

Special Topics

Johnston County Disaster Resiliency Assessment

The purpose of this section is to assess at the county level key components of disaster resiliency. Housing location and quality as well as planning activities can help reduce impacts from disaster events and allow for faster recovery. Disasters can include tornadoes, extreme weather, high winds, as well as man-made events. These events may largely be inevitable, but the ability to reduce damage and casualties as well recovery can be improved with good planning.

C.0 Comprehensive Plans & Hazard Mitigation Plans

There are 7 key cities within the county (Tishomingo, Wapanucka, Milburn, Mannsville, Ravia, Mill Creek, Bromide).

Comprehensive plans are the guiding documents for cities of various sizes to address key aspects of their community from land use, transportation, environment, housing, and economic development.

The other key plan for a city to manage, mitigate and plan for recovery related to disasters is a **Hazard Mitigation Plan** (or Emergency Management Plan). Often low density counties, the Hazard Mitigation Plan is done at the county level, though some cities may augment the county plan with a city plan.

Johnston County does not have a current Hazard Mitigation Plan.

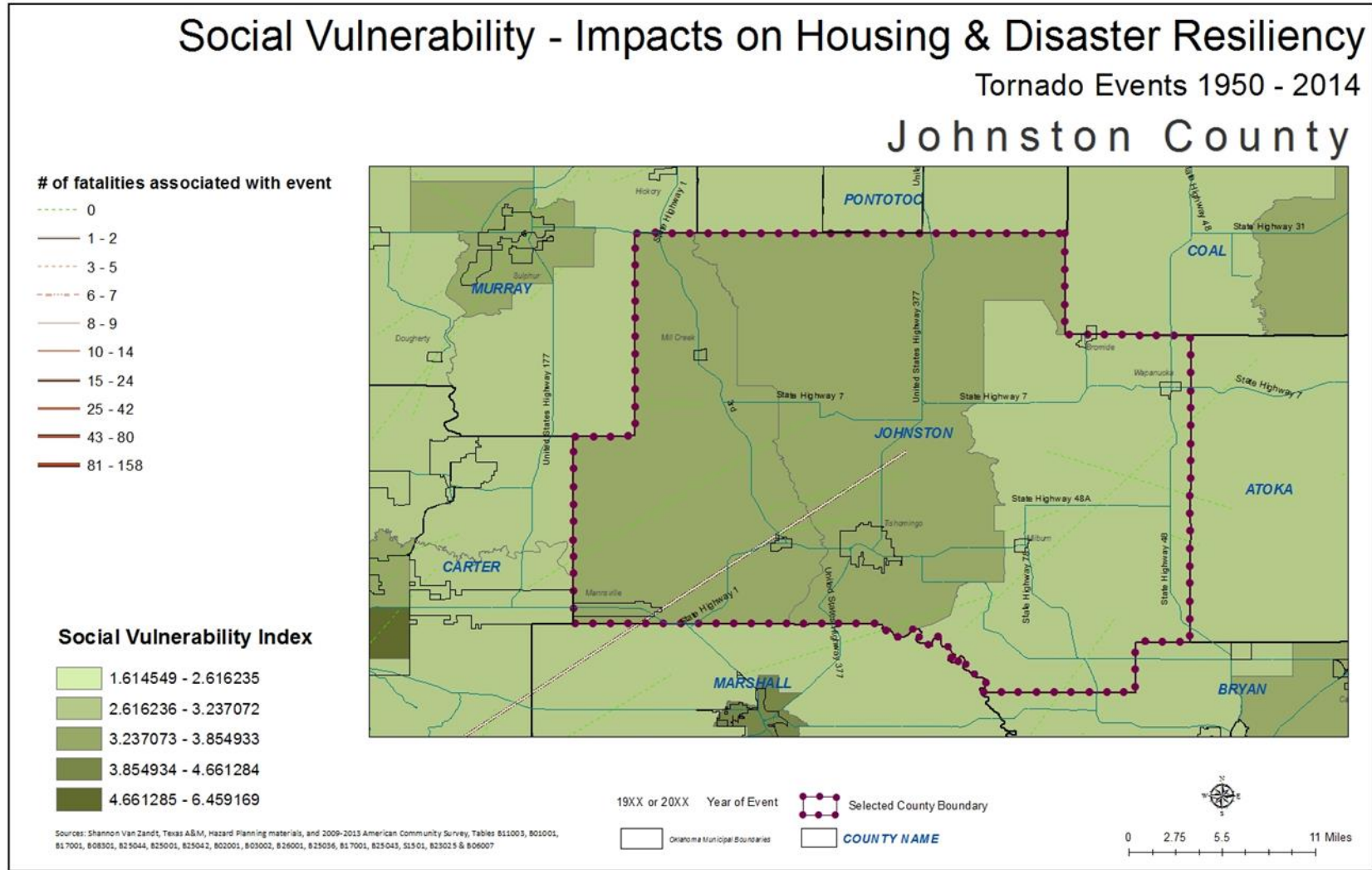
C.2.1.1. Historical Data on Natural Disasters and Other Hazards

