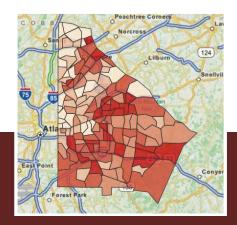
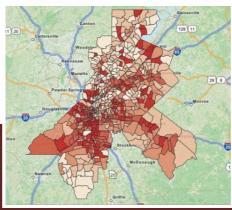
Georgia Social Vulnerability Index 2010 Atlas

MAKING PLANNING LOCAL

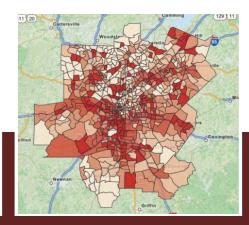
VULNERABLE & AT-RISK POPULATIONS DATA FOR JURISDICTIONS AT THE CENSUS TRACT LEVEL



Public Health Districts



Regional Coordinating Hospital Regions



Emergency Management Areas

A COLLABORATIVE PROJECT OF

Georgia Department of Public Health

Division of Health Protection
Office of Emergency Preparedness and Response

Georgia Emergency Management Agency

Office of Homeland Security

University of North Carolina at Chapel Hill

UNC Gillings School for Public Health
North Carolina Institute for Public Health
North Carolina Preparedness and Emergency Response Research Center

Georgia Social Vulnerability Index 2010 Atlas

MAKING PLANNING LOCAL

VULNERABLE & AT-RISK POPULATIONS DATA FOR JURISDICTIONS AT THE CENSUS TRACT LEVEL

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The University of North Carolina at Chapel Hill

North Carolina Institute for Public Health
Preparedness and Emergency Response Research Center (NCPERRC)

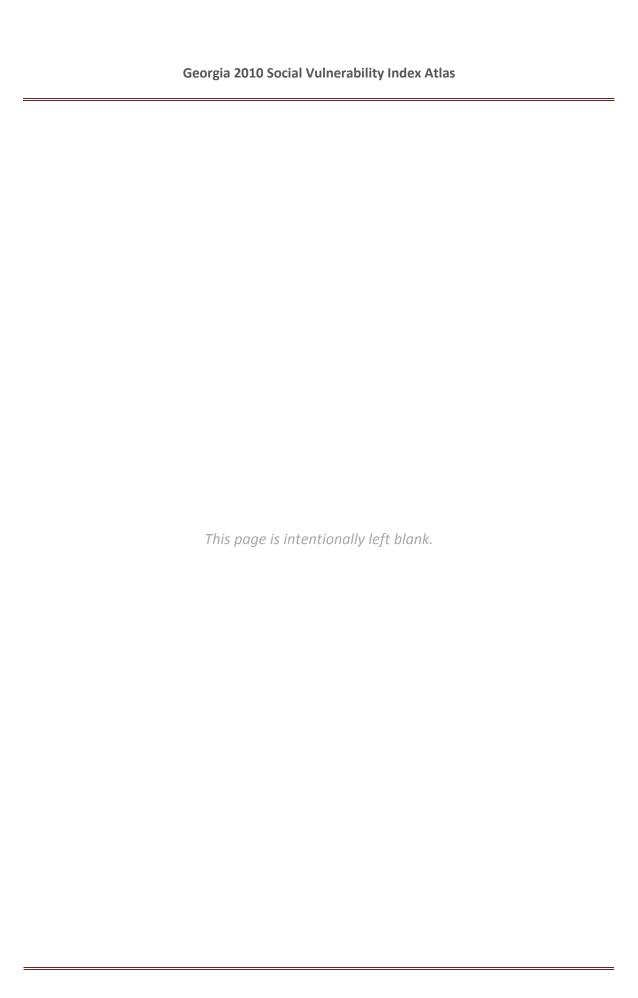
Acknowledgements

This *Atlas* was developed in collaboration with the Georgia Department of Public Health's Division of Health Protection's Office of Emergency Preparedness and Response, the Georgia Emergency Management Agency, and the North Carolina Preparedness and Emergency Response Research Center (NCPERRC) at the North Carolina Institute for Public Health in the UNC Gillings School of Global Public Health at the University of North Carolina at Chapel Hill. With special thanks to Elaine Hallisey and Barry Flanagan at Centers for Disease Control and Prevention's Agency for Toxic Substances and Disease Registry (ATSDR)'s Geospatial Research, Analysis, and Services Program (GRASP), and Gordon Freymann and Jeff McMichael at the Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP).

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"Social vulnerability refers to the socioeconomic and demographic factors that affect the resilience of communities. Studies have shown that in disaster events the socially vulnerable are more likely to be adversely affected, i.e. they are less likely to recover and more likely to die. Effectively addressing social vulnerability decreases both human suffering and the economic loss related to providing social services and public assistance after a disaster."

Flanagan et al, 2011

INTRODUCTION

One of the first steps in emergency preparedness planning is to identify the vulnerable populations within your community. The Social Vulnerability Index (SVI) was developed utilizing U.S. Census and American Community Survey data to provide an overview of vulnerable populations at the census tract level. By mapping this index, planners can visually identify populations within their community who are potentially at greater risk during an emergency.

Through partnership with the Georgia Department of Public Health, the Georgia Emergency Management Agency (GEMA) and the North Carolina Preparedness and Emergency Response Research Center (NCPERRC), the Georgia Social Vulnerability Index has been incorporated into the Georgia Online Disaster Awareness Geospatial System (GODAWGS) GEMA's online geographic information system which includes a set of defined map layers depicting vulnerable populations relative to the state, the public health districts, the regional coordinating hospital regions and the emergency management agency regions, according to the CDC's Social Vulnerability Index for Disaster Management (SVI), to meet the identified needs of partner agencies

As a supplement to the online SVI information on GODAWGs, this *Atlas* contains the 2010 SVI maps layers depicting vulnerable populations relative to each of the following jurisdictions to help in local planning: 1) State, 2) Georgia Public Health Districts, 3) Regional Coordinating Hospital regions. Included with each area 2010 SVI map are maps of the 4 subgroups of vulnerability which when combined make up the overall Social Vulnerability Index. These subgroups include: 1) socioeconomic status, 2) household composition, 3) minority status and language and 4) housing and transportation.

This *Atlas* provides a common approach throughout the state in identifying areas of high vulnerability within the emergency preparedness planning and response areas of Georgia. It is designed primarily to address the needs of individuals working in emergency management, district and local health departments, and/or regional coordinating hospital regions including planners, preparedness coordinators, and public health personnel. This *Atlas* is not limited to emergency preparedness planning and can be used by parties interested in identifying and planning for the needs of the vulnerable and at-risk populations within their communities.

THE SOCIAL VULNERABILITY INDEX

The following section provides background information on the Social Vulnerability Index (SVI) and when mapped by jurisdiction how this index provides a standardized indicator of vulnerability which can be used by local, district and regional emergency preparedness planners.

What is Social Vulnerability?

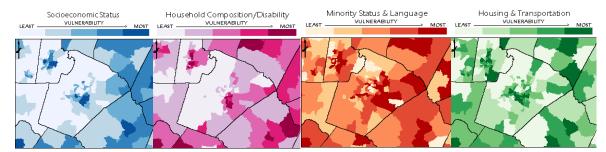
Every community must prepare for and respond to hazardous events, whether a natural disaster like a tornado or a disease outbreak, or an anthropogenic event such as a harmful chemical spill. The degree to which a community exhibits certain social conditions, including its poverty, car ownership, or number of persons in households, may affect that community's ability to prevent human suffering and financial loss in the event of disaster. These factors describe a community's social vulnerability.

What is the Social Vulnerability Index?

The Social Vulnerability Index (SVI) originated through a collaboration among CDC's National Center for Environmental Health, Coordinating Office for Terrorism Preparedness and Emergency Response (COTPER), and the Agency for Toxic Substances and Disease Registry's Geospatial Research, Analysis, and Services Program (GRASP) to produce a social vulnerability index with the intent to help state, local, and tribal disaster management officials identify the locations of their most vulnerable populations. ATSDR's Geospatial Research, Analysis & Services Program (GRASP) created the *Social Vulnerability Index for Disaster Management* to help public health officials and emergency response planners identify and map the communities that will most likely need support before, during, and after a hazardous event.

The SVI indicates the relative vulnerability of every U.S. Census tract. Census tracts are subdivisions of counties for which the Census collects statistical data. The SVI ranks the tracts on a set of social factors, including unemployment, lack of vehicle access, and crowded housing, and further groups them into four related themes. Thus each tract receives a ranking for each Census variable and for each of the four themes, as well as an overall ranking. Maps of the four Domains are shown in the figure below.

Sample Maps of SVI Domains



For each census tract, percentile rankings were calculated for each of the variables (see below). In the GODAWGS database, each tract is ranked according to its level of vulnerability in comparison to the average across the 1) state, 2) GEMA Areas, 3) public health districts, and 4) regional coordinating hospital regions. Those areas with more vulnerable populations are indicated by the darker color and those less vulnerable (relative to other census tracts in the level) are lighter in color; for each tract, the higher the percentile, the more vulnerable the population for that variable.

What variables are used to calculate the SVI?

Below is a list of all of the variables are included in the total 2010 SVI broken down into the 4 domains.

Socioeconomic	Household	Minority	Housing/Transportation
Status	Composition	Status/Language	
 Percent of individuals below poverty Percent unemployed Per capita income Percent of persons with no high school diploma 	 Percent of persons 65 years of age or older Percent of persons 17 years of age or younger Percent of single- parent households, with children under 18 	 Percent minority Percent of persons years of age or older who speak English "less than well" 	 Percent multi-unit structures Percent mobile homes Crowding No vehicle available Percent of persons in group quarters

Note: Though disability data were collected in the 2000 Census, they were not collected at census tract level for either 2010 Census or 2006-2010 ACS.

A complete list of variables and explanations is provided in the appendices.

GEORGIA Social Vulnerability Index Maps

During disasters and emergency events one thing remains constant; the need for reliable and accessible data. Collecting data ahead of time from various public and private partners is critical to response for the creation of situational awareness in a Common Operating Picture (COP). The Georgia Online Disaster Awareness Geospatial System (GODAWGS) is a web based geospatial visualization tool designed to provide situational awareness to Emergency Responders across the state. GODAWGS is an interactive mapping system used in response within the state. Federal, State, Local and other responding partners may use the information in the application to assist them when making critical response and recovery decisions.

The Social Vulnerability Index was integrated into the GODAWGS application to help illustrate each jurisdiction's vulnerable populations. Users are able to use the SVI layers with the features of GODAWGS and view vulnerability based on Public Health Districts, Regional Coordinating Hospital regions and Georgia Emergency Management Agency regions. For example, during the planning process you may use the GODAWGS system to plan critical routes, staging location and other information of interest based on the SVI variables.

In developing this printed *Atlas*, two SVI maps sources were used:

- The State SVI maps within this Atlas are from GODAWGs.
- The individual jurisdictional maps are from The University of North Carolina's Vulnerable Populations Website.

Information on how to access all of these maps online can be found in the appendices.

How can the SVI help communities be better prepared for hazardous events?

The SVI provides specific socially and spatially relevant information to help public health officials and local planners better prepare communities to respond to emergency events such as severe weather, floods, disease outbreaks, or chemical exposure.

The Social Vulnerability Index (SVI) helps state, local, and federal planning officials identify the locations of their most vulnerable populations. This work builds on research that examines vulnerability as a social condition, or a measure of the resilience of population groups when confronted by disaster. The SVI includes socio-demographic attributes, such as age, race, and economic status, to identify the relative social vulnerability of populations to the effects of natural or anthropogenic disasters.

The SVI can be used to:

- Estimate the amount and type of needed supplies like food, water, medicine, and bedding.
- Help decide how many emergency personnel are required to assist people.
- Identify areas in need of emergency shelters.
- Plan the best way to evacuate people, accounting for those who have special needs, such as those without vehicles, the elderly, or people who do not understand English well.
- Identify communities that will need continued support to recover following an emergency or natural disaster.

ALIGNMENT WITH NATIONAL PREPAREDNESS GOAL AND FRAMEWORK

The *Atlas* is intended to address and incorporate the recent set of preparedness capabilities introduced under the National Preparedness Goal (PPD-8) associated with community preparedness and at-risk populations, including community partnerships, emergency public information and warning, and medical countermeasure dispensing. Specific capabilities and functions include the following:

Public Health Preparedness

Public Health Emergency Preparedness Capabilities http://www.cdc.gov/phpr/coopagreement.htm

- Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community. (Capability 1, Function 1.)
- Identify those populations that may be at higher risk for adverse health outcomes.
 (Capability 1, Function 1.)
- Identify the potential hazards, vulnerabilities, and risks in the community that relate to the jurisdiction's public health, medical, and mental/behavioral health systems. (Capability 1, Function 1.)
- Work with emergency management and community and faith-based partners to identify the public health, medical, and mental/behavioral health services. (Capability 1, Function 3.)
- Build community partnerships to support public health preparedness (Capability 1, Function 2.)
- Facilitate the collection of geographically-specific data (Capability 1, Function 1.)

> Hospital Preparedness

Hospital Preparedness Program Capabilities
http://www.phe.gov/Preparedness/planning/hpp/reports/Documents/capabilities.pdf

- Identify populations with health vulnerabilities, limited access, reduced abilities, and/or those needs that may be exacerbated by chemical, biological, or radiological exposure. (Capability 1, Function 7.)
- Identify those populations that may be at higher risk for adverse health outcomes.
 (Capability 1, Function 7.)
- Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community. (Capability 1, Function 7.)

Emergency Management and Homeland Security

Core Capabilities

http://www.fema.gov/core-capabilities

- Incorporate, in all plans, procedures, and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for vulnerable and at-risk populations
- Develop and provide community preparedness public education program and materials for non-English speaking communities and special needs populations
- Integrate public outreach and non-governmental resources into emergency operations plans and exercises
- Provide education and training for the public in all mission areas
- Develop (or enhance) local public information and communication plans for needs of at-risk populations

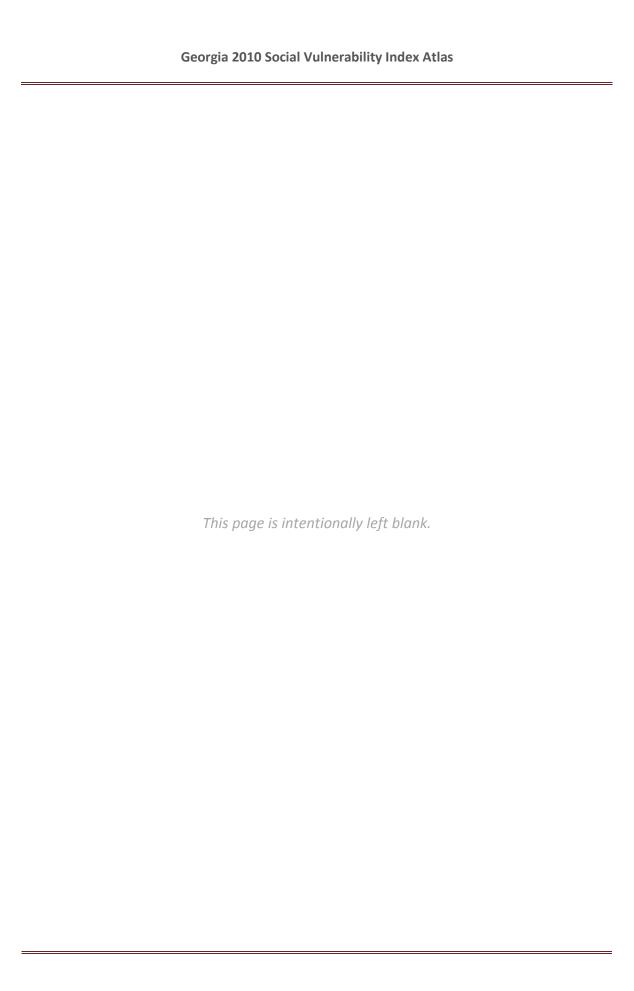
GEORGIA 2010 SOCIAL VULNERABILITY INDEX ATLAS

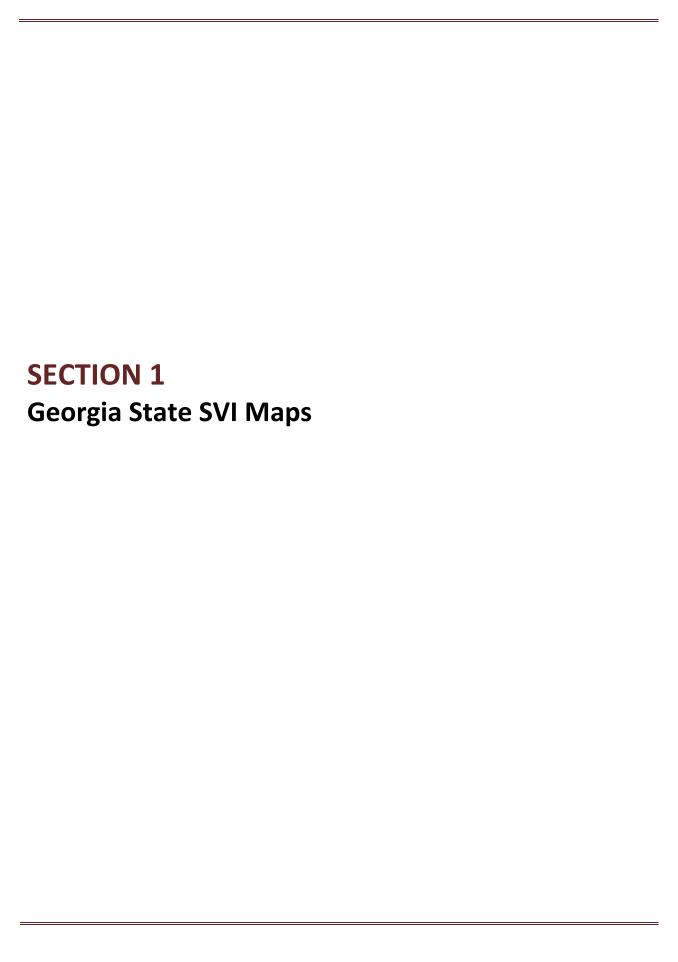
This *Atlas* is divided into several sections each with a jurisdictional map of the Overall SVI and 4 maps of the domains (socioeconomic status, household composition, minority and language and housing and transportation):

- 1. State Maps
- 2. Public Health District Maps
- 3. Regional Coordinating Hospital Regions
- 4. Georgia Emergency Management Agency (GEMA) Regions

Included on each page is an inset of the overall SVI map for the state, with the specific regions identified.

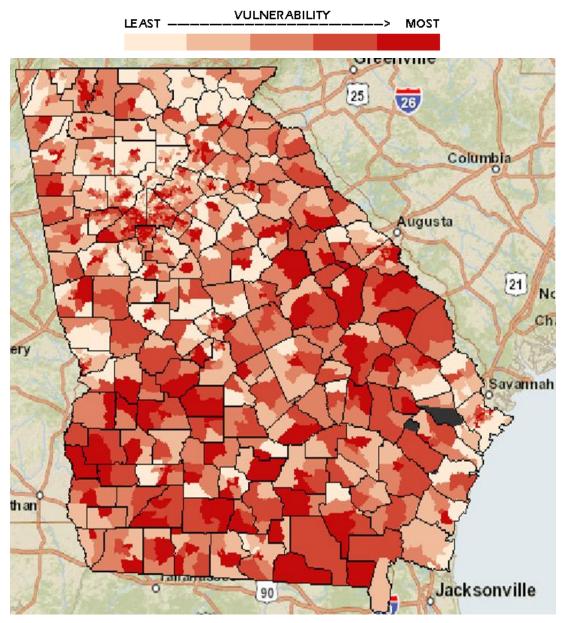
A complete set of jurisdictional maps outlining each of the counties within each region is included in the appendices.





