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Cost Containment and Participant Access in USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Evidence From the Greater Los Angeles, CA, Area

Patrick W. McLaughlin, Michelle Saksena, Tina L. Saitone, Meilin Ma, Richard Volpe, Qi Wu, and Richard J. Sexton

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Abstract

The U.S. Department of Agriculture's (USDA) Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides food assistance, nutrition education, breastfeeding support, and health care to participating low-income and nutritionally at-risk pregnant and postpartum women, infants, and children up to age 5. Participants exchange WIC vouchers or electronic benefits for specific WIC foods at commercial retail stores authorized by State WIC programs. Authorized WIC vendors may be large grocers, supermarkets, and supercenters such as Walmart or Target, or small and nontraditional food retailers like convenience and drug stores. In addition, some States authorize vendors that specialize in serving WIC clients, referred to as "above-50-percent vendors" or simply "A50 vendors" because they derive the majority of their food sales from WIC transactions.

Participants do not directly pay for most WIC foods (with the exception of their cash-value voucher for fruits and vegetables), and hence have no explicit incentive to consider price when using their WIC food benefits. However, WIC must reimburse stores for foods at the prices charged to paying customers up to a price ceiling set by each State WIC, so differences in prices of WIC foods by store type and other characteristics affect the cost of the program. This report summarizes five recent studies by ERS authors and collaborators about prices charged by different types of WIC vendors in Greater Los Angeles (GLA), CA, from 2009 to 2013. Small stores in GLA often charged higher prices than large stores, especially small stores with a relatively high share of the WIC market. This led to modestly higher program food costs. However, these small stores extended WIC participant access in some cases and provided other amenities. In contrast to other small vendors, A50 vendors, while usually small, are subject to the strictest price regulations. These stores improved participant access in GLA without raising program costs. The studies reviewed in this report highlight important tradeoffs between program cost and access for State agencies setting policies for authorizing vendors.

Keywords: Women, Infants, and Children, WIC, seller concentration, Above-50, A50, cost containment, food access, food cost, market power, retail food prices.

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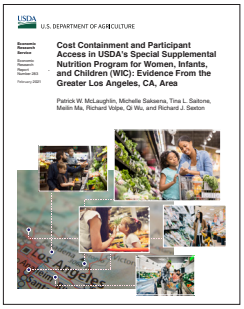

Cost Containment and Participant Access in USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Evidence From the Greater Los Angeles, CA, Area

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What Is the Issue?

Food assistance in the USDA Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) generally operates by providing vouchers or electronic benefit transfers (EBT) for WIC-approved foods to be obtained from commercial food retailers. WIC State agencies then reimburse retailers for foods at rates reflecting the prices charged by the vendor up to State-regulated limits. The prices charged by stores can thus affect the State's WIC food costs. WIC State agencies authorize retailers to serve as WIC vendors and have significant latitude in choosing the types of retailers to authorize. Virtually all State agencies have WIC vendors that are large retailers, while some also authorize small and nontraditional food retailers such as convenience stores and pharmacies. A small number of States authorize so-called "above 50 percent" (A50) vendors who derive the majority—and in some cases all—of their food sales from WIC transactions. These stores have special pricing regulations, potentially adding administrative costs, but are more convenient for some WIC shoppers because they specialize in selling WIC-approved foods. When constructing a portfolio of authorized vendors, State agencies may face a tradeoff between ensuring that food costs are sufficiently contained and promoting participants' access to vendors. Large food retailers may have lower prices for WIC food items than small food retailers—and thus impose lower food costs on State WIC programs, on average—but not all participants live near large vendors.

What Did the Study Find?

This study provides an in-depth look at the tradeoff between convenience for WIC participants and WIC program costs in the California WIC program, synthesizing five studies of WIC in Greater Los Angeles Area (GLA). California provides an ideal case study because it authorizes a wide variety of retailer types to accept WIC benefits and is the largest State WIC program in the Nation. Each of the studies we reviewed used administrative data on WIC transactions in California to answer research questions addressing cost containment and participant access.
The studies found that:

- Small vendors (other than small A50 vendors) in California charged considerably higher prices than large vendors for comparable goods. For example, large vendors charged prices that were on average 37 to 48 percent less compared to the smallest vendors for a food bundle consisting of milk, breakfast cereal, and whole grains.
- Small vendors were less likely to charge significantly higher prices for WIC items when facing increased competition from the presence of supermarkets.

