

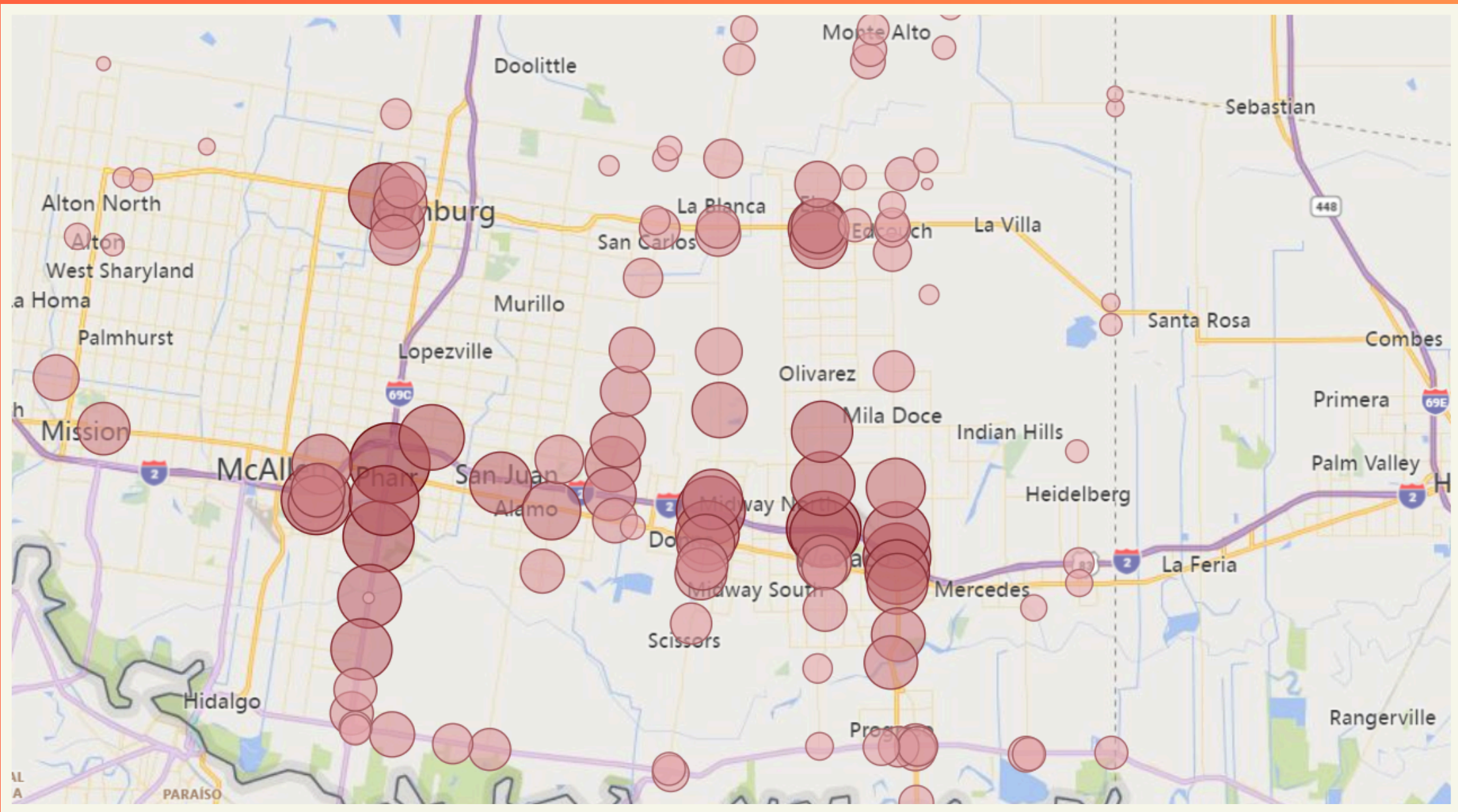
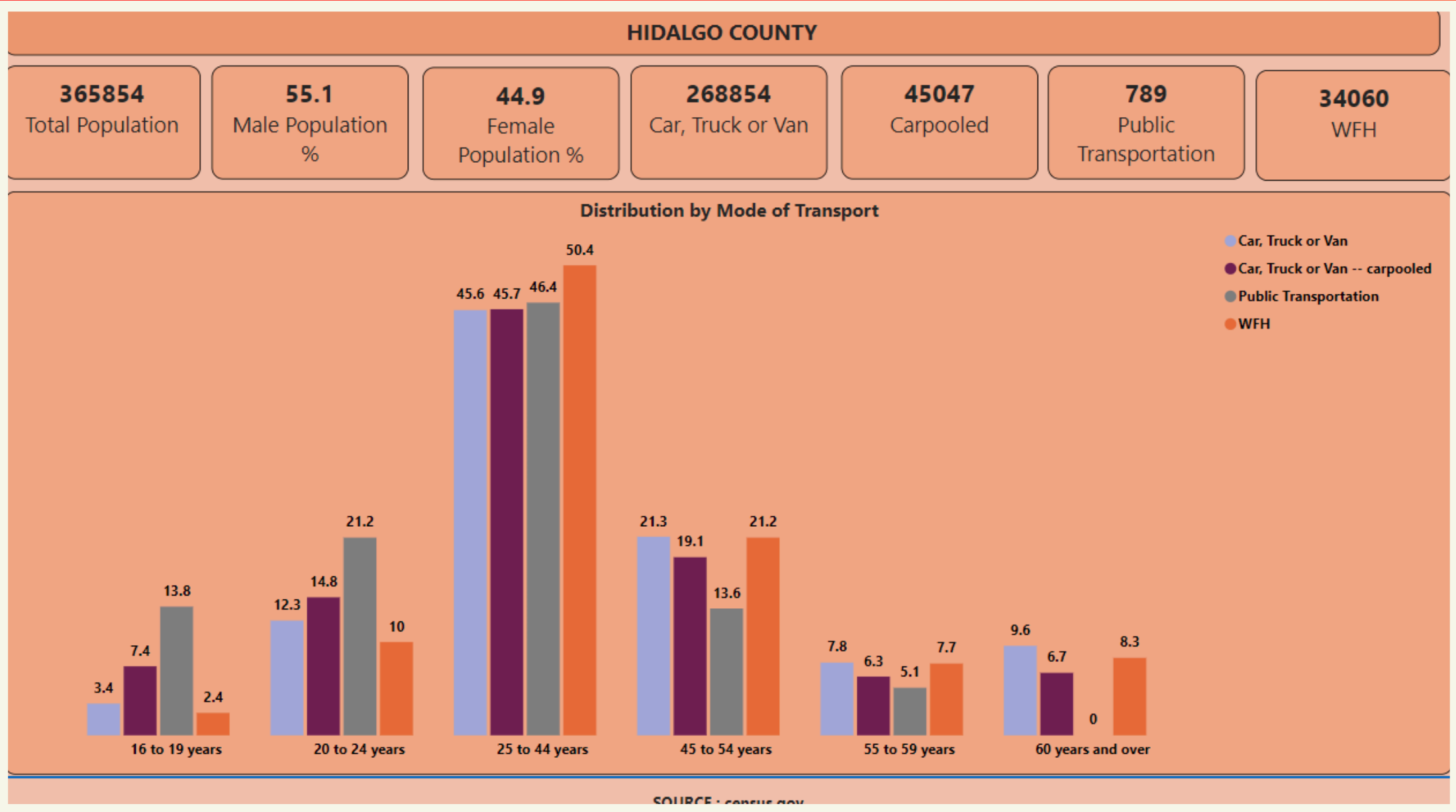
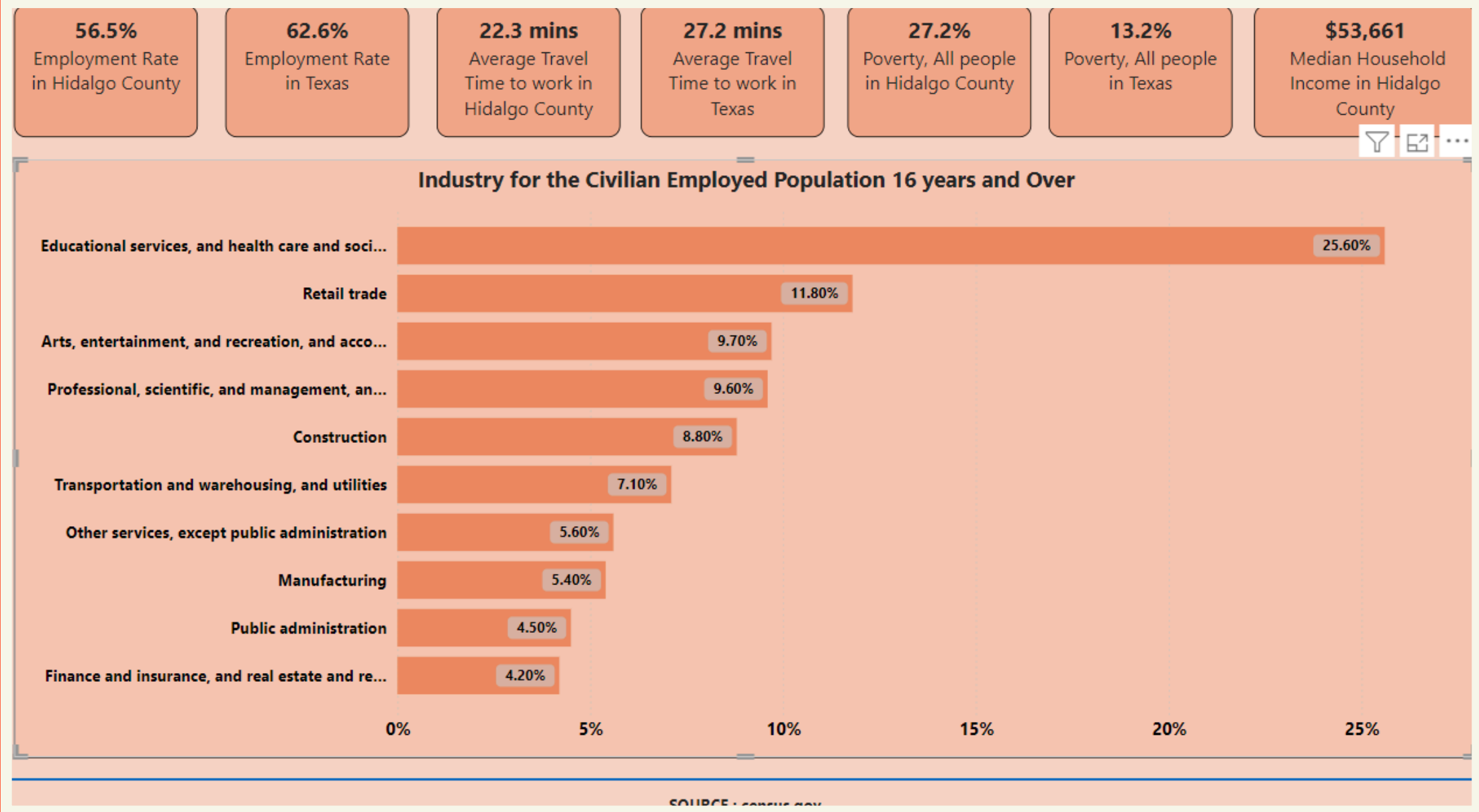
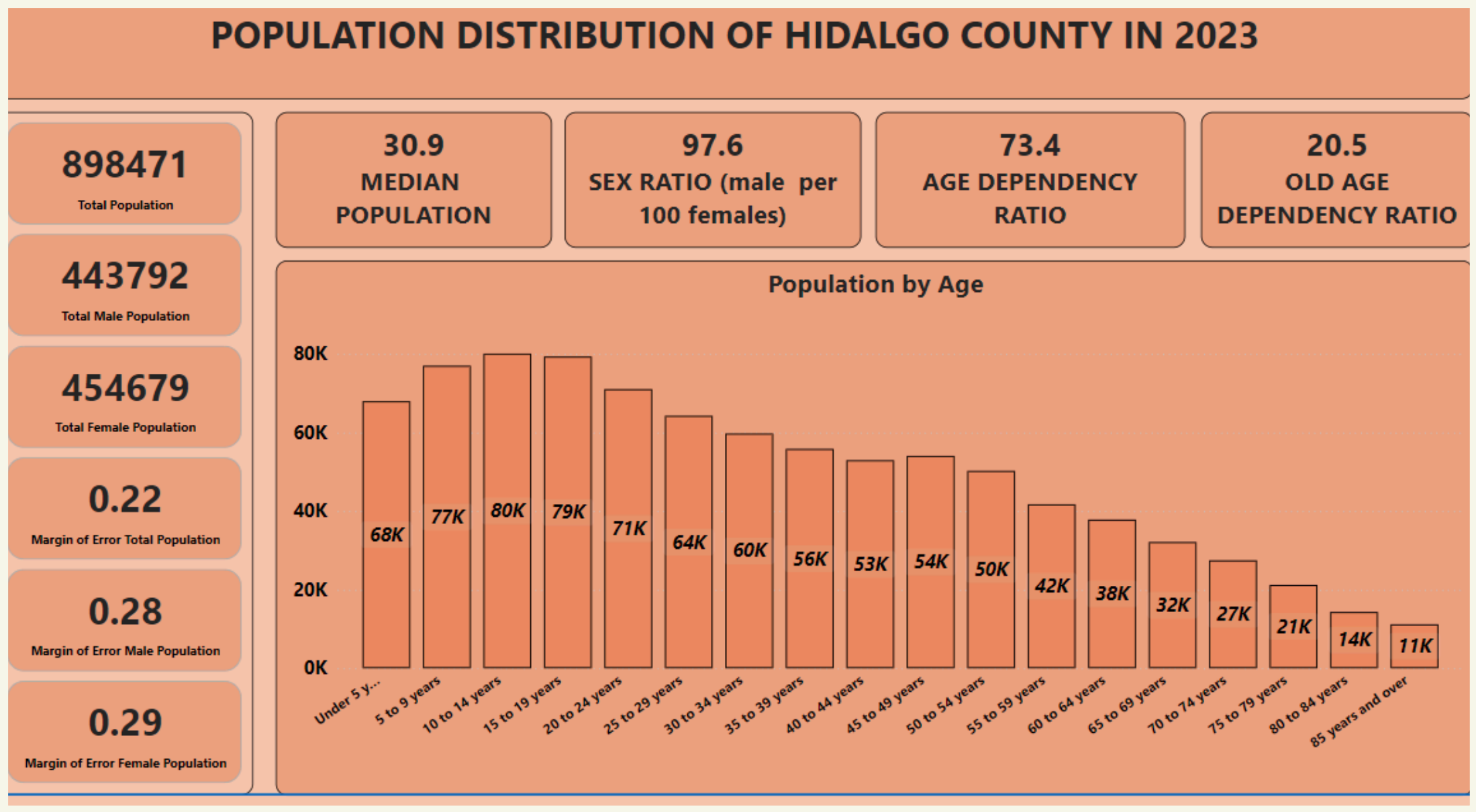
Data Analytics Strategy for Transportation Equity

Project Background

Identifying commuter rail station locations along the US Business 83 in Hidalgo County, Texas, to enhance public transportation efficiency and accessibility, in collaboration with Integrated Travel Research and Development (ITRD), a non-profit organization dedicated to promote transportation equity for all individuals across North America.

Objective

To determine optimal locations for commuter rail stations along the US Business 83 highway, by conducting a regression analysis based on the factors like traffic counts, locations of educational institutions, medical centers, shopping areas, airports, entertainment facilities and residential hubs.



TRAIN STATION



Proposed Business Solution

Our analysis of a 45-mile transit corridor in Hidalgo County has successfully identified at least 14 suitable train station locations from an initial pool of 34 possibilities. This determination came through careful site categorization across five land use types (Commercial, Educational, Transportation, Residential, and Mixed Use), combined with a detailed 0-10 scoring system. The scoring evaluated each location's amenity access, highway connectivity, and intersection patterns. The robustness of our selection process was confirmed through regression analysis, providing strong statistical support for these recommended station placements.

