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Disparities in cigarette tax exposure by race, ethnicity, poverty and sexual orientation, 2006–2014, USA

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Abstract

Cigarette excise taxes are an effective smoking prevention strategy but they vary geographically due to differences in state and local taxation. There are also pronounced sociodemographic differences in community composition, suggesting that different population groups might face different cigarette excise tax rates. In this study, we examine how cigarette excise tax rates differ for population groups defined by race, ethnicity, poverty status, and sexual orientation, and how these differences have evolved over time. We constructed annual cigarette tax rates in 109 mutually exclusive jurisdictions within the United States (U.S.) between 2006–2014. After merging with Census sociodemographic data, we calculated annual cigarette excise tax exposures for each population group as the average of each place-based tax, weighted by the proportion of the group living there. In 2014, the average U.S. resident was required to pay $2.68 in cigarette taxes, more than 60% of which was due to state and local taxation. On average, Asian/Native Hawaiian and Other Pacific Islander populations faced the highest average tax ($2.95), which was $0.44 more than American Indian populations, a result of growing differences between American Indian populations and other racial and ethnic groups over time. Local taxes augmented state and federal taxes disproportionately for non-White populations, same-sex couples, and people living in poverty. Geographic variation in cigarette excise taxes produces sociodemographic variation in cigarette tax exposure. Raising cigarette taxes specifically in those places where groups at risk for tobacco-related disease live could reduce important disparities in cigarette smoking.

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DECLARATION OF INTERESTS

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INTRODUCTION

There is strong evidence that where you live matters to your health. Among other factors, U.S. residents living in different places are subject to very different tobacco control policies, including cigarette taxes. Although the federal government levies a cigarette excise tax on all packs, states and some local communities can add taxes to products sold in their jurisdictions, producing geographic variation in excise tax rates. State cigarette excise taxes range from $0.17 in Missouri to $4.35 in New York. In addition, by the end of 2014, 12 cities and counties levied additional cigarette taxes of more than $1.00 per pack; an additional 31 added a tax between $0.20 and $1.00, and hundreds more levied smaller local taxes. Currently, the total tax levied on a pack of cigarettes sold in Chicago is nearly $6.00 more than the tax levied on a pack sold just 300 miles south in St. Louis.

Where people live, and thus which tobacco-related policies they live under, is socially patterned. Social institutions and economic trends, such as slavery, segregation and White flight, internal migration to find better economic opportunities, and changes in agricultural economies have patterned the U.S. population.[1] For example, migration to cities on the West Coast, as has been the case for many Asian-American immigrants and their descendants, would result in disproportionate exposure to tobacco control policies in California, Oregon, and Washington.[2] Policies in these states are substantially different than in Southern states where slavery flourished – and where large African-American populations remain. Internal migration of lesbian, gay, and bisexual (LGB) people to regional or major cities,[3] which are often innovators in tobacco control,[4] may also produce disparities in the protections offered by tobacco-control policies.

Major disparities in smoking prevalence between populations continue to exist. Data from the 2015 National Health Interview Survey indicate that 15.1% of the overall population continues to smoke, but rates are much higher among American-Indian populations (21.9%); those living below the poverty line (26.1%); and LGB adults (20.6%).[5] Policies are relevant to the reduction of tobacco-related disparities for two reasons. First, previous research has documented substantial disparities by race and ethnicity in coverage of health-promoting comprehensive clean indoor air policies in the U.S.[6,7] More specifically, African-American and Latino adults were, on average, less likely to be protected by comprehensive clean air laws. Second, some policies exert a pro-equity effect by being more effective among populations at higher risk of tobacco-related morbidity and mortality. Cigarette taxes are one of the most effective tobacco control strategies[8], but they have also been shown to reduce socioeconomic disparities in smoking by being more effective among populations with fewer economic resources.[9,10]

Strengthening tobacco excise tax policies in the places where the most at-risk groups live could further reduce disparities by: (1) increasing exposure to evidence-based policies and (2) increasing exposure to policies with a pro-equity effect. No research has examined exposure to tobacco taxes among population groups who smoke at the highest rates. Thus, in this study we combine federal, state, and local excise tax data with demographic census data to track changes in the average legislated cigarette excise tax rates to which consumers are

exposed between 2006–2014, for the U.S. population overall, as well as by race, ethnicity, poverty, and sexual orientation.

METHODS

We conducted a longitudinal, observational repeated measures study using census data and cigarette excise taxes. To assess demographic differences in cigarette tax exposure, we constructed a database that linked population sub-group measures (i.e. population numbers by race, ethnicity, poverty, and same-sex couple partnerships) to annual cigarette tax rates between 2006–2014. We did this for 109 mutually exclusive places with different excise tax levels. We calculated the average annual cigarette excise tax exposure for each population group by averaging each place-based tax exposure, weighted by the relevant size of the population group living in each place.

Measures

Demographic population groups—We obtained demographic data from one-year estimates (2006–2014) of the U.S. Census Bureau's American Community Survey (ACS).[11] We utilized census tables for race and ethnicity to create population totals for six racial/ethnic groups: non-Hispanic (1) White; (2) Black/African American (Black); (3) American Indian/Alaska Native (AI/AN); (4) Asian or Native Hawaiian and Other Pacific Islander (Asian/NHPI); (5) Other, including multi-racial; and, (6) Hispanic of any race. Poverty status was operationalized as the population living under the federal poverty level. The census does not directly capture sexual orientation; however, same-sex couple households are measured in the ACS and represent the best available national data on sexual orientation.[12] We thus used the populations of same-sex and opposite-sex headed households to represent LGB and heterosexual populations. This included both married and unmarried households reporting a husband/wife or unmarried partner.

