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# POVERTY, OPPORTUNITY, AND WELL-BEING IN THE UNITED STATES

Nathanael D. Peach<sup>1</sup>, Emily J. Mavrakis<sup>2</sup>

## ABSTRACT

Economic opportunity varies dramatically across the United States. In this study the Opportunity to Flourish Index (OFI) is created to determine the level of opportunity United States cities afford those at the bottom of the income distribution. Indicators within the index measure disposable income, access to financial services, diet, educational attainment, unemployment, physical well-being, and family structure. The OFI's relationship with standard measures of economic growth and economic mobility is also evaluated. The OFI is not correlated with measures of income and population growth, suggesting, that in the short-run growth and opportunity are not necessarily complementary. The OFI is strongly correlated with intergenerational economic mobility. Individuals that live in cities which have higher levels of opportunity are more likely to have children that move up the income distribution. The OFI provides stakeholders in poverty alleviation a means to evaluate and promote equality of opportunity in United States cities.

Keywords: poverty, opportunity, city, index, metropolitan statistical area

JEL: I32, R11, R58

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## 1. INTRODUCTION

Despite substantial increases in national income over time the opportunity to escape poverty in the United States does not appear to be improving. A larger share of the returns to economic growth are reaped by those at the top of the income and wealth distribution. With rare exception, real incomes for most Americans have been stagnant since the late 1970s. During this time the nation's poverty rate has remained stable. From 1970 to 2015 the mean poverty rate in the United States was 13.2%. On five occasions over this time period the poverty rate reached, or exceeded 15%: 1983, 1993, 2010, 2011, and 2012 (U.S. Census Bureau, 2016a). In 2015, 43 million Americans, 13.5% of the nation's population, lived below the poverty line (U.S. Census Bureau).

A myriad of factors, from globalization to inadequate educational opportunities, contribute to the persistence of poverty in the United States. Each of these factors prompts a response; a "solution" to mitigate how the factor contributes to poverty. Most responses to economic need have a political component and thus reflect a political ideology. Political and economic progressives tend favor state initiated responses while conservatives typically advocate market-based approaches. While there is not a consensus regarding policies related to poverty, there is a substantial amount of agreement. AEI/Brookings (2015) maintains that there is strong agreement across the political spectrum that the opportunity to work in well-paying jobs, access to quality education, and strengthening families are integral to addressing poverty in the United States.

It is interesting that these areas of consensus align well the goals of the capabilities approach to development. The capabilities approach draws extensively from the work of Martha Nussbaum, Amartya Sen, and others. This framework asserts that expanding the capabilities, or

freedoms, that an economy affords its citizens is one of the fundamental ends of economic progress (Nussbaum, 2003; Sen, 1999). (Of course advocating for freedom as a goal does not suggest that material conditions are unimportant.) The capabilities approach advocates for the expansion of capabilities on both moral and economic grounds. Increasing capabilities is a moral imperative because freedom is considered to be a human right. All citizens ought to have the opportunity to realize their full potential, both in and out of the market. The economic justification is motivated by the belief that a higher levels of opportunity lead to a more efficient use of resources. As individuals are better able to utilize their skills, talents, and abilities the economy performs better.

In this study the Opportunity to Flourish Index (OFI) is created to measure the quality of life and opportunity to escape poverty in the United States. The economic reality of those at the bottom of the income distribution are typically ignored in quality of life indexes. The most populous Metropolitan Statistical Areas (MSAs) in the United States are the OFI's geographical unit of analysis. While the aforementioned macroeconomic trends are important there is substantial variation in economic opportunity within the United States. Additionally, large MSAs generate a tremendous amount of economic activity; well over half of national GDP in a given year. Unfortunately data availability precludes a longer list of cities. (Data are presented in Section 2 of the paper. The datasets generated during the current study are available upon request.) The OFI considers the opportunity to escape poverty from multiple vantage points. Contemporaneous opportunity is represented with measures of real income, unemployment, and physical health. Access to financial services and a healthy diet are also considered. Future well-being is represented with family structure and education. "Current" and "future" are not meant to

indicate mutually exclusive categories. For many outcomes, from debt management to one's physical health, future outcomes are influenced by decisions made in the present.

The OFI provides a valuable dashboard to policy makers and citizens interested in helping those in need. Because the OFI is multifaceted it equips stakeholders with multiple ways to improve the quality of life of low income individuals. Improvement in any, or all, of the dimensions would result in meaningful improvements in well-being.

