

**A SIGNIFICANT CIGARETTE TAX RATE INCREASE IN OHIO
WOULD PRODUCE A LARGE, SUSTAINED INCREASE
IN STATE TOBACCO TAX REVENUES**

Frank J. Chaloupka

Distinguished Professor

**Department of Economics, College of Liberal Arts & Sciences
Division of Health Policy and Administration, School of Public Health**

University of Illinois at Chicago

1747 West Roosevelt Rd., Room 558

Chicago, IL 60608

312-413-2287

fjc@uic.edu

Jidong Huang

Health Policy Center

University of Illinois at Chicago

1747 West Roosevelt Rd., Room 351

Chicago, IL 60608

312-355-0195

jhuang12@uic.edu

January 27, 2015

About the Authors

Dr. Frank Chaloupka is a Distinguished Professor of Economics at the University of Illinois at Chicago's College of Liberal Arts & Sciences and its School of Public Health's Division of Health Policy and Administration. He also directs the University's Health Policy Center, is a Research Associate in the National Bureau of Economic Research's Health Economics Program and Children's Research Program. He is the Director of ImpacTeen, a research program involving nationally-recognized experts dedicated to studying youth tobacco use, other substance abuse, and other health behaviors; and he is Director of Tobacconomics, a group of economists and other policy researchers focused on the economics of tobacco and tobacco control globally. Dr. Chaloupka has written numerous studies, book chapters, and other publications that evaluate efforts to prevent and reduce tobacco use, with a special focus on the impact of cigarette and other tobacco product tax increases.

Dr. Jidong Huang is a research specialist at the Health Policy Center of the University of Illinois at Chicago working closely with Dr. Chaloupka on a variety of tobacco control policy focused analyses.

This research is supported by the National Cancer Institute of the National Institutes of Health under the State and Community Tobacco Control Initiative, grant number 5U01-CA154248. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the University of Illinois at Chicago.

A SIGNIFICANT CIGARETTE TAX INCREASE IN OHIO WOULD PRODUCE A LARGE, SUSTAINED INCREASE IN STATE TOBACCO TAX REVENUES

Frank J. Chaloupka
Distinguished Professor of Economics
University of Illinois at Chicago

Jidong Huang
Health Policy Center
University of Illinois at Chicago

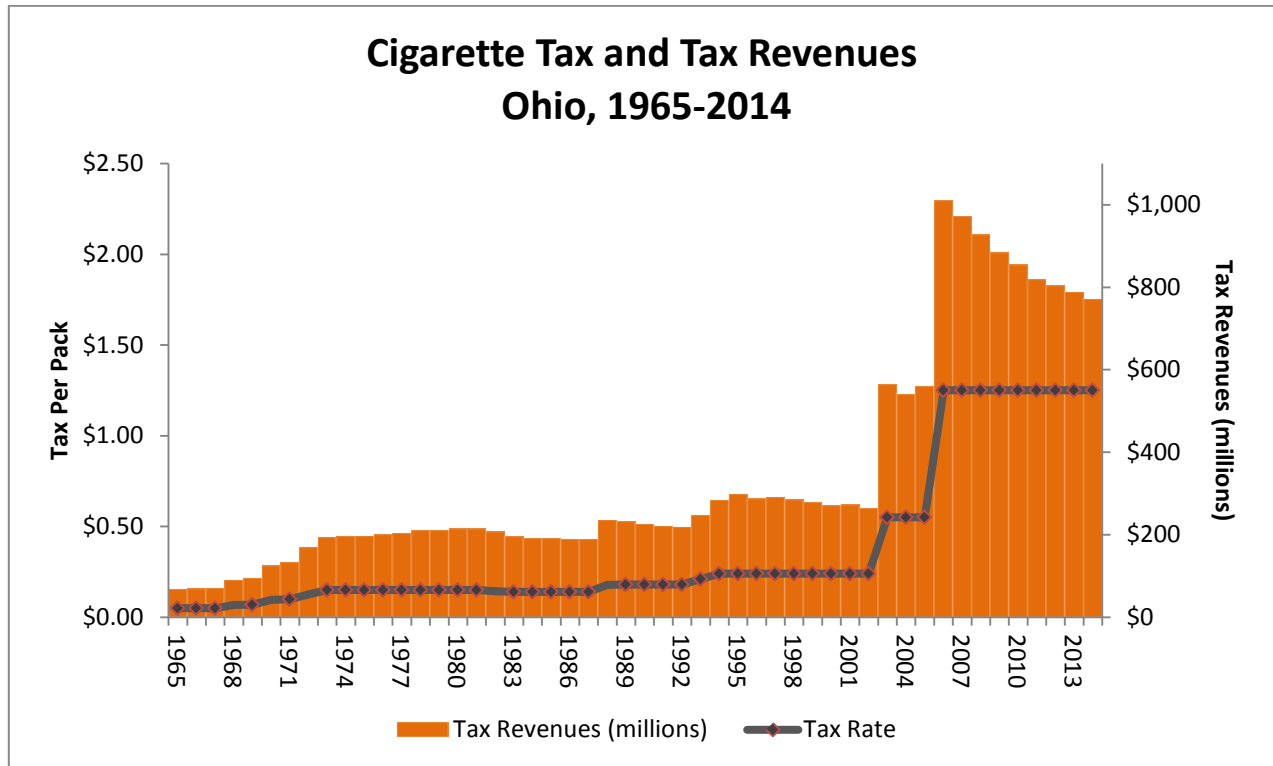
January 27, 2015

EXECUTIVE SUMMARY

State cigarette and other tobacco tax revenues are among the most predictable, steady, and reliable revenues that states receive. While these revenues do decline gradually over time as smoking and other tobacco use declines, the reductions in revenue are modest, predictable, and more than offset by the related reductions in public and private sector health care costs and other economic costs caused by smoking.

In general, state cigarette tax revenues increase sharply following a significant increase to a state's cigarette tax rates (despite the smoking declines prompted by the tax increase and any related increases in tax avoidance or evasion), and then tend to decline slowly year to year as cigarette smoking continues to go down in response to other factors (e.g. stronger public policies targeting tobacco use). However, any decline in revenues from smoking reductions will be offset by related declines in tobacco-related healthcare costs burdening the state. For instance, the Campaign for Tobacco-Free Kids and the American Cancer Society Cancer Action Network project that a \$1.00 per pack cigarette tax increase in Ohio will prevent 65,000 youth from becoming adult smokers, encourage 73,100 adults to quit, prevent 40,100 future smoking-caused deaths, and save the state \$2.67 billion in future health care costs.

As shown in the chart below, Ohio, like other states, has enjoyed substantial revenue increases each time it has raised its cigarette tax rate. Due to other factors following the last state tax increase, Ohio's cigarette tax revenues declined greater than typically expected each year. This can be explained by ongoing smoking declines in the state, fortified by the statewide smoke-free law implemented in December 2006 and by the large federal tobacco tax increases in early 2009, which significantly reduced smoking and other tobacco use nationwide. But it also appears that Ohio's revenue declines in each of the years since its last increase in 2005 were even larger because Ohio failed to raise its tax rates on all other tobacco products when it raised its cigarette tax. Because of those unequal rates, some regular cigarette smokers have likely been evading the new, higher cigarette tax rate by switching to much lower taxed roll-your-own cigarettes, little cigars and the like – and every time a regular smoker switches to some other lower-taxed tobacco product Ohio loses revenue. Setting Ohio's tobacco tax rates so that all tobacco products are taxed at parallel levels would eliminate that problem and bring in additional state revenues. The Campaign for Tobacco-Free Kids and the American Cancer Society Cancer Action Network estimates that raising Ohio's low 17 percent wholesale price tax rate on other tobacco products to parallel a new \$2.25 per pack cigarette tax rate would bring in another \$93 million per year in new state revenues.



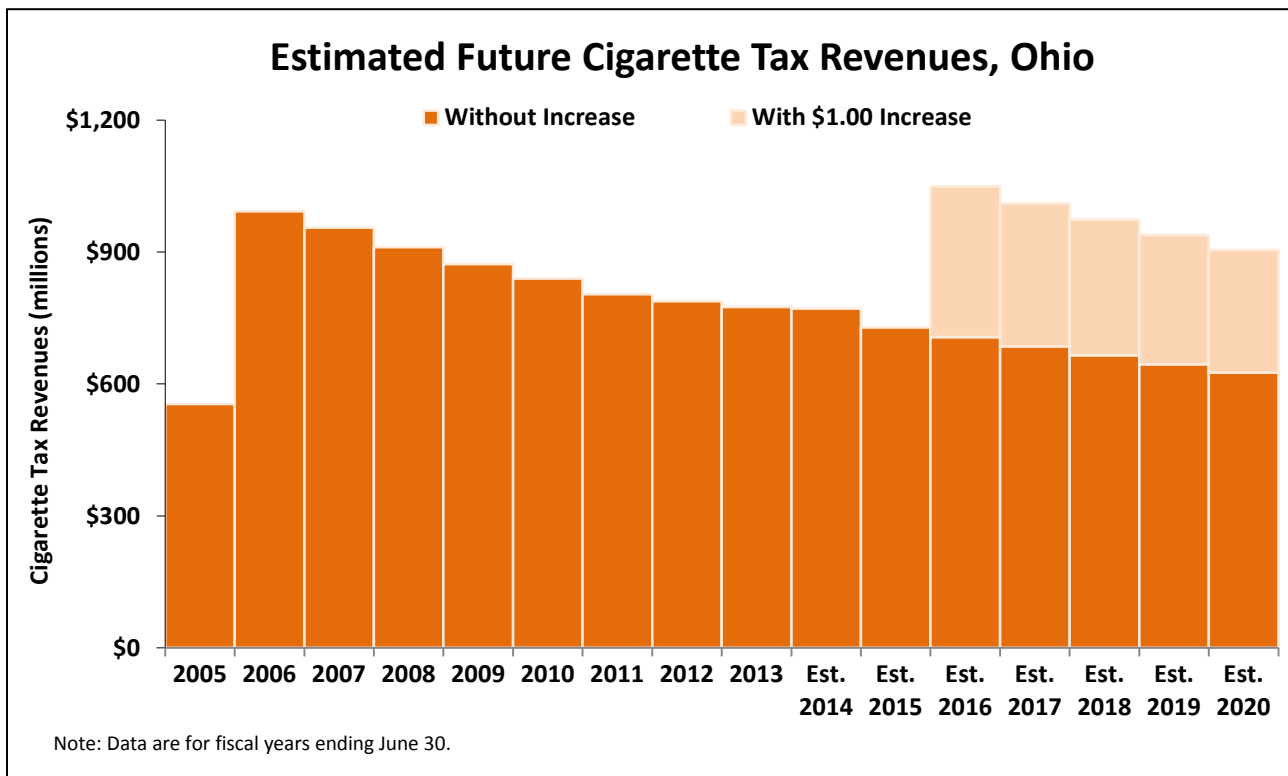
Note: Data are for fiscal years ending June 30.

