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Food pantry assistance and the great recession

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ABSTRACT

Using nationally representative data from the National Center for Charitable Statistics and the Current Population Survey Food Security Supplement, this study documents trends in the supply of and demand for food pantry assistance. While the number of food pantries has grown dramatically since 1995, there has been little expansion since the end of the Great Recession, a period of worldwide economic downturn that occurred between December 2007 and June 2009 in the United States, despite an increase in the number of households that report receiving food from food pantries. In the last 10 years, those who participate in food pantries have become older, more likely to have some college education, be divorced, separated or widowed, and unemployed after the Great Recession. Finally, we document that personal demographic characteristics associated with pantry use closely follow the correlates of poverty itself.

KEYWORDS

Emergency food assistance;
food pantries; Great
Recession

Literature review

Food insecurity in America is a significant social problem with 12.7% of American households experiencing food insecurity in 2015.¹ At the height of the Great Recession, a period of worldwide economic downturn that, in the United States, began in December 2007 and lasted until June 2009, one in five American households participated in the Supplemental Nutrition Assistance Program (SNAP)¹ to supplement their household food supply. Reports clearly demonstrate that many households also relied on less formal methods to meet their food needs such as food pantries, either as a substitute for or in addition to SNAP.^{2,3} This paper examines receipt of food from food pantries, which provide food to be prepared and eaten off-site.

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¹SNAP is the nation's largest domestic nutrition assistance program, providing in-kind monthly benefits for low-income households.

According to statistics available from the US Department of Agriculture (USDA), during the 12 months ending in December 2015, 6.5 million households (or 5.2% of all American households) obtained food from food pantries at least once.¹ These households included 12.2 million adults and 5.4 million children. A much smaller share, approximately 727,000 households or 0.6% of all American households, used a soup kitchen during the same period.¹ The number of emergency food assistance users according to Feeding America² is much higher than those reported by the USDA. Feeding America reports providing assistance to 46.5 million people annually including 12 million children in food pantries, soup kitchens, community meal programs, and other emergency food assistance programs.²

The food pantry forms the backbone of the emergency food assistance system and emerged as a community-based solution around 1979.⁴ According to Daponte and Bade, cuts to the Food Stamp program (now SNAP) in the early 1980s by the Reagan administration induced community organizations to provide private assistance. Additionally, the reemergence of the government commodities program in the early 1980s, which used charitable organizations to distribute government commodities to low-income populations, helped shift the network from an *ad hoc* to a more permanent status. Now, most of the food distributed through food pantries is donated by private sources. However, The Emergency Food Assistance Program (TEFAP) employs the food pantry system to distribute significant amounts of government commodities. In fiscal year 2015, 864 million pounds¹ of commodity food was distributed, double the 422 million pounds of commodity food distributed in 2000.⁵

As government programs continue to face budget cuts, emergency food assistance networks continue to grow and evolve.⁶ Yet, not much information is systematically available outside the networks of member organizations, such as Feeding America. While information on the emergency food assistance system is provided annually as part of the “Household Food Security in the United States” report series prepared by the USDA, no analyses that we know of examine basic trends over time. Additionally, while detailed national-level information on the provision of emergency food assistance is available from a 2002 study by Ohls and colleagues, the results are now a decade old.⁵ We address these gaps in the literature by providing a descriptive analysis of recent trends in both the supply and demand for food pantry assistance. Due to the small number of providers and users of soup kitchens, our results focus on food pantries.

Our interest in examining the use of the food pantry assistance system by demographic groups is informed by evidence regarding how different groups were affected by the Great Recession. According to analysis by Engemann

²Feeding America is a voluntary membership organization of food banks.

and Wall, single individuals had twice the drop in employment as did married individuals.⁷ Employment for Blacks fell at one and a half times that for Whites with rates for Hispanics falling between the other two groups. In terms of age, very large decreases in employment were observed for workers age 16–19. Additionally, workers age 45–54 and over age 55 experienced double-digit decreases in employment. Workers with a high school diploma or less experienced the largest change in employment; workers without a high-school diploma experienced a total of 3.9% loss in employment⁸ (13.2% change in total effect⁷) during the recession. It is notable that Hoynes and colleagues find that the demographic patterns of groups most affected are not specific to the Great Recession but are consistent with earlier recessions.⁹

