



**Upward Economic Mobility Among Blacks, Whites, and Hispanics
in Forsyth County, NC: A Descriptive Analysis**

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EXECUTIVE SUMMARY

Forsyth County, NC is the third lowest ranked county in the United States for upward economic mobility. A census tract-level correlational analysis is carried out on the mobility rates for the three largest demographic groups in Forsyth County – blacks, whites, and Hispanics, and various demographic, economic, and geographic variables. For blacks, mobility rates are the most strongly correlated with the tract’s employment rate, for whites, rates are most strongly correlated with the fraction of people that are college educated, and for Hispanics, the strongest correlate is mean commute time to work. Population density is negatively correlated to black mobility rates, while it is positively correlated to Hispanic mobility rates. Thus, mobility rates of certain groups are sometimes correlated, with varying degrees of strength, to different variables. Hence, there is not a “one size fits all” approach to understanding or promoting economic mobility.

INTRODUCTION

At face value, the Forsyth County appears to be thriving and a fantastic place for achieving the American Dream. Winston-Salem is the state's fifth-largest municipality. The city has experienced a 33 percent increase in "professional and business services" workers over the last 10 years, while North Carolina as a whole experienced only a 22 percent increase.¹ Winston-Salem has both Fortune 500 and 1000 companies, well-respected colleges and universities, and nonprofits and foundations that have long helped people improve their lives. But it is still very difficult for many low-income residents to climb the economic ladder. According to relevant estimates, Forsyth County is the third lowest ranked county in the United States (U.S.) for upward economic mobility.² In fact, the county is third from the bottom, out of over 3,000 counties, in terms of the probability that a child born into poverty will eventually escape it later in life.³ This is a fairly astounding finding, especially when placed alongside the county's positive characteristics.

The Center for the Study of Economic Mobility (CSEM) has examined possible contributing causes to Forsyth County's low mobility rates, such as the effectiveness of the public bus system, and the quality of local public schools.⁴ Findings demonstrate that these sources have indeed contributed to the overall difficulty that low-income and underprivileged residents have at

¹ Bureau of Labor Statistics. (2020). State and Area Employment, Hours, and Earnings (2010-2020) [Time Series]. Retrieved from <http://data.bls.gov>

² Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity? The geography of intergenerational mobility in the United States. *The Quarterly Journal of Economics*, 129(4), 1553-1623.

³ *Id.* at 2.

⁴ Richardson, C. (2019). Why is Economic Mobility So (Surprisingly) Low in North Carolina? CSEM Policy Brief, 1:1 Spring 2019; Blizard, Z (2018). Economic Mobility in Winston-Salem/Forsyth County, NC: A Closer Look into Employed Bus Riders' Lives, Ambitions and Missed Opportunities to Climb the Economic Ladder. CSEM Working Papers in Transportation Series, no. 1: November. Published at Center for the Study of Economic Mobility, Winston-Salem State University; Blizard, Z. and Richardson, C. 2020. The Cost of Long Commutes: How do Female Bus Riders Fare Differently? The Case of Forsyth County, NC. *Academy of Business Research Journal*, 1; Richardson, C. (2020). "3 Surprising Challenges Fragile Community Residents Experience." Blogpost at the *Center for Advancing Opportunity*; Blizard, Z. (2019). Teachers, Disadvantaged Students, and School Performance: The Case of Forsyth County Elementary Schools. CSEM Policy Brief, 1:2; Blizard, Z. D. (2020). Has the Allocation of Certain Teachers Impacted Student Achievement and Upward Economic Mobility? The Case of Forsyth County, NC Elementary Schools. *Education and Urban Society*, 0013124520972678.

climbing the economic ladder. For example, employed bus riders in Winston-Salem are significantly impacted by their reliance on the city's public transportation. As Richardson writes in a paper published by CSEM in 2019, "the potential lost wages are substantial for an individual working full-time, typical for most employed bus riders. With a surveyed average wage of \$10.14, individuals are missing out on \$87 per week, \$348 per month or \$4,360 per year."⁵ In a related paper examining the same data, it was found that nearly half (49%) of employed bus riders have had to reject better job offers from other companies because it was located too far from established bus routes. Many variables, sometimes surprising ones, are more determinative of upward mobility than is often suspected.⁶ Hence, upward mobility, like any social outcome, is incredibly complex.