Places—We identified 109 mutually exclusive excise-tax levying places within the U.S. All states and the District of Columbia tax cigarettes, but only some local jurisdictions do. Localities were included if they met two criteria: 1) they levied a cigarette excise tax in addition to, or in the place of, the state cigarette tax; and 2) one-year estimates of demographic sub-group data were available in the ACS (i.e., localities with populations of 65,000 people or more, the minimum recommended by and available from the Census for stable estimates). This produced a total sample comprised of 58 localities (i.e., 29 cities, 21 counties, 8 census defined American Indian areas), 13 state areas that net these taxing localities, and 38 states without any taxing localities.

Cigarette excise tax rate exposure—For each year of analysis, we measure the total cigarette taxes that residents of each place would have been required to pay, according to the federal, state, and local legislation in effect; we defined this as "tax exposure." We measured all taxes in nominal cents per package of 20 cigarettes. When a new tax rate was implemented in the middle of a year, we calculated a weighted average of the former and new tax rate, based on the month of implementation.

Excise tax data were compiled from several sources. Federal excise taxes changed once during the analysis period from $0.39 to $1.01 as part of the Children's Health Insurance Program Reauthorization Act of 2009.[13] State excise tax rates were identified from the Centers for Disease Control and Prevention's State Tobacco Activities Tracking and Evaluation (STATE) system, an electronic database warehouse of data related to tobacco use, prevention and control.[14] County and municipal cigarette tax law data were provided by the American Nonsmoker's Rights Foundation (ANRF) U.S. Tobacco Control Laws Database© (TCLD), as well as information from the Campaign for Tobacco Free Kids and the Tobacco Control Legal Consortium.[15] ANRF staff compile the TCLD by tracking local and state tobacco control laws in tobacco control publications, online resources and through partnerships with local health officials. Finally, cigarette tax rates for the Navajo Nation and several tribal areas in Oklahoma were identified from tribal records and previous publications.[16,17]

Analysis

We calculated the average annual cigarette excise tax exposure for each population group (T_i) as the sum of each place-based tax exposure (t_j), weighted by the proportion of people in population group *i* living in each place *j* in each year:

$$T_i = \sum_{j=1}^{n} t_j * \frac{p_{ij}}{P_i}$$

Changes in tax exposure over time result from four components: changes to legislated taxes at the 1) federal, 2) state, and 3) local levels; as well as 4) shifts in the distribution of populations across geographic areas resulting from migration, births and deaths. To estimate the contribution of each of these sources to the change in tax exposure between 2006 and 2014, we conducted additional analyses using standard demographic decomposition techniques[18] that estimate changes in tax exposure if only one component were to have shifted over time.

RESULTS

Complete estimates of average cigarette tax exposure for each population group between 2006 and 2014 are provided in Table 1. The text below and accompanying figures highlight key results.

Demographic Tax Disparities in 2014

In 2014, the total legislated federal, state, and local cigarette excise tax ranged from $1.18 to $7.17. Figure 1 contains two maps that illustrate the 109 places analyzed in our study, shaded darker to reflect higher cigarette tax rates (Panel A) and greater proportions of the total U.S. population (Panel B).

Some areas, like the upper mid-West, housed large portions of the population and had high cigarette taxes, but other areas, especially the Southeast, were populous but characterized by low legislated rates.

Average cigarette tax exposure averaged across all U.S. residents was $2.68. The $1.01 federal tax accounted for almost 38% of that total, while state and local taxes comprised nearly 58% and 5% of the total, respectively (Figure 2).

Average tax exposure varied by population group, from $2.95 for Asian/NHPI populations to $2.51 for AI/AN populations. The proportion of the total tax exposure due to different geographic levels of taxation varied as well. For Black and AI/AN populations in particular, a smaller proportion of their tax exposure was due to state taxes (53% and 51% respectively), and a larger proportion was due to local taxes (9% each).

Cigarette tax rates in 2014 were slightly higher for households with same-sex couples ($2.75) than for those with opposite sex couples ($2.66); this difference was mostly due to higher local tax exposure. The difference in tax rates by poverty status averaged almost 5 cents; total and state tax exposure was lower for those living below the federal poverty level, whereas local taxes were slightly higher for those living below it.

Places with particularly large populations can have strong effects on national tax exposure areas. Table 2 lists the 17 places in our sample that housed more than 2% of the U.S. population, and their total excise tax rates in 2014.

Total taxes in these places ranged substantially, from $1.38 in Georgia to $6.86 in New York City. Additional table columns indicate the percent of each demographic group we analyzed that lives in each place, with shading to indicate disproportionately high representation. More than half of the populous places include disproportionately high percentages of non-White populations, people living in poverty or same-sex couples.

Tax Exposure Changes over Time

Between 2006 and 2014, the average total cigarette excise tax exposure rose by $1.29. As indicated in Figure 3, average rates rose the most for Asian/HPI populations ($1.34 increase), followed by households with a same-sex couple ($1.33 increase), Hispanic populations ($1.32 increase), Black populations ($1.30 increase), opposite-sex couples ($1.29 increase), White populations ($1.27) and AI/AN populations ($1.11 increase).

