


GIS Portal

gis.cancer.gov/portal


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(<http://gis.cancer.gov>)


National Cancer Institute


at the National Institutes of Health | www.cancer.gov


GIS

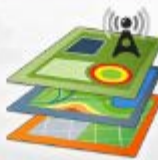
GEOGRAPHIC INFORMATION SYSTEMS & SCIENCE
 CANCER CONTROL AND POPULATION BASED CANCER RESEARCH

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The Geographic Information Systems and Science website is supported by the National Cancer Institute as a central source of information about GIS and related resources for use by the public, cancer researchers, and the GIS Special Interest Group.




Overview
An introduction to Geographic Information Systems at NCI.



NCI GIS Portal
Interactive web-based mapping tools and services.




GIS Research
View publications and see how institutions use GIS technology.



Tools & Data
Tools and data services to assist in analysis and visualization.

Why Spatial Context Matters



Access to Health Services: Healthcare Environment
Learn how access to health services influences cancer screening, diagnosis, and treatment.

1 2 3 4 5 6 7 8 9 *Photo Credits*

Popular Resources

- [Tools and Data](#)
- [Animated Historical Cancer Atlas](#)
- [Map Stories](#)
- [Geographic Information Systems Special Interest Group \(GISSIG\)](#)

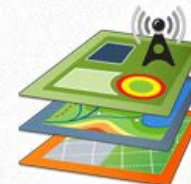
Recent Updates

- [County Level UV Exposure Data Released](#) - 4/30/14
- [Updated County Level Urban Sprawl Indices based on 2000 and 2010 data](#) - 4/2/14

(<https://gis.cancer.gov/portal/>)

NCI GIS Portal

NCI GIS Portal is a web-based station for interactive mapping and visualization of cancer related geo-spatial data. The portal combines Geographic Information Systems (GIS) and Science principles and tools to harmonize a relatively large and multi-dimensional datasets, including population-based cancer statistics and behavioral, environmental, clinical, socioeconomic, and policy data at the county and state levels. The tools that comprise GIS Portal combine intelligent web maps with graphs, charts, tables, and text to inform, educate, and inspire users to generate research hypothesis.



Mapping Tools:



[NCI GeoViewer](#)

An exploratory tool that enables users to construct comparative maps, graphs, and charts of cancer statistics and risk factors.



[NCI Map Stories](#)

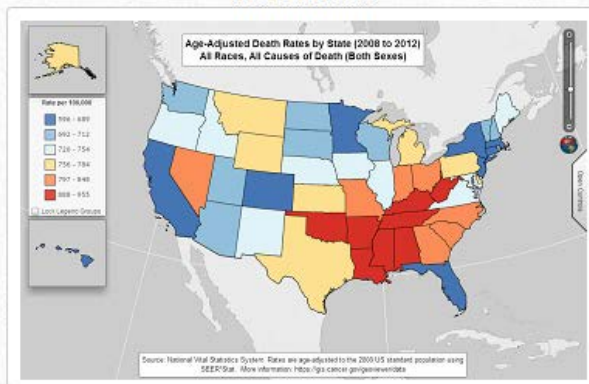
These maps are published periodically to inform and educate the user about a specific cancer topic.



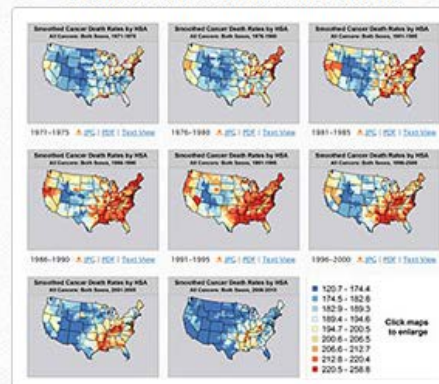
[Animated Historical Cancer Atlas](#)

Designed to visualize the historical patterns of cancer mortality. The tool generates time-series maps, and the user has a choice to view the historical cancer patterns as either a static set of maps, or as an animation.

NCI GeoViewer



Animated Historical Cancer Atlas



(<http://gis.cancer.gov/geoviewer/>)



NCI GeoViewer

The NCI GeoViewer is a tool that allows users to create maps of cancer statistics, demographics, and risk factors.