In addition to increasing its cigarette tax rate and creating tax equity among all tobacco products, there are a number of steps that Ohio could take to protect or even increase its tobacco tax revenues over time. For example, Ohio could implement high-tech tax stamps to ensure that taxes are paid and to prevent cigarette smuggling and tax evasion. States can also minimize tobacco product smuggling and other tax evasion through such measures as making sure smokers understand the state’s laws pertaining to tobacco tax evasion, increasing penalties for smuggling and other tax evasion, and directing a portion of all penalties to help fund expanded enforcement (which would bring in both more penalty payments and more tobacco tax revenues).

Despite the declines, Ohio is still receiving additional new cigarette tax revenues in excess of \$200 million per year compared to what it received right before it last increased its cigarette tax rate. That same basic pattern, with large amounts of new state revenues in every future year, would occur again if Ohio increased its cigarette tax rate significantly in 2015 – and the new revenues would be even larger if Ohio also equalized all its tobacco product tax rates at the same time.

The chart shows what the Campaign for Tobacco-Free Kids projects that the \$1.00 per pack increase would generate in new cigarette tax revenues over each of the next five years. Even if Ohio’s cigarette sales declined by five percent a year after the initial \$342 million in new revenues estimated from the rate increase, the state would still be receiving more than \$275 million in additional new annual cigarette tax revenues five years after the increase compared to what it

received in 2015, and would have received more than \$1.5 billion in total new annual revenues over that five year period compared to what it would receive with no rate increase.



A SIGNIFICANT CIGARETTE TAX RATE INCREASE IN OHIO WOULD PRODUCE A LARGE, SUSTAINED INCREASE IN STATE TOBACCO TAX REVENUES

Every state that has passed a significant cigarette tax increase has enjoyed a substantial, sustained increase in its state cigarette tax revenues. This revenue increase occurs, despite the significant declines in smoking rates and tax-paid cigarette sales caused by the cigarette tax rate increase, because the increased tax per pack brings in much more new revenue than is lost by the declines in the number of packs sold and taxed. Exhibits A and B show many examples from actual state cigarette tax increases.

Exhibit A presents a list of significant state cigarette tax increases between 2002 and 2013 (increases of 50 cents or more per pack) and shows the amount of the tax increase, the decline in tax-paid cigarette sales, compared to the decline in sales nationally over the same time period, and the revenue change from the twelve months before the tax increase to the twelve months after the tax increase. In every state that significantly increased its tax, there were both sharp reductions in total packs sold and large increases in total net new revenues in the year following the rate increase, compared to the year before it.

Exhibit B is a short report that examines the sustainability of revenues generated from cigarette tax increases. This report considered every major cigarette tax increase (50 cents or more per pack) between 2000 and June 2009 and looked at state cigarette tax revenues before the tax increase and for at least five years following the increase, with analyses for states with and without well-funded comprehensive tobacco control programs. In every state that raised its tax during that time period, cigarette tax revenues increased significantly and remained much higher than revenues prior to the tax for many years after the tax increase.

Accordingly, Exhibits A and B provide direct evidence from actual state experiences that confirms that significant cigarette tax increases have always produced substantial amounts of new revenues (compared to what the state would have received without the increase), both immediately and over extended periods of time, and despite any and all related decreases in taxed state pack sales.

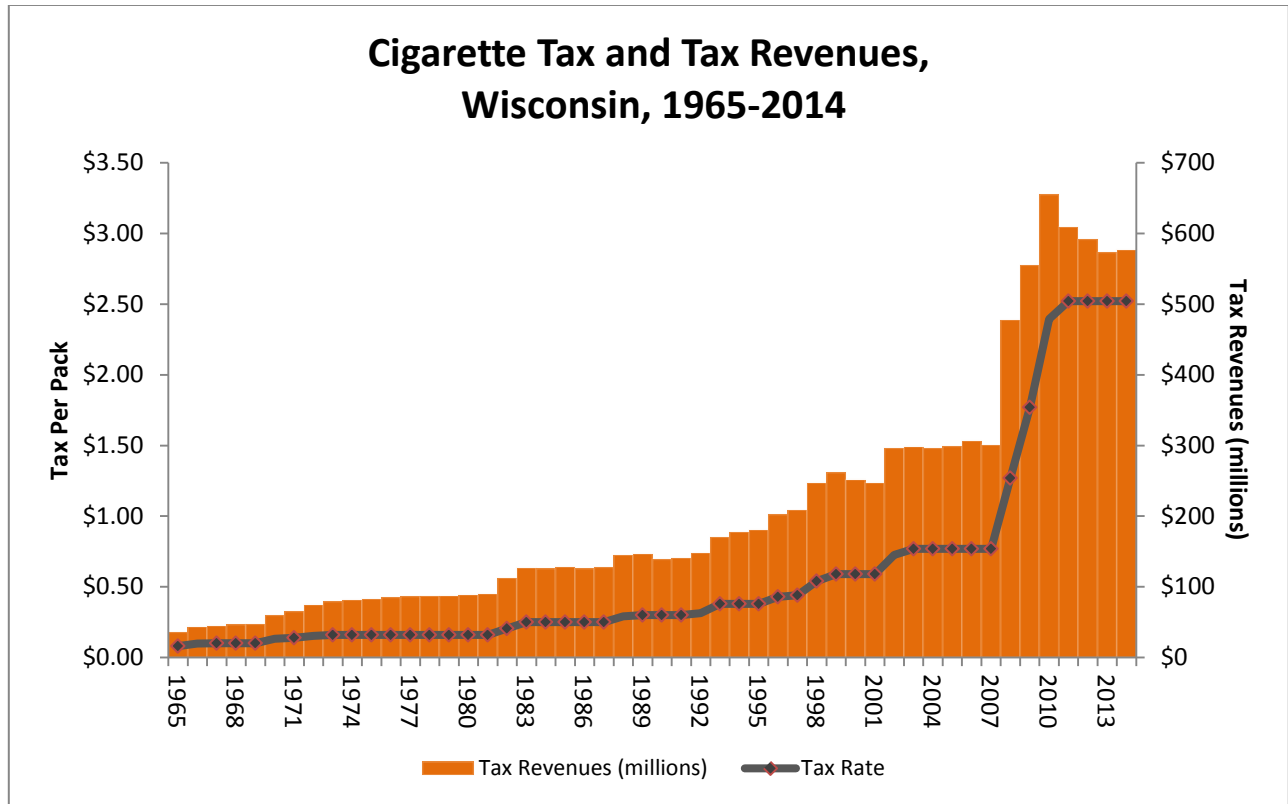
Cigarette and Other Tobacco Tax Revenues Are Much More Predictable and Stable Than Many Other State Revenues

Year to year, state cigarette and other tobacco tax revenues are more predictable and less volatile than most other state revenue sources, such as state personal income taxes or corporate income taxes, which can vary considerably from year to year because of nationwide or regional recessions or state economic slowdowns.

In contrast, sharp drops in cigarette or other tobacco tax revenues from one year to the next are rare, in large part due to the addictive nature of cigarette smoking and other tobacco use. Long term trends in tobacco use show modest declines from year to year, both nationally and at the state level. These declines can be accelerated by comprehensive tobacco prevention efforts, but will generally be no more than a few percentage points each year. The exception to this will be the large smoking declines and related cigarette tax revenue declines that result from large nationwide increases in cigarette prices, such as the large cigarette company price increases prompted by the 1998 Master Settlement Agreement and the April 1, 2009 increase in federal excise taxes on cigarettes and other

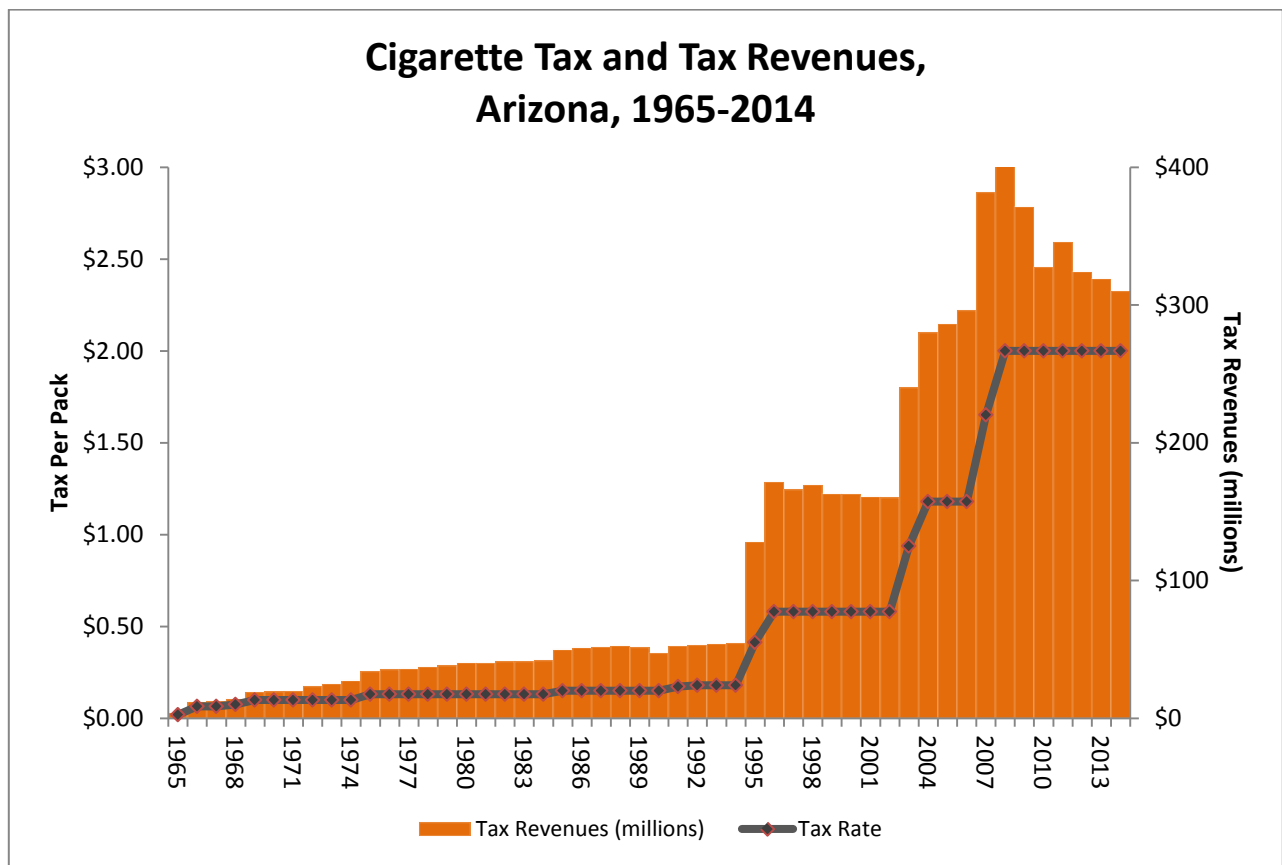
tobacco products. The only other large year-to-year changes to state cigarette tax revenues are the large revenue increases when a state significantly increases its own cigarette tax rates.

