Poverty Rates, Demographics, and Economic Freedom Across America: A Comparison of Nationwide Poverty Measures



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Poverty Rates, Demographics, and Economic Freedom Across America:

A Comparison of Nationwide Poverty Measures

by Courtney A. Collins, Ph.D.

Abstract

The Official Poverty Measure (OPM) published by the Census Bureau has existed for five decades, despite continuing concerns related to how the measure is calculated and whether it is an accurate measure of poverty across the United States. Because the OPM thresholds do not change based on a household's geographic location, using the OPM to compare poverty levels across states obscures important regional cost-of-living differences. This tends to overstate the poverty rate in states where the cost of living is relatively low and to understate it in states where the cost of living is relatively high. Recently, the Census Bureau created a new Supplemental Poverty Measure (SPM) that incorporates housing price differences across the United States and includes several different sources of household income, beyond what is included in the calculation of the OPM.

This paper examines differences in state-level poverty comparisons using the OPM and the SPM to determine whether states' poverty rankings change under the SPM, the more accurate measure of poverty. Because states vary widely in demographic composition and because poverty levels often differ across demographic subgroups, I also calculate state-level poverty measures by racial and ethnic group. Finally, I examine how various measures of economic freedom affect state-level poverty rates as measured by the OPM and the SPM. I find evidence suggesting that higher levels of economic freedom are associated with lower SPM poverty rates.

Introduction

The federal government in the United States has used some version of a national poverty line for the past half-century. The current Official Poverty Measure (OPM), created by the Census Bureau, traces its roots back to President Lyndon Johnson's administration in the 1960s. There are some obvious uses for an established, clear-cut, nationwide poverty measure. The measure is used as part of the eligibility criteria for dozens of federal programs that serve people across all states, such as Medicaid and Medicare, the National School Lunch Program, and the Supplemental Nutrition Assistance Program (SNAP), and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). A national threshold makes determining program eligibility relatively simple.¹

A nationwide definition of poverty also allows for comparisons of poverty across states and regions of the country, at least in theory. However, there are several problems inherent in the calculation of the OPM that make these types of comparisons difficult. While the OPM adjusts for family size, it does not vary by geographic area, so it does not account for regional differences in cost of living. Other concerns with the OPM include its calculation of income. The measure includes cash income only; government in-kind benefits are not considered in the calculation of a household's resources. While this method may not reduce the value of the OPM as a yardstick for program eligibility, it does affect its use as a general measure of poverty. Cash income is only one source of families' resources; government transfers and other forms of assistance also help determine families' standards of living, and these resources may be particularly important for low-income households. While researchers have voiced these concerns for decades, there have only been minor changes to the calculation of the OPM since its creation. Only recently has the Census Bureau begun work on a new Supplemental Poverty Measure (SPM) that attempts to incorporate some of these concerns and to provide a more accurate measure of poverty across the United States.

This report uses both the OPM and the SPM to create state-level poverty rates and rankings and to show how states' rankings change under the more accurate SPM measure. Because there are substantial demographic differences across states, I also calculate race-based poverty statistics for each state to provide a more comprehensive comparison of poverty. Finally, I examine several statelevel policy variables to determine how different measures of economic freedom impact both the OPM and the SPM. I find evidence that higher levels of economic freedom are associated with lower measures of the SPM.

The Official Poverty Measure (OPM)

The idea of a single nationwide measure of poverty in the United States began in 1964 when President Lyndon Johnson announced his War on Poverty. That year, in its annual report, the Council of Economic Advisers (CEA) established a minimum before-tax family income level of \$3,000 (in 1962 dollars) as its demarcation of poverty.²

One of the key advantages of the SPM is that it provides a much better basis for state-level poverty comparisons because of geographic adjustments.

The report cited an article published months earlier by economist Mollie Orshansky, a Social Security Administration employee.³ Orshansky's article assessed the impact of growing income inequality on children in America and included a self-described "crude criterion of income inadequacy" to establish a threshold for categorizing families in poverty. The criterion was based on the price of an inexpensive, economy food plan developed by the Department of Agriculture. A family was classified as being in poverty if the cost of the economy food plan represented more than one-third of the family's income, based on the empirical finding that food consumption accounted for about one-third of an average family's after-tax income.⁴ The thresholds differed based on household size, but there were no geographic differences in the cutoffs.

In 1969, the Bureau of the Budget (the forerunner of the current Office of Management and Budget), released a directive making Orshansky's thresholds the official federal poverty cutoffs. The mandate stated that the poverty guidelines issued by the Census Bureau, derived from the Orshansky thresholds, should "be used by all executive departments and establishments for statistical purposes."⁵ The directive specified that the thresholds would be adjusted annually, using the Consumer Price Index (CPI) to reflect changes created by inflation.

The Official Poverty Measure used today by the Census Bureau is the current version of Orshansky's measure, with some minor revisions. Although the creation of a definitive "poverty line" has been useful as a general measure of poverty, there have been concerns-almost since the OPM's inception in the 1960s-about how exactly the threshold should be calculated.⁶ Researchers questioned how changes in the standard of living should be incorporated, how often the thresholds should be updated, what types of income should be included, whether farm households and nonfarm households should be treated differently, how to treat female-headed households, and how to incorporate very large families. Several government committees and task forces were created to study these issues, but their findings resulted in only slight changes to the official poverty definition. Debates in the 1980s centered on how noncash government benefits should be treated in the poverty calculation, but, again, no changes were made to the official measure.7

Congress requested a poverty measure study in 1990, conducted by the National Academy of Sciences and the National Research Council. While the results of the study did not generate any immediate changes in the official poverty definition, the results were published in a 1995 report that provided the basis for recent developments in the creation of an alternative measure of poverty.⁸

The Supplemental Poverty Measure (SPM)

In 2010, researchers from several federal agencies (including the Census Bureau, the Bureau of Labor Statistics, the Council of Economic Advisers, and the Office of Management and Budget) began working on a new poverty statistic to accompany the Official Poverty Measure. Their intention was to create a threshold that would address the long-standing problems inherent in the OPM and incorporate many of the suggestions recommended by the 1995 NAS panel.

The Supplemental Poverty Measure (SPM), as it is called, is based not only on the cost of food, like the OPM, but also on other basic expenses, such as clothes, shelter, and utilities—all of which are calculated based off the Consumer Expenditure Survey (CE). In addition, the SPM includes other government in-kind payments and tax credits as resources in addition to cash income. Finally, the SPM incorporates geographic differences in housing costs, which allows poverty thresholds to change based on a household's location.⁹

In developing the SPM, the working group intentionally created a statistic that was not meant to replace the OPM. In accordance with the original 1969 directive, the OPM is still used to determine whether households are eligible for various government programs and funding, and it will continue to serve this function. The new measure was "designed to provide information on aggregate levels of economic need at a national level or within large sub-populations ... [to provide] further understanding of economic conditions and trends."¹⁰

One of the key advantages of the SPM, relative to the OPM, is that it provides a much better basis for state-level poverty comparisons because of its geographic adjustments. Comparing poverty rates across states using the OPM ignores any cost-of-living differences from one region to another and effectively treats housing in high-cost states like California and Hawaii identically to housing in low-cost states like Mississippi and Kentucky. The SPM addresses this problem by adjusting the poverty thresholds based on housing-price estimates from the American Community Survey (ACS). Housing estimates are derived from the median rent for a two-bedroom apartment for a particular metropolitan statistical area.¹¹

It is important to note that cost-of-living differences across states may still exist for food, clothing, or necessities other than housing. These differences are not incorporated into the SPM and may hinder exact comparisons in poverty rates across states. However, given that housing is the largest element of household spending,¹² the geographic adjustments included in the SPM represent a significant improvement over the OPM.

