

Benefits and Savings Arising from Smokers Switching to Vaping Nicotine Products, By State

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I. Introduction

In a previous study, we analyzed the use of e-cigarettes in the United States since their introduction in 2011, the marginal health risks of vaping compared to smoking cigarettes, and their effectiveness in helping people reduce or stop smoking. We used econometric analysis to estimate the extent to which use of e-cigarettes promoted an accelerated decline in smoking rates in the United States from 2011 to 2022 and thereby contributed to the associated reductions in smoking-related premature deaths and illnesses over that period. Finally, we estimated the numbers of premature deaths and illnesses attributable to smokers switching to vaping and the associated productivity benefits and healthcare savings.

The current analysis extends the previous study by examining the state-by-state impact of the rising use of e-cigarettes from 2011 to 2022 on smoking-related premature deaths and illnesses overall and by gender, race, and ethnicity within each state. This analysis also estimates by state and demographic groups the productivity benefits and healthcare savings associated with the impact of vaping on cigarette use.

The Major Findings from Our Initial Study

To provide context for this new state analysis, we will review the major findings of the original, nationwide study. First, the incidence of vaping by Americans is less than often assumed. In 2021 and 2022, on average less than 13 percent of high school students vaped in the preceding 30 days, down from 27 percent in 2018 and 2019. Moreover, 70 percent of recent high school users of e-cigarette vaped on less than a daily basis including 37 percent who vaped less than five days per month. As a result, researchers have found that most young e-cigarette users are not nicotine dependent. Moreover, adolescents' use of e-cigarettes has been accompanied by a sharp decline in cigarette smoking with only 2 percent of high school students reported smoking cigarettes in the previous month in 2022 down from more than 8 percent in 2018.

Vaping is more uncommon among adults. From 2018 to 2022, an average of 5 percent of American adults used e-cigarettes in the preceding 30 days as the share of adult cigarette smokers declined from 13.8 percent to 11.5 percent. However, adults smoke and vape with greater regularity than high school students: Nearly 90 percent of the 5 percent of adult cigarette users smoked daily, and 60 percent of the 5 percent who vaped did so daily.

Most scientists have concluded that the health effects of vaping are comparatively benign. While both activities entail inhaling nicotine, no recent studies have found significant, adverse health effects from doing so. More important, e-cigarettes contain none of the toxic ingredients in cigarettes and produce none of the carcinogenic compounds ingested by burning tobacco. Hundreds of peer-reviewed studies of the physiological effects of vaping have found little evidence that e-cigarettes pose notable health risks, especially compared to cigarettes. A recent

scholarly metareview of 400 studies reported as its “key finding” the “general paucity of evidence” that e-cigarettes are associated with cancer, cardiovascular, metabolic, mental health, developmental, reproductive, and neurological outcomes.”

As a result, the Centers for Disease Control and Prevention (CDC) reported no known fatalities from the use of commercial e-cigarettes compared to its estimates that cigarette smoking causes the deaths of more than 480,000 Americans annually. The CDC and private researchers also have found no health consequences related to secondhand exposure to vaping while estimating that exposure to secondhand cigarette smoke is linked to 41,600 premature deaths per year from heart disease and lung cancer and increased incidence of sudden infant death syndrome.

Without long-term data on people who vape regularly for many years, we cannot say with certainty that using e-cigarettes poses no long-term risks. However, virtually all scientific experts concur that the health risks of vaping are a small fraction of the risks from smoking. Public Health England, for example, estimated that vaping carries about 5 percent of the risk of smoking cigarettes, and other estimates range up to no more than 15 percent.

There also is substantial scientific evidence that vaping can help people cut down or stop smoking. Dr. Eric Lindblom, former head of the Office of Policy for the FDA’s Center on Tobacco, has noted that “using e-cigarettes, either exclusively or through dual use, can help smokers to quit smoking, or even prompt some smokers not trying to quit to reduce their smoking or stop.” In this context, a recent review of 12 studies of people who vaped while trying to reduce smoking found that 22 percent cut back their cigarette use by 50 to 80 percent after 12 weeks and nearly half of them maintained those reductions after one year. Similarly, a CDC survey of 27,000 adults found that 15 percent of e-cigarette users succeeded in stopping smoking compared to 3 percent who used other noncigarette tobacco products.

Furthermore, CDC data clearly show that the long-term downward trend in smoking rates in the United States began to accelerate around 2010, when e-cigarettes were first introduced here. To estimate the role that vaping may have played in the unexpectedly sharp decline in smoking rates from 2011 to 2022, we modeled the decline in smoking rates from 2002 to 2010 and projected that trend forward to 2022, and then we compared the results to the actual decline. Based on the 1991 to 2010 trend, the adult smoking rate was expected to fall to 16.2 percent in 2022; in fact, the rate dropped to 11.3 percent.

We tested many factors other than the rising use of e-cigarettes to help explain some of the unexpected progress from 2011 to 2022—including cigarette tax and price increases; the 2009 FDA ban on most flavored cigarettes; increased access under the Affordable Care Act (ACA) to programs to help people stop smoking, especially through Medicaid; the availability of other nicotine-replacement products such as gums and patches; and the CDC’s Tips anti-smoking campaign. Two of these factors mattered—enhanced access to smoking cessation programs under the ACA and Medicaid had a marginal effect, and the Tips anti-smoking campaign had a significant effect.

We constructed an econometric model to account for these effects and added a 25 percent “X” factor for unknown causes. This analysis found that the spread of vaping from 2011 to 2022 explained much of the unexpected acceleration in the decline in smoking, reducing the number of adult smokers by 6.1 million people or an average of nearly 510,000 annually.

The additional reduction in smoking rates based on vaping saved thousands of lives and billions of dollars. Based on mortality rates for the four major illnesses linked to smoking and the modest 5 percent risk posed by e-cigarettes, the shift from smoking to vaping from 2010 to 2022 saved 113,300 people from premature deaths and substantially reduced the incidence of smoking-related illnesses over those years.

These reductions in smoking related illnesses and deaths also produced significant economic benefits, since those who averted premature deaths and illnesses related to smoking could continue to contribute to the economy. We estimate that from 2011 to 2022, the productivity benefits totaled \$137 billion: \$65.8 billion tied to the deaths averted and \$71.2 billion from the reduced incidence of smoking-related illnesses. The shift from smoking to vaping also reduced the healthcare costs for treating the former smokers who otherwise would have become ill or died prematurely in this period. Nationwide, the shift by Americans from smoking to vaping from 2011 to 2022 led to healthcare savings of \$42.3 billion. All told, therefore, Americans switching from smoking to vaping from 2011 to 2022 generated economic benefits and savings totaling \$179.3 billion.

II. Smoking and Vaping Rates by State and by Gender, Race and Ethnicity

We begin the state analysis by presenting the current smoking and vaping rates by state and, for each state, by gender and race and ethnicity. Nationwide, 12.9 percent of American adults smoked cigarettes in 2022, ranging from 21 percent in West Virginia to 6.7 percent in Utah. In addition, 7.5 percent of adults nationwide used e-cigarettes, ranging from 11 percent in Oklahoma to 4.6 percent in Maryland. As our original econometric study estimated the impact of smokers switching to vaping from 2011 to 2022, the 2022 data includes those effects and other factors that affected the long-term, downward trend in smoking rates over this period.

With regard to cigarette smoking, the data show that 30 states had above average smoking rates, including the top 10 with smoking rates of 15.9 percent to 21 percent (Table 1-A below). States with above average smoking rates tend to cluster in the South, the Midwest, and the Mountain region. In addition, among those states with high smoking rates, men generally have higher smoking rates than women, Blacks generally have higher smoking rates than Whites, and Hispanics usually have lower smoking rates than Whites or Blacks.

Similarly, 20 states and the District of Columbia had below average smoking rates, including the bottom ten with rates of 6.7 percent to 10.7 percent. The states with below average smoking rates tend to cluster on the East and West coasts; and in every case, women had lower smoking rates than men. The differences by race and ethnicity in the states with high smoking rates are not apparent in those with low smoking rates.

Comprehensive smoking rate tables for 2022 covering the 50 states and the District of Columbia and arranged alphabetically are provided in Appendix Table A-1.

Table 1: States with 10 Highest and 10 Lowest Smoking Rates, 2022 (%-age)

	Total	Male	Female	Non-Hispanic White	Non-Hispanic Black	Hispanic
Nationwide	12.9	14.3	11.4	13.3	14.2	10.7
<i>10 Highest Smoking Rates (15.9 percent and Higher)</i>						
WV	21.0	20.9	21.1	20.8	21.4	NA
AR	18.7	21.6	16.0	18.6	19.9	11.5
TN	18.5	20.5	16.7	18.4	17.5	16.6
KY	17.4	19.4	15.5	17.0	20.0	19.4
MS	17.4	20.6	14.4	17.6	16.1	NA
OH	17.1	17.7	16.5	16.8	18.2	14.5
MO	16.8	17.3	16.2	16.5	17.8	13.3
LA	16.7	18.9	14.7	17.6	15.5	13.3
IN	16.2	17.3	15.2	16.6	17.2	11.8
AK	15.9	17.9	13.8	12.9	15.4	12.3
<i>10 Lowest Smoking Rates (10.7 Percent and Lower)</i>						
CO	10.7	12.4	8.9	9.6	17.8	13.6
DC	10.6	12.5	9.0	4.7	17.1	NA
MA	10.4	11.6	9.2	10.5	9.6	8.4
NJ	10.4	11.9	9.0	10.3	12.2	11.5
CT	10.0	11.8	8.4	9.7	12.6	11.9
HI	10.0	11.6	8.3	10.0	NA	11.4
WA	10.0	10.9	9.1	10.2	11.0	9.0
CA	9.7	12.6	7.0	9.8	15.3	9.0
MD	9.6	11.2	8.2	9.7	10.2	7.3
UT	6.7	8.4	4.9	6.6	NA	7.1

With regard to e-cigarette use, the data show a nationwide vaping rate in 2022 of 7.5 percent (Table 2 below). Twenty-seven states had above average vaping rates, including the top 10 with rates of 9 percent to 11 percent. (Table 2 below). States with above average vaping rates tend to be southern states, and men have higher rates than women in most cases. Among states with high vaping rates and data available for all race and ethnic groups, Hispanics usually have higher rates than Whites or Blacks, and Whites usually have higher rates than Blacks.

Twenty-four states and DC had below-average vaping rates, including the bottom 10 with rates of 4.6 percent to 6.2 percent. States with below average vaping rates tend to cluster in the Northeast, and women had lower rates than men in every case. Among states with low vaping rates, there is no clear patterns base on race and ethnicity.

Comprehensive vaping rate tables for 2022 covering the 50 states and the District of Columbia and arranged alphabetically are provided in Appendix Table A-2.

All subsequent references and data on White and Black smokers and vapers cover non-Hispanic Whites and non-Hispanic Blacks.

Table 2: States with 10 Highest and 10 Lowest Vaping Rates, 2022 (%-age)

	Total	Male	Female	White	Black	Hispanic
Nationwide	7.5	8.7	6.4	7.6	5.3	7.1
<i>10 Highest Vaping Rates (9 percent and Higher)</i>						
OK	11.0	11.9	10.0	10.5	6.9	10.1
TN	10.8	11.8	9.8	10.8	10.0	15.3
KY	10.5	11.8	9.2	10.0	12.4	NA
AR	10.4	10.3	10.4	11.0	6.9	NA
LA	10.4	11.5	9.4	11.5	4.7	24.2
AL	10.4	13.8	7.3	11.0	6.4	NA
ID	10.0	10.7	9.4	8.5	NA	14.8
MS	9.4	10.4	8.4	10.9	5.5	NA
WV	9.3	9.9	8.7	9.0	NA	NA
ND	9.0	9.5	8.4	7.3	NA	23.2
<i>10 Lowest Vaping Rates (6.2 Percent or Lower)</i>						
VT	6.2	6.3	6.1	5.3	NA	20.6
ME	6.1	6.9	5.4	5.6	NA	16.9
DE	6.1	7.1	5.1	6.0	6.6	3.7
FL	6.1	6.9	5.4	6.3	NA	5.5
NJ	6.1	7.9	4.4	6.6	6.1	6.1
MA	5.6	7.0	4.3	5.5	5.4	6.2
CT	5.6	6.6	4.6	5.6	4.7	6.6
DC	5.3	5.7	5.0	3.8	4.9	NA
IL	5.2	5.6	4.8	5.9	5.0	2.8
MD	4.6	5.3	3.9	5.4	4.6	2.6

III. Smokers Who Switched to Vaping, and the Health and Economic Impact, by State

We turn next to the adult smokers who switched from cigarettes to e-cigarettes from 2011 to 2022, nationwide and by state and by gender and race and ethnicity. These results are drawn from our econometric analysis of changes in smoking and vaping rates and numbers of smokers and vapers nationwide wide and by state. Nationwide, more than 6.1 million smokers switched to vaping during those years (Table 3 below). These former smokers divided nearly evenly between men and women, and white adults dominate demographically. In the top 10 states, the number of smokers shifting to vaping ranged from 173,541 (GA) to 586,046 (CA). The national, state, and demographic data on smokers shifting to vaping from 2011 to 2022 provide the basis for estimating the numbers of premature deaths averted, the associated productivity benefits, and the healthcare savings.