Asian/HPI populations were exposed to the highest tax rate of all racial/ethnic groups in 2006; these disproportionate gains in tax exposure widened the gap that existed historically. By contrast, in 2006, tax exposure for AI/AN populations was similar to most other racial/ethnic groups, so their limited increase in exposure, compared to other groups, produced the lower than average rates in 2014. Changes in tax rates over time varied little by poverty status; those below the poverty level were exposed to rates that were 2 cents lower in 2006, and had a 2 cents lower gain over time, compared to those at or above it (results not shown).

Changes in Tax Exposure Due to Population vs. Policy Shifts

Our analyses of the factors that contributed to the changes in tax exposure over time consider changes in cigarette taxes at three levels of government, and well as changes in exposure due to demographic shifts in where the U.S. population lives. Our results are shown graphically in Figure 4 and described here.

Between 2006–2014, federal taxes rose 62 cents, state taxes rose by an average of 65.5 cents per person, and local taxes rose by 3.8 cents. *State* taxes grew the most for Asian/HPI populations (69.8 cents), followed by Hispanic populations (67.9 cents), and same-sex couples (67.7 cents), and the least, by far, for AI/AN populations (48.1 cents). *Local* taxes grew the most for Black populations (8.9 cents) and AI/AN populations (6.7 cents); other groups experienced local tax growth between two and four cents.

Demographic shifts in where the U.S. population lives resulted in small *negative* contributions to cigarette tax exposure. In other words, had no policy changes occurred, the U.S. population would have experienced a decrease in tax exposure because the proportion of people living in historically low tax places increased. This pattern holds for all population groups, but is most striking for AI/AN and Black populations, and those living below the federal poverty level. In the absence of changes to tax policy, these groups would have experienced declines in tax exposure of 6 cents, 5 cents, and 2.8 cents, respectively.

DISCUSSION

Geographic variation in state and local cigarette excise tax legislation has produced sizeable differences in tax rate exposure by demographic groups, especially by race and ethnicity. In 2014, AI/AN populations (who smoke at higher rates than any other group) faced legislated tax rates that were 15% (44 cents) lower than those faced by Asian/HPI populations, and 6–8% (14–21 cents) lower than those faced by Hispanic, Black, and White populations. Differences by poverty status and sexual orientation were smaller but still notable. Average taxes for individuals living at or above the poverty level were almost 5 cents higher than for individuals living below the poverty level and were 9 cents higher for households with same-sex couples compared to those with opposite-sex couples.

Furthermore, our analysis suggests that state and local governments play a strong role in ensuring high excise taxes, both for the population in general, and for specific demographic groups. During our observation period, 32 states increased their cigarette taxes at least once, an average of 95 cents per state. The 62 cents federal cigarette excise tax increase in 2009 accounts for a sizeable portion of the growth in tax exposure we observed, but for nearly every population group, the state policy changes in these 32 states produced greater growth. The exception to this pattern is for AI/AN populations, who experienced a much smaller tax increase due to state policy changes compared to other demographic groups. There are likely two reasons for this. In many places, cigarette sales to AI/AN populations on Tribal lands are exempt from state excise taxes, and therefore, from tax hikes as well. In addition, the four states where the most AI/AN people live outside of Indian reservations (California, Arizona, New Mexico, North Carolina) averaged only 39 cents in tax increases during our analysis period.

Only 17 localities in our sample raised taxes during the observation period, by an average of almost 62 cents per place. Yet, these few local changes resulted in increases in the overall average tax exposure of almost 4 cents for all populations, more than 5 cents for people living in poverty, nearly 7 cents for AI/AN populations, and close to 9 cents for Black populations. Several of the places that levied the largest local tax hikes, like Cook County

(Illinois), and Philadelphia are also relatively large and racially diverse. Other large local increases resulted from recently negotiated compacts in Oklahoma for Tribal lands and a 60 cent increase in Navajo-levied taxes; nearly 18% of all AI/AN populations nationwide live in one of these places. In recent years, many cities have begun enhancing their tobacco control policies, including taxes; our results demonstrate the breadth those efforts can have, especially for minority and low-income groups. Unfortunately, the majority of states currently preempt all or some local communities from levying cigarette excise taxes, including states like California and Florida that have large diverse urban centers.[15] Undoing this preemption could therefore help reduce disparities in cigarette smoking by race, ethnicity, and economic level.

Several aspects of our cigarette tax rate exposure measure should be underscored when interpreting these results. First, we chose to measure taxes in nominal dollars, without adjusting for inflation, to ease comparison with cigarette tax policy, which nearly always references specific unit price increases. This choice, however, does mean that we over-estimate the real increase in the value of the tax changes over time. Second, the ACS population data have limitations.[19] Because one-year ACS estimates of population data are only available for places with relatively large populations, we were unable to include more than 100 smaller localities that levy taxes in our estimates, including many Tribal areas. By definition, these are places with small populations, and the ANRF data indicate that the vast majority of them levy relatively low tax rates (e.g., $0.05–$0.10), so national estimates would be unlikely to change with their inclusion. We also note that our use of same-sex couples, which is the only nationally available proxy of sexual orientation for our purposes, is imperfect. It is likely that single LGB individuals show different patterns of internal migration than couples.[20,21] Third, our analyses are of the average tax rate for all members of a population group, regardless of whether or not they smoke. A national average is important to capture, since cigarette taxes have been linked to reductions in smoking initiation as well as consumption,[8] but may differ from the average exposure by smokers. Smokers make up a higher percent of the population in low tax states like Kentucky, West Virginia and Arkansas,[14] where the average 2014 excise tax was $0.77, so average smoker tax exposure may be lower. Fourth, many smokers undertake strategies to reduce or avoid their cigarette taxes by purchasing in lower tax areas or through illicit sales,[22,23] so the average tax actually paid is likely lower than the legislated one to which people are exposed. Finally, although correlated, taxes and prices paid are not the same. Several studies find that prices of the same product vary even within the same taxing authority, with cheaper tobacco product prices documented in neighborhoods with lower median incomes and more non-White residents,[24,25] potentially limiting equity impacts of cigarette excise taxes.

