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Super Stores' Impact on the Availability of Supplemental Nutrition Assistance Program-Approved Stores

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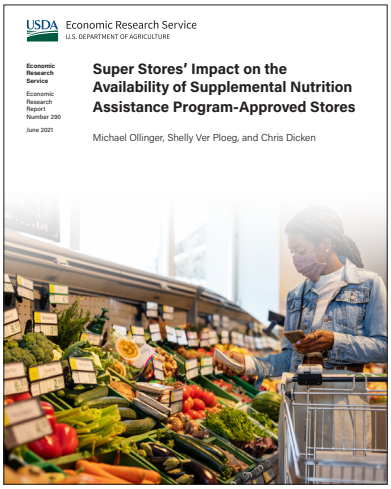

What Is the Issue?

The USDA's Supplemental Nutrition Assistance Program, or SNAP, is the largest U.S. food assistance program with Federal expenditures of $70.8 billion in fiscal year 2016. SNAP serves low-income U.S. citizens; 84 percent of recipients earned income below the poverty level in 2016 and about 64 percent were children, elderly, and nonelderly adults with disabilities (Gray et al., 2016). These low-income SNAP participants can redeem their benefits only at approved stores. According to Ver Ploeg et al. (2017), about 6 percent of households do not use their own vehicle to travel to a store and live more than 0.5 miles from a supermarket. For these transportation-challenged SNAP beneficiaries, access to a SNAP-approved store can be difficult, and changes to the retail landscape threaten the availability of local stores.

The emergence of super stores in the SNAP-approved store retail environment has been a disruptive force. Super stores offer lower prices (Volpe and Lavoie, 2008) and one-stop shopping for time-strapped, cost-conscious consumers, replacing supermarkets as the primary destination for SNAP beneficiaries. However, by diverting consumers away from supermarkets and grocery, convenience, and combination stores, super stores may force these traditional stores to exit the market entirely, reducing access for some SNAP beneficiaries. This study examines the impact of new super store entry on the survival of existing traditional stores and the cost savings SNAP beneficiaries experience because of the lower prices offered at super stores.

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What Did the Study Find?

This study found that the entry of a super store into a 5-kilometer (approximately 3-mile) radius market area, in which no other super store entered in the preceding or proceeding 3 years, was associated with the following:

- Between 1994 and 2015, about 0.25 supermarkets and 0.05 grocery, convenience, and combination stores exited the market when a super store entered. The impact grew over time, rising from a loss of about 0.20 supermarkets over 1994–2004 to 0.37 supermarkets and 0.20 other traditional stores exiting per super store over 2005–15.
- Between 1994 and 2015, traditional stores in the 5-kilometer (3-mile) radius market areas lost about $191,000 per year in SNAP redemptions to super stores. The impact of super store entry rose over time, increasing from $143,000 per year from 1994 to 2004 to $213,000 per year from 2005 to 2015. About 90 percent of the redemption loss was at supermarkets. Super store redemptions greatly exceeded that which was lost by traditional stores.
- The effect of super store entry diminished as the distance from the store increased. There was no further effect beyond about 5 kilometers (3 miles).
- The migration of SNAP benefits to super stores enabled SNAP beneficiaries to save about $6,390 per year per super store entry over 2005–15. If applied to all super store entrants, the savings would amount to $108.6 million in 2015 (0.26 percent of SNAP benefits), based on estimates over 2005–15 and the number of super stores in 2015.
- There was no loss of store availability, even in the later years, as the loss of traditional stores (0.57 stores) was more than offset by the entry of one super store.

How Was the Study Conducted?

The primary data were from the Store Tracking and Redemption System (STARS), which is administrative data on SNAP-approved stores from the U.S. Department of Agriculture's Food and Nutrition Service (FNS). The 1990 and 2000 Decennial Census data and 2005–15 American Community Survey data were also used. The STARS data included all stores accepting SNAP payments over the 1990–2017 period and included store name, store format, a unique store identifier that links stores across time, store geographic location, SNAP redemptions, and the number of cash registers. We used these data to create a 6-year event window and examined the impact of super store entry on the number of supermarkets, and grocery, convenience, and combination stores and the value of their SNAP-redemptions in a 5-kilometer radius area surrounding the super store entrant.[1] The 2 years before super store entry served as a reference against which changes in the entry year and the 3 post-entry years were measured.

Using a fixed effects linear regression, the number of stores or value of redemptions of all traditional stores in the super store's marketing area were estimated as functions of the number of stores or value of redemptions in the previous year; the value of SNAP redemptions during the current year; demographic variables; number of surrounding super stores; and dummy variables for the event year and the post-entry period of 3 years. The dummy variables for the event year and the post-entry period indicated how the number of stores and value of redemptions changed after the super store entry.

[1]This paper focuses on changes in the availability of traditional stores as super stores entered the retail environment. The paper considers access when it discusses redemptions, i.e., the ability of a consumer to purchase food. Food is accessible if available in stores that can be reached by public or private transportation, and consumers have the financial means to purchase it. See Bodor et al. (2010) for a discussion.