

# Statement of Research

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## 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 three projects that best represent my current body of work.

### **Household Sorting, Local Wealth, and the Market for Homes Near Diverse Schools (Job Market Paper)**

I analyze mortgage loans and home values from 2000-2014 to study housing markets and household sorting in neighborhoods near racially diverse schools. Using a national sample of over 3,600 middle schools, I construct a measure of school demographic diversity and estimate how home values and mortgage loan amounts change as diversity increases. For identification I isolate variation in school demographics associated with the quasi-random timing of rental housing development under the Low-Income Housing Tax Credit (LIHTC) program. I find that mortgage values rise by nearly 6.7%, holding median home values constant and controlling for changes in local income levels and home buyer socioeconomic characteristics. The magnitude of the effect is consistent for white, black, and Hispanic home buyers, and coincides with a decrease in home values of 2.5% near diversifying schools. The effect is reversed for white home buyers near diverse schools in low-income areas, who borrow less for housing holding home values constant. I present two explanations for these findings, both which shed light on neighborhood wealth, down payment ability, and the consequences of household sorting over local amenities.

### **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.

## **Future Work**

In my future research I will further explore the determinants of neighborhood quality at a local level, and how these measures influence the racial demographics of a neighborhood. One of my early stage projects with Elora Raymond uses a boundary discontinuity design to study how differences in state landlord-tenant laws affect local eviction rates. Another project with Elizabeth Luh from University of Houston uses microdata describing the relationship between increasing police interactions and the educational attainment of local residents. At Georgia Tech I would contribute skills in data management and quantitative methods, to collaborate on projects studying the demand for affordable housing, market-based and legislative incentives for neighborhood development, and the connection between housing instability and educational outcomes.

## **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.