

Chapter 7

SNAP, UI, and Employment Interactions in Maryland, 2009–2015

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This chapter presents an analysis of interactions in the use of programs in the Maryland social safety net during and since the 2007–2009 Great Recession. The focus is on the Supplemental Nutrition Assistance Program (SNAP) and the Unemployment Insurance (UI) benefit program. We use administrative data from these programs along with UI wage record data to analyze issues relevant to the composition and cost of the Maryland and national SNAP caseloads, in the hope that this may inform future policy and program management.¹

This study spans the period from January 2009 through December 2015. The first six months of data for the study cover the last six months of the Great Recession, which lasted from December 2007 to June 2009. The January 2009 starting point for the data serves as a baseline for recession levels of SNAP and UI program benefit receipt and employment. This baseline facilitates the study of postrecession SNAP and UI benefit interactions and related employment and earnings trends.

Following are some key findings from this study:

- Maryland was fortunate to experience a less severe recession than the nation at large. The SNAP and UI programs complemented each other in providing a safety net for Marylanders who lost their jobs or experienced food insecurity during the recession and the ensuing recovery.

- Maryland SNAP caseloads plateaued at a higher level than prerecession levels.
- Eight quarters after receiving their first weekly UI benefit payments, 67 percent of recipients of UI, of emergency unemployment compensation (EUC), or of extended benefits (EB) did not have any employment reported in our Maryland UI employment data.
- Those UI recipients not observed as having earnings after receiving some type of UI benefit during the study period tended to be older and had smaller household size, fewer children, a higher number of household members with disabilities, and lower education. This is the group most likely to turn to SNAP for additional support after exhausting UI benefit eligibility, and there is evidence that UI exhaustees in Maryland did indeed turn to SNAP for help.
- In comparing program utilization patterns (receiving SNAP benefits first vs. receiving UI benefits first), we see that recipients who enrolled in SNAP first were younger, belonged to larger households, had more children, were more likely to be headed by a female, and were more likely to never have been married than recipients who enrolled in UI first.
- Some SNAP subgroups fared better than others. SNAP recipients aged 46 to 65 were often single-person households and therefore had a low benefit level, since SNAP benefits are based on household size. They also had significantly lower wages than those aged 31 to 45.
- Households that entered UI first were more attached to the labor market and had higher prebenefit earnings, thus higher UI benefit amounts. Households that either enrolled in SNAP and UI simultaneously or in SNAP first were worse off, as their UI benefits and earnings were low enough that their combined income left them below the SNAP eligibility ceiling.

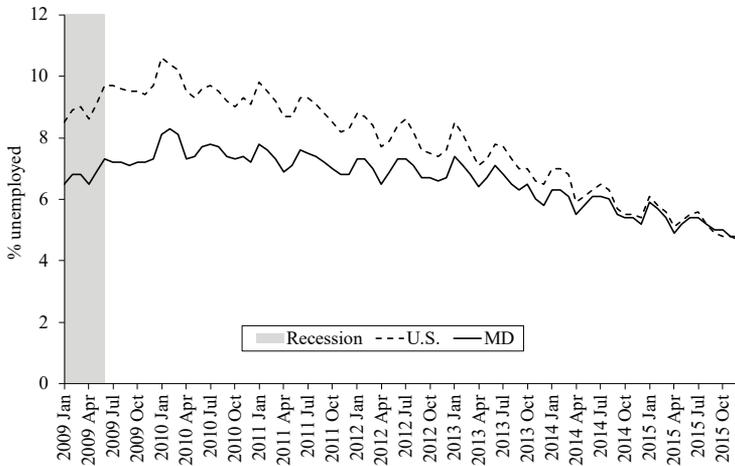
This chapter begins with brief descriptions of Maryland's SNAP and UI programs. Data sources and population definitions are then introduced. Descriptions of Maryland SNAP household characteristics follow to aid in better understanding the study population, as well

as the characteristics of the joint SNAP and UI participants. Finally, we review the program and labor market outcomes for Maryland SNAP and UI. The chapter ends with a discussion of the potential policy implications of these findings.

BACKGROUND

Maryland experienced a less severe recession than the United States as a whole, but it also experienced a more gradual recovery. Figure 7.1 shows the convergence in unemployment rates between Maryland and the national average. Maryland's 2 percentage point advantage at the start of the recession was eliminated by the end of 2015.

Figure 7.1 Monthly Unemployment Rate, United States vs. Maryland (not seasonally adjusted)



SOURCE: Bureau of Labor Statistics, Local Area Unemployment Statistics, Not Seasonally Adjusted; and Bureau of Labor Statistics, Current Population Survey, Not Seasonally Adjusted.

As of 2015, Maryland was the nineteenth most populous state in the United States, with a population of just over six million (U.S. Census Bureau 2016). Women made up slightly more than half of Maryland's population, and over 60 percent of the total population was between 20 and 64 years of age. The population was approximately 60 percent white, 30 percent African American, and 6 percent Asian. Nine percent of the population was Hispanic (American FactFinder 2016).²

In 2014, Maryland was the wealthiest state in the nation, with the highest median household income (\$74,149) of any state (American FactFinder 2014). Since 2012, Maryland has ranked between sixth and eighth in the nation in terms of average weekly wage (BLS 2016). However, despite its sustained economic success, in the past few years Maryland's wage growth has slowed relative to the average rate of wage growth in the United States (Figure 7.1).

Unemployment Insurance in Maryland

As in other states, three UI programs were offered in Maryland during the study period examined in this chapter: 1) regular state UI, 2) emergency unemployment compensation (EUC), and 3) extended benefits (EB). Of the three, the regular UI program is used most often, both during recessions and at other times. Like other states, Maryland funds this program through unemployment taxes paid to the state by employers. The UI benefits paid to eligible applicants are based on the individual's prior earnings and compliance with other requirements once monetary eligibility has been confirmed. Maryland pays UI benefits to applicants who are

- unemployed through no fault of their own,
- able to work, and
- actively seeking work.

The maximum duration of regular UI benefit receipt in Maryland is 26 weeks (Maryland Department of Labor, Licensing, and Regula-

tion 2019). Unlike some other states, which have reduced the maximum number of weeks in recent years, Maryland's maximum has remained unchanged.

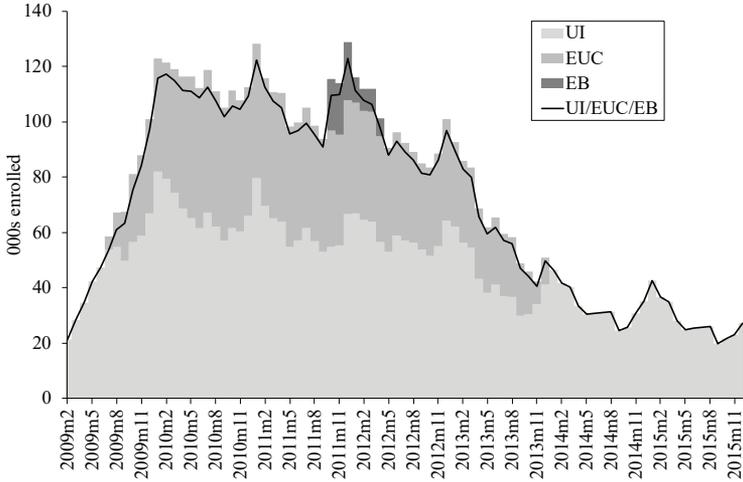
The EUC program, implemented in 2008 and allowed to lapse at the end of 2013, provided 100 percent federally funded benefits to UI applicants who exhausted their state entitlement but continued to satisfy other eligibility requirements. It paid benefits to individuals who exhausted regular UI benefits in benefit years ending on or after May 1, 2007. No EUC benefits were paid for claims after the week ending December 28, 2013. EUC was enacted to help temporarily alleviate the household burden of sustained unemployment during and after the recession (Maryland Department of Labor, Licensing, and Regulation 2014). The maximum length of EUC benefit ranged between 13 and 47 weeks during the study period.

