

No. 92
June 2011

MERCATUS ON POLICY

THE CASE AGAINST TAXING CELL PHONE SUBSCRIBERS

By Daniel M. Rothschild



MERCATUS CENTER
George Mason University

FEDERAL, STATE, AND many local governments tax cell phone subscribers at a variety of rates that almost always exceed tax rates on other goods and services. In some states, consumers now pay as much as a quarter of their total cell phone service bills to government entities.¹ And some local governments are aggressively increasing taxes and fees.²

There is no economic justification for these high tax rates: reducing cell phone ownership is not a public policy goal, cell phone use by one customer does not affect other customers or other people, and these taxes fall disproportionately on lower-income households. Governments at all levels should bring cell phone taxes in line with taxes on similar goods and services and avoid discriminatory taxes on new and emerging wireless communication products.

THE STATE OF CELL PHONE TAXES

BOTH THE FEDERAL and state governments, as well as many county and local governments, levy taxes on cell phone plans, and the providers almost always pass these fees on to users. On the federal level, one fee the government levies on telecom providers finances the Universal Service Fund (USF). The USF subsidizes telecom services for low-income households, schools and libraries, and in high-cost areas. The USF rate changes quarterly; it is currently 14.9 percent of interstate end-user revenues.³ Wireless customers pay a fraction of this amount—currently 5.5 percent of a bill's voice charges.⁴

State and local taxes vary widely in form and rate. The population weighted average combined state and local tax rate is 11.21 percent, ranging from a low of 1.81 percent in Oregon to a high of 18.64 percent in Nebraska.⁵ While many wireless subscriber taxes are *ad valorem* taxes (that is, they are calculated as a percentage of the bill), others are excise or specific duty taxes that levy a flat fee on each active cell phone line. Examples include Virginia's 75 cent E-911 fee and Baltimore's \$4 per line fee.⁶ Some of these taxes fund specific services, such as 911 assistance or poison control centers; others go to general funds.

FIGURE 1: WIRELESS TAXES COMPARED TO OTHER SALES AND EXCISE TAXES⁷

| | Federal Tax Rate | Unweighted Average State and Local Tax Rate | Average Combined Rate |
|-------------------|----------------------|---|-----------------------|
| Cellular Phones | 5.5% (voice only) | 9.9% | 15.4% |
| Gasoline | 6.6% | 10.7% | 17.3% |
| Beer | 1.8% | 7.4% | 9.2% |
| Cigarettes | 29.4% | 42.6% | 72.1% |
| General Sales Tax | 0.0% | 6.83% | 6.83% |

Source: See endnote 7

Wireless taxes are particularly excessive compared with many other federal and state excise taxes (see figure 1). Wireless subscriber taxes are on par with gasoline taxes, and the national median rate imposed on wireless bills is more than twice the national median rate imposed on general sales.

WHY CELL PHONE TAXES ARE BAD POLICY

CELL PHONE-SPECIFIC TAXES are bad policy for several reasons. First, they violate the well-established principle of tax neutrality, which holds that taxes should treat all economic activities equally so that the relative consumption of goods and services is not affected by taxes. The purpose of taxation is to raise revenues for government functions, but taxes levied on particular types of economic activity, such as cell phone use, impact consumer behavior. Cell phone taxes cause consumers who want cell phone service to lose value as they will end up consuming less. This means that these special taxes on cell phone subscribers are an inefficient way for governments to raise funds.⁸

Some economists recommend tweaking the principle of tax neutrality through the Ramsey Rule, which in essence holds that it is better to tax goods that consumers tend to buy even when prices are increased (that is, goods that are demand inelastic) because these taxes have the least impact on consumer behavior. Econometric evidence suggests that wireless phone service is elastic; that is, as prices go up, the quantity demanded will decrease.⁹ The growth in prepaid wireless, where per month costs are typically lower than in postpaid plans, is further evidence of consumers' sensitivity to prices.¹⁰ And in a 2010 survey by the Pew Research Center, only 47 percent of Americans said that a cell phone is a "necessity," ranking it below the clothes dryer and home computer.¹¹

