ANALYSING HOW SOCIO-DEMOGRAPHIC CHARACTERISTICS ASSOCIATE PUBLIC TRANSIT USAGE – A COMPARISON BETWEEN SOUTHERN AND NORTHERN CALIFORNIA

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Abstract

California needs transit systems that are as smart and diverse as its residents; however, research about its transit riders' characteristics and how they affect transit usage still is lacking. This study investigates the differences in transit usage between people in Southern and Northern California, using the National Household Travel Survey, collected by the Federal Highway Administration in 2009. Transit riders' socio-demographic and travel attitudes are accounted for in the comparison between the regions, which previously have not been examined extensively. Los Angeles-Long Beach-Santa Ana in the South and San Francisco-Oakland-Fremont in the North are used in this research as representatives for each region. The results show that most of the determining socio-demographic variables—including race, education, employment status, age, household income—are significantly different between the Northern and the Southern transit riders, while gender showed no significant difference. Additionally, transit riders in the South cared about price of travel the most, followed by highway congestion, while the Northern transit riders cared about public transit availability and accessibility the most, and then by the price of travel. A series of multivariate regressions were performed to identify the characteristics of those who would prefer to take transit more often in each region. The results show that there are some socio-demographic factors associated with frequency of taking transit that vary conversely between the regions. For example, Hispanic respondents took over 3 transit trips more than those who are not Hispanic in the South, while Hispanic respondents took over 3 transit trips fewer than non-Hispanic responders in the North, controlling for all other factors in the models. We conclude that the model and results can assist in improving transit supply performance and urban planning in order to provide a sustainable and high quality of living environment.