In the NCI GeoViewer you can:

- Select the type of Statistic and By-Variables shown on the map
- Change the colors and groups of mapped statistics by choosing from a variety of map options
- Extract the map by printing or saving an image or downloading the statistics in a delimited format for further analyses in other software

The NCI GeoViewer provides access to the following [statistics](#):

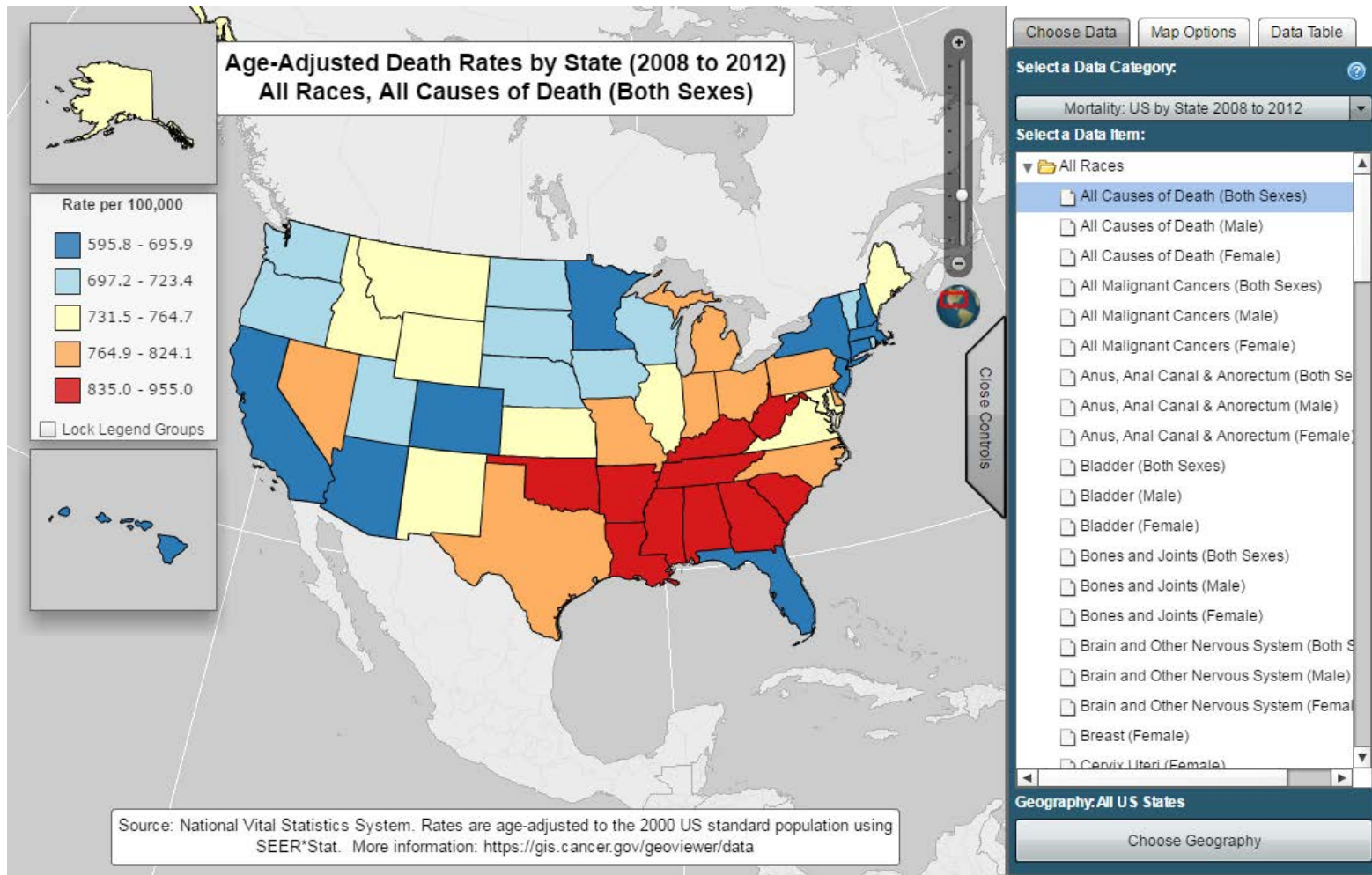
- Demographics from the American Community Survey for 2009 to 2013
- SEER Incidence for 2008 to 2012 for the entire United States for available state registries
- US Mortality for 2008 to 2012 for the entire United States
- US Historical Mortality for 1970 to 2009 for the entire United States
- Prevalence from the National Center for Health Statistics for 2015
- Screening and Risk Factors from the BRFSS

If the statistics that you are interested in are not available in this tool, SEER provides cancer statistics in a variety of formats. See [Statistical Summaries](#), [Interactive Tools](#) and [Publications](#) for more options.

