**Section I: Introduction and Literature Review**

The topic of income inequality is one that has captured the attention and inflamed the passions of the general public throughout history, especially in recent years. The Occupy Wall Street movement of 2011 demonstrated the rage that many Americans felt about an economic system perceived as rigged to benefit the top 1% of wealthy Americans. Great and growing differences in earnings and wealth between members of society has the ability to incite resentment, fear, and premature death. Indeed, the case was made in the American Journal of Public Health by McDonough, et al, that low income and income instability can be linked to higher mortality rates (2011).

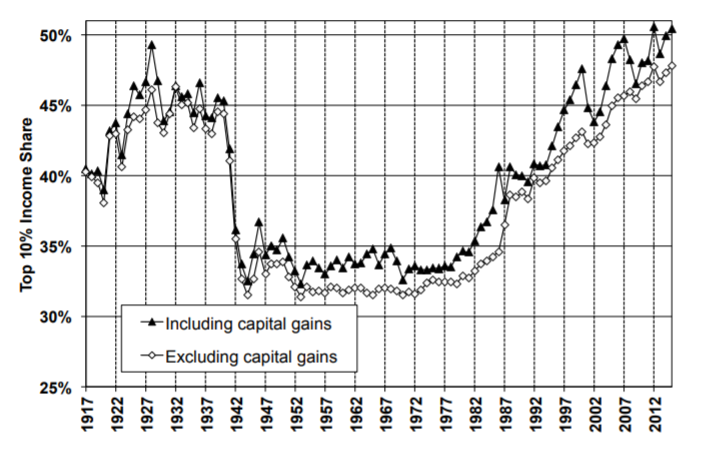
Public policymakers have every incentive to pay close attention to trends of and attitudes about extreme income disparities, as the consequences of rampant inequality can be a danger to society, whether locally, nationally, or globally. This paper will focus on causes of income inequality at the local level in the states of Ohio, Indiana, and Kentucky. We will examine the root causes of income inequality at the county level within these three states and model the impacts of various macroeconomic factors that have been postulated to drive variance in economic equality.

The GINI coefficient, developed by Italian statistician Corrado Gini in 1912, will function as our dependent variable. The coefficient, which ranges from zero (perfect equality in within a population) and one (all wealth or income in a population held by one individual). Using our county-level data gleaned from the U.S. Census bureau and other sources, we will attempt to demonstrate the relationship between economic growth and income inequality.

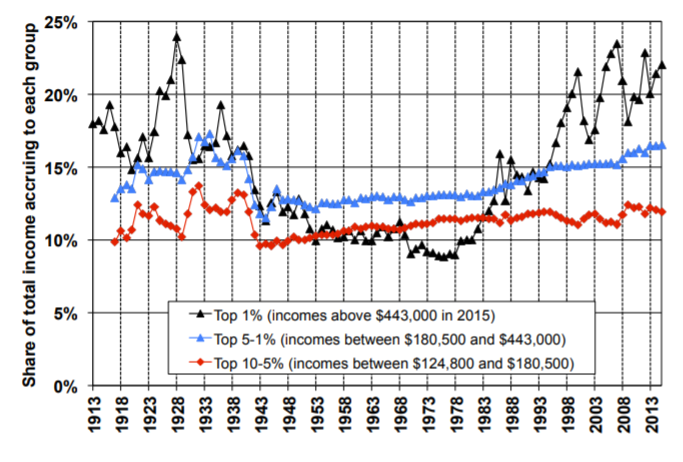
In the United States, the study of income inequality can be traced back to the early 20th century. Early works by Edwin Cannan’s “Division of Income” (1905) and H.J. Davenport’s “Value and Distribution” (1908) mark the earliest mentions of the issue of income distribution. For decades thereafter, most literature focused on methods of measuring inequality. Shortly after World War II, emphasis began to shift from simply measuring inequality to its causes. Simon Kuznets (1955) discussed the inherent difficulties of pinpointing the “character and causes of long term changes in the personal distribution of income” due to “looseness in definitions, unusual scarcity of data, and pressures of strongly held opinions” in “Economic Growth and Income Inequality.”

More recently, the focus has shifted to economic, political, and societal forces driving the mostly consistent growth in inequality over the last few decades. Nationally, a study out of UC Berkely (Saez, 2016) tracked the rise in income share of the top 10% and top 1% of incomes over nearly the last century. As can be seen in Figure 1 below, the top 10% of earners in the U.S. have never accounted for less than 30% of all income nationally. Further, the top earning decile recently accumulated as much as half of all income. Figure 2 splits out the top 5% and top 1% shares to further illustrate the growing increase in the rate of income dominance amongst the very wealthiest Americans.