There are no simple answers to why mobility rates are low in some areas, yet high in others. The most intuitive explanations do not explain nearly as much of the situation as some people think. For example, some may propose that concentrated poverty is the primary culprit for low mobility rates. Indeed, Forsyth County's poverty rate is in the seventy-third percentile of the U.S. at 20 percent.⁷ A 2014 study identified Winston-Salem as one of the cities with the fastest growth rates in concentrated poverty in the entire country.⁸ However, there are many areas across the U.S. with high rates and concentrations of poverty but also high rates of economic mobility, like King's County, New York, which has a poverty rate of 23 percent, but 12 percent of low-income children ended up in the top 20 percent of the household income distribution.⁹ Only 5 percent of Forsyth County children ended up at the same income level. Hence, poverty and concentrations of it are not the whole story. Adding to the complexity is that mobility rates at the tract level seem to differ

⁵ *Id.* at 4.

⁶ *Id.*

⁷ See The Opportunity Atlas generated by Chetty et al 2018.

⁸ Kneebone, E. (2014). The growth and spread of concentrated poverty, 2000 to 2008-2012. *The Brookings*.

⁹ *Id.* at 5.

across different groups of people and are impacted by different sets of variables.

In this study, a census tract-level analysis is done on the mobility rates for Blacks, whites, and Hispanics. For Blacks, mobility rates are most strongly correlated with the tract's employment rate. For whites, rates are most strongly correlated with the fraction of people that are college educated. For Hispanics, the strongest correlate is mean commute time. Population density is negatively correlated to Black mobility rates, while it is positively correlated to Hispanic mobility rates. Hence, mobility rates of certain groups are sometimes correlated, with varying strength, to different variables.

BACKGROUND LITERATURE

The fraction of upwardly mobile people in the U.S. has been declining since at least the 1940s.¹⁰ During the early 1940s, just over 90 percent of all domestic-born children would go on to earn higher incomes than their parents. By the 1980s, however, only half of children would go on to achieve this.¹¹ Studies show that some areas in the U.S. offer less mobility than most other developed countries.¹² Hence, in some areas of the country, like the South, achieving the American Dream can be extremely difficult.

Economic mobility rates differ widely across the U.S., by metropolitan area, commuting zone, county, and even census tract.¹³ An undeniable finding is that the Southern U.S. has some of the lowest rates of upward mobility in the entire country.¹⁴ Low mobility areas like the Southern U.S. tend to have more residential segregation, more income inequality, worse primary schools, lower

¹⁰ Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., & Narang, J. (2017). The fading American dream: Trends in absolute income mobility since 1940. *Science*, 356(6336), 398-406.

¹¹ *Id.* at 9.

¹² Chetty, R., & Hendren, N. (2018b). The impacts of neighborhoods on intergenerational mobility I: Childhood exposure effects. *The Quarterly Journal of Economics*, 133(3), 1107-1162.

¹³ Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity? The geography of intergenerational mobility in the United States. *The Quarterly Journal of Economics*, 129(4), 1553-1623.

¹⁴ *Id.* at 11.

social capital, and lower family stability.¹⁵ Researchers find that the earlier a child moves to a better neighborhood, the better his/her outcomes tend to be.¹⁶ These differences are observed between siblings within the same family unit. Thus, the place a child is raised has causal effects on his/her long-term economic outcomes.

In a 2020 study, scholars analyzed economic mobility rates across races in the U.S.¹⁷ According to their findings, American Indians and blacks have lower rates of upward mobility and higher rates of downward mobility than whites. The researchers emphasize that this pattern leads to persistent disparities from generation to generation.¹⁸ In the same study, they show that the income gap between whites and blacks is a result of the differences in employment rates and wages between black and white men, conditional on parent earnings. The mobility rates of Hispanics are closer to those of whites, leading the income gap between them to shrink over generations.¹⁹ Areas with narrower black-white income gaps tend to have low poverty rates, low levels of measured implicit racial bias towards blacks among whites, and a high prevalence of fathers present in the lives of black boys. Black males who move to these areas earlier in their childhood have significantly better outcomes.²⁰

Social scientists have studied the factors that influence whether a person becomes an inventor in the US.²¹ The study was not explicitly focused on economic mobility, nevertheless, it is relevant to economic mobility in that it characterizes a mechanism by which mobility may be improved or

¹⁵ *Id.*

¹⁶ Chetty, R., & Hendren, N. (2018b). The impacts of neighborhoods on intergenerational mobility I: Childhood exposure effects. *The Quarterly Journal of Economics*, 133(3), 1107-1162; Chetty, R., Hendren, N., & Katz, L. F. (2016). The effects of exposure to better neighborhoods on children: New evidence from the Moving to Opportunity experiment. *American Economic Review*, 106(4), 855-902.

