

Special Topics

Major 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 8 key cities within the county (Fairview, Ringwood, Ames, Cleo Springs, Meno, Chester, Orienta, Isabella). Fairview is the largest city in the county, but at just under 3,000 population, does not currently have a comprehensive plan.

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.

Major County does have a Hazard Mitigation Plan, but was unavailable for use on this study.

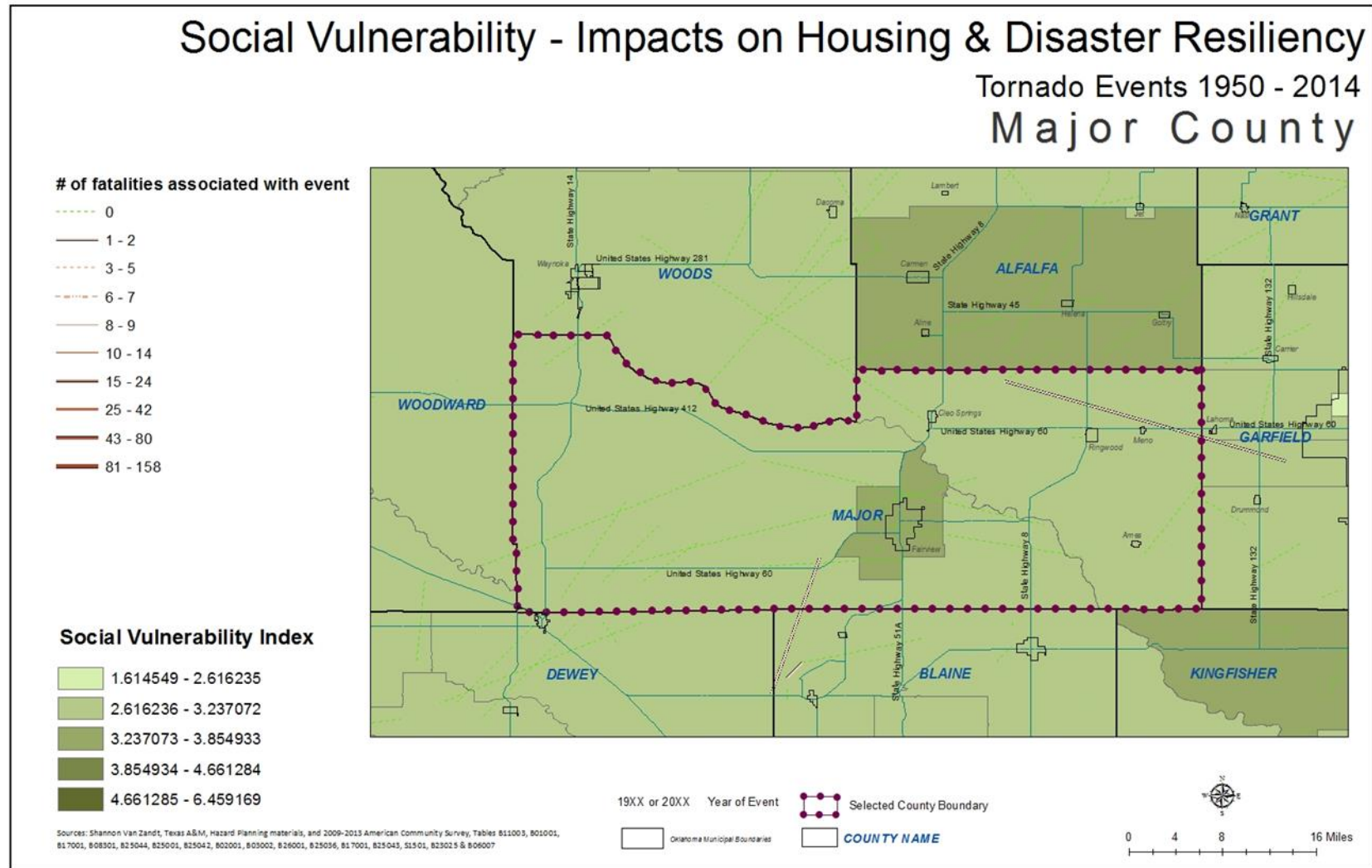
C.2.1.1. Historical Data on Natural Disasters and Other Hazards