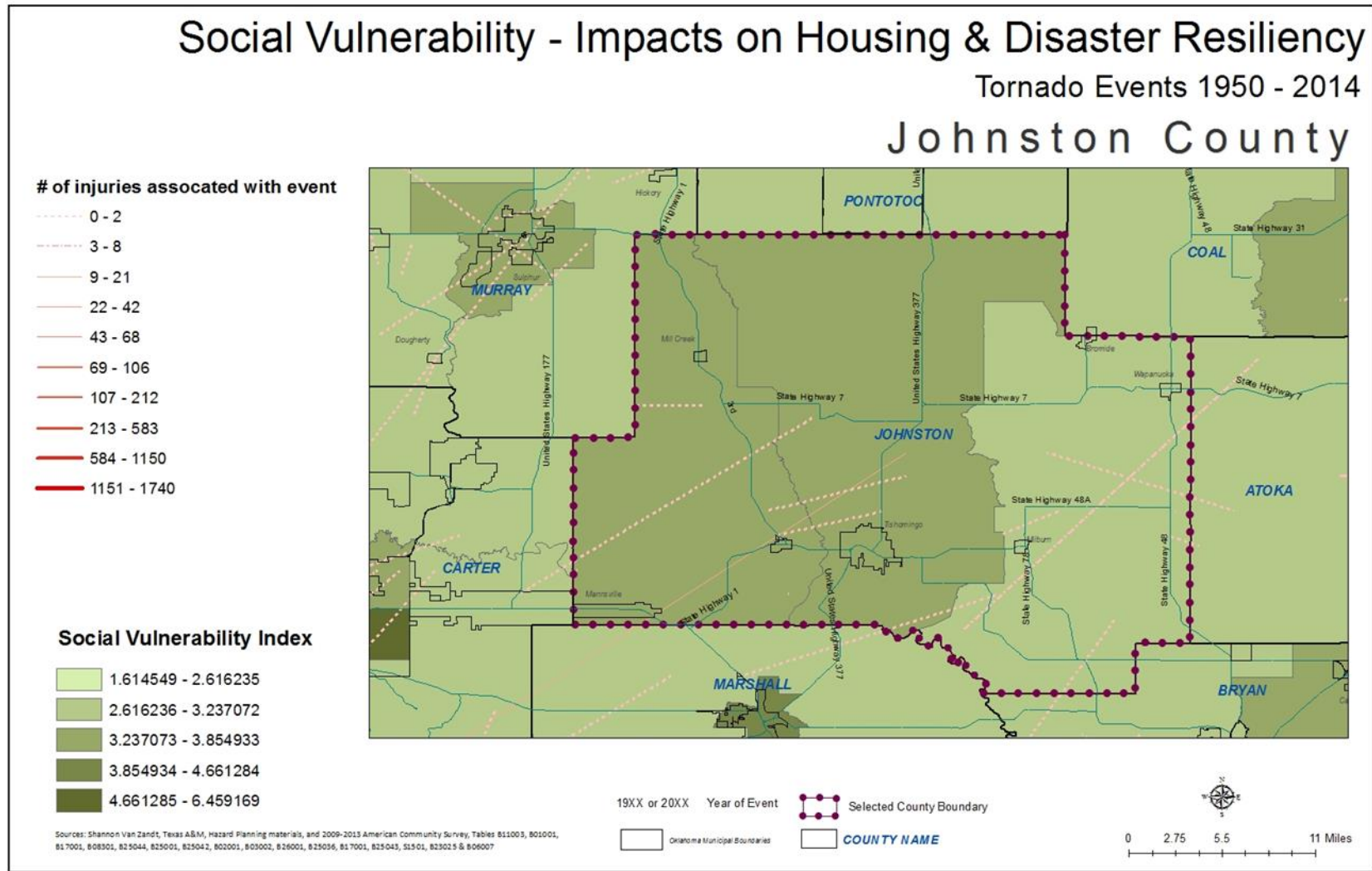
Data on historical damages and casualties is typically collected as part of a **Hazard Mitigation Plan** preparation to determine the appropriate planning measures and actions to take before and after an event.