State-Level Poverty Comparisons Under the OPM and SPM

Because housing comprises such a large component of consumer spending, any study that ranks states based on the OPM will automatically understate poverty in states where average housing prices are high and overstate poverty in states where average housing prices are low. Consider, for example, a family of two adults and two children. The OPM threshold for this family in 2013 is \$23,624.¹³ That threshold remains constant, whether the family lives in Hattiesburg, Mississippi, where the median monthly rent is \$746, or in San Francisco, where the median rent of \$1,425 is almost twice as much.¹⁴ A family at the federal poverty line living in Hattiesburg could plausibly afford an apartment at the median monthly rent, but it would account for about 38 percent of the family's income-just over the national average of one-third. In contrast, if the same family rented a similar apartment in San Francisco, housing alone would consume almost 73 percent of its income. The actual standard of living in Hattiesburg relative to San Francisco is elevated by low housing costs in Hattiesburg, but those differences are not factored into the OPM calculation. Given this problem, any state-level rankings based on the OPM do not fully reflect true differences in poverty levels.



STATE	ОРМ	OPM RANK	SPM	SPM RANK	RANK DIFF.
New Hampshire	8.48	1	10.31	9	8
Maryland	10.14	2	13.49	27	25
North Dakota	10.35	3	8.30	1	-2
Connecticut	10.67	4	12.27	18	14
New Jersey	10.81	5	15.73	38	33
Utah	10.83	6	11.12	12	6
Wyoming	10.85	7	8.91	3	-4
Vermont	10.87	8	9.25	5	-3
lowa	10.99	9	8.55	2	-7
Alaska	11.03	10	12.16	17	7
Virginia	11.18	11	13.48	26	15
Minnesota	11.30	12	10.19	6	-6
Nebraska	11.34	13	10.19	7	-6
Hawaii	12.02	14	17.83	44	30
Wisconsin	12.02	15	10.74	11	-4
Washington	12.19	16	12.66	19	-4
Colorado	12.34	17	12.00	22	5
Colorado Massachusetts	12.40	17	12.90	22	11
Massachusetts South Dakota	12.51	18	9.08		-15
				4	
Maine	13.51	20	10.29	8	-12
Pennsylvania	13.58	21	12.80	21	0
Illinois	13.79	22	15.17	35	13
Rhode Island	14.26	23	14.17	31	8
Kansas	14.56	24	11.96	14	-10
Michigan	14.66	25	12.96	23	-2
Indiana	14.73	26	13.03	24	-2
Delaware	14.73	27	14.15	30	3
Ohio	14.88	28	11.97	15	-13
Oregon	15.08	29	14.33	32	3
Montana	15.13	30	11.28	13	-17
Idaho	15.19	31	10.60	10	-21
Missouri	15.33	32	12.12	16	-16
Florida	15.66	33	19.57	47	14
Oklahoma	16.14	34	12.69	20	-14
Nevada	16.53	35	20.08	48	13
New York	16.72	36	18.50	46	10
California	16.80	37	24.60	51	14
Alabama	17.33	38	15.02	33	-5
North Carolina	17.34	39	15.64	37	-2
Tennessee	17.76	40	15.15	34	-6
South Carolina	17.87	41	16.25	42	1
West Virginia	18.26	42	13.06	25	-17
Texas	18.30	43	16.21	40	-3
Georgia	18.31	44	17.60	43	-1
Kentucky	18.77	45	13.75	28	-17
Arkansas	19.44	46	16.23	41	-5
Dist. of Columbia	19.68	47	22.85	50	3
Arizona	20.68	48	20.51	49	1
Mississippi	21.00	49	15.24	36	-13
Louisiana	21.06	50	18.17	45	-5
New Mexico	21.19	51	16.00	39	-12

Table 1: State Rankings by OPM and SPM

NOTE: OPM and SPM estimates are generated using three-year averages from the 2011, 2012, and 2013 Supplemental Poverty Measure (SPM) Public Use Research files, available from the U.S. Census Bureau. **Table 1** shows a ranking of states based on three-year estimates¹⁵ from the 2011, 2012, and 2013 OPM.¹⁶ The first column shows the percentage of people categorized as poor under the OPM, that is, people whose income falls below the OPM threshold. Higher OPM ranks correspond to higher levels of poverty. Several states with high housing costs rank noticeably low on the poverty scale using the OPM ranking. Maryland, for example, ranks as the second least impoverished state, with only 10.14 percent of its population falling below the threshold. Connecticut and New Jersey rank fourth and fifth, both with OPM percentages of under 11.

Among the poorest according to the OPM are Louisiana and New Mexico, which rank 50th and 51st. In both states, more than 21 percent of the population falls below the poverty line. Kentucky, West Virginia, and Mississippi all rank in the bottom quintile of states, with OPM estimates ranging from 18.3 to 21 percent. Texas ranks 43rd with 18.3 percent of its population living below the poverty threshold. **Figure 1** shows a corresponding map of the United States, coded by the OPM statistic.

Given the geographic variation in housing prices across the United States, it's not surprising to find substantial differences in the rankings when states are classified based on the SPM, rather than the OPM. **Table 1** also includes states' SPM estimates and rankings, along with a "rank difference" column, comparing their rankings based on each of the two poverty measures.¹⁷ **Figure 3** sorts states based on the rank difference. California's poverty measure increases the most under the SPM: the state moves up almost eight percentage points from an OPM of 16.8 to an SPM of 24.6. This corresponds to a ranking change from 37th under the OPM to 51st under the SPM. Other states with high housing costs see similar changes in their poverty measures—some with even larger changes in their state rankings. New Jersey's ranking drops 33 slots: its fifth-placed OPM of 10.8 percent falls to 38th with an SPM of 15.7 percent. Hawaii and Maryland see similar ranking changes: Hawaii falls by 30 slots and Maryland by 25.

Analogous differences exist at the other end of the spectrum: states with low housing costs typically have lower SPMs than OPMs. Mississippi's and New Mexico's poverty measures both decrease by more than 5 percentage points, resulting in a ranking improvement of 13 for Mississippi and 12 for New Mexico. Kentucky and West Virginia, which both also improve by more than five percentage points, see even large increases in rankings; they both move up by 17 slots. Using its SPM estimate, Texas moves from a poverty rate of 18.3 percent to 16.2 percent with a corresponding rank improvement of three slots. Figure 2 shows the U.S. map coded using the SPM estimates. It is clear from a cursory comparison with Figure 1, as well as from the estimates themselves, that state-bystate comparisons are sensitive to the differences between the two poverty measures.