The paper proceeds as follows. Data applied and the literature motivating their selection are presented in Section 2. In Section 3 the methodology and results are outlined and discussed. Section 3 includes the OFI's relationship with key economic outcomes and economic mobility. The paper concludes with Section 4.

## 2. Literature and Indicators

Creating regionally focused development indexes has been an active area of inquiry for some time. Most of the studies in this literature fall into two broad methodological categories. Rosen's (1974) hedonic framework which applies econometric analysis to estimate weights and prices for various components of well-being and community attributes is popular. The objective nature of this approach is its primary strength; its weaknesses include the assumptions underlying the analysis, such as markets clearing, and the ease of interpreting results by non-economists. In the second approach the researcher defines quality of life and then chooses data to represent it. An advantage of this latter approach is its flexibility, transparency, and readily interpretable results. A weakness the potential for indicators to be chosen on an *ad hoc* basis. Indexes which rely on this latter approach are readily interpretable by interested citizens, policy makers, and city officials not trained in formal econometric analysis. The popularity of

*Bloomberg Businessweek.com*'s America's 50 Best Cities, *Forbes*' Livable Cities, and The Economist Intelligence Unit's livability rankings is a testament to the merit of this approach. It is worth noting that as new, and more extensive, data are made available the ways in which indexes are created are evolving. For example, Dubé and Brunelle (2014) create a quality of life index by applying continuous, rather than discrete, data.

Recognizing the strengths and weaknesses of each approach the OFI follows the indicators approach. Notable studies which follow this methodology include Ferrara and Nisticò's (2015) quality of life index for regions in Italy; Slaper, Hart, Hall, and Thompson's (2011) index of innovation; Stansel's (2013) economic freedom index; and Peach and Petach's (2016) Metropolitan Development Index. The OFI extends the literature on regional quality of life by considering, when possible, the particular circumstances faced by low income households. This contribution is important because, as previously mentioned, improvements in many economic indicators, such as per capita income, are silent on many distributional concerns. Due to the increasing amount of data connected to the income distribution the OFI is able to fill this gap in the literature.

We now turn our attention to the OFI's indicators, and the literatures which motivate their inclusion. Unless noted otherwise, all data are for 2014, measured at the MSA level, and apply the U.S. Census Bureau's (2016b) official poverty line. Measures which are most directly applicable to current well-being are presented first; well-being in the future is considered in the latter portion of Section 2. Each indicator's full definition can be found in Table 3 of the appendix.

The Great Recession devastated the labor markets those at the bottom of the income distribution are most likely to be employed in. For those at the top of the income distribution

labor markets were largely unaffected. In 2007, the average unemployment rate for those with less than a high school diploma was 7.1%; by 2010 it had climbed to 14.8% (U.S. Bureau of Labor Statistics, 2016). For those with a bachelor's degree or higher, unemployment actually declined from 2007 to 2010; 3.5% to 3.4% (U.S. Bureau of Labor Statistics). In the fourth quarter of 2009 the unemployment rate for the three lowest income deciles were 30.8%, 19.1%, and 15.32%, respectively (Sum & Khatiwada, 2010). For those in the eighth, ninth, and tenth deciles, unemployment was 5.0%, 4.0%, and 3.2%, respectively (Sum & Khatiwada).

Employment is foundational to economic prosperity and well-being. Dolan, Peasgood, and White (2008) discuss the extensive amount of studies in the subjective well-being literature that find unemployment decreases one's reported level of happiness. Securing consistent employment is a necessary condition for escaping poverty and an important dimension of well-being. The first indicator in the OFI is the opportunity to work in well-paying jobs. It is measured with the U.S. Census Bureau's unemployment rate for individuals with incomes under the poverty line.

Employment is only one aspect of relevant labor market outcomes; income being the second. *Ceteris paribus*, increases in disposable income correspond to higher levels of well-being. Unfortunately holding other factors constant in observing disposable income is not easy. Typically MSAs with the highest incomes have a high cost of living. In order to address the trade-off between income and cost of living the U.S. Bureau of Economic Analysis' (BEA) real per capita personal income (in chained 2009 dollars) is chosen as the second indicator. Real per capita personal income controls for national inflation and the cost of living within an MSA relative to other metro areas. Cities that have a relatively lower cost of living will have higher real per capita personal income than more expensive places. As a city-level measure real per

capita personal income captures the opportunity to earn a higher disposable income. It also captures variation in cost of living across cities.