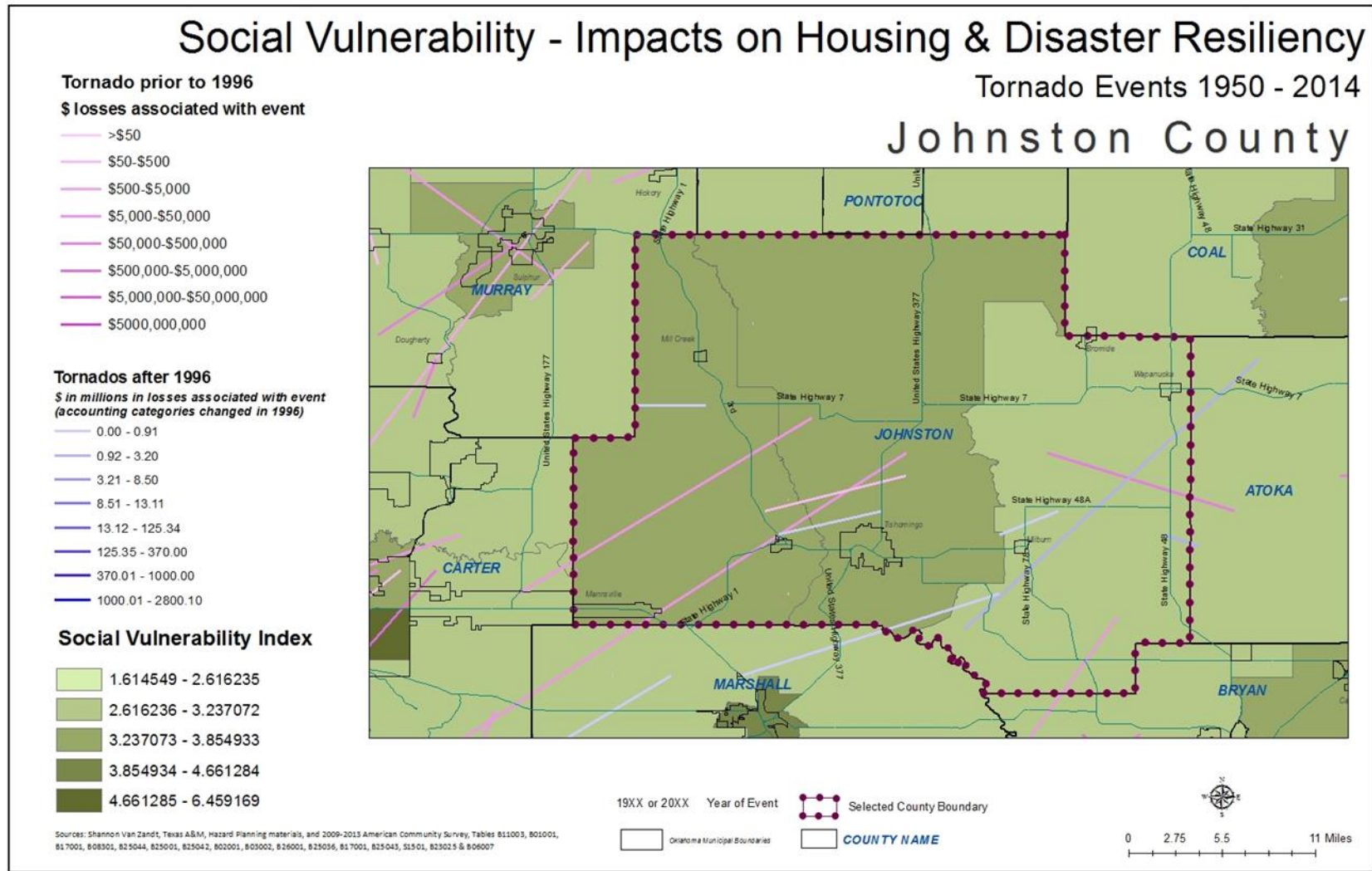
Flooding, based on FEMA FIRM maps, does not show floodplain areas in the county. The National Flood Hazard Layer (Official) is not available for this area. Flash flooding is a concern for all parts of the state after heavy precipitation.