Finally, the permanent EB program was modified by Congress during the Great Recession. Unemployed Maryland workers became eligible for 13 additional weeks of EB after exhausting regular state UI. The EB benefit amount was the same as the amount that the individual had received through state UI benefits (U.S. Department of Labor 2019). Especially in Maryland, extended benefits constituted the smallest share among all types of UI benefits paid during the study period.

Figure 7.2 shows the monthly number of Maryland beneficiaries in each of the three UI programs during the study period. Because unemployment was relatively low, regular UI recipients made up the largest share of the unemployment compensation caseload. The EB program switched on only when insured unemployment exceeded the threshold. Consequently, EB remained in effect in Maryland only from late 2011 to mid-2012—a far shorter period than in the other states studied for this book.

Enrollment in UI and EUC programs increased rapidly through early 2010. Although it fluctuated over the following three years, enrollment at the end of 2012 was still at a level approximately five times the enrollment at the start of the study period in January 2009.

Figure 7.2 Monthly Individual Enrollment in Maryland UI Programs, by UI Program Type



SOURCE: Authors’ computations based on Maryland UI/EUC/EB administrative data.

The continued high level of UI benefit enrollment through 2012, illustrated in Figure 7.2, reflects the lagged recession effect and only moderate economic recovery in Maryland. As an automatic stabilizer, the number of individuals collecting UI benefits dropped close to pre-recession levels in late 2014 as the economy recovered slowly. There is also a seasonal pattern, particularly for regular UI benefits, with the largest monthly caseload occurring each January, then reaching another peak in midsummer and again in December.

A UI enrollee can receive benefits from only one UI program each week (UI, EUC, or EB), although that person could potentially receive benefits from more than one UI program in a month. The black line in Figure 7.2 accounts for this by showing the total number of individuals enrolled across all three UI programs each month.

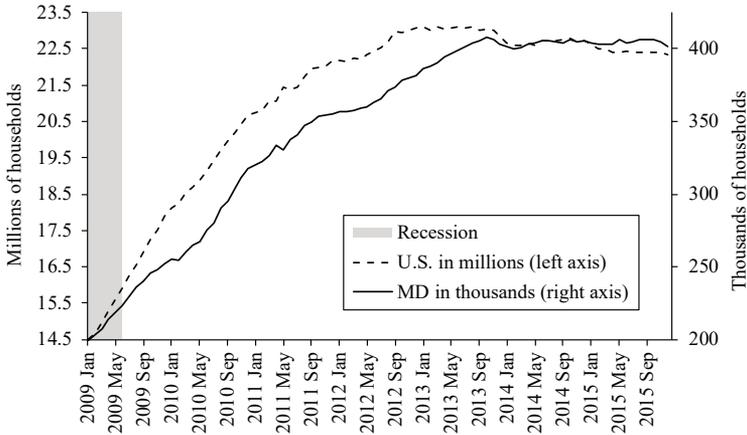
SNAP in Maryland

The Supplemental Nutrition Assistance Program in Maryland is called the Food Supplement Program, or FSP. However, for consistency with other chapters, we refer to this program as SNAP. As in other states, the Maryland SNAP program provides the means to purchase food for households whose net income after certain expenses falls below a specific threshold determined by household size. The Maryland SNAP program defines a household as “a group of people who live together and buy food and prepare meals together.” The benefit amount is based on both household income and household size and is meant to *supplement* the household’s food budget. The maximum benefit is stipulated by the U.S. Department of Agriculture’s “maximum allotment,” which is based on estimates of food costs (Maryland Department of Human Resources 2019a).

To be counted as a member of a SNAP household, individuals generally must meet four criteria: 1) be a U.S. citizen; 2) have a social security number; 3) not be a student half-time or more; and 4) register for work, accept work offers, and participate in employment training programs if able-bodied and between the ages of 16 and 60. The exceptions to these eligibility rules are certain categories of immigrants or refugees, as well as people taking care of dependents of a certain age (Maryland Department of Human Resources 2019c). Individuals who apply and qualify for SNAP should have access to their benefits within 30 days of submitting their applications (Maryland Department of Human Resources 2019b). Individuals can automatically qualify for SNAP benefits if they receive Temporary Assistance for Needy Families (TANF) or Supplemental Security Income (SSI). This is commonly referred to as broad-based categorical eligibility, or BBCE (USDA 2018).

The number of Marylanders participating in SNAP increased steadily during much of the 2009–2015 period, similar to the national trend. Figure 7.3 shows a relatively faster increase in the number of SNAP-benefiting households in Maryland between early 2011 and

Figure 7.3 SNAP Caseload, United States vs. Maryland



SOURCE: Department of Agriculture, Food and Nutrition Service, National and State Monthly/Annual Data from Fiscal Year 1969 to 2016.

Fall 2012 compared to national numbers. Beginning in the third quarter of 2013, the caseload in both Maryland and the country as a whole leveled off, with Maryland’s caseload settling at a figure approximately double the late-recession caseload in early 2009.

Data Description

There are inherent difficulties in using administrative data for research. These legal and ethical difficulties create challenges for measurement and interpretation that have been identified and examined in the literature (Connelly et al. 2016). Our analysis is further complicated by the fact that variables from the two programs are measured over different time periods. The important differences are described in the following overviews on data for SNAP and UI applications and benefit payments, and for UI wage records.

SNAP data

The Maryland Department of Human Resources provided the administrative data for SNAP through a data agreement with the Jacob France Institute at the University of Baltimore. The Department of Human Resources is the data owner and approved the use of the data for this research study. Information used in this study includes recipients' monthly benefit amounts, demographic information, and basic socioeconomic status. These data span the years 2009 to 2015.

The basic unit of analysis for SNAP data is a household, because benefits are awarded to eligible households. As discussed in the background section above, the relevant definition of a household is any group of individuals who live together and purchase food and prepare meals together. This adds complexity to the analysis and interpretation of results, because there could be month-to-month changes in household composition.

UI benefit data

The Maryland Department of Labor, Licensing, and Regulation provided the administrative data on UI benefits (UI/EUC/EB) through a data agreement with the Jacob France Institute. The Department of Labor, Licensing, and Regulation is the owner of the data and approved the research use of the data for this study. Data fields used in this study include UI weekly benefit amount and payment dates. The time period for the data is 2009 through 2015.

The unit of analysis for UI/EUC/EB is an individual benefit recipient. Most, but not all, individuals make decisions about employment (filing for unemployment insurance and/or SNAP benefits), and about compliance with continued eligibility requirements based in part on the actions of others in their household. Measurement of these external influences and changes in their presence, magnitude, and relevance are not available from unemployment benefit or wage records.

UI wage record data

The Department of Labor, Licensing, and Regulation also provided administrative data on UI wage records, through a data agreement with the Jacob France Institute, and approved the use of these data for this research study. Data include individual workers' quarterly earnings; however, these data only include Maryland civilian workers who are covered under the UI law; they do not include federal government employees. There is no occupation information in the wage records data and no record of hours worked. The time period for the data is January 2009 through December 2015.

Data Summary

The Study Group is defined as SNAP households³ that have at least one member in the prime working age range of 18 through 64. Therefore, all UI/EUC/EB beneficiaries in the Study Group are part of a SNAP household during some point of the study period. We focus on the Study Group because this chapter addresses the interaction of month-to-month Maryland SNAP benefit levels with UI/EUC/EB benefit payments and relevant employment and earnings changes. By focusing on the study group with more prime-working-age adults, such interactions in program use are more likely to be observable and useful for joint program analyses.