One assumption that could be made is that groups hardest hit by the recession might be more likely to use food pantry assistance. However, this assumes that each group has the same likelihood of using food pantry assistance given similar levels of need and this is not necessarily the case. First, some groups have other resources to rely upon to buffer the economic shock of unemployment. These resources might include personal savings, credit, federal safety net programs such as SNAP or Unemployment Insurance, and reliance upon personal networks of family and friends. For example, some teenagers may be able to rely upon their parents for economic support while older workers with a more sustained connection to the labor market may qualify for Unemployment Insurance or have personal savings. Second, social stigma is recurrent in the qualitative literature around food pantry use^{3,4}, and is likely to vary in importance across groups and act as a personal barrier for some individuals. Finally, it is also likely that both the demand for and supply of the food pantry assistance system is not distributed evenly across geographic areas. Individuals that are spatially located near an emergency food source are probably more likely to use one. Thus, geographic considerations come into play as well. There is a limited amount of empirical research on food pantry assistance. Research on characteristics of food pantry users has been primarily gathered from surveys of food assistance users in individual states and counties, with the exception of Feeding America's Hunger in America Study, which is national in scope. Food pantry users tend to be less educated, single parents, women, and low-wage earners.^{10,11} Feeding America's 2014 Hunger in America Study found that roughly a third of the clients served in their network had a household that included children, and a third of their clients had a senior in their household. Nearly 50% of clients were between the age of 30 and 49.¹² Food pantry use was strongly correlated with SNAP participation, suggesting that SNAP benefits were not enough to provide household food security.¹¹ Additionally, race, education, household structure, and employment status are predictors of the use of food pantries, in lieu of or in conjunction with SNAP.^{11,13} Married couples and

households that have older heads of households are more likely to use food pantries over SNAP.¹⁴ Participation in other public programs and living in a rural area increased the likelihood of using SNAP and food pantries within the last 30-days.¹¹ Households headed by Blacks and households with children were more likely to use SNAP, and less likely to use food pantries.¹⁴ Lower education and income levels increased the likelihood of using SNAP, but not food pantries.¹³ For individuals who indicated recently losing SNAP benefits, not meeting requirements for recertification, or perceiving their benefits as too low, food pantries were an alternative for them.¹³

Literature on long-term users of food pantries—as defined by Berner and colleagues, those visiting more than three times¹⁵—has found limited effects of demographic characteristics as predictors of long-term use. An analysis of food pantry use in Iowa found a similar distribution of recurring or long-term visitors to food pantries with jobs and those without jobs, and that those employed were more likely than unemployed to move from short-term to long-term pantry user status.¹⁵ Additionally, use of SNAP increased the likelihood of individuals moving from short-term assistance to long-term pantry use. In analysis of long-term food pantry users in North Carolina, researchers find income, race, and household size had little effect on long-term pantry use and organizational characteristics of the food pantry played a larger role in long-term pantry use.¹⁶

Data and methods

We describe patterns in the supply and demand of food pantry users by using information from two very different data sources. First, we present information on the number of food pantries submitting tax returns from the Internal Revenue Service, Exempt Organizations Business Master File maintained by the Urban Institute, National Center for Charitable Statistics for 1995–2012. These data are far from a perfect indicator of the supply of food pantries and represent an undercount. Since organizations must reach a revenue threshold of \$30,000 per year in order to be required to file tax returns, we will miss small operations, such as food closets run out of a church. Additionally, since tax returns are filed at the organizational level, organizations that offer food assistance in multiple locations will only appear a single time in the data. Finally, this category includes both food banks and food pantries which is problematic here since clients only access food at food pantries (food banks are points of food distribution to food pantries or other emergency food assistance sites). Despite these limitations, the National Center for Charitable Statistics data is available on an annual basis for a wide time frame—1995–2012 is examined here. Additionally, unlike data from member organizations, such as Feeding America, all food pantries subject to reporting requirements are mandated to submit their tax return data. As a consequence, the data may

be considered more representative and consistent than private data sources. We present this data at a descriptive level—showing trends in the number of food pantries filing 990 forms over time—and at the state level with maps.

Then, we examine reports of food pantry participation at the household level using data from the Current Population Survey Food Security Supplement (CPS-FSS). The CPS-FSS is a nationally representative survey of about 50,000 households in the United States conducted by the US Census Bureau annually since 1995. This project pools data from the years 2002 to 2014, in which the CPS-FSS is consistently fielded in the December survey. In addition to standard demographic information, the CPS-FSS includes information on 12-month and 30-day household food security, participation in public nutrition assistance programs, such as SNAP, as well as use of emergency food assistance such as food pantries.

The Current Population Survey is a good data choice because it has a large sample size and food pantry participation is a relatively rare occurrence to observe. Additionally, the consistent measure used over time with a nationally representative sample supports the descriptive nature of this project. Despite the known issues with measurement error in social program participation^{17,18} and food pantry use, the CPS-FSS remains the dataset of choice for studying food security and food and nutrition program participation. It should be noted that the CPS samples households. As a consequence, households that are homeless or unstably housed are likely to be missed with this sampling frame.