The comprehensive data on smokers who switched to vaping from 2011 to 2022, including their gender and race and ethnicity, for each of the 50 states and DC, and arranged alphabetically, are provided in Appendix Table A-3.

Table 3: Adult Smokers Who Switched to Vaping, 2011-2022, Nationwide and Top Ten States

	Total	Male	Female	White	Black	Hispanic
Nationwide	6,105,052	3,275,820	3,184,013	5,811,453	473,736	156,811
CA	586,046	314,458	305,645	324,734	27,702	34,962
NY	464,529	249,255	242,269	294,733	22,857	10,505
TX	442,254	237,303	230,652	326,796	36,897	30,124
PA	399,983	214,621	208,606	309,896	23,278	4,026
FL	312,807	167,845	163,141	318,421	24,152	11,974
OH	241,013	129,322	125,697	341,860	21,685	1,723
NC	197,651	106,054	103,082	201,089	28,359	2,237
NJ	196,241	105,298	102,347	117,093	11,721	5,108
IL	193,254	103,695	100,789	229,892	23,139	5,497
MI	184,699	99,105	96,327	246,902	20,960	1,885
GA	173,541	93,118	90,508	156,764	33,873	2,692

In addition, Appendix Table A-4 provides the additional smoker years gained by those shifting from smoking to vaping over this period, nationwide and by state and demographics. Those data provide the basis for our estimates of the morbidity effects of smokers switching to vaping—the time that would have been required to deal with smoking-related illnesses, but for the shift to vaping. Those effects in turn provide the basis for estimating the productivity benefits and reduced healthcare costs arising from the shift from smoking to vaping.

Premature Deaths Averted by Smokers Shifting to Vaping, Nationwide and by State

Based on extensive studies showing that e-cigarettes do not contain any of the toxic ingredients in cigarettes nor produce the carcinogenic compounds inhaled from burning tobacco, substantial health benefits can occur when smokers switch to vaping. To estimate the premature deaths averted by the 6.1 million smokers who switched to vaping from 2011 to 2022, we drew on mortality data from the major tobacco-related conditions and the demographic characteristics of those who switched. We also applied the estimate by Public Health England that vaping carries 5 percent of the health risks of smoking.

The analysis showed that the shifts from smoking to vaping averted 113,274 premature deaths from smoking-related diseases from 2011 to 2022, and this reduction in premature deaths also represents nearly 2.5 million life years preserved (Table 4 below). On a state basis, the lives extended in this period by smokers switching to vaping ranged from 10,453 in TX and 9,119 in NY to 148 in SD and 177 in ND. In five states, the shift saved the lives of more than 7,000 people, and in six states it saved 3,000 to 5,000 lives. The state results take account of the race and ethnic makeup of each state, the higher smoking rates among men than women, and higher rates for white adults than Black or Hispanic adults.

Comprehensive data on the numbers of premature deaths averted by smokers switching to vaping from 2011 to 2022 for each of the 50 states and DC, arranged alphabetically, are

provided in Appendix A-5. Appendix Table A-6 converts those data to life-years saved. These data are presented nationwide and by demographics.

Table 4: Lives and Life Years Saved by Smokers Shifting to Vaping, 2011-2022, Top Ten States and Nationwide

	Deaths Averted	Male	Female	White	Black	Hispanic	Life Years Saved
Nationwide	113,274	73,934	39,340	101,1160	9,635	2,5232	2,481,720
TX	10,453	7,259	3,195	8,721	1,094	638	231,515
NY	9,119	6,144	2,976	8,137	772	210	199,756
CA	8,139	5,595	2,544	7,003	589	547	175,883
PA	7,667	4,832	2,835	7,085	509	73	167,853
FL	7,612	5,023	2,589	6,814	577	221	168,883
NC	4,670	3,099	1,571	4,038	601	31	103,203
GA	4,461	2,965	1,496	3,692	721	48	98,801
TN	3,751	2,349	1,402	3,436	293	23	82,778
NJ	3,675	2,406	1,269	3,284	309	82	81,758
VA	3,433	2,275	1,158	3,000	405	29	75,890

Productivity Losses Averted by From Smokers Switching to Vaping, Nationwide and by State

The reduction in smoking-related deaths and illnesses from people switching to vaping also generated direct economic benefits, primarily through the productivity of those who otherwise would have died prematurely or lost time at work dealing with smoking-related illnesses. Nationwide, those benefits totaled \$137 billion during this period (Table 5 and Table 6 below).

Nearly \$66 billion represents the productivity of smokers who averted dying prematurely by switching to vaping from 2011 to 2022. The state analysis found that those productivity benefits exceeded \$4.4 billion in five states led by TX and NY, and the productivity benefits in nine additional states ranged from \$1.5 billion to \$3 billion. The distribution of these benefits based on gender and race and ethnicity reflect each state’s demographic composition, smoking rates by gender and race and ethnicity, smoking-related mortality rates by gender and race and ethnicity, and average income by gender and race and ethnicity. These factors explain the relatively smaller benefits from deaths averted among women compared to men and Blacks and Hispanics compared to Whites.

Comprehensive data on the productivity benefits from 2011 to 2022 arising from deaths averted by smokers switching to vaping for each of the 50 states and DC, arranged alphabetically, are provided in Appendix Table A-7.

**Table 5: Productivity Benefits from Fewer Premature Deaths
As a Result of Smokers Switching to Vaping from 2011 to 2022 (\$ Millions),
Top 14 States with Benefits Exceeding \$1.5 Billion**

	Total	Male	Female	White	Black	Hispanic
Nationwide	\$65,840	\$51,335	\$14,505	\$61,021	\$3,868	\$952
TX	\$6,193	\$5,083	\$1,109	\$5,502	\$455	\$236
NY	\$5,302	\$4,198	\$1,103	\$4,937	\$286	\$78
CA	\$4,612	\$3,690	\$922	\$4,222	\$216	\$174
FL	\$4,518	\$3,522	\$996	\$4,177	\$239	\$102
PA	\$4,453	\$3,416	\$1,037	\$4,219	\$206	\$28
NC	\$2,755	\$2,160	\$596	\$2,485	\$257	\$14
GA	\$2,642	\$2,081	\$561	\$2,309	\$314	\$19
TN	\$2,207	\$1,686	\$521	\$2,078	\$120	\$10
NJ	\$2,190	\$1,732	\$458	\$2,026	\$133	\$32
VA	\$2,026	\$1,591	\$436	\$1,857	\$156	\$14
MA	\$1,769	\$1,388	\$381	\$1,710	\$45	\$14
KY	\$1,636	\$1,223	\$413	\$1,582	\$49	\$5
AL	\$1,516	\$1,187	\$328	\$1,368	\$142	\$6
LA	\$1,512	\$1,199	\$313	\$1,346	\$158	\$8

Similarly, the productivity benefits from lower rates of smoking-related illness from 2011 to 2022 totaled \$71.2 billion (Table 6 below) Those benefits exceeded \$1.5 billion in 17 states, including five states with benefits of \$3.9 billion to \$6.3 billion and five states with benefits of \$2 billion to \$3 billion.

**Table 6: Productivity Benefits from Lower Rates of Illness
As a Result of Smokers Switching to Vaping from 2011 to 2022 (\$ Millions)
Top 10 States with Benefits Exceeding \$2 Billion**

	Total	Male	Female	White	Black	Hispanic
Nationwide	\$71,164	\$45,986	\$25,177	\$61,966	\$6,151	\$3,047
TX	\$6,334	\$4,444	\$1,890	\$4,942	\$678	\$714
NY	\$5,612	\$3,710	\$1,902	\$4,911	\$448	\$253
CA	\$5,403	\$3,672	\$1,732	\$4,436	\$374	\$593
PA	\$4,703	\$2,958	\$1,745	\$4,282	\$334	\$88
FL	\$3,927	\$2,538	\$1,389	\$3,362	\$297	\$268
NC	\$2,772	\$1,802	\$970	\$2,333	\$395	\$44
GA	\$2,678	\$1,728	\$950	\$2,133	\$487	\$58
TN	\$2,257	\$1,407	\$850	\$2,035	\$192	\$31
NJ	\$2,217	\$1,461	\$756	\$1,911	\$207	\$99
OH	\$2,097	\$1,314	\$783	\$1,930	\$146	\$22

Comprehensive data on the productivity benefits from 2011 to 2022 arising from deaths averted by smokers switching to vaping for each of the 50 states and DC, arranged alphabetically, are provided in Appendix Table A-8.

Healthcare Savings from Lower Mortality and Morbidity by Smokers Switching to Vaping

Significant healthcare savings were also generated by smokers switching to vaping from 2011 to 2022 and thereby averting substantial numbers of premature deaths and smoking-related illnesses. Nationwide, those healthcare savings totaled \$38.8 billion (Table 7 below). On a state basis, the savings exceeded \$1 billion in 12 states, led by TX and NY with savings of more than \$3 billion each. The healthcare savings based on gender and race and ethnicity are less disparate than the productivity benefits. While average incomes differ substantially based on those characteristics, healthcare costs are broadly similar for men and women and for whites, Blacks and Hispanics.

Comprehensive data on these healthcare savings from 2011 to 2022 for each of the 50 states and DC, arranged alphabetically, are presented in Appendix Table A-9.

Table 7: Healthcare Savings from Smokers Switching to Vaping, 2011-2022 (\$ Million)
Top 12 States with Savings Exceeding \$1 Billion

	Total	Male	Female	White	Black	Hispanic
Nationwide	\$38,770	\$20,023	\$18,747	\$31,644	\$4,539	\$2,587
TX	\$3,451	\$1,946	\$1,505	\$2,372	\$464	\$615
NY	\$3,058	\$1,661	\$1,397	\$2,476	\$359	\$222
CA	\$2,944	\$1,632	\$1,312	\$2,118	\$267	\$559
PA	\$2,562	\$1,273	\$1,290	\$2,234	\$252	\$77
FL	\$2,139	\$1,116	\$1,024	\$1,728	\$221	\$191
NC	\$1,510	\$789	\$721	\$1,195	\$281	\$35
GA	\$1,459	\$750	\$708	\$1,069	\$342	\$47
TN	\$1,230	\$596	\$633	\$1,066	\$142	\$22
NJ	\$1,208	\$631	\$577	\$962	\$157	\$89
OH	\$1,142	\$563	\$579	\$1,013	\$113	\$16
VA	\$1,083	\$560	\$523	\$869	\$184	\$29
MA	\$1,003	\$522	\$481	\$901	\$58	\$44

Healthcare Savings from Reducing Secondhand Smoke

People switching from cigarettes to e-cigarettes from 2011 to 2022 also directly reduced people’s exposure to secondhand smoke and thereby reduced medical costs to treat conditions related to secondhand smoke. Nationwide, those healthcare savings totaled \$3.5 billion, including five states with savings of \$200 million to \$310 million and four states with savings of \$100 million to \$200 million (Table 8 below).

Since those affected by secondhand smoke cannot be distinguished from the larger population by gender or race and ethnicity, we allocated these savings evenly based on gender and applied the racial and ethnic composition of the population nationally and by state.

**Table 8: Healthcare Savings for Treating Medical Conditions Related to Secondhand Smoke From Smokers Switching to Vaping, 2011-2022 (\$ Million)
Top Nine States with Savings Exceeding \$100 million**

	Total	Male	Female	White	Black	Hispanic
Nationwide	\$3,535	\$1,767	\$1,767	\$2,830	\$430	\$275
NY	\$307	\$153	\$153	\$244	\$37	\$26
TX	\$285	\$142	\$142	\$187	\$40	\$57
CA	\$274	\$137	\$137	\$190	\$24	\$60
FL	\$261	\$131	\$131	\$206	\$29	\$26
PA	\$213	\$106	\$106	\$182	\$23	\$8
NC	\$150	\$75	\$75	\$118	\$28	\$4
GA	\$143	\$72	\$72	\$105	\$32	\$5
NJ	\$119	\$59	\$59	\$94	\$15	\$10
MA	\$103	\$51	\$51	\$91	\$6	\$5

Comprehensive data on these healthcare savings from 2011 to 2022 for each of the 50 states and DC, arranged alphabetically, are presented in Appendix Table A-10.

Total Productivity Benefits and Healthcare Savings by State

For another view of the economic benefits and savings from smokers switching to vaping from 2011 to 2022, we analyzed those total benefits and savings by state. The savings and benefits exceeded \$10 billion in five states and totaled \$5 billion to \$10 billion in five additional states.

Table 9: Productivity Benefits and Healthcare Savings from Smokers Switching to Vaping, 2011 to 2022 (\$ Millions), Top States with Benefits Exceeding \$5 Billion

	Total	Productivity Benefits		Healthcare Savings	
		Fewer Deaths	Less Illness	Fewer Smokers	Secondhand Smoke
Nationwide	\$179,309	\$65,840	\$71,164	\$38,770	\$3,535
TX	\$16,263	\$6,193	\$6,334	\$3,451	\$285
NY	\$14,278	\$5,302	\$5,612	\$3,058	\$307
CA	\$13,234	\$4,612	\$5,403	\$2,944	\$274
PA	\$11,932	\$4,453	\$4,703	\$2,562	\$213
FL	\$10,846	\$4,518	\$3,927	\$2,139	\$261
NC	\$7,187	\$2,755	\$2,772	\$1,510	\$150
GA	\$6,922	\$2,642	\$2,678	\$1,459	\$143
TN	\$5,794	\$2,207	\$2,257	\$1,230	\$100
NJ	\$5,734	\$2,190	\$2,217	\$1,208	\$119
VA	\$5,189	\$2,026	\$1,987	\$1,083	\$93

Comprehensive data on these total benefits and savings for each of the 50 states and DC, and arranged alphabetically, are presented in Appendix Table A-11.