*Figure 1: The Top Decile Income Share (1917-2015)*



*Figure 2: Decomposing the Top Decile US Income Share into 3 Groups (1913-2015)*

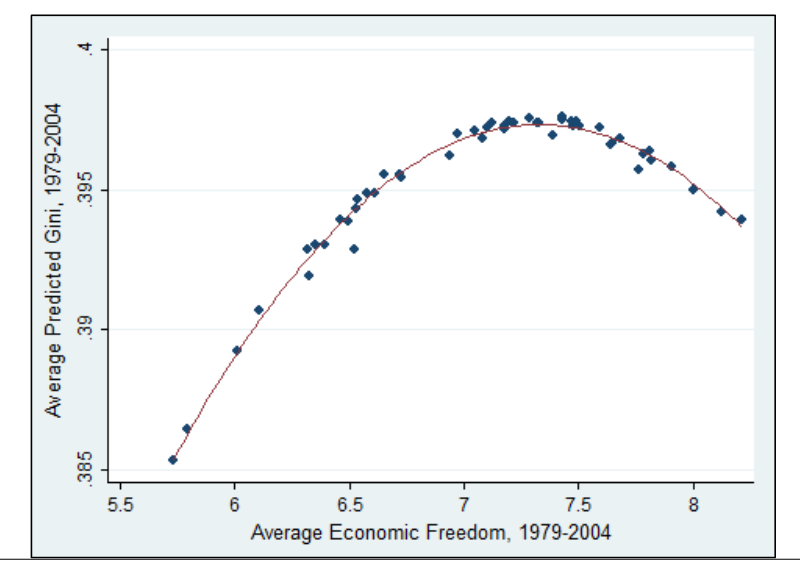


Various studies have localized the efforts to understand income inequality’s effects. The work of Brian Glassman of the U.S. Census Bureau (2017) used MSA data to analyze where along the income distribution inequality takes place. Within these metro areas, Glassman used several percentile ratios of income such as the 90-10 ratio, the 99-90 ratio, the 90-50 ratio, and the 50-10 ratio. It allowed him to discover that metro areas of varying sizes (small, medium, and large) tend to have larger ratios than others at differing income levels.

Levernier, Rickman, and Partridge (1995) examined economic data for the contiguous 48 states in the U.S. and studied inequality trends at a regional level. Key findings of their research were that some notable causes of inequality increase during the 1980’s were due to heightened international immigration and the rise of households headed by a single female. Additionally, their research supported arguments that factors such as greater high school attainment, labor force participation, goods-producing employment share, and transfer payments aided in reducing or mitigating the rise of income inequality.

The work of Bennett and Vedder (2013) also used state level data. Their research postulates that increasing degrees of economic freedom is associated with lower degrees of income inequality. Building on the work of Bergen (1999), Scully (2002), and Ashby and Sobel (2008), they argued that the relationship between economic freedom and inequality was represented by an inverse U-curve. At low levels of economic freedom, a marginal increase will yield higher inequality. However, as economic freedom continues to rise, marginal increases will begin to lower inequality. Figure 3 below illustrates this relationship.

*Figure 3: GINI coefficients as a function of Average Economic Freedom (1979-2004)*



Bennett & Vedder

<https://journals.sagepub.com/doi/pdf/10.1177/016001769501800305?casa_token=408gLj3fP-8AAAAA:j0EGJguJj_u2pd3HGQQhDDDRsYuqqf1JhnblR4eylm4_9Ifwqk-OtZARhD5jv-b-nti2wmYd5w>

Levernier & Rickman & Partridge

<https://ageconsearch.umn.edu/bitstream/243947/2/v43_n1_a5_bennett_vedder.pdf>

Glassman

<https://www.census.gov/content/dam/Census/library/working-papers/2017/demo/SEHSD-WP2017-41.pdf>

Kuznets

<https://www.jstor.org/stable/pdf/1811581.pdf?refreqid=excelsior%3A5a1b7a97a79b79320f9062cb058a5a8e>

McDonough

<https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.87.9.1476>

Saez

<https://eml.berkeley.edu/~saez/saez-UStopincomes-2015.pdf>