The analytic goals of this paper are relatively simple: we review the main form of emergency food assistance—food pantries. For food pantry users, we have reports of participation over the last 12 months and, depending on 12-month participation we know if the household has used a food pantry within the last 30 days. We begin by presenting descriptive data illustrating how the composition of the food pantry population has changed over time with regards to householder's racial identity (white, black, Hispanic and other), age (18–24, 25–49, 50–64, and 65 and older), education level (less than high school, high school, some college, and college), marital status (married, never married, widowed/separated/divorced), labor market status (employed, unemployed, not in the labor force) and income level (above or below 185% of the federal poverty line). We conclude with straightforward probit models of food pantry participation as a function of these demographic characteristics to predict participation.

Results

How has the supply of food pantries changed?

Results from our descriptive analysis of data from the National Center for Charitable Statistics from 1995 to 2012 are presented in [Figure 1](#) and [Maps 1](#)

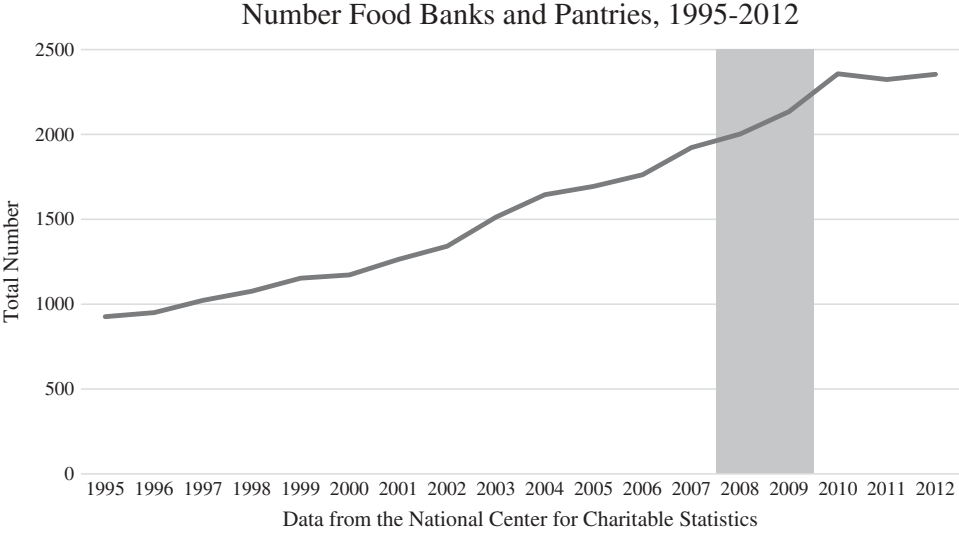
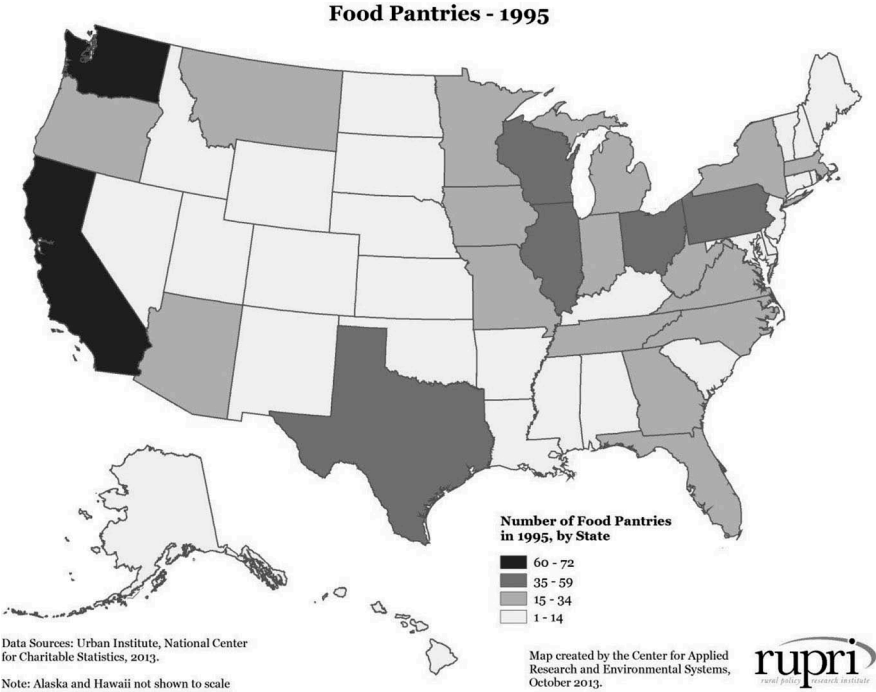
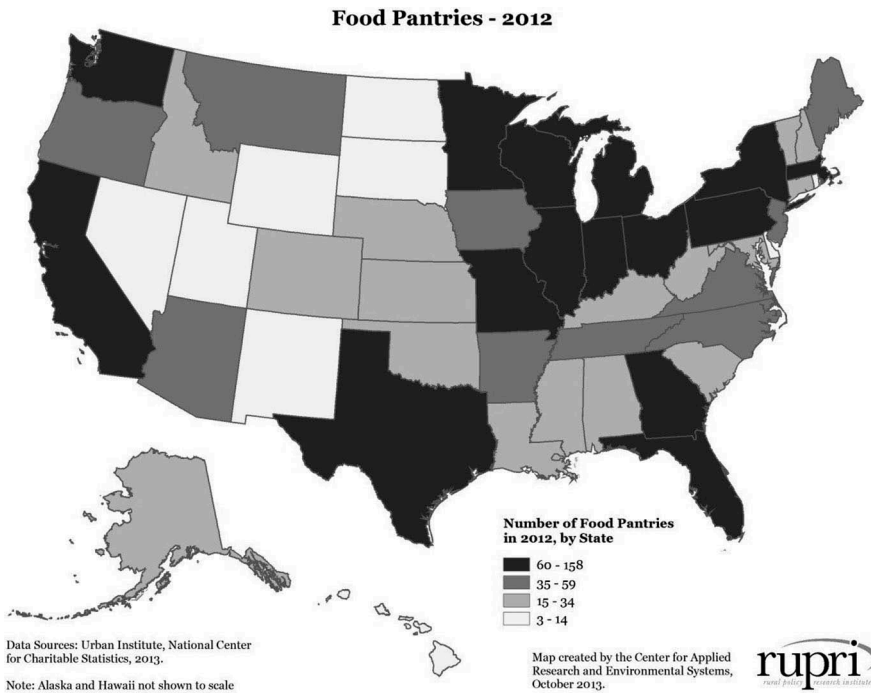