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Figure 1: Official Poverty Measure (OPM) by State (All Races)

Differences in Poverty Rates by Race and Ethnicity

Variations in demographic patterns across states may also affect state-level comparisons of poverty rates. Overall poverty rates in states with significant minority populations are heavily influenced by the poverty rates for those minority groups, which may vary systematically from the rest of the population. Considering these demographic differences when examining poverty across

Figure 2: Supplemental Poverty Measure (SPM) by State (All Races)

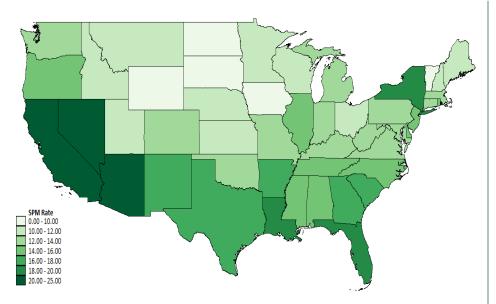


Figure 3: Changes in Poverty Rates Using SPM (Compared to OPM)



states provides a more complete basis for comparison. While the SPM estimates account for housing price disparities across regions, they do not consider differences in race and ethnic composition across states. Although the Census Bureau does not offically publish state-level SPM estimates by race, they can be created using the Bureau's SPM research files.18 To generate race-based SPM and OPM estimates, I merge the SPM research files with the corresponding Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) files.¹⁹ Matching the files to the original ASEC dataset is necessary because the unit of observation in the SPM files is a household unit. Because not all individuals within a household necessarily have the same race and ethnic background, I use individual-level data from the ASEC files to generate the racebased estimates.²⁰ The sample sizes for some racial subgroups in some states is particularly small; to mitigate this problem, I report estimates based on threeyear averages.²¹

Table 2 shows the SPM esti-
mates by racial background
using four race-based SPM
estimates: Hispanic, black (non-
Hispanic), Asian (non-Hispan-
ic), and white (non-Hispanic). I
compare each of these estimates
to the original overall SPM
estimate, displayed in the first
column.

The table shows what an important role demographic background plays in the overall SPM

STATE **OVERALL** (Rank) HISPANIC (Rank) BLACK (Rank) ASIAN (Rank) WHITE (Rank) North Dakota 8.30 (1) 8.31 (3) 28.64 (43) 17.12 (37) 6.38 (1) 6.94 8.55 15.68 (9) 21.25 (19)10.03 (11)(4)lowa (3) (5) 18.75 (44)Wyoming 8.91 12.95 (12)20.00 7.78 (8) South Dakota 9.08 (4) 14.00 (6) 18.42 (10)32.26 (51)6.69 (2) 18.09 (12) 8.71 Vermont 9.25 14.63 16.78 Minnesota 10.19 (6)22.02 (22)26.88 (40)10.17 (12)7.65 (6) Nebraska 10.24 18.64 (14)18.36 (9) 12.65 7.84 (9) Maine 10.29 (8) 6.01 30.72 (48)14.83 (29)977 (28)New Hampshire 10.31 (9) 24.31 (32) 12.56 (2) 19.50 (42)934 (22)Idaho 10.60 (10)15.31 (8) 12.67 (3) 7.53 (4) 9.26 (21)(11)22.54 (24) 28.85 (44) (33) 7.59 (5) Wisconsin 10.74 16.35 7.99 Utah 11.12 (12)25.58 (34) 18.86 (13)14.60 (26) (10)23.65 Montana 11.28 (13)18.06 0.00 (27)(14)Kansas 1196 2636 (37)25 55 (34)17.08 (36)770 (7)Ohio 11.97 (28) (48) 9.13 (19) 23.58 23.56 (26) 21.60 Missouri 12.12 (16) 16.87 23.53 (25)11.62 (16) 10.03 (32)(17) 12.78 (4) 9.94 (41)9.06 (16)Alaska 12.16 18.81 Connecticut 12.27 (18)23.53 (27)25.25 (33)11.34 8.17 (11)Washington 12.66 (19)19.26 (16)26.63 (38) 12.63 (22) 9.85 (30) Oklahoma (20)(30)20.76 (29) 12.69 23.87 8.78 9.81 Pennsylvania 12.80 (21)28.88 (46) 25.74 (36) 23.78 (49) 8.65 (14)Colorado 12.90 (22)22.00 (21)19.99 (16)14.82 (28) 8 30 (12)Michigan 12.96 18.40 (13)29.47 (45)6.04 9.65 Indiana 13.03 (24)20.99 (19)26.88 (39)1235 (21)10.27 (34)West Virginia 13.06 (25) 7.24 (2) 15.29 (6) 10.82 (13)13.12 (48) Virginia 13.48 24.11 22.33 (25)8.53 (13)(26)(31) (23)13.06 Maryland 13.49 26.01 (36) 16.12 (7) 14.96 (30) 9.12 (18)(49) 12.30 (45) Kentucky 13.75 (28)29.89 21.35 (20)11.77 (17)Massachusetts 13.80 (29)26.76 (38)18.64 18.10 (40)Delaware 14.15 (30)24.79 (33) 22.83 (24) 10.88 9.10 (17)(14)Rhode Island 14.17 (31) (41)19.50 (15)(43) 9.87 (31) 27.65 19.67 14.33 (32)23.22 (26)26.47 (37)11.78 (18)12.36 (46)Oregon Alabama 15.02 29.09 (47) 22.16 (22)20.22 (46) 10.39 (35)Tennessee 15.15 (34) 21.38 (20)27.94 (42)8.39 (8) 12.15 (44)(35)(29) 9.50 Illinois 23.68 25.00 15.26 Mississippi 15.24 (36)15.02 (7)21.55 (21)3.51 (2)9.67 (27)North Carolina 15.64 (37) 28.51 (43) 20.90 (18)13.05 (24)10.44 (36) New Jersey 15.73 (38)28.79 (44)23.67 (28)7.69 (5) 9.66 (26)(39) 19.08 (15)(29)12.07 (19)9.54 (24) New Mexico 16.00 23.68 Texas 16.21 (40)20.96 (18)18.87 (14)12.11 (20)9.18 (20)Arkansas 16.23 (41)22.64 (25)33.43 (51)7.82 (6) 11.51 (40)South Carolina 16.25 (42)20.52 (17)23.89 (30)9.37 (10)11.59 (41)17.60 (43)27.91 (42) 24.44 (31)14.74 (27)11.63 (42)Georgia Hawaii 17.83 (44)22.17 (23) 13.63 (4) 15.21 (31) 16.03 (51)(48) (41) Louisiana 18.17 (45)29.66 27.69 7.94 (7) 10.89 (38) New York 18.50 (46)28.80 (45)25.62 24.02 11.10 (39)Florida 19.57 (47)25.86 (35) 30.20 (46) 20.64 (47)12.63 (47) 20.08 (48) 27.37 (39) 31.45 (45) 13.32 (49) Nevada (50)20.01 Arizona 20.51 (49) 27.58 (40) 16.81 (8) 17.94 (39) 11.90 (43) Dist. of Columbia 6.74 22.85 31.76 (50)31 29 (49)16.70 (34)(3)California 24.60 33.41 (51)30.56 (47)17.92 (38)14.36

