SNAP BENEFIT LEVELS AND ENROLLMENT RATES BY RACE AND PLACE: EVIDENCE FROM GEORGIA, 2007-2013

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Abstract

The Supplemental Nutrition Assistance Program (SNAP) decreases poverty and food insecurity or millions of low income Americans. Yet not all eligible households participate and disparities in participation exist by household size, race, ethnicity, and place. Using a county-level panel data set data from Georgia from 2007-2013 we examine the associations between maximum benefit levels and SNAP enrollment by household size, race, ethnicity, and metropolitan status. Maximum SNAP benefit levels were associated with increases in county-level SNAP enrollment across the board but especially for single person households, Hispanics, and rural Whites. These findings have implications for future changes to SNAP benefits.

KEYWORDS: SNAP, welfare, enrollment, race, ethnicity, geography

Acknowledgements

The authors thank Rebecca Boylan for research assistance.

This is an Accepted Manuscript of an article published by Taylor & Francis in the Journal of Hunger and Environmental Nutrition in April 2018, available online: https://www.tandfonline.com/doi/abs/10.1080/19320248.2018.1465002

Introduction

The U.S. Department of Agriculture's Supplemental Nutrition Assistance Program (SNAP) provides a monthly in-kind transfer, subsidizing food purchases for millions of Americans who meet the program's income eligibility guidelines. The program's scope is significant—between 40 and 50 percent of all Americans will use SNAP at some point in their lives.[1,2] SNAP reduces the number of people living in extreme poverty by about half, [3] lowers the overall poverty rate by five to ten percent in a typical year,[4] is effective in reducing food insecurity,[5,6] and serves as a countercyclical economic stimulus, most recently during the Great Recession.[7,8,9]

Despite SNAP's effectiveness in reducing food insecurity and poverty, participation rates consistently show that not all eligible households enroll in the program and that disparities exist in enrollment rates by household size, race, and geographic location. This means that many who stand to benefit from SNAP's health-enhancing effects do not receive it. [10,11,12,13] Single-person households, including the elderly and adults without dependents, are less likely to enroll in SNAP.[14,15] Eligible White and Hispanic households are under-enrolled as compared to other races and ethnicities, especially African American households.[16,17,18] Geography also matters; SNAP enrollment rates are higher in rural than in urban areas overall.[19,20,21]

One prominent explanation of this contradiction is that the costs of enrollment, especially stigma and transaction costs offset the potential benefits of participation for many.[22] These costs can include the shame of taking charity[23] as well as burdens associated with policies and practices of local food stamp offices, such as paperwork or long lines.[24] Prior research suggests

that costs of enrollment are experienced differently based on demographic and geographic factors.[25,26] For example, single-person households receive lower benefit levels relative to the rigors of the application process, transportation, and time away from work or other responsibilities. Hispanics may be less inclined to enroll due to fear of legal consequences even when children are eligible (regardless of parental citizenship status), while Whites are more likely to indicate that fear of social stigma prevents them from applying for SNAP.[27] Transportation costs may also vary significantly by urban and rural residence.[28]

There is a critical need to improve understanding of how these disparities might be addressed given that SNAP has become the cornerstone of the social safety net for low income families in the United States. After the welfare reform era of the 1990s, SNAP became one of the only national entitlement programs left that had the programmatic flexibility to respond to exogenous economic shocks such as the Great Recession.[29,30] SNAP's program design allowed for rapid growth in enrollment during the 2007 to 2009 recession, and for enrollment levels to remain at record levels for years following the economic downturn.[31,32] One contributing factor was the influx of billions of dollars in benefit increases provided by the one of the federal government's stimulus packages: the American Reinvestment and Recovery Act of 2009 (ARRA) provided 20 billion dollars in increased funding for SNAP.[33] For the average family receiving SNAP, this represented an approximate 16% increase in monthly benefit dollars received.[34]

Prior research has indicated one way to address under-enrollment is to increase benefits in an effort to counteract the costs of enrollment.[35,36] Yet few studies investigate how increased benefits affect enrollment rates differently by demographic and geographic characteristics. In this study, we build on previous research by examining how changes in maximum benefit levels due

to the ARRA affected county-level SNAP enrollment by household size, race, and metropolitan status. We leverage unique county-level data obtained from the Georgia Division of Family and Children Services (DFCS) on SNAP enrollment across 159 Georgia counties from 2007 to 2013. A county-level analysis is suitable in light of prior research indicating that community-level factors – such as office location, application processes, and staffing – can affect SNAP enrollment.[37] Unlike county-level data available at the national level these SNAP enrollment data from Georgia are stratified by race and ethnicity, which allows us to examine differential effects of benefit levels during the Great Recession by demographic and geographic characteristics.