NOAA data shows the following historic data on disaster events for the county:

Historic data on tornados between 1950-2014 there are 26 tornados documented. There were 19 injuries that occurred connected to these tornados, with 4 of those injuries happening in the 2001 tornado. There were 2 fatalities connected to tornadoes during this time period, all of which occurred in 1953. Property losses between 1950-1996 ranged from \$132,050.00 to \$1,320,500.00. (The accounting methods used for losses changed in 1996.) The losses estimated between 1996-2014 was \$5,250,000.00 .







C.2.1.2; C.2.1.6; C.2.1.7;C.2.1.8 Shelters from Disaster Event

Tishomingo Public Storm Shelters

At the time of a severe storm alert, two public storm shelters will be open. Both of these locations have underground facilities for your protection.

* Tishomingo Elementary School at 508 N. Neshoba Avenue. Entrance location is on the south side of the school main building at the corner of Sixth Street and Neshoba Avenue.

* Tishomingo High School Gymnasium at 1300 E. Main. Entrance location is on the south side of the Gym. <http://www.tishomingo.ok.gov/publications.html>

Johnston Co. Veteran Center is raising money to build a 5000 square foot, 400 person public shelter in Tishomingo. (Sept. 2015) <http://www.kxii.com/home/headlines/Veterans-raising-money-for-new-center-storm-shelter-in-Johnston-County-324031981.html>

C.2.1.3 Public Policy and Governance to Build Disaster Resiliency

Information not available.

C.2.1.4 Local Emergency Response Agency Structure

Information not available.

C.2.1.5 Threat & Hazard Warning Systems

Storm Siren

Installed in 2009 near the Middle School, it will sound when there is a tornado warning for our immediate area and can be heard outdoors over most of the city

Blackboard Connect

Added by the city in 2009, this service will provide automatic phone call notification to all city residents when there is a tornado warning for our immediate area.

NOAA Weather Radios

This is the warning system most highly recommended by emergency management professionals. Tip: select a radio which lets you filter the warnings by warning type and by geographic area so that you don't have to listen to a tornado warning for Lawton at 3 a.m. unless you want to. The Midland WR300 is a well-reviewed radio which has this feature.

Television and Internet

<http://www.tishomingo.ok.gov/publications.html>

New Notification system and sign-up (Nov. 2015): <https://secure.hyper-reach.com/comsignupw.jsp?id=54802>