¹⁷ Chetty, R., Hendren, N., Jones, M. R., & Porter, S. R. (2020). Race and economic opportunity in the United States: An intergenerational perspective. *The Quarterly Journal of Economics*, 135(2), 711-783.

¹⁸ *Id.* at 15.

¹⁹ *Id.*

²⁰ *Id.*

²¹ Bell, A., Chetty, R., Jaravel, X., Petkova, N., & Van Reenen, J. (2019). Who becomes an inventor in America? The importance of exposure to innovation. *The Quarterly Journal of Economics*, 134(2), 647-713.

inhibited. The researchers show that young children who move to areas with high rates of inventors are more likely to become inventors themselves and that these effects are gender specific.²² Hence, young girls are more likely to become inventors if they move to a neighborhood with higher rates of women inventors. A similar relationship might exist regarding race. This type of exposure effect undoubtedly affects other dimensions in addition to inventiveness. For example, a child may be more likely to become a college graduate if she moves to a neighborhood with more college educated people. These exposure effects may be driven by mechanisms like role model or network effects, which can promote or hinder economic mobility.²³

A team of geographers and urban planners have found that a metropolitan area's compactness is related to upward mobility rates.²⁴ They show that sprawling development has both direct and indirect effects on economic mobility, with the indirect effects stemming from sprawl's impact on poverty. They argue that sprawl's direct effect on mobility is likely driven by job accessibility, which they do not actually measure.²⁵ A study focused on Forsyth County specifically, found that the positive impact of compactness on upward economic mobility even holds at the census tract level.²⁶ Regarding job accessibility and economic mobility, researchers have examined this intersection in Forsyth County, specifically.²⁷ They make the case that current development plans will make it difficult for low-income residents without personal vehicles to access new employment hubs, because these hubs will be located on the city's periphery. This will likely

²² *Id.* at 19.

²³ *Id.*

²⁴ Ewing, R., Hamidi, S., Grace, J. B., & Wei, Y. D. (2016). Does urban sprawl hold down upward mobility?. *Landscape and Urban Planning*, 148, 80-88.

²⁵ *Id.* at 22.

²⁶ Blizard, Z. and Smith, R. (in press). Investigating Urban Form and Economic Mobility in Forsyth County, NC. *Journal of Planning Education and Research*.

²⁷ Madjd-Sadjadi, Z., & Zeoli, M. (2019). The Importance of Place Prosperity in Economic Mobility: An Examination of Occupation/Industrial Mismatch in Forsyth County. *Political Economy in the Carolinas*, 2, 29-60.

contribute to persistently low mobility rates in the county.²⁸

FINDINGS

Table 1 highlights the key findings from the correlation analysis related to mobility rates and census tract-level economic characteristics. Like the mobility estimates for all, white economic mobility is similarly correlated to mean household income, though this is not the case for black and Hispanic mobility. Regarding poverty, all, black, white, and Hispanic mobility are all negatively correlated with it, but the estimate for Hispanic mobility is insignificant. All, black, white, and Hispanic mobility are all positively correlated with gross rent, but only the estimate for all and white mobility are significant. Interestingly, all, white, and Hispanic mobility are positively and significantly correlated with the share of workers with commutes less than 15 minutes, while the estimate for black mobility is insignificant. Lastly, the correlation between the employment rate and black mobility is positive and significant. It is positively, but insignificantly, related to all and Hispanic mobility. The employment rate is negatively related to white mobility, though the estimate is highly insignificant.

²⁸ *Id.* at 24.

Table 1. Correlations Between Income Mobility and Economic Covariates in Forsyth County, NC Census Tracts

	Upward Economic Mobility Rates			
	All (N = 93)	Blacks (N = 81)	Whites (N = 85)	Hispanics (N = 30)
Mean Household Income (\$)	positive***	positive	positive***	positive
Median Gross Rent (\$)	positive***	positive**	positive	positive
Employment Rate	positive	positive***	negative	positive
% of Residents in Poverty	negative***	negative***	negative**	negative
% of Workers with Commutes < 15 Mins	positive***	positive	positive***	positive*

*** 99% Statistical Confidence Level

** 95% Statistical Confidence Level

* 90% Statistical Confidence Level

Table 2 highlights the key findings from the correlation analysis related to mobility rates and census tract-level social characteristics. All, white, and Hispanic mobility are positively and significantly correlated to the fraction of people that are college educated. Black mobility is positively correlated to this too, though insignificantly. Regarding the share of households that are single parent headed, the correlation between it and general economic mobility (all) is negative and significant. Nevertheless, regarding the mobility of blacks, whites, and Hispanics, the correlation is insignificant. All and white economic mobility are positively and significantly correlated with social capital.²⁹ The definitions of social capital vary slightly, however, the