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- Small vendors accounted for 15.5 percent of the value of all WIC sales in the State during the study period, so the total impact of the relatively high prices on WIC food costs at small vendors is limited.

The presence of small vendors reduced shopping distances for some participants. Small vendors in GLA were identified, and a simulation modeling WIC shopping in their absence from the market was conducted, with the simulation modeling the effects on participant access. The simulation found that the nearest remaining WIC vendor was over 0.5 miles away in 42 percent of cases and 1 mile away in 17 percent. Small-vendor availability appeared particularly important for WIC participants in low-income and low-food-access areas, who traveled farther to redeem benefits than those in normal-access areas in GLA.

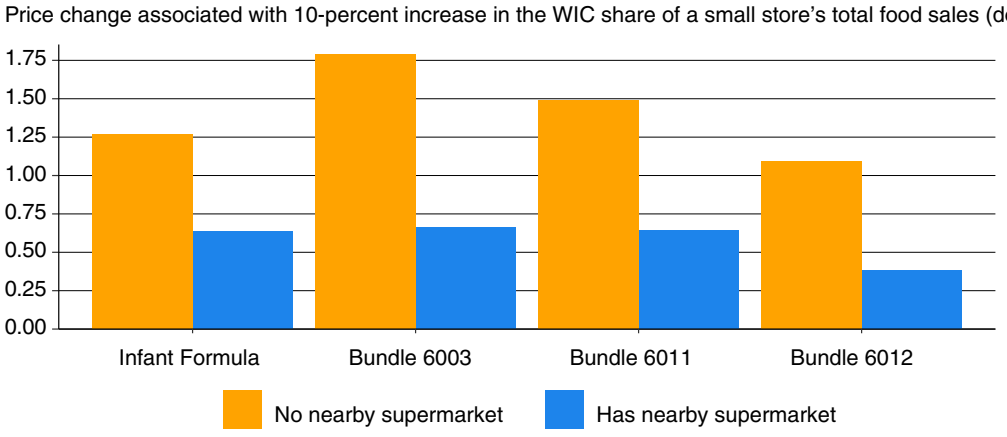
- In a similar study simulating the absence of existing A50 stores in GLA, 21 percent of participants who conducted the majority of their shopping at these vendors would have had to travel farther to shop. Simulated food costs were higher without the competition of nearby A50 stores.

Taken together, the results of these studies suggest that authorizing more stores can foster competition that can improve participant access to WIC-approved foods while containing food costs through increased competition. These findings were dependent on the pre-existence of a wide variety of food retailers serving an urban food environment, which may not be true of all local food environments in the Nation.

How Was the Study Conducted?

To answer research questions on cost containment and participant access, this report synthesizes the results of five studies, using administrative data on WIC transactions in the Greater Los Angeles Area during October 2009 to December 2013. The empirical data provided information on the dollar value of WIC transactions, the vendors undertaking the transaction and their characteristics, the local WIC clinic issuing the benefit, and an anonymous participant ID number to track transactions over time. Each study employed econometric methods to estimate the relationship between WIC vendor pricing and key economic variables relevant to food access and cost containment concerns. In addition, several studies employed simulation techniques to estimate the impact on food access and food costs from the hypothetical absence of small vendors and A50 vendors.

Small stores' WIC prices are higher when they have more WIC customers, but less so when a supermarket is present



WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Note: Infant formula refers to one 12.5 oz can of powder infant formula. Bundle 6003: low-fat milk, whole grains, breakfast cereal; Bundle 6011: low-fat milk, whole grains, 128 oz. juice; Bundle 6012: low-fat milk, eggs, cheese, peanut butter/dry beans; infant formula bundle: 4 cans of Enfamil formula concentrate, 13 oz. A supermarket is said to be "nearby" if one exists in the small store's ZIP code.

Source: Ma et al. (2019).

Cost Containment and Participant Access in USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Evidence From the Greater Los Angeles, CA, Area

Introduction

This report summarizes recent studies by ERS authors and collaborators about prices charged by different types of vendors in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)—and implications for participant access—in Greater Los Angeles, CA (GLA) from 2009 to 2013.[1] California is an ideal case study, in part because it is the largest WIC State program in the Nation in terms of both total annual participation and food costs, and thus has national implications for WIC food costs and WIC food access.