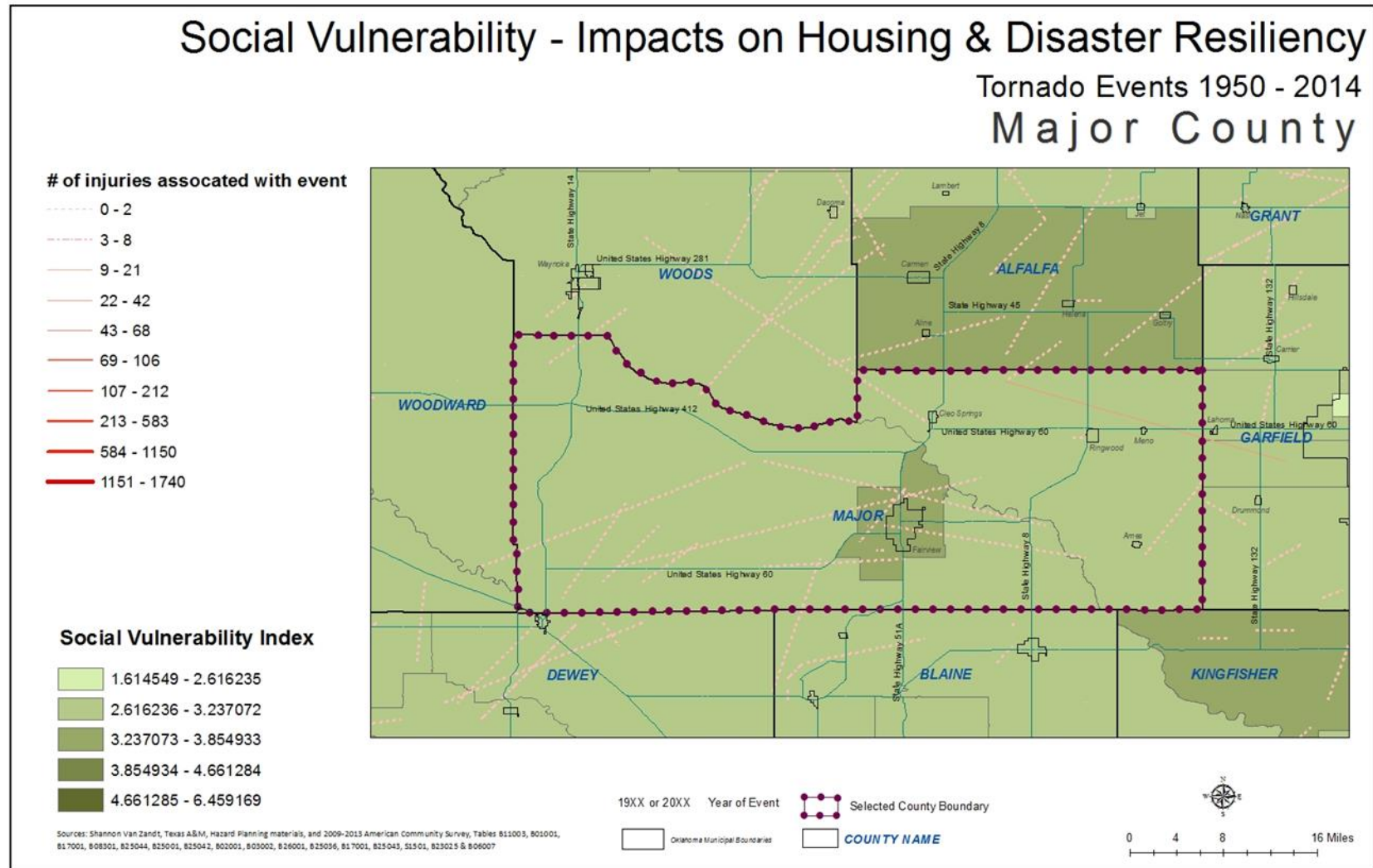
Data on historical damages and casualties is typically collected as part of a **Hazard Mitigation Plan** preparation to determine the appropriate planning measures and actions to take before and after an event.