Table 7.1 shows a snapshot of the data, illustrating the length and amount of benefits and wages of SNAP and UI recipient households for the entire 2009–2015 study period. Consistent with the differences between the two types of programs, SNAP and UI/EUC/EB, the mean number of quarters of benefits received was higher for SNAP than for the UI programs, and the mean quarterly household benefit was much higher for the UI/EUC/EB programs than for SNAP. Households receiving UI benefits were more likely to have had earnings in the quarter prior to UI program entry and also to have had higher wages. However, since some SNAP recipients included households with someone who was employed, but employed at wages low

Table 7.1 Data Summary, 2009–2015

Variable	SNAP		UI/EUC/EB	
	All	Research group	All	Research group
Number of households	1,642,302	951,199	221,891	147,749
Mean quarters of benefits received	11.5	10.3	5.0	3.5
Mean household benefits received (\$)	10,644.51	7,963.48	13,024.62	8,593.85
Mean household benefits per quarter (\$)	927.47	775.85	2,580.09	2,462.88
Households with wages quarter prior to benefit start		439,393		140,977
% households with wages		46.19		95.42
Mean household wages (one quarter) (\$)		4,817.14		6,508.95
Households with wages while receiving benefits	616,174	584,568	196,961	111,465
% households with wages		61.46		75.44
Mean total household wages (\$)	22,185.80	22,784.05	10,230.64	6,654.59
Mean household wages per quarter (\$)	1,933.09	2,219.75	2,026.62	1,907.11
Households with wages after receiving benefits		421,320		133,347
% households with wages		44.29		90.25
Mean total wages (\$)		44,408.18		27,445.57
Mean wages per quarter (\$)		5,306.25		2,669.57

SOURCE: Authors' computations based on Maryland SNAP, UI/EUC/EB, and UI wage record administrative data.

enough to qualify for SNAP, the mean household earnings per quarter were higher for SNAP recipients than for UI/EUC/EB recipients. In addition, it is not surprising that mean quarterly earnings *after* both types of programs' benefits terminated also were higher than mean earnings *while* receiving benefits. This suggests that both SNAP and UI/EUC/EB recipients move back into the labor market after benefit receipt. Table 7.1 shows that about 420,000 households in the Study Group had earnings after receiving some SNAP benefits. This is about half the 950,000 SNAP households in the Study Group. On the other hand, over 90 percent of UI/EUC/EB households had earnings after UI benefit receipt.

METHODS FOR CATEGORIZATION

This study incorporates three types of data categorization: 1) dates, 2) spells, and 3) Study Group. The three data sources are reported in either weekly (UI/EUC/EB), monthly (SNAP), or quarterly units (UI wage records). For analyses using only SNAP and UI/EUC/EB data, in order to make the two sources of data consistent, we aggregated the weekly UI benefit data to the monthly level corresponding to the benefit payment date. As long as there was at least one record showing benefit receipt during any week of the month, this case was counted as having received unemployment benefits that month. For analyses that also included wage record data, the administrative records for both SNAP and UI/EUC/EB were further aggregated to the calendar quarter.

As discussed in other chapters, a new SNAP spell began when there was a positive SNAP benefit amount for a household that was preceded by two consecutive months of no SNAP benefit amount for that household. A SNAP spell ended when there was a positive SNAP benefit amount for a household followed by two consecutive months of no SNAP benefits to that household. UI spells are defined similarly,

except with a time period of eight consecutive weeks instead of two months when determining the start and end of a UI spell. The data used in the analysis exclude all positive benefits received in the last eight weeks of 2015 because eight consecutive weeks (or two consecutive months) of no benefit receipt could not be confirmed.

The results of our analysis can be divided into two categories:

- 1) Program participation, covering benefit amounts, entry and exit, spell length, and participation patterns
- 2) Outcomes for SNAP and UI participants regarding employment and wage results and wage percentiles

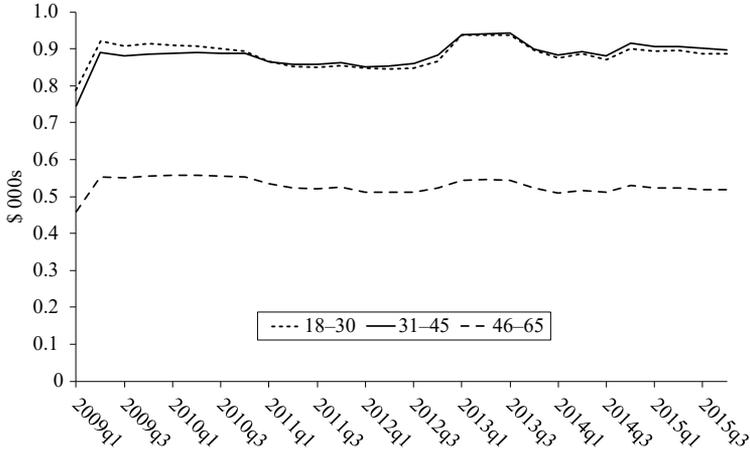
SNAP and UI Program Participation

This section explores specific ways the recipients participated in the SNAP and UI programs by discussing the findings on program benefit amounts, entry and exit patterns, spell length, and the sequencing of benefit receipt from SNAP and UI.

Program benefits

We examined the mean level of program benefits by age category to better understand how recipients interacted with and benefited from the SNAP and UI programs. In Figure 7.4, we see the mean SNAP quarterly benefit by recipient's age category. Interestingly, the mean quarterly benefits for both the 18-to-30-year-old age group and the 31-to-45-year-old age group follow nearly identical trends and benefit levels (roughly \$900), while the 46-to-65-year-old age group follow a similar trend but at a much lower benefit level (roughly \$550). Across all ages, we see a jump in the mean quarterly benefits from the first to the second quarter in 2009, followed by a slow decrease in the mean benefit through the end of 2012. Mean benefits across all age groups increased temporarily in the first three quarters of 2013, after which the mean benefits returned to roughly the same steady level that they had been at from mid-2009 through the end of 2012.

Figure 7.4 Study Group Average Quarterly SNAP Benefit by Recipient's Age Category

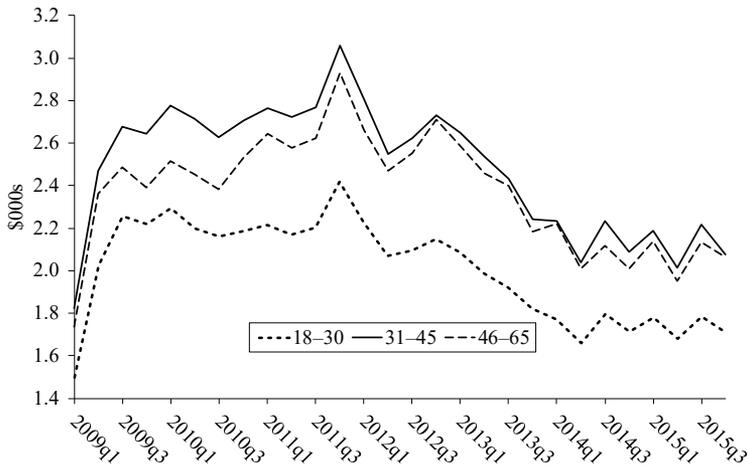


SOURCE: Authors' computations based on Maryland SNAP administrative data.

Figure 7.5 mirrors Figure 7.4 except it shows the mean quarterly UI program benefit across all persons receiving a UI program benefit that quarter instead of the mean SNAP benefit. Censoring has led to tails on the graph that accurately reflect the study group but do not reflect actual UI program enrollment and benefits during the indicated time period. Although censoring affects our ability to draw clear conclusions from Figure 7.4, there appears to be a slight increase in the mean UI program benefit through the end of 2009, after which the mean benefit is largely steady until a spike in the fourth quarter of 2011. This increase is only for that quarter, though—afterward, UI program benefit levels fall to roughly the same level (albeit slightly lower) as before the spike. This temporary increase in mean benefit reflects the start of the EB enrollment in Maryland.

Figure 7.5 highlights the slight but generally decreasing trend in mean UI program benefit amount across all age groups over time. The one exception is the fourth quarter of 2011, which is when the

Figure 7.5 Study Group Average Quarterly UI/EUC/EB Benefit by Recipient's Age Category

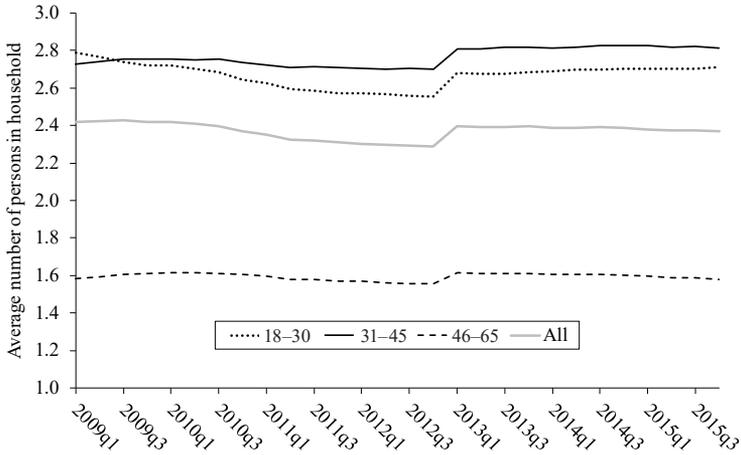


SOURCE: Authors' computations based on Maryland UI/EUC/EB administrative data.