²⁹ The Census mail return rate is a commonly used proxy for social capital. Martin and Newman advocate its use as a proxy in their 2015 paper published in *American Politics Research*. Martin and Newman (2015) demonstrate the validity of the measure in its association “with aggregated measures of many different self-reported behaviors and attitudes that directly indicate social capital in a community” (p. 637). They replicate their findings “across three large data sets, and a broad variety of communities throughout the United States using the best available means of

Organization for Economic Co-operation and Development (OECD) defines social capital as the “networks together with shared norms, values and understandings that facilitate co-operation within or among groups.”³⁰

Table 2. Correlations Between Income Mobility and Social Covariates in Forsyth County, NC Census Tracts

	Upward Economic Mobility Rates			
	All (N = 93)	Blacks (N = 81)	Whites (N = 85)	Hispanics (N = 30)
Fraction of People Age ≥ 25 that are College Educated	positive	positive	positive***	positive**
% of Households that are Headed by a Single Parent	negative	negative	negative	negative
Social Capital	positive	positive	positive***	positive

*** 99% Statistical Confidence Level

** 95% Statistical Confidence Level

* 90% Statistical Confidence Level

Table 3 highlights the key findings from the correlation analysis related to mobility rates and census tract-level geographic characteristics. Regarding population density, interesting differences emerge. Black mobility and Hispanic mobility are both significantly correlated with population density. However, black mobility is negatively correlated with population density, while Hispanic mobility is positively correlated with it. Similar results emerge for the correlations with job density, though the results are insignificant. Regarding mean commute time, all, white,

aggregating these survey responses to allow for accurate validation at the neighborhood level” (p. 637). The Census return rate has been deployed as a proxy for social capital in recent studies, like: Bender, A. M., Kawachi, I., Jørgensen, T., & Pisinger, C. (2015). Neighborhood social capital is associated with participation in health checks of a general population: a multilevel analysis of a population-based lifestyle intervention-the Inter99 study. *BMC Public Health*, 15(1), 694; Engbers, T. A., Thompson, M. F., & Slaper, T. F. (2017). Theory and measurement in social capital research. *Social Indicators Research*, 132(2), 537-558; White, A., & Trump, K. S. (2018). The promises and pitfalls of 311 data. *Urban Affairs Review*, 54(4), 794-823.

³⁰ Jean-Paul, F., & Martine, D. (Eds.). (2018). *For Good Measure Advancing Research on Well-being Metrics Beyond GDP: Advancing Research on Well-being Metrics Beyond GDP*. OECD Publishing.

and Hispanic economic mobility are negatively and significantly correlated with it. However, black economic mobility is positively related to it, though insignificantly.

Table 3. Correlations Between Income Mobility and Geographic Covariates in Forsyth County, NC Census Tracts

	Upward Economic Mobility Rates			
	All (N = 93)	Blacks (N = 81)	Whites (N = 85)	Hispanics (N = 30)
Population Density	negative	negative**	positive	positive*
Job Density	positive	negative	positive	positive
Mean Commute (Mins)	negative***	positive	negative***	negative**

*** 99% Statistical Confidence Level

** 95% Statistical Confidence Level

* 90% Statistical Confidence Level

Previous research at the county level has found there to be five correlates that are most consistently and robustly correlated with various measures of economic mobility.³¹ The five include income segregation and inequality, residential segregation, social capital, family stability, and quality of primary schools. To acknowledge these findings, a closer look is taken into four of them for Forsyth County. To examine these characteristics at the tract-level, a series of line graphs are created which visually present the estimated linear relationship between them and our four types of mobility rates.³² Figure 1 shows the estimated simple linear relationship between tract-level mobility rates and the share of minorities.³³ The fitted lines show inverse relationships

³¹ *Id.* at 3.

³² Simple linear relationship means simple linear regression model. The fitted lines of the regression model are plotted.

³³ Tract-level estimates of segregation are extremely difficult, since most segregation indices rely on the aggregation of smaller units up to a larger unit. Considering the fact that census tracts are typically the smallest unit of analysis,

between mobility rates and the share of minorities in a tract. The slope is flattest for Hispanic mobility, and steepest for white mobility. This is likely driven by the fact that tracts more heavily concentrated by non-white residents also tend to have higher poverty rates, while tracts with larger shares of whites tend to be wealthier and have lower rates of poverty.