Table 2: Supplemental Poverty Measure (SPM) Rankings by Race

Note: OPM and SPM estimates are generated using three-year averages generated from the 2011, 2012, and 2013 Supplemental Poverty Measure (SPM) Public Use Research files, available from the Census Bureau, and the 2012, 2013, and 2014 CPS ASEC files. estimates. Consider Texas, for example, which has a large Hispanic population.²² Texas ranks 40th among all states using its initial SPM estimate, with 16.2 percent of its population living below the poverty threshold. Breaking down the SPM by racial background shows that the high SPM estimate is largely being driven by high poverty rates for Hispanic and black subgroups, which are associated with SPM estimates of 21.0 and 18.9, respectively. Despite the fact that the Hispanic poverty rate is higher than that of other subgroups within Texas, it is not high compared to the poverty rate of Hispanics across the United States. In fact, it is not even in the top half of states: the Texas Hispanic SPM estimate ranks 18th when compared to all other states. Similarly, the black poverty rate in Texas is slightly higher than Texas' overall SPM estimate. However, it ranks 14th across all states' black poverty rates, which places Texas just outside of the bottom poverty quartile for black individuals.

Dissecting California's poverty rate by demographic background reveals high poverty rankings regardless of race.

Similarly, New Mexico's 39th place SPM of 16 percent is so high largely because of the state's high concentration of Hispanic residents. The Hispanic SPM estimate is 19.1 percent, which—like Texas'—is high relative to the rest of the state, but not high compared with the rest of the United States. (New Mexico's Hispanic SPM rate ranks 15th.) New Mexico's white subgroup poverty rate is substantially lower than its Hispanic rate (9.5 percent, compared to 19.1 percent), although its white subgroup ranking of 24th place makes it almost the median state along that dimension.

Some other states, by contrast, have relatively high poverty estimates across all demographic subgroups. California, for example, ranks 51st using its initial SPM estimate of 24.6 percent. This estimate is so high partly because of California's high concentration of Hispanic residents, whose poverty rate itself is relatively high.²¹ However, dissecting California's poverty rate by demographic background reveals high poverty rankings regardless of race. California ranks 38th or more in every category: its subgroup SPM estimates range from 14.4 percent for whites (rank of 50) to 33.4 percent for Hispanics (rank of 51). Even the estimate for Asians, its highest-ranked subgroup, is 38th when compared to all other states.

Figures A1–A4 in the appendix show maps of the SPM generated for each of the racial subgroups, reflecting the patterns shown in **Table 2.**

In addition to the four basic race subgroups, I also examine poverty rates for Hispanics on the basis of country of origin. The CPS divides Hispanics into five groups originating from Mexico, Puerto Rico, Cuba, Central and South America, and elsewhere. Because the sample sizes of these subgroups for some states are very small even across the three-year range, the resulting poverty rate estimates may be unreliable for these states and should be treated with caution. **Table 3** reports Hispanic poverty rates for Mexicans and non-Mexicans. The results here reflect a similar pattern, compared to the larger race subgroups.

Some states have substantially different poverty rates across the two Hispanic subgroups. New York, for example, has a non-Mexican Hispanic poverty rate of 26.9 percent; its Mexican poverty rate, by contrast, is 41.8 percent. Other states have more uniform estimates: Texas' poverty rate for both Hispanic subgroups is about 21 percent, and California's rate is around 33 percent for both groups.

A more detailed breakdown of Hispanic poverty rates by nation of origin is presented in **Table A1** in the appendix.

The Effect of Economic Freedom on Poverty Measures

While any state-level comparison of poverty should be based on an empirical measure that accurately reflects differences in standards of living across states, perhaps a more fundamental question is, what causes these differences in the first place? Do state policies affect poverty rates, and if so, how much of a role do they play? While few studies use the SPM as the outcome variable of interest at the state level, several papers do examine the effect of economic freedom on income inequality at the state or international level.24 Most notably, Ashby and Sobel (2008)²⁵ use the Economic Freedom of North America index to predict differences in state-level measures of income inequality. The authors find that increases in economic freedom are correlated with decreases in income inequality, increases in income levels, and increases in income growth. I use this same state-level index of economic freedom to determine whether measured differences in

Table 3: Supplemental Poverty Measure (SPM) Rankings byHispanic Subgroup

STATE	HISPANIC	(RANK)	MEXICAN	(RANK)	NON-MEXICAN	(RANK)
Maine	6.01	(1)	2.56	(1)	7.54	(2)
West Virginia	7.24	(2)	6.43	(2)	9.30	(5)
North Dakota	8.31	(3)	9.49	(4)	4.83	(1)
Alaska	12.78	(4)	11.84	(6)	15.07	(9)
Wyoming	12.95	(5)	14.39	(8)	8.77	(4)
South Dakota	14.00	(6)	12.28	(7)	15.62	(11)
Mississippi	15.02	(7)	14.76	(10)	13.75	(8)
Idaho	15.31	(8)	16.10	(12)	7.84	(3)
lowa	15.68	(9)	14.84	(11)	19.43	(19)
Missouri	16.87	(10)	11.80	(5)	32.63	(50)
Montana	18.06	(11)	14.48	(9)	24.07	(32)
Vermont	18.09	(12)	7.41	(3)	21.17	(23)
Michigan	18.40	(13)	19.98	(17)	13.51	(7)
Nebraska	18.64	(14)	18.20	(15)	20.52	(21)
New Mexico	19.08	(15)	20.18	(19)	17.68	(14)
Washington	19.26	(16)	19.16	(16)	19.80	(20)
South Carolina	20.52	(17)	26.35	(33)	13.07	(6)
Texas	20.96	(18)	20.86	(21)	21.55	(25)
Indiana	20.99	(19)	20.14	(18)	24.81	(35)
Tennessee	21.38	(20)	20.76	(20)	24.15	(33)
Colorado	22.00	(21)	23.95	(27)	17.24	(13)
Minnesota	22.02	(22)	21.64	(22)	22.05	(26)
Hawaii	22.17	(23)	24.56	(29)	21.04	(22)
Wisconsin	22.54	(24)	21.94	(24)	24.80	(34)
Arkansas	22.64	(25)	24.23	(28)	15.15	(10)
Oregon	23.22	(26)	21.89	(23)	30.64	(47)
Connecticut	23.53	(27)	24.64	(31)	23.57	(30)
Ohio	23.58	(28)	23.70	(26)	23.18	(29)
Illinois	23.68	(29)	24.58	(30)	19.28	(18)
Oklahoma	23.87	(30)	23.49	(25)	26.35	(38)
Virginia	24.11	(31)	32.51	(46)	22.20	(27)
New Hampshire	24.31	(32)	27.56	(34)	23.14	(28)
Delaware	24.79	(33)	25.58	(32)	24.01	(31)
Utah	25.58	(34)	27.78	(35)	18.89	(16)
Florida	25.86	(35)	29.01	(41)	25.43	(37)
Maryland	26.01	(36)	29.55	(43)	24.91	(36)
Kansas	26.36	(37)	28.10	(38)	19.02	(17)
Massachusetts	26.76	(38)	33.23	(47)	26.62	(40)
Nevada	27.37	(39)	30.02	(44)	18.20	(15)
Arizona	27.58	(40)	28.69	(39)	15.84	(12)
Rhode Island	27.65	(41)	17.37	(14)	28.44	(44)
Georgia	27.91	(42)	28.03	(36)	27.86	(42)
North Carolina	28.51	(43)	28.82	(40)	28.20	(43)
New Jersey	28.79	(44)	42.93	(51)	26.61	(39)
New York	28.80	(45)	41.83	(50)	26.88	(41)
Pennsylvania	28.88	(46)	17.22	(13)	30.15	(46)
Alabama	29.09	(47)	28.08	(37)	30.03	(45)
Louisiana	29.66	(48)	38.90	(49)	21.54	(24)
Kentucky	29.89	(49)	29.16	(42)	32.53	(49)
Dist. of Columbia	31.76	(50)	30.05	(45)	32.19	(48)
California	33.41	(51)	33.52	(48)	32.79	(51)