Figure 1. Number of food banks and pantries in the United States from 1995 to 2012.
Note: Grey shading indicates period of the Great Recession



Map 1. The number of food pantries in 1995, by state.



Map 2. The number of food pantries in 2012, by state.

and 2, subject to the data caveats about underreporting noted above. [Figure 1](#) depicts a clear increase in the number of food pantries from 1995 to 2012. The number of registered food pantries submitting tax returns doubled from approximately 1000 to 2000 from 1995 to 2008, continued to grow from 2008 to 2010 from 2000 to 2300 food pantries and then remained flat from 2010 to 2012. It is important to note that this number is far below the roughly 32,000 food pantries that Feeding America reports in 2014.²

[Map 1](#) presents the number of food pantries in 1995, by state. The majority of states had fewer than 15 food pantries across the entire state in 1995. While the density of food pantries is partially explainable by the population distribution, there are some notable exceptions—such as the high number of food pantries in Washington and the relatively low number of food pantries in Florida. Using the same scale, [Map 2](#) presents the number of food pantries per state in 2012 (with a higher top scale). Post-recession, most states have a fairly well-developed food pantry system with only nine states at the lower end of the scale in 2012, and a much larger number, 15, having over 60 food pantries within the state. Midwestern states are notable for the solid density of food pantries throughout the region.

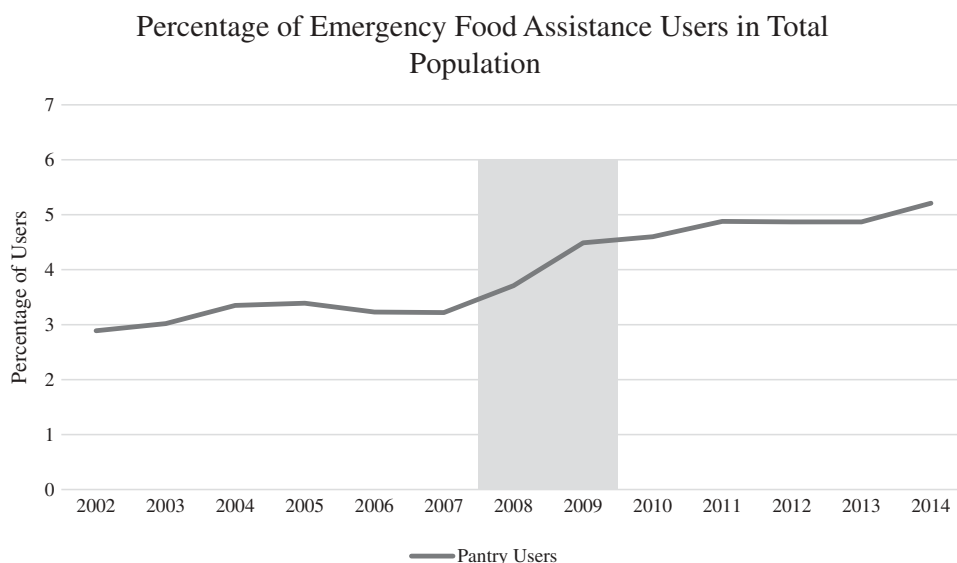


Figure 2. The percentage of emergency food assistance users in the United States from 2002 to 2014. Notes: Authors calculations based on data from the Current Population Survey Food Insecurity Module, 2002–2014. Grey shading indicates period of the Great Recession.