In FY 2019, WIC served 6.4 million participants on average per month and incurred $3.1 billion in annual food costs. In FY 2019, California accounted for a little more than 928,000 of these participants (14.5 percent) and $491 million of national food costs (15.7 percent), a composition roughly identical to that of the study period of the summarized studies (USDA, 2020). In addition, California authorizes a wide variety of retailer types to accept WIC benefits, including supermarkets, supercenters with a grocery component (e.g., Walmart), small and medium-sized grocery stores, and convenience-type stores, as well as A50 vendors that derive more than 50 percent of revenues from WIC customers and specialize in serving WIC foods (see box, "A50 Vendors"). The articles summarized in this report relied on California WIC administrative data on all WIC transactions in Greater Los Angeles during the entirety or part of the period spanning October 2009 to December 2013. The millions of transaction records in each study include data on the types of food acquired, the total price of the bundle of acquired foods, vendor and participation identification numbers, and the WIC clinic where the participant obtained the benefits. Participant transactions can be tracked over time, but no demographic information is available on participants other than their program status (i.e., pregnant woman, breastfeeding mother, postpartum mother, infant, or small child).

[1]The five selected studies are Saitone et al. (2014), Saitone et al. (2015), Wu et al.(2017), Ma et al. (2019), and McLaughlin et al. (2019). Each study relies on administrative data on California WIC transactions that took place for a subset or all of 2009 to 2013. Saitone et al. (2014), Saitone et al. (2015), and Ma et al. (2019) were conducted as part of cooperative agreements between USDA, Economic Research Service and the University of California, Davis.

Background of WIC

WIC is the third-largest food assistance program in the Nation's budget.[2] It serves nutritionally at-risk, low-income pregnant, postpartum women, infants, and children up to age 5 by providing supplemental food, healthcare referrals, and nutrition education. WIC is administered by the U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS), with substantial operational control of the program delegated to State agencies.[3]

Unlike the Supplemental Nutrition Assistance Program (SNAP), which provides food benefits with a cash value on Electronic Benefits Transfer (EBT) cards, WIC provides set quantities of certain foods on paper vouchers or EBT cards.[4] For fruits and vegetables, WIC provides a cash value voucher or cash value benefit on the participant's EBT card.[5] Federal regulations define eligible foods for each participant type: infants, children, and women who are either pregnant, partially breastfeeding, fully breastfeeding, or postpartum. These foods include staple items such as 100-percent fruit or vegetable juice, low-fat milk, breakfast cereal, cheese, eggs, fruits and vegetables, and whole-wheat bread (and other whole grains), as well as infant foods such as formula, fruits and vegetables, cereal, and meats. State agencies then determine the specific food brands, types, and sizes that are approved within each WIC food category. Participants use their vouchers or EBT cards at authorized vendors in exchange for the prescribed quantities (or dollar values in the case of fruits and vegetables) of WIC foods. WIC vendors are reimbursed up to State-defined price ceiling calculations.

[2]Information on program costs as well as participation at the national level is obtained from program data on the FNS website.

[3]WIC is administered by 89 State agencies, including 50 State health departments, 33 Indian Tribal organizations, the District of Columbia, and 5 territories (Northern Mariana, American Samoa, Guam, Puerto Rico, and the Virgin Islands).

[4]The Healthy, Hunger-Free Kids Act of 2010 mandates that all WIC State agencies transition from paper voucher systems to EBT by October 1, 2020. As of July 2020, California was in the implementation phase of the WIC EBT, according to the WIC EBT activities detail status report on the USDA, FNS webpage.

[5]The analysis of the five articles summarized in this report excludes fruit and vegetable purchases since cash vouchers are used to buy them, and both the price and purchasing mechanism are different than for other WIC-authorized foods.

WIC Vendors and Price Regulations

To become a WIC-authorized vendor in California and elsewhere, stores must comply with several federally mandated criteria administered by State agencies, such as minimum stocking requirements. All WIC stores must stock at least two different fruits, two different vegetables, and at least one authorized whole-grain cereal. They are also required to supply infant formula from State-authorized retailers, wholesalers, and distributors. State agencies determine maximum amounts they will reimburse for WIC foods, taking into consideration the vendor's size and price history. Vendors are prohibited from excluding WIC-authorized foods from pricing incentives such as coupons or in-store discounts. They are also prohibited from charging different prices to WIC and non-WIC customers.