EB benefits began (reflected in Figure 7.2), resulting in increased mean benefits that quarter. Because of how UI program benefits are calculated, this *could* mean that wages prior to UI program benefit eligibility declined over time. This could be because, as the economy continued to improve, people with lower real-wage jobs were disproportionately affected and experienced a slower recovery. It could also be because mean real wages across all populations fell. The data available for this study cannot tease that out, though either explanation could indicate a need for improved services for a seemingly increasingly vulnerable population.

Figure 7.6, which shows the mean household size by age category, helps explain much of the variation in mean quarterly SNAP benefits by age category because SNAP benefits are based on the number of eligible people in the defined SNAP household. The average household sizes of SNAP recipients in the 18-to-30-year-old and the 31-to-45-year-old age groups were nearly constant and equal over

Figure 7.6 Study Group Average Number of Persons in Household, by Recipient’s Age Category

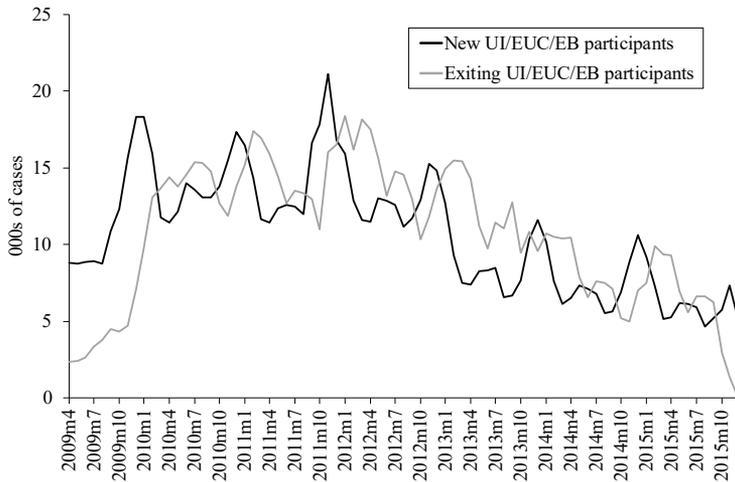


SOURCE: Authors’ computations based on Maryland SNAP data.

the study period—averaging about 2.75 persons per SNAP household. The average number of persons in SNAP households in the 46-to-65-year-old age group were also constant over the period but averaged about 1.6 persons. All SNAP-recipient age groups increased in size slightly in the first quarter of 2013, which explains the increase in mean SNAP benefits starting in 2013, since SNAP benefit levels are determined by household size.

Entry and exit

Understanding how recipients entered and exited the SNAP and UI/EUC/EB programs can help with understanding how recipients interacted with the programs. Figure 7.7 shows the monthly number of UI/EUC/EB recipients in SNAP-recipient households entering and exiting the UI/EUC/EB programs, smoothed over three months. When there were more entries than exits, there was a net gain in the UI/EUC/EB program caseload that month, and vice versa. From this

Figure 7.7 New and Exiting UI/EUC/EB Cases, Smoothed over Three Months

SOURCE: Authors' computations based on Maryland UI/EUC/EB administrative data.

graph, we see that there were more entries than exits through March 2010, after which the entries and exits trend much closer together. The principal exception occurred in November 2011, when there was a spike in UI/EUC/EB program entry due to the start of the extended benefit, as explained earlier and reflected in Figure 7.2. Similarly, because of the subsequent spike in EB program exit two months later in January 2012, much of this increase in November 2011 appears to have been from cases that only received two months of benefits. This is because Maryland EB was triggered on and off within these couple of months.

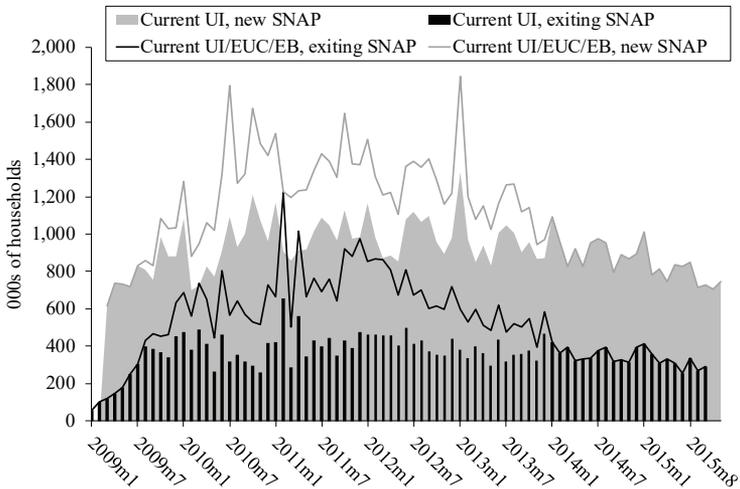
Overall, despite the seasonality in UI/EUC/EB total enrollment that we saw in Figure 7.2, as the Maryland economy recovered from the recession and some recipients exhausted their UI program benefits, the number of new UI/EUC/EB cases started to stabilize, leading to a slight increase in overall UI/EUC/EB exit. This helps explain

the slight decline in the total UI program caseload seen in Figure 7.2. As we saw in Table 7.1, the majority of UI recipients received post-UI earnings. This is good news, because these recipients were better off than the UI recipients who exhausted their benefits and had no earnings.

Looking at SNAP program entry and exit for households that were participating in both programs yields additional insights. The shaded area in Figure 7.8 represents new SNAP households that were already receiving some UI/EUC/EB program benefit at the time of SNAP enrollment. The bars represent exiting SNAP households that were still receiving some UI/EUC/EB program benefits when the household stopped receiving SNAP benefits.

There was substantial seasonal fluctuation in both SNAP entry and exit across the study period. Meanwhile, since the number of

Figure 7.8 Study Group SNAP and UI/EUC/EB Joint Participating Households, by New and Exiting SNAP Cases



SOURCE: Authors' computations based on Maryland SNAP and UI/EUC/EB administrative data.

new SNAP cases exceeded the number of exiting SNAP households, SNAP enrollment increased across the study period.

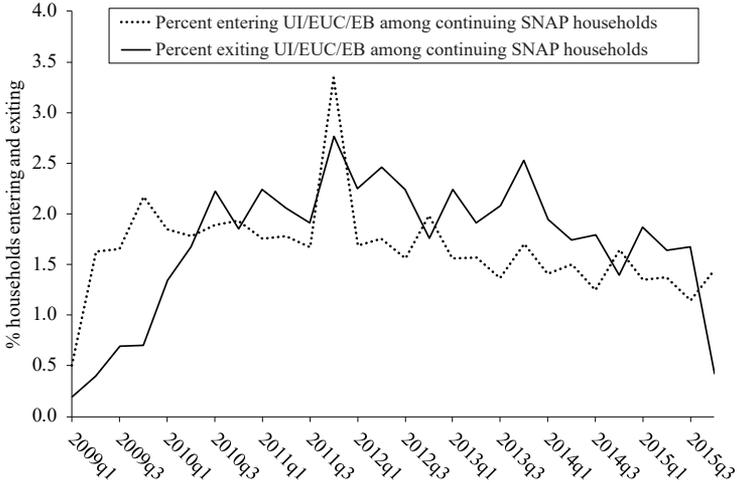
The much larger number of new SNAP households versus those exiting signals that a substantial number of households did not receive enough UI/EUC/EB benefits to push those households above the SNAP eligibility ceiling. The fact that they still qualified for SNAP while on UI shows that their UI/EUC/EB benefit was low and that SNAP provided supplemental support to this vulnerable population.