Methods

Data. We utilize a panel data set incorporating demographic, economic, and SNAP enrollment data in the state of Georgia from 2007-2013. A primary advantage of these Georgia data is that national data provided by USDA do not disaggregate enrollment by race or ethnicity at the county-level.[38] In addition, Georgia features substantial variation by race and ethnicity, as well as metropolitan status at the county level that make it well suited for our analysis. Atlanta is the third largest metropolitan area in the Southeast and the ninth largest in the United States.[39] Although the 29 counties of the Atlanta metropolitan area dominate north-central Georgia, the southern half of the state is overwhelmingly agricultural with high rates of poverty and high African American populations. The state is situated within the historic rural "Black Belt" region long saddled with persistent poverty and attendant social problems.[40] African-Americans make up 31.5 percent of the total state population, ranging from less than one percent of the population in some counties to over 76 percent of the population in others. Georgia also has a rapidly

growing Hispanic population (9.3 percent of the population in 2014, up from 5.3 percent in 2000), many of whom work in agribusiness and manufacturing in Georgia's rural counties.[41,42]

Dependent variables in our analyses are county-level SNAP enrollment rates by race and ethnicity (White, African American, and Hispanic), calculated as the percentage of the county population (total, as well as for each racial and ethnic group) that is enrolled in SNAP as of June 1 each year.[43] The Georgia Department of Family and Children Services (DFCS) office provided unpublished data on SNAP caseloads stratified by race and ethnicity in June of each year in a time series (2007 to 2013) for all 159 counties in Georgia. This follows the same method used in previous county-level analyses of SNAP participation.[44] Independent variables of primary interest are the maximum monthly benefit levels by household size as set by the United States Department of Agriculture (USDA) each year. These data were obtained from the University of Kentucky Center for Poverty Research[45] and adjusted for inflation to 2013 dollars.

All models account for additional factors that likely contributed to SNAP enrollment increases during the same period. The economic crisis caused more people to become eligible for SNAP receipt due to loss of employment, increased underemployment, and lowered household incomes. Like previous county-level studies of SNAP participation,[46,47] we account for such changes in the eligible population by controlling for: 1) the percentage of the county population that falls below the 125 percent poverty threshold[48] obtained annually from the American Community Survey 5-year estimates and, 2) the percentage of the county population that is unemployed obtained from the Georgia Department of Labor, Yearly Civilian Labor Force Estimates.

We also include relevant county-level demographic control variables from the American Community Survey (ACS) 5-Year Estimates series for each year in our analysis for all 159

counties in Georgia. For example, we use estimates from the ACS 2005-2009 for 2007 in our time series, and so on. These variables include county-level racial and ethnic composition (percent of the total county population that is African American, Asian, and Hispanic, with percent White as the reference group), age (percent of the total population that is under age 18 and percent of the total population that is age 65 or older), and the percent living in urban areas. Further, we control for the percent of the county's households that are female-headed.

To stratify our models by metropolitan and nonmetropolitan counties we use the USDA Economic Research Service's (ERS) classification system.[49] The ERS typology classifies a county as metropolitan if it contains one or more urbanized areas, is a high-density urban area with 50,000 people or more, or is an outlying county that is economically tied to central counties, as measured by the share of workers commuting from that county into central counties on a daily basis. Nonmetropolitan counties are located outside metropolitan areas and have no cities with a population of 50,000 people or more

Statistical Analysis. Our analysis employs a series of fixed effects regression models predicting SNAP enrollment. This is first performed for the total county population, then for each racial and ethnic group, and finally, stratified by county metropolitan status. In the absence of random assignment, fixed effects regression models control for unmeasured time-invariant factors that may confound the results.[50] Fixed effects regression models use each county as its own control, such that only within-county variation is used to estimate the regression coefficients while all time-invariant characteristics are controlled. These models require that the dependent variable be measured for each county at a minimum of two time points and that the independent variables of interest vary over time for a substantial portion of the sample.