IV. Total State Productivity Benefits and Healthcare Savings by Demographics

We also analyzed the productivity benefits and economic savings by state for each demographic category, starting with gender.

Benefits and Savings from Male Smokers Shifting to Vaping

The productivity benefits and healthcare savings from 2011 to 2022 associate with men switching from smoking to vaping totaled \$119.1 billion, led by TX and NY (Table 10 below). These benefits and savings exceeded \$7 billion in five states and ranged from \$3 billion to \$5 billion in seven additional states. The comprehensive data on these benefits and savings from men shifting to vaping for each of the 50 states and DC, and arranged alphabetically, are presented in Appendix Table A-12.

Table 10: Productivity Benefits and Healthcare Savings Associated with Male Smokers Switching to Vaping, 2011 to 2022, Top 12 States (\$ Million)

	Total	Productivity Benefits		Healthcare Savings	
		Fewer Deaths	Less Illness	Fewer Smokers	Secondhand Smoke
Nationwide	\$119,113	\$51,335	\$45,986	\$20,023	\$1,767
TX	\$11,616	\$5,083	\$4,444	\$1,946	\$142
NY	\$9,723	\$4,198	\$3,710	\$1,661	\$153
CA	\$9,131	\$3,690	\$3,672	\$1,632	\$137
PA	\$7,754	\$3,416	\$2,958	\$1,273	\$106
FL	\$7,307	\$3,522	\$2,538	\$1,116	\$131
NC	\$4,826	\$2,160	\$1,802	\$789	\$75
GA	\$4,631	\$2,081	\$1,728	\$750	\$72
NJ	\$3,884	\$1,732	\$1,461	\$631	\$59
TN	\$3,740	\$1,686	\$1,407	\$596	\$50
VA	\$3,483	\$1,591	\$1,286	\$560	\$46
MA	\$3,161	\$1,388	\$1,199	\$522	\$51
OH	\$3,047	\$1,135	\$1,314	\$563	\$36

Benefits and Savings from Female Smokers Shifting to Vaping

Similarly, we analyzed the productivity benefits and healthcare savings based on female smokers switching to vaping from 2011 to 2022 (Table 11 below). Nationwide, those benefits and savings totaled \$60.2 billion. They also exceeded \$3.5 billion in five states and ranged from \$1.5 billion to \$3 billion in eight states. The substantial differences in these benefits and savings based on the gender of the smokers shifting to e-cigarettes reflects lower rates of smoking and vaping by women, their lower labor participation rates, and their lower average incomes.

Complete data on the benefits and savings from women shifting to vaping are provided for each of the 50 states and DC, arranged alphabetically, in Appendix Table A-13.

Table 11: Productivity Benefits and Healthcare Savings Associated with Female Smokers Switching to Vaping, 2011 to 2022, Top 13 States (\$ Million)

	Total	Productivity Benefits		Healthcare Savings	
		Fewer Deaths	Less Illness	Fewer Smokers	Secondhand Smoke
Nationwide	\$60,196	\$14,505	\$25,177	\$18,747	\$1,767
TX	\$4,647	\$1,109	\$1,890	\$1,505	\$142
NY	\$4,555	\$1,103	\$1,902	\$1,397	\$153
PA	\$4,178	\$1,037	\$1,745	\$1,290	\$106
CA	\$4,103	\$922	\$1,732	\$1,312	\$137
FL	\$3,539	\$996	\$1,389	\$1,024	\$131
NC	\$2,361	\$596	\$970	\$721	\$75
GA	\$2,291	\$561	\$950	\$708	\$72
TN	\$2,054	\$521	\$850	\$633	\$50
NJ	\$1,850	\$458	\$756	\$577	\$59
OH	\$1,752	\$354	\$783	\$579	\$36
VA	\$1,706	\$436	\$702	\$523	\$46
KY	\$1,565	\$413	\$646	\$462	\$44
MA	\$1,554	\$381	\$641	\$481	\$51

Benefits and Savings from White Non-Hispanic Smokers Shifting to Vaping

Next, we analyzed these benefits and savings based on race and ethnicity, beginning with white non-Hispanic smokers who shifted to vaping from 2011 to 2022 (Table 12 below). Nationwide, the benefits and savings totaled \$157.5 billion.

Table 12: Productivity Benefits and Healthcare Savings Associated with White Non-Hispanic Smokers Switching to Vaping, 2011 to 2022, Top 10 States (\$ Million)

	Total	Productivity Benefits		Healthcare Savings	
		Fewer Deaths	Less Illness	Fewer Smokers	Secondhand Smoke
Nationwide	\$157,461	\$61,021	\$61,966	\$31,644	\$2,830
TX	\$13,003	\$5,502	\$4,942	\$2,372	\$187
NY	\$12,568	\$4,937	\$4,911	\$2,476	\$244
CA	\$10,967	\$4,222	\$4,436	\$2,118	\$190
PA	\$10,916	\$4,219	\$4,282	\$2,234	\$182
FL	\$9,474	\$4,177	\$3,362	\$1,728	\$206
NC	\$6,131	\$2,485	\$2,333	\$1,195	\$118
GA	\$5,617	\$2,309	\$2,133	\$1,069	\$105
TN	\$5,263	\$2,078	\$2,035	\$1,066	\$85
NJ	\$4,992	\$2,026	\$1,911	\$962	\$94
VA	\$4,511	\$1,857	\$1,713	\$869	\$73

White smokers switching from cigarettes to e-cigarettes produced productivity benefits and healthcare savings that exceeded \$10 billion in four states and \$4.5 billion to \$10 billion in six additional states. Each state's these benefits and savings substantially reflects their numbers of non-Hispanic white residents, their smoking rates, and their average income data.

The complete data on the benefits and savings from white smokers shifting to vaping are provided for each of the 50 states and DC, arranged alphabetically, in Appendix Table A-14.

Benefits and Savings from Black Non-Hispanic Smokers Shifting to Vaping

Similarly, the productivity benefits and healthcare savings from Black non-Hispanic smokers shifting to vaping from 2011 to 2022 totaled \$15 billion nationwide (Table 13 below). Those benefits and savings exceeded \$1 billion in three states and totaled \$500 million to \$1 billion in nine additional states. These state data also substantially reflect the numbers of non-Hispanic Black residents, their smoking rates, and their average income. Generally, Blacks have lower smoking and vaping rates than whites and higher smoking and vaping rates than Hispanics.

Table 13: Productivity Benefits and Healthcare Savings Associated with Black Non-Hispanic Smokers Switching to Vaping, 2011 to 2022, Top 12 States (\$ Million)

	Total	Productivity Benefits		Healthcare Savings	
		Fewer Deaths	Less Illness	Fewer Smokers	Secondhand Smoke
Nationwide	\$14,988	\$3,868	\$6,151	\$4,539	\$430
TX	\$1,638	\$455	\$678	\$464	\$40
GA	\$1,176	\$314	\$487	\$342	\$32
NY	\$1,131	\$286	\$448	\$359	\$37
NC	\$960	\$257	\$395	\$281	\$28
CA	\$882	\$216	\$374	\$267	\$24
PA	\$815	\$206	\$334	\$252	\$23
FL	\$785	\$239	\$297	\$221	\$29
LA	\$622	\$158	\$247	\$198	\$19
MD	\$616	\$177	\$255	\$166	\$17
VA	\$592	\$156	\$235	\$184	\$17
AL	\$542	\$142	\$222	\$163	\$16
NJ	\$512	\$133	\$207	\$157	\$15

Complete data on the benefits and savings from Black smokers shifting to vaping are provided for each of the 50 states and DC, arranged alphabetically, in Appendix Table A-15.

Benefits and Savings from Hispanic Smokers Shifting to Vaping

Lastly, the productivity benefits and healthcare savings from Hispanic smokers shifting to vaping from 2011 to 2022 totaled \$6.9 billion nationally (Table 14 below). On a state basis, those benefits and savings exceeded \$1 billion savings in two states and totaled \$100 million to \$600 million in ten states. Again, these state data also substantially reflect the numbers of Hispanic

residents, their smoking rates, and their average income. Generally, Hispanics have lower rates of smoking and vaping than non-Hispanic whites or non-Hispanic Blacks.

Table 14: Productivity Benefits and Healthcare Savings Associated with Hispanic Smokers Switching to Vaping, 2011 to 2022, Top 12 States (\$ Million)

	Total	Productivity Benefits		Healthcare Savings	
		Fewer Deaths	Less Illness	Fewer Smokers	Secondhand Smoke
Nationwide	\$6,860	\$952	\$3,047	\$2,587	\$275
TX	\$1,622	\$236	\$714	\$615	\$57
CA	\$1,385	\$174	\$593	\$559	\$60
FL	\$587	\$102	\$268	\$191	\$26
NY	\$579	\$78	\$253	\$222	\$26
AZ	\$273	\$33	\$120	\$109	\$11
NJ	\$230	\$32	\$99	\$89	\$10
PA	\$201	\$28	\$88	\$77	\$8
NM	\$186	\$27	\$87	\$65	\$7
CO	\$130	\$16	\$58	\$51	\$5
GA	\$130	\$19	\$58	\$47	\$5
IL	\$110	\$12	\$50	\$43	\$4
MA	\$109	\$14	\$46	\$44	\$5

The comprehensive data on the benefits and savings from Hispanic smokers shifting to vaping are provided for the 50 states and DC in Appendix Table A-16.

V. Notes on the Methodology

In our original study of the dimensions and impact of smokers shifting from cigarettes to e-cigarettes from 2011 to 2022, we estimated the impact in smoker years on premature deaths and illness from smoking-related diseases (offset modestly by the marginal health impact of vaping) at the national level for the total population and for each gender, three major race and ethnicity groups, and four age groups. The study also included estimates of the value of these impacts on smoker years in terms of mortality, morbidity, and healthcare costs, directly and from secondhand smoke. This analysis provides new estimates of these effects for each of the 50 states and the District of Columbia for overall state populations and by gender and race and ethnicity.

Estimates of smoker-year reductions nationwide for each subgroup

First, we allocated the national totals for the impact on smoker-years (adjusted for 5 percent impact from increased vaping-years) of each gender and race/ethnicity demographic group among the states based on their demographic composition. For the overall totals and the gender subgroups, we first reapplied our original counterfactual forecasting approach using the four U.S. regions (Northeast, Midwest, South, and West). Using these relative shares, we distributed the overall total and gender subgroup effective smoker-year reductions across the regions. For each region, we distributed the effects by year based on the distribution of smokers in each demographic group across the states in the region.

We used a modified approach for our estimates by race and ethnicity, because the racial and ethnic distribution within and between the regions is highly heterogeneous. Therefore, we eliminated the regional distribution step and distributed the total effective smoker-years for each state based on the number of smokers in each race and ethnic group in the state. In some low-population states, this may have suppressed the number of smokers in a particular demographic in a particular year due to a very small sample size (for example, black smokers in Wyoming or Hispanic smokers in Maine in particular year). In those instances, we use interpolation to estimate the values for the missing years in our modeling.

As part of this process, we also produced the initial tables for overall cigarette and e-cigarette prevalence rates for each demographic group in each state in 2022.

Estimating Mortality Effects

Each demographic subgroup has a distinct age profile and health risks. Our analysis requires a large sample size, so we could not use simple demographic cross sections (for example, non-Hispanic Blacks ages 25 to 44). Therefore, we assume that the age distribution of the benefits at the national level applies equally to each demographic group. This could result in understating the mortality benefits for non-Hispanic Whites and overstating those benefits for the non-Hispanic Black and Hispanics groups. The effect on gender should be much smaller, although it could modestly overstate those effects for males and modestly understate them for females.

However, we improved those estimates by applying different mortality factors for each demographic group. For our gender analysis, our data already provide all-cause mortality rates by smoker status and gender. For race, we used the overall rates and adjusted them based on values of relative mortality risk by smoking status and race and ethnicity. These data values are presented as risk ratios, compared to the mortality risks for never-smokers, so we perform the following calculations: a) we averaged the male and female risk ratios by race and age group; b) we applied CDC data to determine the 10-year mortality risk of each race for each age group; and c) we used the risk ratios of current and former smokers compared to never smokers, along with the overall mortality risk to calculate the 10-year mortality risks of current/former/never smokers for each race group and age group.

Since our original analysis focused on those deaths by smokers from heart disease, stroke, lung cancer, and COPD—the main potentially lethal conditions attributable most directly to smoking—for this analysis, we multiplied the resulting mortality risks by the ratio of the mortality risks for the four diseases divided by the overall mortality risk for each age group.

Finally, we used these gender and race/ethnicity mortality risk numbers (by age group) and the overall effects to calculate the total premature deaths averted and life-years saved by smokers switching to vaping, using the effective smoker-year reduction values calculated for each triad of state-subgroup-year and then aggregated the effects across the 2011 to 2022 timeframe. We did not include a youth pass-through effect given the lack of state-level demographic breakdown in the youth data and given that a youth pass-through effect had virtually no impact on the 2022 estimates based on the low mortality rates for people in their mid-twenties.