State WIC agencies reimburse vendors for the value of goods purchased with WIC benefits, up to a threshold that varies by vendor characteristics. Federal regulations require State WIC agencies to categorize authorized vendors into peer groups based on factors that affect store prices, such as vendor size, location, and WIC program sales (Code of Federal Regulations, Title 7, Section 246). State agencies are required to set allowable reimbursement levels for each vendor peer group.

In California during the study period,[6] each vendor was classified into a peer group based on store size (determined by the number of cash registers) and geographic location within the State.[7] The maximum permissible price a vendor was allowed to charge varied by vendor peer group and reflected the prices charged by other vendors in the group. These price ceilings were regularly updated, based on a rolling 12-week, statewide price average for each WIC food instrument within each group. In general, small vendors (with fewer cash registers) were permitted to charge higher prices to offset their inability to command lower wholesale prices when purchasing food for retail sale.

A50 Vendors

A50, or "above 50," vendors are a special class of vendors, defined by Federal regulations, that derive more than 50 percent of their sales from WIC transactions. Redemptions paid to A50s are subject to the strictest price ceilings: the average value of redemptions paid to A50 vendors cannot exceed the average redemptions paid to non-A50 vendors for each voucher type—or for each food item, in the case of an EBT.

Only 10 of the 90 WIC State agencies authorized A50 vendors in 2018, down from 22 in 2009. Of just under 1,000 A50 vendors operating in the United States in 2018, 493 were located in California, or 11.3 percent of the State's WIC vendors. Other States and U.S. territories with relatively high numbers of A50 vendors were Texas (103 stores, or 4.5 percent), Oklahoma (18 stores, or 3.6 percent), and Puerto Rico (276 stores, or 36.6 percent). A50 vendors accounted for 42.6 percent of California's WIC redemptions in 2018. A50 vendors accounted for 21.5 percent of WIC redemption in Texas, 2.2 percent in Oklahoma, and 78.9 percent in Puerto Rico.

[6]As of June 2014, California WIC has revised its peer groupings to remove geographic location as a defining characteristic of a peer group and has added an "Other" characteristic that includes authorized vendors who are neither A50 vendors nor full-line grocers.

[7]A store with from five to six registers was classified as medium-sized, while stores with fewer registers were classified as small and those with more registers as large. This same classification was used in all five articles.

Proximity to Urban Supermarkets and WIC Food Access Among WIC Participants

Policies that restrict small-vendor participation in WIC raise concerns as to whether these policies may also reduce accessibility for using food benefits for some WIC participants. This may be particularly salient for participants who live in low-income, low-access areas (LILAs) that, by definition, have limited access to supermarkets.[8]

To investigate concerns about WIC access in GLA, Wu et al. (2017) compared the shopping behavior of WIC participants living in urban LILAs to a group of WIC participants living in urban areas regarded as having adequate food access.[9] Although WIC participants living in LILAs traveled somewhat farther to use their WIC benefits, they had shopping behaviors similar to those of their non-LILA counterparts. On average, LILA participants traveled 3.59 miles to redeem the cash value voucher for fruit in their WIC benefits; non-LILA participants traveled, on average, 3.20 miles. While some participants in LILAs may have been burdened by relatively longer travel distances, the lack of a nearby supermarket did not appear to be a meaningful barrier, given that GLA participants—regardless of LILA status—traveled on average more than 3 miles to use their WIC food benefits.

Both LILA and non-LILA participants tended to have multiple viable options for WIC shopping, as evidenced by shopping behaviors. Over 80 percent of participants, irrespective of foodstore access, visited more than one vendor. For both LILA and non-LILA WIC groups, 23 percent of participants visited two vendors, followed closely by those who visited three vendors (22 percent). Most participants were able to "shop around" so they could obtain WIC foods.

[8]There are four classifications of LILA census tracts. Each is defined as a low-income area with a significant portion of the residing population having limited access (measured by four classifications of distance to supermarkets, supercenters, or large grocery stores). The distance criteria are also delineated by urban and rural tracts, although all census tracts in this study are urban. For a formal definition and more in-depth discussion of LILA census tracts, see Rhone et al., 2017.

[9]Wu et al. (2017) use the LILA definition where at least 500 people or 33 percent of the population of a Census tract are more than 1 mile from the nearest supermarket.