GEORGIA 2010 Social Vulnerability Index

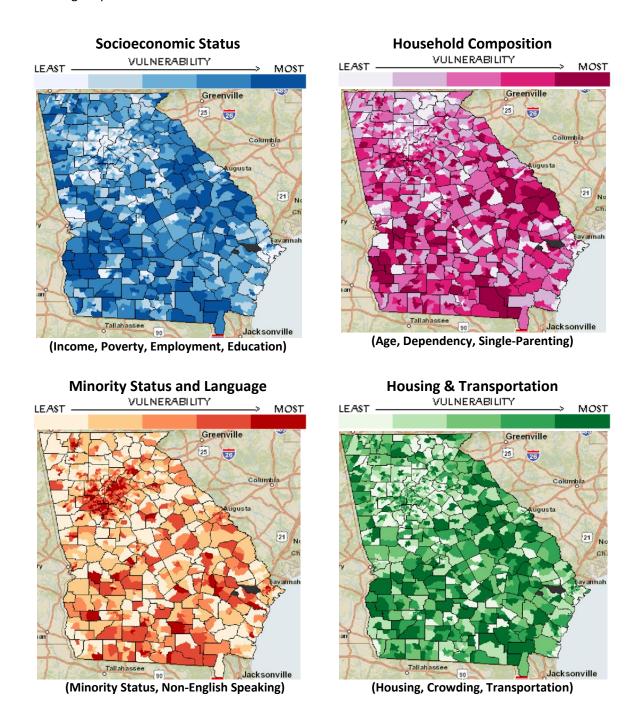
Overall Social Vulnerability

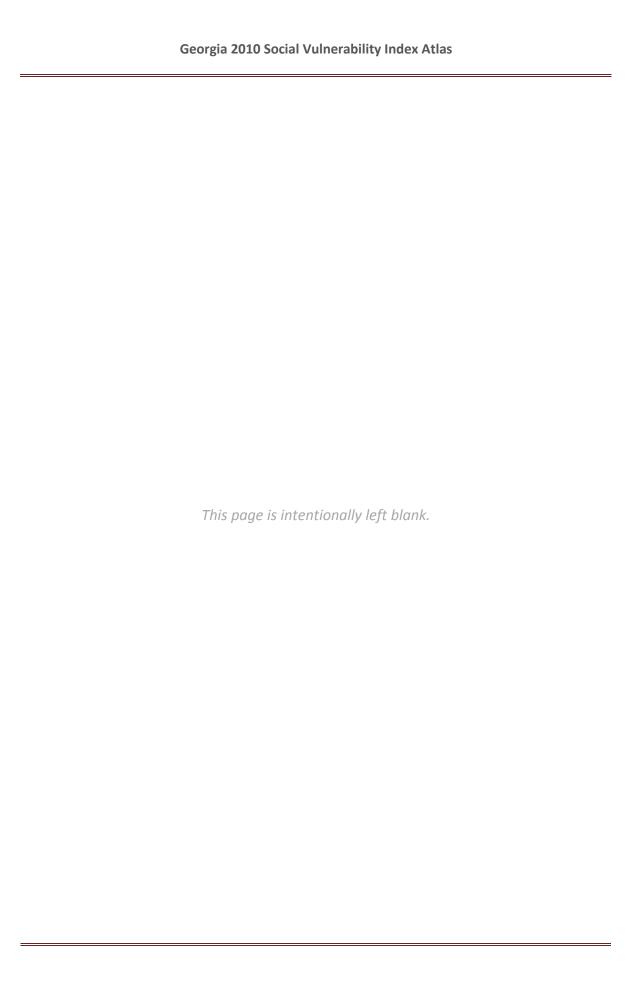


The **Social Vulnerability Index (SVI 2010) Map of Georgia** depicts the social vulnerability of communities, at the census tract level. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

GEORGIA Social Vulnerability Index

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEORGIA** are shown in the following maps.





SECTION 2

Public Health District SVI Maps

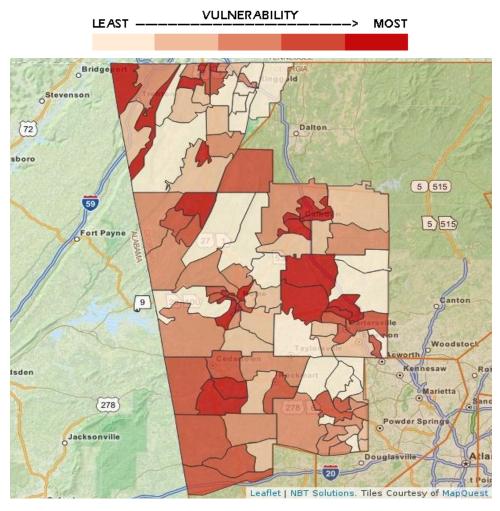
Georgia Department of Public Health (DPH) Districts

- 1-1 Northwest (Rome)
- 1-2 North Georgia (Dalton)
- 2 North (Gainesville)
- 3-1 Cobb-Douglas
- 3-2 Fulton
- 3-3 Clayton (Jonesboro)
- 3-4 East Metro (Lawrenceville)
- 3-5 DeKalb
- 4 LaGrange
- 5-1 South Central (Dublin)
- 5-1 North Central (Macon)
- 6 East Central (Augusta)
- 7 West Central (Columbus)
- 8-1 South (Valdosta)
- 8-2 Southwest (Albany)
- 9-1 Coastal (Savannah)
- 9-2 Southeast (Waycross)
- 10 Northeast (Athens)

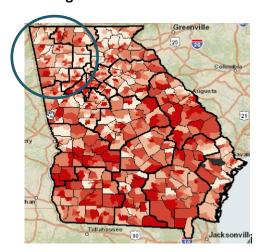
13

GPH District 1-1: Northwest (Rome)

Overall Social Vulnerability

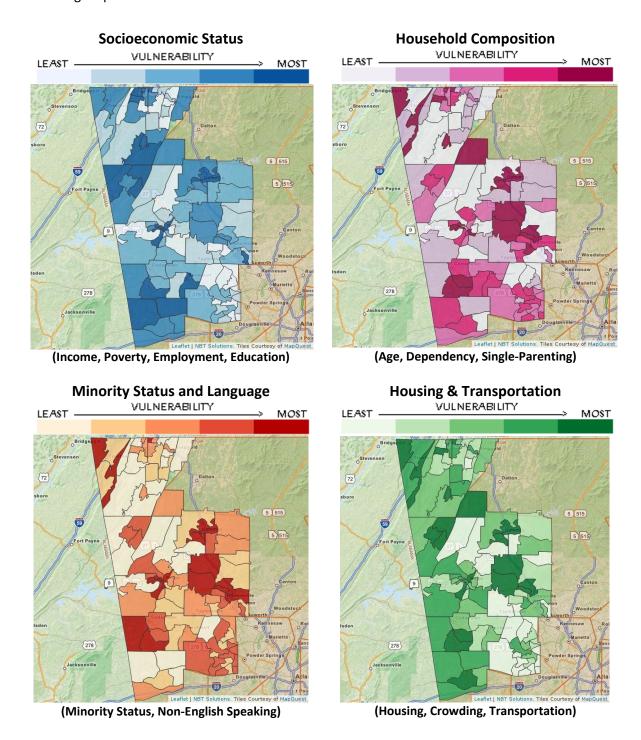


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



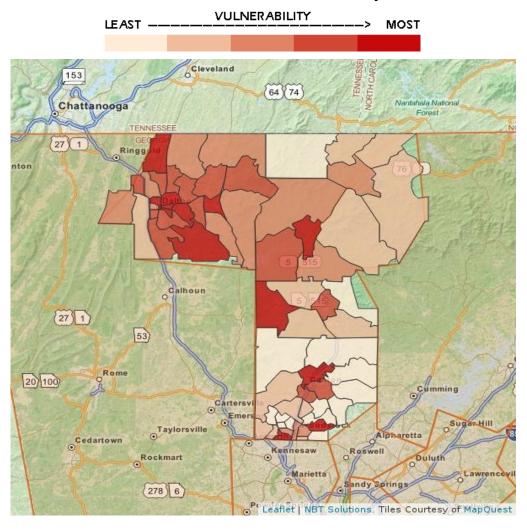
GPH District 1-1: Northwest (Rome)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 1-1** are shown in the following maps.

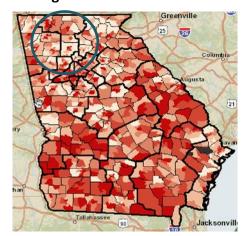


GPH District 1-2: North Georgia (Dalton)

Overall Social Vulnerability

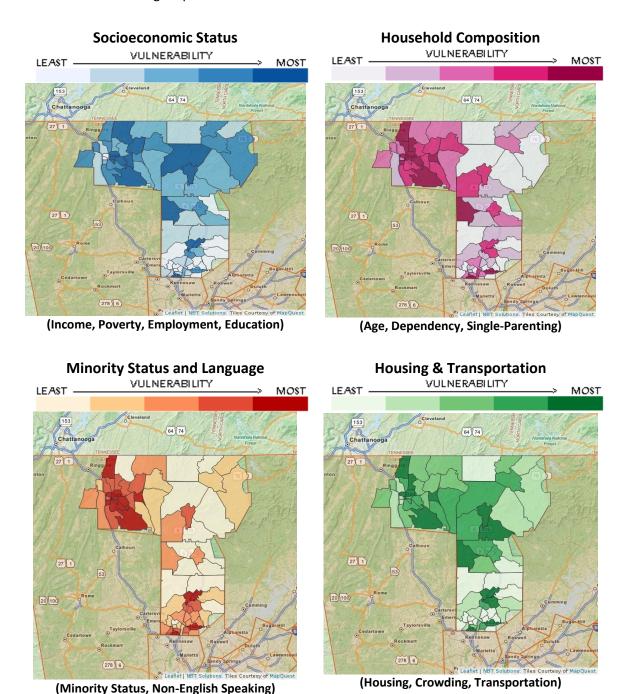


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



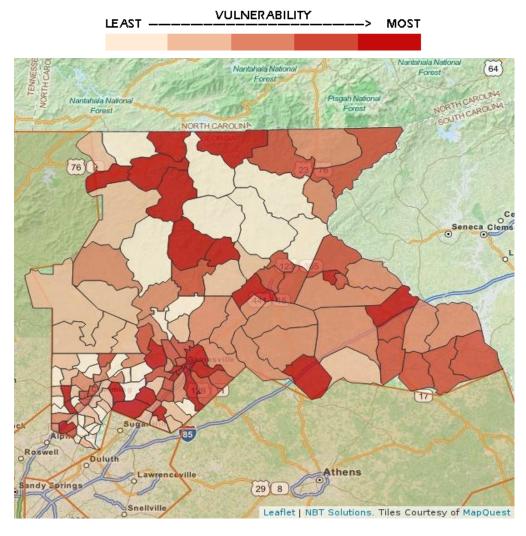
GPH District 1-2: North Georgia (Dalton)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 1-2** are shown in the following maps.

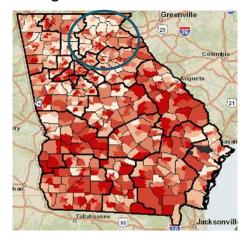


GPH District 2: North (Gainesville)

Overall Social Vulnerability

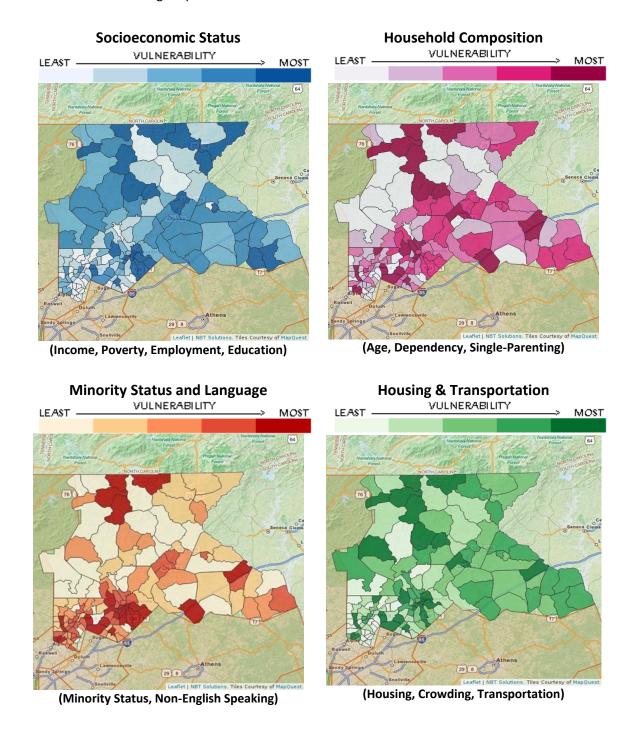


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



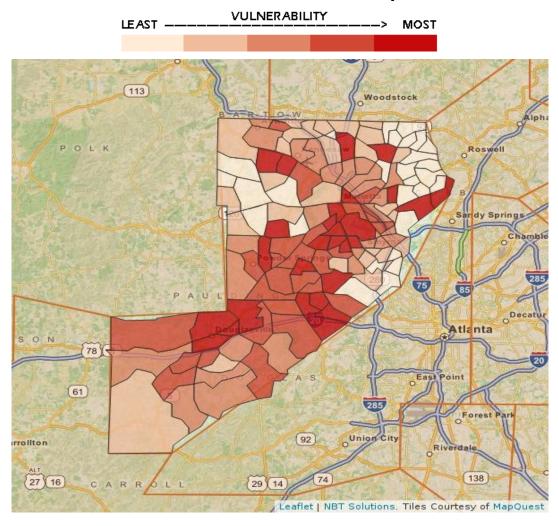
GPH District 2: North (Gainesville)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 2** are shown in the following maps.

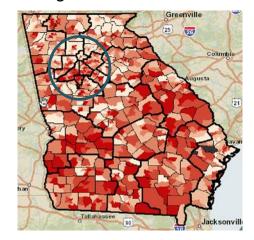


GPH District 3-1: Cobb-Douglas

Overall Social Vulnerability

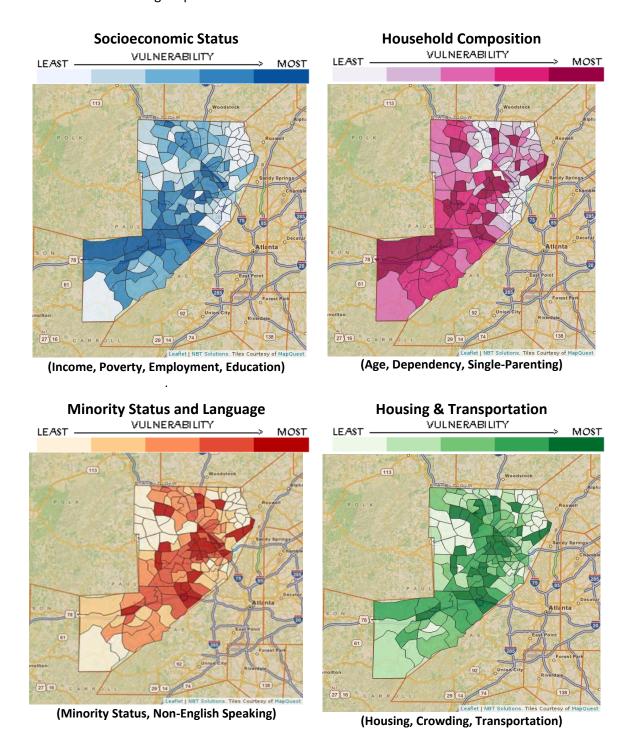


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



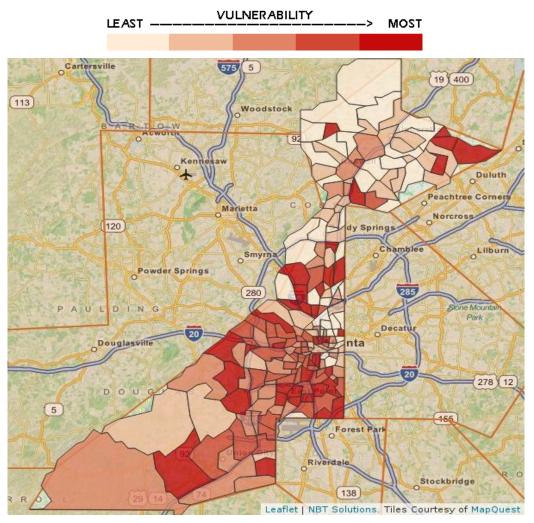
GPH District 3-1: Cobb-Douglas

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 3-1** are shown in the following maps.

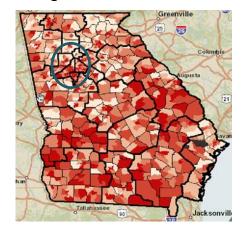


GPH District 3-2: Fulton

Overall Social Vulnerability

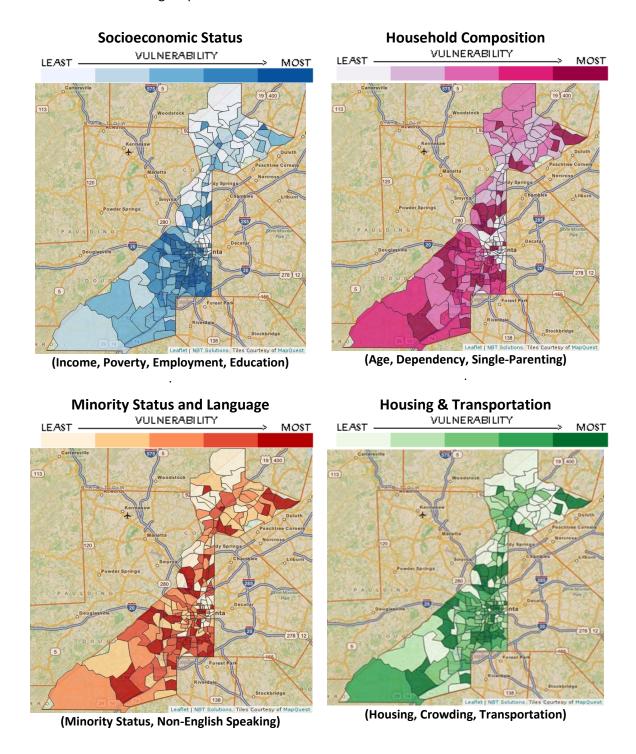


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



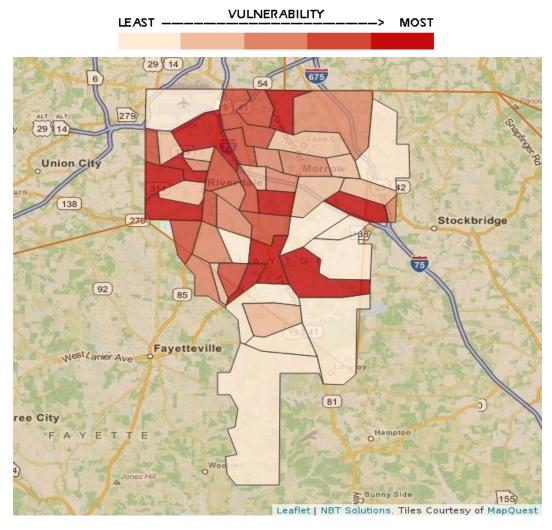
GPH District 3-2: Fulton

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 3-2** are shown in the following maps.