Estimating the Economic Effects

To estimate the economic benefits from reduced mortality and morbidity associated with smokers switching to vaping, we used average income data for each demographic group in each state in each year reported in the ASEC dataset in the Current Population Survey (CPS). The associated healthcare savings estimates are unadjusted by demographic group due to limitations in the literature; instead, we use the smoker years averted for each demographic group in each state and applied the same multipliers used at the national level.

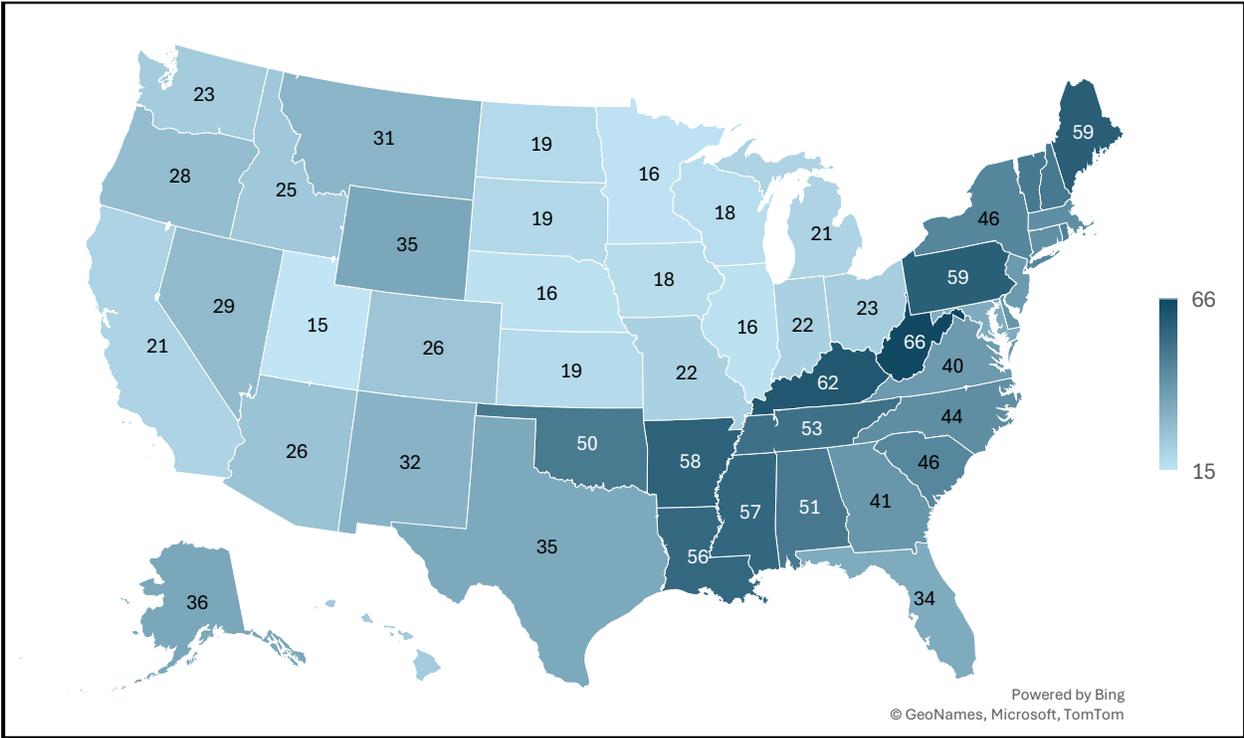
Generally, modeling individual groups to disaggregate the economic effects can exacerbate the distributional differences in the benefits from shifting from smoking to vaping. In our original analysis, we found that the changes in smoker years were modestly greater for males than females, but that effect was attributable disproportionately to the non-Hispanic White population with very little effect for Hispanic Americans. In our mortality calculations, we found that the difference between current and former smokers was greater among men than women and slightly greater among non-Hispanic Whites than non-Hispanic Blacks; yet, both non-Hispanic Whites and Blacks had substantially larger mortality risk differentials than Hispanics. Directionally similar distributional effects appear in the income data by state, age, and demographic group—for example, men earn more than women, and non-Hispanic Whites earn more than non-Hispanic Blacks or Hispanics—which further exacerbates differences in productivity effects based on the mortality and morbidity results.

At the national level, males accounted for approximately two thirds of vaping’s benefits in averting premature deaths and the associated life-years, and almost 80 percent of the mortality-related productivity effects from 2011 to 2022. Because we do not account for demographic differences in per-smoker-year healthcare costs, those effects are distributed nearly evenly between males and females based on very similar smoker-year reductions, although there are some variations at the state level based on the gender dynamics of smoking rates in each state.

Finally, since non-Hispanic Whites accounted for 82 percent of the total reduction in smoker-years at the national level, they are assumed to account for the same share of healthcare savings. However, based on differences in marginal mortality risk from continuing to smoke and differences in average wages, non-Hispanic Whites accounted for nearly 90 percent of the averted premature deaths, life-years lost, and morbidity-related productivity effects and for 93 percent of averted mortality-related productivity effects.

Figure 1, below, illustrates the deaths averted by smokers shifting to vaping from 2011 to 2022 for each state, per 100,000 population. In 10 states, those shifts saved respectively 50 or more people per 100,000 from premature smoking-related deaths: West Virginia (66 per 100,000), Kentucky (62 per 100,000), New York and Maine (59 per 100,000), Arkansas (58 per 100,000), Mississippi (57 per 100,000), Louisiana (56 per 100,000), Tennessee (53 per 100,000), Alabama (51 per 100,000), and Oklahoma (50 per 100,000).

Figure 1: Premature Smoking-Related Deaths averted per 100,000 Residents, 2011-2022



APPENDIX TABLES

	Table A-1: 2022 Smoking Rates (%)					
	Total	Male	Female	Non-Hispanic White	Non-Hispanic Black	Hispanic
Nationwide	12.9	14.3	11.4	13.3	14.2	10.7
AK	15.9	17.9	13.8	12.9	15.4	12.3
AL	15.6	16.9	14.4	14.8	14.7	NA
AR	18.7	21.6	16.0	18.6	19.9	11.5
AZ	12.7	14.2	11.2	13.0	11.8	12.3
CA	9.7	12.6	7.0	9.8	15.3	9.0
CO	10.7	12.4	8.9	9.6	17.8	13.6
CT	10.0	11.8	8.4	9.7	12.6	11.9
DC	10.6	12.5	9.0	4.7	17.1	NA
DE	12.9	14.4	11.6	13.8	14.6	6.5
FL	11.3	13.0	9.7	12.8	9.1	9.1
GA	12.5	12.6	12.5	13.2	12.8	10.2
HI	10.0	11.6	8.3	10.0	NA	11.4
IA	14.7	16.6	12.9	14.8	15.9	12.2
ID	11.9	12.7	11.0	10.8	NA	14.0
IL	12.4	14.4	10.5	13.0	15.4	10.0
IN	16.2	17.3	15.2	16.6	17.2	11.8
KS	14.5	15.7	13.3	13.6	18.9	11.4
KY	17.4	19.4	15.5	17.0	20.0	19.4
LA	16.7	18.9	14.7	17.6	15.5	13.3
MA	10.4	11.6	9.2	10.5	9.6	8.4
MD	9.6	11.2	8.2	9.7	10.2	7.3
ME	15.0	16.0	14.1	14.7	NA	19.4
MI	15.2	16.0	14.5	14.8	18.2	15.0
MN	13.0	13.6	12.4	12.1	18.7	11.0
MO	16.8	17.3	16.2	16.5	17.8	13.3
MS	17.4	20.6	14.4	17.6	16.1	NA
MT	15.2	14.8	15.6	13.1	NA	18.7
NC	14.5	15.4	13.6	14.7	15.7	8.6
ND	15.1	14.8	15.5	14.0	NA	18.5
NE	13.0	13.8	12.2	12.9	14.3	9.5
NH	11.2	11.4	11.0	12.0	NA	NA
NJ	10.4	11.9	9.0	10.3	12.2	11.5
NM	15.0	17.0	12.9	14.3	NA	15.7
NV	14.8	15.0	14.6	16.0	11.3	14.7
NY	11.2	12.9	9.7	11.9	10.0	11.3
OH	17.1	17.7	16.5	16.8	18.2	14.5
OK	15.6	16.6	14.6	15.7	13.9	10.0
OR	12.4	13.5	11.3	12.0	16.6	9.7
PA	14.9	15.9	14.0	14.2	20.3	17.6
RI	11.8	12.6	11.0	11.1	8.1	11.6
SC	15.4	17.3	13.6	14.4	17.8	12.7
SD	14.0	14.5	13.5	12.4	NA	NA
TN	18.5	20.5	16.7	18.4	17.5	16.6
TX	11.8	13.0	10.7	12.8	13.3	10.8
UT	6.7	8.4	4.9	6.6	NA	7.1
VA	12.1	14.2	10.1	13.4	11.5	9.5
VT	13.0	13.6	12.5	12.6	NA	20.8
WA	10.0	10.9	9.1	10.2	11.0	9.0
WI	14.2	15.4	13.1	13.7	20.2	15.6
WV	21.0	20.9	21.1	20.8	21.4	NA
WY	15.5	16.5	14.4	15.6	NA	11.0

	Table A-2: 2022 Vaping Rates (%)					
	Total	Male	Female	Non-Hispanic White	Non-Hispanic Black	Hispanic
Nationwide	7.5	8.7	6.4	7.6	5.3	7.1
AK	6.8	7.0	6.5	6.0	NA	9.7
AL	10.4	13.8	7.3	11.0	6.4	NA
AR	10.4	10.3	10.4	11.0	6.9	NA
AZ	9.0	9.9	8.1	8.0	7.8	9.5
CA	7.3	9.1	5.4	6.9	6.5	7.0
CO	8.3	9.3	7.3	7.6	9.2	9.7
CT	5.6	6.6	4.6	5.6	4.7	6.6
DC	5.3	5.7	5.0	3.8	4.9	NA
DE	6.1	7.1	5.1	6.0	6.6	3.7
FL	6.1	6.9	5.4	6.3	NA	5.5
GA	7.7	8.8	6.6	8.6	5.4	6.6
HI	8.8	11.3	6.3	7.8	NA	11.6
IA	6.7	7.5	6.0	6.2	NA	6.2
ID	10.0	10.7	9.4	8.5	NA	14.8
IL	5.2	5.6	4.8	5.9	5.0	2.8
IN	8.1	8.7	7.6	8.1	6.9	8.2
KS	8.1	9.3	6.9	8.0	6.4	8.7
KY	10.5	11.8	9.2	10.0	12.4	NA
LA	10.4	11.5	9.4	11.5	4.7	24.2
MA	5.6	7.0	4.3	5.5	5.4	6.2
MD	4.6	5.3	3.9	5.4	4.6	2.6
ME	6.1	6.9	5.4	5.6	NA	16.9
MI	8.4	9.1	7.8	7.8	8.2	11.4
MN	6.9	7.6	6.2	6.5	8.6	8.4
MO	8.1	8.5	7.8	7.6	6.9	15.0
MS	9.4	10.4	8.4	10.9	5.5	NA
MT	7.7	8.1	7.2	6.7	NA	16.1
NC	7.9	9.2	6.7	8.7	5.1	6.8
ND	9.0	9.5	8.4	7.3	NA	23.2
NE	8.5	9.0	8.0	8.4	9.5	5.6
NH	7.0	7.6	6.4	6.0	NA	17.4
NJ	6.1	7.9	4.4	6.6	6.1	6.1
NM	7.3	8.4	6.3	5.6	NA	8.1
NV	8.8	9.1	8.6	8.9	9.7	7.7
NY	7.2	8.8	5.7	7.3	5.4	8.2
OH	8.8	9.3	8.3	8.4	8.0	11.5
OK	11.0	11.9	10.0	10.5	6.9	10.1
OR	6.9	7.3	6.5	6.2	NA	8.3
PA	7.4	8.1	6.7	6.8	NA	10.0
RI	6.6	7.0	6.3	6.6	NA	6.0
SC	8.2	9.0	7.5	8.2	3.6	15.8
SD	6.7	8.4	5.0	6.0	NA	NA
TN	10.8	11.8	9.8	10.8	10.0	15.3
TX	7.1	8.9	5.3	8.0	5.1	6.2
UT	7.6	8.8	6.4	7.5	NA	7.3
VA	7.7	8.5	6.8	8.0	7.0	7.6
VT	6.2	6.3	6.1	5.3	NA	20.6
WA	7.1	8.3	5.8	6.8	9.9	7.2
WI	6.7	7.8	5.7	6.4	7.2	8.3
WV	9.3	9.9	8.7	9.0	NA	NA
WY	8.3	8.2	8.4	7.6	NA	11.1