The only other possible economic justification for taxing wireless subscribers at the rates that most states do is to intentionally reduce the number of consumers with cell phones. There are two economic justifications for a tax that reduces consumption: sin taxes, which are enacted specifically to discourage behavior that policy makers deem "sinful";¹² and Pigouvian taxes, which are intended to address negative externalities like air pollution. No serious case can be made for taxing wireless service either from a sin or a Pigouvian framework.¹³

Second, cell phone taxes are regressive and disproportionately affect lower-income users. While states may have enacted wireless taxes when cell phones were luxury goods owned only by the wealthy, today cell phone ownership is widespread. The number of cell phones in use in the United States has almost tripled since 2000.¹⁴ Cellular phones are fast replacing traditional landlines; in 2009, 24.5 percent of households had only cell phones, and an additional 14.3 percent had landlines but did most or all of their calling on cell phones.¹⁵ Moreover, poor households are almost twice as likely as non-poor households to have only cell phones.¹⁶ Consumers now spend more money monthly on cell phone service than on residential landlines.¹⁷

Congress has also made expanding access to broadband Internet service a policy priority.¹⁸ But taxing wireless voice products, which are frequently tied to Internet access, runs counter to this policy goal. In May 2010, 40 percent of cell phone users reported using cell phones to go online.¹⁹ Eighteen percent of African Americans and 16 percent of English-speaking Hispanics reported only having access to the Internet through their cell phones, compared with 10 percent of whites; more than half of African Americans use their phones to access the Internet.²⁰

In short, cell phones have deeply penetrated American markets, but users are still sensitive to price changes. And cell phones are not merely phones, but access points for wireless broadband Internet, the expansion of which is a stated public policy goal. Taxing cell phone users, then, is a deeply flawed policy from the standpoints of both efficiency and equity, and it runs afoul of other policy priorities.

POLICY IMPLICATIONS

BECAUSE TAXES ON cell phone subscribers are economically inefficient, states should move quickly to reduce or eliminate excise and other special taxes on cell phones. States should embrace the principle of tax neutrality and levy rates on cell phone plans that are equivalent to similar service subscriptions, such as gym memberships or newspaper subscriptions. In many states, this will mean eliminating wireless taxes altogether.

States should also resist the temptation to tax innovations in non-voice wireless telephony, such as text messaging and Internet services on cell phones, wireless broadband access cards, tablets, and e-book readers connected to cellular networks. While these products do not allow traditional voice calls, they typically do have phone numbers and could be subject to taxes. Such taxes would be inefficient, discriminatory, and inequitable, not to mention detrimental to infrastructure investment and consumer take-up.

Additionally, the federal government should examine ways to phase out the USF charges levied on cell phone customers. The USF was started in the 1990s to help connect rural areas and poor households with a phone network that was still largely landline-based. Today, only about 14 percent of its funds go to low-income programs; a majority of USF funds support high-cost (that is, rural) subscribers, and high-cost service subsidies are notoriously inefficient.²¹ There is little evidence that the USF achieves its stated goals; to the extent that it does, it is still economically inefficient.²²

Congress and the FCC should either make the USF more efficient or fund the USF with revenues with less deadweight loss. For instance, MIT economist Jerry Hausman suggests that revenues from spectrum auctions could be used to advance policy priorities relating to increased broadband Internet access.²³

The best way to increase access to cellular telephony is to lower prices, and eliminating the USF fee on cellular phones is one easy way to do that. Taxing something in order to get more of it defies economic logic.

To the extent that policy makers want to subsidize telephone service to low-income and rural households and to schools and libraries—the current objectives of the USF—they can

and should do that through general revenues, not earmarked fees. Additionally, there is little economic logic to funding, for instance, poison control centers through excise taxes, since cell phone ownership does not encourage the poisoning of third parties.