Investing in human capital is one way to gain access to labor markets with higher wages and lower unemployment. The benefits to education are far reaching; from increasing subjective well-being to raising regional and national economic growth (Dolan, Peasgood, & White, 2008; Gottlieb & Fogarty, 2003; Iyer, Kitson, & Toh, 2005; Kahneman & Krueger, 2006). With regards to economic outcomes, perhaps the most tangible benefit to investing human capital is higher expected income. In 2015, the median weekly earnings for individuals with a bachelor's degree and a high school diploma were \$1,137 and \$678, respectively (U.S. Bureau of Labor Statistics, 2016). A difference of \$459 per week. This difference in wages is more profound when considered with the aforementioned differences in unemployment rates across educational attainment.

The percent of the MSA's population over the age of 25 with less than a high school diploma (or equivalent) is used to capture the extent to which individuals are able to invest in human capital. Ignoring other factors, an MSA with a higher percent has higher barriers to educational achievement. These barriers may be the result of any number of factors. Regardless the cause, given the bleak economic prospects those with less than a high school diploma face, the lack of opportunity to achieve higher levels of education is a severe impediment to quality of life and achieving economic security.

The quality of life an MSA affords its citizens extends beyond labor markets. Good health is considered to be a cornerstone of the "good life" (Nussbaum, 2003; Sen, 1999; Skidelsky & Skidelsky, 2012). It is hard to imagine a scenario in which an improvement in physical well-being would not raise an individual's quality of life. Physical health is impacted by

personal factors, such as genetics and lifestyle decisions, as well as factors outside the individual. Neighborhood or peer effects can have a profound impact on one's physical health (Bilger & Carrieri, 2013; Katz, Kling, & Liebman, 2001; Smith & Chritakis, 2008). For example, from 2001 to 2014 the difference in life expectancy between the commuting zones with the highest and lowest longevity was 4.5 years (Chetty et al., 2016). This gap is even larger when measured across the income distribution. During these same years males in the top 1% of the income distribution lived 14.6 years longer than those in the bottom 1%; for females the difference was 10.1 years (Chetty et al.). Clearly physical well-being is not equally distributed across space or income.

The Gallup-Healthways *Well-Being Index* is used to measure physical well-being. The *Well-Being Index* ranks metropolitan areas based upon life-satisfaction surveys which assess numerous dimensions of physical health. A weakness of this measure is that it is not explicitly focused on the physical health of those with low incomes. Because of this weakness it is more appropriate to consider it as a measure of neighborhood and peer effects than as an indicator of the physical health of those with low incomes.

At the individual level, investing in one's physical health is conditional on being able to secure an adequate (in terms of calories and nutritional content) diet. Sen (1999) reminds us that "the 'good life' is partly a life of genuine choice" (p. 45). In order to make a choice there must be a set of meaningful alternatives under consideration. One cannot choose to do something that is infeasible, nor is a choice made when there is only one option. Food insecurity, not having reliable access to affordable and nutritious food, is associated with a myriad of negative health consequences, ranging from higher rates of birth defects to higher probabilities of asthma (Gundersen, Kreider, & Pepper, 2011). Children and seniors being particularly susceptible to the

negative consequences of an unhealthy diet (Gundersen & Ziliak, 2015). Food insecurity is a significant deterrent to well-being because it reduces the individual's ability to choose a diet that will improve their physical health.

To measure access to an adequate diet Feeding America's (2017) food insecurity rates, measured at the county level, are included in the OFI. (These rates are not calculated at the MSA level so the MSA's principal county is applied.) Food insecurity is defined as "lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods" (Feeding America, 2017). For the reader interested in a more thorough discussion of this variable Gundersen, Engelhard, and Waxman (2014) and Gundersen, Dewey, Crumbaugh, Kato, and Engelhard (2016) outline the methodology used to estimate these rates.

Much as access to nutritious food is a necessary condition for good health, access to financial markets can improve one's financial well-being. Unfortunately the poor face many obstacles in achieving a moderate level of financial well-being. Lusardi and Tufano (2009) and Lusardi and Bassa Scheresberg (2013) find that low income individuals are less likely to be financially literate and more likely to use alternative financial services (AFS) (e.g. payday loans) than high income individuals. Given low levels of financial literacy, and high levels of using AFS, Americans in poverty are especially prone to, and victims of, being "duped." Zingales (2015) applies the term "duped" in reference to the financial sector's propensity to offer consumers overly complex financial products and products with little value. Given low levels of financial literacy and the more egregious practices of the financial sector it comes as little surprise that the impact of the Great Recession on household wealth for those at the bottom of the income distribution was quite substantial. Low income households, on a percentage basis,

had the largest decline in wealth through the Great Recession (Pfeffer, Danziger, & Schoeni, 2013). Six years since the official end of the recession, low income households are still recovering. Pew Research Center (2015) reports that 38% households that earn less than \$30,000 a year believe the recession had a major effect on their personal finances of which they had not yet recovered from; 24% a major effect and they had mostly recovered.

