

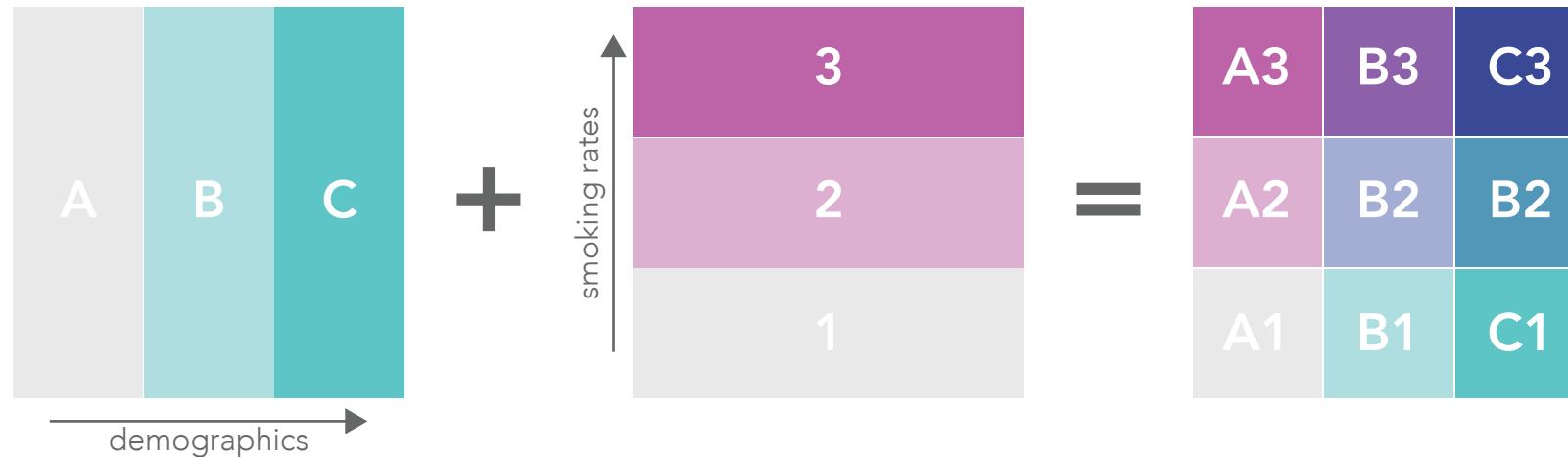
TOBACCO MAPPED

An spatial exploration of the intersection between demographics and tobacco use in the United States