Social Vulnerability

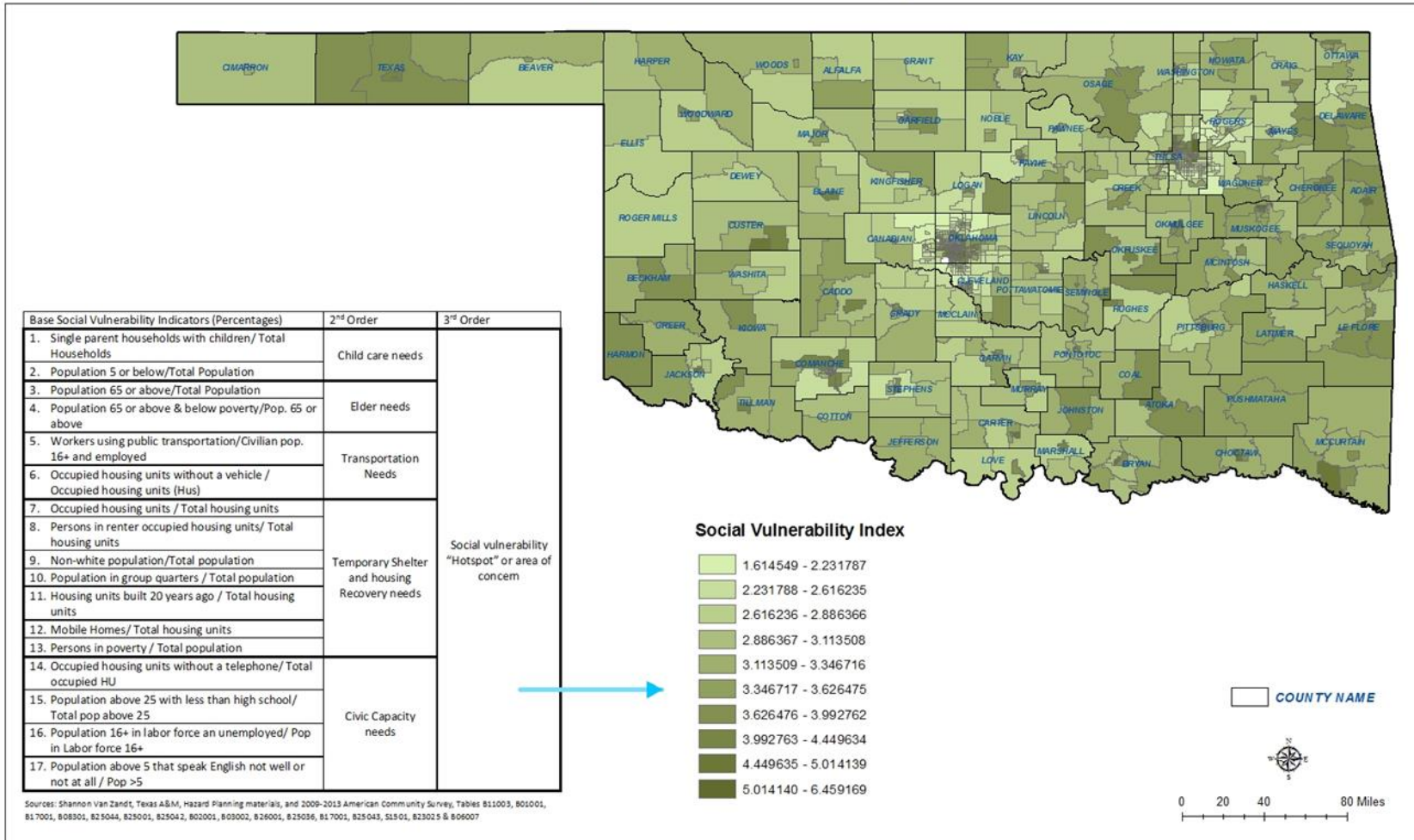
Based on the research work done by the Texas A&M University Hazard Reduction and Recovery Center, an added component is being included in this section. Social vulnerability can place households at a further disadvantage during and after a disaster. This analysis is assessing for the county the levels of social vulnerability based on demographic indicators to highlight 'hotspots' or counties that have higher social vulnerability. That combined with Hazard Mitigation Plans – or lack thereof – can highlight places where additional work is needed to reduce impacts on households.