Although the numbers of households entering and exiting SNAP both increased across time, the difference between the two largely stayed the same, meaning that the rate of SNAP household exit roughly stayed on trend despite the growth in SNAP enrollment. In addition, the spike in new SNAP cases from July through November of 2011 was followed by a lagged spike in exits from February through April 2012, suggesting that many of the new recipients during this time period had relatively short spells of unemployment. Again, the spike in October through December 2011 is due to the EB availability, shown in the peak in the gray line around the end of 2011. However, the later spike of January 2013 is instead driven by rising new SNAP caseloads among current EUC and, to a less extent, UI.

Figure 7.9 further elucidates these interactions by showing UI program entrants and exiters among the Study Group households that continued to receive SNAP. The households that are represented by the solid line in this figure are those that either exhausted UI program benefits without finding a job or found a job but with earnings low enough to maintain continued income eligibility to receive SNAP benefits. The dotted line indicates those households that began receiving SNAP benefits at the same time they received UI program benefits. Both lines, then, represent households that did not have a high enough income to exit SNAP and remain off SNAP for the long term.

Aside from the two spikes in the fourth quarters of 2011 and 2012, the percentage of UI program entrants who were already receiving SNAP benefits prior to enrollment in the UI programs slowly decreased across the study period. More importantly, the figure shows

Figure 7.9 UI/EUC/EB Program Entries and Exits among Continuing SNAP Households



SOURCE: Authors' computations based on Maryland SNAP and UI/EUC/EB administrative data.

a slightly increasing share of SNAP recipient households that did not receive UI, either because they were not attached to the workforce or because they had exhausted UI eligibility.

Spell length

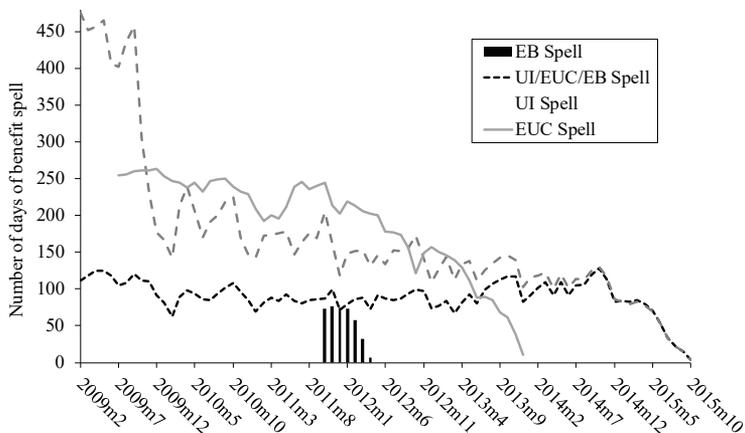
While households could continue receiving SNAP benefits for more extended periods, households exhausted UI/EUC/EB program benefits relatively quickly. Because UI program spell length could reflect changes in program eligibility, changes in an individual's employment, or a sufficient increase in an individual's earnings to leave UI, it is helpful to examine how UI/EUC/EB program spell length changed over time.

As seen in Figure 7.10, the mean UI program benefit spell length decreased across the study period. In this graph, the UI spell bars

represent the usual Maryland state-funded UI program benefits. Both EUC and EB benefits were temporarily provided by the federal government to extend UI program benefits because of the recession and the slow postrecession recovery. Since the bars represent mean program spell length by the month in which a new claim was opened, the light gray EUC-spell line and the black EB-spell vertical bars represent individuals who, by the point at which EUC and EB benefits became available, had already exhausted the Maryland-funded UI regular program benefit. Thus, many recipients in Maryland could have received some form of UI program benefit for well over a year.

EB benefits ended in Maryland in mid-2012, and EUC benefits ended in December 2013. The unavailability of EUC and EB program benefits after these benefit end dates has a clear impact on the total average-benefit-spell length later in the study period.

Figure 7.10 Study Group UI/EUC/EB Benefit Spell (in days) by New Claim Start Month



SOURCE: Authors' computations based on Maryland UI/EUC/EB administrative data.

PARTICIPATION PATTERNS

Since the type of household that applies for SNAP first and the type of individual who applies for UI programs first could be very different, we examine these groups separately to better understand the study population. Table 7.2 breaks down various metrics by participation pattern—whether the enrollee first participated in SNAP, first participated in UI programs, or entered both programs simultaneously.

We see that recipients who enrolled in SNAP first were younger, belonged to households that were larger and had more children, were more likely to be women, and were more likely to never have been married. Sixty-three percent of participants who enrolled in a UI program first had multiple adults in the household, while only 14 percent of participants who enrolled in SNAP first had multiple adults in the household. There are no substantial differences in education between the SNAP-first and UI-first participants. However, we would expect that people with the characteristics of participants who first enrolled in SNAP would be worse off, since they were more likely to have a single income and a larger household (and more dependents) to support on one income. It could be that people who enrolled in SNAP first were working but had low enough wages to qualify for SNAP benefits.

Although it is relatively easy to identify differences between these groups, it is more challenging to know how to adapt policies or programs to better serve the populations in greatest need. The demographic differences between groups are not stark and do not point to a clear policy solution.

Outcomes of SNAP and UI Participation

We now examine the employment and earnings of individuals and households after they received benefits from the SNAP and UI programs.

Table 7.2 Household and Participant Characteristics at Quarter of Enrollment, by Enrollment Pattern

	SNAP first	UI/EUC/ EB first	Simulta- neous ^a
Household demographics			
Number of households	769,148	137,634	51,156
Mean age of recipient	31.99	36.20	35.94
% female	77.7	68.8	70.1
Mean household size	2.18	1.87	1.89
Mean children in household	1.05	0.76	0.79
Mean adults in household	1.13	1.12	1.10
Mean household members w/ disabilities	0.19	0.21	0.20
Multiadult household (%)	14.2	60.6	44.2
Mean quarterly wage of recipient (\$)	3,594	4,819	4,108
Race (%)			
Asian	0.4	0.4	0.3
African American	65.8	67.9	68.4
Caucasian	27.9	26.4	25.3
Hispanic	2.1	1.0	1.4
Native American	0.2	0.1	0.1
Pacific Islander	0.0	0.1	0.0
Unknown	3.6	4.3	4.4
Education (%)			
Elementary education	4.5	3.5	3.6
Secondary education	83.1	86.0	86.3
Higher education	11.3	9.5	9.1
Vocational/job training	1.2	1.0	1.0
Marital status (%)			
Divorced	5.2	7.8	7.3
Married	7.0	7.7	7.2
Never married	79.0	74.5	75.1
Separated	8.1	9.0	9.5
Unknown	0.3	0.2	0.2
Widowed	0.5	0.8	0.7

^aSimultaneous enrollment occurs when an individual or household enrolls in both a UI program and SNAP in the same month.

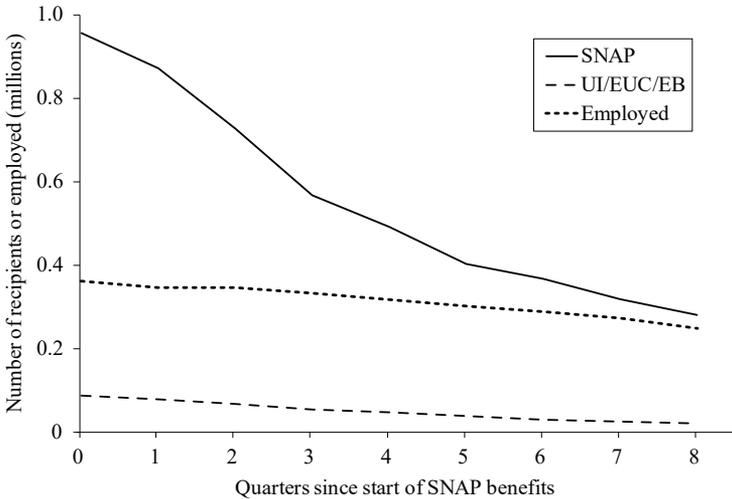
SOURCE: Authors' computations based on Maryland SNAP, UI/EUC/EB, and UI wage record administrative data.