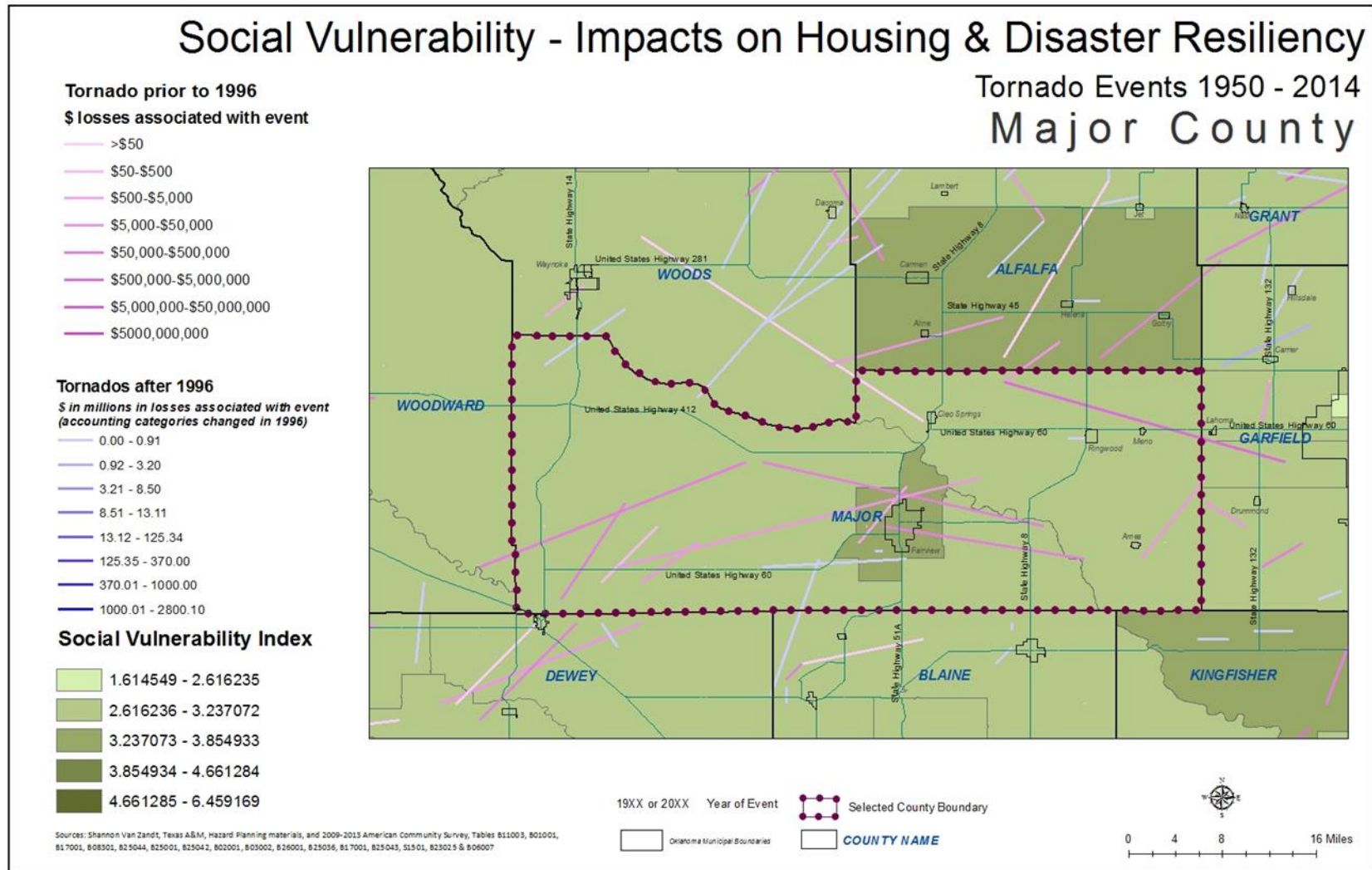
Flooding, based on FEMA FIRM maps, does not show floodplain areas in the county. The National Flood Hazard Layer (Official) is not available for this area. Flash flooding is a concern for all parts of the state after heavy precipitation.

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

Historic data on tornados between 1950-2014 there are 66 tornados documented. There were 49 injuries that occurred connected to these tornados, with 25 of those injuries happening in the 1979 tornado. There were 15 fatalities connected to tornadoes during this time period, 8 of which occurred in 2009 tornado. Property losses between 1950-1996 ranged from \$51,848,658.00 to \$518,486,900.00. . (The accounting methods used for losses changed in 1996.) The losses estimated between 1996-2014 was \$3,350,000.00.







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

There are four public storm shelters located in Major County communities.

(http://www.enidnews.com/community-public-storm-shelters/article_daba9366-f6cf-11e4-b888-933045a9b1a2.html)

Isabella has a storm shelter at 207 S. 2nd St., Ames has one at 103 N. Woods St.,

Meno has a shelter at 106 W. Grant St. and Ringwood High School gym, at 5th and Main

Fairview is working on building public storm shelters for the community and are hoping to have two or three by the end of the year (2015).