Figure 1. Upward Mobility Versus Racial Composition in Forsyth County, NC Census Tracts

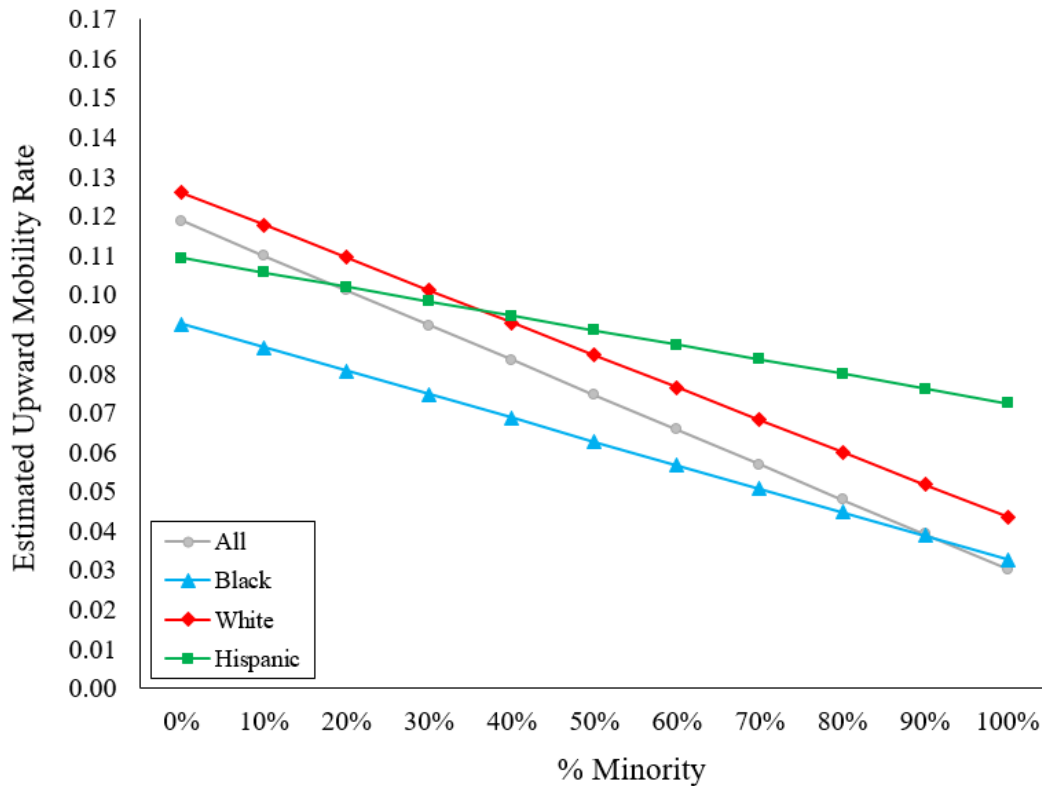


Figure 2 shows the estimated simple linear relationship between tract-level mobility rates and the share of residents in poverty. Similar to the correlations, the fitted lines show inverse relationships between mobility rates and the share of residents in poverty in a tract. The slopes are nearly identical for blacks, whites, and Hispanics.

no segregation indices are available at the tract level. The share of minorities does not expressly measure segregation. However, it does approximate it, though imperfectly.

Figure 2. Upward Mobility Versus Poverty Composition in Forsyth County, NC Census Tracts