Our analyses shed light on the likely influence of new tax legislation on demographic variation in cigarette tax exposure. The influence of state and local cigarette taxes on average tax exposure, as well as tax exposure differences by demographic groups depends on several factors, including the size of the tax increase, the population of the taxing authority and the demographic make-up of that population compared to other areas in the country. States and cities with relatively high populations, overall and for different population groups, that also levy large tax increases could substantially influence national tax exposure averages.

In 2016, California voters approved a $2.00 cigarette tax hike for implementation in 2017. Given that more than 12% of the total U.S. population lives in California, including nearly 32% of Asian/HPI and 27% of Hispanic populations, we estimate that this single policy change would increase the *national* average cigarette tax exposure for all Americans by 24 cents, and for Asian/HPI and Hispanic populations by 64 and 54 cents respectively, holding 2014 population demographics and other taxes constant. By contrast, since only 5.5% of Black and 6.4% of AI/AN populations live in California, their tax exposure is projected to increase by only 11 and 13 cents, respectively.

Our analyses also illuminate opportunities for state and local governments to strategically use excise taxes to target smoking disparities. Cigarette excise taxes are considered one of the most effective policy levers to prevent smoking initiation and reduce consumption.[26,27]

Consensus estimates of cigarette price elasticity suggest that increasing the price of cigarettes by 10% is associated with a 4% decline in cigarette consumption.[28] If taxes on a $5.50 pack of cigarettes were raised by 17 cents in places where AI/AN populations live so that their tax exposure would equal the national average, we would expect to observe a 1.2% decline in their cigarette consumption. Raising those taxes by 43 cents instead, to the rate currently paid by Asian/HPI populations, would be projected to produce a 3.1% decline. Larger tax hikes in those states where AI/AN populations disproportionately live, like Arizona and North Carolina, could have similar effects.

Although the gaps in tax exposure are smaller by poverty status, lower average rates for people living in poverty could hamper efforts to reduce strong socioeconomic disparities in tobacco use.[5] In our data (not shown), six of the ten locations with the largest difference in proportions of people living below vs. at or above the poverty level were located in the Southeastern U.S. As of April 2017, the cigarette taxes in those states averaged about $0.76, well below the $1.69 state tax average nationwide.[29] Furthermore, no city or county levied additional taxes in these states between 2006 and 2014. Efforts to raise state excise taxes, eliminate local tax preemption, or raise cigarette prices by non-tax means in this region could have a particularly strong pro-equity effect and help ensure continued progress toward tobacco control goals.[30]

CONCLUSIONS

Policy interventions, including cigarette excise taxes, can reduce or exacerbate health inequalities. States and cities should be considered important avenues for tobacco control efforts to reduce inequalities in smoking.