The data set for this study meet the criteria for a panel fixed effect approach, as it includes all counties in Georgia (*n*=159), with annual observations spanning from 2007 through 2013. Fixed effects models can be carried out over multiple time points via differencing or by mean deviation as follows:

$$y_{it} - \overline{y_i} = (\mu_t - \overline{\mu_t}) + \beta(\boldsymbol{x}_{it} - \overline{\boldsymbol{x}_i}) + (\varepsilon_{it} - \bar{\varepsilon}_i),$$

where each variable is expressed as a deviation from its county-specific mean across all time periods, *i* represents individual counties, *t* indicates year, and *x* represents a vector of time-varying characteristics of each county. μ_t represents an intercept that may vary by year and ε_{it} represents random error at each time point. Because the level of analysis is the county-year, and county error terms are not independent from one another across time, the independent error assumption is violated and thus standard errors are clustered at the county level to account for this issue.

We began by assessing whether and how changes in the maximum monthly SNAP benefit amount affected total SNAP enrollment, as shown in Table 2, varying the household size from one to four persons in each model. We next examined the effects of SNAP benefits on county enrollment rates by race and ethnicity for the maximum SNAP benefit for two-person households, as shown in Table 3. Finally, we stratified the models in Table 4 by county metropolitan status in order to examine whether and how SNAP enrollment varies by race and ethnicity across geographic context.

Sensitivity Analyses. To examine the robustness of our findings we performed supplemental analyses, including fitting OLS models as shown in Supplemental Table 4. These results show that our findings are robust to model specification. We also examined whether the inclusion of

other SNAP policy variables affect our results. In Supplemental Table 5 we included a measure of recertification period, which is the length of time SNAP participants have before they have to recertify their eligibility for continued participation. Recertification involves further paperwork and bureaucratic hassle that could hamper participation among eligible households. This variable was operationalized as the proportion SNAP households with earnings that had to recertify every six months, compiled from the USDA's SNAP Policy Data System online. We found that including this measure did not substantively change our results. As a robustness check to assess whether observed differences in coefficients by race and ethnicity are significant, we calculated Wald tests. To do so, we demeaned the data and use the `'suest'` and `'test'` commands in STATA v.14.1.

Results

Descriptive Statistics. Table 1 provides descriptive statistics for all variables used in the analyses. On average over the study period, 20 percent of the total population in Georgia was enrolled in SNAP, ranging by county from 1 percent to 64 percent. About one-third of the state's African American population was enrolled on average, compared to 13 percent of Whites and 12 percent of Hispanics statewide. [51] The maximum benefit level for households ranged from $195 for a one-person household to $651 for a four-person household in real dollars, as shown in Table 1. Nationally, the average size of SNAP households was 2.1 people as of 2013.[52] In real dollars, the maximum benefit level for two-person households rose from $319 in 2007 to $380 in 2011 and then decreased to $367 in 2013.

[Table 1 about here]

On average, 28 percent of Georgia's population was living at or below 125 percent of the poverty level during this time period, although this ranged widely from 6 to 57 percent by county-year, as shown in Table 1. Between 2007 and 2013, the average unemployment rate across Georgia counties was 9.2 percent. The unemployment rate also ranged substantially, between 3 percent and 22 percent by county-year. Finally, as shown in Table 1, 47 percent of Georgia counties are classified as metropolitan.

Multivariate analysis of total SNAP enrollment rates by household size. Table 2 presents results from multivariate models showing that maximum SNAP benefits are positively and significantly related to SNAP enrollment, robust to household size. Among the household sizes, however, the magnitude of the coefficient is highest for one-person households. For every one dollar increase in the maximum benefit for a one-person household total county SNAP enrollment increased by 0.34 percent ($p<.01$), which is two to three times greater than for larger households (0.18 ($p<.01$) for two-person households, 0.13 ($p<.01$) for three-person households, and 0.10 ($p<.01$) for four-person households). These findings indicate that the marginal benefit is greater among single person households, relative to all larger households with two, three, and four persons, respectively.

[Table 2 about here]

Examining our data from Georgia, Figure 1 shows that one-person households enrolled in SNAP experienced the highest rate of growth over the Great Recession years (2007 to 2011). The percent of all SNAP households that are three- or four-persons remained largely flat, hovering around 20 to 22 percent over the time period. Conversely, both one-and two-person SNAP households increased in the percent of the total SNAP households on average. Two-

person SNAP households grew by about 1 percent of all households enrolled between 2007 and 2011. But one-person SNAP households grew by 6 percent, from 13 percent of all SNAP households on average to 19 percent between 2007 and 2013.