The percent of households in an MSA that are un- and underbanked is used to measure the extent to which individuals have the opportunity to achieve financial well-being. The FDIC (2013) defines a household as unbanked if it does not have an account at a federally insured depository institution. Underbanked households have a formal checking or savings account but have used AFS in the past 12 months. Due to data availability 2013 measures are applied. As a point of reference, the sample's minimum and maximum values of the percentage of households that are un- and underbanked are 14% and 43% for Bridgeport-Stamford-Norwalk and Memphis, respectively.

Before motivating the inclusion of the final indicator, family structure, it will be valuable to preface it with two caveats. First, over the last few decades family structure in the United States has changed radically. It is possible that relationships between family structure and economic outcomes that existed in the past may not hold true in the future. Second, data in this study are by no means deterministic. If children that grow up in poverty are, on average, more likely to be poor as adults this does not mean individuals cannot escape poverty. Clearly people can, and do, improve their lot. That being said, family structure appears to have a profound impact on poverty rates. In 2015, the poverty rate for married couple families with children under the age of 18 and female headed families with no husband present with children under the age of 18 were 8.3% and 40.5%, respectively (U.S. Census Bureau, 2015). For the latter group,

the percentage is even larger for children under the age of 5, 46.3% (U.S. Census Bureau).

Approximately 21.7% of the nation's population under the age of 18 live in poverty (U.S. Census Bureau).

Beyond income, family structure impacts children in many other ways. Children that grow up in single-parent households are more likely to have inferior academic performance, worse labor market outcomes, as well as higher rates of teen pregnancy, drug use, and psychosocial problems (AEI/Brookings, 2015). Individually any of these outcomes significantly diminishes well-being; collectively they represent a potentially insurmountable hurdle to overcome. The percent of single parent (both female and male headed) households in a MSA is used as the measure of family structure in the OFI. Cities with a higher percentage of two parent households are able to afford their youngest citizens a higher level of opportunity.

### 3. Methodology and Results

Section 3 begins with a presentation of the OFI's methodology. This is followed by the MSA rankings. The full rankings can be found in Table 4 of the appendix. The OFI is then evaluated relative to other economic indicators. Finally, the OFI's relationship with intergenerational economic mobility is analyzed.

#### 3.1 Methodology

In addition to the aforementioned literatures, the creation of the OFI was guided by evaluating the correlation between potential indicators. Indicators were chosen to minimize statistical redundancy across the index. The estimated correlation coefficient is greater than 0.5 (in absolute value) for only two pairs in the index: diet and financial services,  $r = 0.509$  and

family structure and financial services,  $r = 0.5244$ . The lack of correlation among the chosen indicators suggests that each conveys unique information about the level of opportunity in an MSA.

The OFI follows the methodology applied in the UN's Human Development Index's (HDI). Klugman et al. (2011) provide a thorough presentation of this methodology. All data are recorded such that larger values are superior to lower values. For each indicator the following calculation is applied:

$$Value_i = \frac{Observation_i - Minimum}{Maximum - Minimum},$$

where  $i = 1, \dots, 7$  and references an indicator, maximum and minimum are observations from the sample. *Value*'s range is between 0 and 1. A higher score corresponds to a higher relative standing in the sample. An MSA's OFI is calculated as the arithmetic mean of its individual indicators and its score provides a relative ranking within the sample. The OFI is calculated for the 64 most populous (as of 2014) MSAs in the United States. A larger sample would be preferred but data availability precludes including more cities.

Prior to presenting the rankings it will be beneficial to address a trade-off, or limitation, of the chosen methodology. As an arithmetic mean each indicator carries the same weight in an MSA's final score. This weighting scheme is potentially problematic because individuals are unique. The impact of a change in an indicator will not have the same impact on well-being for everyone in a city. For example, an individual in poor health would likely benefit more from an improvement in their physical well-being than through increased access to financial services. This does not mean that increased access to financial would not improve their well-being. More opportunity is preferred to less, regardless if it is manifested in improved physical health, lower unemployment, or any of the OFI's indicators. Altering the methodology to determine each

indicator's relative weight is contrary to the OFI's foundation in the capabilities approach. The capabilities approach advocates for increases in opportunity, regardless of where they occur. Determining relative weights lies beyond the scope, and outside the spirit, of the study.