In states where taxes have been increased regularly over time, each increase in the tax leads to a significant and sustained increase in tax revenues. As shown in the figure below, for example, Wisconsin has increased its cigarette excise tax several times over the past few decades, with each increase generating new, sustained revenues.



Note: Data are for the fiscal year ending June 30.

The same pattern holds even in states where a share of the new revenues generated by the tax increase is used to fund a comprehensive tobacco control program. Arizona, for example, has increased its cigarette excise tax multiple times over the past few decades. In November 1994, Arizona voters approved the Tobacco Tax and Health Care Act that raised the cigarette tax by 40 cents per pack and dedicated a portion of the new revenues to the state’s tobacco control program. As the figure below shows, each subsequent tax increase in Arizona led to a significant and sustained increase in revenues, despite the greater declines in smoking that result from the funding for the state program.



Note: Data are for the fiscal year ending June 30.

Additional examples of the relative stability of revenues from other state cigarette tax increases in states with and without well-funded tobacco control programs are contained in Exhibit B.

Smoking Declines Produce Enormous Public and Private Sector Savings That More Than Offset Any State Revenue Reductions from Fewer Packs Being Sold

As described above, gradual reductions in cigarette smoking and other tobacco use in the years after increases in state cigarette and other tobacco taxes will produce slow declines in state tobacco tax revenues (in the absence of additional tax increases). These declines in revenues, however, will be offset by reductions in public and private spending on health care to treat diseases caused by smoking, and by the reductions in the other economic costs caused by tobacco use. Some declines in costs, such as those resulting from smoking during pregnancy, will be seen almost immediately. Over time, these reduced costs will grow considerably, given that most of the health and other consequences of tobacco use occur after many years.

When smoking rates decline among pregnant women and lower income smokers (among the groups whose smoking behavior is most sensitive to changes in tax and price), costs to state Medicaid programs subsequently decline. Decreasing smoking rates among workers will decrease public and private sector employee healthcare costs.

Increasing tobacco taxes in Ohio will raise revenue while also lowering the healthcare cost burden on the state. Each year, Ohio spends \$5.64 billion on health care costs caused by tobacco use, \$1.72

billion of which is paid by the state through the Medicaid program. A decline of one percentage point in adult smoking rates will save the state \$980 million in healthcare costs, including millions in state Medicaid costs related to tobacco use over time. And preventing kids from starting to smoke will save the state even more in health care costs.

In addition, the reductions in smoking from state cigarette and other tobacco product tax increases will produce other economic benefits for the state, including increased productivity in government and private sector workforces as fewer employees miss work because of smoking-caused sick days and cigarette breaks or have their productive work-lives interrupted or cut short by smoking-caused disability or premature death. Other economic benefits include reduced property losses from smoking-caused fires, and reduced cleaning and maintenance costs caused by smoking.

It is important to note that small rate increases or a rate increase that is split into smaller multi-stage increases would reduce the public health benefits and cost savings, and Ohio would not collect as much revenue as from a one-time, larger rate increase. This is because the tobacco industry can easily offset small increases with price cuts, coupons, and other price-reducing promotions. For instance, the Campaign for Tobacco-Free Kids and the American Cancer Society Cancer Action Network project that a \$1.00 per pack increase will prevent 65,000 youth from becoming adult smokers, encourage 73,100 adults to quit, prevent 40,100 smoking-caused deaths, and save \$2.67 billion in long-term health care costs. However, a small increase would not generate as many public health benefits or cost savings.

States Can Implement Other Effective Strategies to Maintain and Increase Their Cigarette and Other Tobacco Tax Revenues

If gradually declining state tobacco tax revenues are a concern for Ohio – despite the benefits and cost savings from the related smoking and other tobacco use declines discussed above – the state can periodically increase its tobacco tax rates to offset any declines in revenue. Alternatively, Ohio could implement legislation that allows for administrative increases in state tobacco tax rates following any significant decline in annual state tobacco tax revenues (or in total state tobacco revenues, including tobacco settlement payments).

Another important strategy is to make sure that all taxes on other tobacco products are set at rates that parallel the state's cigarette tax rate. Creating tax equity among all the tobacco tax products sold in the state will make the revenues even more reliable – Ohio will not lose revenues if tobacco users switch to tobacco products taxed at lower rates. But most states, including Ohio, have unequal rates so that the state loses revenues each time a cigarette smoker switches to smoking roll-your-own (RYO) tobacco or small cigars or starts using other cheaper and less-taxed tobacco products. But even with a comparable percentage tax rate for other tobacco products, some lower priced tobacco products will be taxed at a much lower level compared to cigarettes on a per-use or per-package basis.

- > RYO cigarettes, for example, are much cheaper than manufactured cigarettes; and most state percentage-of-price tax rates subject them to much lower taxes, per pack, than manufactured cigarettes. That tax inequity could be fixed by taxing a cigarette pack's worth of RYO tobacco (0.65 ounces) at the same tax rate as a regular pack of cigarettes as a minimum tax to complement the percentage-of-price basic rate.

- > Similarly, the tax-equity minimum tax on a standard 1.2 ounce can of smokeless tobacco would be an amount equal to the state tax on a pack of 20 cigarettes.

A similar cigarette pack tax amount tax could be placed on standard five-packs of cigarillos, blunts and other small cigars. But the big tax revenue loser for states in relation to cigars usually comes from cigarettes being packaged and sold as “little cigars” to escape the state’s higher tax on cigarettes. That problem can be eliminated by amending the state law “cigarette” definitions to reach any and all cigarettes, no matter how they are labeled or packaged (without reaching any bona fide cigars). One way to do that would be to add the following phrase to the existing “cigarette” definitions: “and includes any other roll for smoking containing tobacco that weighs no more than four and a half pounds per thousand, unless it is wrapped in whole tobacco leaf and does not have a filter.”

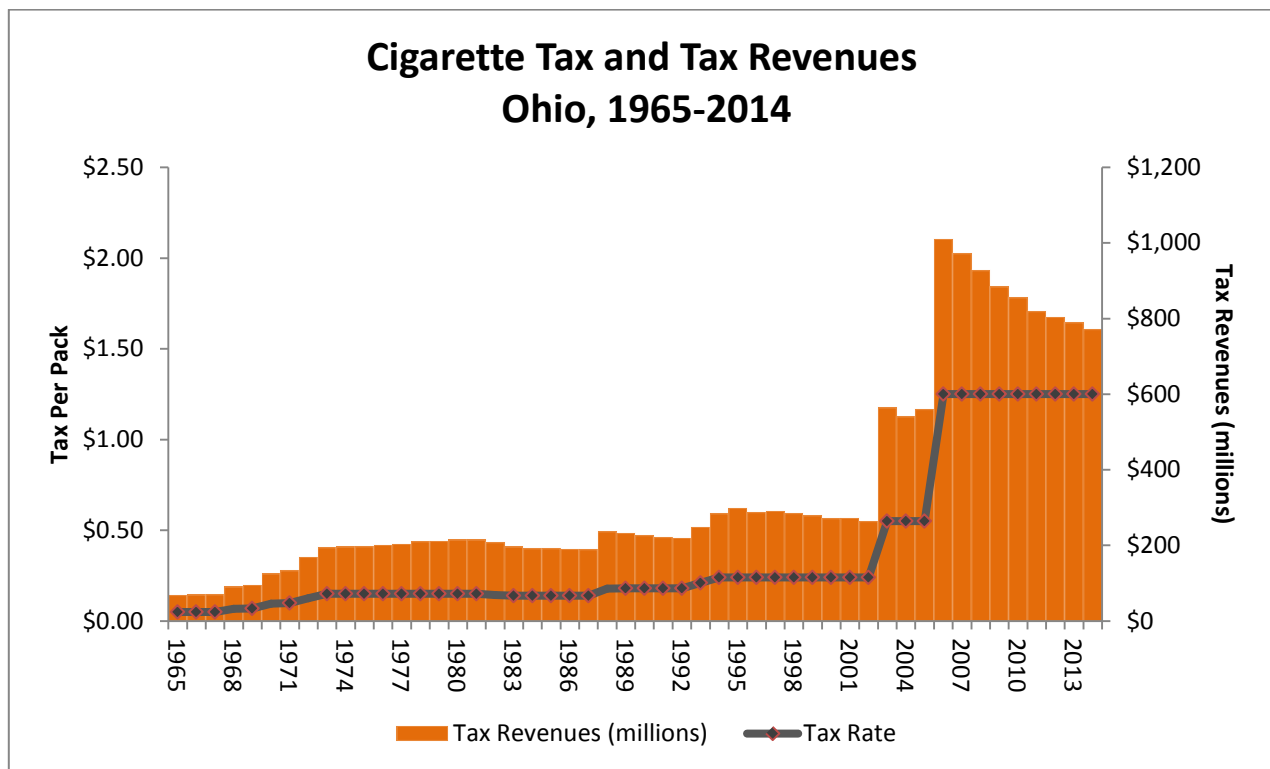
States can also increase their cigarette and other tobacco tax revenues by implementing initiatives to prevent and reduce cigarette smuggling and other forms of tobacco tax evasion – such as adopting new, high-tech tax stamps. California, the first state to adopt a high-tech tax stamp, enjoyed a \$100 million increase in cigarette tax revenues in the first 20 months after the new tax stamp was introduced.