[Figure 1 about here]

Multivariate analysis of SNAP enrollment rates by race and ethnicity. Table 3 displays results for SNAP enrollment by race and ethnicity using the maximum SNAP benefit for two-person households,[53] but the same pattern of coefficients we found by household size in Table 2 persist across race and ethnicity (see Supplemental Tables 1-3). Here we observe that benefit levels are associated with White and Black enrollment at the same magnitude as total enrollment (see Table 2). For ethnicity, however, we observe a higher magnitude association between SNAP benefit levels and Hispanic enrollment rates. Net of covariates, every $1 increase in the maximum benefit for a two-person household increases Hispanic enrollment by 0.30 percent ($p<.01$), an effect that is 5.5 percent larger than for total enrollment.

[Table 3 about here]

Multivariate analysis of SNAP enrollment by race, ethnicity, and metropolitan status. The models in Table 4 show that the increase in maximum SNAP benefits for two-person households is associated with increases in SNAP enrollment across all racial and ethnic groups and across both metropolitan and non-metropolitan counties, with the exception of Black enrollment rates in non-metropolitan counties which is marginally significant ($p<.10$).[54]

[Table 4 about here]

Notably, the coefficients for SNAP benefit levels are higher in magnitude for Whites in non-metropolitan counties than for Whites in metropolitan counties and higher for Hispanics in metropolitan counties than for Hispanics in non-metropolitan counties. There was no statistically

significant difference in the coefficients for either Hispanic or Black enrollment by county metropolitan status. Conversely, increased SNAP benefit levels enhanced SNAP enrollment for rural Whites at a higher rate than for Whites living in metropolitan counties (χ^2=38.15, p<.001). This indicates that increased SNAP benefit levels enhanced SNAP enrollment for rural Whites at a higher rate than for Whites living in metropolitan counties.

Discussion

In summary, using county-level data from the state of Georgia between 2007 and 2013, we find that increased benefit levels significantly increased SNAP enrollment across the board. This is line with theory suggesting that stigma and transaction costs can be counteracted by increasing program benefits. In our analysis, a $100 increase in the real maximum benefit level for two person households increased total SNAP enrollment at the county level by 18 percent in Georgia.

We further find that increased SNAP benefit levels were most strongly associated with higher SNAP enrollment rates for one-person households, Hispanics overall, and Whites in rural areas. The fact that our results show independent effects of benefit level increases on SNAP enrollment for these particular populations, controlling for economic and demographic conditions as well as fixed effects, lends credibility to the idea that higher benefit levels help overcome the costs of enrollment for eligible people who may be otherwise disinclined to enroll due to stigma and transaction costs.

For example, smaller households might typically be less inclined to enroll given high transaction costs but lower benefit levels. Over the study period, the percentage of Georgia's population living in single-person households remained stable at about 9.5 percent, so it is

unlikely that the change we observe in SNAP one-person households (Figure 1) is due to trends in household size overall.[55] Rather, our multivariate model results suggest that the increase in maximum SNAP benefits contributed meaningfully to this growth in one-person SNAP households enrolled. Similarly, the significant positive association between SNAP maximum benefit levels and enrollment rates for Hispanics overall and Whites in nonmetropolitan counties indicate that increased benefit levels may help improve program participation for members of racial and ethnic groups that might otherwise be disinclined to enroll, perhaps due to stigma or transaction costs.

This study has several limitations that must be acknowledged, including the use of data from only one southeastern U.S. state. We do so due to the lack of county-level SNAP enrollment data by race and ethnicity at the national level. Although Georgia provides a diverse setting for examining SNAP enrollment, further research is needed to validate these results in other contexts. In particular, future research should closely examine the role of compositional and contextual factors (e.g. race, ethnicity, and metropolitan status) when evaluating the effectiveness of or proposing changes to social welfare programs. In addition, the current data do not account for the move to online and phone enrollment processes that took place in Georgia during the same time period. There is reason to doubt that these changes actually succeeded in streamlining enrollment due to substantial technical problems with the online and call-in systems. Notably, a class-action lawsuit[56] recently settled in Georgia provides retroactive benefits to households that were unable to access DFCS' online and call-in enrollment system in 2013 due to technical problems.