HOW TO READ THESE MAPS

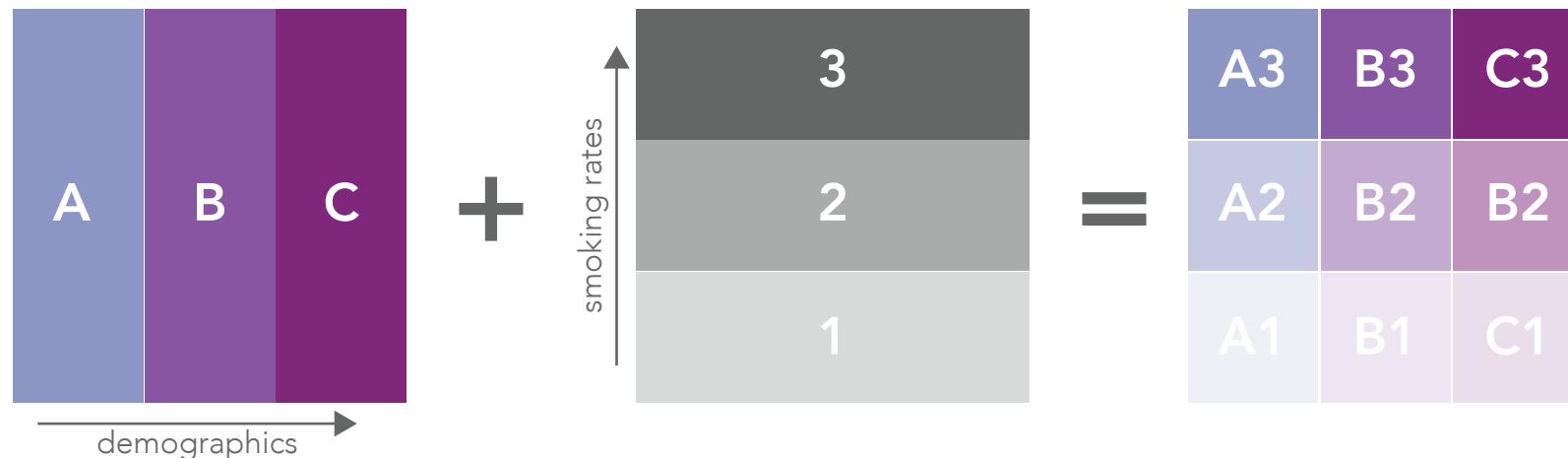
Bivariate Choropleth

Several of the maps included in this atlas utilize a two dimensional color scheme that allows us to see spatial patterns of smoking rates and their correlation with demographic patterns throughout the US.



Value-by-Alpha

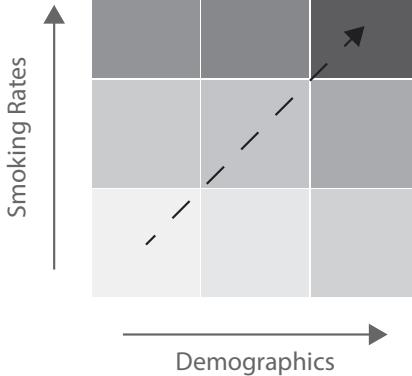
The maps showing smoking rates and race utilize a mapping technique known as value-by-alpha to literally highlight the counties that have both high smoking rates as well as a high percentage of certain ethnic groups.



HOW TO READ THIS ATLAS

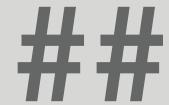


Legend



WHATS THE PATTERN?

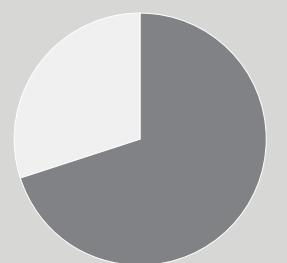
Here you will find a brief explanation of some of the patterns that can be seen in the map. This description will point out the colors and their meanings as well as why some of these patterns might exist.