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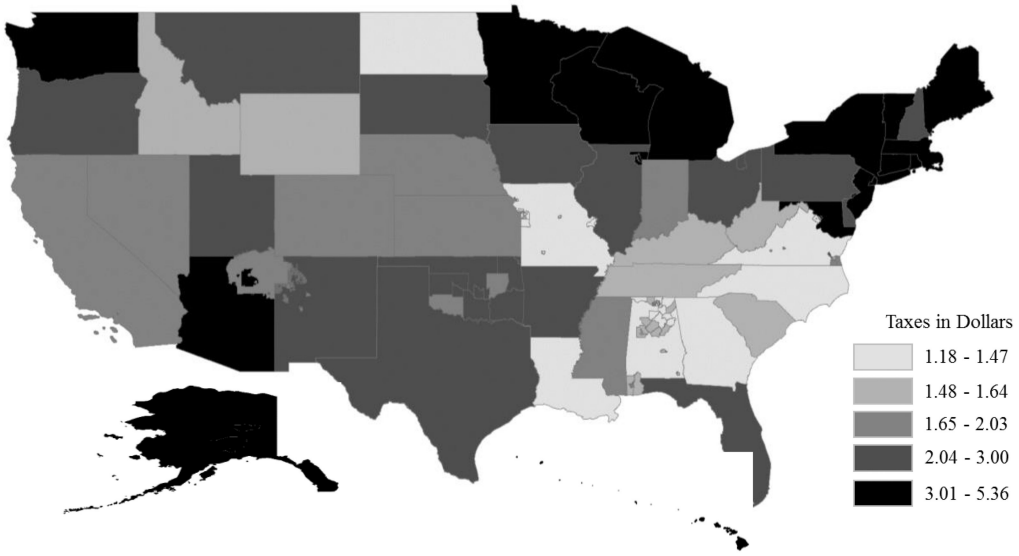
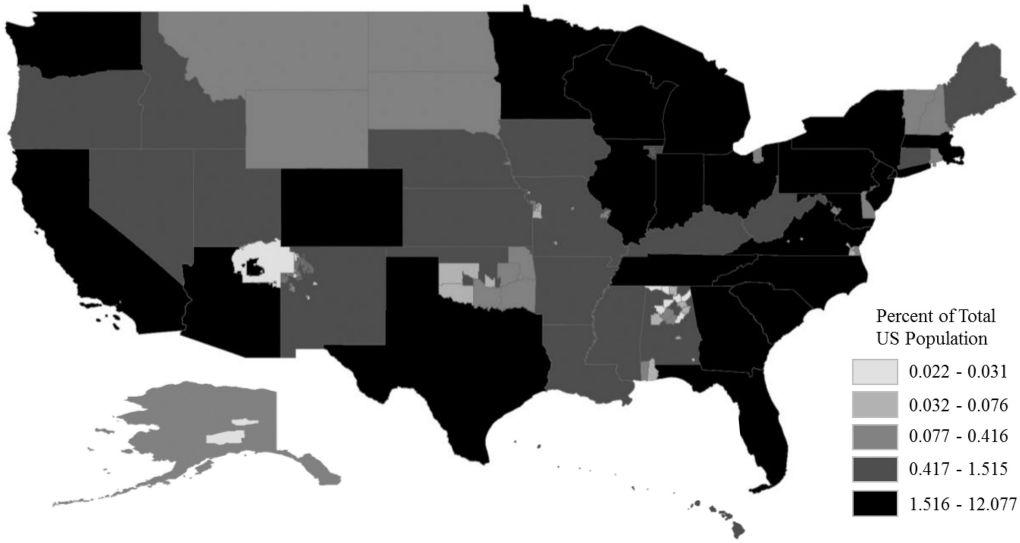
Highlights

- High taxes in diverse areas have enhanced tobacco control for some groups.
- Excise taxes have increased for all groups, but most for AHPI and least for AI/AN.
- Raising taxes in the Southeast and where AI/AN live may reduce smoking disparities.

a) Cigarette Excise Tax Rates



b) Percent of Total US Population



Note: Quintiles were created for tax rate and population percentage variation so that ~20% of study areas fall into each quintile category

Figure 1.

Cigarette Excise Tax Rates and Percentage of United States Population Living in 109 Places, 2014

Note: Quintiles were created for tax rate and population percentage variation so that ~20% of study areas fall into each quintile category

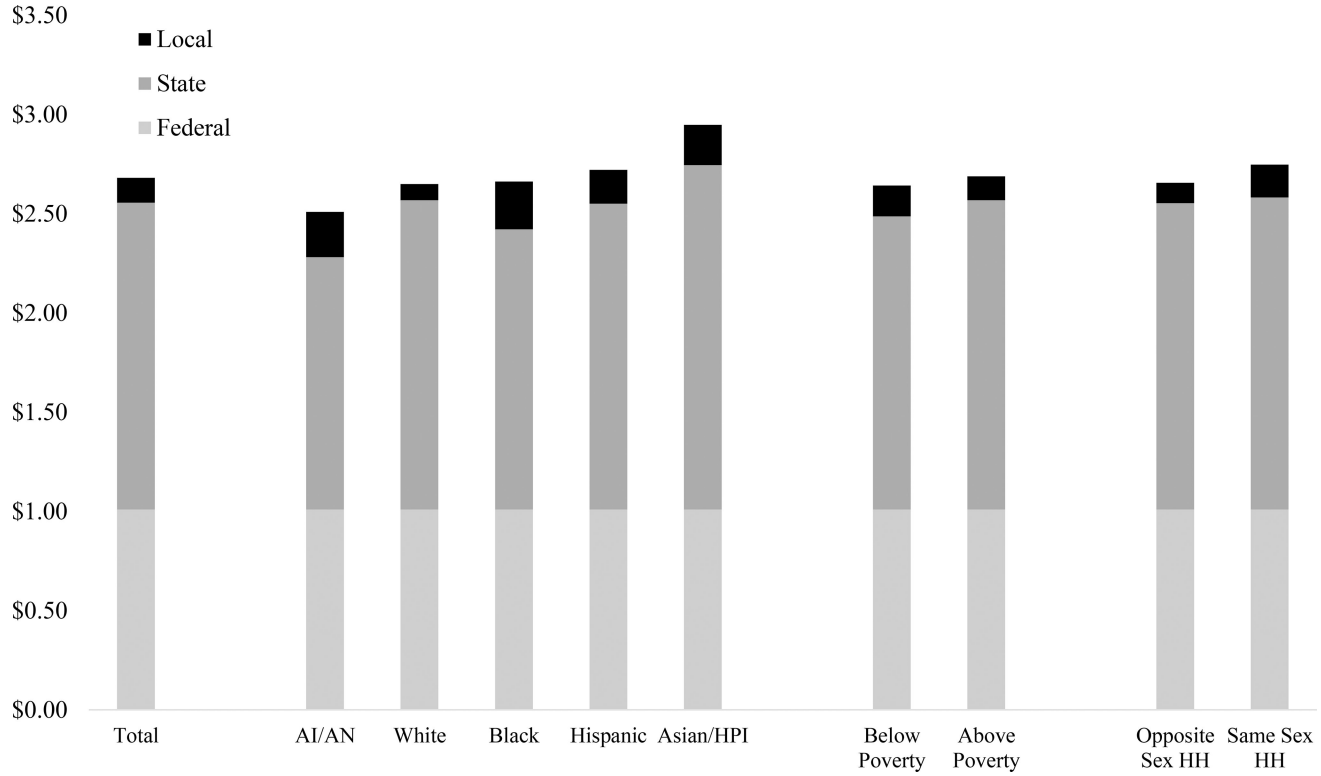


Figure 2.
Total Tax Exposure by Race/Ethnicity, Poverty Status, and Sexual Orientation, United States, 2014