These limitations notwithstanding, our study suggests that increased benefit levels can not only leverage non-trivial increases in SNAP participation across the board, but also appear to

have some notable differential effects by household size, race, ethnicity, and place. These findings are particularly important in light of the recent sunset of the American Reinvestment and Recovery Act (ARRA) in 2013. Since then, SNAP enrollment has declined nationwide, falling by two percent in 2014 and an additional two percent in 2015.[57] A recent study has already indicated that the attendant decrease of $36 in benefit levels for the average SNAP household increased food insecurity by about four percent among SNAP households.[58]

Considering the political landscape post-2016 elections, further decreases in benefits and stricter eligibility requirements may be forthcoming. For example, President Trump's proposed 2018 budget included shifting $100 billion in SNAP costs to the states and increasing states' ability to cut SNAP benefit levels.[59] Doing so would diminish SNAP's ability to respond to recessions given the added burden to states' budgets.[60] Understanding how policy changes such as decreased benefit levels affect enrollment among otherwise disinclined populations and, consequently, beneficial health outcomes is particularly salient as SNAP policy change is proposed.

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e raw data received from DFCS revealed 37 (out of 1,113) county-years with missing data or conspicuous

ent patterns between years. We replaced these observations using linear interpolation. We also ran our analyses

unty-years and our results were unchanged.

eristics of Supplemental Nutrition Assistance Program households: Fiscal year 2013. Supplemental Nutrition

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ld SNAP size was 2.1 persons in 2013, so for simplicity results are reported in Tables 3 and 4 for two person

ever, all results by race, ethnicity, and geographic location are robust to specification of household size. Full

izes of one, three, and four persons are reported in Supplemental Tables 1-3.

unemployment is negative and significant for Hispanic enrollment in the model for non-metropolitan counties

unexpected given that unemployment overall is associated with increased SNAP enrollment during this time.

do not allow us to test the mechanism for this negative association directly, we hypothesize that this is due to

SNAP enrollment, such as citizenship and work requirements that might particularly disincentivize enrollment

rural Georgia. Hispanics living and working in rural Georgia counties are by and large employed in agriculture

s employment in these sectors declined during the recession, it is plausible that many Hispanics in rural counties

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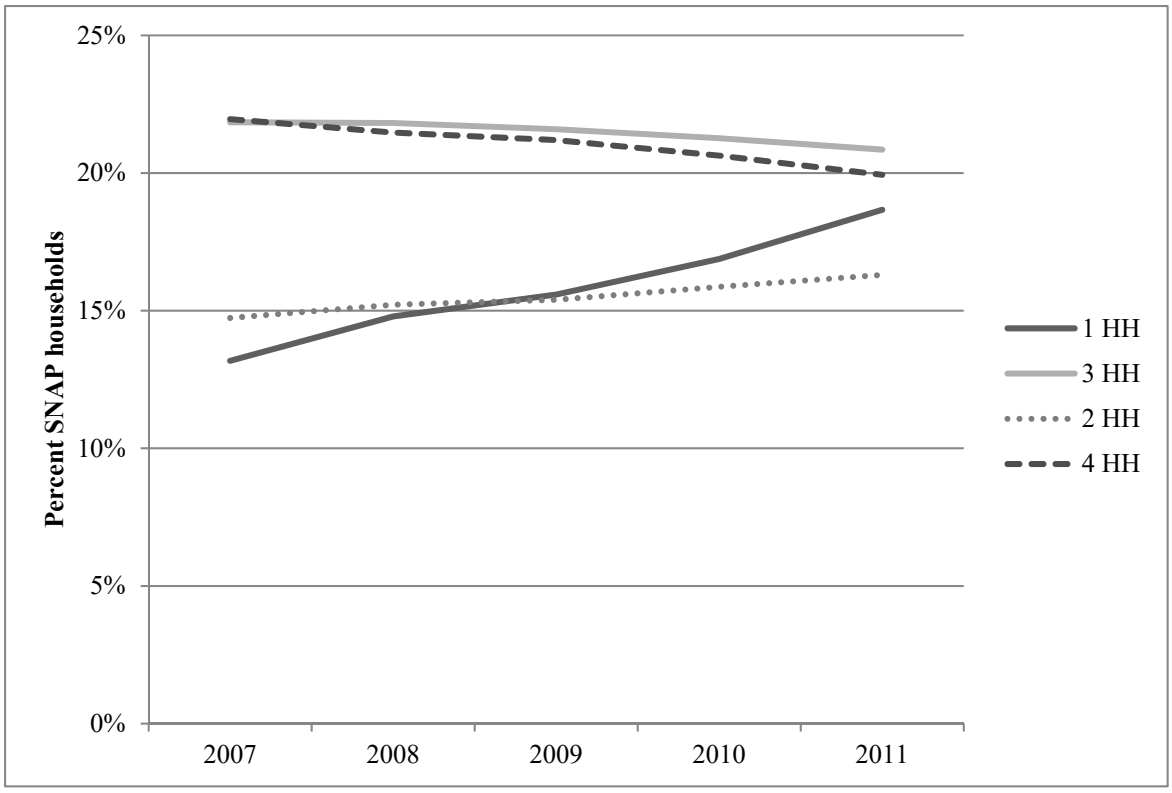
Figure 1. Percent of average total county SNAP households by household size.