WIC Retail Environment

Wu et al. (2017) compared prices between LILA and non-LILA WIC participants for foods included in the four most frequently acquired WIC food packages[10] and concluded that there was little price disparity between the groups. Ma et al. (2019) expanded this analysis to examine if other factors affected the vendors' pricing strategies. They specifically examined the impact of market concentration on pricing behavior of WIC vendors. Market concentration measures the number of firms operating in a market and their respective influence in that market. Under low market concentration and high competition among vendors, no vendor is in a position to raise prices above the competitive level. In a market with higher concentration, with fewer vendors, the more influential vendors can raise their prices without fear of competition driving prices down. The ability to raise prices, or exercise market power, is often measured by some representation of the share of sales a vendor has in a market area.

Ma et al. (2019) applied the Herfindahl-Hirschman Index (HHI)—a measure that estimates the concentration of sales among firms serving a market—to GLA WIC local food markets. In particular, the WIC local markets were approximated by the ZIP Codes of the vendors.[11,12] HHIs range between zero and one, with higher values indicating a higher concentration of sales among a relatively small number of firms, and as a result, potentially less competition in the local market and higher prices that do not reflect higher costs. When examining the concentration of WIC sales in GLA, Ma et al. find that 70 percent of ZIP Codes in GLA had HHIs higher than 0.25, with another quarter falling in the range of 0.15-0.25. As a point of comparison, U.S. Department of Justice and Federal Trade Commission merger guidelines (2010) classify markets with HHIs greater than 0.25 as highly concentrated markets and markets with HHIs between 0.15 and 0.25 as moderately concentrated.

[10]These were food bundles 6003 (low-fat milk, whole grains, breakfast cereal); 6011 (low-fat milk, whole grains, 128 oz. juice); 6012 (low-fat milk, eggs, cheese, peanut butter/dry beans); and 1011 (four cans of Enfamil formula concentrate, 13 oz.).

[11]HHI is calculated by summing the squared market shares (in proportional terms) of each firm in a market. A market with one firm has an HHI equal to 1.0. A market with 10 firms has an HHI of 0.1 if each firm has an equal share of sales but is higher if a small number of firms have a disproportionately higher share of sales.

[12]From Ma et al. (2019): "Although zip codes may not coincide perfectly with relevant geographic markets for food shopping, the area of a typical zip code matches closely with average travel distances to shop for food in urban areas. Specifically, the average area of the zip codes in the sample is seven square miles, which equals a circle with a radius of 1.5 miles." McLaughlin et al. (2019) find that participants travel an average of 2.17-2.3 miles one way, depending on the specific benefit, which matches the 1.5-mile radius better than other common geographical units such as Census tract or Metropolitan Statistical Area.

WIC Vendor Pricing Strategies Differ Based on Market Concentration and Supermarket Presence

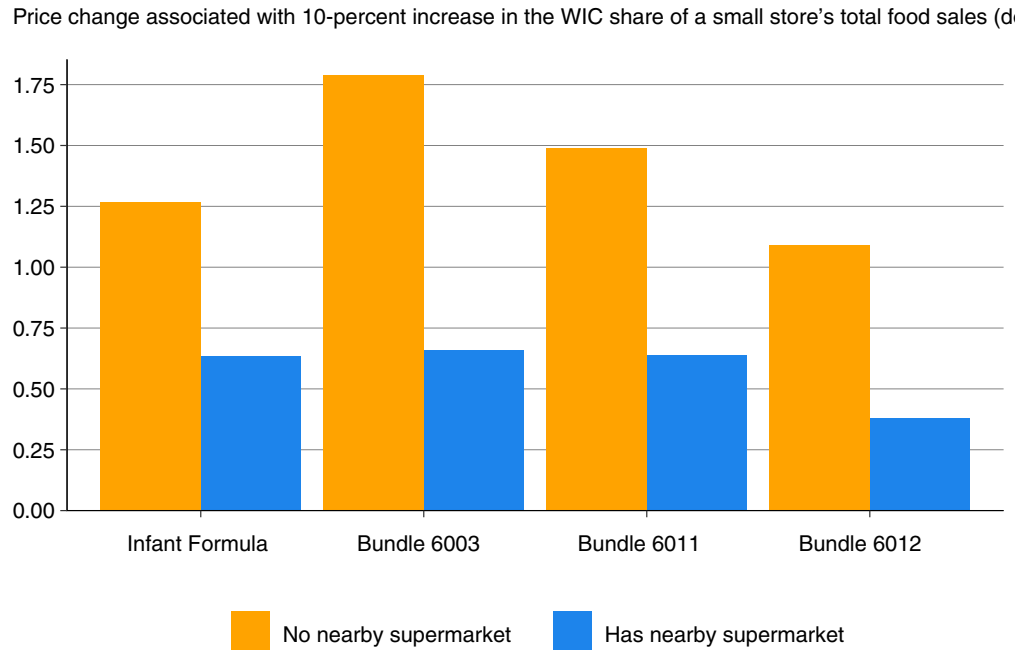
Ma et al. (2019) found that vendor pricing varied by vendor type in response to market concentration and by whether there was a large supermarket (with seven or more cash registers) present in the local market. For example, market concentration was not associated with pricing for large supermarkets as they did not have higher prices even when they had considerable market power (high market concentration). In contrast, the prices of small- and medium-sized stores (if they possessed considerable market power) were positively associated with the share of their total sales that came from WIC redemptions. However, the presence of a large supermarket abated these price increases by small- and medium-sized stores. For example, a 10-percent increase in the share of WIC redemptions relative to total sales was associated with a $0.64 increase in the price of infant formula per 12.5 ounce can when at least one large supermarket was present, but it led to a $1.27 increase when no supermarket was present (fig. 1). This result extends findings from Saitone et al. (2015), who investigated how vendor size, defined by the number of cash registers, related to prices of WIC foods. Saitone et al. found that large supermarkets, in general, offered WIC foods at a much lower price to participants than did smaller vendors.[13]