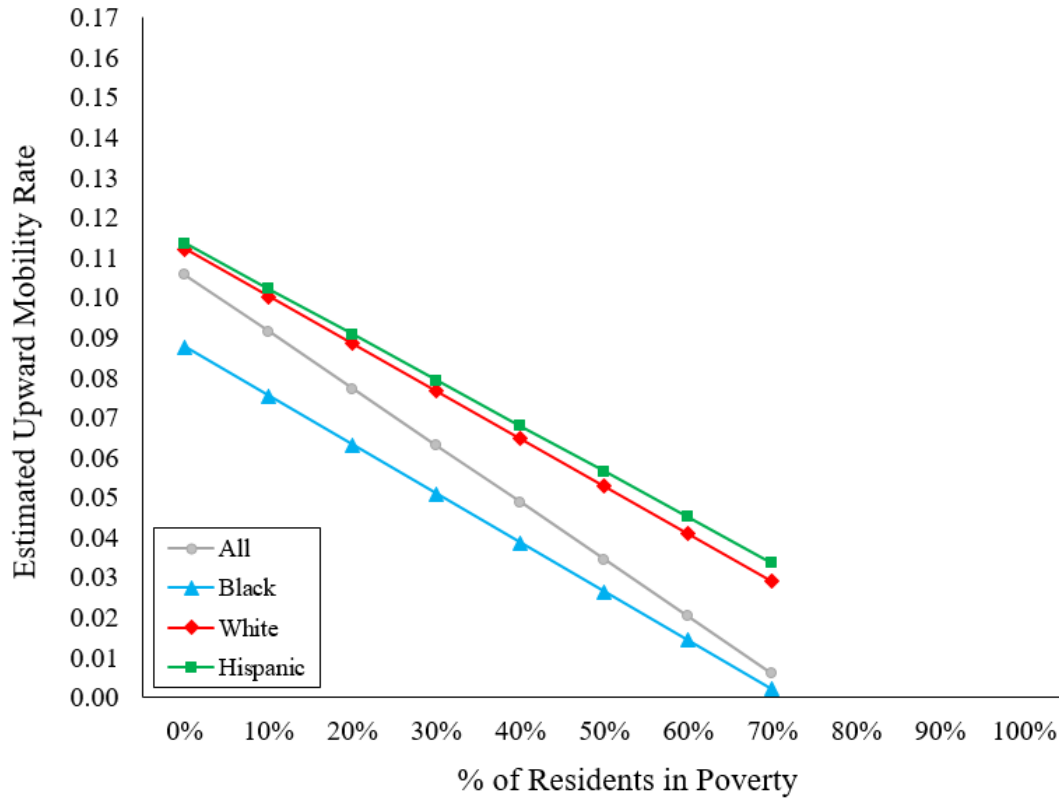


Figure 3 shows the estimated simple linear relationship between tract-level mobility rates and the share of single parent households. Similar to the correlations, the fitted lines show inverse relationships between mobility rates and the share of single parent households in a tract. The slope of the fitted line is steepest for whites and flattest for Hispanics.

Figure 3. Upward Mobility Versus Family Stability
in Forsyth County, NC Census Tracts