C.2.1.3 Public Policy and Governance to Build Disaster Resiliency

Online storm shelter registration: <http://gcm.org/storm-shelter-registration/>

C.2.1.4 Local Emergency Response Agency Structure**C.2.1.5 Threat & Hazard Warning Systems**

No information available.

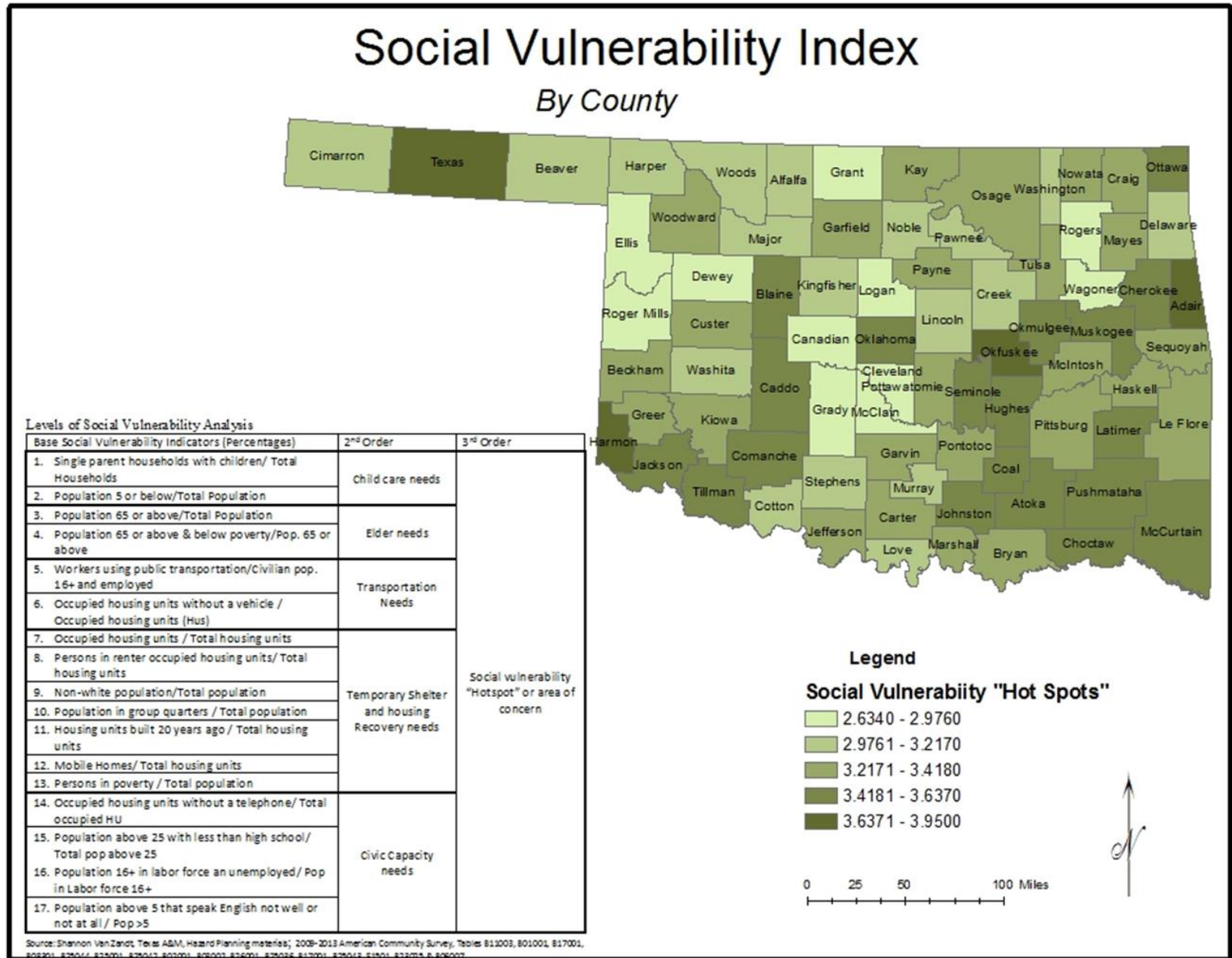
Social Vulnerability

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 th

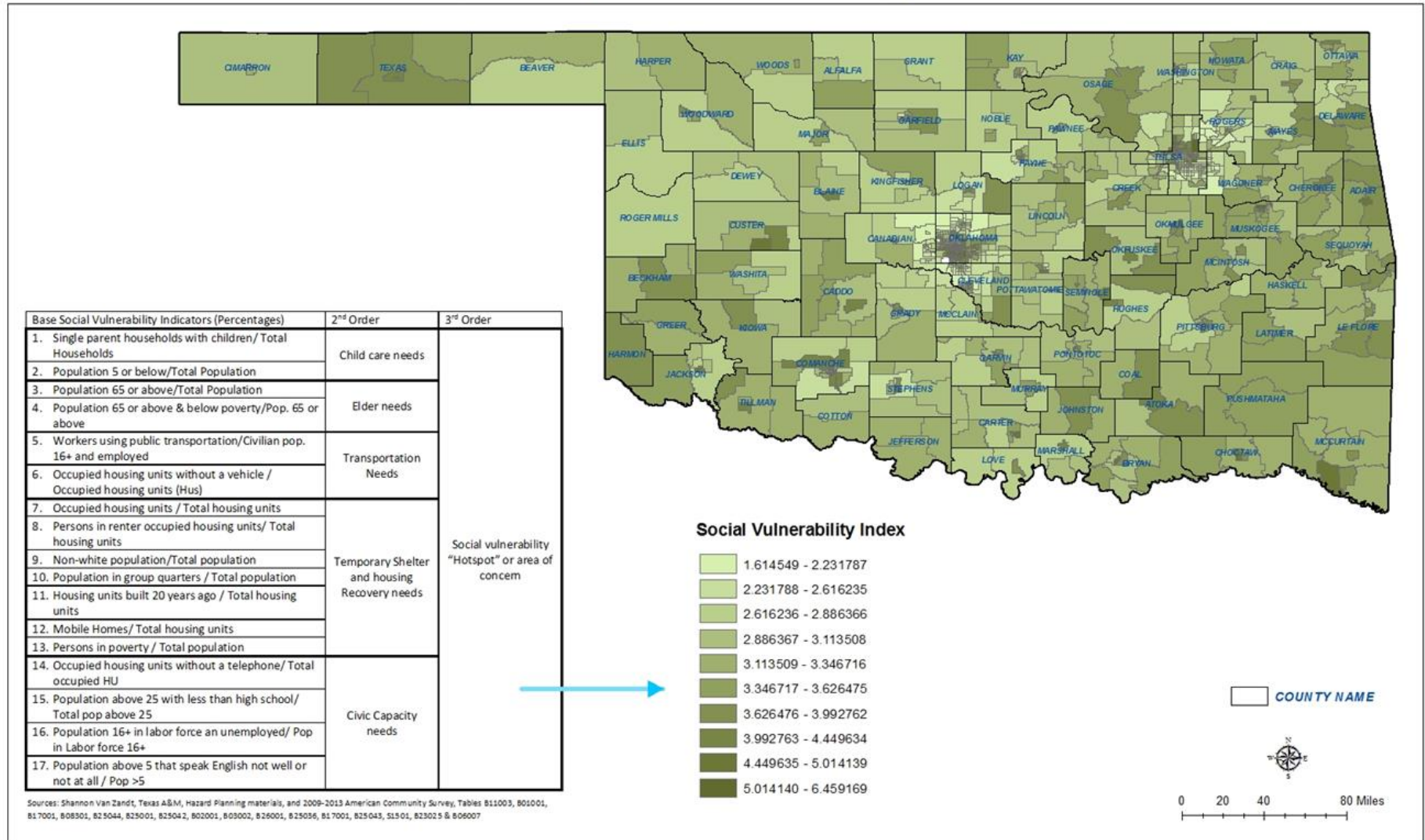
Social Vulnerability Analysis - Major County			
Base Social Vulnerability Indicators			
(%)		2nd Order	3rd Order
1.) Single Parent Households	8.94%	0.154	3.063 Social Vulnerability 'Hotspot' or Area of Concern
2.) Population Under 5	6.47%	(Child Care Needs)	
3.) Population 65 or Above	19.00%	0.307	
4.) Population 65 or Above & Below Poverty Rate	11.67%	(Elder Needs)	
5.) Workers Using Public Transportation	0.00%	0.037	
6.) Occupied Housing Units w/o Vehicle	3.70%	(Transportation Needs)	
7.) Housing Unit Occupancy Rate	84.10%		
8.) Rental Occupancy Rate	24.38%		
9.) Non-White Population	12.98%	2.344	
10.) Population in Group Quarters	1.50%	(Temporary Shelter and Housing Recovery Needs)	
11.) Housing Units Built Prior to 1990	83.24%		
12.) Mobile Homes, RVs, Vans, etc.	15.60%		
13.) Poverty Rate	12.62%		
14.) Housing Units Lacking Telephones	2.20%		
15.) Age 25+ With Less Than High School Diploma	12.60%	0.221	
16.) Unemployment Rate	5.10%	(Civic Capacity Needs)	
17.) Age 5+ Which Cannot Speak English Well or Not At All	2.17%		

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

ereof – can highlight places where additional work is needed to reduce impacts on households.