How has the composition of food pantry participants changed?

Next, we turn to our second research question which focuses specifically on food pantry participants and uses CPS-FSS data from 2002 to 2014. Beginning in 2002, 2.89% of the total population reported visiting a food pantry within the last 12 months (see [Figure 2](#)). Food pantry participation increased slightly from 2002 to 2005 but the rate of increase was quite low so total participation remained approximately 3% of the total population in 2005. Food pantry participation declined slightly in 2006 before rising again steadily from 2007 to 2011. The rate was stagnant between 2011 and 2013 before it increased slightly from 4.87% to 5.21% in 2014. It is important to note that unlike the supply of food pantries which plateaued around 2010, participation in food pantries continued to climb during the recovery period, suggesting that each food pantry was serving more clients after the Great Recession than during the height of the formal economic crises.

In [Figures 3–7](#) we examine changes in the demographic characteristics of food pantry participants over the period from 2002 to 2014 period. In [Figure 3](#), we see that Whites comprise the largest group of food pantry users although the share declines slightly from 61.89% in 2002 to 59.33% in 2014. Blacks comprise around 20% of the food pantry population throughout the period, although there is a small decrease during the height of the Great Recession. Hispanics comprise a growing share of the food pantry population, increasing from 12.07% in 2002 to 15.29% in 2014. The

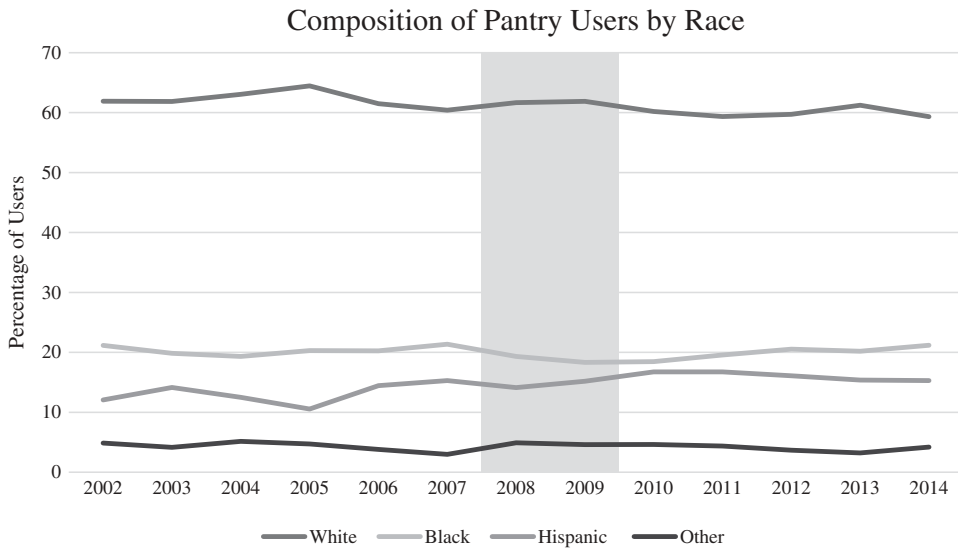


Figure 3. The composition of United States Food Pantry Users by Race from 2002 to 2014. Notes: Authors calculations based on data from the Current Population Survey Food Insecurity Module, 2002–2014. Grey shading indicates period of the Great Recession.