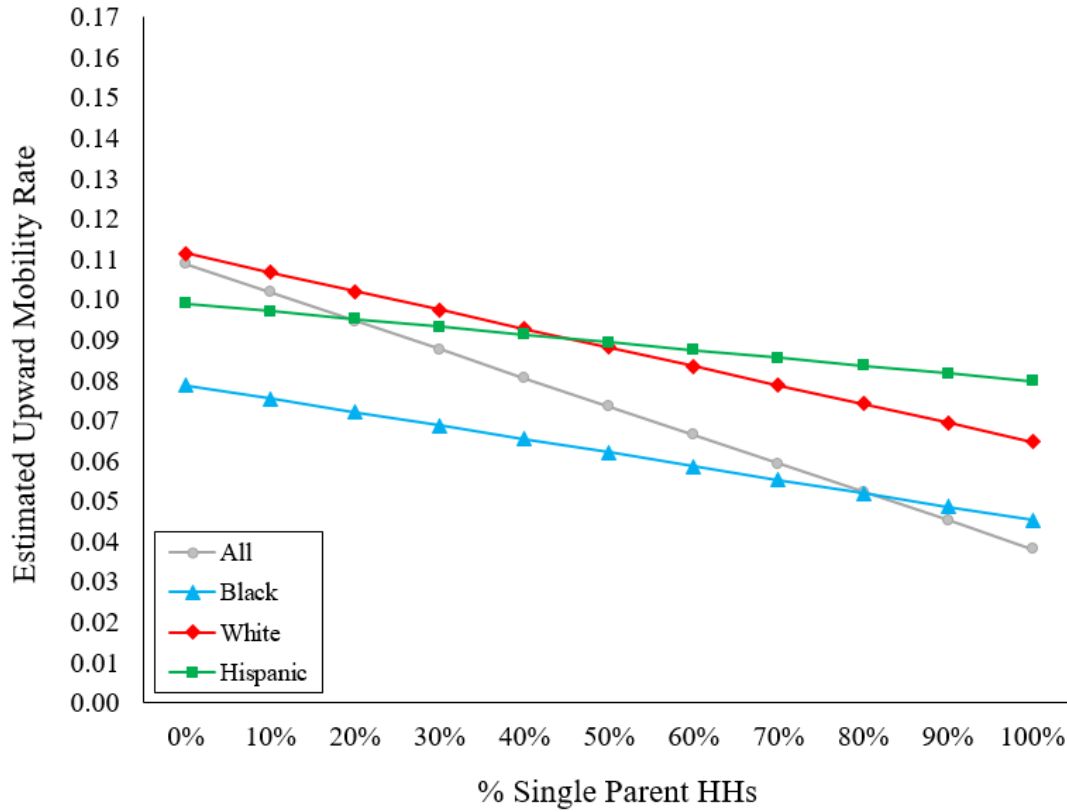
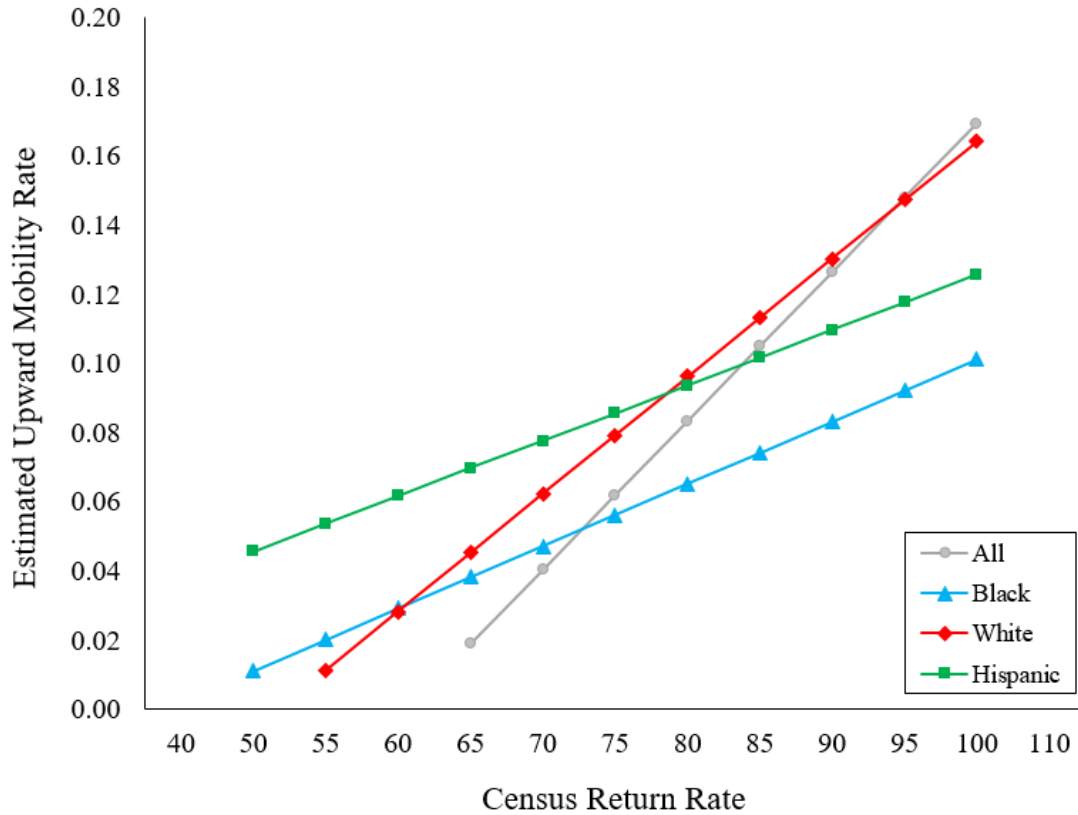


Figure 4 shows the estimated simple linear relationship between tract-level mobility rates and the census return rate. Like the correlations, the fitted lines show positive relationships between mobility rates and the Census return rates. The slope is steepest for that of white mobility. The slope of the fitted lines are very similar for Hispanics and Blacks.

Figure 4. Upward Mobility Versus Social Capital
in Forsyth County, NC Census Tracts



DISCUSSION

Characteristics of a census tract, like the *mean household income* or the *share of single parent homes*, are understood as measurements that reflect the aggregate choices of individuals and families within that tract, and the set of constraints that they must consider when making them. The interaction of race and ethnicity with these measurements is highly complex and difficult to specify.³⁴ It is important to emphasize that, from a statistical analysis perspective, race and ethnicity are sometimes proxies for measurements that are difficult to delimit, such social networks and personal backgrounds. Nevertheless, there are stark differences in the correlates of mobility

³⁴ Loury, G. C., Modood, T., & Teles, S. M. (2005). *Ethnicity, social mobility, and public policy: comparing the USA and UK*. Cambridge University Press; Kim, Y.-C., & Loury, G. C. (2019). To be, or not to be: stereotypes, identity choice and group inequality. *Journal of Public Economics*, 174, 36–52.

amongst blacks, whites, and Hispanics in Forsyth County, suggesting that members of differing groups are making different choices and are subject to substantively different constraints.