Note: OPM and SPM estimates are generated using three-year averages generated from the 2011, 2012, and 2013 Supplemental Poverty Measure (SPM) Public Use Research files, available from the Census Bureau, and the 2012, 2013, and 2014 CPS ASEC files.

freedom can account for any variation in poverty measures. I use both the OPM and the SPM as dependent variables, as well as the demographic subgroup measures.

Economic Freedom of North America is an annual report published by the Fraser Institute ranking U.S. states and Canadian provinces based on several measures of economic freedom, including government size, taxation policies, freedom of labor markets, and property rights. States are ranked on a scale from 0 to 10 (higher scores indicate greater levels of economic freedom) in several different areas, and they are assigned an overall freedom score. I use both the overall score and the individual area indices as independent variables in the analysis. Figure 4 shows a summary of states ranked by their overall economic freedom scores. States with low levels of economic freedom include Maine and Vermont, with scores of 5.2 and 5.3. At the other end of the scale are states like Texas and South Dakota, which both scored a 7.8.

Table 4 reports the results from crosssectional state-level regressions of the effect of economic freedom on the OPM and the SPM. The overall economic freedom index (on a scale from 0 to 10) is used as the key independent variable in these regressions. Both specifications include controls for percentage of the population with a high school education, percentage of the population living in an urban area, marriage rate, and dummy variables corresponding to Census regions (South, Midwest, West, and Northeast).

The results suggest that higher levels of economic freedom are associated with lower poverty levels. Although the effect is negative in both specifications, it is larger in magnitude and only significant in the regression using the SPM as the

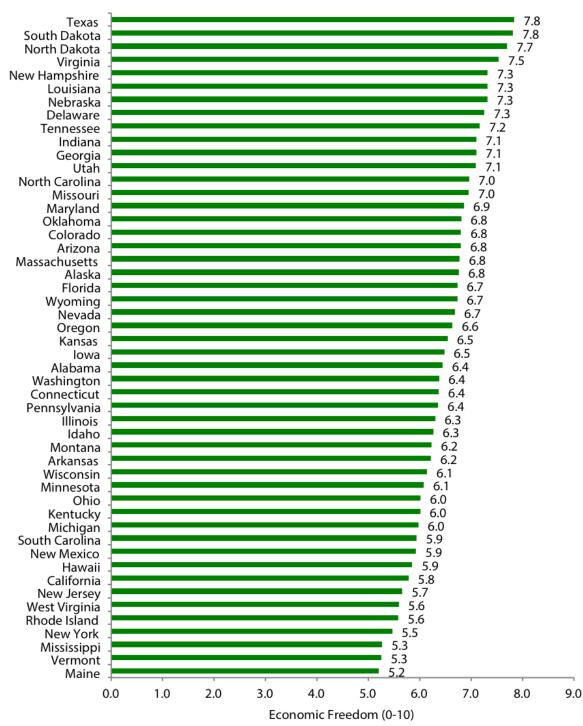


Figure 4: Economic Freedom by State

Source: Economic Freedom of North America 2014, Fraser Institute. Note: Higher numbers indicate greater levels of freedom.

dependent variable. The coefficient suggests that a onepoint increase on the economic freedom scale predicts a 0.53 percentage point decrease in the poverty rate. This effect, evaluated for the median state, would create a ranking improvement of about four slots. The corresponding decrease in the OPM is 0.25 percentage points, though the effect is not statistically significant. I also find that higher poverty levels, using both the OPM and SPM measures, are associated with states with higher urban concentrations, lower high school graduation rates, and lower marriage rates.

MEASURE	(1) OPM	(2) SPM
economic freedom	-0.0025	-0.0053*
	(0.0036)	(0.0029)
Midwest	-0.0098	-0.0191***
	(0.0075)	(0.0061)
Northeast	-0.0181	-0.0064
	(0.0112)	(0.0106)
South	-0.0133	-0.0040
	(0.0121)	(0.0117)
percent urban	-0.0004*	0.0011***
	(0.0002)	(0.0003)
percent high school grad	-0.0082***	-0.0051***
	(0.0014)	(0.0014)
population per sq mile	-0.0210	-0.0270
	(0.0125)	(0.0175)
married rate	-0.1914**	-0.2793***
	(0.0817)	(0.0831)
observations	50	50
R-squared	0.8314	0.8473

Table 4: Effect of Economic Freedom on Poverty Measures

variables such as tax revenue, top marginal tax rate, indirect tax revenue, and sales tax), and labor market regulations (measured by variables such as minimum wage legislation, government employment, and union density). The effect of each of these components on the SPM is taken into consideration in separate regressions. Because the overall economic freedom index is significant for only the overall SPM and the white subgroup, I report the component results only for these groups.

Notes: Robust standard errors in parentheses. OPM and SPM values are based on three-year estimates. *** p<0.01, ** p<0.05, * p<0.1

The results broken down by race subgroups for both the OPM and the SPM are presented in Table 5. Although economic freedom is not a significant predictor of the overall OPM measure, it is significant and negative in both the black and white subgroup regressions, suggesting that states with higher levels of economic freedom have lower overall poverty levels for those subgroups, all else equal. For the SPM regressions, economic freedom is only significant in the white subgroup, although the point estimates for the black and Hispanic groups are also negative. It is important to note that the lack of statistical significance for the race subgroups does not rule out the possibility that a relationship exists between economic freedom and poverty rates for those groups. Because the non-white subgroup poverty estimates for some states are based on very small sample sizes, the rates are less precise than the white poverty rates across states, which are based on much larger sample sizes. This likely contributes to the finding that only the white subgroup estimate in the economic freedom regression is statistically significant. In addition to examining the overall economic freedom measure as an independent variable, I also consider its various components. The index includes three main elements: government size (measured by variables such as government spending, transfers and subsidies, and social security payments), discriminatory taxes (measured by

Table 6 summarizes the results. Several components of the economic freedom index are significantly and negatively related to the overall SPM. Higher levels of freedom in discriminatory taxation, top marginal tax rates, and union density are all related to lower SPM rates. Most of the point estimates for the other components of the freedom index are also negative, although they are not statistically significant. One exception to this is that the variable measuring government employment relative to total state employment is positive and significant, meaning that less freedom in this area is correlated with lower poverty rates. This could be explained by the fact that states with large government sectors provide a steady source of employment, which may lead to lower poverty levels, all else equal.