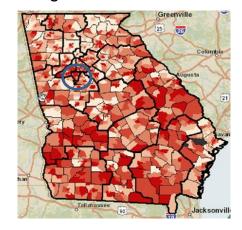


GPH District 3-3: Clayton (Jonesboro)

Overall Social Vulnerability

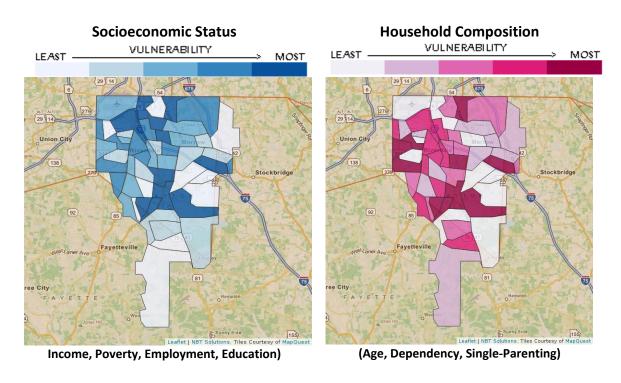


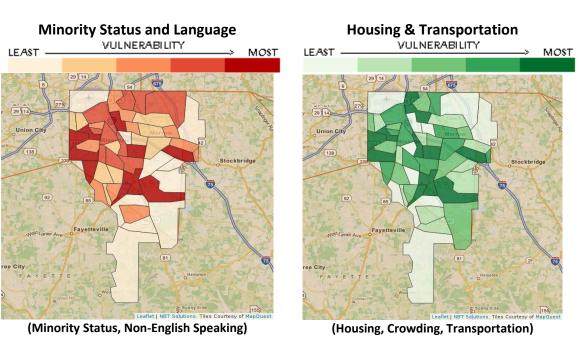
The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



GPH District 3-3: Clayton (Jonesboro)

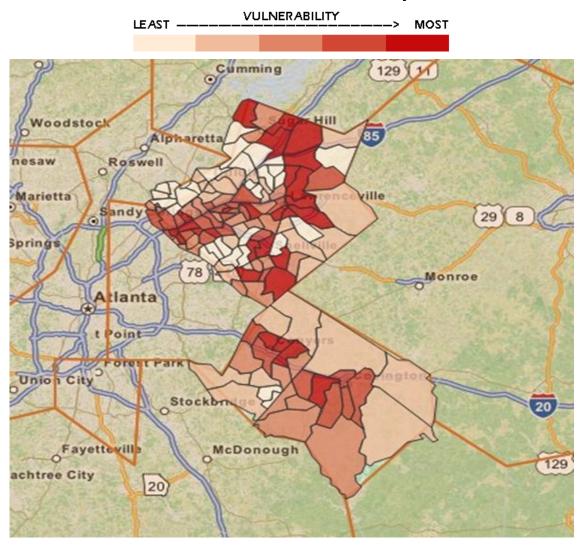
The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 3-3** are shown in the following maps.



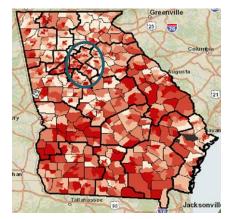


GPH District 3-4: East Metro (Lawrenceville)

Overall Social Vulnerability

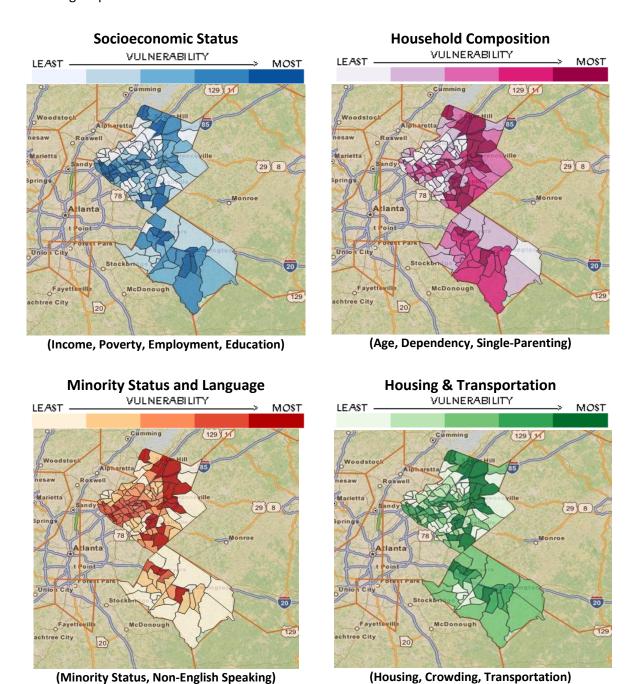


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



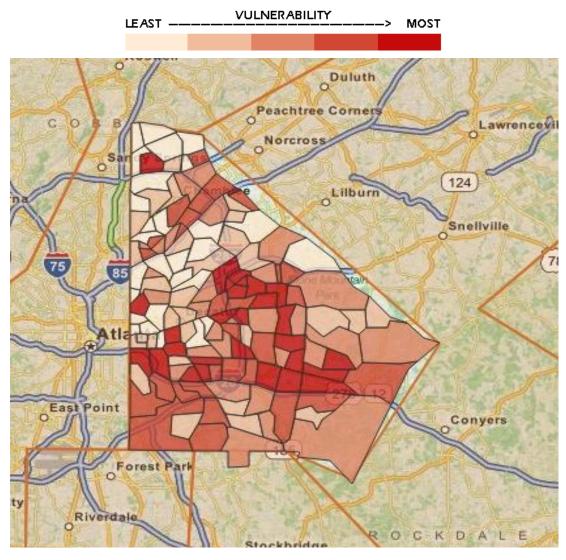
GPH District 3-4: East Metro (Lawrenceville)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 3-4** are shown in the following maps.



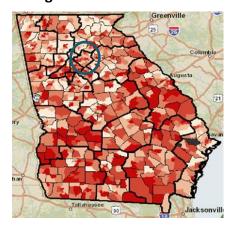
GPH District 3-5: DeKalb

Overall Social Vulnerability



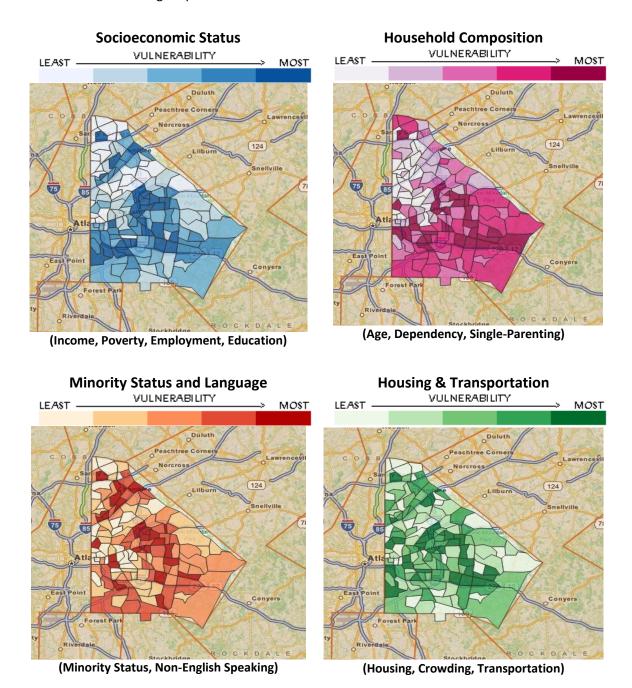
The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GPH Districts



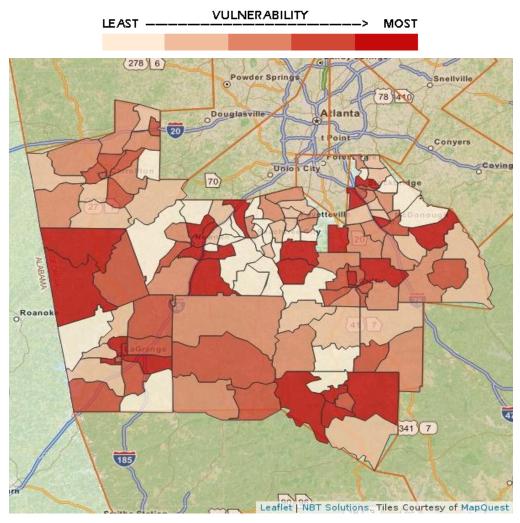
PH District 3-5: DeKalb

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 3-5** are shown in the following maps.

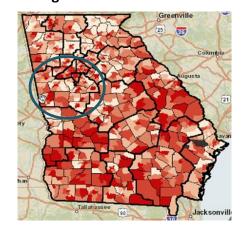


GPH District 4: LaGrange

Overall Social Vulnerability

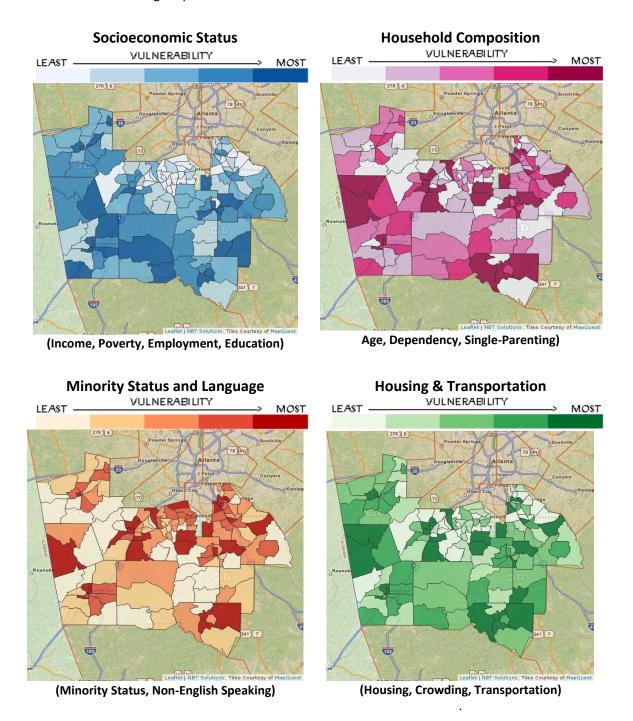


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



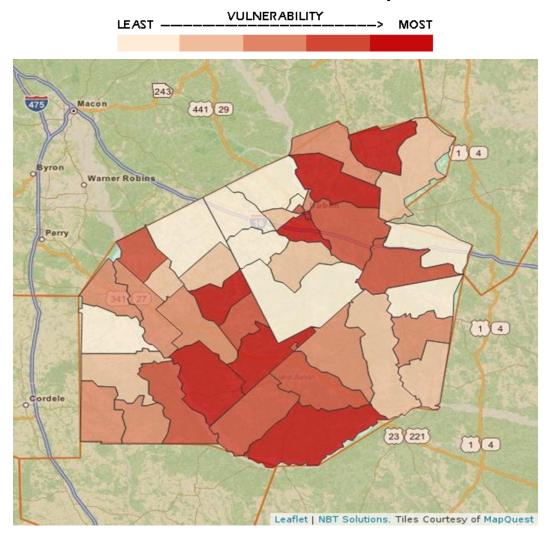
GPH District 4: LaGrange

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 4** are shown in the following maps.

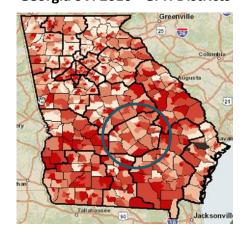


GPH District 5-1: South Central (Dublin)

Overall Social Vulnerability

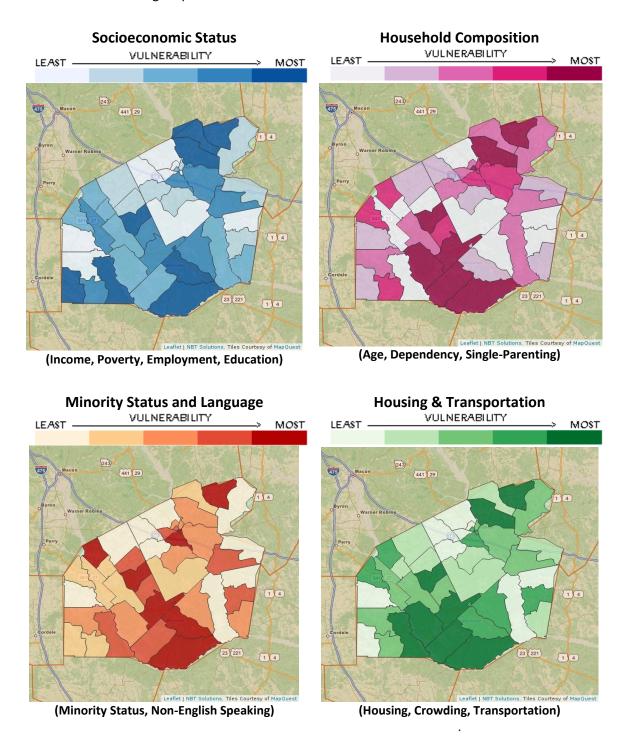


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



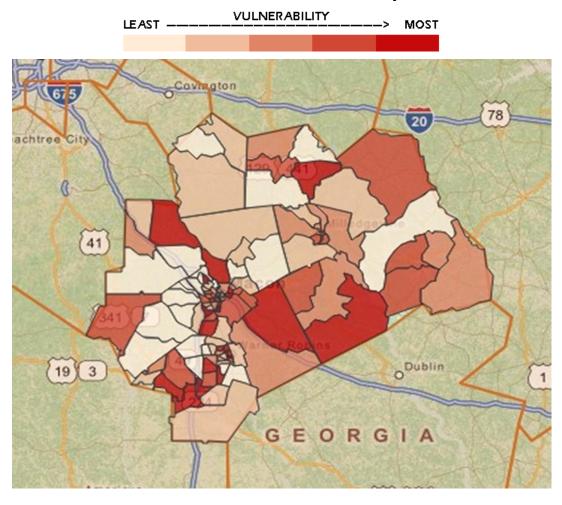
GPH District 5-1: South Central (Dublin)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 5-1** are shown in the following maps.



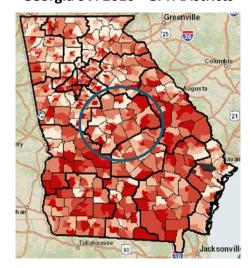
GPH District 5-2: North Central (Macon)

Overall Social Vulnerability



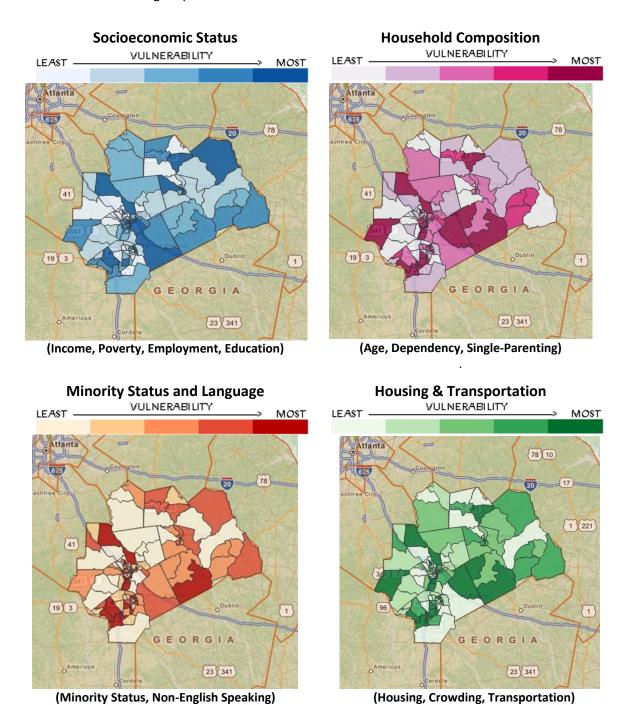
The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GPH Districts



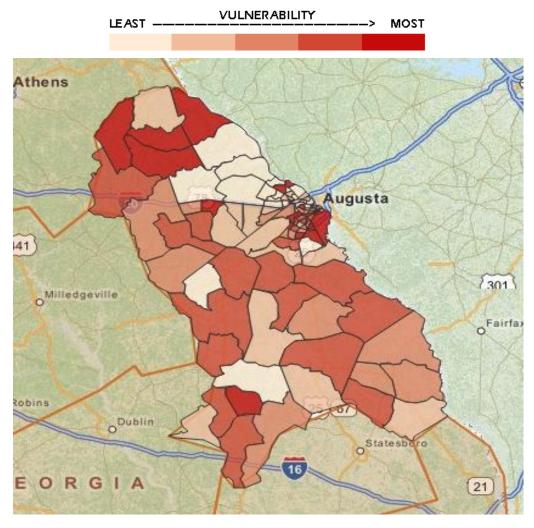
GPH District 5-2: North Central (Macon)

The **2010** Social Vulnerability Index is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 5-2** are shown in the following maps.

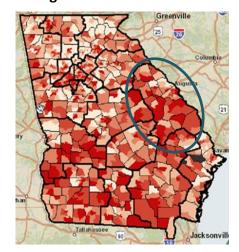


GPH District 6: East Central (Augusta)

Overall Social Vulnerability

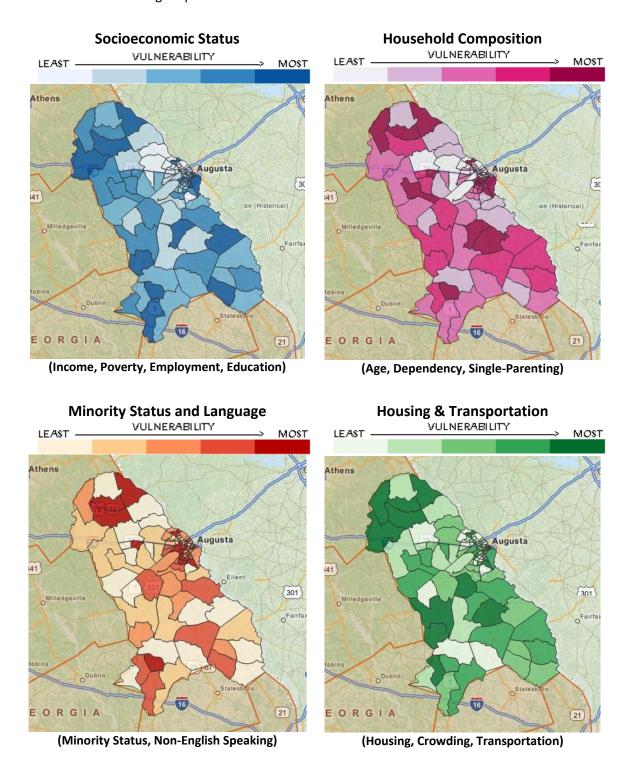


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



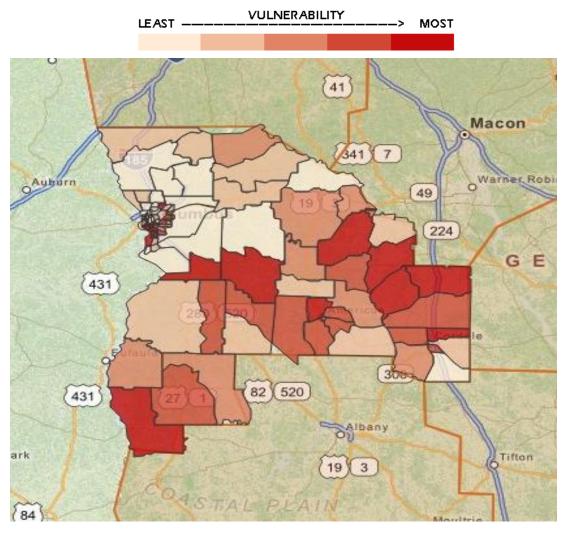
GPH District 6: East Central (Augusta)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 6** are shown in the following maps.