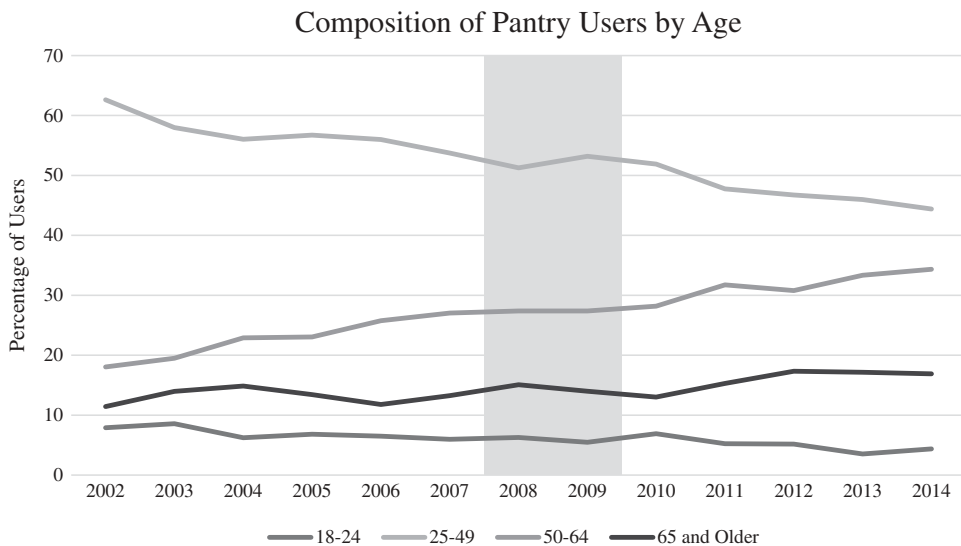


Figure 4. The composition of United States Food Pantry Users by Age from 2002 to 2014. Notes: Authors calculations based on data from the Current Population Survey Food Insecurity Module, 2002–2014. Grey shading indicates period of the Great Recession.

remaining racial category fluctuates between approximately 3% and 5% of food pantry participants. These racial patterns are somewhat surprising for Whites and Blacks given that both demographic trends and unemployment

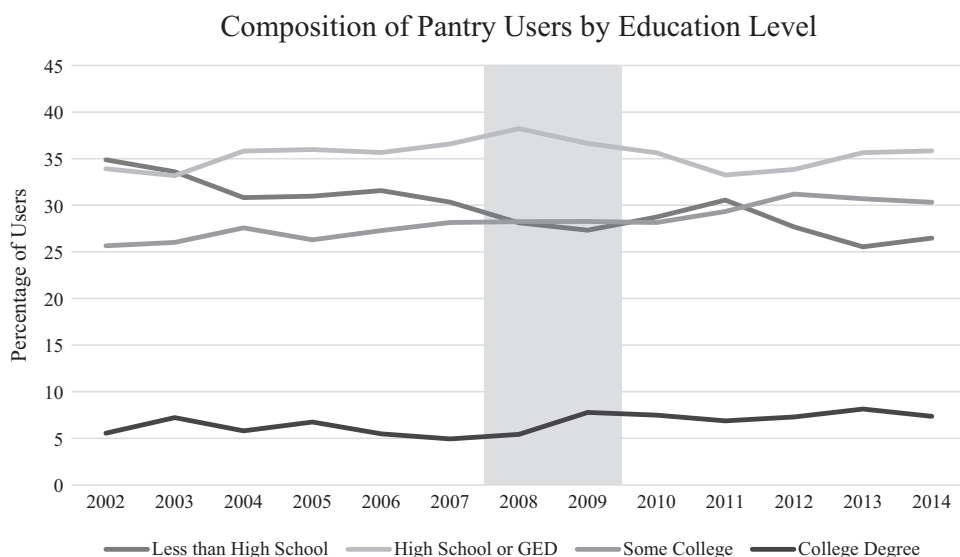


Figure 5. The composition of United States Food Pantry Users by Education Level from 2002 to 2014. Notes: Authors calculations based on data from the Current Population Survey Food Insecurity Module, 2002–2014. Grey shading indicates period of the Great Recession.

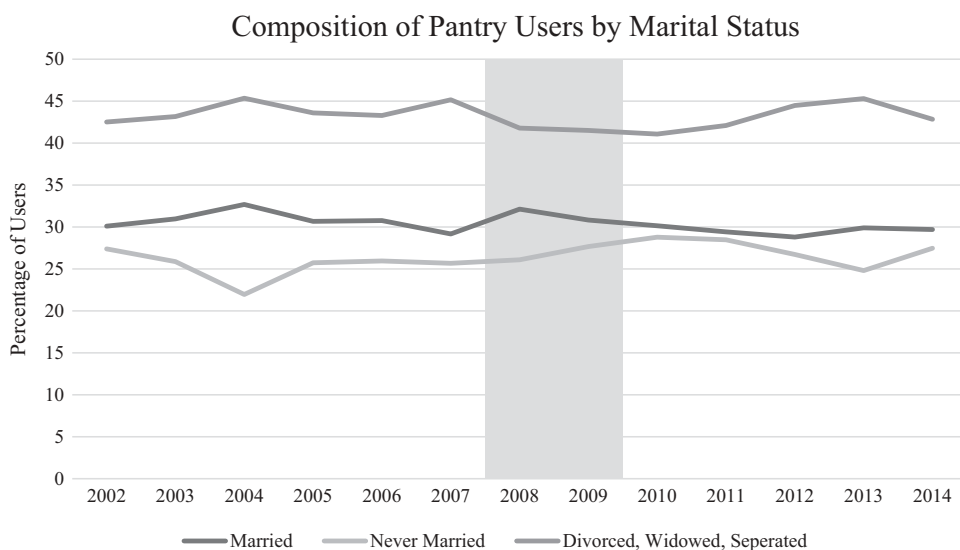


Figure 6. The composition of United States Food Pantry Users by marital status from 2002 to 2014. Notes: Authors calculations based on data from the Current Population Survey Food Insecurity Module, 2002–2014. Grey shading indicates period of the Great Recession.

conditions would lead one to predict a growing portion of food pantry users would be Black and a declining share White over this period. The rise in Hispanic use is consistent with both demographic growth and economic conditions.