	Table A-3: Smokers that Switched to Vaping, 2011-2022					
	Total	Male	Female	White	Black	Hispanic
Nationwide	6,105,052	3,275,820	3,184,013	5,811,453	473,736	156,811
AK	17,420	9,347	9,085	12,458	269	164
AL	103,442	55,504	53,949	105,325	16,046	862
AR	74,951	40,217	39,090	88,437	7,510	628
AZ	134,675	72,263	70,238	103,250	2,976	7,756
CA	586,046	314,458	305,645	324,734	27,702	34,962
CO	89,629	48,093	46,745	81,119	3,145	3,946
CT	75,493	40,508	39,372	52,342	3,701	1,634
DC	9,620	5,162	5,017	2,580	4,429	268
DE	16,734	8,979	8,727	18,290	2,418	159
FL	312,807	167,845	163,141	318,421	24,152	11,974
GA	173,541	93,118	90,508	156,764	33,873	2,692
HI	21,259	11,407	11,088	5,716	400	404
IA	55,891	29,990	29,149	87,401	1,425	613
ID	31,022	16,646	16,179	33,334	219	796
IL	193,254	103,695	100,789	229,892	23,139	5,497
IN	130,155	69,838	67,881	194,454	8,912	1,290
KS	50,504	27,099	26,340	64,921	2,518	973
KY	104,826	56,247	54,671	140,868	5,776	955
LA	103,676	55,630	54,071	105,287	19,076	838
MA	148,116	79,475	77,248	115,186	3,872	1,663
MD	78,866	42,318	41,132	67,280	14,930	1,090
ME	42,332	22,714	22,078	40,675	319	100
MI	184,699	99,105	96,327	246,902	20,960	1,885
MN	87,328	46,858	45,545	118,930	5,325	807
MO	122,927	65,960	64,111	175,879	10,214	870
MS	69,660	37,378	36,330	66,245	14,986	292
MT	24,212	12,992	12,628	26,741	95	166
NC	197,651	106,054	103,082	201,089	28,359	2,237
ND	13,555	7,273	7,069	19,209	296	117
NE	29,965	16,078	15,628	42,311	1,005	561
NH	31,520	16,913	16,439	32,441	298	170
NJ	196,241	105,298	102,347	117,093	11,721	5,108
NM	47,657	25,572	24,855	25,795	598	3,784
NV	66,398	35,628	34,629	52,715	2,422	3,009
NY	464,529	249,255	242,269	294,733	22,857	10,505
OH	241,013	129,322	125,697	341,860	21,685	1,723
OK	81,307	43,627	42,405	85,530	3,277	1,086
OR	77,454	41,560	40,395	82,769	1,069	1,203
PA	399,983	214,621	208,606	309,896	23,278	4,026
RI	26,274	14,098	13,703	19,332	418	454
SC	102,170	54,822	53,286	101,302	19,632	826
SD	14,539	7,801	7,582	19,473	266	128
TN	167,365	89,804	87,287	199,539	16,085	1,770
TX	442,254	237,303	230,652	326,796	36,897	30,124
UT	31,302	16,796	16,325	35,828	588	729
VA	136,224	73,095	71,046	154,197	15,282	1,898
VT	17,192	9,225	8,966	16,433	128	45
WA	111,581	59,872	58,194	111,694	2,451	2,082
WI	100,419	53,882	52,372	144,019	5,563	1,683
WV	51,713	27,748	26,970	77,178	1,070	106
WY	13,660	7,330	7,124	16,788	106	154

	Table A-4: Life Years Gained By Smokers Switching to Vaping, 2011-2022					
	Overall	Male	Female	White	Black	Hispanic
Total	42,237,980	21,024,391	19,700,683	36,453,951	4,973,646	2,528,811
AK	104,966	47,529	56,443	76,905	3,105	3,088
AL	913,448	437,671	434,293	729,993	180,651	14,987
AR	629,300	293,132	310,951	564,744	74,821	11,582
AZ	781,776	377,043	387,395	614,707	36,121	116,935
CA	3,220,316	1,704,403	1,370,055	1,967,564	247,972	518,924
CO	587,333	272,789	303,996	573,309	30,656	62,995
CT	565,132	286,513	258,838	336,486	38,708	28,597
DC	84,838	39,786	40,148	18,717	46,535	3,666
DE	146,948	71,497	68,188	116,872	23,764	4,357
FL	2,367,695	1,155,479	1,059,726	1,785,037	228,221	196,826
GA	1,597,289	783,125	739,214	1,102,440	352,851	48,977
HI	132,483	64,071	65,641	33,427	3,526	8,620
IA	267,292	141,039	125,961	508,434	18,470	9,029
ID	192,710	85,054	105,906	227,248	1,932	10,656
IL	945,581	516,273	426,137	1,400,161	238,285	84,629
IN	675,636	346,160	330,461	1,252,326	97,173	21,140
KS	251,911	128,948	122,719	407,522	27,219	18,992
KY	970,718	443,415	482,812	986,989	61,553	14,138
LA	915,652	443,003	430,374	677,989	215,287	17,289
MA	1,089,793	548,041	504,438	734,241	47,103	35,720
MD	725,068	358,140	326,985	481,164	168,457	18,542
ME	299,904	147,855	142,292	251,866	2,814	1,452
MI	964,415	498,065	465,701	1,606,131	217,764	36,278
MN	422,712	220,479	202,152	750,681	46,304	14,375
MO	610,465	303,492	307,107	1,070,008	110,213	18,856
MS	595,496	287,008	282,959	429,306	159,327	4,812
MT	139,090	58,240	80,805	163,976	840	3,095
NC	1,655,664	822,932	752,277	1,261,301	296,818	36,441
ND	67,388	35,497	31,839	118,197	2,608	1,910
NE	148,181	76,902	71,215	257,820	13,549	10,693
NH	253,182	120,258	125,076	210,332	2,624	2,715
NJ	1,309,899	658,336	602,226	710,576	116,003	66,092
NM	266,786	124,107	137,929	150,808	5,899	57,404
NV	374,013	173,559	196,233	304,944	37,061	36,521
NY	3,319,933	1,734,572	1,459,086	1,835,395	266,401	164,551
OH	1,220,076	601,757	619,122	2,133,995	238,320	34,406
OK	715,264	335,091	348,684	544,681	41,182	22,148
OR	469,948	207,697	258,611	540,963	12,134	22,076
PA	2,784,243	1,337,958	1,355,884	1,906,920	214,945	65,533
RI	190,730	94,362	90,244	131,543	6,242	6,638
SC	857,197	419,273	396,311	681,792	172,491	12,775
SD	78,846	40,733	37,956	128,631	2,343	2,116
TN	1,346,851	625,847	664,555	1,220,788	162,424	24,883
TX	3,777,064	2,015,543	1,558,613	2,021,476	395,227	523,936
UT	200,787	100,053	95,196	224,031	4,772	14,180
VA	1,189,467	583,159	544,049	935,570	198,003	31,567
VT	120,233	59,739	56,696	101,085	1,126	521
WA	713,923	324,616	377,466	739,201	31,995	34,476
WI	475,099	250,777	224,438	853,667	58,834	22,705
WV	422,128	186,863	219,091	471,252	12,037	2,193
WY	83,109	36,511	46,187	100,738	934	3,774

All data on White and Black Smokers and Vapers cover non-Hispanic Whites and Blacks.

	Table A-5: Averted Premature Deaths					
	Total	Male	Female	White	Black	Hispanic
Nationwide	113,274	73,934	39,340	101,116	9,635	2,523
AK	260	156	104	251	6	3
AL	2,570	1,660	910	2,206	350	13
AR	1,766	1,114	652	1,618	138	10
AZ	1,939	1,222	718	1,780	61	97
CA	8,139	5,595	2,544	7,003	589	547
CO	1,495	912	583	1,404	48	43
CT	1,560	1,024	536	1,416	109	36
DC	247	157	90	94	148	5
DE	421	277	144	370	47	3
FL	7,612	5,023	2,589	6,814	577	221
GA	4,461	2,965	1,496	3,692	721	48
HI	339	216	123	297	20	22
IA	577	372	205	560	14	3
ID	476	278	198	468	3	6
IL	2,075	1,393	683	1,835	208	32
IN	1,484	943	541	1,410	68	6
KS	545	344	201	516	22	7
KY	2,777	1,723	1,054	2,661	103	12
LA	2,574	1,674	900	2,122	436	17
MA	3,036	1,986	1,050	2,879	116	41
MD	2,097	1,390	707	1,697	381	19
ME	822	531	290	814	6	2
MI	2,103	1,349	755	1,921	169	13
MN	911	591	320	871	35	5
MO	1,343	833	510	1,251	86	6
MS	1,661	1,068	593	1,343	314	4
MT	350	197	153	347	1	2
NC	4,670	3,099	1,571	4,038	601	31
ND	148	96	52	145	2	1
NE	323	207	116	309	10	4
NH	710	443	267	702	5	3
NJ	3,675	2,406	1,269	3,284	309	82
NM	667	410	257	585	16	66
NV	919	566	353	818	70	31
NY	9,119	6,144	2,976	8,137	772	210
OH	2,676	1,665	1,011	2,482	181	13
OK	2,020	1,294	727	1,904	95	22
OR	1,198	698	500	1,167	17	13
PA	7,667	4,832	2,835	7,085	509	73
RI	527	342	184	502	17	7
SC	2,421	1,591	830	2,073	337	11
SD	177	114	62	174	2	1
TN	3,751	2,349	1,402	3,436	293	23
TX	10,453	7,259	3,195	8,721	1,094	638
UT	509	330	179	493	7	9
VA	3,433	2,275	1,158	3,000	405	29
VT	326	211	115	323	2	0
WA	1,823	1,099	723	1,751	48	24
WI	1,034	673	361	982	46	6
WV	1,180	718	462	1,159	20	1
WY	206	120	86	203	1	2

	Table A-6: Additional Life Years					
	Total	Male	Female	White	Black	Hispanic
Nationwide	2,481,780	1,603,950	877,831	2,230,129	193,073	58,578
AK	5,644	3,315	2,329	5,455	124	65
AL	56,779	36,246	20,533	49,465	7,011	303
AR	38,934	24,258	14,677	35,954	2,758	223
AZ	41,865	25,940	15,925	38,409	1,256	2,200
CA	175,883	119,062	56,821	152,247	11,208	12,427
CO	32,405	19,384	13,021	30,472	946	987
CT	34,227	22,334	11,893	31,230	2,158	839
DC	5,507	3,464	2,043	2,226	3,161	120
DE	9,304	6,041	3,263	8,262	954	88
FL	168,883	110,140	58,743	151,994	11,734	5,154
GA	98,801	64,940	33,860	82,900	14,774	1,126
HI	7,315	4,572	2,743	6,425	378	512
IA	12,340	7,911	4,429	12,004	267	70
ID	10,305	5,911	4,393	10,121	48	135
IL	44,347	29,583	14,764	39,584	4,031	732
IN	31,712	20,025	11,687	30,228	1,339	145
KS	11,659	7,319	4,340	11,080	424	155
KY	61,305	37,622	23,683	58,961	2,070	275
LA	56,739	36,494	20,245	47,672	8,681	386
MA	66,599	43,280	23,320	63,313	2,335	951
MD	46,425	30,373	16,052	38,221	7,760	444
ME	17,999	11,563	6,436	17,851	112	35
MI	44,961	28,653	16,308	41,382	3,280	299
MN	19,473	12,546	6,927	18,675	686	112
MO	28,657	17,669	10,988	26,887	1,629	141
MS	36,670	23,322	13,348	30,206	6,371	94
MT	7,566	4,180	3,385	7,499	21	45
NC	103,203	67,601	35,602	90,275	12,160	767
ND	3,160	2,042	1,117	3,104	38	17
NE	6,913	4,414	2,499	6,630	197	86
NH	15,531	9,646	5,885	15,368	106	57
NJ	81,758	53,318	28,440	73,200	6,556	2,002
NM	14,430	8,722	5,708	12,629	299	1,502
NV	19,879	12,012	7,867	17,844	1,345	690
NY	199,756	133,830	65,926	179,346	15,483	4,927
OH	57,121	35,298	21,823	53,344	3,498	279
OK	44,656	28,224	16,432	42,246	1,890	520
OR	25,886	14,806	11,080	25,248	328	311
PA	167,853	105,152	62,701	155,873	10,266	1,714
RI	11,536	7,443	4,093	11,037	333	166
SC	53,595	34,845	18,750	46,507	6,825	264
SD	3,768	2,422	1,345	3,713	37	17
TN	82,778	51,261	31,517	76,405	5,866	507
TX	231,515	159,608	71,906	194,765	21,788	14,962
UT	11,038	7,032	4,006	10,704	131	203
VA	75,890	49,689	26,201	67,019	8,155	716
VT	7,125	4,578	2,547	7,070	45	11
WA	39,464	23,350	16,115	37,991	918	555
WI	22,130	14,308	7,822	21,089	880	161
WV	26,030	15,647	10,382	25,608	388	33
WY	4,463	2,554	1,909	4,392	23	48

All data on White and Black Smokers and Vapers cover non-Hispanic Whites and Blacks.