The world of wireless telephony is fast-growing and dynamic, but consumers remain price sensitive. Cell phone taxes lack any economic rationale and are counterproductive to other policy goals. State and federal policy makers should aggressively seek to reduce the tax burden on cell phone users and absolutely avoid creating any new taxes, fees, or charges on emerging communications products.

Such taxes would be inefficient, discriminatory, and inequitable, not to mention detrimental to infrastructure investment and consumer take-up.

ENDNOTES

1. The charges paid by users have a variety of names, including taxes, fees, charges, and surcharges. I refer to them collectively as taxes for simplicity's sake.
2. Scott Mackey, "A Growing Burden: Taxes and Fees on Wireless Service," *State Tax Notes* 14 (February 2011): 477.
3. Federal Communications Commission (FCC), *Contribution Factor and Quarterly Filings* (Washington, DC: FCC, March 16, 2011), <http://www.fcc.gov/omd/contribution-factor.html>.
4. Mackey, "A Growing Burden."
5. Ibid. See also FCC, Telecommunications Reporting Worksheet, FCC Form 499-Q, April 2010, <http://www.fcc.gov/Forms/Form499-Q/499q.pdf>.
6. Virginia Joint Commission on Technology and Science (VJCTS), *E-911 and the Wireless E-911 Fund*, Technology Policy Brief (Richmond, VA: VJCTS, April 2009), <http://jcots.state.va.us/2009%20Content/Materials/Policy%20Briefs/PolicyBrief%20E-911.pdf>; Joseph Henchman, *States Target Cell Phones for Stealth, Burdensome Taxes*, Tax Foundation Fiscal Fact No. 259 (Washington, DC: Tax Foundation, February 11, 2011), <http://www.taxfoundation.org/files/ff259.pdf>.
7. Sources and notes:
 - Federal and state wireless taxes: Mackey, "A Growing Burden." Note that these are unweighted figures, which are lower than population-weighted figures.
 - Federal and state gasoline taxes: Author's calculation based on \$2.78 price per gallon of gas—the 2010 average according to U.S. Energy Information

Administration (EIA), *Short-Term Energy and Summer Fuels Outlook* (Washington, DC: EIA, April 12, 2011), <http://www.eia.doe.gov/steo/>. Data on rates from American Petroleum Institute, *May 2011 Notes to State Motor Fuel Excise Tax Report*, (Washington, DC: American Petroleum Institute, May 2011), http://www.api.org/statistics/fueltaxes/upload/State_Motor_Fuel_Excise_Tax_Update_05_2011.pdf. As gasoline prices rise, these rates will decrease because both federal and state gasoline taxes are assessed on a per-gallon basis rather than as a percentage of the retail price.

- Federal and state beer taxes: State and local tax is the median unweighted state and local sales tax rate as calculated by Kail Padgett, *Updated State and Local Option Sales Tax*, Tax Foundation Fiscal Fact No. 196 (Washington, DC: Tax Foundation, October 2009), <http://www.taxfoundation.org/research/show/25395.html>, plus the average state and local excise tax on beer from the Federation of Tax Administrators, *State Tax Rates on Beer* (Washington, DC, January 1, 2010), <http://www.taxadmin.org/fta/rate/beer.pdf>, as calculated by the author based on an arbitrarily assumed retail price of \$32 per gallon. Federal rates come from the Alcohol and Tobacco Tax and Trade Bureau, "Tax and Fee Rate," http://www.ttb.gov/tax_audit/atftaxes.shtml.

- Federal and state cigarette taxes: State and local tax is the average as calculated by Campaign for Tobacco-Free Kids, *State Cigarette Excise Tax Rates and Rankings* (Washington, DC: Campaign for Tobacco-Free Kids, August 3, 2010), <http://www.tobaccofreekids.org/research/factsheets/pdf/0097.pdf>. Federal excise tax information comes from the National Conference of State Legislatures (NCSL), *State Cigarette Excise Taxes: 2010* (Washington, DC: NCSL, July 1, 2010), <http://www.ncsl.org/default.aspx?tabid=14349>. Calculations assume a wholesale cost of \$3.40 for a pack of cigarettes, as per Centers for Disease Control and Prevention (CDC), *State Cigarette Minimum Price Laws – United States, 2009* (Atlanta: CDC, April 9, 2010), <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5913a2.htm>.