Almost all the economic freedom components are negative in sign for the white-subgroup regressions, and about half of them are statistically significant. The significant factors include government size, labor market regulations, government spending as a percent of GDP, top marginal tax rates, minimum wage legislation, and union density. The point estimates range from 0.3 percentage points (top marginal tax rates) to 0.9 percentage points (labor market regulations).

MEASURE	OVERALL POVERTY MEASURE (OPM)				SUPPLEMENTAL POVERTY MEASURE (SPM)					
	Overall	Hispanic	Black	Asian	White	Overall	Hispanic	Black	Asian	White
economic	-0.0025	0.0072	-0.0500***	0.0020	-0.0081*	-0.0053*	-0.0036	-0.0177	0.0218	-0.0080*
freedom	(0.0036)	(0.0155)	(0.0173)	(0.0139)	(0.0044)	(0.0029)	(0.0132)	(0.0136)	(0.0203)	(0.0042)
Midwest	-0.0098	0.0152	0.0947***	0.0452**	-0.0106*	-0.0191***	0.0165	0.0354	0.0239	-0.0198***
	(0.0075)	(0.0294)	(0.0247)	(0.0187)	(0.0057)	(0.0061)	(0.0166)	(0.0261)	(0.0266)	(0.0047)
Northeast	-0.0181	-0.0196	0.0508	0.0722**	-0.0204**	-0.0064	0.0672*	0.0119	0.0895**	-0.0178**
	(0.0112)	(0.0469)	(0.0537)	(0.0328)	(0.0092)	(0.0106)	(0.0340)	(0.0437)	(0.0419)	(0.0078)
South	-0.0133	0.0126	0.0560*	0.0145	-0.0023	-0.0040	0.0558**	0.0172	-0.0100	-0.0002
	(0.0121)	(0.0442)	(0.0301)	(0.0252)	(0.0086)	(0.0117)	(0.0228)	(0.0301)	(0.0426)	(0.0065)
percent	-0.0004*	0.0004	0.0002	0.0006	-0.0008***	0.0011***	0.0034***	0.0012	0.0012	0.0002
urban	(0.0002)	(0.0012)	(0.0010)	(0.0008)	(0.0003)	(0.0003)	(0.0008)	(0.0009)	(0.0014)	(0.0002)
percent high	-0.0082***	-0.0076	-0.0031	0.0008	-0.0032***	-0.0051***	-0.0034	-0.0029	-0.0021	-0.0018*
school grad	(0.0014)	(0.0046)	(0.0033)	(0.0022)	(0.0011)	(0.0014)	(0.0029)	(0.0032)	(0.0032)	(0.0011)
population	-0.0210	0.0117	-0.0928	-0.0963**	-0.0157	-0.0270	-0.0561	-0.0472	-0.0796	-0.0109
per sq mile	(0.0125)	(0.0637)	(0.0650)	(0.0446)	(0.0122)	(0.0175)	(0.0386)	(0.0507)	(0.0697)	(0.0102)
married rate	-0.1914**	-0.2414	-0.1474**	-0.0070	-0.2619***	-0.2793***	-0.0203	-0.1224	-0.0269	-0.2732***
	(0.0817)	(0.1771)	(0.0690)	(0.0695)	(0.0896)	(0.0831)	(0.1138)	(0.0929)	(0.0779)	(0.0494)
Observations	50	50	50	50	50	50	50	50	50	50
R-squared	0.8314	0.1909	0.5464	0.2748	0.6736	0.8473	0.5652	0.2672	0.2567	0.6623

Notes: Robust standard errors in parentheses. OPM and SPM values are based on three-year estimates. *** p<0.01, ** p<0.05, * p<0.1

Conclusion

Examining differences introduced by the SPM and exploring variation in race-based poverty rates establishes that state-level comparisons based on the original OPM are superficial at best and conceal many important differences across states. I find considerable differences in states' overall poverty rates and rankings when using the SPM as compared with the OPM, particularly for states with very high or very low housing costs. These differences suggest it is reasonable for empirical policy studies examining poverty rates to include SPM measures and to incorporate demographic differences across states.

It is clear that using the OPM as a measure of statewide poverty exaggerates the poverty rate for individuals living in states with a low cost of living and understates it for those living in states with a high cost of living. Recalculating poverty rates with the SPM is a solid first step in creating comparable state-by-state poverty measures.

However, while the SPM is a marked improvement from the OPM, it still has its shortcomings. It only adjusts for geographic variation in housing prices, rather than overall cost-of-living differences. New research is being conducted by researchers at the Census Bureau that considers adjustments to the SPM to account for regional differences in the prices of other necessities, such as food and utilities.²⁶ These changes would provide a more accurate understanding of households in poverty and would create a clearer basis for state-level poverty comparisons.

In addition to examining state-level poverty rankings, I also investigate what types of state policies might influence these rankings in the first place. Specifically, I examine several measures of economic freedom to determine whether they are related to state-level poverty indices. I find evidence suggesting that many components of economic freedom are negatively correlated with poverty rates, and that the effect is statistically significant for the overall SPM poverty rate and the SPM rate for the white, non-Hispanic subgroup. Elements of the economic freedom index have a significant effect including government size, government spending, labor market regulations, and marginal tax rates. While poverty is a complex issue and many factors contribute to changing rates across time and across states, this research report provides preliminary evidence that the adoption of state policies that promote economic freedom could significantly affect the poverty level in that state.

Table 6: Effect of Economic Freedom by Component on Supplemental Poverty Index

ECONOMIC FREEDOM COMPONENT	(1) OVERALL	(2) WHITE
Overall Economic Freedom	-0.0053*	-0.0080*
	(0.0029)	(0.0042)
Area 1: Government Size	-0.0020	-0.0041**
	(0.0024)	(0.0018)
Area 2: Discriminatory Taxes	-0.0042*	-0.0043
	(0.0024)	(0.0036)
Area 3: Labor Market	-0.0011	-0.0090*
	(0.0048)	(0.0049)
Area 1A: Govt Expend (% GDP)	-0.0028	-0.0038***
	(0.0018)	(0.0014)
Area 1B: Transfers/Subsidies (% GDP)	-0.0022	-0.0010
	(0.0024)	(0.0018)
Area 1C: Soc Sec Payments (% GDP)	0.0016	-0.0014
	(0.0016)	(0.0015)
Area 2A: Tax Rev (% GDP)	-0.0020	-0.0023
	(0.0014)	(0.0019)
Area 2B: Top Marginial Tax Rate	-0.0026*	-0.0032*
	(0.0014)	(0.0018)
Area 2C: Indirect Tax Rev	-0.0015	0.0001
	(0.0018)	(0.0013)
Area 2D: Sales Tax	0.0003	-0.0006
	(0.0020)	(0.0029)
Area 3Ai: Min. Wage Legislation	-0.0025	-0.0048***
	(0.0030)	(0.0018)
Area 3Aii: Govt Employment	0.0029*	0.0026*
(% Total State Emp)	(0.0016)	(0.0013)
Area 3Aiii: Union Density	-0.0038*	-0.0058***
	(0.0022)	(0.0021)
Observations	50	50

Notes: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Each coefficient is from a separate regression of the SPM on a different component of economic freedom. Each regression includes controls for percent urban, percent high school graduates, population density, and Census region. OPM and SPM values are based on three-year estimates.