	Table A-7: Mortality Related Productivity Benefits (\$ Millions)					
	Total	Male	Female	White	Black	Hispanic
Nationwide	\$65,840	\$51,335	\$14,505	\$61,021	\$3,868	\$952
AK	\$148	\$106	\$42	\$144	\$3	\$1
AL	\$1,516	\$1,187	\$328	\$1,368	\$142	\$6
AR	\$1,038	\$781	\$256	\$975	\$58	\$5
AZ	\$1,097	\$838	\$259	\$1,037	\$28	\$33
CA	\$4,612	\$3,690	\$922	\$4,222	\$216	\$174
CO	\$852	\$630	\$221	\$818	\$18	\$16
CT	\$909	\$715	\$195	\$855	\$41	\$13
DC	\$148	\$108	\$40	\$96	\$49	\$2
DE	\$248	\$190	\$58	\$227	\$20	\$2
FL	\$4,518	\$3,522	\$996	\$4,177	\$239	\$102
GA	\$2,642	\$2,081	\$561	\$2,309	\$314	\$19
HI	\$192	\$142	\$50	\$173	\$9	\$9
IA	\$322	\$249	\$73	\$315	\$5	\$1
ID	\$271	\$200	\$71	\$267	\$1	\$2
IL	\$1,156	\$923	\$234	\$1,072	\$73	\$12
IN	\$827	\$644	\$183	\$796	\$28	\$3
KS	\$304	\$234	\$70	\$293	\$8	\$2
KY	\$1,636	\$1,223	\$413	\$1,582	\$49	\$5
LA	\$1,512	\$1,199	\$313	\$1,346	\$158	\$8
MA	\$1,769	\$1,388	\$381	\$1,710	\$45	\$14
MD	\$1,241	\$955	\$286	\$1,056	\$177	\$8
ME	\$477	\$363	\$115	\$475	\$2	\$1
MI	\$1,172	\$912	\$261	\$1,104	\$62	\$6
MN	\$508	\$391	\$117	\$493	\$13	\$2
MO	\$746	\$566	\$180	\$711	\$33	\$3
MS	\$978	\$752	\$226	\$854	\$122	\$2
MT	\$198	\$138	\$60	\$197	\$1	\$1
NC	\$2,755	\$2,160	\$596	\$2,485	\$257	\$14
ND	\$82	\$64	\$18	\$81	\$1	\$0
NE	\$180	\$138	\$43	\$175	\$4	\$1
NH	\$412	\$317	\$95	\$408	\$3	\$1
NJ	\$2,190	\$1,732	\$458	\$2,026	\$133	\$32
NM	\$379	\$278	\$101	\$345	\$6	\$27
NV	\$522	\$385	\$137	\$482	\$28	\$12
NY	\$5,302	\$4,198	\$1,103	\$4,937	\$286	\$78
OH	\$1,488	\$1,135	\$354	\$1,417	\$67	\$5
OK	\$1,192	\$927	\$265	\$1,144	\$39	\$9
OR	\$679	\$479	\$200	\$667	\$7	\$5
PA	\$4,453	\$3,416	\$1,037	\$4,219	\$206	\$28
RI	\$306	\$235	\$71	\$298	\$6	\$2
SC	\$1,432	\$1,117	\$315	\$1,298	\$129	\$5
SD	\$98	\$76	\$22	\$97	\$1	\$0
TN	\$2,207	\$1,686	\$521	\$2,078	\$120	\$10
TX	\$6,193	\$5,083	\$1,109	\$5,502	\$455	\$236
UT	\$290	\$233	\$57	\$283	\$3	\$4
VA	\$2,026	\$1,591	\$436	\$1,857	\$156	\$14
VT	\$189	\$143	\$46	\$188	\$1	\$0
WA	\$1,036	\$762	\$274	\$1,006	\$21	\$10
WI	\$577	\$448	\$129	\$560	\$15	\$3
WV	\$694	\$519	\$175	\$684	\$9	\$1
WY	\$117	\$85	\$32	\$116	\$0	\$1

	Table A-8: Morbidity Related Productivity Benefits (\$ Millions)					
	Total	Male	Female	White	Black	Hispanic
Nationwide	\$113,274	\$73,934	\$39,340	\$101,116	\$9,635	\$2,523
AK	\$260	\$156	\$104	\$251	\$6	\$3
AL	\$2,570	\$1,660	\$910	\$2,206	\$350	\$13
AR	\$1,766	\$1,114	\$652	\$1,618	\$138	\$10
AZ	\$1,939	\$1,222	\$718	\$1,780	\$61	\$97
CA	\$8,139	\$5,595	\$2,544	\$7,003	\$589	\$547
CO	\$1,495	\$912	\$583	\$1,404	\$48	\$43
CT	\$1,560	\$1,024	\$536	\$1,416	\$109	\$36
DC	\$247	\$157	\$90	\$94	\$148	\$5
DE	\$421	\$277	\$144	\$370	\$47	\$3
FL	\$7,612	\$5,023	\$2,589	\$6,814	\$577	\$221
GA	\$4,461	\$2,965	\$1,496	\$3,692	\$721	\$48
HI	\$339	\$216	\$123	\$297	\$20	\$22
IA	\$577	\$372	\$205	\$560	\$14	\$3
ID	\$476	\$278	\$198	\$468	\$3	\$6
IL	\$2,075	\$1,393	\$683	\$1,835	\$208	\$32
IN	\$1,484	\$943	\$541	\$1,410	\$68	\$6
KS	\$545	\$344	\$201	\$516	\$22	\$7
KY	\$2,777	\$1,723	\$1,054	\$2,661	\$103	\$12
LA	\$2,574	\$1,674	\$900	\$2,122	\$436	\$17
MA	\$3,036	\$1,986	\$1,050	\$2,879	\$116	\$41
MD	\$2,097	\$1,390	\$707	\$1,697	\$381	\$19
ME	\$822	\$531	\$290	\$814	\$6	\$2
MI	\$2,103	\$1,349	\$755	\$1,921	\$169	\$13
MN	\$911	\$591	\$320	\$871	\$35	\$5
MO	\$1,343	\$833	\$510	\$1,251	\$86	\$6
MS	\$1,661	\$1,068	\$593	\$1,343	\$314	\$4
MT	\$350	\$197	\$153	\$347	\$1	\$2
NC	\$4,670	\$3,099	\$1,571	\$4,038	\$601	\$31
ND	\$82	\$96	\$52	\$145	\$2	\$1
NE	\$323	\$207	\$116	\$309	\$10	\$4
NH	\$710	\$443	\$267	\$702	\$5	\$3
NJ	\$3,675	\$2,406	\$1,269	\$3,284	\$309	\$82
NM	\$667	\$410	\$257	\$585	\$16	\$66
NV	\$919	\$566	\$353	\$818	\$70	\$31
NY	\$9,119	\$6,144	\$2,976	\$8,137	\$772	\$210
OH	\$2,676	\$1,665	\$1,011	\$2,482	\$181	\$13
OK	\$2,020	\$1,294	\$727	\$1,904	\$95	\$22
OR	\$1,198	\$698	\$500	\$1,167	\$17	\$13
PA	\$7,667	\$4,832	\$2,835	\$7,085	\$509	\$73
RI	\$527	\$342	\$184	\$502	\$17	\$7
SC	\$2,421	\$1,591	\$830	\$2,073	\$337	\$11
SD	\$177	\$114	\$62	\$174	\$2	\$1
TN	\$3,751	\$2,349	\$1,402	\$3,436	\$293	\$23
TX	\$10,453	\$7,259	\$3,195	\$8,721	\$1,094	\$638
UT	\$509	\$330	\$179	\$493	\$7	\$9
VA	\$3,433	\$2,275	\$1,158	\$3,000	\$405	\$29
VT	\$326	\$211	\$115	\$323	\$2	\$0
WA	\$1,823	\$1,099	\$723	\$1,751	\$48	\$24
WI	\$1,034	\$673	\$361	\$982	\$46	\$6
WV	\$1,180	\$718	\$462	\$1,159	\$20	\$1
WY	\$206	\$120	\$86	\$203	\$1	\$2

All data on White and Black Smokers and Vapers cover non-Hispanic Whites and Blacks.

	Table A-9: Direct Healthcare Savings (\$ Millions)					
	Total	Male	Female	White	Black	Hispanic
Nationwide	\$38,770	\$20,023	\$18,747	\$31,644	\$4,539	\$2,587
AK	\$96.2	\$44.0	\$52.2	\$89.0	\$3.6	\$3.6
AL	\$834.1	\$418.7	\$415.4	\$657.8	\$162.8	\$13.5
AR	\$574.8	\$278.9	\$295.9	\$498.5	\$66.0	\$10.2
AZ	\$715.7	\$353.0	\$362.7	\$573.0	\$33.7	\$109.0
CA	\$2,943.8	\$1,632.0	\$1,311.8	\$2,118.2	\$267.0	\$558.7
CO	\$536.9	\$253.9	\$283.0	\$461.5	\$24.7	\$50.7
CT	\$519.9	\$273.1	\$246.8	\$433.2	\$49.8	\$36.8
DC	\$77.1	\$38.4	\$38.7	\$20.9	\$52.0	\$4.1
DE	\$133.9	\$68.5	\$65.4	\$107.9	\$21.9	\$4.0
FL	\$2,139.5	\$1,116.0	\$1,023.5	\$1,728.0	\$220.9	\$190.5
GA	\$1,458.9	\$750.5	\$708.4	\$1,069.2	\$342.2	\$47.5
HI	\$121.4	\$59.9	\$61.4	\$89.0	\$9.4	\$23.0
IA	\$250.4	\$132.3	\$118.1	\$237.5	\$8.6	\$4.2
ID	\$176.4	\$78.6	\$97.8	\$167.1	\$1.4	\$7.8
IL	\$885.5	\$485.1	\$400.4	\$719.5	\$122.4	\$43.5
IN	\$633.7	\$324.2	\$309.5	\$579.0	\$44.9	\$9.8
KS	\$236.0	\$120.9	\$115.1	\$212.0	\$14.2	\$9.9
KY	\$885.7	\$424.0	\$461.7	\$822.6	\$51.3	\$11.8
LA	\$835.8	\$423.9	\$411.8	\$622.3	\$197.6	\$15.9
MA	\$1,002.7	\$522.1	\$480.6	\$901.0	\$57.8	\$43.8
MD	\$660.3	\$345.2	\$315.1	\$475.5	\$166.5	\$18.3
ME	\$276.1	\$140.7	\$135.4	\$271.5	\$3.0	\$1.6
MI	\$904.0	\$467.2	\$436.8	\$780.5	\$105.8	\$17.6
MN	\$395.8	\$206.5	\$189.3	\$366.2	\$22.6	\$7.0
MO	\$571.6	\$284.1	\$287.5	\$510.1	\$52.5	\$9.0
MS	\$543.9	\$273.9	\$270.0	\$393.5	\$146.0	\$4.4
MT	\$127.4	\$53.3	\$74.0	\$124.4	\$0.6	\$2.3
NC	\$1,510.2	\$789.0	\$721.2	\$1,194.5	\$281.1	\$34.5
ND	\$63.1	\$33.3	\$29.9	\$60.8	\$1.3	\$1.0
NE	\$138.8	\$72.1	\$66.7	\$126.9	\$6.7	\$5.3
NH	\$233.0	\$114.2	\$118.8	\$227.2	\$2.8	\$2.9
NJ	\$1,208.0	\$630.9	\$577.1	\$961.6	\$157.0	\$89.4
NM	\$244.1	\$115.6	\$128.5	\$171.9	\$6.7	\$65.4
NV	\$342.5	\$160.7	\$181.7	\$275.9	\$33.5	\$33.0
NY	\$3,057.6	\$1,660.7	\$1,396.9	\$2,476.2	\$359.4	\$222.0
OH	\$1,142.4	\$563.1	\$579.3	\$1,012.9	\$113.1	\$16.3
OK	\$653.0	\$320.0	\$333.0	\$585.0	\$44.2	\$23.8
OR	\$430.1	\$191.6	\$238.5	\$404.5	\$9.1	\$16.5
PA	\$2,562.4	\$1,272.7	\$1,289.7	\$2,233.9	\$251.8	\$76.8
RI	\$175.6	\$89.8	\$85.9	\$160.0	\$7.6	\$8.1
SC	\$781.5	\$401.8	\$379.8	\$614.5	\$155.5	\$11.5
SD	\$73.9	\$38.3	\$35.6	\$71.4	\$1.3	\$1.2
TN	\$1,229.7	\$596.4	\$633.3	\$1,066.1	\$141.8	\$21.7
TX	\$3,450.9	\$1,946.0	\$1,504.9	\$2,372.2	\$463.8	\$614.8
UT	\$183.8	\$94.2	\$89.6	\$169.4	\$3.6	\$10.7
VA	\$1,082.7	\$560.1	\$522.6	\$869.4	\$184.0	\$29.3
VT	\$110.7	\$56.8	\$53.9	\$109.0	\$1.2	\$0.6
WA	\$652.3	\$301.6	\$350.7	\$598.5	\$25.9	\$27.9
WI	\$444.9	\$234.8	\$210.1	\$406.1	\$28.0	\$10.8
WV	\$385.6	\$177.5	\$208.1	\$374.3	\$9.6	\$1.7
WY	\$76.2	\$33.6	\$42.5	\$72.8	\$0.7	\$2.7