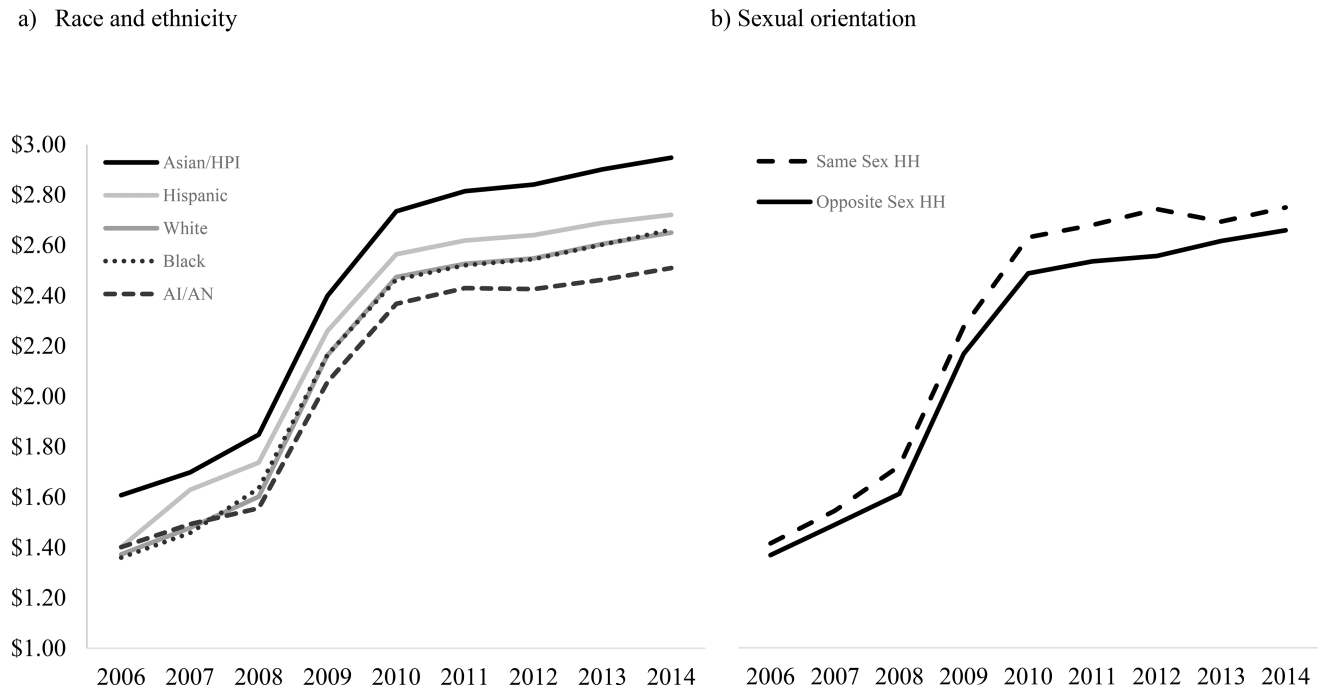
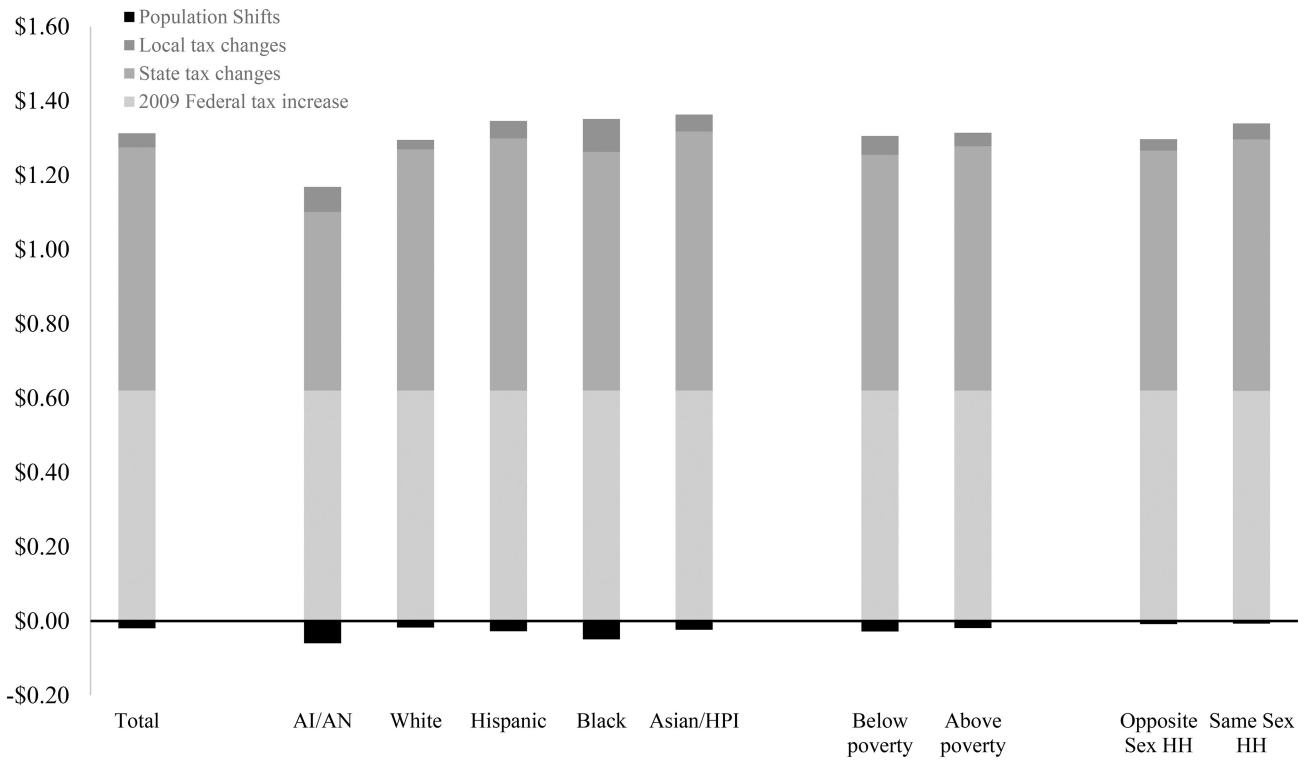