### 3.2 Rankings

The scores for the top and bottom ten MSAs are presented in Table 1. The full rankings can be found in Table 4 of the appendix. What stands out among the top and bottom of the rankings is the regional variation at the top and concentration at the bottom. Within the top ten each of the U.S. Census' Bureaus regions are represented. San Jose-Sunnyvale-Santa Clara, CA and San Francisco-Oakland-Hayward, CA are the only MSAs that are close to one another. The dispersion of opportunity contrasts starkly with the regional concentration at the bottom of the rankings. With the exception of Las Vegas-Henderson-Paradise, NV all of the MSAs in the bottom ten are located in the South or Midwest.

[Table 1 here]

### 3.3 OFI and Economic Opportunity

In order to determine if there is a relationship between the OFI and standard measures of economic opportunity, correlation coefficients between the OFI and GDP growth, population growth, and per capita income growth are calculated. Growth rates are calculated from 2013 to 2014. *A priori*, the expectation is that the OFI and these data ought to be highly correlated. Higher incomes are a signal of increases of economic prosperity and financial well-being. Population growth and the OFI ought to be linked through Tiebout's "voting with one's feet." Individuals should respond to different opportunities through migration. Results are presented in Table 2.

[Table 2 here]

The lack of meaningful correlation between the OFI and these measures of growth suggests that economic growth and opportunity are not necessarily linked. Cities with higher than average growth in income, whether total or per capita, are not necessarily providing higher levels of opportunity for low-income individuals. (It is worth reminding the reader that real personal income is included in the OFI, not per capita income.) Furthermore, the lack of correlation between the OFI and population growth suggests that individuals, in the short-run, are not responding to opportunity differentials.

In considering ways in which one may leverage opportunities afforded them to escape poverty it is insufficient to only consider short-run outcomes. Whether it is education, or securing stable well-paying employment, improving one's lot takes time. The Equality of Opportunity Project, conducted by Raj Chetty and numerous collaborators, publishes extensive data on economic mobility. If the OFI is a meaningful conception of opportunity, individuals living in MSAs with higher OFI scores ought to have a better chance of raising their income than those in MSAs with lower rankings. Chetty, Hendren, Kline, and Saez's (2014) "absolute upward mobility rates" are used to evaluate this hypothesis. Absolute upward mobility is "the expected rank of children whose parents are at the 25<sup>th</sup> percentile of the national income distribution" (Equality of Opportunity Project, 2016). (A full definition of the measure can be found in Table 3 of the appendix). This measure of mobility is an indicator of the extent to which those at the bottom of the economic ladder are able to move up it during their lifetime.

Before discussing the relationship between the OFI and economic mobility it is worth noting a limitation of the analysis, the data are not taken from the same time period. Six of the OFI's seven indicators are for 2014, the last 2013. Mobility rates are calculated from 1996 and

2000 to 2011 and 2012. This is a minor weakness as neither opportunity nor economic mobility are likely to change dramatically year-to-year. These variables are the outcome of slow moving processes. The OFI is strongly correlated with economic mobility,  $r = 0.733$ . The holistic conception of opportunity represented by the OFI is positively associated with the possibility that children born into households at the bottom of the income distribution are able to earn higher incomes than their parents. The fact that the correlation is not stronger suggests that the OFI and mobility rates are capturing different dimensions of city-level opportunity. The OFI offers then stakeholders multiple dimensions to consider in order to improve economic mobility.

#### 4. Conclusion

By drawing upon a wide range of literatures the OFI offers a robust conception of opportunity for those at the bottom of the economic ladder in the United States. The OFI is not correlated with short-run growth rates of income (both total and per capita) or population but has a strong relationship with Chetty et al.'s (2014) mobility rates. The lack of correlation between the OFI and annual growth suggests that in the short-run economic growth does not necessarily provide low-income individuals with more opportunities to escape poverty. Over the long-run, children borne into cities with higher levels of opportunity are more likely to move up the economic ladder than those born in other places. Children's economic possibilities and outcomes depend heavily on where they grow up.

The OFI is not without its limitations. As a static measure the ways in which opportunity has changed over time is not accounted for. Creating a time-series would shed light on this dynamic. A second issue uncovered in the analysis is the surprising lack of correlation between population growth and opportunity. Migration provides the means by which individuals can

pursue greater opportunities. A better understanding of the relationship between the OFI and migration could yield valuable tools to raise incomes and growth in cities around the United States.