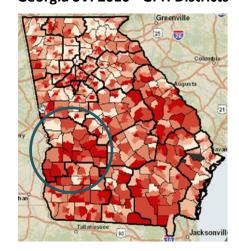


GPH District 7: West Central (Columbus)

Overall Social Vulnerability

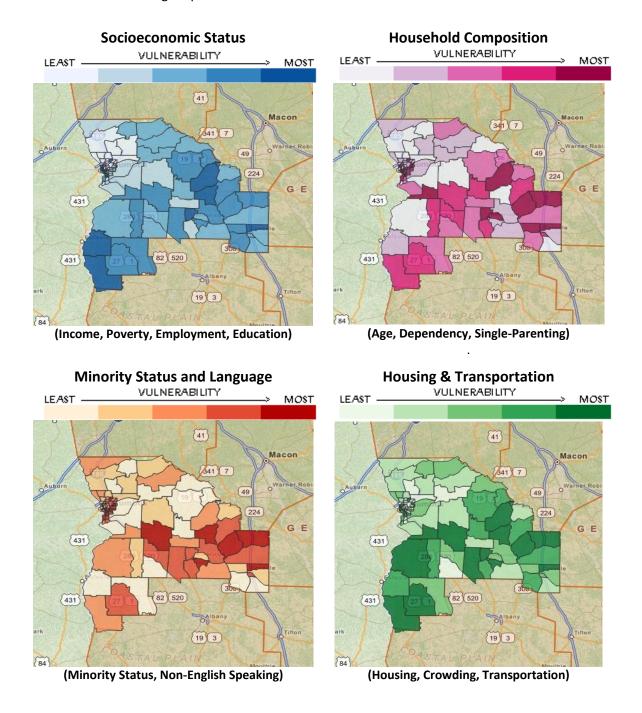


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



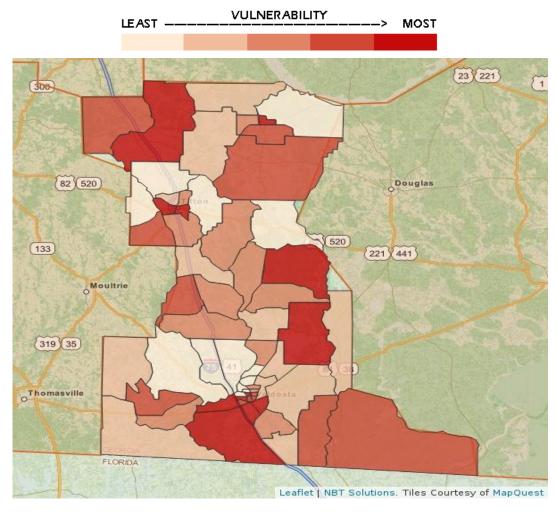
GPH District 7: West Central (Columbus)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 7** are shown in the following maps.

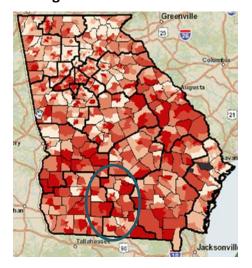


GPH District 8-1: South (Valdosta)

Overall Social Vulnerability

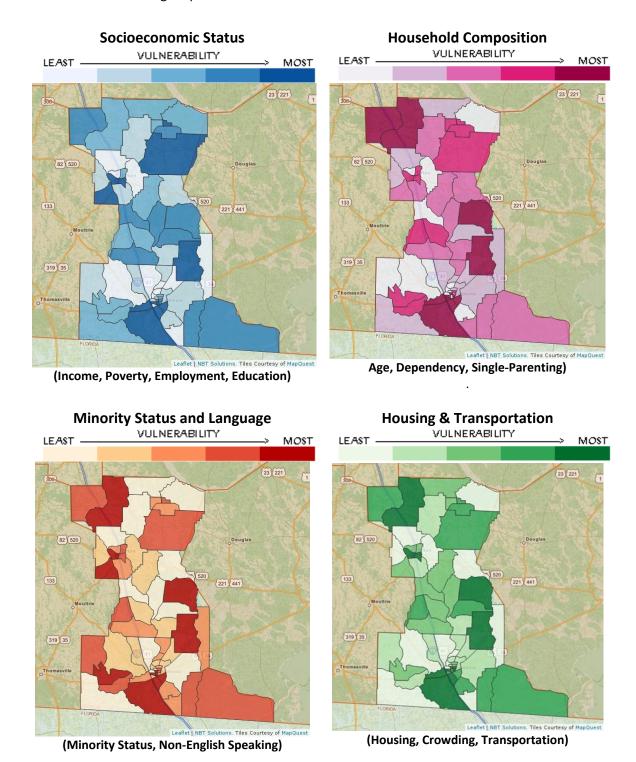


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



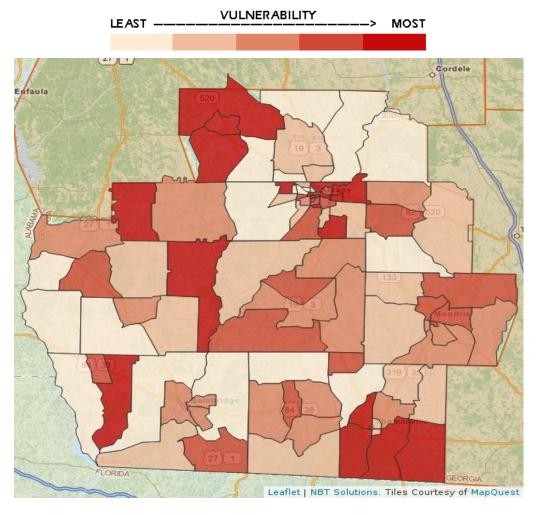
GPH District 8-1: South (Valdosta)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 8-1** are shown in the following maps.

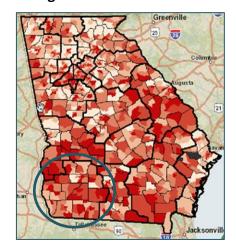


GPH District 8-2: Southwest (Albany)

Overall Social Vulnerability

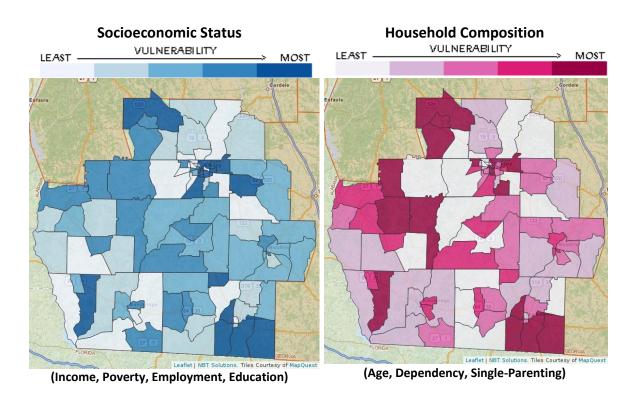


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



GPH District 8-2: Southwest (Albany)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 8-2** are shown in the following maps.

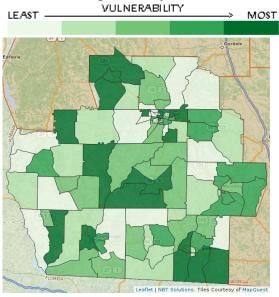


Minority Status and Language

VULNERABILITY MOST Formula F

(Minority Status, Non-English Speaking)

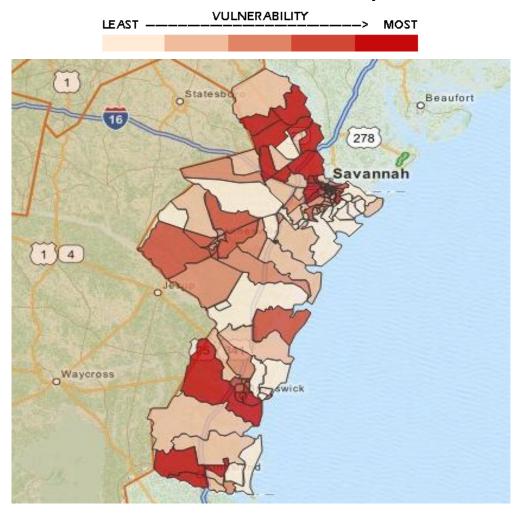
Housing & Transportation



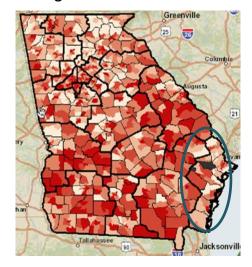
(Housing, Crowding, Transportation)

GPH District 9-1: Coastal (Savannah)

Overall Social Vulnerability

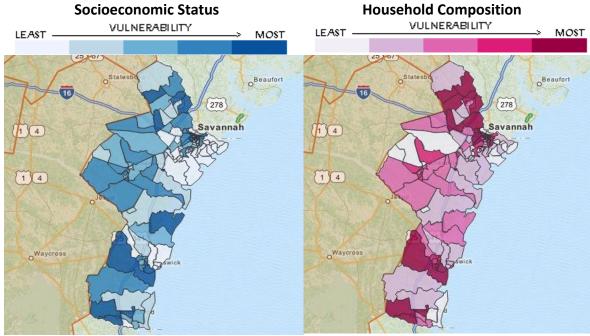


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



GPH District 9-1: Coastal (Savannah)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 9-1** are shown in the following maps.

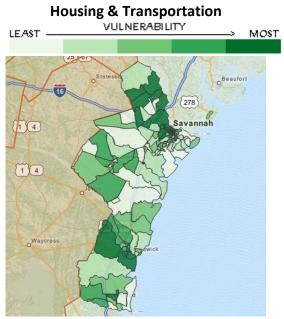


(Income, Poverty, Employment, Education)

(Age, Dependency, Single-Parenting)

Minority Status and Language VULNERABILITY MOST States D States D Waycross Waycross Waycross

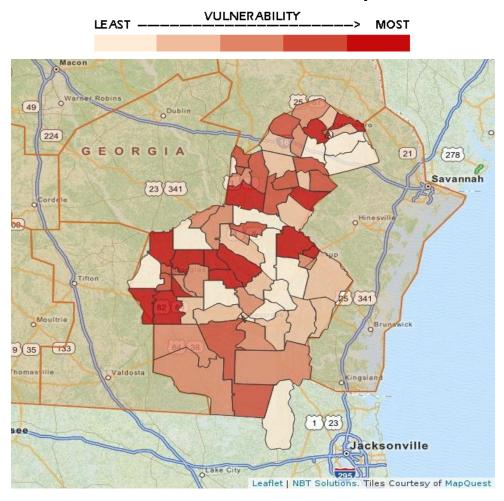
(Minority Status, Non-English Speaking)



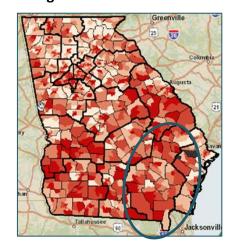
(Housing, Crowding, Transportation).

GPH District 9-2: Southeast (Waycross)

Overall Social Vulnerability

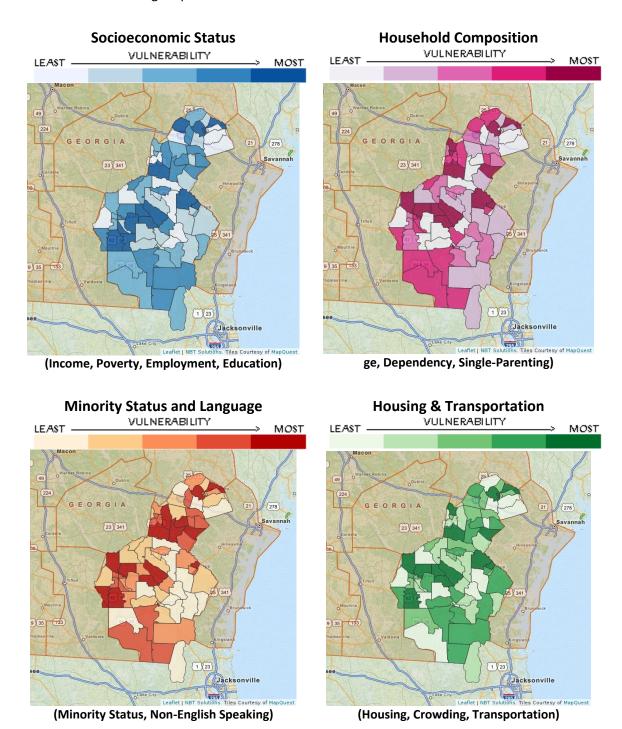


The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



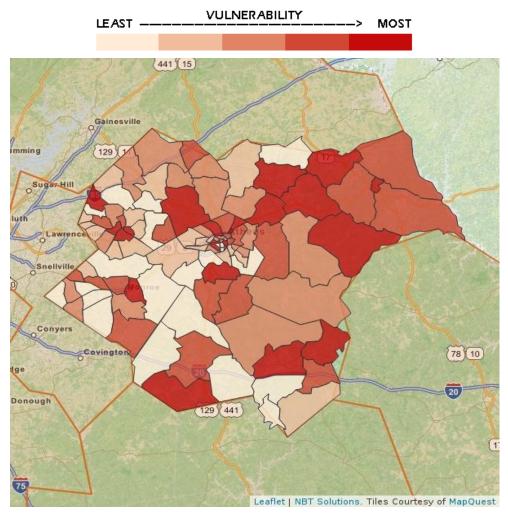
GPH District 9-2: Southeast (Waycross)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 9-2** are shown in the following maps.

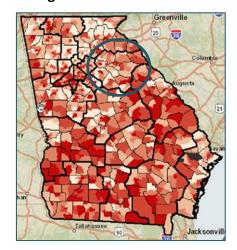


GPH District 10: Northeast (Athens)

Overall Social Vulnerability

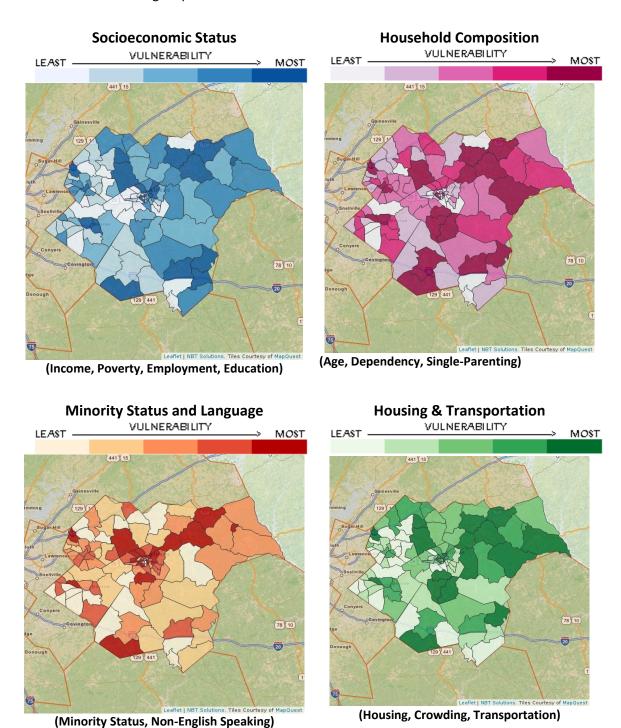


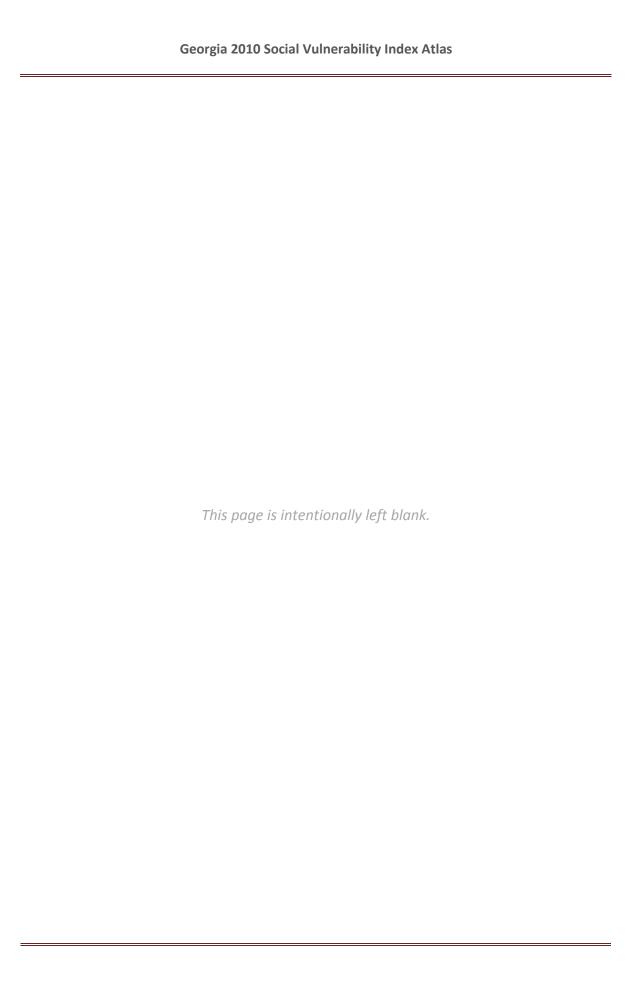
The Social Vulnerability Index (SVI 2010) GPH District Map depicts the social vulnerability of communities, at the census tract level, within the specified GPH District. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



GPH District 10: Northeast (Athens)

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **PH District 10** are shown in the following maps.