Figure 3.
Changes in Total Tax Exposure by Race/Ethnicity and Sexual Orientation, United States, 2006–2014



Note: The black column components (representing population shifts) are below the axis, indicating *negative contributions* to the overall upward shift in tax exposure.

Figure 4.

Policy and Population Shift Contributions to the Change in Cigarette Excise Tax Exposure, United States, 2006–2014

Note: The black column components (representing population shifts) are below the axis, indicating *negative contributions* to the overall upward shift in tax exposure.

Table 1

Total Tax Exposure in cents by Tax Component and Race/Ethnicity, Sexual Orientation, and Poverty Status, United States, 2006–2014

a) 2006–2009

	2006			2007			2008			2009		
	State	***Local***	***Total***	***State***	***Local***	***Total***	***State***	***Local***	***Total***	***State***	***Local***	***Total***
Total	90.6	9.1	138.8	102.6	9.4	151.0	113.7	9.4	162.1	124.1	9.4	219.0
Race/ethnicity												
Non-Hispanic												
White	92.5	5.8	137.3	102.8	6.0	147.8	114.2	7.0	160.2	124.7	6.2	216.4
Black	78.9	18.1	136.0	88.3	18.5	145.7	101.0	23.5	163.5	112.8	18.2	216.5
AI/AN	92.4	8.8	140.2	97.3	13.0	149.3	103.5	13.1	155.6	108.0	12.2	205.7
Asian/HPI	105.6	16.2	160.8	114.3	16.6	169.9	127.2	18.7	184.9	137.8	16.5	239.9
Other	97.0	10.5	146.5	106.3	10.2	155.5	116.6	8.0	163.6	126.3	9.4	221.2
Hispanic	87.0	14.2	140.2	109.6	14.4	163.0	117.3	17.5	173.8	126.7	13.8	226.0
Coupled HH Sex												
Opposite Sex	90.5	7.2	136.8	102.4	7.5	148.9	113.2	8.9	161.1	123.5	7.6	216.7
Same Sex	92.8	9.6	141.4	104.8	10.6	154.4	118.8	14.4	172.1	129.9	12.0	227.4
Poverty Status												
Below poverty	85.6	12.0	136.5	99.4	12.2	150.6	108.9	14.9	162.8	118.9	11.5	215.9
Above poverty	91.6	8.7	139.3	103.2	9.1	151.3	114.4	10.9	164.3	125.0	9.2	219.7

b) 2010–2014

	2010			2011			2012			2013			2014		
	State	***Local***	***Total***	***State***	***Local***	***Total***	***State***	***Local***	***Total***	***State***	***Local***	***Total***	***State***	***Local***	***Total***
Total	140.0	9.3	250.3	145.4	9.3	255.8	147.7	9.3	257.9	151.9	10.7	263.6	154.6	12.5	268.1
Race/ethnicity															
Non-Hispanic															
White	140.5	6.0	247.4	145.6	6.1	252.7	147.8	6.0	254.8	152.5	7.0	260.5	155.9	8.1	265.0
Black	128.3	17.2	246.5	134.0	17.1	252.0	136.6	16.9	254.5	139.9	19.4	260.3	141.1	24.1	266.2