To address potential price inflations, the California WIC agency imposed stricter price ceilings for stores with one-to-four cash registers in May 2012. Ma et al. (2019) corroborated the earlier findings from Saitone et al. (2015) that these stricter ceilings significantly reduced prices charged by these stores for WIC foods and left little room for them to raise prices in response to market conditions. The study did not address whether these price regulations caused any of the one-to-four-register vendors to exit the WIC program. Saitone et al. (2014) found that price ceilings for non-A50 vendor groups were seldom binding before the California program instituted stricter price ceilings in May 2012. Before then, prices were largely determined by market forces. While it cannot be explicitly determined that higher prices were a result of higher costs, the fact that small stores responded by decreasing prices after the policy was implemented suggests that price premiums were market-driven. The stricter policy significantly reduced price ceilings, causing them to be effectively binding constraints for many of the one-to-four-register stores that had historically charged the most for WIC-authorized foods (Saitone et al., 2015).

[13]For example, Saitone et al. (2015) found that vendors with five cash registers charged 39.5 percent less for a gallon of milk, 16 oz. of whole grains, and 36 oz. of breakfast cereal compared to a store with one register (i.e., the smallest observed store). For the same bundle, vendors with 10 or more registers (i.e., the largest vendors) charged 48 percent less. Additionally, Ma et al. (2019) found that small food retailers charged 45 percent more for infant formula than stores with from five to six registers.

Figure 1

Small stores' WIC prices are higher when they have more WIC customers, but less so when a supermarket is present



WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Note: Infant formula refers to one 12.5 oz can of powder infant formula. Bundle 6003: low-fat milk, whole grains, breakfast cereal; Bundle 6011: low-fat milk, whole grains, 128 oz. juice; Bundle 6012: low-fat milk, eggs, cheese, peanut butter/dry beans; infant formula bundle: 4 cans of Enfamil formula concentrate, 13 oz. A supermarket is said to be "nearby" if one exists in the small store's ZIP code.

Source: Ma et al. (2019).

Food Cost Versus Access: The Tradeoff

State WIC agencies may consider various interventions that could help manage the cost of the WIC program. Saitone et al. (2015) suggest that if States authorize more large WIC vendors, more WIC foods may be offered at lower prices. Ma et al. showed that increasing the presence of large vendors in the WIC program appears to have a benchmarking effect on neighboring small and medium-sized retailers, but these solutions may also have shortcomings. Saitone et al. (2015) admit that implementing such a strategy may encourage WIC participants to redeem their benefits at large vendors with lower prices but may still not improve store access for some participants. Location and travel considerations may impede some participants from accessing larger supermarkets. Moreover, WIC participants may dislike larger stores because they find the shopping experience unpleasant, for example, due to difficulties in locating WIC-eligible products in larger stores.

A50 Vendors' Role in Participant Access and Food Cost in California

A50 vendors uniquely serve the California WIC by catering to a predominantly WIC customer base. The role of these vendors in the program is significant, accounting for roughly one-third of the value of WIC transactions occurring between October 2009 and May 2012 in California despite their comprising only 16 percent of all vendors. Anecdotal evidence suggests A50 vendors can offer advantages for the customer experience relative to traditional food retailers, such as greater cashier proficiency in WIC transactions or reduced difficulty in finding preferred WIC-approved products (Horton et al., 2013). However, few data exist to say if this characterization holds true, and if it does, how this impacts program costs.