Social Vulnerability Analysis - Johnston County

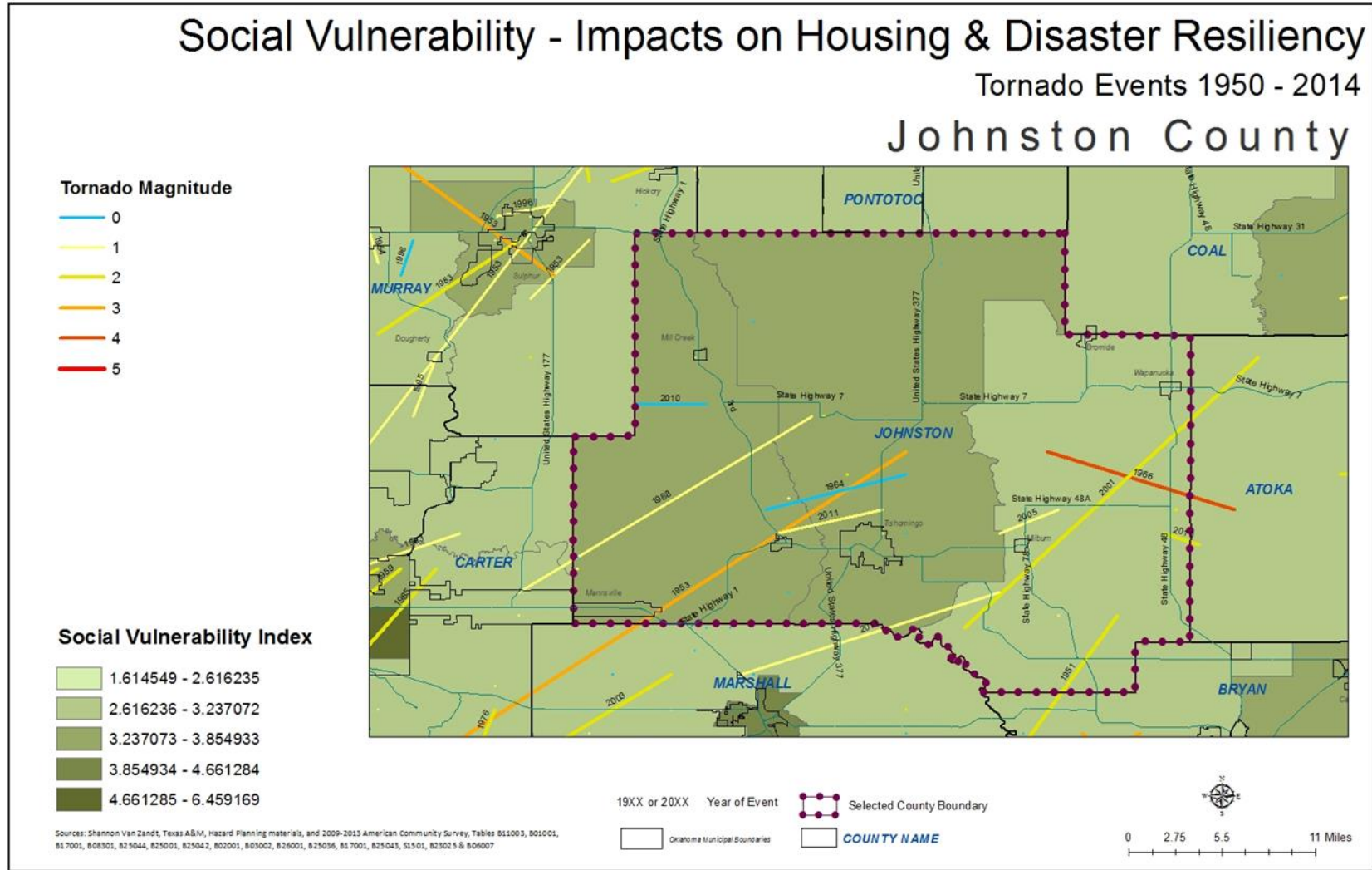
Base Social Vulnerability Indicators (%)		2nd Order	3rd Order
1.) Single Parent Households	20.83%	0.275	3.441 Social Vulnerability 'Hotspot' or Area of Concern
2.) Population Under 5	6.63%	(Child Care Needs)	
3.) Population 65 or Above	16.83%	0.276	
4.) Population 65 or Above & Below Poverty Rate	10.77%	(Elder Needs)	
5.) Workers Using Public Transportation	0.26%	0.067	
6.) Occupied Housing Units w/o Vehicle	6.45%	(Transportation Needs)	
7.) Housing Unit Occupancy Rate	82.94%	2.503 (Temporary Shelter and Housing Recovery Needs)	
8.) Rental Occupancy Rate	28.20%		
9.) Non-White Population	28.63%		
10.) Population in Group Quarters	2.98%		
11.) Housing Units Built Prior to 1990	66.15%		
12.) Mobile Homes, RVs, Vans, etc.	19.29%		
13.) Poverty Rate	22.15%		
14.) Housing Units Lacking Telephones	3.15%	0.32 (Civic Capacity Needs)	
15.) Age 25+ With Less Than High School Diploma	19.20%		
16.) Unemployment Rate	8.35%		
17.) Age 5+ Which Cannot Speak English Well or Not At All	1.27%		

Sources: Shannon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B11003, B01001, B17001, B08301, B25044, B25001, B25042, B02001, B03002, B26001, B25036, B17001, B25043, S1501, B23025 & B06007

Social Vulnerability - Impacts on Housing & Disaster Resiliency



Sources: Shannon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B11003, B01001, B17001, B08301, B25044, B25001, B25042, B02001, B03002, B26001, B25036, B17001, B25043, S1501, B23025 & B06007



Social vulnerability combined with the devastating impacts of a natural or man-made disaster can compound a household's ability to recover and in fact can place those individuals at an even greater gap or disadvantage prior to the event (Shannon Van Zandt, Texas A&M, Hazard Planning).

This county has an elevated score per this index for social vulnerability when comparing as a county to other counties in the state. Looking at the census tract level, western portion of the county have particularly higher scores for social vulnerability. People in these areas may have additional difficulties during an event due to transportation and family needs. Additionally recovery for socially vulnerable populations can be slow and may require additional outside assistance.

Recommendations for this county:

- Continue to update and maintain the county HMP and include attention to areas within the county that in addition to physical vulnerability may have compounding social vulnerability factors.
- Efforts to strengthen building codes related to tornadoes and natural disasters should be considered.
- Planning for shelters from disaster events for multifamily, HUD and LIHTC units, in addition to all housing in the community should be incorporated with any effort to increase housing.