SECTION 3

Regional Coordinating Hospital Regions SVI Maps

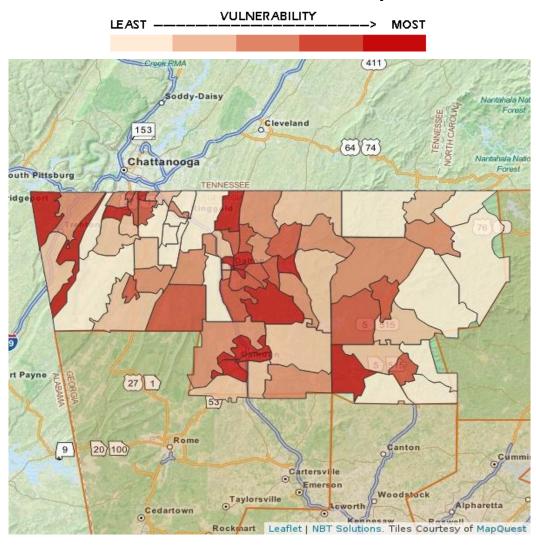
Regional Coordinating Hospital (RCH) Regions

- A Hamilton Medical Center
- B Northeast Georgia Medical Center
- C Floyd Medical Center
- D Grady Health System
- E Athens Regional Medical Center
- F Medical Center of Central Georgia
- G Medical College of Georgia Health, Inc.(MCGHI)
- H Oconee Regional Medical Center
- I The Medical Center-Columbus
- J Memorial Health University Medical Center
- K Tift Regional Medical Center
- M Satilla Regional Medical Center
- N WellStar Kennestone Hospital

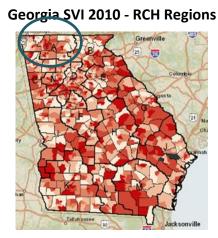
51

RCH Region A

Overall Social Vulnerability

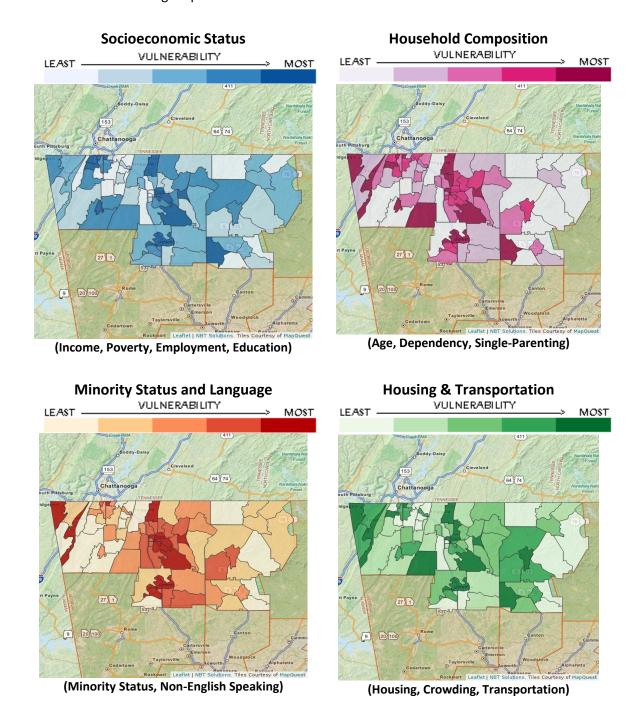


The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region/Hospital. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



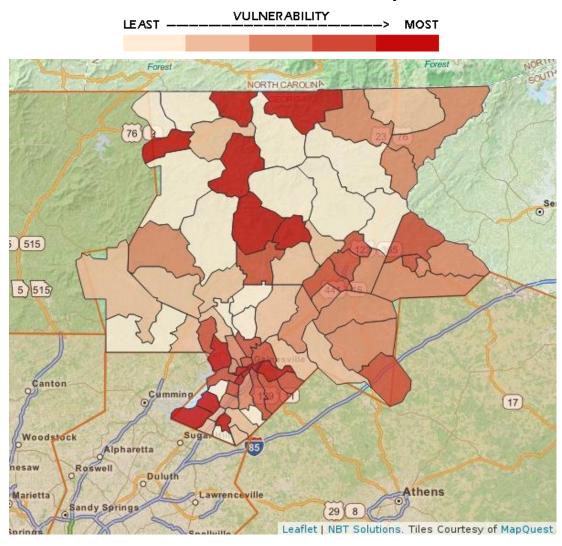
RCH Region A

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region A** are shown in the following maps.

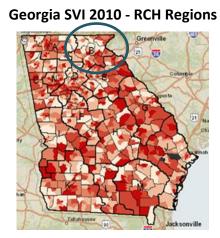


RCH Region B

Overall Social Vulnerability

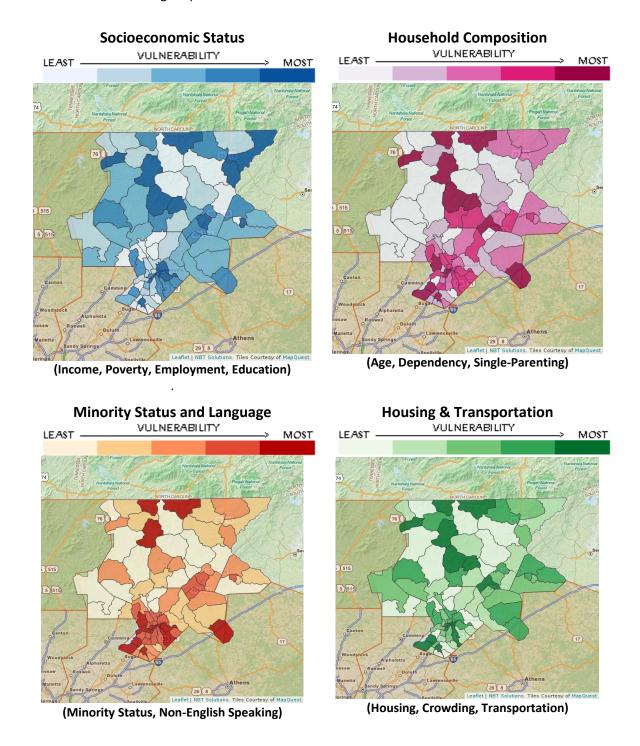


The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.



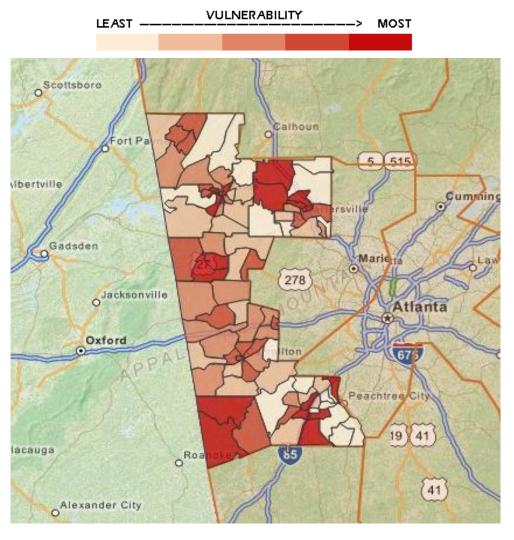
RCH Region B

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region B** are shown in the following maps.



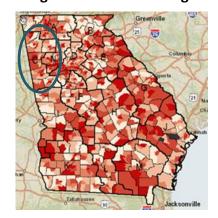
RCH Region C

Overall Social Vulnerability



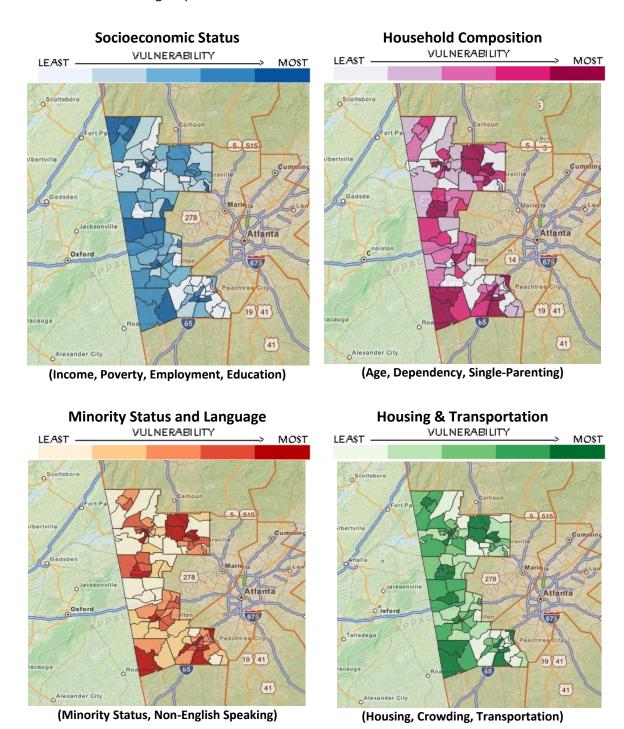
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



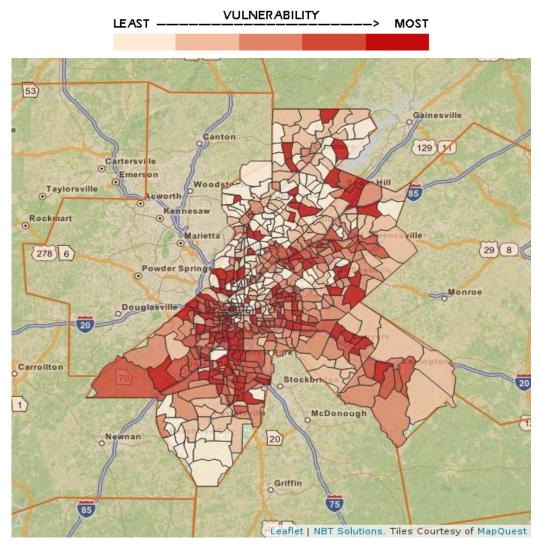
RCH Region C

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region C** are shown in the following maps.



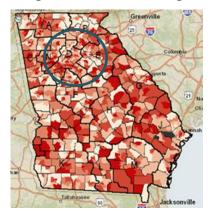
RCH Region D

Overall Social Vulnerability



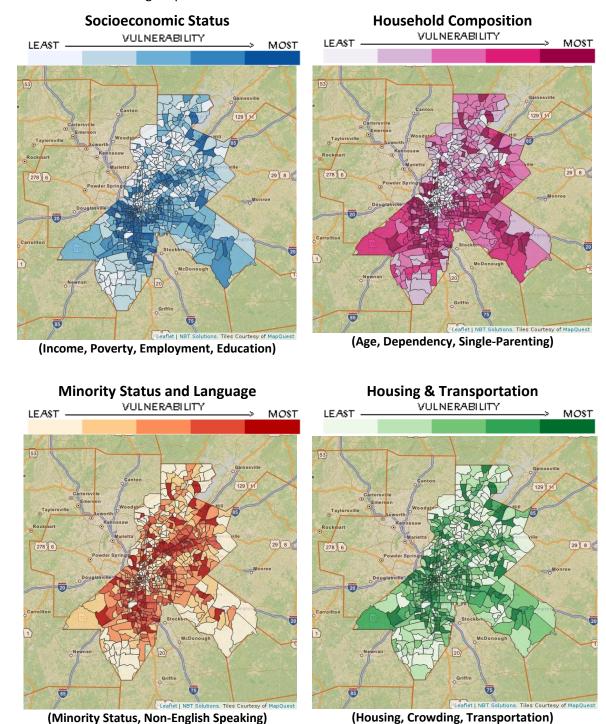
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



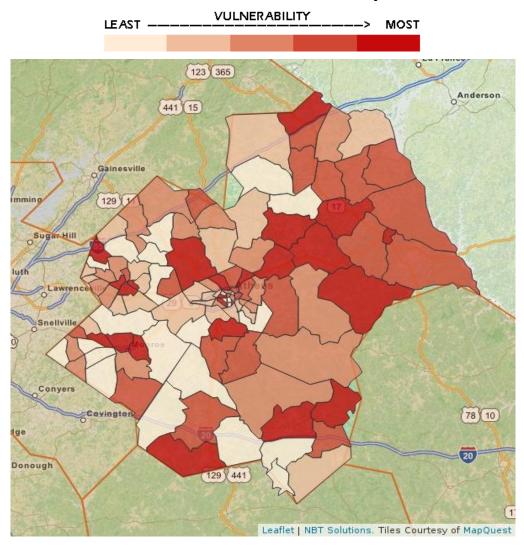
RCH Region D

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region D** are shown in the following maps.



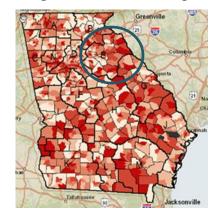
RCH Region E

Overall Social Vulnerability



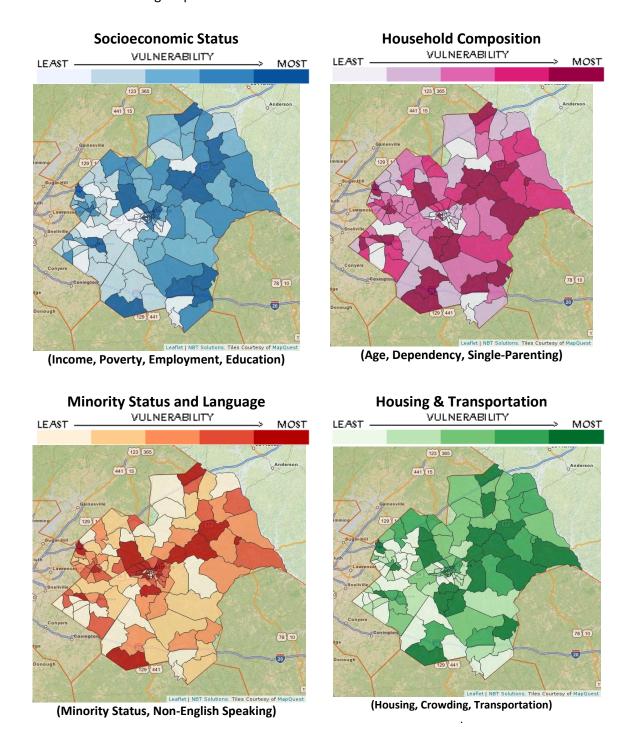
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



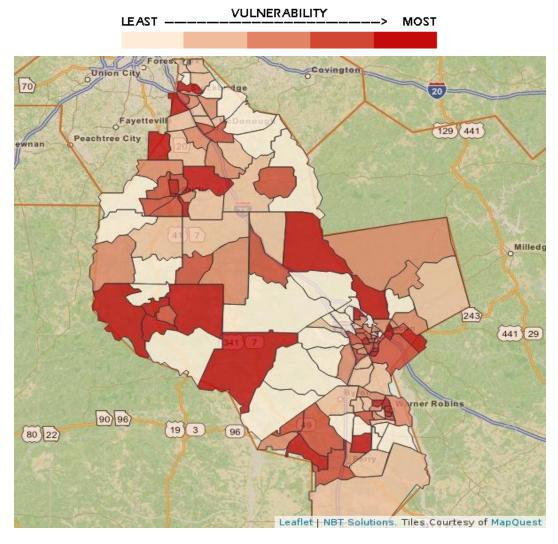
RCH Region E

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region E** are shown in the following maps.



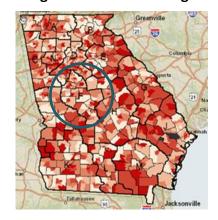
RCH Region F

Overall Social Vulnerability



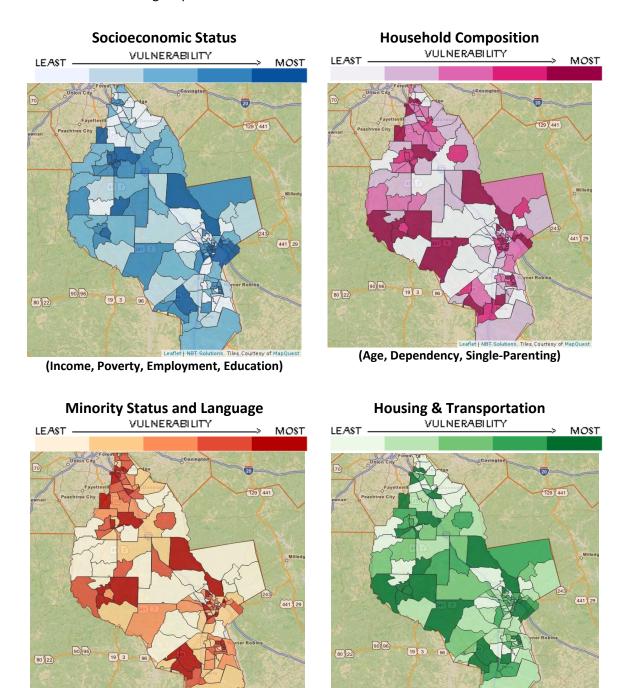
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



RCH Region F

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region F** are shown in the following maps.

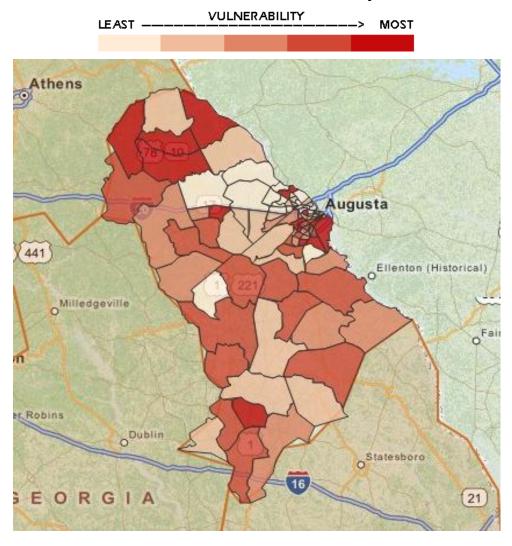


(Minority Status, Non-English Speaking)

(Housing, Crowding, Transportation)

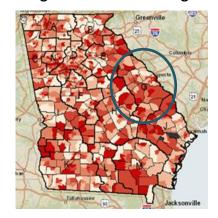
RCH Region G

Overall Social Vulnerability



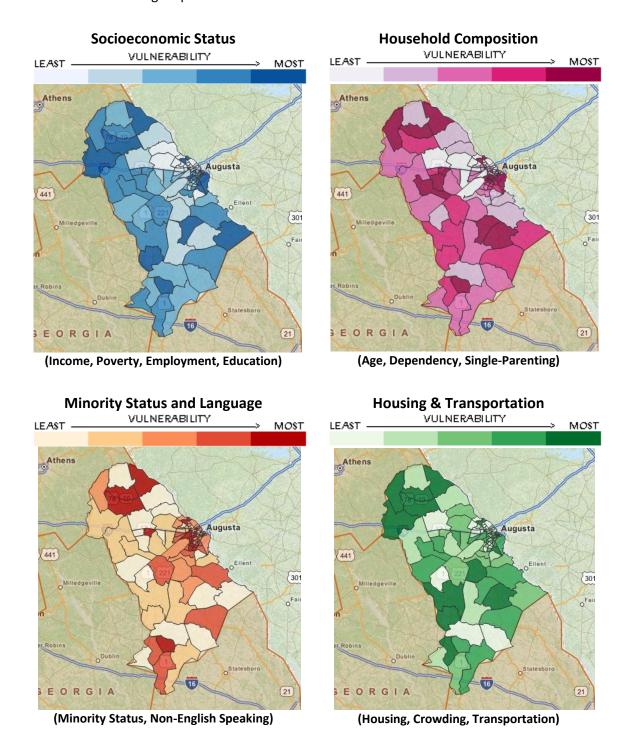
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



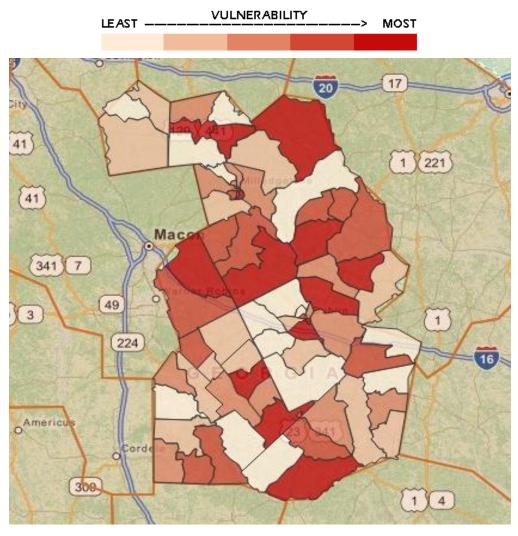
RCH Region G

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region G** are shown in the following maps.



