



Planning/Policy Programming

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Project Title: Car or Public Transit? Exploring Factors Affecting Mode Choice in the Mobility of Care

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Car or Public Transit? Exploring Factors Affecting Mode Choice in the Mobility of Care

Women are likely to engage in mobility of care by driving cars but not riding public transit. Even though more than half of transit riders are women, cars are still the reliable mode women use to serve their travel to take care of their households, their household members, and themselves.

WHAT IS THE NEED?

Traditionally, transit planning and operation have revolved around commute trips and tended to underemphasize care trips, even though their share in adult workers' daily travel is close to that of work trips. Although women represent more than half of all transit riders, cars are considered more reliable to accommodate women's complicated and time-pressured travel related to medical and child care. Rooting on women's societal role in care activities, what factors may be found as potential improvements in transit planning and operation to better accommodate women's mobility of care? And how much vehicle miles traveled (VMT) would potentially be reduced if transit planning and operation took care trips into account more?

WHAT ARE WE DOING?

This study explores the factors affecting women's decisions to drive rather than using other modes for care trips. By applying discrete choice modeling to the publicly available travel survey data of the 2022 National Household Travel Survey (NHTS), this study expects to provide evidence of factors where transit service may better accommodate women's mobility of care. Moreover, it will highlight how public transit contributes to reducing household vehicles VMT generated by care trips when considering women as their potential transit riders and considering their mobility of care.

The factors are likely to include the socio-demographic characteristics of the individual and the characteristics of care trips they serve. Building upon literature on women's travel



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and the mobility of care, the socio-demographics feature gender, employment status, income, household structure (e.g., presence of children, spouse/partner), and residential location. As travel is a derived demand from activities people engage in, who-an-individual-is (i.e., the socio-demographics) affects what activities they are engaged in and the trips associated with those activities (i.e., the trip purpose). The destination for the activity informs the trip distance. In combination with the transport mode taken, the trip distance indicates the trip duration, or the amount of time taken to travel for the activity.

WHAT IS OUR GOAL?

The results of this study will also provide insights into the reliance on auto modes for care trips and where improvement of alternatives, including transit service and bicycle and pedestrian infrastructure, may encourage the use of these modes more in mobility of care.

WHAT IS THE BENEFIT?

This study focuses on the differences in factors that affect the mode choice for this type of trip. The researchers expect to obtain distinct characteristics of care trips and the socio-demographics of those who travel for care to inform Caltrans on aspects where gender-sensitive transit-related manuals, guidelines, and policies are critical to accommodate women's travel and their mobility of care. The researchers also expect to inform transit agencies of improvements to consider.

WHAT IS THE PROGRESS TO DATE?

Project kick off meeting will be scheduled shortly after start date of 1/1/2026.

IMAGES



Image 1: Bicitekas/BYCS