For instance, the only statistically significant correlation between census tract employment rate and mobility is that for blacks. This is surprising because the correlation is similarly strong for overall mobility at a national level.³⁵ For Hispanic mobility in Forsyth County, the only statistically significant correlate is the mean commute time to work, suggesting an idiosyncrasy for Hispanics in the county. For whites, many of the intuitive promoters of upward mobility are significant, like *mean household income* and *fraction of college educated adults*. Interestingly, correlates that are most significant for whites tend to be insignificant for blacks.

In Forsyth County, the isolated strength of the employment rate and mobility for blacks suggests that living amongst more employed adults benefits black children at a higher rate than non-black children. A potential reason for this could be that the influence of education is weaker for black children—as indicated by the weak correlation between the fraction of college educated adults and black mobility.³⁶ Additionally, black children are more likely to attend worse schools, compared to other groups of children.³⁷ Human or non-human capital that is to be transferred from one generation to the next may be largely sourced in the status of employment for black adults.

The negative correlation between mean commute time and mobility is significant for both whites and Hispanics. The negative correlation is especially strong for Hispanics. It is unclear why a significant correlation is absent for blacks, and why the one present is positive. It may be the case that as the mean commute time of a tract increases, the more likely it is that the adults in that

³⁵ Chetty, R., Friedman, J. N., Hendren, N., Jones, M. R., & Porter, S. R. (2018a). The opportunity atlas: Mapping the childhood roots of social mobility (No. w25147). National Bureau of Economic Research.

³⁶ This is further supported by the fact that the correlation between a census tracts' share of black populace and its fraction of college educated adults is -0.56 and is statistically significant.

³⁷ Fryer Jr, R. G., & Levitt, S. D. (2004). Understanding the black-white test score gap in the first two years of school. *Review of economics and statistics*, 86(2), 447-464.

tract rely on public transportation. Moreover, the correlation between mean commute time in year 2000 and the fraction of college educated adults of the same year is statistically significant at -0.45. And if one is college educated, they are less likely to use public transportation. So, the correlation between mean commute time and mobility may be picking up on a relationship between education and transportation mobility.

Different demographic groups are likely faced with different constraints. The strong, positive correlation between employment rate and Black mobility indicates that there is an interaction between sets of constraints and labor market decisions in Black communities. In the age of COVID-19, intervention or promotion of the traditional labor market may be infeasible. Local governments could promote and facilitate integration into online labor markets such as Amazon Mechanical Turk and Upwork in order to increase employment rates. Regarding Hispanic mobility, better data on public transportation use in Hispanic communities could reveal whether any substantive connection exists between the mean commute time and Hispanic mobility.

This area of study is particularly important because a greater understanding of the ways in which the mobility of different demographic groups is impacted is highly relevant to the big three societal players – businesses, individuals, and government. Businesses employ a diverse population of people. These businesses benefit from being able to employ qualified people from a wide variety of demographic backgrounds. Hence, it stands to reason that businesses would desire to see various groups of people better their lot, attain greater education, and perhaps become more viable job candidates. Individuals themselves certainly benefit. A greater understanding of this phenomenon can better inform policy aimed at addressing economic mobility in certain communities, who will then benefit from the improvements, resulting in better outcomes. Governments certainly benefit too. As people climb the income ladder, they naturally earn more and likely pay more in taxes.

Hence, the government earns more tax revenue from the growing population of higher tax payers.

CONCLUDING REMARKS

This paper highlights the mobility rates of different groups of people and how they are correlated to various racial, social, economic, and geographic variables. Breaking down measurements of economic mobility by demographic groups has revealed that different groups may rise out of poverty at different levels and in different ways. The census tract-level results suggest the following key findings:

- Black mobility rates are the most strongly correlated with the census tract's employment rate. Black mobility rates are also significantly correlated with a tract's share of poverty, median gross rent, and population density.
- White mobility rates are the most strongly correlated with the census tract's fraction of college educated residents. White mobility rates are also significantly correlated with a tract's mean household income, share in poverty, share of workers with commutes less than 15 minutes, social capital, and mean commute time to work.
- Hispanic mobility rates are the most strongly correlated with the census tract's mean commute time to work. Hispanic mobility rates are also significantly correlated with a tract's share of workers with commutes less than 15 minutes, and the fraction of college educated residents.
- Black mobility rates are negatively and significantly correlated to a tract's population density, while Hispanic mobility rates are positively and significantly correlated to it.

Like all social outcomes, economic mobility is highly complex. Though studying economic mobility is a challenging endeavor, it is one that CSEM is dedicated to.