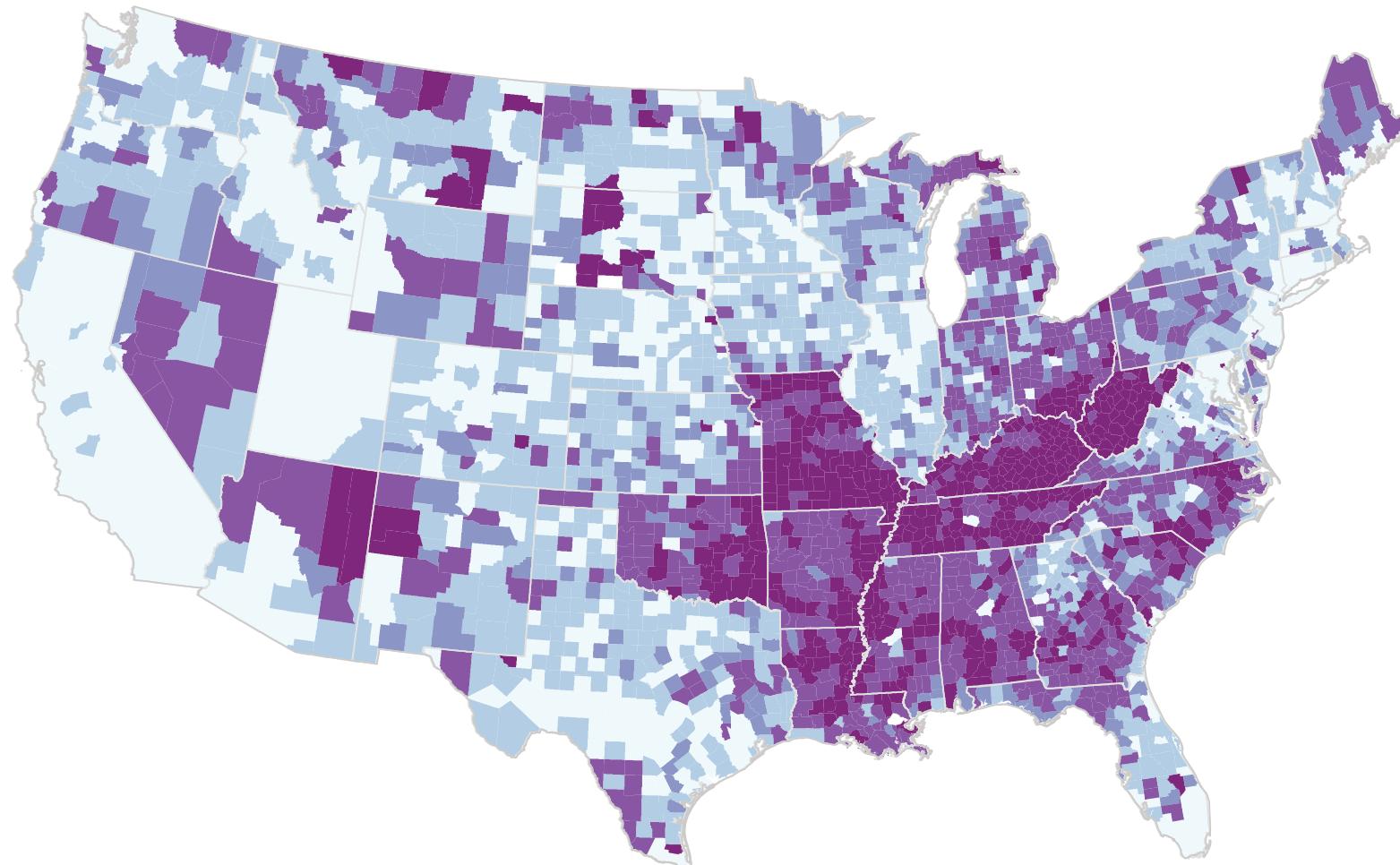
per 100 people who smoke cigarettes

Tobacco Tactics

Tabacco companies use a variety of tactics to encourage certain communities to start and continue smoking. Here you will find facts about the ways "big tobacco" target minority groups.



SMOKING RATES IN THE UNITED STATES



Smoking is the leading cause of preventable disease in the US, causing 480,000 deaths per year. While the percentage of smokers in the US is decreasing overall, major disparities exist between various demographic groups. In this map you can see regions of the US in the south and midwest colored deep maroon and purple. These regions appear to have significantly higher smoking rates than other parts of the US. In contrast states like California and Utah in light blue have relatively low smoking rates.

15

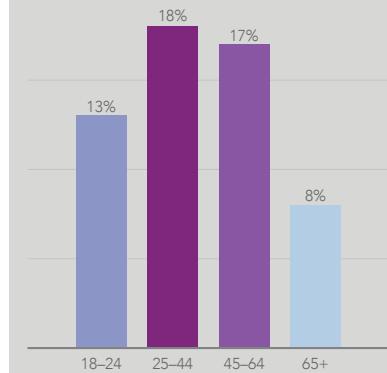
of every 100 U.S. adults aged 18 years or older smoke cigarettes