Employment results

Since the goal of the UI programs is to provide temporary partial replacement of earnings to individuals as they actively seek reemployment, and since there is significant policy interest in improving employment services to SNAP recipients, we present in this section an analysis of employment frequency and wages after receiving benefits from SNAP or UI.

Figure 7.11 shows the number of adults who are SNAP recipients, UI program recipients, and employed in each quarter relative to the start of SNAP receipt for that individual’s household. Over the eight quarters from the beginning of SNAP receipt, we observe dramatic declines in the number of SNAP beneficiaries and gradual declines in the numbers of UI beneficiaries and employed persons. The declines are somewhat misleading because of censoring—that is, the full eight

Figure 7.11 Number of Individuals Receiving SNAP Benefits, UI/EUC/EB Benefits, or Who Are Employed in the Calendar Quarters since the Start of SNAP Benefits, 2009–2015



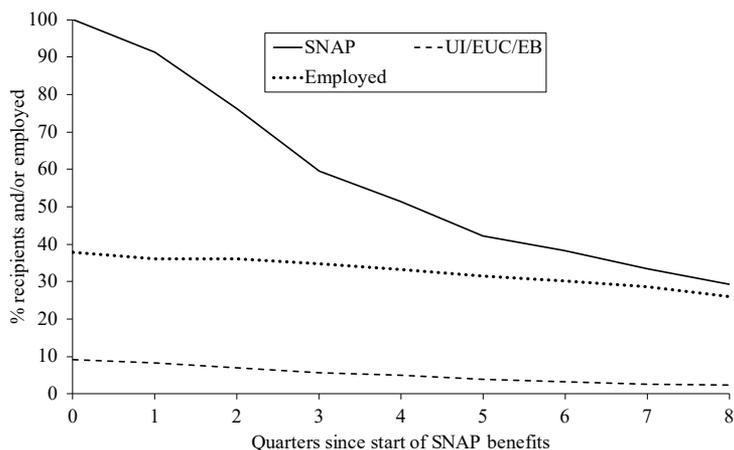
SOURCE: Authors’ computations based on Maryland SNAP, UI/EUC/EB, and UI wage record administrative data.

quarters after the start of SNAP benefits are not observed for all beneficiaries. Some SNAP recipients might have left the state or dropped out of program participation and employment.

Figure 7.12 tracks activities of SNAP recipients during the eight quarters after they first received SNAP benefits. The figure shows the percentages receiving SNAP, UI, or earnings from employment. All percentage calculations in the graph have the same denominator, 955,276, representing the total number of SNAP recipient spells between 2009 and 2015. Since an individual or household has to receive SNAP in order to be in the denominator, 100 percent of people in this graph received SNAP benefits in Quarter 0, their first quarter of SNAP benefit in the SNAP spell. Note that not all those 955,276 SNAP spells have eight quarters of data after initial SNAP receipt.

Similar to the trend seen in Figure 7.11, we see the most rapid decline in the percentage of SNAP benefit recipients during the first

Figure 7.12 Percentage SNAP Recipients Still Receiving SNAP and/or Are Employed and/or Receiving UI/EUC/EB by Quarter within Eight Quarters after SNAP Benefits Started, 2009–2015



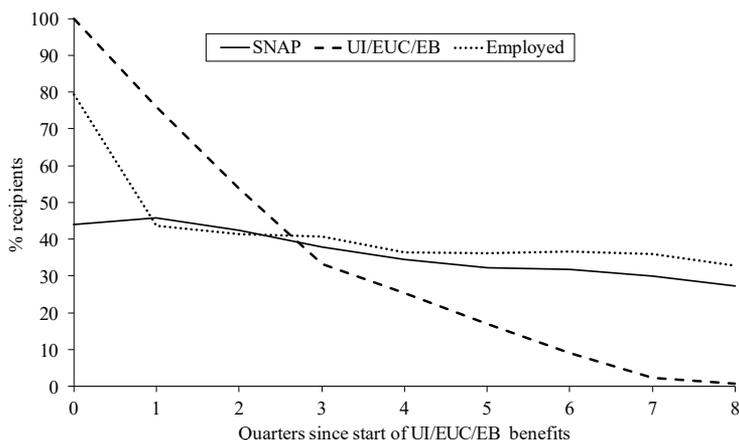
SOURCE: Authors' computations based on Maryland SNAP, UI/EUC/EB, and UI wage record administrative data.

three quarters after the first SNAP benefit was received, followed by a steady but more modest decline through the remaining five quarters shown here, ending at roughly 30 percent. The very low percentage of individuals who are both SNAP and UI program recipients is consistent with previous figures. As in Figure 7.11, Figure 7.12 shows a steadily declining percentage of those SNAP recipients in UI/EUC/EB or employment over time after the first SNAP receipt. However, since the SNAP percentage falls over time, the share also receiving UI drops from about 10 percent of SNAP recipients to about 7 percent, showing a fairly steady rate of joint participation.

Two years after the initial SNAP payment quarter, 30 percent of the 955,276 SNAP recipients were still in SNAP-recipient households. About a quarter of this 30 percent were employed with positive earnings and may or may not have exited from the SNAP program, and 2 percent of the 30 percent were in UI/EUC/EB programs. Researchers have noted that program-mandated employment requirements for SNAP recipients should be realistic because 1) SNAP serves many people who can't work, such as children, the elderly, and the disabled (Rosenbaum 2013); and 2) SNAP as a welfare program has very few incentives to encourage work (Moffitt 2015). There is continued policy interest in moving more SNAP recipients toward work.

Because employment is a goal of UI/EUC/EB programs, we include Figure 7.13, which follows the same approach as Figure 7.12 but displays the quarters that have elapsed since the UI program benefits began among SNAP recipient households. In Figure 7.13, the denominator for all calculations is 280,474, the number of all new UI benefit spells in SNAP recipient households starting between 2009 and 2015. The figure shows the percentages of those employed and/or continuing to receive SNAP and UI benefits in each of the eight quarters after the beginning of a new UI benefit spell. Note that not all those 280,474 new UI benefit spells had the potential to be eight calendar quarters long, since less than 1 percent of Maryland UI beneficiaries in the period were eligible for a total of 99 weeks of UI/EUC/EB. Also note that the initial sample of UI beneficiaries in Quarter 0

Figure 7.13 Percentages of UI Recipients Who Were Also Employed or Receiving SNAP by Calendar Quarter since UI/EUC/EB Benefit Receipt Started, 2009–2015



SOURCE: Authors' computations based on Maryland SNAP, UI/EUC/EB, and UI wage record administrative data.

is not restricted to only those in SNAP recipient households, though to be in the Study Group they had to receive SNAP benefits at some point. At the time UI benefit spells started, about 44 percent of UI beneficiaries were also in SNAP recipient households.

Similar to Figure 7.12, which shows the SNAP percentage at Quarter 0, Figure 7.13 shows UI program participation at 100 percent in Quarter 0, the first quarter that UI benefits are received. One stark difference between Figure 7.12 and Figure 7.13 is that the strict maximum time length for UI program benefits leads to a UI program receipt of about 0.7 percent by the eighth quarter after the initial UI program benefit was received (versus 30 percent SNAP program receipt in the eighth quarter after the initial SNAP benefit in Figure 7.12). This difference highlights the fact that the maximum potential duration of UI was 99 weeks in this period.

It is interesting that the percentage of initial UI program recipients who received SNAP started at around 44 percent and gradually

decreased to 27 percent over eight quarters (two years) after receiving initial UI benefits. Thus, slightly more than one-fourth of the UI recipients who received SNAP after UI eligibility ended up having either no job or wages low enough to still qualify for SNAP.

By the fourth quarter after the start of new UI benefit spells, the percent employment remained steady at roughly 36 percent until Quarter 8, when it declined to about 33 percent. Quarter 0—the quarter in which UI program benefits were first received—shows the highest percentage employed across the entire time period, at 79 percent. This is most likely due to the way data are reported. Wages are reported quarterly and UI program benefits are disbursed weekly, so it is very likely that an individual received at least some wages in the calendar quarter during which the individual lost his or her job and started receiving UI program benefits. Therefore, this initial high percentage of UI beneficiaries being employed simply reflects the different time periods of the program data collection.