This tool is not accessible to users of assistive technologies. All of the statistics displayed in the application are available as data tables in an accessible [text version](#).



(<http://gis.cancer.gov/geoviewer/>)



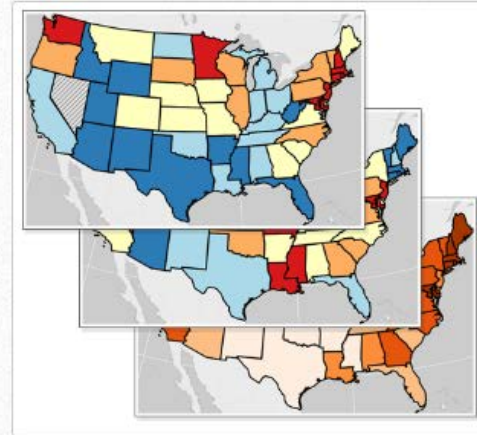
(<https://gis.cancer.gov/mapstory/>)



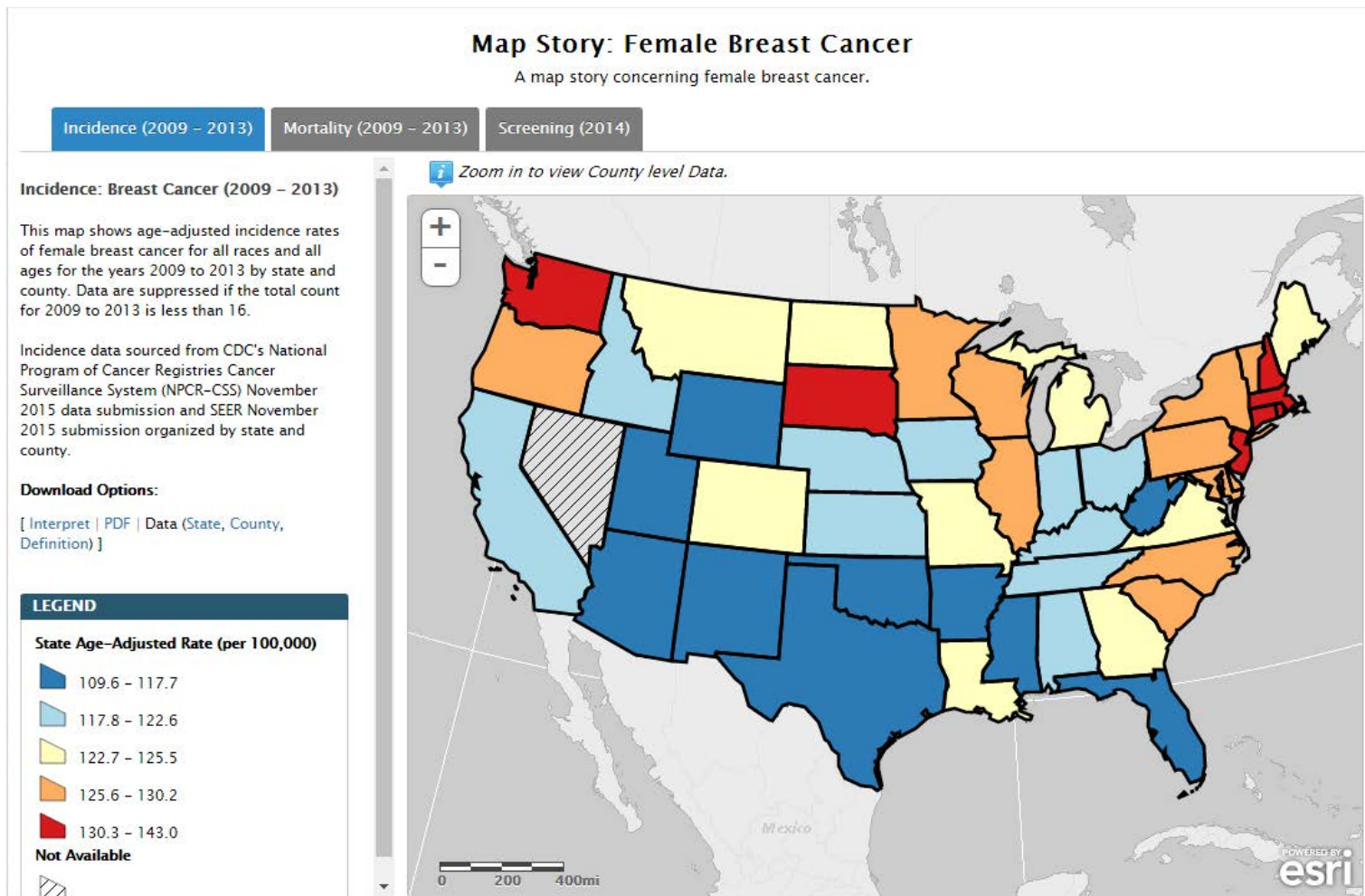
NCI Map Stories

This section provides links to map stories developed by the National Cancer Institute (NCI) that discuss a cancer topic using a map-based explanation.

- ▶ [Breast Cancer](#) shows incidence, mortality and screening rate maps for the most recent breast cancer statistics. This map story has been released in conjunction with Breast Cancer Awareness Month (October 2016). The data was sourced from the [State Cancer Profiles website](#) which the NCI and CDC collaborate on. The user can view one map at a time using tabs. Additionally, the user can download the data in tabular, geographic, or PDF format. To see the county layer, zoom in on the map.
- ▶ [Prostate Cancer](#) shows incidence and mortality rate maps for the most recent prostate cancer statistics. This map story has been released in conjunction with Prostate Cancer Awareness Month (September 2016). The data was sourced from the [State Cancer Profiles website](#) which the NCI and CDC collaborate on. The user can view one map at a time using tabs. Additionally, the user can download the data in tabular, geographic, or PDF format. To see the county layer, zoom in on the map.
- ▶ [Colorectal Cancer](#) shows incidence, mortality, and screening rate maps for the most recent colorectal cancer statistics. This map story has been released in conjunction with Colorectal Cancer Awareness Month (March 2015). The data was sourced from the [State Cancer Profiles website](#) which the NCI and CDC collaborate on. The user can view one map at a time using tabs. Additionally, the user can download the data in tabular, geographic, or PDF format. To see the county layer, zoom in on the map.