Economic inequality and persistent poverty are likely to be permanent points of contention in the United States. As such, a robust understanding of possible ways to alleviate both is needed. Unequal market outcomes are inherent to free-market capitalism. One way to evaluate the fairness of these outcomes is through the lens of opportunity. The OFI provides a metric by which this evaluation may occur.

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Table 1: Top 10 and Bottom 10 Opportunity to Flourish (OFI) Scores

<b>Rank</b>	<b>Metropolitan Statistical Area</b>	<b>OFI</b>
1	Bridgeport-Stamford-Norwalk, CT	0.791
2	Madison, WI	0.750
3	San Jose-Sunnyvale-Santa Clara, CA	0.745
4	Urban Honolulu	0.734
5	Boston-Cambridge-Newton, MA-NH	0.701
6	Salt Lake City, UT	0.698
7	Minneapolis-St. Paul-Bloomington, MN-WI	0.675
8	Denver-Aurora-Lakewood, CO	0.661
9	San Francisco-Oakland-Hayward, CA	0.651
10	Seattle-Tacoma-Bellevue, WA	0.651
55	Indianapolis-Carmel-Anderson, IN	0.389
56	Las Vegas-Henderson-Paradise, NV	0.384
57	Tulsa, OK	0.378
58	Birmingham-Hoover, AL	0.362
59	Louisville/Jefferson County, KY-IN	0.355
60	Little Rock-North Little Rock-Conway, AR	0.351
61	Detroit-Warren-Dearborn, MI	0.348
62	New Orleans-Metairie, LA	0.345
63	Columbia, SC	0.338
64	Memphis, TN-MS-AR	0.171

Table 2. Correlation between the Opportunity to Flourish Index (OFI) and Economic Outcomes.

	GDP Growth	Population Growth	Per Capita Income Growth
OFI	0.154	0.142	0.183

Note. GDP = MSA's gross domestic product. Data are from the U.S. Bureau of Economic Analysis. Per capita income is for 2014. Growth measures are compound growth rates from 2013 to 2014.

## Appendix

### Table 3: Data Description and Sources

#### Employment

Unemployment rate for individuals that have been below the poverty line in the last 12 months for the year 2014.

Source: U.S. Census Bureau, *American Community Survey*

#### Purchasing Power

Real Per Capita Personal Income for Year 2014 in chained 2009 dollars

Source: U.S. Bureau of Economic Analysis, Regional Data, *Real Personal Income and Regional Price Parities*

#### Physical Well-Being

Authors' calculations based on Gallup-Healthways ranking of United States cities in the category of physical health for year 2014/15. Rankings based on subjective life satisfaction surveys and account for sick days, disease burden, obesity, chronic health problems, colds, flu, and headaches.

Source: Gallup-Healthways, *Well-Being Index*

#### Adequate Diet

Food insecurity is not having access to healthy and nutritional food. Food insecurity rates are calculated with data from the United States Department of Agriculture food insecurity survey as well as county level economic and demographic variables. Gundersen, Dewey, Crumbaugh, Kato, and Engelhard (2016) present the methodology for calculating food insecurity rates.

Source: Feeding America, *Map the Meal Gap Project*

#### Financial Services

The percentage of households who are unbanked or underbanked for the year 2013. Unbanked households do not have an account at a federally insured depository institution. Underbanked households have a formal checking or savings account but have used AFS in the past 12 months.

Source: Federal Deposit Insurance Corporation. *2013 FDIC National Survey of Unbanked and Underbanked Households*

#### Human Capital

The percentage of the population 25 years and over that has not graduated from high school (or equivalency) in 2014.

Source: U.S. Census Bureau, *American Community Survey*

#### Family Structure

Single parent households with children under the age of 18 for the year 2014.

Source: U.S. Census Bureau, *American Community Survey*

*Table 3, Continued*

Intergenerational Mobility

Absolute upward mobility rates are from Chetty, Hendren, Kline, and Saez (2014). They are calculated at the MSA level. Parents' mean family income between 1996 and 2000, when a child would have been between the ages of 15 and 20, is compared to the child's mean family income in 2011 and 2012.

Source: Equality of Opportunity Project, *Online Data Table 4*.