Notes

- ¹ U.S. Department of Health and Human Services, "Poverty Guidelines, Research, and Measurement," accessed December 30, 2014.
- ² "Economic Report of the President" transmitted to the Congress, January 1964, Together With the Annual Report of the Council of Economic Advisers, Washington, D.C.: U.S. Government Printing Office, 1964, 58.
- ³ Orshansky, Mollie, "Children of the Poor," Social Security Bulletin, Vol. 26, No. 7, July 1963, 3-13.
- ⁴ Orshansky, "Children of the Poor," 8.
- ⁵ "Statistical Policy Directive No. 14: Definition of Poverty for Statistical Purposes," Federal Register, Vol. 43, No. 87, May 1978, 1969.
- ⁶ Fisher, Gordon M., "<u>The Development and History of the US Poverty Thresholds—A Brief Overview</u>," Newsletter of the Government Statistics Section and the Social Statistics Section of the American Statistical Association, Winter 1997, 6-7.
- ⁷ Ibid. For a detailed account of the development of the Official Poverty Measure, see Fisher, Gordon M., "The Development and History of the Poverty Thresholds," Social Security Bulletin, Vol. 55, No. 4, 1992, 3-14.

⁸ <u>Ibid</u>.

- ⁹ "Supplemental Poverty Measure Overview," United States Census Bureau, revised October 16, 2014, accessed December 29, 2014.
- ¹⁰ "Observations from the Interagency Technical Working Group on Developing a Supplemental Poverty Measure," United States Census Bureau, March 2010, accessed December 29, 2014.
- ¹¹ Short, Kathleen, "<u>The Supplemental Poverty Measure: 2013</u>," Current Population Reports, P60-251, United States Census Bureau, October 2014, accessed December 29, 2014.
- ¹² According to an annual consumer expenditure report from the BLS, housing represented just under 33 percent of household spending in 2012. "<u>Consumer Expenditures in 2012</u>," Report 1046, U.S. Bureau of Labor Statistics, March 2014, accessed December 29, 2014.
- ¹³ "How the Census Bureau Measures Poverty," United States Census Bureau, revised September 16, 2014, accessed December 30, 2014.
- ¹⁴ Monthly rent numbers are median monthly gross residential rents from the <u>2013 American Community Survey</u> for the Hattiesburg metropolitan area and the San Francisco–Oakland–Fremont metropolitan area.
- ¹⁵ Three-year estimates are used so that the poverty rankings for the race subgroups (calculated later), which are based on small sample sizes for some states, will be more accurate. For consistency, three-year estimates are also used for the overall OPM and SPM rankings.
- ¹⁶ Both the OPM and the SPM rankings are created using the 2011, 2012, and 2013 Supplemental Poverty Measure (SPM) Public Use Research Files, which were created using the 2012, 2013, and 2014 CPS Annual Social and Economic Supplement (ASEC) files.
 "<u>Supplemental Poverty Measure Public Use Research Files</u>," United States Census Bureau, revised December 11, 2014, accessed October 15, 2014. Note that the SPM estimates presented are not exact replications of the SPM numbers published in the Census Bureau's Research SPM reports because the Census Bureau's reports are generated using the internal CPS ASEC file. For additional information, refer to the SPM documentation page at https://www.census.gov/hhes/povmeas/data/supplemental/public-use.
 <u>html</u>. Although OPM and SPM data from later years are available, estimates after 2013 are based on redesigned ASEC survey questions relating to income. To maintain comparable estimates across time, I restrict my analysis to the years 2011-2013. The 2013 OPM and SPM estimates analyzed here are based on the 2014 ASEC survey that is consistent with the traditional survey design from previous years. For further information, see the 2014 ASEC survey.
- ¹⁷ This column subtracts the OPM rank from the SPM rank. Positive numbers indicate that the state is more impoverished based on the SPM and that the OPM underestimates the true poverty rate. Negative numbers indicate that the state is less impoverished based on the SPM and that the OPM overestimates the true poverty rate.
- ¹⁸ "Supplemental Poverty Measure Public Use Research Files," United States Census Bureau, revised December 11, 2014, accessed October 15, 2014.
- ¹⁹ "NBER CPS Supplements," National Bureau of Economic Research, accessed October 15, 2014.
- ²⁰ The 2013 SPM file is created using the 2014 ASEC files, so I merge each ASEC file with the previous year SPM file. The two files are merged using the unique identifier h_seq pppos, which identifies a particular individual within a particular household. After each single-year file is merged, I combine them to create three-year poverty estimates for each race subgroup.
- ²¹ The three-year average estimates are generated from the 2011-2013 SPM files and the 2012-2014 ASEC files.
- ²² The Census estimate from 2013 of the Hispanic or Latino population in Texas is 38.4 percent. "<u>State & County QuickFacts: Texas</u>," United States Census Bureau, accessed December 31, 2014.
- ²³ The Census estimate from 2013 of the Hispanic or Latino population in California is 38.4 percent. "State & County QuickFacts: California," United States Census Bureau, accessed December 31, 2014.
- ²⁴ For international analyses of economic freedom and growth, see Gwartney et al. (1999), Cole (2003), and Powell (2003).
- ²⁵ Ashby, Nathan J. and Russell S. Sobel, "Income Inequality and Economic Freedom in the U.S. States," Public Choice, Vol. 134, No. 3/4, March 2008, 329-346.
- ²⁶ Renwick, Trudi, "<u>Geographic Adjustments of Supplemental Poverty Measure Thresholds: Using the American Community</u> <u>Survey Five-Year Data on Housing Costs</u>," United States Census Bureau, January 2011, accessed October 15, 2014.

Appendix

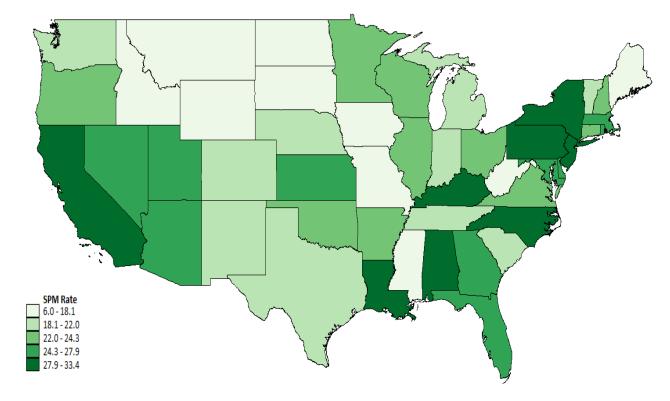
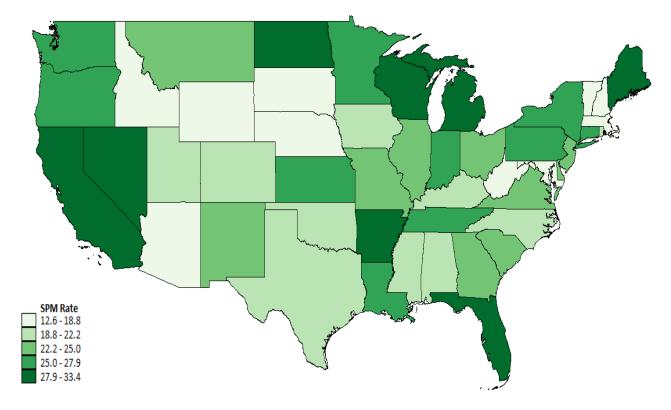