Although the final percentage of people in Figure 7.13 who were employed and who could still be tracked after eight quarters is higher than in Figure 7.12 (33 percent versus 26 percent), it still means that 67 percent of this population may have had no employment and had exhausted all UI program benefits. This helps explain why the SNAP enrollment percentage remained at about 27 percent eight quarters after new UI benefit spells began. While SNAP receipt spells might have continued for many in this group after UI benefits ended, SNAP replaced a much smaller share of income lost due to unemployment.

Wage Results

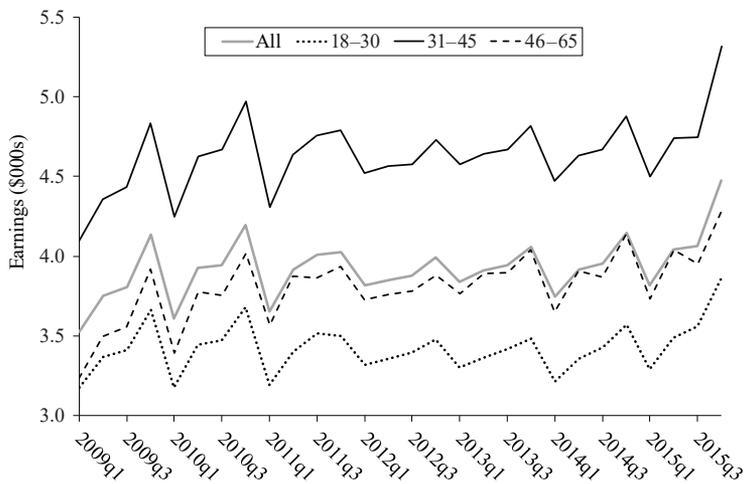
Because employment does not guarantee earnings that elevate households above poverty, especially if one considers household size, we present an analysis of the earnings of those SNAP and UI/EUC/EB program recipients who were employed.

Mirroring the large differences in UI/EUC/EB program benefits by age category seen in Figure 7.5, Figure 7.14 shows a similar trend

in seasonal fluctuation of wages across all age categories. Also, consistent with Figure 7.5, Figure 7.14 shows the 31-to-45-year-old group as having had the highest wages across all time periods. Individuals in the 18-to-30- and 45-to-65-year-old age categories had similar wages for much of 2009, after which the wages for the 45-to-65-year-old group increased at a higher rate than for the 18-to-30-year-old group across the rest of the study period. Recall that in Figure 7.4, we show that the oldest age group (45-to-65-year-old) had the lowest amount of SNAP benefits, because they tended to live in smaller households. Figure 7.5 shows that this older age group had similarly lower UI/EUC/EB benefits. Because the youngest age group also had lowest average wages (see Figure 7.14), this age group was hit hardest during the 2009 recession.

Even though the 31-to-45-year-old age group had the highest mean quarterly wage, their annual wages would not have been

Figure 7.14 Average UI Recipient's Quarterly Earnings, by Recipient's Age Category



SOURCE: Authors' computations based on Maryland SNAP, UI/EUC/EB, and UI wage record administrative data. Dollar amount is based on 2015 real value.

significantly above the federal poverty level for a household of two (approximately \$4,020 per quarter). It might have been that these wages came from employment that was part-time, but whatever the source, these wages likely were not high enough to provide long-term self-sufficiency for these households.

Figures 7.15 through 7.18 (pp. 272–273) examine differences in the income composition of the Study Group households and show median income by source (earnings, SNAP benefits, UI benefits, total) and quarter after the first SNAP benefit was received. The median was calculated from all nonzero income values by quarter and by each income source.

Figure 7.15 shows median income by source and quarter for all households in the Study Group—which includes all households who have received at least one SNAP payment and have at least one member of the household between the ages of 18 and 64. Sample sizes for this panel range from 482,097 total households represented in Quarter 1 to 140,508 in Quarter 8.

Figures 7.16–7.18 represent median income by source and quarter for three different subgroups of Study Group households, whose quarterly income came exclusively from three sources: 1) SNAP and UI benefits (Figure 7.16, sample sizes ranging from 23,545 to 3,568 households), 2) earnings and SNAP benefits (Figure 7.17, sample sizes ranging from 199,431 to 53,694 households), and 3) SNAP benefits, UI benefits, and earnings (Figure 7.18, sample sizes ranging from 35,292 to 4,920 households) in each quarter. Although a household could switch subgroups each quarter as its income sources changed, there is no overlap of households across subgroups within a single quarter.

We have made the scale the same across Figures 7.15–7.18 to make comparisons across groups easier. Each figure contains only households who have each of the specified income sources each quarter. As a result, median total household income for those panels is roughly the sum of the median of each income source. However, because not all households in Figure 7.15 have income from all four

sources, median earnings, for example, are higher than median total household income, because only about half of Study Group households in Figure 7.15 have earnings.

Median SNAP benefit is largely the same across all four of the figures on the next two pages and relatively constant from the second through the eighth quarter after the first SNAP payment. Since UI benefits have stricter time limits and thus are very likely to decrease over the eight-quarter period, households with income from UI benefits experienced a decrease in total household income over time. Meanwhile, households not receiving UI benefits (Figure 7.17) had slightly increasing total household income over time.

Households with income from all three sources (Figure 7.18) consistently have the highest median total household income. This wage-earning subgroup's median UI benefit payment was lower than households with only SNAP and UI benefits and no earnings (Figure 7.16), but the median SNAP payments for these two groups was roughly the same. Even though this was the highest-income group in the study, these households remained at close to poverty level even with some government assistance, at about 150 percent of the 2017 federal poverty guideline of an annual income of \$24,000 for a two-person household.

CONCLUSION

This chapter examines use of SNAP and UI in Maryland during the Great Recession and the sluggish economic recovery of that state. Despite starting at a much lower level of unemployment, by the end of the recession the unemployment rate in Maryland was almost as high as the national average. Over the period, the Maryland SNAP caseload increased at a higher rate than in the nation as a whole. Maryland experienced a milder recession but still has rates of program benefit receipt above the national average.

Figure 7.15 Median Income by Source and Quarter after First SNAP Payment: All Households

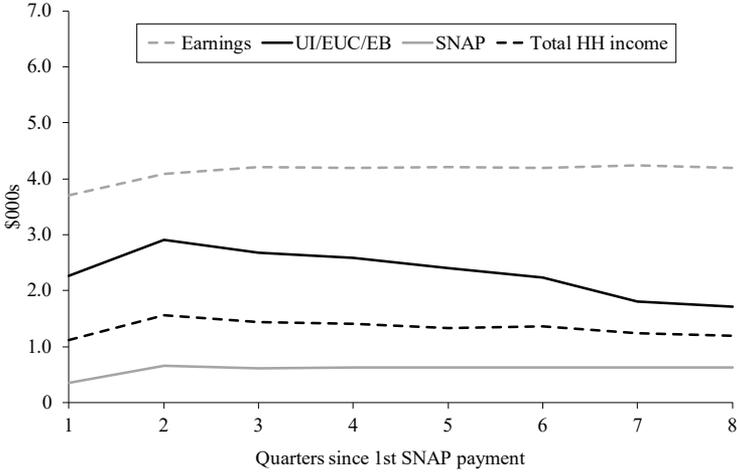
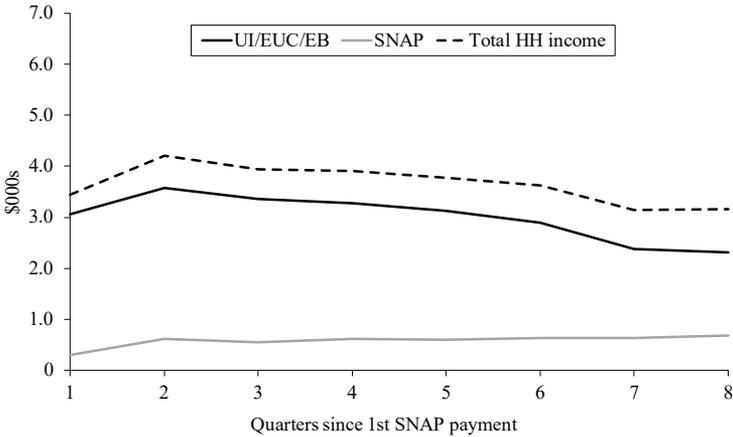


Figure 7.16 Median Income by Source and Quarter after First SNAP Payment: SNAP-UI/EUC/EB Joint Recipient Households



NOTE: “HH” = household.