- ▶ [Cervical Cancer](#) shows an incidence rate map and mortality rate map for the most recent cervical cancer statistics and a Pap Test percentages map as well. This map story has been released in conjunction with Cervical Cancer Awareness Month (January 2015). The data was sourced from the [State Cancer Profiles website](#) which the NCI and CDC collaborate on. The user can view one map at a time using tabs. Additionally, the user can download the data in tabular, geographic, or PDF format. To see the county layer, zoom in on the map. **Note:** This map story was updated in March 2015 to fix problems resulting from incorrect population denominators for 4 boroughs in Alaska.
- ▶ [Lung Cancer](#) shows an incidence rate map and mortality rate map for the most recent lung cancer statistics and a current smoking percentages map as well. This map story has been released in conjunction with Lung Cancer Awareness Month (November 2014). The data was sourced from the [State Cancer Profiles website](#) which the NCI and CDC collaborate on. The user can view one map at a time using tabs. Additionally, the user can download the data in tabular, geographic, or PDF format. To see the county layer, zoom in on the map. **Note:** This map story was updated in March 2015 to fix problems resulting from incorrect population denominators for 4 boroughs in Alaska.



(<https://gis.cancer.gov/mapstory/breast/>)



(<https://gis.cancer.gov/atlas>)



Animated Historical Cancer Atlas

The Animated Historical Cancer Atlas is a tool that allows the users to animate smoothed age-adjusted death rates over time and view them at the national or state level.

The death data are from 1971–2010.

Age-adjusted death rates for 5 and 10 year groups were calculated using [SEER*Stat](#) by cancer site, sex, and Health Service Area (HSA). These rates were then smoothed using the [Head-Bang algorithm](#).

There are PDFs and JPGs that are available for download.

The entire time period can be animated by clicking the orange Animate button at the top of the map display.