Additional cost-effective strategies to protect tobacco tax revenues include increasing penalties and fines; educating smokers about applicable state laws (such as limits on the number of packs that may be brought into the state from other states); and increasing enforcement efforts – perhaps allowing the enforcing agencies to keep half of all fines and penalties they collect to fund expanded new enforcement efforts (with general revenues receiving the other half, along with all of the recouped tax revenues). Other states have reduced tax avoidance and increased collections by targeting tax collection efforts at smokers who purchase cigarettes on the Internet without paying the state tax or by entering into special tax compacts with Native American tribes located in the state so that they impose and collect equivalent taxes on all reservation cigarette sales.

Ohio’s Past Experience with Cigarette Tax Increases

Ohio most recently increased its cigarette tax rate by 70 cents on July 1, 2005, to its current rate of \$1.25 per pack. This came a few years after a more than doubling of the state cigarette tax from 24 cents per pack to 55 cents per pack on July 1, 2002. As shown in the figure below, both of these tax increases generated large and sustained increases in the Ohio’s cigarette excise tax revenues.

In the years following the most recent tax increase, state revenues – after first rising very sharply – have declined somewhat in each subsequent year. These declines reflect not only ongoing background declines in smoking but also the additional smoking declines caused by the December 2006 implementation of Ohio’s strong, new, voter approved smoke-free law, and by the significant increase in the federal cigarette excise tax in April 2009. It is also likely that Ohio is also losing revenues as cigarette smokers evade the higher cigarette tax by shifting to other much lower-taxed tobacco products, such as roll-your-own cigarettes, cigarette-like “little cigars,” or regular cigars. Despite these declines in smoking, Ohio revenues in fiscal year 2014 were still more than \$210 million higher than revenues in fiscal year 2005, right before the last cigarette tax rate increase.



Note: Data are for the fiscal year ending June 30.

This graph illustrates several points. First, state cigarette tax revenues can decline somewhat after the large revenue gains that following state tax rate increases because of ongoing gradual declines in smoking which can be accelerated by other factors. For example, the subsequent year-to-year revenue declines following the revenue boost from the last Ohio cigarette tax rate increase were largely the result of smoking declines prompted by the statewide smoke-free law implemented in December 2006 and by the significant federal cigarette tax increase that took effect on April 1, 2009.

Second, leaving the state tax rate on other tobacco products low while increasing the state cigarette tax leaves revenues on the table and also reduces tobacco tax revenues. Because it failed to increase the tax rate on other tobacco products when the state last increased its cigarette tax rate, Ohio not only missed its opportunity to increase its other tobacco tax revenues, but is also losing revenue each time a regular cigarette smoker evades the higher cigarette tax by switching to much lower-taxed roll-your-own cigarettes, little cigars, or other tobacco products.

Third, even with the out-year revenue declines caused by ongoing smoking reductions, state cigarette tax revenues several years after the last cigarette tax increase are still substantially larger than the revenue levels before the increase – and much higher than what the revenue levels would have been today absent any cigarette tax increase. For example, despite some year-to-year revenue declines after 2006, Ohio is still receiving additional new cigarette tax revenues in excess of \$200 million per year compared to what it received in 2005, right before it last increased its cigarette tax rate.

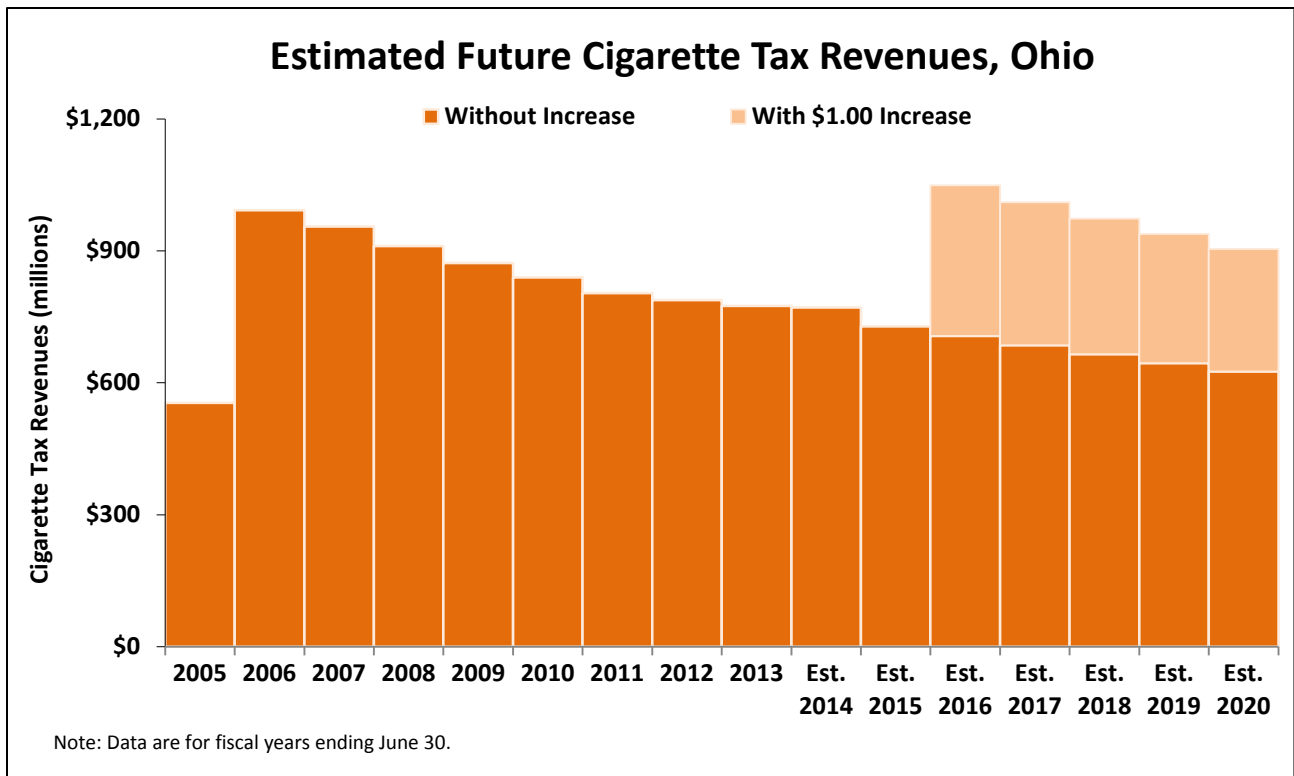
Fourth, periodic increases in a state’s cigarette tax will more than offset the revenue declines from underlying downward trends in smoking, or new smoking declines from other factors, and produce substantially more revenue.

What Ohio Could Expect from a Tobacco Tax Increase

If Ohio increases its cigarette tax significantly in 2015, its revenues should follow the same basic patterns that occurred after its last cigarette tax increases, bringing the state substantial new revenues.

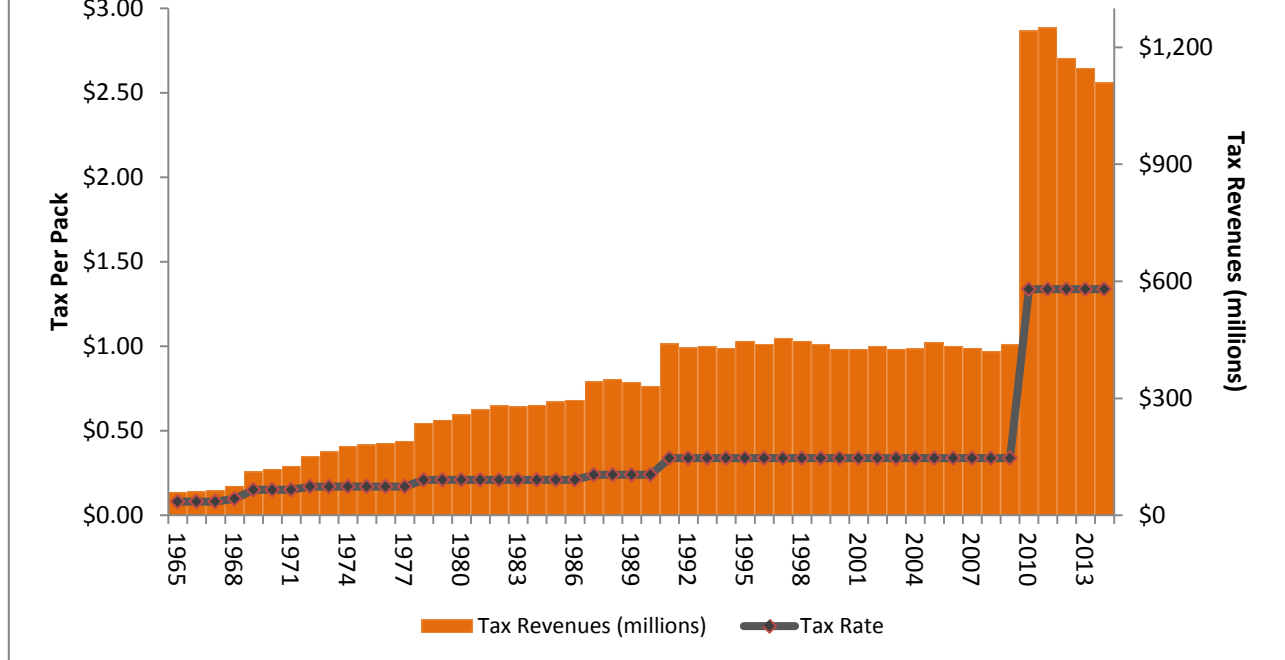
For example, the Campaign for Tobacco-Free Kids and the American Cancer Society Cancer Action Network project that a \$1.00 per pack increase in Ohio's cigarette tax will generate more than \$342 million in new revenues in the first 12 months of the increase, despite reductions in smoking rates as a result of the rate increase. In addition, if Ohio increased its tax rate on other tobacco products and implemented a minimum tax rate to match the new cigarette tax rate at the same time, the state could collect more than \$93 million in additional revenue, while also gaining public health benefits and savings in health care costs because of reduced tobacco use.

Even if Ohio's cigarette sales declined by five percent a year after the initial surge in new revenues after a \$1.00 rate increase, the state would still be receiving more than \$275 million in additional new annual cigarette tax revenues five years after the increase compared to what it received in 2015, and would have received more than \$1.5 billion in total new annual revenues over that five year period compared to what it would receive with no rate increase.



The pattern predicted for Ohio directly parallels what has happened in other states that have significantly increased their cigarette tax rates. For example, Florida increased its cigarette tax rate by \$1.00 per pack, effective July 1, 2009, from a starting cigarette tax of 33.9 cents per pack. As shown in the chart below, preliminary cigarette sales and tax revenue data indicate that Florida will see pack sale declines of 28 percent or less over the first year after the increase, with revenues increasing by more than 195 percent.