b) 2010–2014

	2010			2011			2012			2013			2014		
	State	***Local***	***Total***	***State***	***Local***	***Total***	***State***	***Local***	***Total***	***State***	***Local***	***Total***	***State***	***Local***	***Total***
AI/AN	119.8	16.0	236.8	122.9	19.1	243.0	122.1	19.6	242.7	124.5	20.8	246.3	127.1	22.8	251.0
Asian/HPI	156.3	16.2	273.5	164.4	16.1	281.5	166.9	16.3	284.1	171.1	18.1	290.2	173.6	20.2	294.8
Other	145.6	10.3	256.8	151.5	10.7	263.2	152.7	10.3	264.1	155.7	11.2	267.8	158.8	12.6	272.4
Hispanic	142.1	13.4	256.5	147.6	13.4	262.0	149.8	13.2	264.1	152.9	15.1	269.0	154.2	16.9	272.1
Coupled HH Sex															
Opposite Sex	139.8	7.8	248.6	144.8	7.6	253.4	146.9	7.6	255.5	151.5	8.9	261.4	154.4	10.3	265.7
Same Sex	150.3	11.6	262.9	154.8	11.9	267.8	160.3	12.7	274.1	155.9	12.2	269.1	157.2	16.5	274.7
Poverty Status															
Below poverty	133.9	11.2	246.1	139.2	11.5	251.7	141.2	11.5	253.7	145.4	12.9	259.3	147.7	15.6	264.3
Above poverty	141.1	9.0	251.1	146.6	9.0	256.6	148.9	9.4	259.3	153.1	10.4	264.5	155.8	12.0	268.9

Note: Total tax rate consists of state, local and federal taxes. Federal taxes are $0.39 for 2006–2008, $0.555 for 2009, and $1.01 for 2010–2014. HH = household

Table 2

Cigarette Excise Tax and Demographic Information for the Most Populous Excise Taxing Locations in the United States, 2006–2014

				Race					Poverty Status		Sexual Orientation	
Place	US	2014 Tax	Tax change 2006–2014	White	Black	AIAN[f]	Asian /HPI	Hispanic	Below Poverty	Above Poverty	Opposite Sex HH	Same Sex HH
California	12.1%	$1.88	$1.01	7.4%	5.5%	6.4%	31.9%	27.0%	12.9%	12.0%	11.1%	12.4%
Texas	8.5%	$2.42	$2.01	5.9%	8.0%	3.0%	6.9%	18.8%	9.4%	8.3%	8.1%	8.6%
Florida	6.2%	$2.35	$2.01	5.6%	7.9%	1.8%	3.1%	8.7%	6.7%	6.2%	6.1%	8.3%
New York[a]	3.5%	$5.36	$3.86	4.2%	2.4%	1.5%	2.6%	2.2%	2.7%	3.6%	3.7%	2.9%
Pennsylvania[b]	3.5%	$2.61	$1.26	4.8%	1.8%	0.6%	1.7%	1.1%	2.7%	3.6%	3.9%	3.1%
Ohio[c]	3.2%	$2.26	$1.01	4.3%	2.6%	0.7%	1.1%	0.6%	3.2%	3.2%	3.5%	3.3%
Georgia	3.2%	$1.38	$1.01	2.8%	7.9%	0.8%	2.2%	1.7%	3.7%	3.1%	3.0%	3.9%
North Carolina	3.1%	$1.46	$1.14	3.2%	5.4%	5.0%	1.5%	1.6%	3.5%	3.1%	3.2%	3.3%
Michigan	3.1%	$3.01	$1.01	3.8%	3.5%	2.4%	1.7%	0.9%	3.3%	3.1%	3.3%	2.7%
New Jersey	2.8%	$3.71	$1.22	2.6%	2.9%	0.5%	4.9%	3.1%	2.0%	3.0%	2.8%	2.3%
New York City	2.7%	$6.86	$5.36	1.4%	4.8%	0.7%	6.8%	4.5%	3.6%	2.5%	2.0%	3.8%
Illinois[d]	2.4%	$2.99	$2.01	2.9%	1.5%	0.4%	1.8%	1.5%	1.9%	2.5%	2.6%	1.6%
Washington	2.2%	$4.04	$2.01	2.5%	0.6%	3.9%	3.5%	1.6%	1.9%	2.3%	2.4%	2.3%
Massachusetts	2.1%	$4.52	$3.01	2.5%	1.1%	0.4%	2.4%	1.3%	1.6%	2.2%	2.1%	2.3%
Arizona[e]	2.1%	$3.01	$1.69	1.9%	0.7%	8.1%	1.3%	3.7%	2.4%	2.0%	2.1%	2.6%
Indiana	2.1%	$2.01	$1.45	2.7%	1.5%	0.5%	0.8%	0.8%	2.0%	2.1%	2.2%	2.2%
Tennessee	2.1%	$1.63	$1.43	2.5%	2.8%	0.7%	0.6%	0.6%	2.4%	2.0%	2.1%	1.9%

Note Shading indicates disproportionate representation of the population group, in that the proportion of the group population living in the place is higher than the proportion of the total U.S. population. For example, whereas 6.2% of the *total* U.S. population lives in Florida, 7.9% of the total U.S. *Black* population lives there.

[a] Excludes New York City (2.66% of US population)

[b] Excludes Philadelphia (0.49% of US population)

[c] Excludes Cuyahoga County (0.40% of US population)

[d] Excludes Cook County/Chicago/Evanston (1.62% of US population)

[e] Excludes Navajo Reservation (0.05% of US population)

[f] The states and cities listed here include 60% or more of each population group analyzed except American Indians. Only 37% of American Indians live in these places; other localities with sizeable American Indian populations include the Oklahoma Tribal areas (9.88%), the Navajo Reservation (7.94%), New Mexico outside of Navajo (5.77%), Alaska (4.82%), Oklahoma outside of tribal areas (3.29%), Montana (3.23%) and South Dakota (3.22%)