Tobacco Tactics

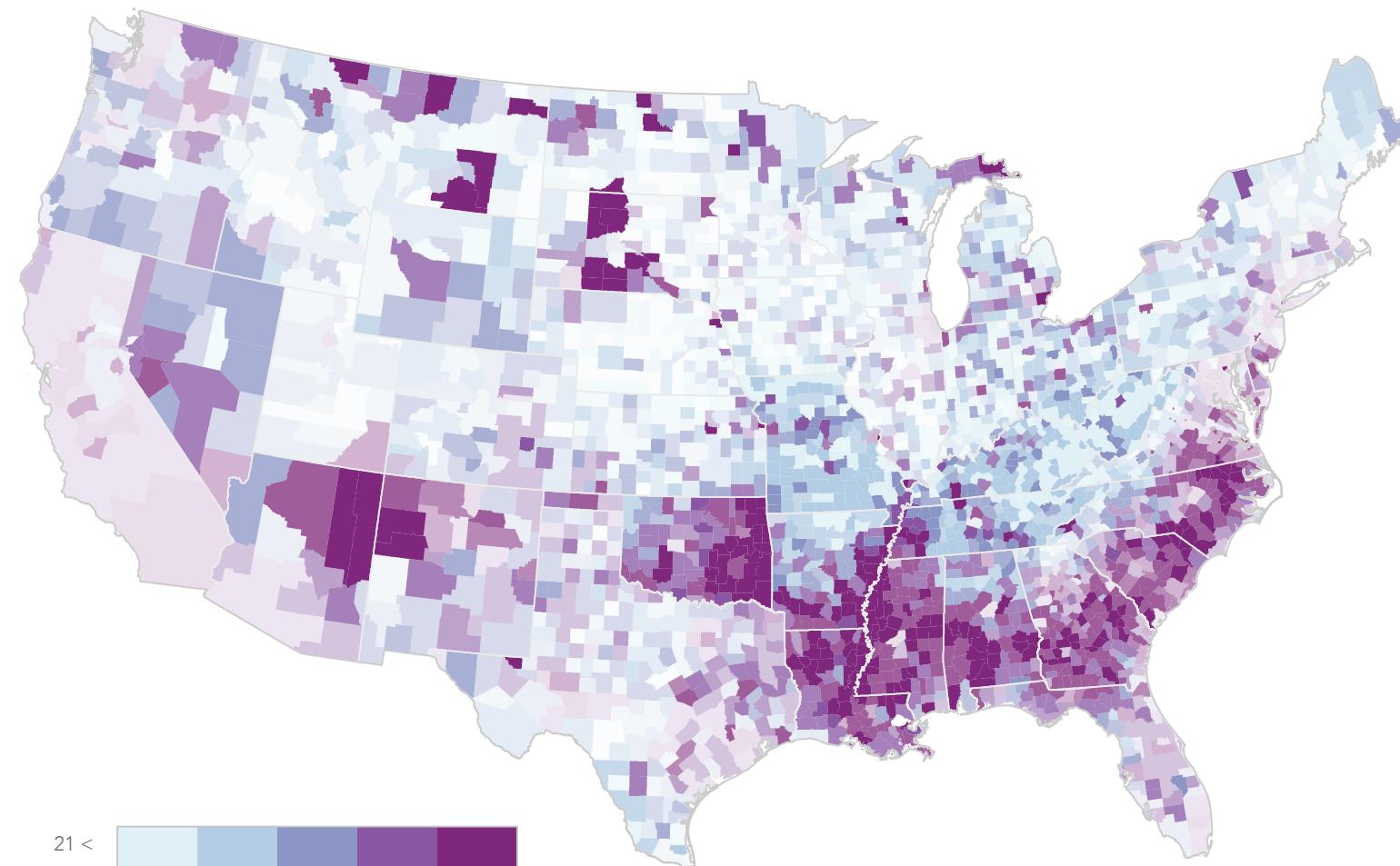
\$24M

spent per day on advertising by tobacco companies in 2015

SMOKING RATES BY AGE



SMOKING AND RACE



In this value-by-alpha map we see a large cluster of counties colored deep maroon in the southern region of the United States, a region that is also known as the "Black Belt". The maroon color signifies a large percent of the population is non-white in these regions while its lack of transparency signifies relatively high rates of smoking in these regions.