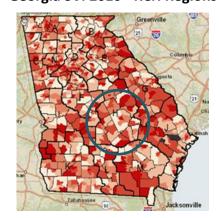
RCH Region H

Overall Social Vulnerability



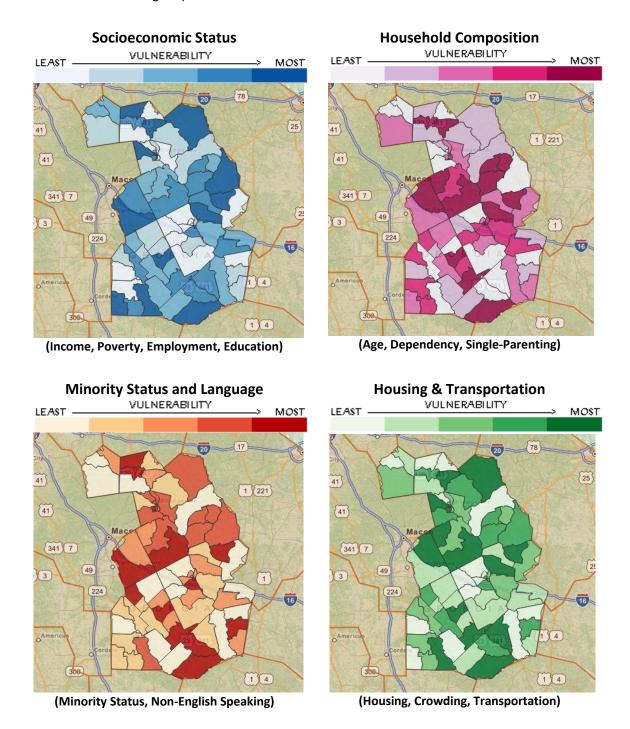
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



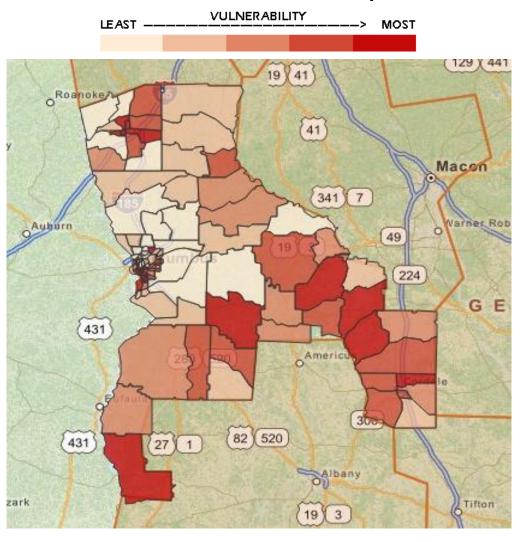
RCH Region H

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region H** are shown in the following maps.



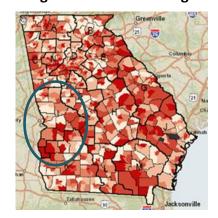
RCH Region I

Overall Social Vulnerability



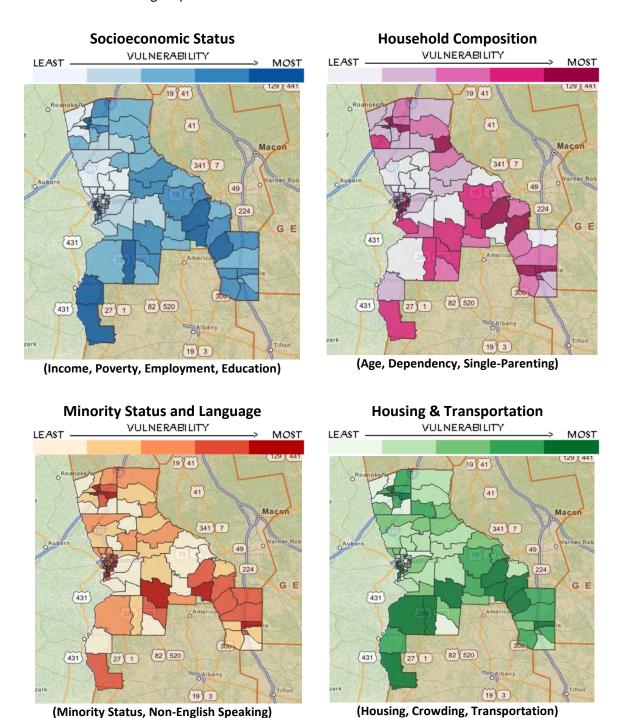
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



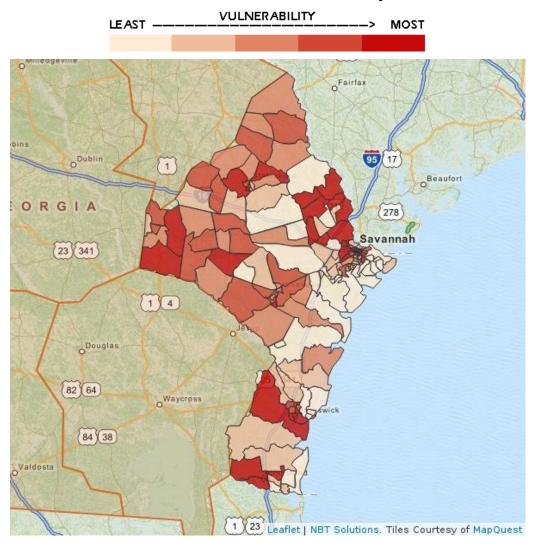
RCH Region I

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region I** are shown in the following maps.



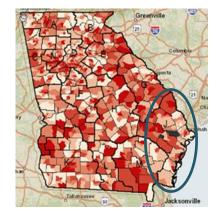
RCH Region J

Overall Social Vulnerability



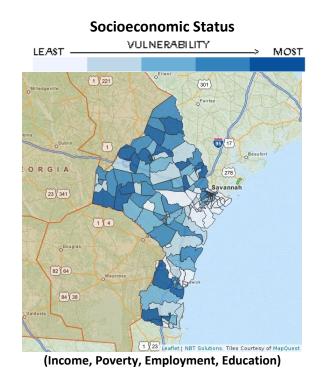
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



RCH Region J

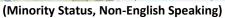
The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region J** are shown in the following maps.

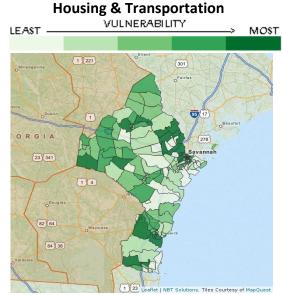


Household Composition VULNERABILITY MOST ORGIA 22 341 Valdesta Wayeross Valdesta

(Age, Dependency, Single-Parenting)

Minority Status and Language VULNERABILITY MOST ORGIA 23 341 Wayross Wayross Vadosts Wayross Vadosts Wayross Vadosts NET Solutions. Tiles Courtesy of MapQuest

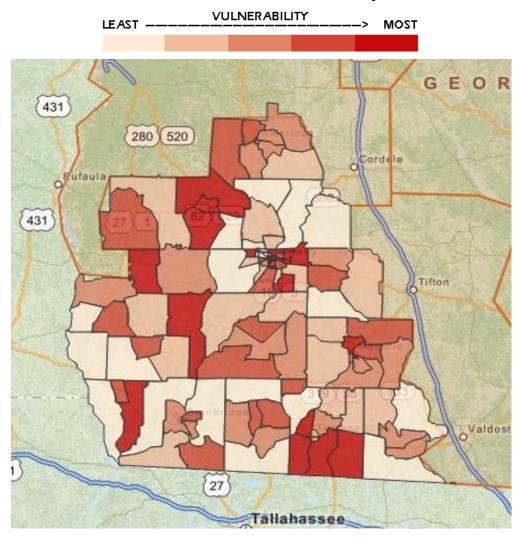




(Housing, Crowding, Transportation)

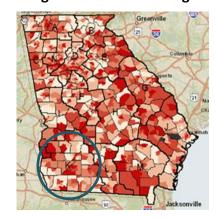
RCH Region K

Overall Social Vulnerability



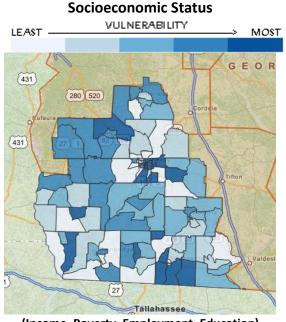
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



RCH Region K

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region K** are shown in the following maps.

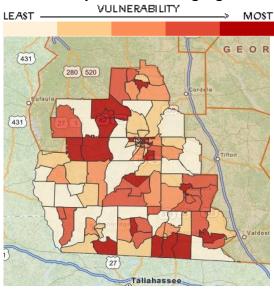


(Income, Poverty, Employment, Education)

Household Composition VULNERABILITY MOST GEOR 431 Tifton Tallahassee

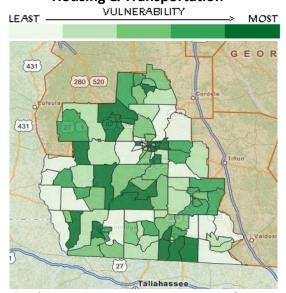
(Age, Dependency, Single-Parenting)

Minority Status and Language



(Minority Status, Non-English Speaking)

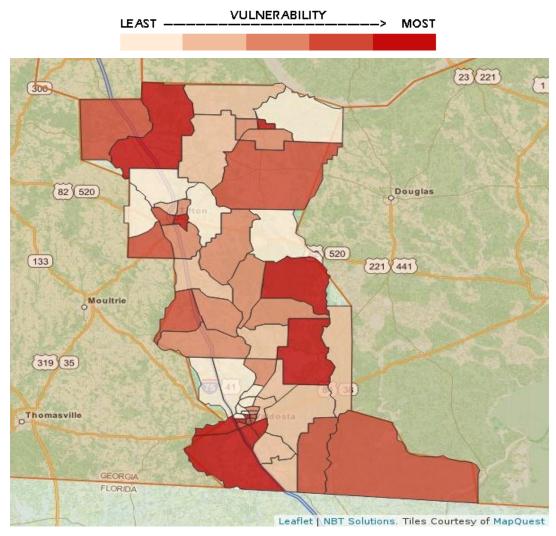
Housing & Transportation



(Housing, Crowding, Transportation)

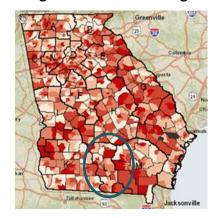
RCH Region L

Overall Social Vulnerability



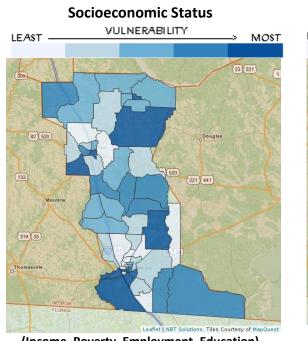
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



RCH Region L

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region L** are shown in the following maps.



(Income, Poverty, Employment, Education)

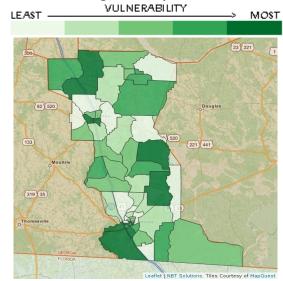
Household Composition VULNERABILITY MOST 339 39 CEORGA FLORDA Leaflet NBT Solutions. Tiles Courtesy of MapQuest

(Age, Dependency, Single-Parenting)

Housing & Transportation

Minority Status and Language VULNERABILITY MOST TORROLL MOST Leaflet NBT Solutions. Tiles Courtesy of MapQuest

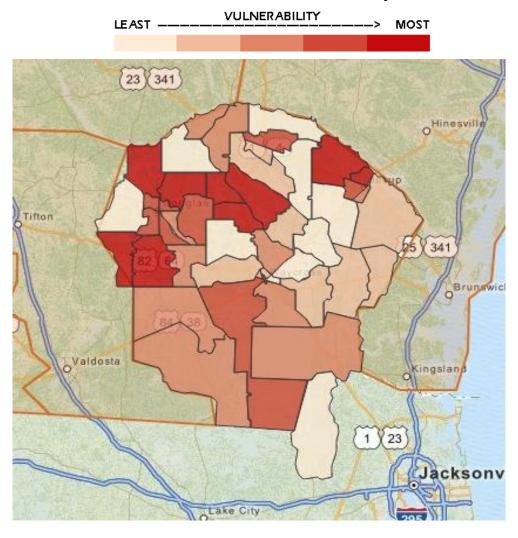
(Minority Status, Non-English Speaking)



(Housing, Crowding, Transportation)

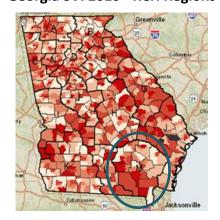
RCH Region M

Overall Social Vulnerability



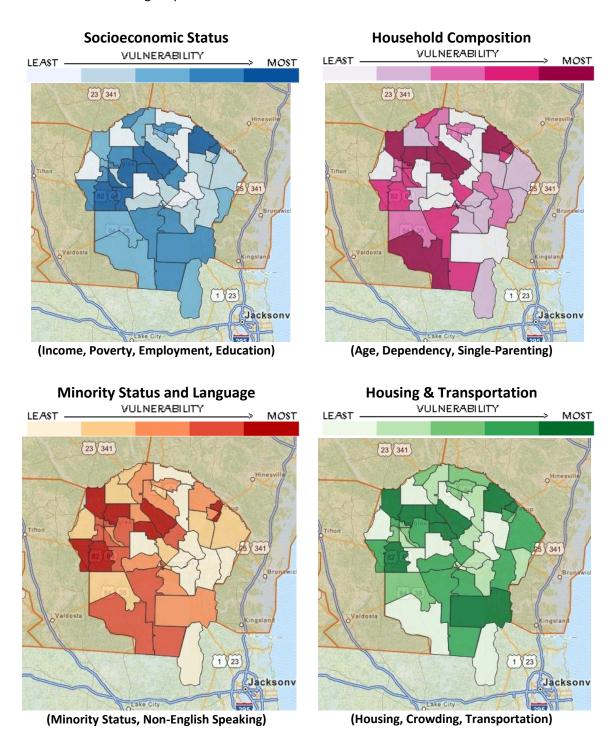
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



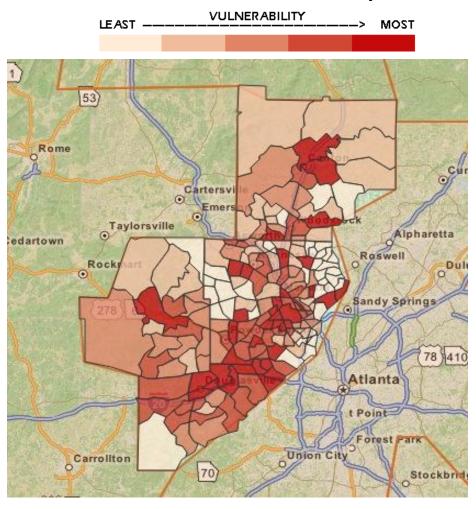
RCH Region M

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region M** are shown in the following maps.



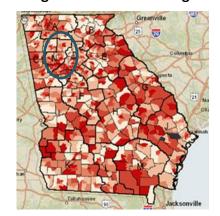
RCH Region N

Overall Social Vulnerability



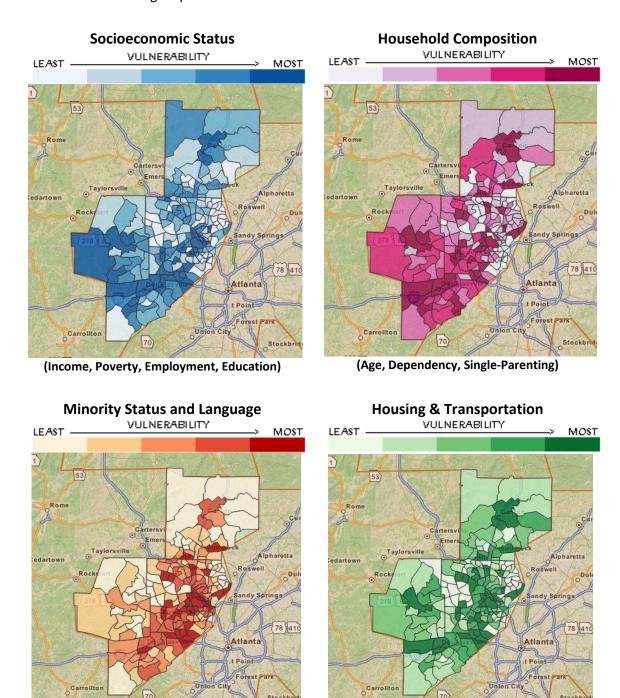
The Social Vulnerability Index (SVI 2010) RCH Region Map depicts the social vulnerability of communities, at the census tract level, within the specified RCH Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - RCH Regions



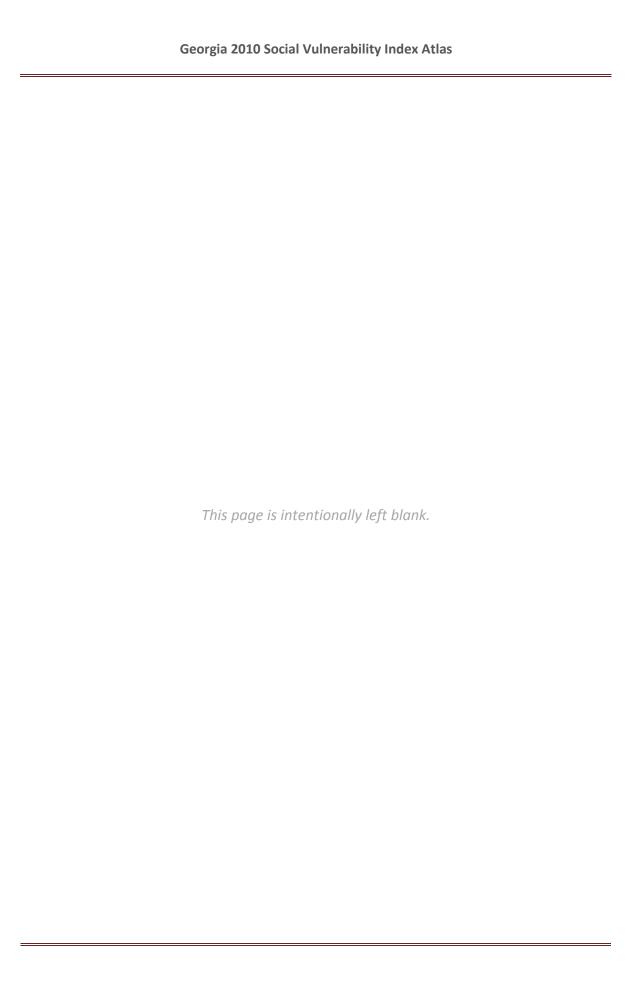
RCH Region N

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **RCH Region N** are shown in the following maps.