Cigarette Tax and Tax Revenues, Florida, 1965-2014



Note: Data are for the fiscal year ending June 30. 2010 data are annualized projections based on revenues for the first ten months following the tax increase.

This Florida chart also provides another example of how state cigarette taxes provide a stable source of funding, with no major changes year-to-year, except when revenues go up sharply because of significant rate increases. Over time, cigarette tax revenues will decline slowly as smoking rates continue to fall, but revenues will remain considerably higher for many years and the declines will be gradual and predictable. Moreover, the substantial health benefits that result from the declines in smoking caused by the tax increase and the resulting reductions in health care costs should be considered.

As noted earlier, every single state that has significantly increased its cigarette taxes has, like Ohio, enjoyed substantial new cigarette tax revenues. Indeed, every state cigarette tax increase has produced an increase to state revenues above what the state would have received with no tax increase.*

* In rare cases, a small state cigarette tax increase might not bring in enough new revenue to make up for significant state pack sales and revenue declines caused by other factors. For example, after New Jersey increased its \$2.40 per pack cigarette tax by another 17.5¢ in 2006 (which amounted to only a 3% increase to the average pack price), its total cigarette tax revenues declined somewhat over the following year. This decline was almost certainly the result of ongoing smoking declines in the state as well as additional reductions in cigarette consumption caused by the state's Smoke-Free Air Act that went into effect in April 2006. Without the small cigarette tax increase, the state's cigarette tax revenues would have dropped much more sharply. In every other instance besides New Jersey in 2006, state cigarette tax rate increases have been followed by significant net increases to annual state tax revenues – despite any ongoing or new smoking declines unrelated to the cigarette tax increase – and in every instance, including New Jersey, the state cigarette tax increase has brought the state more revenues than it would have received without any rate increase. See, e.g., Exhibits A and B.

EXHIBIT A

STATE EXPERIENCES WITH LARGE CIGARETTE TAX INCREASES 2002-2013 REDUCED PACK SALES AND INCREASED REVENUES

State	Effective Date	Tax Increase Amount (per pack)	New State Tax Rate (per pack)	State Pack Sales Decline	Nationwide Pack Sales Trend	Revenue Increase	New Revenues (millions)
Alaska	1/1/05	60¢	\$1.60	- 23.2%	- 4.2%	+ 22.8%	+ \$9.3
Arkansas	3/1/09	56¢	\$1.15	- 27.8%	- 10.2%	+ 33.5%	+ \$46.5
Arizona	12/8/06	82¢	\$2.00	- 32.5%	- 4.4%	+ 13.6%	+ \$44.5
Colorado	1/1/05	64¢	84¢	- 24.3%	- 4.2%	+ 220.2%	+ \$131.0
Connecticut	4/3/02	61¢	\$1.11	- 12.6%	- 4.7%	+ 116.1%	+ \$133.6
Delaware	7/31/07	60¢	\$1.15	- 35.1%	- 4.9%	+ 35.1%	+ \$31.7
Washington, DC	10/1/08	\$1.00	\$2.00	- 25.9%	- 7.0%	+ 57.3%	+ \$13.2
Florida	7/1/09	\$1.00	\$1.339	- 27.4 %	- 8.4%	+ 193.2%	+ \$828.8
Hawaii	7/1/09	60¢	\$2.60	- 11.3%	- 8.4%	+ 14.5%	+ \$15.1
Illinois	6/24/12	\$1.00	\$1.98	- 31.2%	-2.3%	+ 39.0%	+ \$229.2
Iowa	3/15/07	\$1.00	\$1.36	- 30.6%	- 4.7%	+ 140.2%	+ \$128.0
Kansas	7/1/02	55¢	\$0.79	- 21.6%	- 4.9%	+ 142.7%	+ \$68.4
Maine	9/19/05	\$1.00	\$2.00	- 12.3%	- 1.8%	+ 76.5%	+ \$71.5
Maryland	1/1/08	\$1.00	\$2.00	- 27.1%	- 4.2%	+ 45.8%	+ \$126.9
Massachusetts	7/1/08	\$1.00	\$2.51	- 19.1%	- 5.3%	+ 34.2%	+ \$143.3
Michigan	8/1/02	50¢	\$1.25	- 11.5%	- 5.6%	+ 47.4%	+ \$273.7
Michigan	7/1/04	75¢	\$2.00	- 15.2%	- 1.7%	+ 28.1%	+ \$238.9
Minnesota	8/1/05	75¢	\$1.23	- 16.1%	- 1.8%	+ 160.7%	+ \$258.4
Minnesota	7/1/13	\$1.60	\$2.83	- 24.0%	- 4.7%	+ 56.0%	+ \$204.1
Mississippi	5/15/09	50¢	\$0.68	- 22.8%	- 9.5%	+ 188.3%	+ \$88.9
Montana	5/1/03	52¢	\$0.70	- 7.3%	- 2.9%	+ 259.8%	+ \$30.5
Montana	1/1/05	\$1.00	\$1.70	- 42.0%	- 4.2%	+ 36.5%	+ \$18.8
New Jersey	7/1/02	70¢	\$1.50	- 17.6%	- 4.9%	+ 51.0%	+ \$199.8
New Jersey	7/1/03	55¢	\$2.05	- 9.0%	- 2.3%	+ 26.6%	+ \$157.4
New Mexico	7/1/03	70¢	\$0.91	- 32.3%	- 2.3%	+ 191.8%	+ \$39.2
New Mexico	7/1/10	\$0.75	\$1.66	- 7.8%	- 2.6%	+ 67.5%	+ \$37.5
New York	6/3/08	\$1.25	\$2.75	- 15.2%	- 5.8%	+ 40.3%	+ \$377.4
New York	7/1/10	\$1.60	\$4.35	- 24.8%	- 2.6%	+ 18.8%	+ \$244.6
Ohio	7/1/05	70¢	\$1.25	- 20.6%	- 1.6%	+ 78.9%	+ \$437.6
Oklahoma	1/1/05	80¢	\$1.03	- 34.7%	- 4.2%	+ 98.2%	+ \$81.6
Rhode Island	7/1/04	75¢	\$2.46	- 18.7%	- 1.7%	+ 16.9%	+ \$18.7
South Dakota	1/1/07	\$1.00	\$1.53	- 25.8%	- 4.9%	+ 115.4%	+ \$31.8
Rhode Island	4/10/09	\$1.00	\$3.46	- 14.7%	- 11.1%	+ 15.1%	+ \$17.8
South Carolina	7/1/10	50¢	\$0.57	+ 7.8% [†]	- 2.6%	+ 434.2%	+ \$116.8
Texas	1/1/07	\$1.00	\$1.41	- 21.0%	- 4.9%	+ 191.7%	+ \$1,003.7
Utah	7/1/10	\$1.005	\$1.70	- 24.5%	- 2.6%	+ 85.0%	+ \$47.0
Vermont	7/1/06	60¢	\$1.79	- 14.6%	- 3.0%	+ 30.0%	+ \$13.8
Washington	1/1/02	60¢	\$1.425	- 18.8%	- 2.6%	+ 42.1%	+ \$99.6
Washington	7/1/05	60¢	\$2.025	- 8.4%	- 1.6%	+ 29.1%	+ \$95.5
Washington	5/1/10	\$1.00	\$3.025	- 20.5%	- 3.9%	+ 17.0%	+ \$62.0
Wisconsin	1/1/08	\$1.00	\$1.77	- 15.0%	- 4.2%	+ 93.9%	+ \$283.0

Sources: Orzechowski & Walker, *Tax Burden on Tobacco*. U.S. Alcohol and Tobacco Tax and Trade Bureau. Consumption declines and revenue increases are for the 12 months before and after the tax increase. Nationwide consumption declines are for the 50 states and DC. Trends for rate increases after January 2008 include the impact of the 61.66-cent federal cigarette tax increase (effective April 1, 2009).

[†] The increased pack sales is largely due to a surge in pack sales in July 2010 because SC's new tax rate was not implemented until August 2010.

EXHIBIT B

SUSTAINABILITY OF CIGARETTE TAX REVENUES OVER TIME FOLLOWING CIGARETTE TAX RATE INCREASES

Introductory Points:

- Cigarette consumption is generally trending down. During the period from 1990 to 2014, total sales for the U.S. fell by 2.6 percent, on average, per year. During this same period, sales in Ohio fell by an average of 2.8 percent per year, with the larger decline reflecting the impact of two significant tax increases in Ohio in the 2000s. In the absence of cigarette tax increases, revenues from cigarette taxes will also be on a downward trend given the underlying trends in cigarette consumption.
- Cigarette tax increases will generate reductions in cigarette smoking and increases in revenues. Estimates indicate that the short run elasticity of cigarette demand is approximately -0.4 , implying that a price increase of 10 percent will reduce total cigarette consumption by 4 percent. Because of the addictive nature of cigarette smoking, smokers' adjustments to the tax increases will occur over time, with the effect of a permanent, inflation adjusted tax increase rising so that the reductions in consumption that result will increase over time; estimates of the long run (after many decades) price elasticity of cigarette demand are -0.8 . This implies that the gains in revenue that results from a tax increase will fall (although still be substantial) over time; however, the effects of inflation will erode the value of the tax increase, dampening the growth in the decline in smoking and lessening the drop in revenues.
- In states that use some of the revenues from tax increases to fund comprehensive tobacco control programs, these efforts lead to further reductions in smoking beyond those resulting from the tax increase. The implications for revenues are that the revenues generated from the tax increase will be lower in years after the comprehensive program is implemented compared to before.
- Historically, every significant state cigarette excise tax increase has resulted in a significant increase in cigarette tax revenues.

Data Sources:

Monthly tax paid cigarette tax revenues, by state, 1999-2014, provided by USDA and CDC Tax Burden on Tobacco monthly reports; cigarette tax rates and dates of change, *Tax Burden on Tobacco*, 2013. Note that the revenues for later periods described below (post November 1998) are lower relative to the general trend because of sharp reductions in smoking resulting from industry initiated cigarette price increases in the wake of the Master Settlement Agreement and, more recently, the significant increase in the federal cigarette excise tax in 2009. Tobacco control funding and CDC recommended funding amounts from CDC and the Campaign for Tobacco-Free Kids.

Approach:

- Analyzed significant tax changes – those that increased the state tax cigarette excise tax rate by at least 50 cents per pack over the period from 2000 through June 2009.