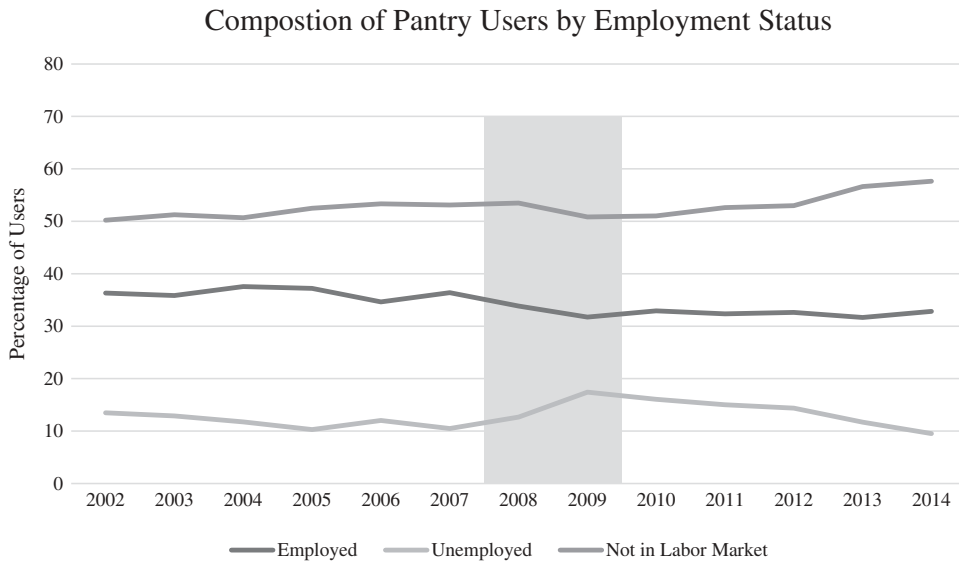


Figure 7. The composition of United States Food Pantry Users by employment status from 2002 to 2014. Notes: Authors calculations based on data from the Current Population Survey Food Insecurity Module, 2002–2014. Grey shading indicates period of the Great Recession.

Figure 4 shows that the age composition of household heads who report visiting food pantries within the last 12 months changed as a result of the Great Recession. Beginning in 2002, the largest share of food pantry users was between the ages of 25 and 49 (62.62%), followed by those age 50–64 (18.03%), then age 65 and older (11.44%), and finally young adults age 18–24 (7.91%). Beginning in 2004, the 50–64 age group started to crowd out younger age groups. By 2014, household heads age 50–64 comprised 34.33% of the food pantry population. By the end of the Great Recession in 2010, the food pantry population was much older than it was at the beginning of the decade.

Changes in the education level of food pantry users are depicted in Figure 5. Those without a high-school education comprised 34.88% of food pantry participants in 2002 but this share fell to closer to 31% by 2004. During the Great Recession of 2008, the least educated group made up only 27.33% of food pantry users before increasing as economic conditions improved for other groups before again dropping beginning in 2012 and ending at 26.48%. The high-school educated comprised a similar share relative to those with less than a high-school education in 2002 but their share increased to 38% in 2008, declining to the pre-recession levels by 2012, and rising again slightly in 2013 and 2014. Those with some college made up a growing share over the period rising from 25.66% in 2002 to 30.32% in 2014. College educated participants comprised the smallest group of food

pantry recipients in 2002 (5.55%) and fluctuated between 5 and 8% over the time period with a slight trend upwards.

Several important changes about marital status are noted over the observation period. See [Figure 6](#). First, divorced, widowed, and separated households comprised the largest group of recipient households in 2002 (42.51%), followed by married households (30.1%) and then never married households (27.39%). Over the observation period, however, the proportion of never married households first declined from 2002 to 2004 before returning to its 2002 levels during the Great Recession and following a period of recovery from 2010 onward. As a consequence, the proportion of divorced, separated, and widowed households declined during the Great Recession. By 2014, divorced, widowed and separated households still comprised the largest group of food pantry participants (42.84%) and the share of never married and married households at 27.46 and 29.69%, respectively.