17

of every 100 non-Hispanic blacks in the US smoke cigarettes

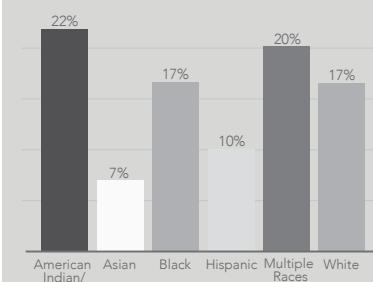
Tobacco Tactics

There are up to

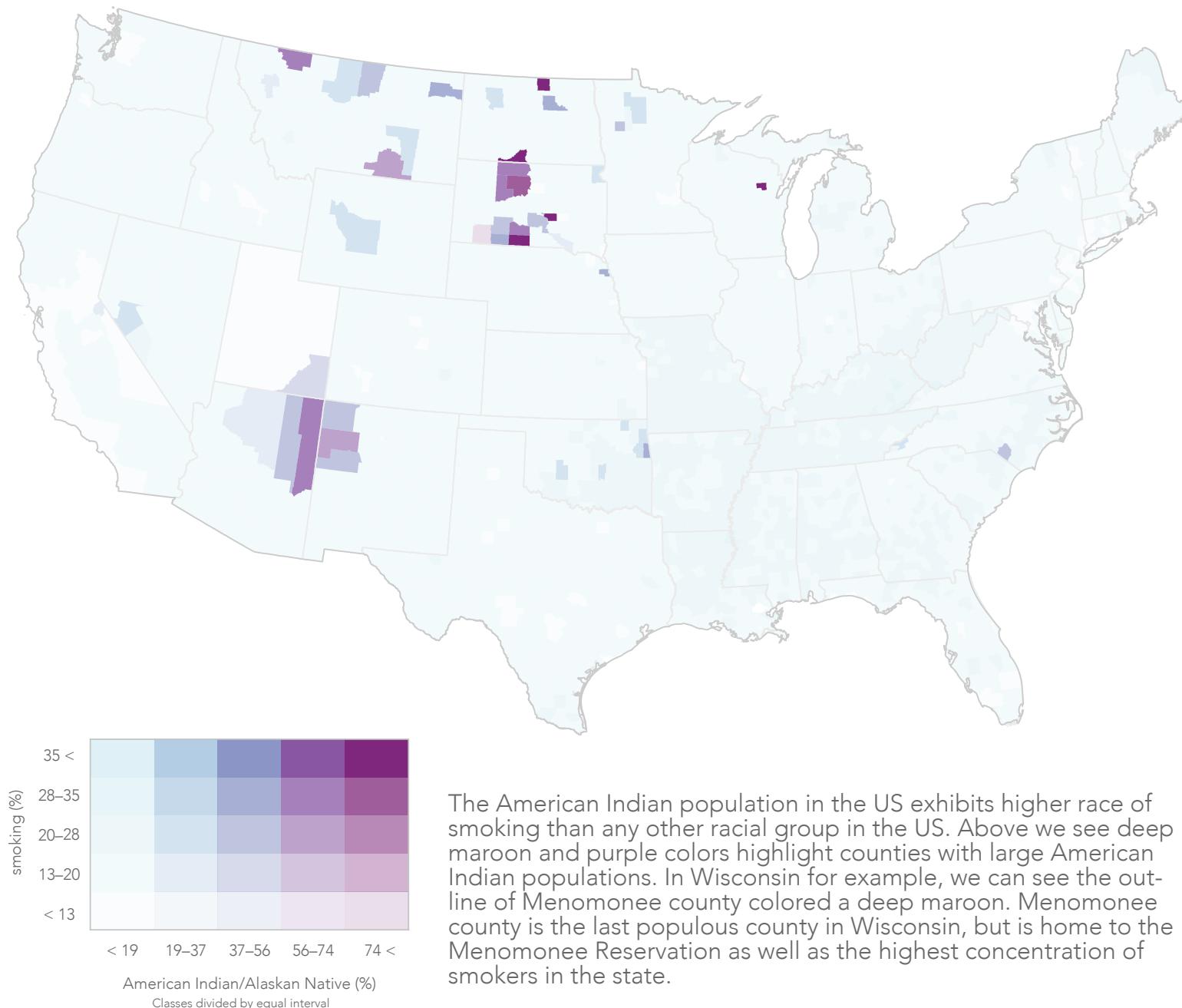
10X

more tobacco ads in black neighborhoods than in others

SMOKING RATES BY RACE