- Computed tax revenues for the 12 months preceding tax change and for as many 12 month periods as possible after tax change, for a minimum of five years; if tax was changed mid-month, then the last 12 full months and subsequent 12 full month periods were examined.

Findings:

States With At Least 5 years of Post-Tax Increase Data Available, and the Average State Tobacco Control Funding as a Percent of the CDC Recommendation less than 50%:

- Arizona – tax increases from 58 cents to 118 cents per pack, 11/26/2002, and to 200 cents per pack, 12/8/2006:
 - Revenues 12/1/2001 – 11/30/2002: \$177.7 million
 - Revenues 12/1/2002 – 11/30/2003: \$244.8 million
 - Revenues 12/1/2003 – 11/30/2004: \$280.5 million
 - Revenues 12/1/2004 – 11/30/2005: \$286.2 million
 - Revenues 12/1/2005 – 11/30/2006: \$325.9 million
 - Revenues 12/1/2006 – 11/30/2007: \$370.4 million
 - Revenues 12/1/2007 – 11/30/2008: \$391.4 million
 - Revenues 12/1/2008 – 11/30/2009: \$348.3 million
 - Revenues 12/1/2009 – 11/30/2010: \$324.5 million
 - Revenues 12/1/2010 – 11/30/2011: \$323.6 million
 - Revenues 12/1/2011 – 11/30/2012: \$319.2 million
 - Revenues 12/1/2012 – 11/30/2013: \$310.7 million
 - Average annual revenues, 12/2002 – 11/2013: \$320.5 million
- ❖ Arizona – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 45.8%

- California – tax increase from 37 cents to 87 cents per pack, 1/1/1999:
 - Revenues 1/1/1998 – 12/31/1998: \$646.6 million
 - Revenues 1/1/1999 – 12/31/1999: \$1,115.7 million
 - Revenues 1/1/2000 – 12/31/2000: \$1,125.7 million
 - Revenues 1/1/2001 – 12/31/2001: \$1,105.2 million
 - Revenues 1/1/2002 – 12/31/2002: \$1,068.9 million
 - Revenues 1/1/2003 – 12/31/2003: \$1,024.4 million
 - Revenues 1/1/2004 – 12/31/2004: \$1,030.2 million
 - Revenues 1/1/2005 – 12/31/2005: \$1,036.2 million
 - Revenues 1/1/2006 – 12/31/2006: \$1,031.3 million
 - Revenues 1/1/2007 – 12/31/2007: \$984.6 million
 - Revenues 1/1/2008 – 12/31/2008: \$952.3 million
 - Revenues 1/1/2009 – 12/31/2009: \$870.1 million
 - Revenues 1/1/2010 – 12/31/2010: \$849.4 million
 - Revenues 1/1/2011 – 12/31/2011: \$829.4 million
 - Revenues 1/1/2012 – 12/31/2012: \$813.1 million
 - Revenues 1/1/2013 – 12/31/2013: \$768.6 million
 - Average annual revenues, 1/1999 – 12/2013: \$973.7 million
- ❖ California – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 26.3%

- Connecticut – tax increases from 50 cents to 111 cents per pack, 4/3/2002, to 151 cents per pack, 3/15/2003, to 200 cents on 7/1/2007, to 300 cents on 10/1/2009, and to 340 cents on 7/1/2011:
 - Revenues 4/1/2001 – 3/31/2002: \$115.8 million
 - Revenues 4/1/2002 – 3/31/2003: \$234.7 million
 - Revenues 4/1/2003 – 3/31/2004: \$280.9 million
 - Revenues 4/1/2004 – 3/31/2005: \$269.4 million
 - Revenues 4/1/2005 – 3/31/2006: \$268.6 million
 - Revenues 4/1/2006 – 3/31/2007: \$269.5 million
 - Revenues 4/1/2007 – 3/31/2008: \$301.2 million
 - Revenues 4/1/2008 – 3/31/2009: \$299.3 million
 - Revenues 4/1/2009 – 3/31/2010: \$349.1 million
 - Revenues 4/1/2010 – 3/31/2011: \$394.0 million
 - Revenues 4/1/2011 – 3/31/2012: \$412.7 million
 - Revenues 4/1/2012 – 3/31/2013: \$384.2 million
 - Revenues 4/1/2013 – 3/31/2014: \$370.9 million
 - Average annual revenues, 4/2002 - 3/2014: \$319.6 million
- ❖ Connecticut – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 7.5%

- District of Columbia – tax increases from 100 cents to 200 cents per pack, 10/1/2008, and to 250 cents per pack on 10/1/2009:
 - Revenues 10/1/2007 – 9/30/2008: \$23.1 million
 - Revenues 10/1/2008 – 9/30/2009: \$34.2 million
 - Revenues 10/1/2009 – 9/30/2010: \$33.3 million
 - Revenues 10/1/2010 – 9/30/2011: \$33.5 million
 - Revenues 10/1/2011 – 9/30/2012: \$37.7 million
 - Revenues 10/1/2012 – 9/30/2013: \$32.1 million
 - Average annual revenues, 10/2008 – 9/2013: \$34.2 million
- ❖ DC – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 13.1%

- Iowa – tax increase from 36 cents to 136 cents per pack, 3/15/2007:
 - Revenues 3/1/2006 – 2/28/2007: \$91.3 million
 - Revenues 3/1/2007 – 2/29/2008: \$219.3 million
 - Revenues 3/1/2008 – 2/28/2009: \$230.8 million
 - Revenues 3/1/2009 – 2/28/2010: \$206.1 million
 - Revenues 3/1/2010 – 2/28/2011: \$207.6 million
 - Revenues 3/1/2011 – 2/29/2012: \$200.6 million
 - Revenues 3/1/2012 – 2/28/2013: \$202.3 million
 - Revenues 3/1/2013 – 2/28/2014: \$205.2 million
 - Average annual revenues, 3/2007 – 2/2014: \$210.3 million
- ❖ Iowa – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 25.4%

- Maryland – tax increase from 100 cents to 200 cents per pack, 1/1/2008:
 - Revenues 1/1/2007 – 12/31/2008: \$276.7 million
 - Revenues 1/1/2008 – 12/31/2009: \$403.6 million

- Revenues 1/1/2009 – 12/31/2010: \$394.0 million
- Revenues 1/1/2010 – 12/31/2011: \$401.3 million
- Revenues 1/1/2011 – 12/31/2012: \$401.1 million
- Revenues 1/1/2012 – 12/31/2013: \$380.9 million
- Average annual revenues, 1/2008 – 12/2013: \$395.9 million
- ❖ Maryland – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 24.8%

- Massachusetts – tax increases from 76 cents to 151 cents per pack, 7/25/2002, to 251 cents per pack, 7/1/2008, and to 351 cents on 7/31/2013:
 - Revenues 8/1/2001 – 7/31/2002: \$279.4 million
 - Revenues 8/1/2002 – 7/31/2003: \$438.4 million
 - Revenues 8/1/2003 – 7/31/2004: \$422.3 million
 - Revenues 8/1/2004 – 7/31/2005: \$406.2 million
 - Revenues 8/1/2005 – 7/31/2006: \$422.5 million
 - Revenues 8/1/2006 – 7/31/2007: \$426.2 million
 - Revenues 8/1/2007 – 7/31/2008: \$440.2 million
 - Revenues 8/1/2008 – 7/31/2009: \$557.7 million
 - Revenues 8/1/2009 – 7/31/2010: \$555.9 million
 - Revenues 8/1/2010 – 7/31/2011: \$562.7 million
 - Revenues 8/1/2011 – 7/31/2012: \$550.7 million
 - Revenues 8/1/2012 – 7/31/2013: \$539.3 million
 - Average annual revenues, 8/2002 – 7/2013: \$483.8 million
- ❖ Massachusetts – average tobacco control funding as a percent of the CDC recommendation, –2006 – 2015: 11.6%

- Michigan – tax increases from 75 cents to 125 cents per pack, 8/1/2002 and to 200 cents per pack, 7/1/2004:
 - Revenues 8/1/2001 – 7/31/2002: \$556.9 million
 - Revenues 8/1/2002 – 7/31/2003: \$815.6 million
 - Revenues 8/1/2003 – 7/31/2004: \$1,124.4 million
 - Revenues 8/1/2004 – 7/31/2005: \$1,138.2 million
 - Revenues 8/1/2005 – 7/31/2006: \$1,092.8 million
 - Revenues 8/1/2006 – 7/31/2007: \$1,043.9 million
 - Revenues 8/1/2007 – 7/31/2008: \$1,028.6 million
 - Revenues 8/1/2008 – 7/31/2009: \$957.5 million
 - Revenues 8/1/2009 – 7/31/2010: \$916.0 million
 - Revenues 8/1/2010 – 7/31/2011: \$918.3 million
 - Revenues 8/1/2011 – 7/31/2012: \$896.1 million
 - Revenues 8/1/2012 – 7/31/2013: \$896.1 million
 - Average annual revenues, 8/2002 – 7/2013: \$982.6 million
- ❖ Michigan – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 2.0%

- Minnesota – tax increases from 48 cents to 123 cents per pack, 8/1/2005, to 283 cents per pack, 7/1/2013, and to 290 cents on 1/1/2015:
 - Revenues 8/1/2004 – 7/31/2005: \$160.8 million
 - Revenues 8/1/2005 – 7/31/2006: \$419.1 million