Source: Authors' calculations based on unpublished data files from the Georgia Division of Family and Children Services.

Notes: HH denotes "household" and the number denotes number of persons.

Table 1. Variable means and standard deviations.

Variable	Mean	Standard Deviation	Min	Max
% Total Population Enrolled in SNAP	20.12	8.83	1.15	64.48
% White Population Enrolled in SNAP	12.82	6.71	.92	58.65
% African American Population Enrolled in SNAP	33.48	14.98	.62	95.00
% Hispanic Population Enrolled in SNAP	12.25	10.80	.08	95.00
Maximum Monthly SNAP Benefit one-person Household	194.90	14.25	174.18	213.66
Maximum Monthly SNAP Benefit two-person Household	357.69	23.10	319.15	392.07
Maximum Monthly SNAP Benefit three-person Household	512.65	37.41	458.50	561.93
Maximum Monthly SNAP Benefit four-person Household	651.18	47.33	582.11	713.64
% Population Unemployed	9.17	2.94	3.00	21.90
% Population Below 125% Federal Poverty Level	27.71	8.44	5.92	56.68
% Population that is African American	28.12	17.15	.40	75.80
% Population that is Asian	1.06	1.29	0	11.30
% Population that is Hispanic	5.61	5.28	.50	33.30
% Population <18 years old	24.57	2.97	14.00	38.30
% Population >65 years old	13.71	3.780	2.60	32.40
% Population Living in Urban Area	39.52	28.93	0	100
% Female-Headed Households	9.23	4.63	.68	87
Metropolitan County (1=yes, 0=no)	.47		0	1
Observations	**1113**			

Table 2. Ordinary Least Squares fixed effect regression coefficients, total SNAP enrollment by household size.

	1 person b/se	2 person b/se	3 person b/se	4 person b/se
SNAP Benefit (USD$)	0.34***	0.18***	0.13***	0.10***
	(0.06)	(0.03)	(0.02)	(0.02)
Unemployment Rate	0.013	0.013	0.013	0.013
	(0.12)	(0.12)	(0.12)	(0.12)
% Population <125% Federal Poverty Level	-0.016	-0.016	-0.016	-0.016
	(0.08)	(0.08)	(0.08)	(0.08)
% Population African American	0.17	0.17	0.17	0.17
	(0.17)	(0.17)	(0.17)	(0.17)
% Population Asian	-1.54**	-1.54**	-1.54**	-1.54**
	(0.73)	(0.73)	(0.73)	(0.73)
% Population Hispanic	-0.28**	-0.28**	-0.28**	-0.28**
	(0.13)	(0.13)	(0.13)	(0.13)
% Population <18 Years Old	0.46***	0.46***	0.46***	0.46***
	(0.16)	(0.16)	(0.16)	(0.16)
% Population >65 Years Old	-0.21	-0.21	-0.21	-0.21
	(0.22)	(0.22)	(0.22)	(0.22)
% Population Living in Urban Area	-0.24	-0.24	-0.24	-0.24
	(0.21)	(0.21)	(0.21)	(0.21)
% Female-Headed Households	-0.0074	-0.0074	-0.0074	-0.0074
	(0.06)	(0.06)	(0.06)	(0.06)
Constant	-42.1***	-41.4***	-42.5***	-42.3***
	(11.97)	(11.91)	(12.01)	(12.00)
Number of Observations	1113	1113	1113	1113

* p<0.10, ** p<0.05, *** p<0.01 County and Year Fixed Effects included with standard errors clustered at the county level. SNAP benefit amount adjusted to 2013 dollars. Standard errors clustered at the county level. Race results are relative to the percentage of the county that is white, which is the reference group.
b/se refers to coefficient and standard errors, respectively.