Social Vulnerability - Impacts on Housing & Disaster Resiliency



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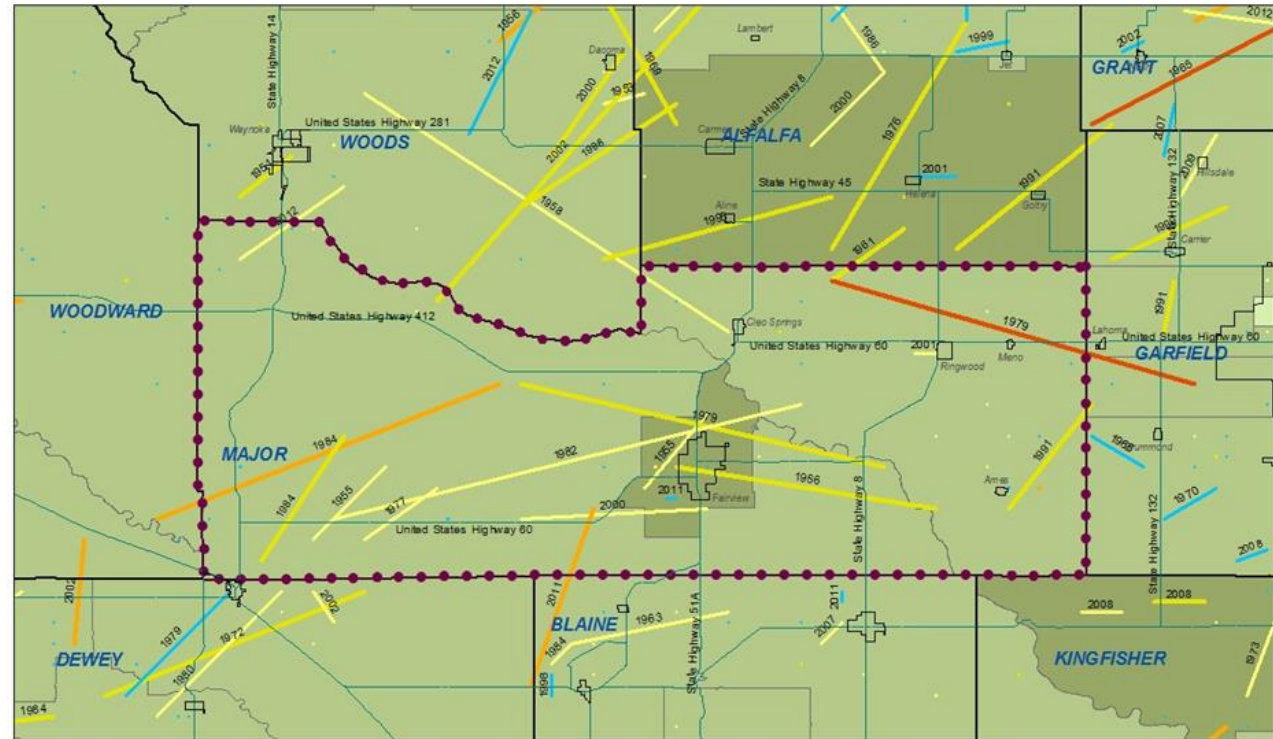
Tornado Events 1950 - 2014

Major County

Tornado Magnitude

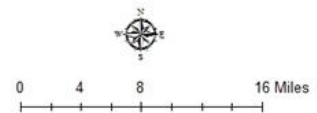


Social Vulnerability Index



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, B03001, B26001, B25036, B17001, B25043, S1501, B23023 & B06007

19XX or 20XX Year of Event
 Selected County Boundary
 Oklahoma Municipal Boundaries
 COUNTY NAME



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 falls below the state score per this index for social vulnerability when comparing as a county to other counties in the state. When looking at the census tract level, the Fairview area has elevated indicators for social vulnerability as compared to the rest of the county.

Recommendations for this county:

- 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.