[Figure 7](#) shows the trend in food pantry participation by labor market status. Those not in the labor force comprised the largest share of food pantry participants at about 50% of the total until late in the recovery period when they increased to 57.64%. Employed participants—the working poor—made up 36.31% of participants at the beginning of the period. However, the share of employed participants fell beginning in 2006 and trended downward slowly reaching 31.67% by 2013, then increasing slightly to 32.83 in 2014. The unemployed comprised a declining share of the food pantry population during the period from 2002 to 2005, fluctuating between 13.49% and 10.3%, before rising sharply to a 2009 high of 17.42% and falling dramatically to 9.53% in 2014.

What factors determine participation in food pantries?

Our third research question uses probit regression models to estimate the probability of participating in food pantries as a function of demographic characteristics (see [Table 1](#)). We estimate the probability of participating in food pantries at some point in the last 12 months. Results are generally unsurprising and closely follow known associations between demographic characteristics and disadvantage such as poverty or food insecurity.

In [Table 1](#) which depicts 12-month food pantry participation, women were more likely than men to report visiting food pantries. Blacks were more likely to participate than Whites, while Hispanics and those in our group designated as “other” (not Black, White or Hispanic) are less likely to turn to food pantries than Whites. Young adults age 18–24 were less likely to report visiting food pantries than were prime aged adults, age 25–49. Older adults age 50–64 and the elderly age 65 or older were also less likely than prime aged adults to report visiting food pantries. There is a clear education gradient to food pantry participation: as the education level increases, individuals were less likely to report visiting a food

Table 1. Marginal effects of 12-month food pantry use.

	Model 1		
	12-month food pantry	Demographics & location	
	<i>dy/dx</i>	SE	Sig
Female	0.0067	0.0005	***
Black	0.0151	0.0007	***
Hispanic	−0.0035	0.0008	***
Other	−0.0036	0.0012	***
White omitted			
Age 18–24	−0.0205	0.0011	***
Age 50–64	−0.0094	0.0006	***
Age 65+	−0.0484	0.0008	***
Age 25–49 omitted			
Less than high school	0.0390	0.0010	***
High school	0.0257	0.0009	***
Some college	0.0238	0.0009	***
College omitted			
Never been married	0.0083	0.0007	***
Divorced, widowed, separated	0.0176	0.0006	***
Married omitted			
Below 185% poverty	0.0685	0.0006	***
Above 185% poverty omitted			
Employed	−0.0274	0.0006	***
Unemployed	0.0022	0.0009	**
Not in labor force omitted			
Midwest	0.0131	0.0007	***
Northeast	0.0105	0.0007	***
West	0.0157	0.0007	***
South omitted			
Non-metropolitan	0.0038	0.0006	***
Metropolitan omitted			
Number of observations	559,760		

NOTE: Year dummy variables are included in the analysis.

pantry within the last 12 months. Both never married households and those in which the household head was divorced, separated or widowed were more likely to report visiting a food pantry than married households. Households whose total income fell below 185% of the federal poverty line were also more likely to report visiting a food pantry within the last 12 months. Regionally, all non-south regions were more likely to report visiting a food pantry than residents of the South. Households in non-metropolitan counties are more likely to report food pantry participation than those in metropolitan areas.

Conclusion

In this paper, we have used two national data sources, the Current Population Survey and IRS data from the National Center for Charitable Statistics, to document the size and composition of the food pantry population and how it has changed over time. We find that while the number of food pantries has grown dramatically since 1995, there has been little

expansion since the Great Recession, despite the increase in the number of households that report participating in food pantries. The characteristics of those who participate in food pantries have changed in the last 10 years in that pantry users became older, more likely to have some college education, be divorced, separated or widowed, and unemployed after the Great Recession. Finally, we document that personal demographic characteristics associated with pantry use closely follow the correlates of poverty itself.

The limitations of this study are worth noting again. The food pantry supply information is from IRS data and represents an undercount of the number of sites where individuals can access services and provides a much smaller estimate of the demand and supply of food pantries than does data from Feeding America. However, it is the only nationally representative longitudinal source for analysis such as this. Additionally, the analysis on individual characteristics relies upon data from the Current Population Survey, which as a household survey will undercount those unstably housed. Additionally, respondents will likely under-report their use of food pantry services. Once again, however, there are no other sources of longitudinal, nationally representative data on food pantry users.

This study contributes to the current literature by documenting the trend in the demand for and the supply of food pantries in the United States. Our analysis suggests that the food pantry network is now well established and is not as sensitive to macroeconomic trends as one might think, although clearly the demand for services and the characteristics of those who rely upon them shifts in ways consistent with current economic conditions. Future researcher is required to identify where the supply of services cannot meet the current need, as well as, what coping strategies households use to deal with the mismatch.

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