To examine A50 vendors' impact on food costs and the quality of access to vendors in GLA, McLaughlin et al. (2019) first addressed the following question: if A50 vendors had not been authorized in the State, what would be the food costs and participants' travel distances to the nearest vendor? The answer comes from a simulation of WIC shopping behavior that "reassigns" vouchers transacted at A50 vendors to the actual, most plausible non-A50 vendor.

The simulation found that if A50 vendors were removed, the average prices paid to WIC vendors by participants would increase. For example, simulated prices would have increased from an actual observed value of $16.18 (including all stores) to $16.50 for a voucher containing a combination of low-fat milk, whole-grain bread, and breakfast cereal. While most reassigned vouchers would have been redeemed at lower-price large vendors, the 7-8 percent of A50 vouchers reassigned to small vendors would have been redeemed at substantially higher prices. For example, the simulation found that the mean price of the combination voucher detailed above at a small vendor in the A50-less world ($16.50) would have been $23.63, compared to the $16.18 mean, including A50 and non-A50 vendors.

The same basic mechanisms affecting small-vendor pricing described in Ma et al. (2019) also explain the above price result, with items bought with A50 vouchers reassigned to small vendors costing considerably more. First, in a separate study, McLaughlin et al. (2019) observed that small vendors with higher market shares were more likely to receive the reassigned A50 food packages in the simulation. These vendors have higher prices compared to small vendors with fewer WIC sales by virtue of having a high share of price-insensitive customers, both before and after reassignment, in line with the findings of Ma et al. (2019). Second, removing competitors in the simulation enabled

small vendors to further raise their simulated prices, with more price-insensitive customers sent their way. Therefore, the simulation results suggest that the presence of A50 vendors in GLA provided a pro-competitive force against small vendors charging high prices for WIC foods, while the price restrictions placed upon A50 vendors contain food costs overall.

The simulation also found that distance traveled to a WIC vendor would have increased if A50 vendors were removed, especially for participants who conduct half or more of their WIC shopping at A50 vendors. Average one-way travel distances across all GLA WIC participants increased modestly from 2.2-2.3 miles to 2.5-2.8 miles in the simulation. Of A50 shoppers (who represent about half of all WIC participants in GLA), 45 percent traveled 1 mile farther or more, and 21 percent traveled 2 miles farther or more (fig. 2). For 27 percent of A50 shoppers, average shopping distance actually decreased, as these shoppers had bypassed the closest authorized vendor to travel to an A50 vendor. The increased travel distances represent reduced access to preferred WIC vendors via increased travel and time costs.[14]

McLaughlin et al. (2019) also examined the quality of vendor access provided by A50 vendors, as measured by the rates at which customers fail to return to a given vendor in a specified length of time. For example, a participant may patronize a vendor today but not return for 3 months or more while remaining in WIC, indicating this particular vendor was not critical for access. Furthermore, a participant who fails to return after 1 month (i.e., a round of benefits) may simply have many WIC shopping options, including vendors with more customer loyalty that are likely to provide a better WIC shopping experience.

