



Florida Department of Transportation Research

Guidebook on Using American Community Survey (ACS) Data for Transit Planning

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The American Community Survey (ACS) is a separate part of the 2010 U.S. Census program and replaces the U.S. Census long form. While every address receives the U.S. Census survey, some households and group quarters (such as college residence halls, skilled nursing facilities, group homes, barracks, and correctional facilities) also receive the ACS. Through continuous sampling, the data gathered with the ACS gives communities detailed population and housing characteristics to help communities determine where to locate services and allocate resources.

Transportation planners rely heavily on the commuting and socio-demographic data captured with the ACS to estimate future demand for transportation facilities. However, they face challenges in correctly estimating transportation demand because of the large margin of error inherent with ACS estimates. To help transportation planners more precisely estimate future demand, researchers from the National Center for Transit Research at the University of South Florida, developed a tool called the ACS Statistical Analyzer.

The analyzer is an Excel-based template that allows transportation planners using ACS estimates to assess more precisely several measures of transportation demand estimates. These measures include relative reliability, confidence interval, and margin of error. Using the analyzer, planners can efficiently compare pairs of estimates in terms of their statistical differences and account for sampling errors associated with the ACS estimates. The analyzer helps planners to derive other preci-



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sion measures for published ACS estimates, derive the precision measures for individual estimates and for new estimates obtained from two or more original estimates, and compare pairs of two estimates for which a margin of error has been established. Although the analyzer focuses on improving ACS estimates, it also helps ACS users to compare current conditions as reflected in the ACS estimates with the conditions captured during the 2000 U.S. Census.

FDOT anticipates that implementation of the ACS Statistical Analyzer will decrease technical barriers and help transportation planners obtain more precise ACS estimates, thereby increasing accuracy in planning for Florida's transportation facilities.