[Return to Top](#)

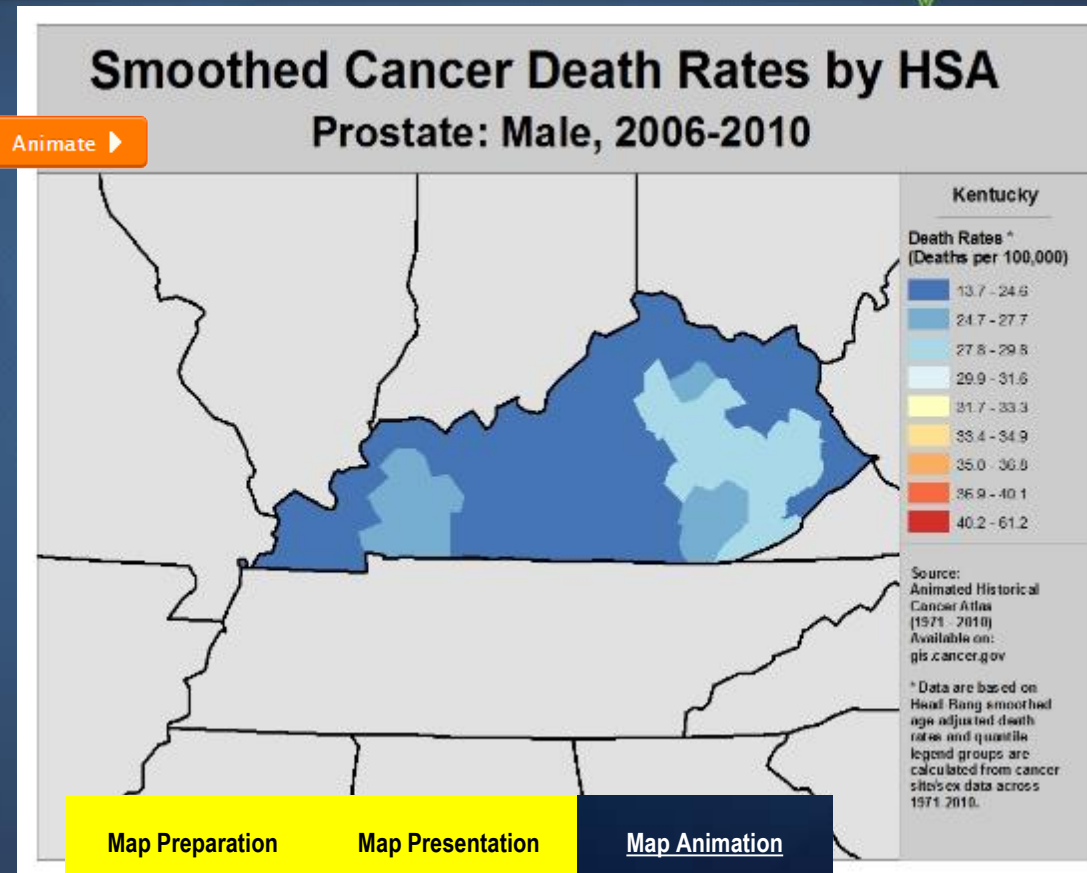


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Animated Historical Cancer Atlas

Watch as the map fades through eight different year ranges, starting with 1971-1975 and ending in 2006-2010.

Notice how most of the red areas are in the 1991-1995 map.

[NCI GIS Portal](#)[NCI GeoViewer](#)[NCI Map Stories](#)[Animated Historical
Cancer Atlas](#)[Ultra-Violet
Exposure](#)[Data Sources](#)[Questions: gistools@imsweb.com](mailto:gistools@imsweb.com)

NCI GIS Portal

Overview

GeoViewer

NCI Map Stories

Animated Historical Cancer Atlas

► Tobacco Policy



NCI Tobacco Policy Viewer

Who's Leading the Way in Smoke Free Laws?

Capabilities

In the NCI Tobacco Policy Viewer you can:

- Let the tool animate over 5 year increments or manually select the display year in the time slider control.
- Use controls in the legend to switch between viewing laws pertaining to smoking within Bars, Restaurants, or Workplaces.
- Show and hide the two layers of information; State smoking laws, or County and City smoking laws.
- Click on features to view information about currently displayed State, County, or City laws.
- Pan and zoom the dynamic webmap to investigate specific areas of the country.

Datasets

The NCI Tobacco Policy Viewer provides access to the following statistics at State, County, or City level:

- Laws requiring 100% smoke-free non-hospitality workplaces, including both public and private non-hospitality workplaces, including, but not limited to, offices, factories, and retail stores.
- Laws requiring 100% smoke-free restaurants, including any attached bar in the restaurant.
- Laws requiring 100% smoke-free freestanding bars.