- Revenues 8/1/2006 – 7/31/2007: \$401.5 million
- Revenues 8/1/2007 – 7/31/2008: \$404.5 million
- Revenues 8/1/2008 – 7/31/2009: \$390.4 million
- Revenues 8/1/2009 – 7/31/2010: \$382.3 million
- Revenues 8/1/2010 – 7/31/2011: \$383.6 million
- Revenues 8/1/2011 – 7/31/2012: \$357.0 million
- Revenues 8/1/2012 – 7/31/2013: \$377.2 million
- Average annual revenues, 8/2005 – 7/2013: \$389.4 million
- ❖ Minnesota – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 48.3%
- Mississippi – tax increase from 18 cents to 68 cents per pack, 5/15/2009:
 - Revenues 5/1/2008 – 4/30/2009: \$47.2 million
 - Revenues 5/1/2009 – 4/30/2010: \$136.1 million
 - Revenues 5/1/2010 – 4/30/2011: \$139.5 million
 - Revenues 5/1/2011 – 4/30/2012: \$135.4 million
 - Revenues 5/1/2012 – 4/30/2013: \$132.0 million
 - Revenues 5/1/2013 – 4/30/2014: \$127.6 million
 - Average annual revenues, 5/2009 – 4/2014: \$134.1 million
- ❖ Mississippi – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 33.7%
- New Jersey – tax increases from 80 cents to 150 cents per pack, 7/1/2002, to 205 cents per pack, 7/1/2003, to 240 cents on 7/1/2004, to 257.5 cents on 7/15/2006, and to 270 cents on 7/1/2009:
 - Revenues 7/1/2001 – 6/30/2002: \$390.7 million
 - Revenues 7/1/2002 – 6/30/2003: \$612.1 million
 - Revenues 7/1/2003 – 6/30/2004: \$760.8 million
 - Revenues 7/1/2004 – 6/30/2005: \$782.2 million
 - Revenues 7/1/2005 – 6/30/2006: \$788.7 million
 - Revenues 7/1/2006 – 6/30/2007: \$766.5 million
 - Revenues 7/1/2007 – 6/30/2008: \$764.7 million
 - Revenues 7/1/2008 – 6/30/2009: \$728.1 million
 - Revenues 7/1/2009 – 6/30/2010: \$731.9 million
 - Revenues 7/1/2010 – 6/30/2011: \$773.4 million
 - Revenues 7/1/2011 – 6/30/2012: \$758.3 million
 - Revenues 7/1/2012 – 6/30/2013: \$733.1 million
 - Revenues 7/1/2013 – 6/30/2014: \$704.7 million
 - Average annual revenues, 7/2002 – 6/2014: \$742.0 million
- ❖ New Jersey – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 9.0%
- New Mexico – tax increases from 21 cents to 91 cents per pack, 7/1/2003, and to 166 cents per pack on 7/1/2010:
 - Revenues 7/1/2002 – 6/30/2003: \$21.0 million
 - Revenues 7/1/2003 – 6/30/2004: \$61.8 million
 - Revenues 7/1/2004 – 6/30/2005: \$61.3 million
 - Revenues 7/1/2005 – 6/30/2006: \$62.9 million

- Revenues 7/1/2006 – 6/30/2007: \$64.4 million
- Revenues 7/1/2007 – 6/30/2008: \$61.7 million
- Revenues 7/1/2008 – 6/30/2009: \$59.0 million
- Revenues 7/1/2009 – 6/30/2010: \$55.5 million
- Revenues 7/1/2010 – 6/30/2011: \$93.0 million
- Revenues 7/1/2011 – 6/30/2012: \$92.4 million
- Revenues 7/1/2012 – 6/30/2013: \$91.5 million
- Revenues 7/1/2013 – 6/30/2014: \$85.2 million
- Average annual revenues, 7/2003 – 6/2014: \$71.7 million
- ❖ New Mexico – average tobacco control funding as a percent of the CDC recommendation, –2006 – 2015: 38.4%

- New York – tax increases from 56 cents to 111 cents per pack, 3/1/2000, to 150 cents per pack, 4/3/2002, to 275 cents on 6/3/2008, and to 435 cents on 7/1/2010:
 - Revenues 3/1/1999 – 2/29/2000: \$645.4 million
 - Revenues 3/1/2000 – 2/28/2001: \$973.2 million
 - Revenues 3/1/2001 – 2/28/2002: \$999.2 million
 - Revenues 3/1/2002 – 2/28/2003: \$1,072.6 million
 - Revenues 3/1/2003 – 2/29/2004: \$974.6 million
 - Revenues 3/1/2004 – 2/28/2005: \$948.3 million
 - Revenues 3/1/2005 – 2/28/2006: \$939.0 million
 - Revenues 3/1/2006 – 2/28/2007: \$944.2 million
 - Revenues 3/1/2007 – 2/29/2008: \$936.2 million
 - Revenues 3/1/2008 – 2/28/2009: \$1,240.9 million
 - Revenues 3/1/2009 – 2/28/2010: \$1,273.1 million
 - Revenues 3/1/2010 – 2/28/2011: \$1,472.3 million
 - Revenues 3/1/2011 – 2/29/2012: \$1,552.5 million
 - Revenues 3/1/2012 – 2/28/2013: \$1,467.3 million
 - Revenues 3/1/2013 – 2/28/2014: \$1,360.2 million
 - Average annual revenues, 3/2000 – 2/2014: \$1,153.8 million
- ❖ New York – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 37.1%

- Ohio – tax increase from 55 cents to 125 cents per pack, 7/1/2005:
 - Revenues 7/1/2004 – 6/30/2005: \$567.9 million
 - Revenues 7/1/2005 – 6/30/2006: \$996.7 million
 - Revenues 7/1/2006 – 6/30/2007: \$985.8 million
 - Revenues 7/1/2007 – 6/30/2008: \$927.9 million
 - Revenues 7/1/2008 – 6/30/2009: \$884.1 million
 - Revenues 7/1/2009 – 6/30/2010: \$968.0 million
 - Revenues 7/1/2010 – 6/30/2011: \$819.8 million
 - Revenues 7/1/2011 – 6/30/2012: \$804.9 million
 - Revenues 7/1/2012 – 6/30/2013: \$779.7 million
 - Revenues 7/1/2013 – 6/30/2014: \$771.6 million
 - Average annual revenues, 7/2005 – 6/2014: \$871.0 million
- ❖ Ohio – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 23.7%

- Oklahoma – tax increase from 23 cents to 103 cents per pack, 1/1/2005:
 - Revenues 1/1/2004 – 12/31/2004: \$83.1 million
 - Revenues 1/1/2005 – 12/31/2005: \$164.7 million
 - Revenues 1/1/2006 – 12/31/2006: \$203.1 million
 - Revenues 1/1/2007 – 12/31/2007: \$218.5 million
 - Revenues 1/1/2008 – 12/31/2008: \$235.7 million
 - Revenues 1/1/2009 – 12/31/2009: \$235.4 million
 - Revenues 1/1/2010 – 12/31/2010: \$235.8 million
 - Revenues 1/1/2011 – 12/31/2011: \$246.0 million
 - Revenues 1/1/2012 – 12/31/2012: \$244.5 million
 - Revenues 1/1/2013 – 12/31/2013: \$228.8 million
 - Average annual revenues, 1/2005 – 12/2013: \$223.6 million
- ❖ Oklahoma – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 48.4%

- Oregon – tax increase from 68 cents to 128 cents per pack, 11/1/2002, tax reduced to 118 cents per pack, 1/1/04, and increased to 131 cents per pack on 1/1/2014:
 - Revenues 11/1/2001 – 10/31/2002: \$162.1 million
 - Revenues 11/1/2002 – 10/31/2003: \$259.6 million
 - Revenues 11/1/2003 – 10/31/2004: \$231.7 million
 - Revenues 11/1/2004 – 10/31/2005: \$229.2 million
 - Revenues 11/1/2005 – 10/31/2006: \$236.7 million
 - Revenues 11/1/2006 – 10/31/2007: \$238.1 million
 - Revenues 11/1/2007 – 10/31/2008: \$225.9 million
 - Revenues 11/1/2008 – 10/31/2009: \$210.9 million
 - Revenues 11/1/2009 – 10/31/2010: \$204.0 million
 - Revenues 11/1/2010 – 10/31/2011: \$208.0 million
 - Revenues 11/1/2011 – 10/31/2012: \$199.7 million
 - Revenues 11/1/2012 – 10/31/2013: \$198.1 million
 - Average annual revenues, 11/2002 – 10/2013: \$222.0 million
- ❖ Oregon – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 21.0%

- Pennsylvania – tax increases from 31 cents to 100 cents per pack, 7/15/2002, and to 135 cents per pack, 1/7/2004, to 160 cents on 11/1/2009:
 - Revenues 7/1/2001 – 6/30/2002: \$329.8 million
 - Revenues 7/1/2002 – 6/30/2003: \$888.8 million
 - Revenues 7/1/2003 – 6/30/2004: \$989.4 million
 - Revenues 7/1/2004 – 6/30/2005: \$1,052.8 million
 - Revenues 7/1/2005 – 6/30/2006: \$1,050.4 million
 - Revenues 7/1/2006 – 6/30/2007: \$1,031.2 million
 - Revenues 7/1/2007 – 6/30/2008: \$1,032.4 million
 - Revenues 7/1/2008 – 6/30/2009: \$1,004.7 million
 - Revenues 7/1/2009 – 6/30/2010: \$1,087.8 million
 - Revenues 7/1/2010 – 6/30/2011: \$1,145.6 million
 - Revenues 7/1/2011 – 6/30/2012: \$1,122.1 million
 - Revenues 7/1/2012 – 6/30/2013: \$1,080.8 million
 - Revenues 7/1/2013 – 6/30/2014: \$1,038.3 million

- Average annual revenues, 7/2002 – 6/2014: \$1,043.7 million
- ❖ Pennsylvania – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 21.8%
- Rhode Island – tax increase from 171 cents to 246 cents per pack, 7/1/2004, to 346 cents per pack, 4/10/2009, and to 350 cents on 7/1/2012:
 - Revenues 7/1/2003 – 6/30/2004: \$112.4 million
 - Revenues 7/1/2004 – 6/30/2005: \$132.5 million
 - Revenues 7/1/2005 – 6/30/2006: \$119.0 million
 - Revenues 7/1/2006 – 6/30/2007: \$119.5 million
 - Revenues 7/1/2007 – 6/30/2008: \$116.1 million
 - Revenues 7/1/2008 – 6/30/2009: \$123.4 million
 - Revenues 7/1/2009 – 6/30/2010: \$136.6 million
 - Revenues 7/1/2010 – 6/30/2011: \$134.3 million
 - Revenues 7/1/2011 – 6/30/2012: \$131.2 million
 - Revenues 7/1/2012 – 6/30/2013: \$132.3 million
 - Revenues 7/1/2013 – 6/30/2014: \$133.1 million
 - Average annual revenues, 7/2004 – 6/2014: \$127.8 million
- ❖ Rhode Island – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 6.7%
- South Dakota – tax increase from 53 cents to 153 cents per pack, 1/1/2007:
 - Revenues 1/1/2006 – 12/31/2006: \$27.5 million
 - Revenues 1/1/2007 – 12/31/2007: \$59.3 million
 - Revenues 1/1/2008 – 12/31/2008: \$64.1 million
 - Revenues 1/1/2009 – 12/31/2009: \$58.6 million
 - Revenues 1/1/2010 – 12/31/2010: \$57.7 million
 - Revenues 1/1/2011 – 12/31/2011: \$56.4 million
 - Revenues 1/1/2012 – 12/31/2012: \$54.2 million
 - Revenues 1/1/2013 – 12/31/2013: \$55.0 million
 - Average annual revenues, 1/2007 – 12/2013: \$57.9 million
- ❖ South Dakota – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 33.7%
- Texas – tax increase from 41 cents to 141 cents per pack, 1/1/2007:
 - Revenues 1/1/2006 – 12/31/2006: \$523.4 million
 - Revenues 1/1/2007 – 12/31/2007: \$1,527.1 million
 - Revenues 1/1/2008 – 12/31/2008: \$1,348.8 million
 - Revenues 1/1/2009 – 12/31/2009: \$1,246.0 million
 - Revenues 1/1/2010 – 12/31/2010: \$1,342.4 million
 - Revenues 1/1/2011 – 12/31/2011: \$1,339.8 million
 - Revenues 1/1/2012 – 12/31/2012: \$1,363.5 million
 - Revenues 1/1/2013 – 12/31/2013: \$1,312.0 million
 - Average annual revenues, 1/2007 – 12/2013: \$1,354.2 million
- ❖ Texas – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 4.9%
- Vermont – tax increase from 119 cents to 179 cents per pack, 7/1/2006, to 199 cents per

pack, 7/1/2008, to 224 cents on 7/1/2009, to 262 cents on 7/1/2011, and to 275 cents on 7/1/2014:

○ Revenues 7/1/2005 – 6/30/2006:	\$47.5 million
○ Revenues 7/1/2006 – 6/30/2007:	\$60.8 million
○ Revenues 7/1/2007 – 6/30/2008:	\$55.6 million
○ Revenues 7/1/2008 – 6/30/2009:	\$61.8 million
○ Revenues 7/1/2009 – 6/30/2010:	\$66.3 million
○ Revenues 7/1/2010 – 6/30/2011:	\$67.9 million
○ Revenues 7/1/2011 – 6/30/2012:	\$74.4 million
○ Revenues 7/1/2012 – 6/30/2013:	\$68.5 million
○ Revenues 7/1/2013 – 6/30/2014:	\$66.9 million
○ Average annual revenues, 7/2006 – 6/2014:	\$65.3 million

❖ Vermont – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 49.5%

• Washington – tax increase from 82.5 cents to 142.5 cents per pack, 1/1/2002, to 202.5 cents per pack, 7/1/2005, and to 302.5 cents on 5/1/2010:

○ Revenues 1/1/2001 – 12/31/2001:	\$244.0 million
○ Revenues 1/1/2002 – 12/31/2002:	\$344.5 million
○ Revenues 1/1/2003 – 12/31/2003:	\$327.0 million
○ Revenues 1/1/2004 – 12/31/2004:	\$331.2 million
○ Revenues 1/1/2005 – 12/31/2005:	\$384.9 million
○ Revenues 1/1/2006 – 12/31/2006:	\$426.5 million
○ Revenues 1/1/2007 – 12/31/2007:	\$426.9 million
○ Revenues 1/1/2008 – 12/31/2008:	\$407.1 million
○ Revenues 1/1/2009 – 12/31/2009:	\$381.0 million
○ Revenues 1/1/2010 – 12/31/2010:	\$409.7 million
○ Revenues 1/1/2011 – 12/31/2011:	\$425.4 million
○ Revenues 1/1/2012 – 12/31/2012:	\$415.4 million
○ Revenues 1/1/2013 – 12/31/2013:	\$403.1 million
○ Average annual revenues, 1/2002 – 12/2013:	\$390.2 million

❖ Washington – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 33.7%

• Wisconsin – tax increase from 77 cents to 177 cents per pack, 1/1/2008, and to 252 cents per pack, 9/1/2009:

○ Revenues 1/1/2007 – 12/31/2007:	\$304.5 million
○ Revenues 1/1/2008 – 12/31/2008:	\$590.5 million
○ Revenues 1/1/2009 – 12/31/2009:	\$596.8 million
○ Revenues 1/1/2010 – 12/31/2010:	\$643.3 million
○ Revenues 1/1/2011 – 12/31/2011:	\$589.6 million
○ Revenues 1/1/2012 – 12/31/2012:	\$583.2 million
○ Revenues 1/1/2013 – 12/31/2013:	\$592.8 million
○ Average annual revenues, 1/2008 – 12/2013:	\$599.4 million

❖ Wisconsin – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 19.2%

States With At Least 5 years of Post-Tax Increase Data Available, and the Average State Tobacco Control Funding as a Percent of the CDC Recommendation more than 50%:

- Alaska – tax increase from 100 cents to 160 cents per pack, 1/1/2005, to 180 cents per pack, 7/1/2006, and to 200 cents on 7/1/2007:
 - Revenues 1/1/2004 – 12/31/2004: \$41.1 million
 - Revenues 1/1/2005 – 12/31/2005: \$50.5 million
 - Revenues 1/1/2006 – 12/31/2006: \$52.7 million
 - Revenues 1/1/2007 – 12/31/2007: \$63.1 million
 - Revenues 1/1/2008 – 12/31/2008: \$63.3 million
 - Revenues 1/1/2009 – 12/31/2009: \$63.6 million
 - Revenues 1/1/2010 – 12/31/2010: \$63.1 million
 - Revenues 1/1/2011 – 12/31/2011: \$60.3 million
 - Revenues 1/1/2012 – 12/31/2012: \$57.3 million
 - Revenues 1/1/2013 – 12/31/2013: \$57.3 million
 - Average annual revenues, 1/2005 – 12/2013: \$59.0 million
- ❖ Alaska – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 89.2%

- Arkansas – tax increase from 59 cents to 115 cents per pack, 3/1/2009:
 - Revenues 3/1/2008 – 2/29/2009: \$138.8 million
 - Revenues 3/1/2009 – 2/28/2010: \$185.3 million
 - Revenues 3/1/2010 – 2/28/2011: \$196.3 million
 - Revenues 3/1/2011 – 2/29/2012: \$196.6 million
 - Revenues 3/1/2012 – 2/28/2013: \$188.4 million
 - Revenues 3/1/2013 – 2/28/2014: \$183.4 million
 - Average annual revenues, 3/2009 – 2/2014: \$190.0 million
- ❖ Arkansas – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 56.2%

- Colorado – tax increase from 20 cents to 84 cents per pack, 1/1/2005:
 - Revenues 1/1/2004 – 12/31/2004: \$59.5 million
 - Revenues 1/1/2005 – 12/31/2005: \$190.5 million
 - Revenues 1/1/2006 – 12/31/2006: \$208.1 million
 - Revenues 1/1/2007 – 12/31/2007: \$203.2 million
 - Revenues 1/1/2008 – 12/31/2008: \$195.1 million
 - Revenues 1/1/2009 – 12/31/2009: \$180.0 million
 - Revenues 1/1/2010 – 12/31/2010: \$175.5 million
 - Revenues 1/1/2011 – 12/31/2011: \$172.0 million
 - Revenues 1/1/2012 – 12/31/2012: \$172.6 million
 - Revenues 1/1/2013 – 12/31/2013: \$165.7 million
 - Average annual revenues, 1/2005 – 12/2013: \$184.7 million
- ❖ Colorado – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 54.6%

- Delaware – tax increase from 55 cents to 115 cents per pack, 7/31/2007:
 - Revenues 8/1/2006 – 7/31/2007: \$90.4 million
 - Revenues 8/1/2007 – 7/31/2008: \$122.2 million

- Revenues 8/1/2008 – 7/31/2009: \$125.5 million
- Revenues 8/1/2009 – 7/31/2010: \$124.8 million
- Revenues 8/1/2010 – 7/31/2011: \$126.8 million
- Revenues 8/1/2011 – 7/31/2012: \$122.7 million
- Revenues 8/1/2012 – 7/31/2013: \$113.0 million
- Average annual revenues, 8/2007 – 7/2013: \$122.5 million
- ❖ Delaware – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 81.9%

- Maine – tax increase from 100 cents to 200 cents per pack, 9/19/2005:
 - Revenues 9/1/2004 – 8/31/2005: \$93.5 million
 - Revenues 9/1/2005 – 8/31/2006: \$165.1 million
 - Revenues 9/1/2006 – 8/31/2007: \$153.8 million
 - Revenues 9/1/2007 – 8/31/2008: \$147.9 million
 - Revenues 9/1/2008 – 8/31/2009: \$137.5 million
 - Revenues 9/1/2009 – 8/31/2010: \$136.9 million
 - Revenues 9/1/2010 – 8/31/2011: \$137.9 million
 - Revenues 9/1/2011 – 8/31/2012: \$135.9 million
 - Revenues 9/1/2012 – 8/31/2013: \$130.7 million
 - Average annual revenues, 9/2005 – 8/2013: \$143.2 million
- ❖ Maine – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 77.4%

- Montana – tax increase from 18 cents to 70 cents per pack, 5/1/2003 and to 170 cents per pack, 1/1/2005:
 - Revenues 5/1/2002 – 4/30/2003: \$12.0 million
 - Revenues 5/1/2003 – 4/30/2004: \$43.1 million
 - Revenues 5/1/2004 – 4/30/2005: \$51.8 million
 - Revenues 5/1/2005 – 4/30/2006: \$79.6 million
 - Revenues 5/1/2006 – 4/30/2007: \$84.7 million
 - Revenues 5/1/2007 – 4/30/2008: \$87.2 million
 - Revenues 5/1/2008 – 4/30/2009: \$80.8 million
 - Revenues 5/1/2009 – 4/30/2010: \$81.0 million
 - Revenues 5/1/2010 – 4/30/2011: \$78.1 million
 - Revenues 5/1/2011 – 4/30/2012: \$77.2 million
 - Revenues 5/1/2012 – 4/30/2013: \$76.2 million
 - Revenues 5/1/2013 – 4/30/2014: \$74.9 million
 - Average annual revenues, 5/2003 – 4/2014: \$74.1 million
- ❖ Montana – average tobacco control funding as a percent of the CDC recommendation, 2006 – 2015: 56.0%

Conclusions:

- Significant cigarette excise tax increases generate significant increases in cigarette tax revenues.
- Revenues several years after the tax increase remain significantly higher than revenues prior to the tax increase and changes over time after the increase are consistent with changes that would result from underlying downward trends in cigarette smoking.
- Revenues in states that dedicate some revenues for comprehensive tobacco control programs in the years following the implementation of these programs are still significantly higher than revenues prior to the tax increase and program implementation.