Figure A1: Supplemental Poverty Measure (SPM) by State (Hispanic)

Figure A2: Supplemental Poverty Measure (SPM) by State (Black)



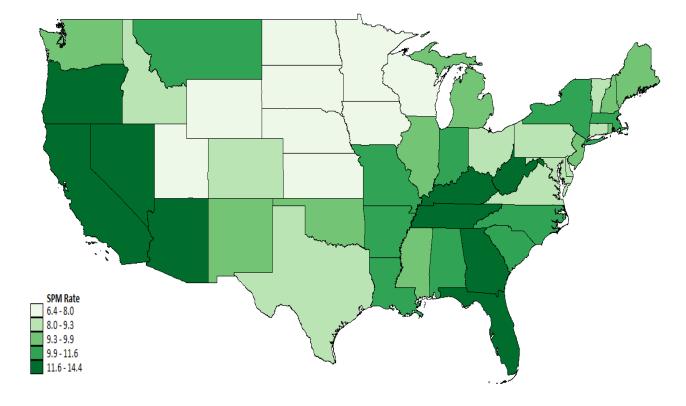


Figure A3: Supplemental Poverty Measure (SPM) by State (Asian)

Figure A4: Supplemental Poverty Measure (SPM) by State (White)

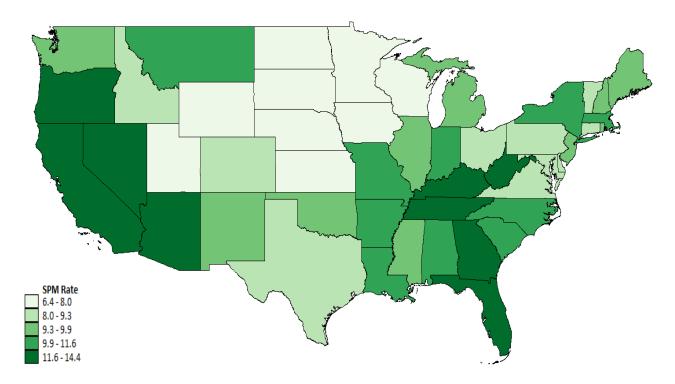


Table A1: Supplemental Poverty Measure (SPM) Rankings by Hispanic Subgroup

CTATE		-				071150
STATE	HISPANIC	MEXICAN	PUERTO RICAN	CUBAN	C. / SO. AM.	OTHER
Alabama	29.09	28.08	0.00	0.00	38.16	25.00
Alaska	12.78	11.84	4.69	0.00	34.10	5.00
Arizona	27.58	28.69	12.22	4.17	8.60	24.62
Arkansas	22.64	24.23	25.00	0.00	18.01	8.33
California	33.41	33.52	21.22	10.27	37.40	23.06
Colorado	22.00	23.95	8.76	20.00	22.59	16.43
Connecticut	23.53	24.64	24.14	15.87	24.03	15.06
Delaware	24.79	25.58	21.89	0.00	29.49	26.67
Dist. of Columbia	31.76	30.05	14.70	6.67	34.39	24.85
Florida	25.86	29.01	23.23	24.33	27.88	26.82
Georgia	27.91	28.03	22.62	5.56	37.39	5.43
Hawaii	22.17	24.56	21.00	0.00	15.22	23.98
Idaho	15.31	16.10	16.67	0.00	6.72	10.19
Illinois	23.68	24.58	16.82	14.47	20.90	37.96
Indiana	20.99	20.14	16.40	0.00	31.83	26.98
lowa	15.68	14.84	30.13	0.00	15.56	0.00
Kansas	26.36	28.10	44.60	33.33	4.89	16.67
Kentucky	29.89	29.16	5.42	40.00	34.31	77.78
Louisiana	29.66	38.90	46.52	0.00	16.56	15.15
Maine	6.01	2.56	7.64	0.00	16.24	0.00
Maryland	26.01	29.55	18.75	3.03	26.31	11.38
Massachusetts	26.76	33.23	27.98	13.33	23.00	34.66
Michigan	18.40	19.98	9.21	16.67	16.88	6.35
Minnesota	22.02	21.64	4.17	33.33	25.17	19.16
Mississippi	15.02	14.76	17.04	0.00	10.82	16.67
Missouri	16.87	11.80	38.10	33.33	27.41	3.70
Montana	18.06	14.48	50.00	100.00	9.52	19.05
Nebraska	18.64	18.20	33.33	36.36	18.01	22.91
Nevada	27.37	30.02	6.76	16.29	18.51	25.03
New Hampshire	24.31	27.56	21.56	6.67	26.65	14.53
New Jersey	28.79	42.93	22.31	8.45	30.13	28.17
New Mexico	19.08	20.18	8.33	19.78	24.74	17.26
New York	28.80	41.83	25.62	18.09	27.50	36.07
North Carolina	28.51	28.82	30.51	24.21	30.25	12.27
North Dakota	8.31	9.49	0.00	100.00	8.47	0.00
Ohio	23.58	23.70	29.08	4.76	28.18	7.41
Oklahoma	23.87	23.49	15.56	0.00	20.45	43.33
Oregon	23.22	21.89	10.32	40.00	21.01	43.06
Pennsylvania	28.88	17.22	35.03	4.76	23.54	10.94
Rhode Island	27.65	17.37	35.08	23.28	25.75	14.12
South Carolina	20.52	26.35	12.84	100.00	10.17	33.33
South Dakota	14.00	12.28	2.38	0.00	22.52	22.22
Tennessee	21.38	20.76	23.48	0.00	25.93	33.33
Texas	20.96	20.76	18.90	25.56	27.42	12.50
Utah	20.90	20.80	0.00	60.00	22.36	14.16
	18.09		5.26			25.00
Vermont	24.11	7.41 32.51	4.06	16.67	30.07	11.86
Virginia				7.50	26.08	
Washington	19.26	19.16	6.06	0.00	25.03	19.22
West Virginia	7.24	6.43	5.56	0.00	8.33	25.00
Wisconsin	22.54	21.94	30.64	0.00	19.36	12.12
Wyoming	12.95	14.39	26.79	0.00	28.01	5.54

About the Author



Dr. Courtney Collins received her Ph.D. in economics from Texas A&M University. She is currently an assistant professor at Rhodes College. Her fields of specialization include public economics, the economics of education, and applied econometrics. Much of her research examines public policy, both at the federal level and at the state and local level. Recent work includes a study of the growth in education legislation across time, an analysis of the potential regressive effects of federal regulations, and evaluations of class-size reduction policies and student ability sorting.

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