide the basis for a strong economy. State and local governments produce or finance much of K-12 and public higher education; build interstate and state highways and local roads; provide intracity transportation; provide or regulate utility services, including water, sewer, electricity, solid waste removal, and others; and deliver safety services such as police and fire protection and emergency preparedness. State and local governments also deliver or assist with many healthcare services, including clinics, hospitals, and others, and are thus a major source of economic infrastructure.

State and local governments generally balance their budgets and must spend less as a result of the sales tax revenue losses, which combined represent more than 4 percent of expected sales tax revenue in the average state in 2015. Again, the effect can be much more profound in states that are heavily dependent on the sales tax. There is no way to know exactly how that affects state and local government decisions on where to spend, and no studies determine how state and local governments respond to the revenue losses associated with erosion of the sales tax base, but reasonable extrapolations can be made about how they may behave.

States could maintain revenue through additional sales (or other) tax rate increases. As noted above, rate increases have been frequent over past decades but insufficient to offset the tax revenue decline as a share of GDP. It seems very unlikely that rate increases will accelerate in the future (indeed, the propensity for higher rates has

slowed over the past 15 years) so relative revenue will probably decline.

Alternatively, states may lessen expenditures to keep budgets balanced. Lower expenditures are good policy if state and local governments are too large, but reducing tax rates rather than gradual erosion of the sales tax base is a better approach to create smaller government given the distortionary effects of narrow tax bases discussed above. Some options for lower state and local expenditures are likely to reduce economic output in states and the United States as a whole. Reductions in expenditures for important infrastructure, such as roads, utilities, and education, can decrease economic growth. Investments in those forms of productive capital are key drivers of growth.¹⁸ The International Monetary Fund (2014) recently determined that infrastructure investments are highly productive in advanced economies.¹⁹ For example, increasing public investments by 1 percent of GDP is estimated to raise economic output by 2 percent in some circumstances.²⁰ So, a pattern of reduced infrastructure spending as a result of decreased revenue translates into a smaller economy. Data on actual expenditures suggest that infrastructure spending has been declining over the past several decades;²¹ capital spending by state and local governments in fiscal 2013-2015 represented the smallest shares of their direct expenditures since at least 1992.²²

Reducing public services by hiring fewer state and local government workers in education, fire and police protection, and other public services is another option as sales tax revenue slowly diminishes relative to the economy. Employment is one way to characterize delivery of those services. State employment rose 1.1 percent compounded annually from 1990 to 2000 and then

¹⁸ For discussion of the relationship between infrastructure and economic production, see "World Development Report 1994: Infrastructure for Development," World Bank (1994).

¹⁹ International Monetary Fund, "Is It Time for an Infrastructure Push? The Macroeconomic Effects of Public Investment," *World Economic Outlook: Legacies, Clouds, and Uncertainties*, Chapter 3, at 75-114 (Oct. 2014).

²⁰ Effects on output depend on whether funds are borrowed or paid for with taxes and the specific macroeconomic environment.

²¹ Those relationships may not be causal and could only reflect correlations.

²² Based on author calculations using data obtained from <https://www.census.gov/govs/local/> on Sept. 15, 2017.

only 0.4 percent from 2000 to 2016²³ as the sales tax was most affected by growing e-commerce.²⁴ State government employment has fallen at a 0.2 percent annual rate since 2010. Similar patterns have happened in local governments, though the growth in earlier years was slightly higher and the declines in the last six years slightly smaller. Education has experienced much of the slowdown in local government employment, but has seen less at the state level than at the local level. That may reflect the greater access that state higher education has to alternative revenue sources, such as tuition, while local governments mostly produce K-12 education where tuition and other current charges are less important.

There are three key “bottom line” conclusions associated with those findings. First, lower sales tax revenue has correlated with a decline in state and local services and infrastructure investment, which shows that *Quill* and e-commerce growth may be directly lowering local welfare. Second, those effects can “multiply” because of the recognized benefits that infrastructure and service investment has on economic growth: With less public investment, the local economy erodes, and tax revenue falls further as a result. Finally, that multiplier effect can become even more serious because economic declines (like losses in state government employment, or even employment more generally) can affect other tax bases like the personal income tax or property taxes, as state and local governments lay off local workers — or fail to hire new ones — to address the revenue shortfall.

In sum, states are losing a large amount of revenue because of the way *Quill* operates on the expanding e-commerce market, at a time when they can ill-afford that loss, and in a way that may be self-reinforcing. That is particularly so because, as explained above, diversion of business to e-commerce can itself draw jobs and economic investment away from Main Street in some local economies, even leaving aside the effects associated with falling state and local tax revenue. And while those dynamic effects are hard to estimate, they

undoubtedly contribute to ongoing budgetary suffering in countless states.

Conclusion

The overall conclusion is that tax losses associated with the *Quill* rule, particularly in states with heavy sales tax reliance, are an extremely important problem for the states. The estimated revenue losses are quite large and steadily growing. And those estimates already exclude the substantial impact of probable “dynamic” effects that make them worse. Those dynamic effects themselves involve economic contractions that reduce well-being in the states and localities at issue — in other words, the citizens of those jurisdictions, and the jurisdictions themselves, are harmed because (compared with a universe without the *Quill* rule) government services are down, the local economy has shrunk, and the follow-on effects on revenue collections can cause further contraction. The problem would be less serious if many states did not already face severe structural budgetary shortfalls, but the reality is that states increasingly need an effective and broad tax base to balance their books.

In conclusion, the harms on the states from the inability to enforce sales tax collection obligations on remote sellers are quite serious, growing, and likely to continue growing as e-commerce takes on a larger and larger share of the retail economy. The scope of the current problem is far greater than at the time of *Quill*, almost incomparable to the scope of the issue at the time of *Bellas Hess*, and likely to become more serious with the further passage of time.

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²³ Those relationships may not be causal and only reflect correlations.

²⁴ Based on author calculations using Bureau of Labor Statistics data obtained on Sept. 15, 2017. See <https://www.bls.gov/data/>.