(Housing, Crowding, Transportation)

(Minority Status, Non-English Speaking)



SECTION 4

Georgia Emergency Management Agency Regions SVI Maps

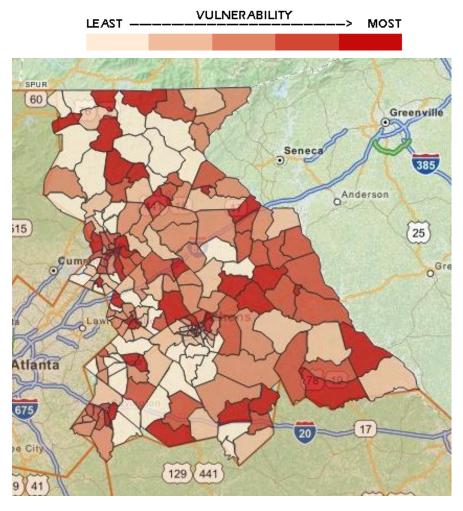
Georgia Emergency Management Agency (GEMA) Regions

- 1 Northeast
- 2 Southwest
- 3 Central/East
- 4 Central/West
- 5 Southeast
- 6 Northwest
- 7 Atlanta
- 8 Southcentral

81

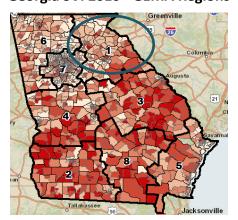
GEMA Region 1: Northeast

Overall Social Vulnerability



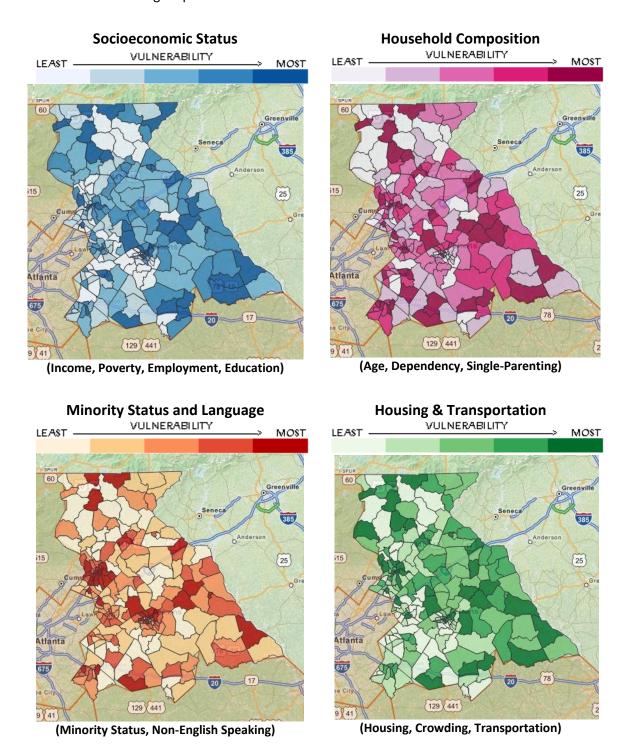
The Social Vulnerability Index (SVI 2010) GEMA Region Map depicts the social vulnerability of communities, at the census tract level, within the specified GEMA Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GEMA Regions



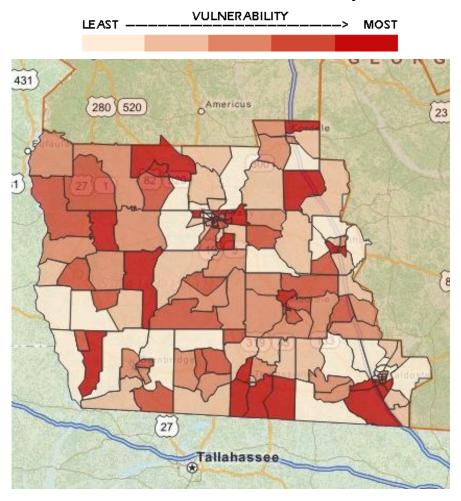
GEMA Region 1: Northeast

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEMA Region 1** are shown in the following maps.



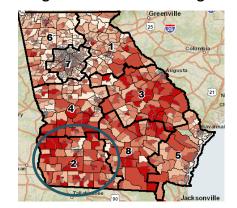
GEMA Region 2: Southwest

Overall Social Vulnerability



The Social Vulnerability Index (SVI 2010) GEMA Region Map depicts the social vulnerability of communities, at the census tract level, within the specified GEMA Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GEMA Regions



GEMA Region 2: Southwest

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEMA Region 2** are shown in the following maps.

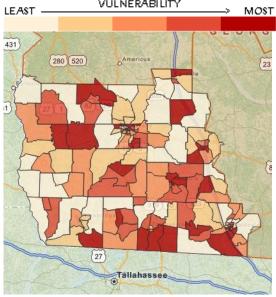
Socioeconomic Status VULNERABILITY MOST 431 280 520 Americus 23 Tallahassee

(Income, Poverty, Employment, Education)

Household Composition VULNERABILITY MOST 431 Americus Tallahassee

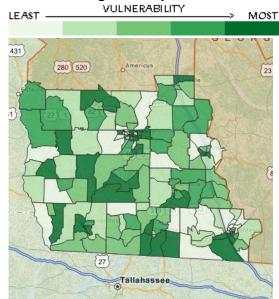
(Age, Dependency, Single-Parenting)

Minority Status and Language VULNERABILITY



(Minority Status, Non-English Speaking)

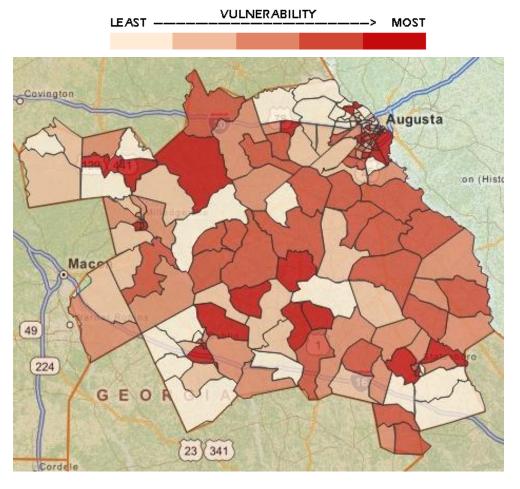
Housing & Transportation



(Housing, Crowding, Transportation)

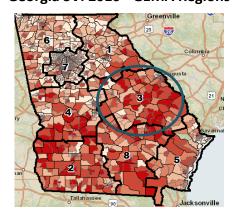
GEMA Region 3: Central/East

Overall Social Vulnerability



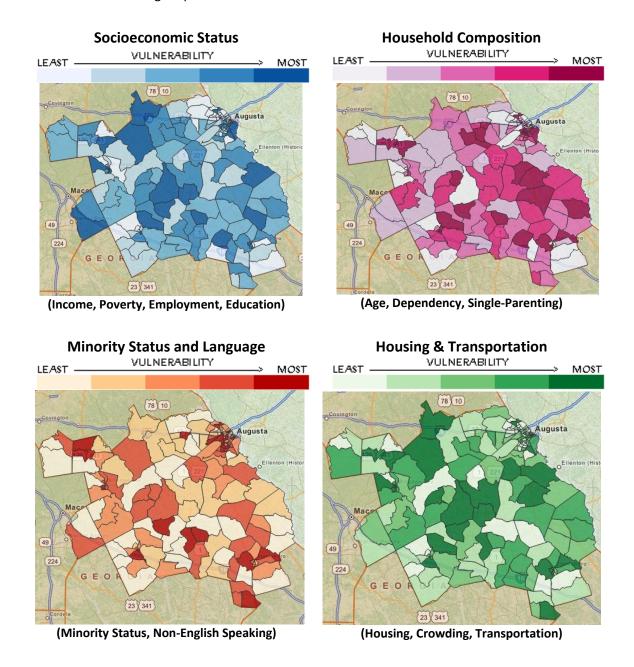
The Social Vulnerability Index (SVI 2010) GEMA Region Map depicts the social vulnerability of communities, at the census tract level, within the specified GEMA Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GEMA Regions



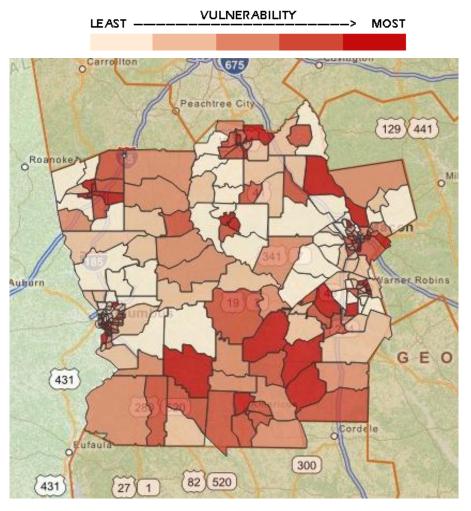
GEMA Region 3: Central/East

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEMA Region 3** shown in the following maps.



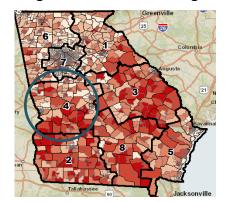
GEMA Region 4: Central/West

Overall Social Vulnerability



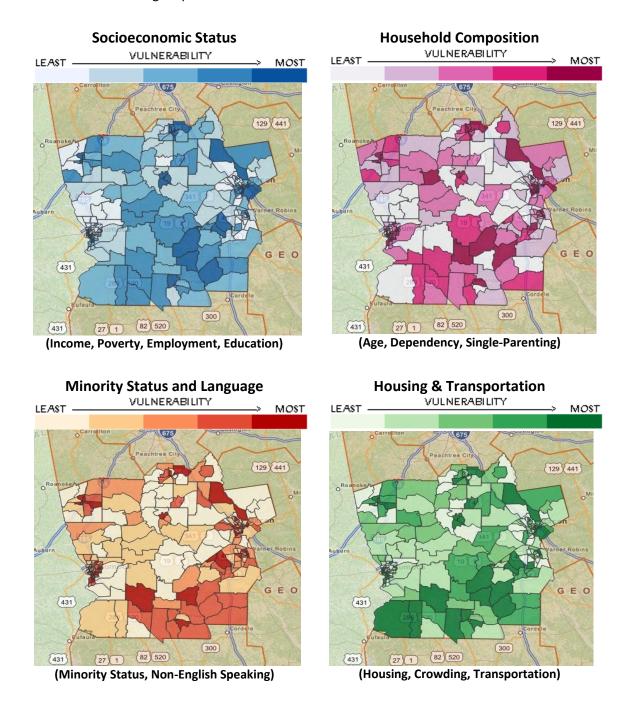
The Social Vulnerability Index (SVI 2010) GEMA Region Map depicts the social vulnerability of communities, at the census tract level, within the specified GEMA Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GEMA Regions



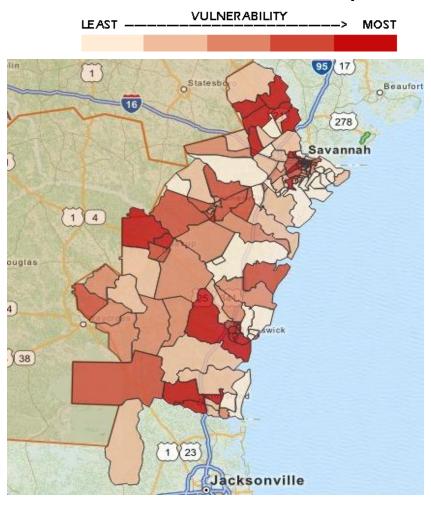
GEMA Region 4: Central/West

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEMA Region 4** are shown in the following maps.



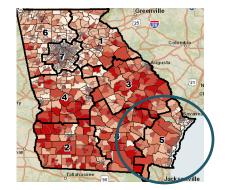
GEMA Region 5: Southeast

Overall Social Vulnerability



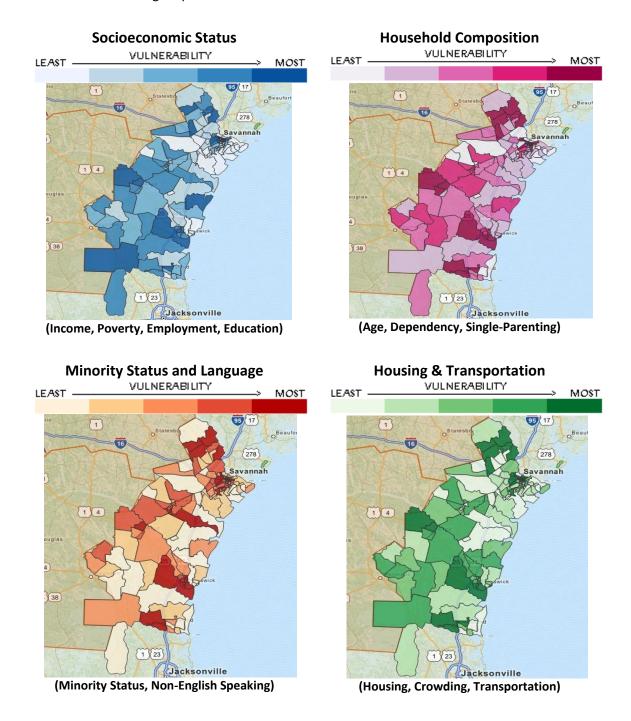
The Social Vulnerability Index (SVI 2010) GEMA Region Map depicts the social vulnerability of communities, at the census tract level, within the specified GEMA Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GEMA Regions



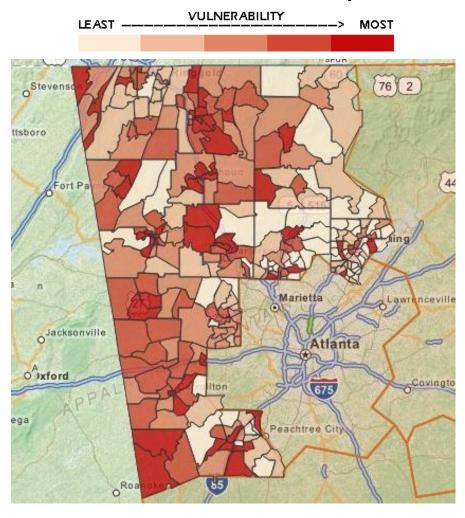
GEMA Region 5: Southeast

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEMA Region 5** are shown in the following maps.



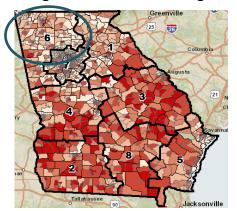
GEMA Region 6: Northwest

Overall Social Vulnerability



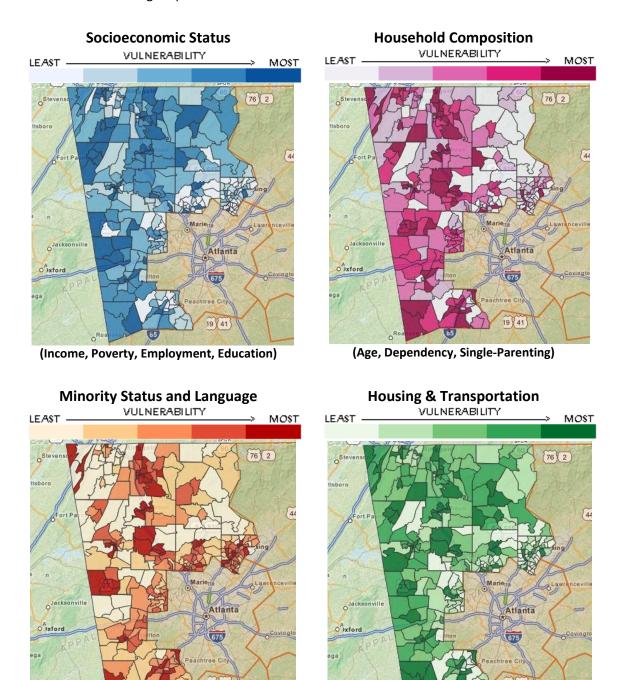
The Social Vulnerability Index (SVI 2010) GEMA Region Map depicts the social vulnerability of communities, at the census tract level, within the specified GEMA Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GEMA Regions



GEMA Region 6: Northwest

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEMA Region 6** are shown in the following maps.

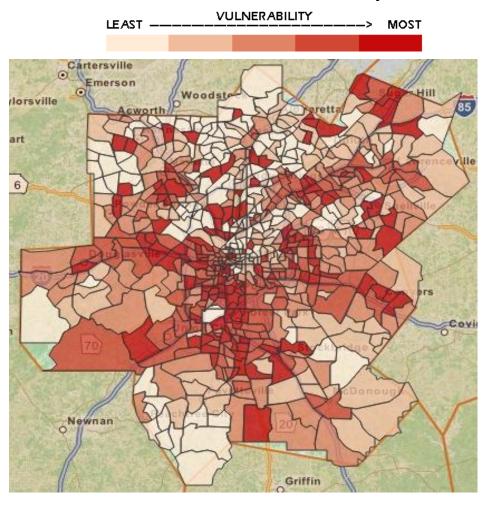


(Housing, Crowding, Transportation)

(Minority Status, Non-English Speaking)

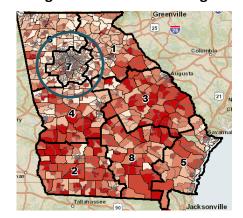
GEMA Region 7: Atlanta

Overall Social Vulnerability



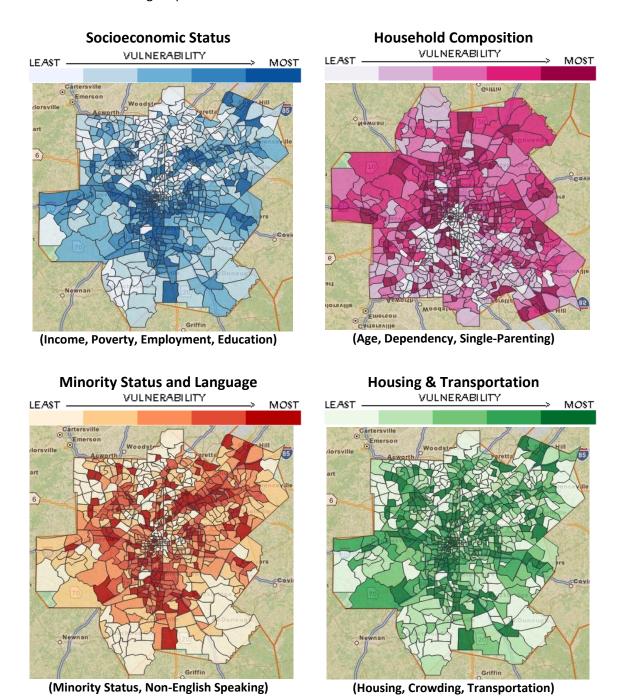
The Social Vulnerability Index (SVI 2010) GEMA Region Map depicts the social vulnerability of communities, at the census tract level, within the specified GEMA Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

Georgia SVI 2010 - GEMA Regions



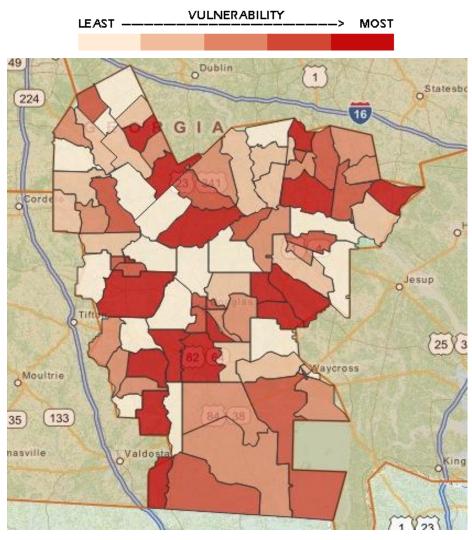
GEMA Region 7: Atlanta

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEMA Region 7** are shown in the following maps.