SMOKING AND RACE: AMERICAN INDIAN

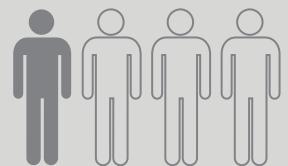


22

of every 100 non-Hispanic American Indian/Alaska Natives smoke cigarettes

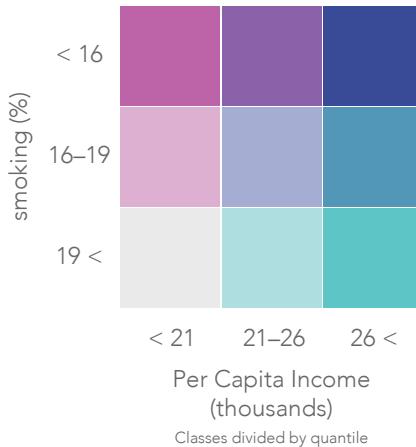
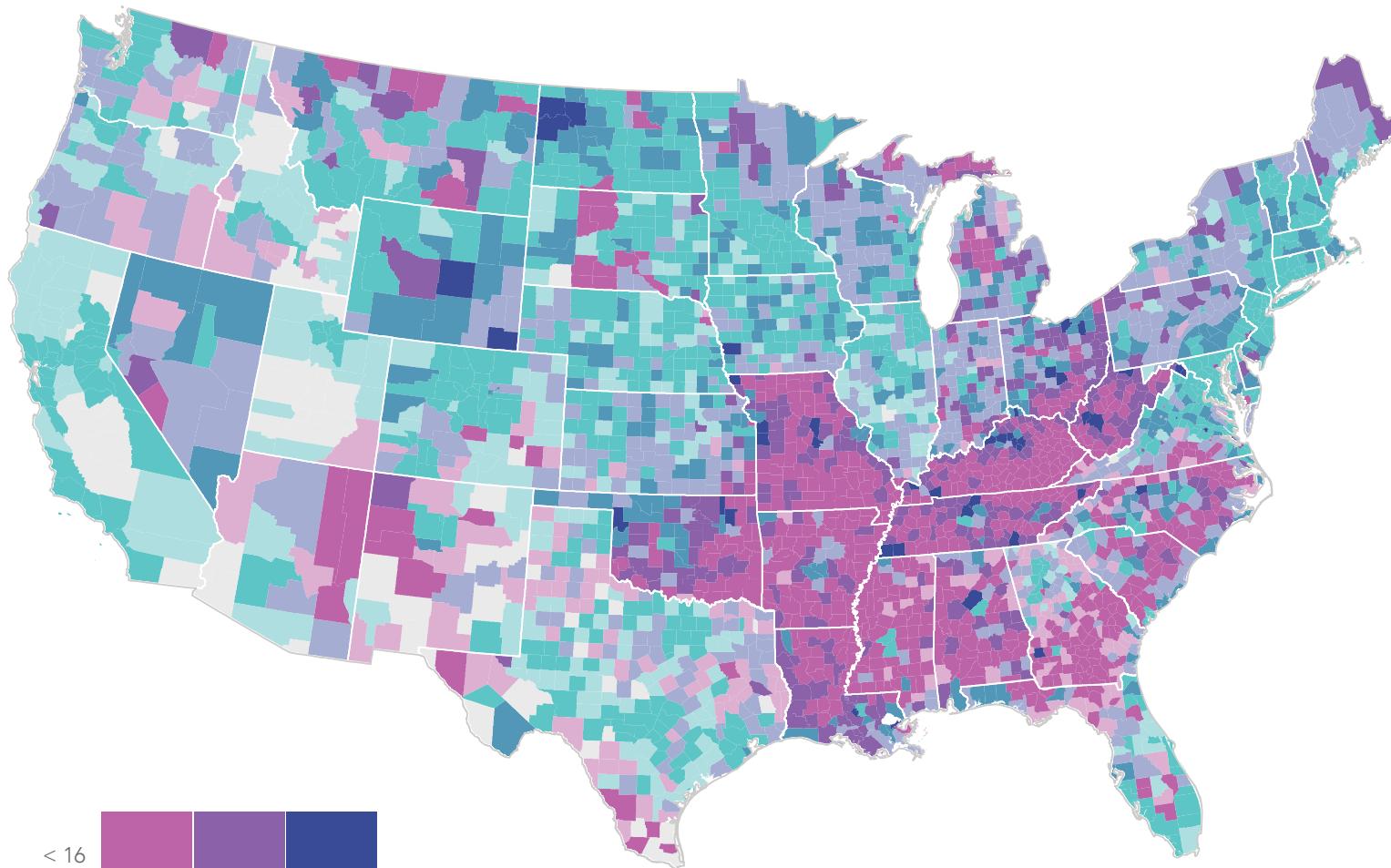
Tobacco Tactics