- General sales tax: see *Tax Foundation, Combined State & Local Sales Tax Rates (As of January 1, 2011)* (Washington, DC: Tax Foundation, February 24, 2011), <http://www.taxfoundation.org/taxdata/show/26269.html>. This figure includes states without sales taxes, as well as local sales taxes as weighted and calculated by the Tax Foundation.

8. Allan T. Inghram and J. Gregory Sidak, "Do States Tax Wireless Services Inefficiently? Evidence from the Price Elasticity of Demand," *Virginia Tax Review* 24, no. 2 (Fall 2004). On tax neutrality and efficiency more broadly, see chapter 13 in Harvey S. Rosen, *Public Finance*, 6th ed. (Boston: McGraw Hill Irwin, 2002).

9. Jerry Hausman, "Efficiency Effects on the U.S. Economy from Wireless Taxation," *National Tax Journal* 53, no. 3 (September 2000).

10. Mackey, "A Growing Burden," 479.

11. Paul Taylor and Wendy Wang, *The Fading Glory of the Television and Telephone* (Washington, DC: Pew Research Center, August 19, 2010).

12. Richard Williams and Katelyn Christ, "Taxing Sin," *Mercatus on Policy* 55 (Arlington, VA: Mercatus Center at George Mason University, July 2009).

13. The social harms that some people associate with cell phones, such as increased traffic accidents due to distracted drivers, are seldom harms associated with cell phones directly. Rather, they are harms due to bad behavior. The fact that Maxwell used a silver hammer to murder several innocent people does not create a case for a Pigouvian hammer tax. The Beatles, "Maxwell's Silver Hammer," Abbey Road (London: Apple Records, 1969).

14. CTIA: The Wireless Association, *Semi-Annual Wireless Industry Survey* (Washington, DC: CTIA, 2011).

15. Stephen J. Blumberg and Julian V. Luke, *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July–December 2009* (Hyattsville, MD: National Center for Health Statistics, May 2010).

16. *Ibid.*

17. Bureau of Labor Statistics (BLS), *Spending on Cell Phone Services Has Exceeded Spending on Residential Phone Services*, Consumer Expenditure Survey (Washington, DC: BLS, January 14, 2009), <http://www.bls.gov/cex/cellphones2007.htm>.

18. Federal Communications Commission, "National Broadband Plan," <http://www.broadband.gov/plan/>.

19. Aaron Smith, "Mobile Access 2010," Pew Internet and American Life Project (Washington, DC: Pew Research Center, July 2010), <http://pewinternet.org/Reports/2010/Mobile-Access-2010.aspx>, 7.

20. *Ibid.*, 10.

21. Scott Wallsten, *The Universal Service Fund: What Do High-Cost Subsidies Subsidize?* (Washington, DC: Technology Policy Institute, February 24, 2011), http://www.heartland.org/custom/semod_policybot/pdf/29434.pdf.

22. Jerry Ellig, "Costs and Consequences of Federal Telecommunications Regulations," *Federal Communications Law Journal* 58, no. 1 (January 2006).

23. Jerry Hausman, "Taxation by Telecommunications Regulation," *Tax Policy and the Economy* 12 (January 1998): 29–48, <http://www.nber.org/chapters/c10912.pdf>.

The Mercatus Center at George Mason University is a research, education, and outreach organization that works with scholars, policy experts, and government officials to connect academic learning and real-world practice.

The mission of Mercatus is to promote sound interdisciplinary research and application in the humane sciences that integrates theory and practice to produce solutions that advance in a sustainable way a free, prosperous, and civil society.

Daniel Rothschild is the managing director of the Mercatus Center's State and Local Policy Project, where he coordinates Mercatus's research on state and local economic policy and directs the Gulf Coast Recovery Project. Previously, he managed international economic development programs at the Mercatus Center.