Statement of Research

Kenneth Whaley

Overview

I am an applied microeconomist with research interests in public and urban economics. I am particularly interested in questions related to housing, education, and the quality of neighborhoods. My approach to research combines techniques from the empirical microeconomics toolkit with data visualization and spatial analysis. In the following sections I describe briefly my current academic research.

Estimating the Value of Diverse Neighbors: The Relationship Between Public School Demographics and Local Mortgage Values (Job Market Paper)

I analyze how changes in the racial composition of local public schools affect nearby home values. In a world where households have preferences for the racial composition of close neighbors, are school and neighborhood demographics an attribute that new home buyers are willing to pay for? I build on the neighborhood choice literature which establishes the existence of equilibrium neighborhood types as an outcome of household sorting over race. My hypothesis is that equilibrium demographic characteristics represent a neighborhood amenity for new home buyers, and when exogenous changes to racial demographics occur the price for homes (as measured by neighborhood mortgage values) will change. I test for this effect using changes to school demographics associated with the timing of new rental development under the Low Income Housing Tax Credit (LIHTC) program.

My empirical strategy consists of two parts. First I use an event study framework that exploits differences in the timing of LIHTC construction across neighborhoods to identify changes in school racial demographics associated only with the timing of these housing shocks. Using the observed initial neighborhood composition and the predicted growth rates from the LIHTC event-study, I construct a shift share instrument to estimate the effect of plausibly exogenous changes in school demographics on mortgage values. I find that as neighborhoods become more diverse, mortgage values rise as much as 2.5% on average. The effects are smaller when various controls for neighborhood income are included, highlighting a general equilibrium effect of rising incomes associated with places where diversity levels are increasing. I also find evidence for heterogeneity in this result, with larger positive effects present when majority black neighborhoods become more diverse and a near zero effect when majority white neighborhoods become more diverse.

Property Rights and The Incentives for Subsidized Housing Development on Federal Trust Lands

In this working paper I examine how land held in trust by the Federal government weakens property rights and leads to under provision of subsidized housing on Indian reservations and geographies broadly defined as tribal statistical areas. In the application process for Low Income Housing Tax Credit (LIHTC) construction subsidies, developers must show that gap financing has been secured – meaning working capital outside of LIHTC subsidy revenue must be in place before the project is approved. Developers in trust lands are prohibited by law from using the land parcel for development as collateral for gap financing, a common practice in traditional LIHTC projects. This reduces access to capital which in turn leads to lower levels of investment.

I show that on average, LIHTC development in tribal statistical areas has a significantly higher probability of being located on land not held in trust. Given that over 60% of tribal populations live on trust land, the higher costs associated with these areas leads to a substantial reduction in of total supply of subsidized housing to Indian populations. Access to quality affordable housing in tribal areas is an ongoing concern for policymakers, and the findings from this project are forthcoming as part of the Center for Indian Country Development working paper series on housing and local development finance at the Minneapolis Federal Reserve.

The House Price Capitalization of Increased School Spending: A National Study of State Finance Reforms and Local Taxes

In this working paper with Patrick Bayer and Peter Blair, we estimate how much parents value school expenditure and their willingness to finance it through higher taxes. Exploiting plausibly exogenous variation in expenditures and taxes from school finance reforms, we find that school expenditures are positively capitalized into house prices ($\epsilon = 0.86$) with larger effects in areas with less elastic housing supply. Given that the reforms targeted increased spending in initially low spend areas, our results suggest neighborhood demand increases in areas where spending increases, consistent with the literature on higher school quality that results from exogenous spending increases.

We then test whether local governments are raising the efficient level of tax revenues, based on changes in revenue sources following the reform shock. The efficient allocation of public goods in a system of local governments motivated Oates (1969), who claimed that an additional dollar raised locally and spent on a local public good should have no effect on property values. If, instead, such an investment increased demand to live in a community (and thus raised property values), the level of local goods provision was inefficiently low. We find that a 1 percent increase in taxes to fund education increases house prices by an economically small and statistically insignificant 0.06 percent. Our results provide support the core prediction of Tiebout (1956) that decentralized jurisdictions can efficiently provide local public goods such as education.