This paper considers the effect of transportation policies directed at reducing travel times for commuting on inequality in urban labor markets. This topic has been the recent focus of attention in labor and urban economics as a potential determinant of undesirable outcomes in schooling, lifetime income, health and labor force participation. In order to understand the relationship between commuting and economic outcomes, I ask in this paper how commuting patterns differ across worker types and whether something systematic can be observed across cities in the United States that helps to understand how those patterns relate to economic outcomes and welfare.

To do this, I model the choice of city of residence by workers with and without a college degree in order to describe the effect of transportation policies on inequality. The location of heterogeneous workers within a city may be expected to be driven by the relative sizes of the elasticities of housing demand and marginal commuting costs with respect to income. Using US Census data from three decades, I estimate these parameters as part of a multi-equation econometric model at the level of a US metropolitan statistical area (MSA) for labor supply, labor demand, housing supply and transportation supply outcomes. The model allows for variation in preferences due to demographics and birth location, uses a rich set of instruments to account for endogenous effects related sorting and controls for unobservables using a first-difference approach combined with neighborhood-level amenity controls. Here I find little evidence that commutes are disproportionately longer for low skilled workers. I also find that labor productivity tends to be correlated with commuting time for low skilled workers living in the suburbs and I find that the opposite relationship holds for high skilled workers.

Based on these estimates, I perform a series of policy simulations to consider the effect of public transit expansion intended to lower travel times to work financed by a head tax, congestion pricing and fare increase. The random utility model underlying the system of equations estimated allows for welfare consistent comparison of policy shocks in these simulations. The set of policies that I consider through simulation are the first-order welfare enhancing approaches that microeconomic theory would advocate, and are also, in part, the ones that have been proposed to address inequality problems related to transportation. Overall the paper documents limited benefits to workers without a college education from the set of proposed policies relative to workers with a college degree, which is largely driven by the fact that college educated workers have higher use of public transit on average. These results have important distributional consequences for national and state-level policies intended to mitigate congestion externalities and spatial mismatch of workers in urban labor markets.