Tobacco companies have been known to sponsor traditional cultural events popular among certain communities such as Chinese New Year celebrations and American Indian Powwows.



1 in 5 American Indian women smoke cigarettes

SMOKING AND INCOME



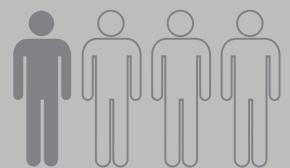
In this map we are looking for a slightly different pattern than in the others included in this atlas. In the southern states of the US, we see a large clustering of counties in a dark pink color. This signifies that these counties have a low per capita income as well as high smoking rates. We can also see that there are a large number of counties with a high per capita income and low smoking rates –signified by a dark teal color. Coupled with the fact that there are very few counties with high income and high smoking rates, we can observe that low income is associated with higher smoking rates.

26

of every 100 adults who live below the poverty level smoke cigarettes

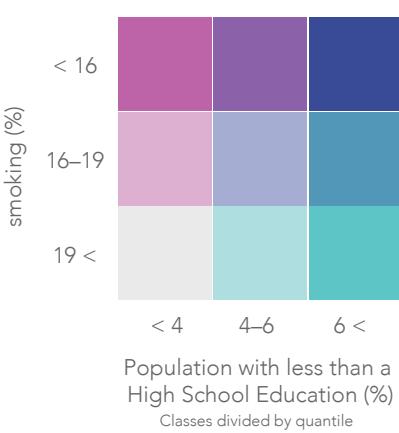
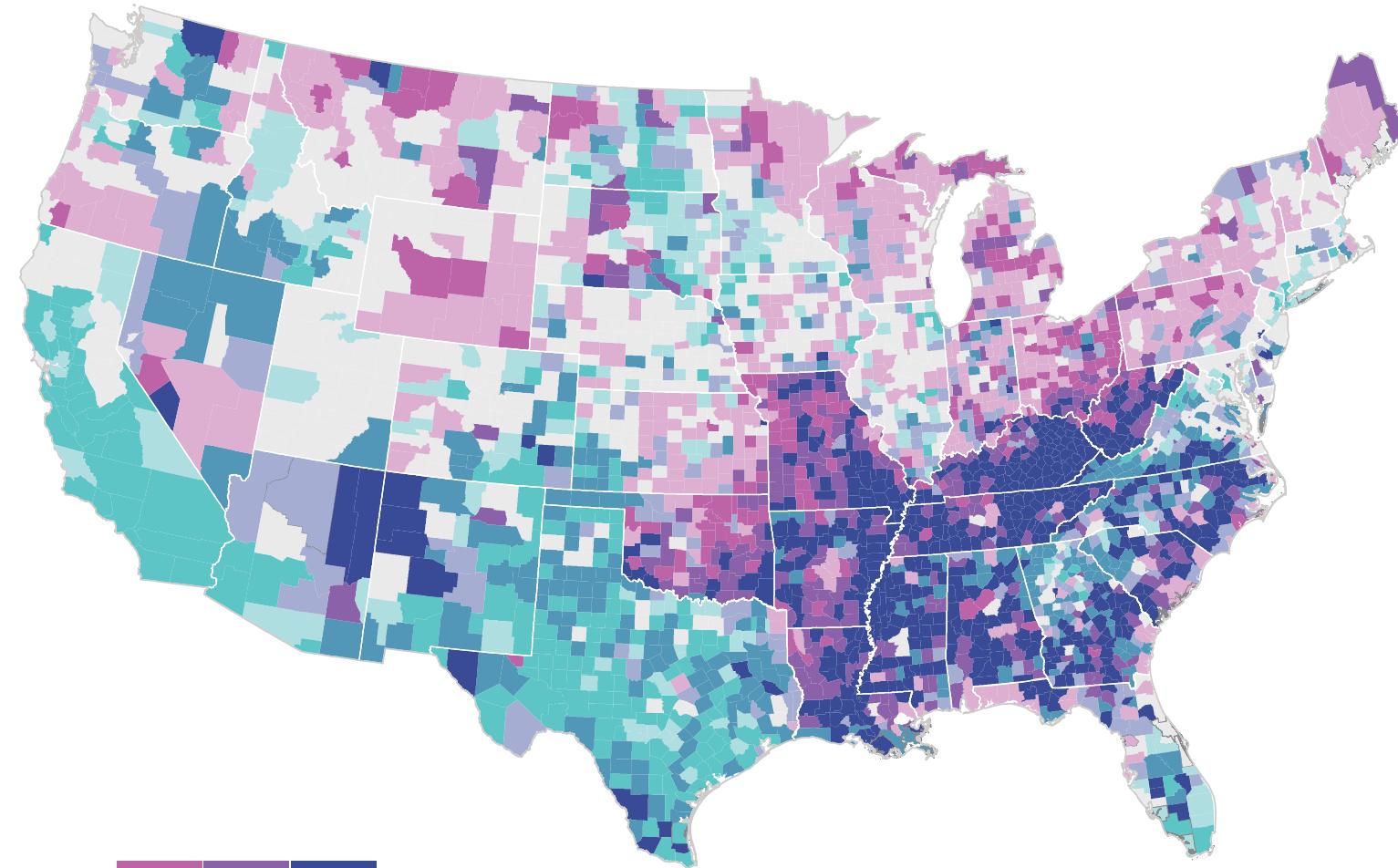
Tobacco Tactics