Table 4: Opportunity to Flourish (OFI) Indicator Scores and Overall Rankings

<b>Metropolitan Statistical Area</b>	<b>Inc</b>	<b>FinServ</b>	<b>Diet</b>	<b>Educ</b>	<b>Emp</b>	<b>Health</b>	<b>Family</b>	<b>OFI</b>	<b>Rank</b>
Bridgeport-Stamford-Norwalk, CT	0.139	0.280	0.455	0.572	0.736	0.591	0.171	0.791	1
Madison, WI	0.278	0.229	0.431	0.597	0.607	0.302	0.454	0.750	2
San Jose-Sunnyvale-Santa Clara, CA	0.318	0.881	0.413	0.610	0.809	0.893	0.634	0.745	3
Urban Honolulu	0.362	0.444	0.679	0.679	0.472	0.205	0.416	0.734	4
Boston-Cambridge-Newton, MA-NH	0.353	0.440	0.361	0.484	0.157	0.328	0.411	0.701	5
Salt Lake City, UT	0.169	0.700	0.571	0.730	0.489	0.727	0.709	0.698	6
Minneapolis-St. Paul-Bloomington, MN-WI	0.531	0.744	0.907	0.774	0.826	0.443	0.682	0.675	7
Denver-Aurora-Lakewood, CO	1.000	1.000	0.845	0.673	1.000	0.234	0.785	0.661	8
San Francisco-Oakland-Hayward, CA	0.300	0.792	0.632	0.736	0.225	0.495	0.206	0.651	9
Seattle-Tacoma-Bellevue, WA	0.275	0.263	0.475	0.528	0.702	0.285	0.453	0.651	10
Austin-Round Rock, TX	0.324	0.771	0.761	0.528	0.646	0.253	0.597	0.651	11
Raleigh, NC	0.389	0.451	0.500	0.686	0.079	0.412	0.437	0.644	12
Des Moines-West Des Moines, IA	0.421	0.693	0.360	0.667	0.354	0.159	0.230	0.638	13
Washington-Arlington-Alexandria, DC-VA-MD-WV	0.207	0.137	0.451	0.597	0.360	0.394	0.222	0.635	14
Grand Rapids-Wyoming, MI	0.329	0.352	0.444	0.730	0.247	0.519	0.436	0.611	15
San Diego-Carlsbad, CA	0.354	0.273	0.265	0.352	0.539	0.707	0.554	0.604	16
Portland-Vancouver-Hillsboro, OR-WA	0.398	0.683	0.717	0.711	0.848	0.651	0.617	0.592	17
Pittsburgh, PA	0.396	0.706	0.765	0.881	0.371	0.738	0.611	0.585	18
Boise City, ID	0.284	0.584	0.332	0.629	0.230	0.000	0.377	0.585	19
Hartford-West Hartford-East Hartford, CT	0.289	0.898	0.775	0.711	0.438	0.526	0.638	0.574	20
Milwaukee-Waukesha-West Allis, WI	0.481	0.706	0.694	0.711	0.798	0.190	0.438	0.573	21
Chicago-Naperville-Elgin, IL-IN-WI	0.460	0.106	0.339	0.189	0.753	0.726	0.558	0.555	22
New York-Newark-Jersey City, NY-NJ-PA	0.310	0.502	0.482	0.642	0.000	0.395	0.394	0.544	23
Omaha-Council Bluffs, NE-IA	0.273	0.406	0.271	0.686	0.562	0.173	0.360	0.538	24
New Haven-Milford, CT	0.359	0.416	0.494	0.774	0.326	0.535	0.476	0.537	25
Rochester, NY	0.171	0.403	0.554	0.365	0.685	0.243	0.264	0.521	26