SOURCE: Authors’ computations based on Maryland SNAP, UI/EUC/EB, and UI wage record administrative data.

Figure 7.17 Median Income by Source and Quarter after First SNAP Payment: SNAP Recipient Household Earnings

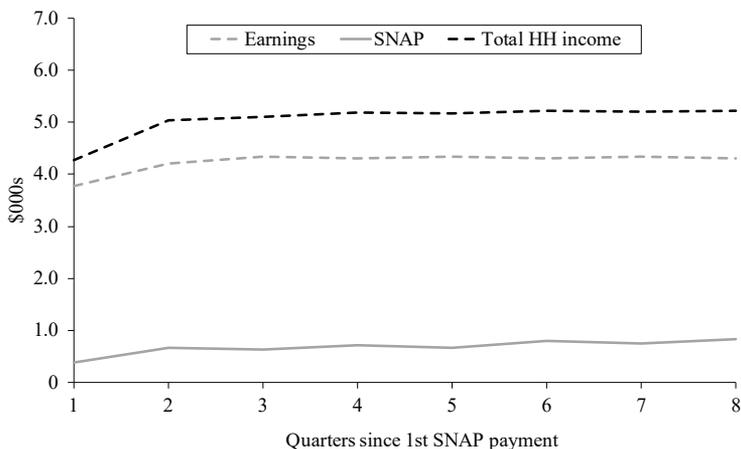
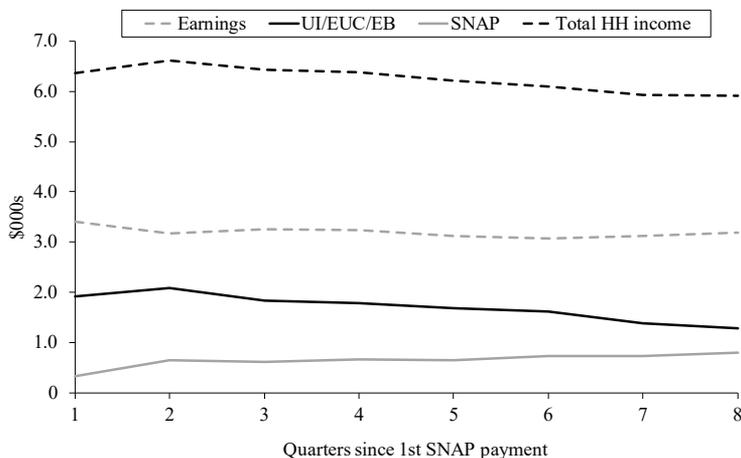


Figure 7.18 Median Income by Source and Quarter after First SNAP Payment: SNAP-UI/EUC/EB Recipient Household Earnings



NOTE: “HH” = household.

SOURCE: Authors’ computations based on Maryland SNAP, UI/EUC/EB, and UI wage record administrative data.

Program analysis in this chapter shows that Maryland's SNAP caseload continued to increase long after the official end of the recession in June 2009; it finally plateaued in 2015. This profile is similar to nationwide SNAP caseload trends and the trends in other states examined in this book. These trends partly reflect the increased SNAP benefit levels, relaxed eligibility conditions, and increased state outreach efforts that started even before the official start of the recession in December 2007. The Department of Human Resources, which administers SNAP in Maryland, confirmed expanded outreach efforts within the state during the period analyzed.⁴

Our analysis of employment and earnings during and after receiving SNAP and UI/EUC/EB benefits shows that less than half of the 950,000 adult SNAP recipient households in the Study Group had earnings after receiving benefits. On the other hand, over 90 percent of UI/EUC/EB households had postbenefit earnings. Furthermore, more than one-quarter of individuals leaving UI/EUC/EB programs received SNAP, indicating that they had either no job or a low-wage job that did not disqualify them from SNAP. If both SNAP and UI/EUC/EB programs are intended to create temporary assistance and help push individuals and households onto a long-term self-sufficiency basis, more assistance would be needed, given the current economy and needs of this population.

As explained in Chapter 3 of this book, UI/EUC/EB benefit receipt can affect eligibility for and amount of SNAP benefits received. UI/EUC/EB benefits are considered as "other income" in SNAP eligibility guidelines and are "taxed" at 30 cents in SNAP benefit per dollar in other benefits. Analysis in this chapter shows that a spike in UI/EUC/EB receipt for SNAP-UI concurrent recipients is associated with a surge in SNAP exits.

The households simultaneously receiving both SNAP and UI were some of the most disadvantaged. They qualified for UI/EUC/EB benefits that were so low that they could still qualify for SNAP. Our analysis focused on SNAP households with a UI beneficiary. Adults in such households often were never married, had attained only a

secondary education, had low earnings, and were more likely to be minority and/or Hispanic. Among these households, average earnings were highest for the 31-to-45-year-old age group, but even for this group average earnings were still below the federal poverty level for a household of two.

Among beneficiaries of both SNAP and UI, those who received SNAP first were younger, belonged to larger households with more children, and were more likely to be female and never married. On the other hand, those who received UI benefits first had the highest average earnings levels and did not qualify for SNAP before exhausting their UI benefits. Unfortunately, we did not have the data to analyze this population more deeply.

Two full years after first receiving SNAP benefits, a little more than one-quarter of SNAP recipients had reported earnings. Note that SNAP served many people who were unable to work, such as children, the elderly, and individuals with disabilities, and that SNAP as a welfare program has few work incentives. However, there is policy interest in moving more SNAP recipients toward work. As discussed in other chapters addressing the SNAP and UI/EUC/EB program histories and their interaction, states have significant leeway to tailor their programs because the federal government permits states to define program eligibility, benefit duration, and benefit amounts. Maryland is relatively generous with both programs, especially SNAP benefit levels. Thus, any future program changes will be driven by both federal and state policy decisions.

Eight quarters after receiving their first UI benefits payment, two-thirds of the UI recipients did not report any employment. They essentially phased out of all UI program benefits, but about one-third appeared as SNAP recipients. The UI exhaustee participation in SNAP in Maryland is consistent with evidence reported for other states in this book: many UI exhaustees tended to draw SNAP benefits as a last resort. Thus, generosity of state and federal unemployment benefits significantly affects whether UI exhaustees will seek SNAP benefits and contribute to an increased SNAP caseload. Specifically, longer

durations of UI benefits increase the possibility that UI recipients can find replacement work before they exhaust their UI benefits and have to turn to SNAP for income supplementation.

Our general sense is that, although this analysis shows some reasons to hope for an improving economic situation for Maryland residents, there are many areas of concern in terms of moving vulnerable populations into steady employment at living wages. Careful evaluation of the resources available for job training, employment readiness, and the development of government-business partnerships to increase job opportunities should be considered as potential ways to improve the economic situation for individuals and households as well as for the state of Maryland.

Notes

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1. This simplified unemployment insurance benefit terminology is replaced throughout the chapter by three mutually exclusive and therefore more decision-relevant labels: state-funded regular UI benefits (UI) and the federally funded Emergency Unemployment Compensation (EUC) and Extended Benefits (EB).
2. Note that "Hispanic" is an ethnicity and not exclusive to a particular race, such as white. Therefore, the percentages here total more than 100.
3. Since SNAP administrative records are the only data source with household identifiers, we use the household identifiers found during the study period from the SNAP database, matched with individuals in the UI/EUC/EB and UI wage record databases to convert individual records

into household records, so we can generate analysis in the household setting.

4. Maryland Department of Human Resources, Family Investment Administration, communication with the authors, 2012.

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and Unemployment Insurance**

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Stephen A. Wandner
Michael Wiseman
Editors

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