The datasets presented in the tool are available for download here:

- [Population percent covered dataset](#) (xlsx – 1,247 KB)
- [State Smoking Laws](#) (csv – 4 KB)
- [County Smoking Laws](#) (csv – 380 KB)
- [City Smoking Laws](#) (csv – 574 KB)




This tool is not accessible to users of assistive technologies. All of the statistics displayed in the application are available as data tables in an accessible [text version](#).

Workplace



☒ State Workplace Smoking Laws


 State With 100% Coverage


 State Without 100% Coverage


☒ City and County Workplace Smoking Laws

 County Law (All Areas)

 County Law (Unincorporated Areas)

 County Without 100% Coverage

 Recent City Smoking Law

 Existing City Smoking Law

Restaurant



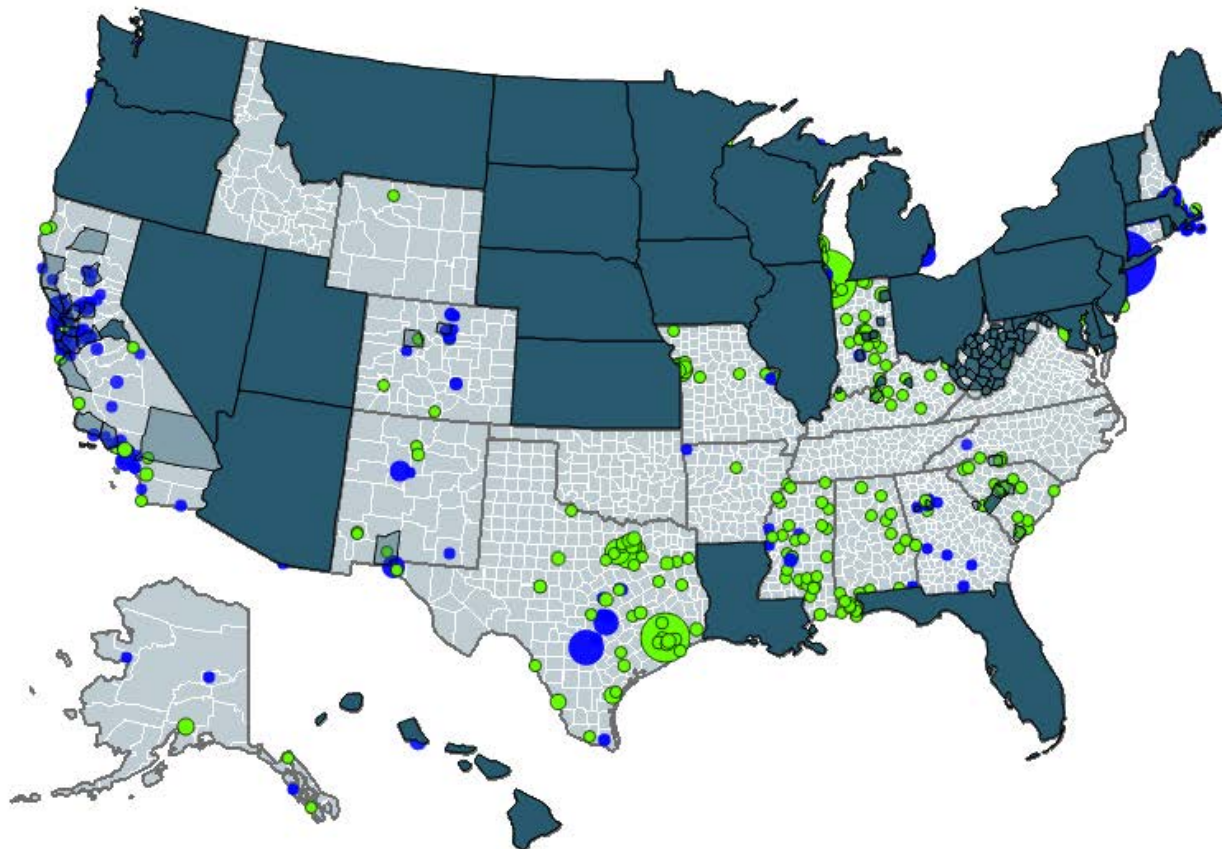
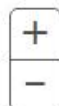
Bar



2010

Who's Leading the Way in Smoke Free Laws?

Workplace



Start Animating



Questions?

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