<b>Metropolitan Statistical Area</b>	<b>Inc</b>	<b>FinServ</b>	<b>Diet</b>	<b>Educ</b>	<b>Emp</b>	<b>Health</b>	<b>Family</b>	<b>OFI</b>	<b>Rank</b>
Miami-Fort Lauderdale-West Palm Beach, FL	0.271	0.304	0.200	0.673	0.084	0.609	0.316	0.494	27
Richmond, VA	0.237	0.567	0.652	0.000	0.972	0.540	0.513	0.483	28
Los Angeles-Long Beach-Anaheim, CA	0.309	0.433	0.477	0.572	0.062	0.355	0.277	0.473	29
Nashville-Davidson--Murfreeseboro--Franklin, TN	0.389	1.000	0.810	1.000	0.421	1.000	0.626	0.472	30
San Antonio-New Braunfels, TX	0.281	0.000	0.000	0.478	0.219	0.218	0.000	0.471	31
Buffalo-Cheektowaga-Niagara Falls, NY	0.280	0.768	0.637	0.352	0.978	0.301	0.286	0.462	32
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	0.382	0.881	0.590	0.717	0.669	0.467	0.306	0.462	33
Virginia Beach-Norfolk-Newport News, VA-NC	0.404	0.932	0.337	0.912	0.837	0.641	0.665	0.456	34
Kansas City, MO-KS	0.377	0.543	0.587	0.572	0.309	0.550	0.539	0.453	35
Sacramento--Roseville--Arden-Arcade, CA	0.259	0.846	0.597	0.648	0.843	0.201	0.368	0.446	36
St. Louis, MO-IL	0.332	0.471	0.394	0.403	0.337	0.434	0.045	0.442	37
Baltimore-Columbia-Towson, MD	0.373	0.498	0.728	0.415	0.803	0.457	0.534	0.441	38
Providence-Warwick, RI-MA	0.377	0.382	0.441	0.585	0.051	0.883	0.454	0.430	39
Wichita, KS	0.405	0.474	0.673	0.786	0.213	0.685	0.528	0.428	40
Phoenix-Mesa-Scottsdale, AZ	0.129	0.294	0.521	0.591	0.624	0.447	0.375	0.426	41
Oklahoma City, OK	0.392	0.512	0.609	0.660	0.545	0.193	0.474	0.420	42
Houston-The Woodlands-Sugar Land, TX	0.185	0.430	0.444	0.497	0.719	0.526	0.389	0.413	43
Columbus, OH	0.408	0.543	0.657	0.868	0.579	0.508	0.534	0.409	44
Dallas-Fort Worth-Arlington, TX	0.273	0.792	0.583	0.767	0.612	0.484	0.630	0.406	45
Tampa-St. Petersburg-Clearwater, FL	0.320	0.758	0.757	0.365	0.410	0.307	0.302	0.405	46
Charlotte-Concord-Gastonia, NC-SC	0.341	0.904	0.592	0.736	0.663	0.612	0.660	0.400	47
Orlando-Kissimmee-Sanford, FL	0.347	0.662	0.625	0.566	0.618	0.400	0.383	0.390	48
Cincinnati, OH-KY-IN	0.000	0.553	0.763	0.038	0.657	0.230	0.515	0.388	49
Albuquerque, NM	0.269	0.836	0.701	0.704	0.376	0.497	0.260	0.384	50
Atlanta-Sandy Springs-Roswell, GA	0.283	0.549	0.454	0.591	0.674	0.258	0.495	0.381	51
Cleveland-Elyria, OH	0.415	0.911	0.641	0.679	0.691	0.696	0.856	0.378	52
Riverside-San Bernardino-Ontario, CA	0.211	0.273	0.679	0.314	0.713	0.788	0.409	0.362	53
Jacksonville, FL	0.245	0.754	0.647	0.459	0.966	0.486	0.668	0.353	54

<b>Metropolitan Statistical Area</b>	<b>Inc</b>	<b>FinServ</b>	<b>Diet</b>	<b>Educ</b>	<b>Emp</b>	<b>Health</b>	<b>Family</b>	<b>OFI</b>	<b>Rank</b>
Indianapolis-Carmel-Anderson, IN	0.257	0.867	0.628	0.585	0.955	0.471	0.797	0.343	55
Las Vegas-Henderson-Paradise, NV	0.559	0.887	0.843	0.503	0.994	0.428	1.000	0.333	56
Tulsa, OK	0.568	0.836	0.632	0.824	0.506	0.489	0.703	0.333	57
Birmingham-Hoover, AL	0.447	0.693	0.428	0.742	0.253	0.301	0.411	0.325	58
Louisville/Jefferson County, KY-IN	0.414	0.648	0.466	0.591	0.320	0.285	0.285	0.319	59
Little Rock-North Little Rock-Conway, AR	0.195	0.386	0.423	0.623	0.022	0.613	0.383	0.308	60
Detroit-Warren-Dearborn, MI	0.458	0.659	0.670	0.761	0.904	0.821	0.864	0.306	61
New Orleans-Metairie, LA	0.175	0.253	1.000	0.723	0.466	0.484	0.281	0.302	62
Columbia, SC	0.422	0.669	0.559	0.742	0.899	0.475	0.678	0.296	63
Memphis, TN-MS-AR	0.363	0.362	0.540	0.673	0.174	0.591	0.497	0.135	64

Note: Inc refers to real per capita personal income, FinServ access to financial services, Diet food insecurity, Educ human capital, Emp the unemployment rate, Health physical well-being, and Family family structure. Full definitions for each series can be found in Table 3 of the appendix.