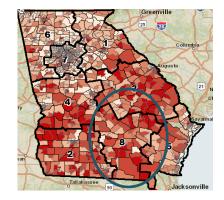
GEMA Region 8: Southcentral

Overall Social Vulnerability



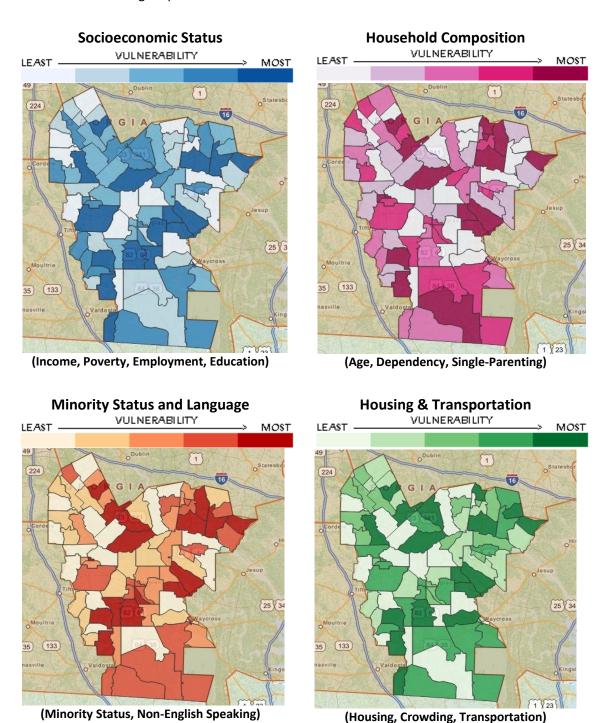
The Social Vulnerability Index (SVI 2010) GEMA Region Map depicts the social vulnerability of communities, at the census tract level, within the specified GEMA Region. SVI 2010 groups 14 census-derived variables into 4 domains that summarize the extent to which the area is social vulnerable. Overall, social vulnerability combines all the variables to provide a comprehensive assessment.

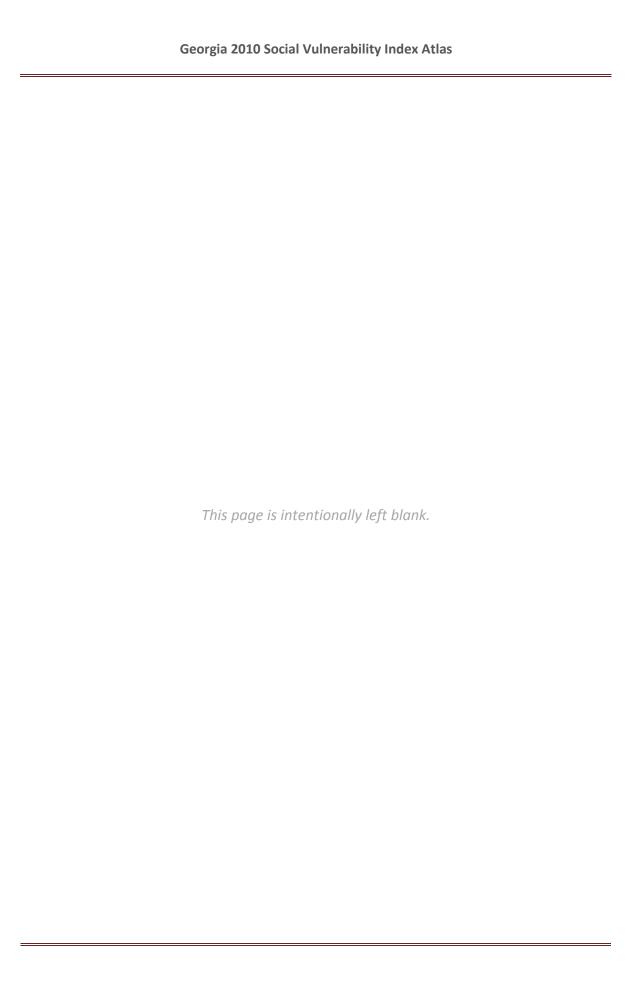
Georgia SVI 2010 - GEMA Regions



GEMA Region 8: Southcentral

The **2010 Social Vulnerability Index** is divided across four domains to calculate vulnerability within and across these domains at the tract level. These four domains for **GEMA Region 8** are shown in the following maps.





APPENDICES

Appendix A Georgia Jurisdictional Reference Maps

A1: Public Health Districts

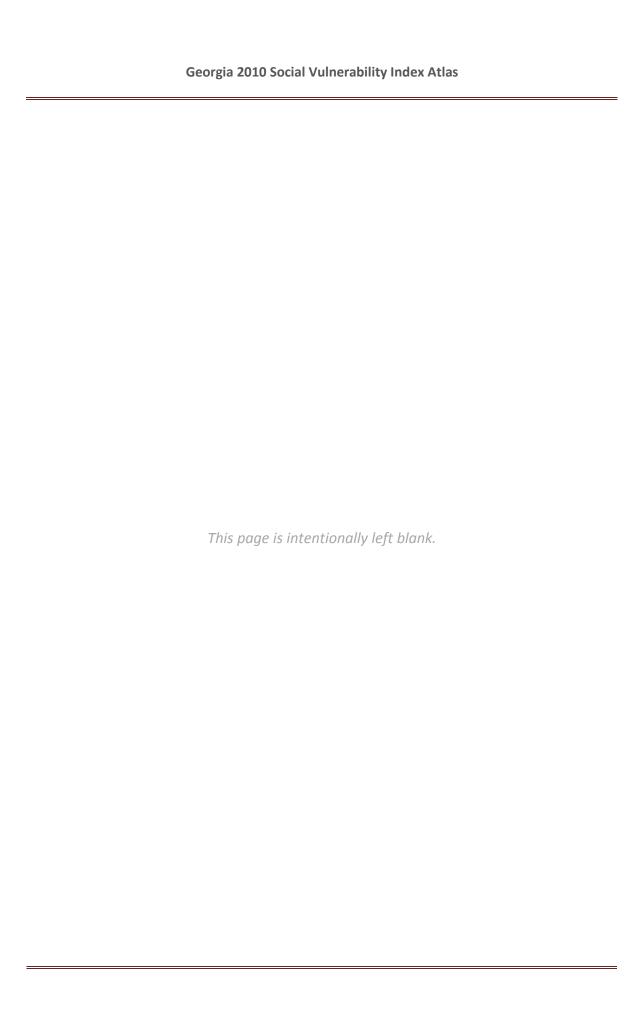
A2: Regional Coordinating Hospital Regions

A3: Georgia Emergency Management Agency Regions

Appendix B Variables used to calculate the 2010 Social Vulnerability Index

Appendix C Social Vulnerability Index Resources

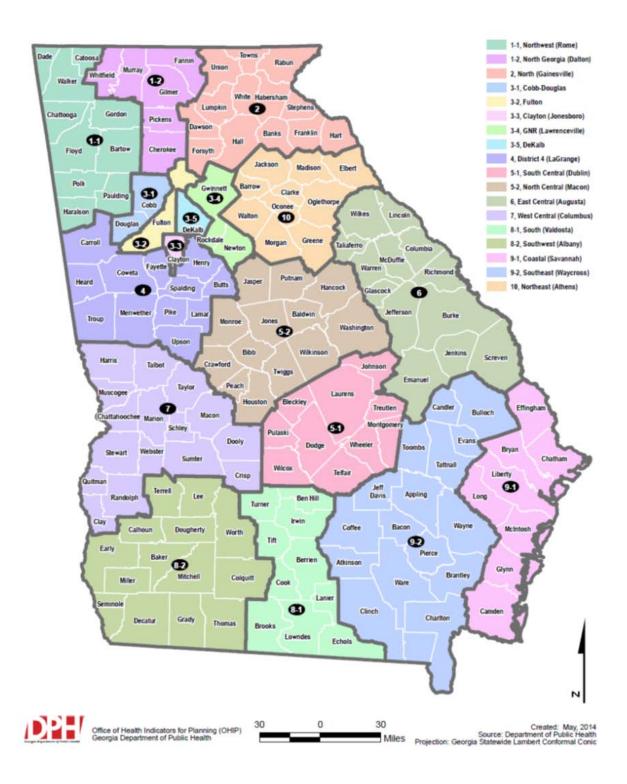
Appendix D Additional Contact Information





APPENDIX A Georgia Jurisdictional Reference Maps

A1: PUBLIC HEALTH DISTRICTS



A2: REGIONAL COORDINATING HOSPITAL REGIONS



A3: GEORGIA EMERGENCY MANAGEMENT AGENCY REGIONS



APPENDIX B Variables used to calculate the 2010 Social Vulnerability Index

What data and variables are used to calculate the SVI for 2000 and 2010?

The census tracts are based on 2000 TIGER boundaries (http://www.census.gov). Note, that these boundaries do not include Broomfield County, Colorado, which was created after the 2000 US Census. Also, note that since the 2000 US Census of the state of Virginia consolidated existing Clifton Forge County into the surrounding Alleghany County, resulting in changes to census tract FIPS codes. SVI values were not calculated for census tracts with a resident population of 0 for 2000. Therefore, polygons representing tracts with "0" population are not in the database. Zero (0) residents does not necessarily mean there are no vulnerable people in the tract, however. There may, for instance, be businesses or industries with employees working in the tract. SVI variables include:

Disability data, which were included in SVI 2000, were not collected at tract level for either 2010 Census or 2006-2010 ACS. The remaining 14 variables used to calculate the 2010 tract level data include the following data from the US Census and the American Community Survey.

2010 US Census 100% count data (SF1) for the following variables:

- Persons aged 65 and older
- Persons aged 17 and younger
- Single parent households with children under 18
- Minority status (i.e. Total population minus white, non-Hispanic population)
- Persons living in Group Quarters

Raw data values for each variable, for each tract, are included in the database.

To calculate the proportions, SF1 data were processed in similar fashion to 2000 SVI.¹

- Proportion values were calculated for each variable for each tract, e.g. proportion of persons aged 65 and older, and are included in the database.
- Used appropriate SF1 variables as denominators, e.g. total population.

American Community Survey (ACS), 2006-2010 (5-year) data for the following variables/estimates:

- Persons below the poverty level
- Civilian unemployed
- Per capita income
- No high school diploma for persons aged 25 and older
- Persons who speak English "less than well"
- Housing units with 10 or more units in the structure
- At the household level, more people than rooms

¹ For a detailed description of SVI 2000 methods, see Flanagan et al. 2011. "A Social Vulnerability Index for Disaster Management."

- Mobile homes
- No vehicle access

Raw data estimates for each variable, for each tract, are included in the database. In addition, the margins of error (MOEs) for each estimate are also included.

Because of high levels of error, the ACS data were processed differently.

- Margins of error (MOEs) are included for each estimate, including derived estimates. MOEs were calculated for derived estimates using US Census specifications.² The confidence level is at the Census standard of 90%.³
- Proportion calculation uses ACS estimates as denominators, e.g. total population estimate.

Note: Confidence intervals can be calculated by subtracting the MOE from the estimate (lower limit) and adding the MOE to the estimate (upper limit).

The following provides additional details on the data and percentile rankings of the Social Vulnerability Index, as well as the reliability of the data.

How are percentiles for American Community Survey (ACS), 2006-2010 (5-year) data ranked?

Census tracts were ranked to enable mapping and analysis of relative vulnerability across multiple planning and preparedness jurisdictions, including 1) state, 2) GEMA Areas, 3) public health districts, and 4) regional coordinating hospitals. Tract rankings range from 0 to 1, with higher values indicating greater vulnerability. The data includes CDC tract ranks using two methods (at state-level only):

- E_PLxxx series. Using the same percentile method as in the SVI 2000, ignoring any ACS error, and
- **E_PRxxx series.** Incorporating probabilities into the ranking.

The rationale for choosing to rank the tracts using both methods is to provide flexibility to the user. The SVI 2000 percentile method is relatively easy to understand and, with the E PLxxx series, the user has access to rankings consistent with earlier methods. Due to concerns for high levels of error among individual ACS variables that might lead to erroneous rankings, probabilities were incorporated into the SVI 2010 E PRxxx series calculations. For the E PRxxx series, each proportion estimate was given a ranking based on its most likely position on a cumulative sampling distribution. For SVI 2010 variables, SF1 data for individual variables were processed in similar fashion to 2000 SVI.

For GODAWGS, the database works with the E_PLxxx series for simplicity and for consistency with SVI 2000. The caveat, of course, is that the E_PLxxx series percentile rankings, determined from ACS estimates without considering error, imply a level of precision that doesn't necessarily exist. To address this concern, the coefficient of variation is also provided.

² The ACS Toolbox can be used to calculate MOEs for derived values.

³ See also "A Compass for Understanding and Using. American Community Survey Data. What General Data Users Need to Know" for additional information.

How is ACS Reliability and Relative Sampling Error (CV Calculator) addressed?

Due to the sampling design of the ACS, the US Census encourages the use of a coefficient of variation (CV) to provide a measure of the relative amount of sampling error that is associated with each sample estimate. The CV is calculated as the ratio of the standard error (SE) for an estimate to the estimate itself and is usually expressed as a percent. It is considered to be a useful barometer of the stability, and thus the usability of a sample estimate. CVs may be mapped to show relative sampling error in a study area. As a general rule, the smaller the CV, the more reliable the estimate. In this data, margins of error (MOEs) are provided for all ACS data at the 90% confidence level, where standard error (SE) for ACS data is calculated by:

SE = MOE ACS /1.645

The SE will always be the same for a sample estimate, no matter the confidence level of the MOE.

The Coefficient of Variation (CV) is calculated as follows:

CV = (SE/ACS Estimate) * 100

To help data users determine the quality of an estimate, this data utilizes Esri's simplified interpretation of the MOE and adds stippling and hatching, based on Coefficient of Variation (CV), to indicate the reliability of data.

High Reliability Small CVs, less than or equal to 12 percent, are flagged green to indicate that the sampling error is small relative to the estimate and the estimate is reasonably reliable. Symbolized by stipple. Medium Reliability Estimates with CVs between 12 and 40 are flagged yellow—use with caution. Symbolized by cross-hatching. Large CVs, over 40 percent, are flagged red to indicate that the sampling error is large relative to the estimate. The estimate is considered very unreliable. Symbolized by dense cross-hatching.

Illustration of CV Symbolization



In the data, undefined values are shown with a -999. If the input margin of error is -999, then the output will be -999. By default, if the input estimate is 0, the estimate is recoded to 1 and the CV will be approximated using the MOE. These approximated CVs will be very large.

Additional reading on how the SVI is calculated:

Flanagan, Barry E.; Gregory, Edward W.; Hallisey, Elaine J.; Heitgerd, Janet L.; and Lewis, Brian (2011) "A Social Vulnerability Index for Disaster Management," *Journal of Homeland Security and Emergency Management*: Vol. 8: Iss. 1.

Available at: http://www.bepress.com/jhsem/vol8/iss1/3

Additional Information:

A Compass for Understanding and Using American Community Survey Data: What General Data Users Need to Know

http://www.census.gov/acs/www/Downloads/handbooks/ACSGeneralHandbook.pdf

Esri Reliability Symbols Improve ACS Reports.

http://www.esri.com/software/bao/reliability-flags.html

APPENDIX C Social Vulnerability Index Resources

The development of this Georgia 2010 Social Vulnerability Index Atlas has been a collaborative process with federal, state and academic partners. This section provides background and resources available on the SVI Index and maps from these partners.

The Centers for Disease Control and Prevention (CDC)

There are several Social Vulnerability Indexes which have been developed. The Center for Disease Control and Prevention's Agency for Toxic Substances and Disease Registry's Geospatial Research, Analysis, and Services Program developed the index used in this Atlas. For 2010, the SVI is based upon 14 US Census variables and provides the basis for all of the maps contained within this Atlas. These data are available for every county within the United States and the CDC's website provides access to SVI county maps and data throughout the country for the Census years 2000 and 2010. These maps and data can be accessed at http://svi.cdc.gov.

Data and tools can be downloaded from http://svi.cdc.gov/SVIDataToolsDownload.html

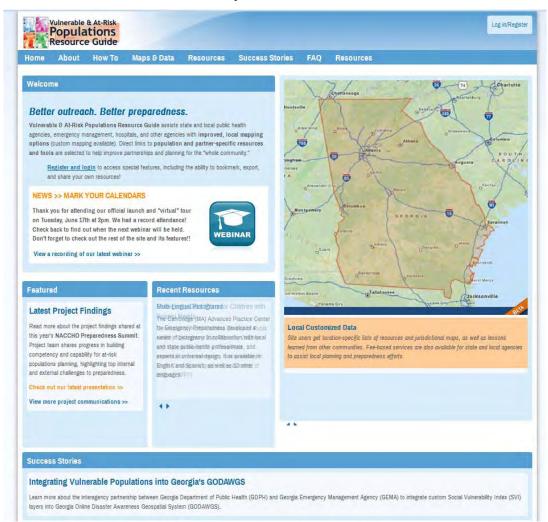


Screenshot of their SVI Website

For more information: http://svi.cdc.gov
For questions, contact the SVI Coordinator: SVI_Coordinator@cdc.gov

The University of North Carolina at Chapel Hill

With the support and funding from CDC, the North Carolina Preparedness and Emergency Response Research Center (NCPERRC) at the UNC Gillings School of Global Public Health developed and introduced the original *Vulnerable & At-Risk Populations Resource Guide*. Using a participatory approach, the *Guide* was developed after multiple interviews and discussions with local and state stakeholders to create a quick and customized planning aid tailored to each LHD's specific interests and needs. Introduced in January 2012, the quick online resource guide provided a custom list of resources with accompanying jurisdictional maps to aide North Carolina local health departments' preparedness planning for vulnerable and at-risk populations. Since its initial launch, the site has had more than 350 visitors from over 36 states. The *Guide* continues to support state and local planning and preparedness activities by providing a filter, or guide, for the extensive array of existing resources, templates, PowerPoints, and case studies.



Screenshot of the UNC PERRC website.

For more information: http://www.VARPguide.com
For questions, contact the Project Leader at VARPguide@unc.edu

Georgia Emergency Management Agency

The Georgia Online Disaster Awareness Geospatial System (GODAWGS) is a web based geospatial visualization tool that allows the State Operations Center (SOC) to display information that relates to each other spatially; creating a Common Operating Picture (COP) that Emergency Responders may us to assist them in drastically improving the situational awareness of response, recovery and coordination to both natural and man-made disasters

GODAWGS is a Common Operating Picture (COP) platform that provides operational information to create Situational Awareness. This may assist Emergency Responders to prepare for, respond to, and recover from disasters and incidents that have the potential to disrupt energy systems and other processes essential to the safety and well-being of Georgia Citizens.

Georgia Online Disaster Awareness Geospatial System Visualization Tool for Operations and Response (GB) Current Action: No. Georgia Social Vidercability Index (2010) Georgia Social Vidercability

Screenshot of SVI on GODAWGS website

How to request access to GEMA's GODAWGS website

➤ Navigate to the GODAWGS website: Copy the link below into your browser.

GODAWGS URL address: https://godawgs.gema.ga.gov/GEMA2

-- or --

Do a Google or Bing Search for: GODAWGS GEMA Login

When the page loads scroll to the bottom of the page Click "Create New User"

Fill in the User Information completely

Click "Next"

Fill in your Account information: (make note of your entries; you will need them to Login or update your password after your request is approved.)

You should see the following message: "Your account has been successfully created. Please await account approval."

Click "Continue"

You should receive an e-mail notification of approval.

After your Account has been granted access

You will receive an email which states: Congratulations! You are approved.

Navigate to the GODAWGS website

URL address: https://godawgs.gema.ga.gov/GEMA2

Scroll Down to the Log In Box

- ✓ Type your User Name and Password
- ✓ Click "log in"



After the page reloads:

✓ Click on the GODAWGS Map link on the screen



Note: To exit the disclaimer instruction box, clicking the "x" in the upper right hand corner.



For questions or additional information, contact Leanora Style at: Email: Leanora.style@gema.ga.gov

APPENDIX D Additional Contact Information

For additional questions, comments, or other inquiries concerning this *Atlas*, please contact the following:

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