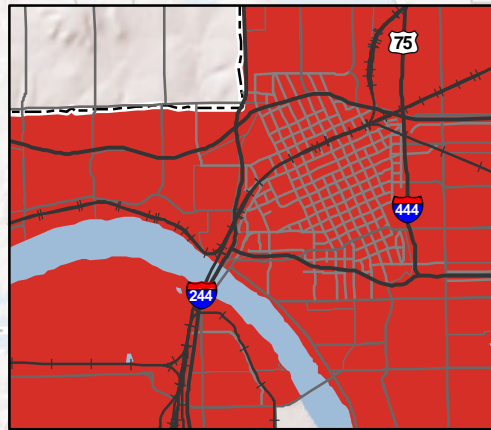


# Economically Distressed Areas\*

## Hot Spot Analysis

**Downtown Tulsa Inset**



\* Development of the economic conditions index compares census block group demographics to the average score for the county. The housing index is the average of 3 variables to measure for substandard environments. The 3 variables included homes built before 1970, housing value for all owner-occupied housing units less than \$90,000, and homes lacking complete plumbing. The housing index was then averaged along with the family poverty index and the unemployment index to create an overall economic conditions index. The higher the index score, the greater the level of distress in a census block.

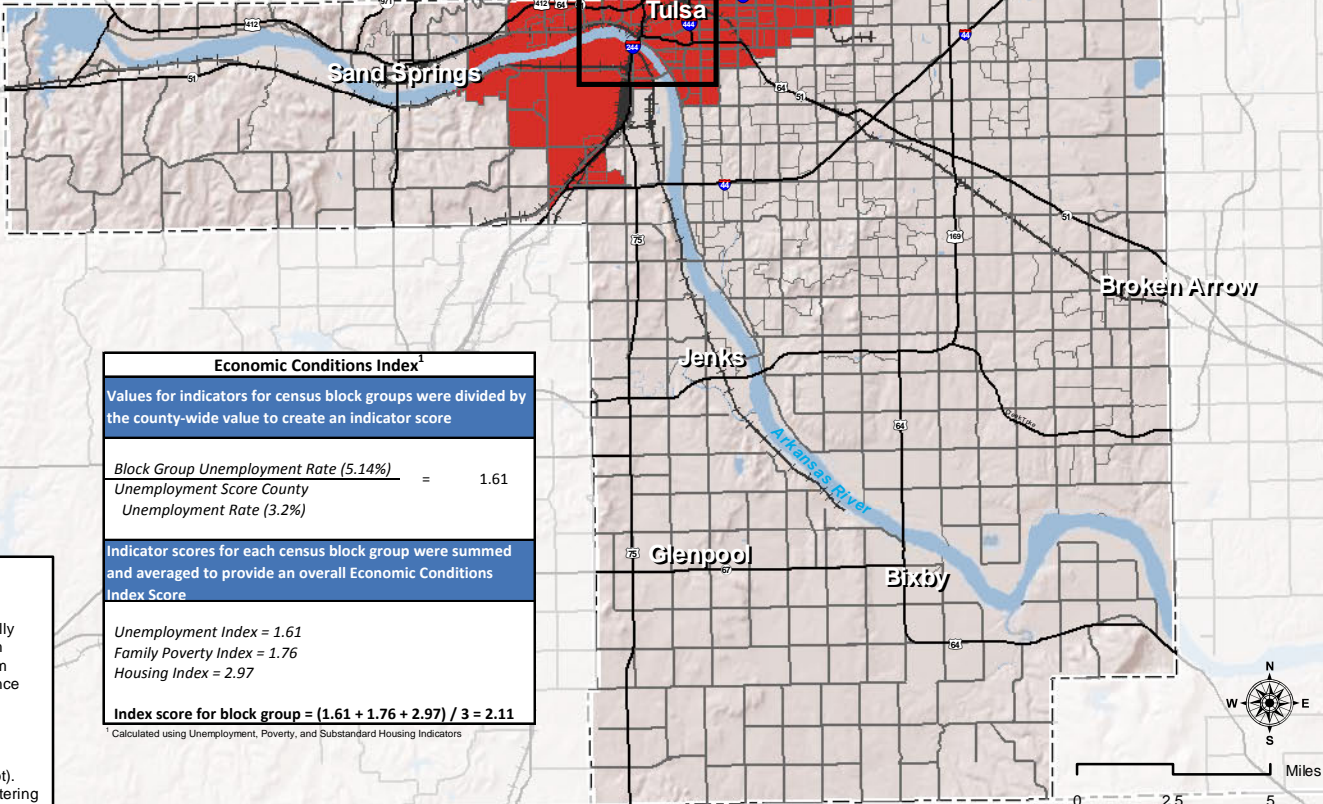
See Economic Conditions Index Table at left for calculation example.

### Legend

- Expressways and Highways
- Arterial Streets
- Railroads
- Bodies of Water
- County Boundaries

### Block Group Hot Spot Analysis\*\*

- No Significant High Distress Score Value Clustering
- Significant Clustering of High Distress Score Values



Economic Conditions Index <sup>1</sup>	
Values for indicators for census block groups were divided by the county-wide value to create an indicator score	
<i>Block Group Unemployment Rate (5.14%)</i>	= 1.61
<i>Unemployment Score County</i>	
<i>Unemployment Rate (3.2%)</i>	
Indicator scores for each census block group were summed and averaged to provide an overall Economic Conditions Index Score	
<i>Unemployment Index = 1.61</i>	
<i>Family Poverty Index = 1.76</i>	
<i>Housing Index = 2.97</i>	
<b>Index score for block group = (1.61 + 1.76 + 2.97) / 3 = 2.11</b>	

<sup>1</sup> Calculated using Unemployment, Poverty, and Substandard Housing Indicators

\*\* The Hot Spot Analysis tool calculates the Getis-Ord Gi statistic for each feature in a dataset. The resultant Z score tells you where features with either high or low values cluster spatially. This tool works by looking at each feature within the context of neighboring features. A feature with a high value is interesting, but may not be a statistically significant hot spot. To be a statistically significant hot spot, a feature will have a high value and be surrounded by other features with high values as well. The local sum for a feature and its neighbors is compared proportionally to the sum of all features; when the local sum is much different than the expected local sum, and that difference is too large to be the result of random chance, a statistically significant Z score results.

**Interpretation**  
The Gi statistic returned for each feature in the dataset is a Z score. For statistically significant positive Z scores, the larger the Z score is, the more intense the clustering of high values (hot spot). For statistically significant negative Z scores, the smaller the Z score is, the more intense the clustering of low values (cold spot). Source: ESR!