Table 3. Ordinary Least Squares fixed effect regression coefficients, SNAP enrollment by race

	(1) White b/se	(2) Black b/se	(3) Hispanic b/se
SNAP Benefit (USD$) – 2-person Household	0.18***	0.18***	0.30***
	(0.03)	(0.06)	(0.08)
Unemployment Rate	-0.046	-0.078	-0.45*
	(0.10)	(0.23)	(0.24)
% Population <125% Federal Poverty Level	0.0093	-0.036	-0.00080
	(0.06)	(0.13)	(0.11)
% Population African American	0.077	-0.86**	-0.17
	(0.13)	(0.34)	(0.28)
% Population Asian	-2.23***	-1.49	-2.51*
	(0.58)	(1.86)	(1.46)
% Population Hispanic	-0.16	-0.56**	-0.89***
	(0.10)	(0.26)	(0.32)
% Population <18 Years Old	0.31**	0.54*	0.38
	(0.12)	(0.32)	(0.29)
% Population >65 Years Old	-0.31	0.23	-0.36
	(0.19)	(0.38)	(0.41)
% Population Living in Urban Area	-0.28*	0.28	-0.54**
	(0.14)	(0.51)	(0.24)
% Female-Headed Households	-0.016	-0.013	0.029
	(0.04)	(0.11)	(0.10)
Constant	-41.4***	-24.9	-56.6***
	(9.23)	(24.67)	(19.63)
Number of Observations	1113	1113	1113

* p<0.10, ** p<0.05, *** p<0.01 County and Year Fixed Effects included with standard errors clustered at the county level. SNAP benefit amount adjusted to 2013 dollars. Standard errors clustered at the county level. Race results are relative to the percentage of the county that is white, which is the reference group. b/se refers to coefficient and standard errors, respectively.

Table 4. Ordinary Least Squares fixed effect regression coefficients, SNAP enrollment by race & place

	White Metro b/se	White Non-Metro b/se	Black Metro b/se	Black Non-Metro b/se	Hispanic Metro b/se	Hispanic Non-Metro b/se
SNAP Benefit (USD$) – 2-person Household	0.14***	0.20***	0.32***	0.12*	0.32***	0.25**
	(0.04)	(0.04)	(0.11)	(0.07)	(0.12)	(0.10)
Unemployment Rate	0.24	-0.17	0.28	0.027	0.025	-0.48**
	(0.20)	(0.12)	(0.51)	(0.20)	(0.49)	(0.23)
% Population <125% Federal Poverty Level	0.16	-0.078	0.26	-0.064	0.23	-0.044
	(0.15)	(0.06)	(0.37)	(0.09)	(0.30)	(0.10)
% Population African American	0.042	0.31*	-1.36**	-0.65**	-0.25	-0.084
	(0.20)	(0.16)	(0.59)	(0.32)	(0.46)	(0.36)
% Population Asian	-2.39***	-1.82	-1.46	-4.07*	-3.97*	-1.76
	(0.67)	(1.27)	(2.44)	(2.41)	(2.06)	(2.74)
% Population Hispanic	-0.86**	-0.041	-2.18*	-0.27	-2.78**	-0.77**
	(0.43)	(0.15)	(1.25)	(0.26)	(1.15)	(0.34)
% Population <18 Years Old	0.27*	0.37	0.45	0.70	0.54	0.14
	(0.15)	(0.23)	(0.46)	(0.52)	(0.39)	(0.49)
% Population >65 Years Old	-0.063	-0.47	-0.43	0.21	-0.38	-0.59
	(0.20)	(0.32)	(0.57)	(0.50)	(0.49)	(0.64)
% Population Living in Urban Area	-0.17	0.016	-0.12	-0.021	-0.18	0.044
	(0.17)	(0.04)	(0.51)	(0.07)	(0.38)	(0.09)
Constant	-37.4***	-62.2***	-41.5	2.49	-81.7***	-54.5*
	(13.09)	(12.35)	(32.20)	(27.15)	(28.73)	(29.61)
Number of Observations	518	595	518	595	518	595

* p<0.10, ** p<0.05, *** p<0.01. County and Year Fixed Effects included with standard errors clustered at the county level. SNAP benefit amount adjusted to 2013 dollars. Standard errors clustered at the county level. Race results are relative to the percentage of the county that is white, which is the reference group. b/se refers to coefficient and standard errors, respectively.