	Table A-10: Healthcare Savings, Secondhand Smoke (\$ Millions)					
	Total	Male	Female	White	Black	Hispanic
Nationwide	\$3,535	\$1,767	\$1,767	\$2,830	\$430	\$275
AK	\$9.0	\$4.5	\$4.5	\$8.3	\$0.3	\$0.4
AL	\$82.2	\$41.1	\$41.1	\$64.6	\$16.0	\$1.6
AR	\$55.2	\$27.6	\$27.6	\$47.9	\$6.2	\$1.1
AZ	\$66.4	\$33.2	\$33.2	\$51.7	\$3.2	\$11.5
CA	\$274.2	\$137.1	\$137.1	\$190.0	\$24.5	\$59.8
CO	\$51.7	\$25.8	\$25.8	\$43.8	\$2.4	\$5.4
CT	\$52.8	\$26.4	\$26.4	\$43.1	\$5.3	\$4.4
DC	\$8.0	\$4.0	\$4.0	\$2.2	\$5.4	\$0.4
DE	\$13.4	\$6.7	\$6.7	\$10.7	\$2.2	\$0.5
FL	\$261.4	\$130.7	\$130.7	\$206.3	\$28.6	\$26.4
GA	\$143.2	\$71.6	\$71.6	\$105.4	\$32.5	\$5.3
HI	\$11.7	\$5.8	\$5.8	\$8.4	\$0.8	\$2.4
IA	\$20.4	\$10.2	\$10.2	\$19.2	\$0.7	\$0.4
ID	\$16.5	\$8.3	\$8.3	\$15.6	\$0.1	\$0.8
IL	\$73.7	\$36.9	\$36.9	\$59.0	\$10.6	\$4.2
IN	\$53.0	\$26.5	\$26.5	\$48.4	\$3.7	\$0.9
KS	\$19.2	\$9.6	\$9.6	\$17.2	\$1.1	\$0.9
KY	\$88.7	\$44.3	\$44.3	\$82.2	\$5.1	\$1.4
LA	\$81.3	\$40.6	\$40.6	\$60.9	\$18.5	\$1.9
MA	\$102.6	\$51.3	\$51.3	\$91.2	\$6.0	\$5.3
MD	\$67.1	\$33.5	\$33.5	\$47.9	\$17.0	\$2.2
ME	\$27.8	\$13.9	\$13.9	\$27.3	\$0.3	\$0.2
MI	\$74.9	\$37.5	\$37.5	\$64.3	\$8.9	\$1.7
MN	\$32.1	\$16.0	\$16.0	\$29.4	\$1.9	\$0.7
MO	\$47.1	\$23.6	\$23.6	\$41.9	\$4.4	\$0.8
MS	\$52.7	\$26.3	\$26.3	\$38.2	\$13.9	\$0.5
MT	\$12.0	\$6.0	\$6.0	\$11.7	\$0.1	\$0.3
NC	\$149.8	\$74.9	\$74.9	\$118.3	\$27.5	\$3.9
ND	\$5.3	\$2.6	\$2.6	\$5.1	\$0.1	\$0.1
NE	\$11.4	\$5.7	\$5.7	\$10.3	\$0.5	\$0.5
NH	\$24.3	\$12.1	\$12.1	\$23.6	\$0.3	\$0.3
NJ	\$118.8	\$59.4	\$59.4	\$93.8	\$14.9	\$10.0
NM	\$23.0	\$11.5	\$11.5	\$15.3	\$0.6	\$7.0
NV	\$31.2	\$15.6	\$15.6	\$24.7	\$3.1	\$3.4
NY	\$306.5	\$153.3	\$153.3	\$243.9	\$37.1	\$25.6
OH	\$71.7	\$35.9	\$35.9	\$62.5	\$8.0	\$1.3
OK	\$54.4	\$27.2	\$27.2	\$47.9	\$3.9	\$2.6
OR	\$31.2	\$15.6	\$15.6	\$29.1	\$0.7	\$1.5
PA	\$212.9	\$106.4	\$106.4	\$182.0	\$23.0	\$7.9
RI	\$14.5	\$7.2	\$7.2	\$13.0	\$0.7	\$0.8
SC	\$65.1	\$32.6	\$32.6	\$49.8	\$14.1	\$1.2
SD	\$4.8	\$2.4	\$2.4	\$4.6	\$0.1	\$0.1
TN	\$99.9	\$50.0	\$50.0	\$85.0	\$12.8	\$2.1
TX	\$285.0	\$142.5	\$142.5	\$187.1	\$40.5	\$57.4
UT	\$13.1	\$6.6	\$6.6	\$12.0	\$0.3	\$0.9
VA	\$92.9	\$46.4	\$46.4	\$72.6	\$16.9	\$3.3
VT	\$9.0	\$4.5	\$4.5	\$8.8	\$0.1	\$0.1
WA	\$47.7	\$23.9	\$23.9	\$43.3	\$1.8	\$2.6
WI	\$27.5	\$13.7	\$13.7	\$24.7	\$1.9	\$0.9
WV	\$31.7	\$15.8	\$15.8	\$30.6	\$0.9	\$0.2
WY	\$5.2	\$2.6	\$2.6	\$5.0	\$0.0	\$0.2

All data on White and Black Smokers and Vapers cover non-Hispanic Whites and Blacks.

	Table A-11: Total Productivity Benefits and Healthcare Savings from Smokers Switching to Vaping					
	Health Impacts Averted		Productivity Benefits (\$ Million)		Healthcare Savings (\$ Million)	
	Premature Deaths	Life Years Gained	Fewer Deaths	Less Disease	Smokers	Secondhand
Nationwide	113,274	2,481,780	\$65,840	\$71,164	\$38,770	\$3,535
AK	260	5,644	\$148	\$177	\$96	\$9
AL	2,570	56,779	\$1,516	\$1,531	\$834	\$82
AR	1,766	38,934	\$1,038	\$1,055	\$575	\$55
AZ	1,939	41,865	\$1,097	\$1,314	\$716	\$66
CA	8,139	175,883	\$4,612	\$5,403	\$2,944	\$274
CO	1,495	32,405	\$852	\$986	\$537	\$52
CT	1,560	34,227	\$909	\$954	\$520	\$53
DC	247	5,507	\$148	\$141	\$77	\$8
DE	421	9,304	\$248	\$246	\$134	\$13
FL	7,612	168,883	\$4,518	\$3,927	\$2,139	\$261
GA	4,461	98,801	\$2,642	\$2,678	\$1,459	\$143
HI	339	7,315	\$192	\$223	\$121	\$12
IA	577	12,340	\$322	\$460	\$250	\$20
ID	476	10,305	\$271	\$324	\$176	\$17
IL	2,075	44,347	\$1,156	\$1,625	\$885	\$74
IN	1,484	31,712	\$827	\$1,163	\$634	\$53
KS	545	11,659	\$304	\$433	\$236	\$19
KY	2,777	61,305	\$1,636	\$1,626	\$886	\$89
LA	2,574	56,739	\$1,512	\$1,534	\$836	\$81
MA	3,036	66,599	\$1,769	\$1,840	\$1,003	\$103
MD	2,097	46,425	\$1,241	\$1,212	\$660	\$67
ME	822	17,999	\$477	\$507	\$276	\$28
MI	2,103	44,961	\$1,172	\$1,659	\$904	\$75
MN	911	19,473	\$508	\$727	\$396	\$32
MO	1,343	28,657	\$746	\$1,049	\$572	\$47
MS	1,661	36,670	\$978	\$998	\$544	\$53
MT	350	7,566	\$198	\$234	\$127	\$12
NC	4,670	103,203	\$2,755	\$2,772	\$1,510	\$150
ND	148	3,160	\$82	\$116	\$63	\$5
NE	323	6,913	\$180	\$255	\$139	\$11
NH	710	15,531	\$412	\$428	\$233	\$24
NJ	3,675	81,758	\$2,190	\$2,217	\$1,208	\$119
NM	667	14,430	\$379	\$448	\$244	\$23
NV	919	19,879	\$522	\$629	\$342	\$31
NY	9,119	199,756	\$5,302	\$5,612	\$3,058	\$307
OH	2,676	57,121	\$1,488	\$2,097	\$1,142	\$72
OK	2,020	44,656	\$1,192	\$1,199	\$653	\$54
OR	1,198	25,886	\$679	\$789	\$430	\$31
PA	7,667	167,853	\$4,453	\$4,703	\$2,562	\$213
RI	527	11,536	\$306	\$322	\$176	\$14
SC	2,421	53,595	\$1,432	\$1,435	\$782	\$65
SD	177	3,768	\$98	\$136	\$74	\$5
TN	3,751	82,778	\$2,207	\$2,257	\$1,230	\$100
TX	10,453	231,515	\$6,193	\$6,334	\$3,451	\$285
UT	509	11,038	\$290	\$337	\$184	\$13
VA	3,433	75,890	\$2,026	\$1,987	\$1,083	\$93
VT	326	7,125	\$189	\$203	\$111	\$9
WA	1,823	39,464	\$1,036	\$1,197	\$652	\$48
WI	1,034	22,130	\$577	\$817	\$445	\$27
WV	1,180	26,030	\$694	\$708	\$386	\$32
WY	206	4,463	\$117	\$140	\$76	\$5

All data on White and Black Smokers and Vapers cover non-Hispanic Whites and Blacks.

	Table A-12: Benefits and Savings from Male Smokers Switching to Vaping					
	Health Impacts Averted		Productivity Benefits (\$ Million)		Healthcare Savings (\$ Million)	
	Premature Deaths	Life Years Gained	Fewer Deaths	Less Disease	Smokers	Secondhand
Nationwide	73,934	1,603,950	\$51,335	\$45,986	\$20,023	\$1,767
AK	156	3,315	\$106	\$101	\$44	\$4
AL	1,660	36,246	\$1,187	\$990	\$419	\$41
AR	1,114	24,258	\$781	\$640	\$279	\$28
AZ	1,222	25,940	\$838	\$831	\$353	\$33
CA	5,595	119,062	\$3,690	\$3,672	\$1,632	\$137
CO	912	19,384	\$630	\$597	\$254	\$26
CT	1,024	22,334	\$715	\$625	\$273	\$26
DC	157	3,464	\$108	\$82	\$38	\$4
DE	277	6,041	\$190	\$153	\$69	\$7
FL	5,023	110,140	\$3,522	\$2,538	\$1,116	\$131
GA	2,965	64,940	\$2,081	\$1,728	\$750	\$72
HI	216	4,572	\$142	\$133	\$60	\$6
IA	372	7,911	\$249	\$298	\$132	\$10
ID	278	5,911	\$200	\$194	\$79	\$8
IL	1,393	29,583	\$923	\$1,097	\$485	\$37
IN	943	20,025	\$644	\$759	\$324	\$27
KS	344	7,319	\$234	\$278	\$121	\$10
KY	1,723	37,622	\$1,223	\$979	\$424	\$44
LA	1,674	36,494	\$1,199	\$1,011	\$424	\$41
MA	1,986	43,280	\$1,388	\$1,199	\$522	\$51
MD	1,390	30,373	\$955	\$766	\$345	\$34
ME	531	11,563	\$363	\$312	\$141	\$14
MI	1,349	28,653	\$912	\$1,078	\$467	\$37
MN	591	12,546	\$391	\$463	\$207	\$16
MO	833	17,669	\$566	\$657	\$284	\$24
MS	1,068	23,322	\$752	\$630	\$274	\$26
MT	197	4,180	\$138	\$127	\$53	\$6
NC	3,099	67,601	\$2,160	\$1,802	\$789	\$75
ND	96	2,042	\$64	\$76	\$33	\$3
NE	207	4,414	\$138	\$161	\$72	\$6
NH	443	9,646	\$317	\$270	\$114	\$12
NJ	2,406	53,318	\$1,732	\$1,461	\$631	\$59
NM	410	8,722	\$278	\$264	\$116	\$11
NV	566	12,012	\$385	\$373	\$161	\$16
NY	6,144	133,830	\$4,198	\$3,710	\$1,661	\$153
OH	1,665	35,298	\$1,135	\$1,314	\$563	\$36
OK	1,294	28,224	\$927	\$761	\$320	\$27
OR	698	14,806	\$479	\$444	\$192	\$16
PA	4,832	105,152	\$3,416	\$2,958	\$1,273	\$106
RI	342	7,443	\$235	\$202	\$90	\$7
SC	1,591	34,845	\$1,117	\$920	\$402	\$33
SD	114	2,422	\$76	\$87	\$38	\$2
TN	2,349	51,261	\$1,686	\$1,407	\$596	\$50
TX	7,259	159,608	\$5,083	\$4,444	\$1,946	\$142
UT	330	7,032	\$233	\$232	\$94	\$7
VA	2,275	49,689	\$1,591	\$1,286	\$560	\$46
VT	211	4,578	\$143	\$125	\$57	\$4
WA	1,099	23,350	\$762	\$713	\$302	\$24
WI	673	14,308	\$448	\$529	\$235	\$14
WV	718	15,647	\$519	\$423	\$177	\$16
WY	120	2,554	\$85	\$82	\$34	\$3