Studies show low-income neighborhoods in the US have larger number of tobacco retailers and storefront signs



More than 1/4 of people living below the poverty line smoke cigarettes

SMOKING AND EDUCATION



Regardless of all other demographic characteristics, individuals with a low level of education and low socioeconomic status have higher smoking rates than other demographic groups. In this map, we once again see many counties in the southern region of the US stand out in a deep blue. These counties are characterized by high rates of smoking as well as large populations of people with less than a high school education.

24

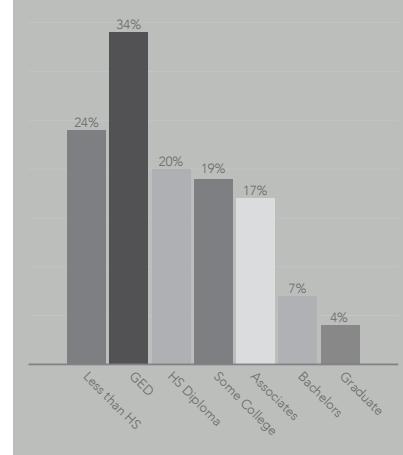
of every 100 adults with 12 or fewer years of education (no diploma) smoke cigarettes

Tobacco Tactics

\$27

spent per year per person on tobacco advertising every year.

SMOKING RATES BY EDUCATION



REFERENCES

DATA

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PROJECTION

USA Contiguous Albers Equal Area Conic. Central Meridian: -96.0 °W , Standard Parallels: 29.5 °N, 45.5°N

ICONS

Human Icon, Created by Alexander Smith from the Noun Project

COLOR SCHEME

Bivariate color scheme provided by Joshua Stevens and his tutorial on creating bivariate choropleth maps, <http://www.joshuastevens.net/cartography/make-a-bivariate-choropleth-map/>
Base colors for the value-by-alpha maps from Color Brewer, <http://colorbrewer2.org/#type=sequential&scheme=BuGn&n=3>

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12.21.17