	Table A-13: Benefits and Savings from Female Smokers Switching to Vaping					
	Health Impacts Averted		Productivity Benefits (\$ Million)		Healthcare Savings (\$ Million)	
	Premature Deaths	Life Years Gained	Fewer Deaths	Less Disease	Smokers	Secondhand
Nationwide	39,340	877,831	\$14,505	\$25,177	\$18,747	\$1,767
AK	104	2,329	\$42	\$75	\$52	\$4
AL	910	20,533	\$328	\$541	\$415	\$41
AR	652	14,677	\$256	\$416	\$296	\$28
AZ	718	15,925	\$259	\$483	\$363	\$33
CA	2,544	56,821	\$922	\$1,732	\$1,312	\$137
CO	583	13,021	\$221	\$389	\$283	\$26
CT	536	11,893	\$195	\$330	\$247	\$26
DC	90	2,043	\$40	\$59	\$39	\$4
DE	144	3,263	\$58	\$93	\$65	\$7
FL	2,589	58,743	\$996	\$1,389	\$1,024	\$131
GA	1,496	33,860	\$561	\$950	\$708	\$72
HI	123	2,743	\$50	\$89	\$61	\$6
IA	205	4,429	\$73	\$161	\$118	\$10
ID	198	4,393	\$71	\$130	\$98	\$8
IL	683	14,764	\$234	\$528	\$400	\$37
IN	541	11,687	\$183	\$404	\$309	\$27
KS	201	4,340	\$70	\$155	\$115	\$10
KY	1,054	23,683	\$413	\$646	\$462	\$44
LA	900	20,245	\$313	\$523	\$412	\$41
MA	1,050	23,320	\$381	\$641	\$481	\$51
MD	707	16,052	\$286	\$446	\$315	\$34
ME	290	6,436	\$115	\$195	\$135	\$14
MI	755	16,308	\$261	\$582	\$437	\$37
MN	320	6,927	\$117	\$264	\$189	\$16
MO	510	10,988	\$180	\$392	\$288	\$24
MS	593	13,348	\$226	\$368	\$270	\$26
MT	153	3,385	\$60	\$107	\$74	\$6
NC	1,571	35,602	\$596	\$970	\$721	\$75
ND	52	1,117	\$18	\$40	\$30	\$3
NE	116	2,499	\$43	\$94	\$67	\$6
NH	267	5,885	\$95	\$158	\$119	\$12
NJ	1,269	28,440	\$458	\$756	\$577	\$59
NM	257	5,708	\$101	\$184	\$128	\$11
NV	353	7,867	\$137	\$256	\$182	\$16
NY	2,976	65,926	\$1,103	\$1,902	\$1,397	\$153
OH	1,011	21,823	\$354	\$783	\$579	\$36
OK	727	16,432	\$265	\$437	\$333	\$27
OR	500	11,080	\$200	\$345	\$239	\$16
PA	2,835	62,701	\$1,037	\$1,745	\$1,290	\$106
RI	184	4,093	\$71	\$120	\$86	\$7
SC	830	18,750	\$315	\$515	\$380	\$33
SD	62	1,345	\$22	\$49	\$36	\$2
TN	1,402	31,517	\$521	\$850	\$633	\$50
TX	3,195	71,906	\$1,109	\$1,890	\$1,505	\$142
UT	179	4,006	\$57	\$105	\$90	\$7
VA	1,158	26,201	\$436	\$702	\$523	\$46
VT	115	2,547	\$46	\$78	\$54	\$4
WA	723	16,115	\$274	\$484	\$351	\$24
WI	361	7,822	\$129	\$287	\$210	\$14
WV	462	10,382	\$175	\$284	\$208	\$16
WY	86	1,909	\$32	\$58	\$43	\$3

All data on White and Black Smokers and Vapers cover non-Hispanic Whites and Blacks.

Table A-14: Benefits and Savings from Non-Hispanic White Smokers Switching to Vaping						
	Health Impacts Averted		Productivity Benefits (\$)		Healthcare Savings (\$)	
	Premature Deaths	Life Years Gained	Fewer Deaths	Less Disease	Smokers	Secondhand
Nationwide	101,116	2,230,129	\$61,021	\$61,966	\$31,644	\$2,830
AK	251	5,455	\$144	\$166	\$89	\$8
AL	2,206	49,465	\$1,368	\$1,290	\$658	\$65
AR	1,618	35,954	\$975	\$948	\$499	\$48
AZ	1,780	38,409	\$1,037	\$1,143	\$573	\$52
CA	7,003	152,247	\$4,222	\$4,436	\$2,118	\$190
CO	1,404	30,472	\$818	\$895	\$462	\$44
CT	1,416	31,230	\$855	\$850	\$433	\$43
DC	94	2,226	\$96	\$73	\$21	\$2
DE	370	8,262	\$227	\$210	\$108	\$11
FL	6,814	151,994	\$4,177	\$3,362	\$1,728	\$206
GA	3,692	82,900	\$2,309	\$2,133	\$1,069	\$105
HI	297	6,425	\$173	\$176	\$89	\$8
IA	560	12,004	\$315	\$442	\$238	\$19
ID	468	10,121	\$267	\$311	\$167	\$16
IL	1,835	39,584	\$1,072	\$1,422	\$720	\$59
IN	1,410	30,228	\$796	\$1,089	\$579	\$48
KS	516	11,080	\$293	\$402	\$212	\$17
KY	2,661	58,961	\$1,582	\$1,533	\$823	\$82
LA	2,122	47,672	\$1,346	\$1,264	\$622	\$61
MA	2,879	63,313	\$1,710	\$1,722	\$901	\$91
MD	1,697	38,221	\$1,056	\$935	\$476	\$48
ME	814	17,851	\$475	\$500	\$272	\$27
MI	1,921	41,382	\$1,104	\$1,498	\$781	\$64
MN	871	18,675	\$493	\$689	\$366	\$29
MO	1,251	26,887	\$711	\$963	\$510	\$42
MS	1,343	30,206	\$854	\$801	\$393	\$38
MT	347	7,499	\$197	\$229	\$124	\$12
NC	4,038	90,275	\$2,485	\$2,333	\$1,195	\$118
ND	145	3,104	\$81	\$113	\$61	\$5
NE	309	6,630	\$175	\$240	\$127	\$10
NH	702	15,368	\$408	\$419	\$227	\$24
NJ	3,284	73,200	\$2,026	\$1,911	\$962	\$94
NM	585	12,629	\$345	\$351	\$172	\$15
NV	818	17,844	\$482	\$538	\$276	\$25
NY	8,137	179,346	\$4,937	\$4,911	\$2,476	\$244
OH	2,482	53,344	\$1,417	\$1,930	\$1,013	\$62
OK	1,904	42,246	\$1,144	\$1,110	\$585	\$48
OR	1,167	25,248	\$667	\$757	\$404	\$29
PA	7,085	155,873	\$4,219	\$4,282	\$2,234	\$182
RI	502	11,037	\$298	\$306	\$160	\$13
SC	2,073	46,507	\$1,298	\$1,222	\$615	\$50
SD	174	3,713	\$97	\$133	\$71	\$5
TN	3,436	76,405	\$2,078	\$2,035	\$1,066	\$85
TX	8,721	194,765	\$5,502	\$4,942	\$2,372	\$187
UT	493	10,704	\$283	\$317	\$169	\$12
VA	3,000	67,019	\$1,857	\$1,713	\$869	\$73
VT	323	7,070	\$188	\$201	\$109	\$9
WA	1,751	37,991	\$1,006	\$1,123	\$599	\$43
WI	982	21,089	\$560	\$771	\$406	\$25
WV	1,159	25,608	\$684	\$689	\$374	\$31
WY	203	4,392	\$116	\$135	\$73	\$5

Table A-15: Benefits and Savings from Non-Hispanic Black Smokers Switching to Vaping						
	Health Impacts Averted		Productivity Benefits (\$)		Healthcare Savings (\$)	
	Premature Deaths	Life Years Gained	Fewer Deaths	Less Disease	Smokers	Secondhand
Nationwide	9,635	193,073	\$3,868	\$6,151	\$4,539	\$430
AK	6	124	\$3	\$5	\$4	\$0
AL	350	7,011	\$142	\$222	\$163	\$16
AR	138	2,758	\$58	\$91	\$66	\$6
AZ	61	1,256	\$28	\$50	\$34	\$3
CA	589	11,208	\$216	\$374	\$267	\$24
CO	48	946	\$18	\$32	\$25	\$2
CT	109	2,158	\$41	\$64	\$50	\$5
DC	148	3,161	\$49	\$62	\$52	\$5
DE	47	954	\$20	\$30	\$22	\$2
FL	577	11,734	\$239	\$297	\$221	\$29
GA	721	14,774	\$314	\$487	\$342	\$32
HI	20	378	\$9	\$16	\$9	\$1
IA	14	267	\$5	\$12	\$9	\$1
ID	3	48	\$1	\$3	\$1	\$0
IL	208	4,031	\$73	\$153	\$122	\$11
IN	68	1,339	\$28	\$62	\$45	\$4
KS	22	424	\$8	\$19	\$14	\$1
KY	103	2,070	\$49	\$79	\$51	\$5
LA	436	8,681	\$158	\$247	\$198	\$19
MA	116	2,335	\$45	\$73	\$58	\$6
MD	381	7,760	\$177	\$255	\$166	\$17
ME	6	112	\$2	\$4	\$3	\$0
MI	169	3,280	\$62	\$136	\$106	\$9
MN	35	686	\$13	\$29	\$23	\$2
MO	86	1,629	\$33	\$73	\$53	\$4
MS	314	6,371	\$122	\$190	\$146	\$14
MT	1	21	\$1	\$1	\$1	\$0
NC	601	12,160	\$257	\$395	\$281	\$28
ND	2	38	\$1	\$2	\$1	\$0
NE	10	197	\$4	\$9	\$7	\$1
NH	5	106	\$3	\$5	\$3	\$0
NJ	309	6,556	\$133	\$207	\$157	\$15
NM	16	299	\$6	\$10	\$7	\$1
NV	70	1,345	\$28	\$49	\$34	\$3
NY	772	15,483	\$286	\$448	\$359	\$37
OH	181	3,498	\$67	\$146	\$113	\$8
OK	95	1,890	\$39	\$61	\$44	\$4
OR	17	328	\$7	\$13	\$9	\$1
PA	509	10,266	\$206	\$334	\$252	\$23
RI	17	333	\$6	\$9	\$8	\$1
SC	337	6,825	\$129	\$198	\$155	\$14
SD	2	37	\$1	\$2	\$1	\$0
TN	293	5,866	\$120	\$192	\$142	\$13
TX	1,094	21,788	\$455	\$678	\$464	\$40
UT	7	131	\$3	\$6	\$4	\$0
VA	405	8,155	\$156	\$235	\$184	\$17
VT	2	45	\$1	\$2	\$1	\$0
WA	48	918	\$21	\$40	\$26	\$2
WI	46	880	\$15	\$33	\$28	\$2
WV	20	388	\$9	\$15	\$10	\$1
WY	1	23	\$0	\$1	\$1	\$0

Table A-16: Benefits and Savings from Hispanic Smokers Switching to Vaping						
	Health Impacts Averted		Productivity Benefits (\$)		Healthcare Savings (\$)	
	Premature Deaths	Life Years Gained	Fewer Deaths	Less Disease	Smokers	Secondhand
Nationwide	2,523	58,578	\$952	\$3,047	\$2,587	\$275
AK	3	65	\$1	\$6	\$4	\$0
AL	13	303	\$6	\$19	\$14	\$2
AR	10	223	\$5	\$16	\$10	\$1
AZ	97	2,200	\$33	\$120	\$109	\$11
CA	547	12,427	\$174	\$593	\$559	\$60
CO	43	987	\$16	\$58	\$51	\$5
CT	36	839	\$13	\$41	\$37	\$4
DC	5	120	\$2	\$6	\$4	\$0
DE	3	88	\$2	\$5	\$4	\$0
FL	221	5,154	\$102	\$268	\$191	\$26
GA	48	1,126	\$19	\$58	\$47	\$5
HI	22	512	\$9	\$31	\$23	\$2
IA	3	70	\$1	\$5	\$4	\$0
ID	6	135	\$2	\$10	\$8	\$1
IL	32	732	\$12	\$50	\$43	\$4
IN	6	145	\$3	\$12	\$10	\$1
KS	7	155	\$2	\$12	\$10	\$1
KY	12	275	\$5	\$15	\$12	\$1
LA	17	386	\$8	\$23	\$16	\$2
MA	41	951	\$14	\$46	\$44	\$5
MD	19	444	\$8	\$22	\$18	\$2
ME	2	35	\$1	\$3	\$2	\$0
MI	13	299	\$6	\$25	\$18	\$2
MN	5	112	\$2	\$8	\$7	\$1
MO	6	141	\$3	\$14	\$9	\$1
MS	4	94	\$2	\$7	\$4	\$1
MT	2	45	\$1	\$4	\$2	\$0
NC	31	767	\$14	\$44	\$35	\$4
ND	1	17	\$0	\$1	\$1	\$0
NE	4	86	\$1	\$6	\$5	\$1
NH	3	57	\$1	\$4	\$3	\$0
NJ	82	2,002	\$32	\$99	\$89	\$10
NM	66	1,502	\$27	\$87	\$65	\$7
NV	31	690	\$12	\$42	\$33	\$3
NY	210	4,927	\$78	\$253	\$222	\$26
OH	13	279	\$5	\$22	\$16	\$1
OK	22	520	\$9	\$28	\$24	\$3
OR	13	311	\$5	\$20	\$17	\$1
PA	73	1,714	\$28	\$88	\$77	\$8
RI	7	166	\$2	\$8	\$8	\$1
SC	11	264	\$5	\$15	\$12	\$1
SD	1	17	\$0	\$1	\$1	\$0
TN	23	507	\$10	\$31	\$22	\$2
TX	638	14,962	\$236	\$714	\$615	\$57
UT	9	203	\$4	\$14	\$11	\$1
VA	29	716	\$14	\$40	\$29	\$3
VT	0	11	\$0	\$1	\$1	\$0
WA	24	555	\$10	\$34	\$28	\$3
WI	6	161	\$3	\$13	\$11	\$1
WV	1	33	\$1	\$3	\$2	\$0
WY	2	48	\$1	\$4	\$3	\$0

All data on White and Black Smokers and Vapers cover non-Hispanic Whites and Blacks.