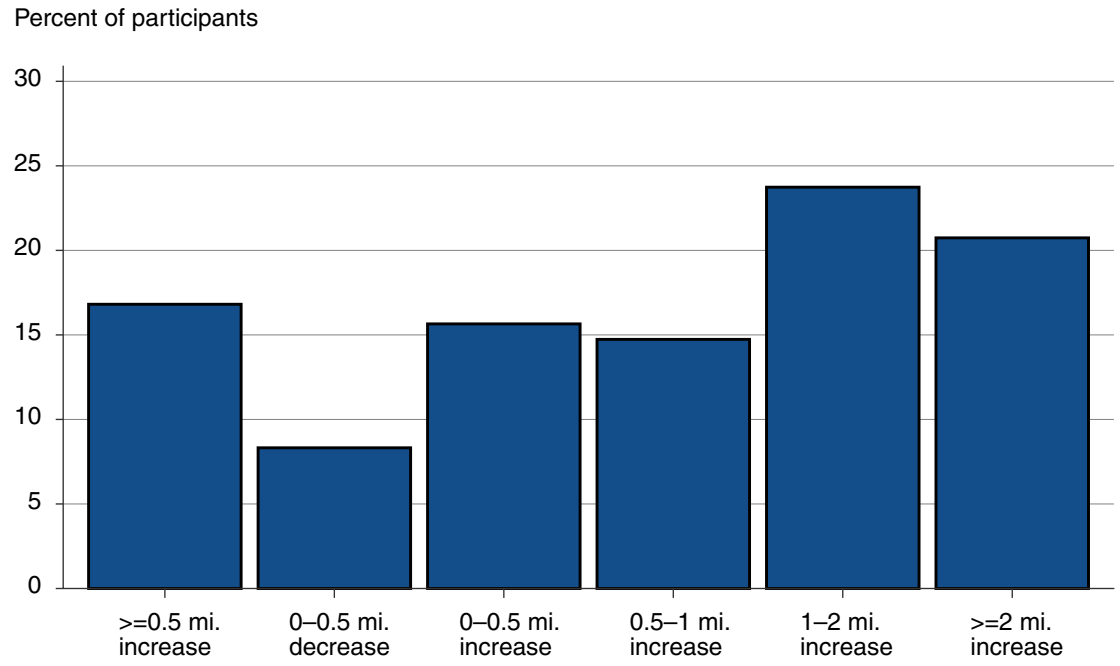
A50 vendors are 4 to 5 percent more likely to see participants returning within 1 month than are merely large vendors. This result suggests that, despite the variety and opportunities for non-WIC shopping afforded at large vendors, WIC customers were more loyal to A50 vendors than to large vendors.

During the study period (October 2009-February 2012), many A50 vendors opened alongside incumbent A50 vendors. While incumbent A50 vendors experienced slightly lower long-term customer retention than did large vendors, entrant A50 vendors' customer retention was significantly higher in their first 6 months of business. A50 entrants and incumbents both enjoyed a high degree of month-to-month customer loyalty compared to large vendors, suggesting that new A50 vendors provided an increase in access to high-quality WIC vendors.

[14]This finding implicitly assumed that no new non-A50 vendor entry would occur in the hypothetical absence of A50 vendors apart from the vendor entry that was actually observed. McLaughlin et al. (2019) note that in California "nearly 100% of supermarkets participate in WIC. Further, we saw no evidence of the crowding out of small vendors during the study period, as there was significant entry" by small non-A50 vendors. In fact, over 300 of the roughly 500 new non-A50 vendors were small vendors. Therefore, any additional entry occurring in the actual absence of A50 vendors would likely be from small vendors, who had small shares of WIC redemptions and low customer loyalty compared to large vendors. The implication is that the finding of increased travel distance for WIC shopping without A50 vendors is unlikely to substantially change if additional hypothetical vendor entry is accounted for in the analysis.

Figure 2

The number of WIC participants by change in travel distance after A50 vendors were removed in a Greater Los Angeles simulation



Results from simulations using California WIC administrative transaction data in Greater Los Angeles.

WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Note: A50 shoppers are participants who conducted 50 percent or more of their WIC shopping at A50 vendors. A50 vendors, or above-50-percent vendors, receive the majority of their food sales from WIC transactions.

Source: Ma et. al. (2019).

Conclusions

Containing the costs of WIC food benefits and providing participant access to authorized vendors remain dual policy priorities with sometimes-conflicting goals. Recent research looks at the tradeoffs between these priorities by examining the prices charged by WIC-authorized vendors serving Greater Los Angeles Area (GLA), using administrative data on WIC transactions that took place between October 2009 and December 2013. While focused on California, these findings have implications for WIC State agencies nationwide for managing costs and food access issues.

Unlike the Supplemental Nutrition Assistance Program (SNAP), which is an entitlement-based program, WIC is a discretionary program with a fixed annual appropriation based on projected participation. Small vendors such as convenience and corner stores may provide critical access to some participants but may cause the food costs of WIC State agencies to increase. In general, small vendors likely charge higher prices than large vendors, at least out of necessity (e.g., because they lack access to the procurement networks of large vendors). However, the degree to which small vendors charge higher prices is related to their contribution to improving food access. That is, small vendors with relatively few nearby competing WIC vendors—who are thus important in providing access—are the same small vendors more likely to charge higher prices. However, total reimbursements paid to small vendors by the WIC program comprise a small share of total spending on WIC food in California (roughly 15 percent during the study periods) compared to other vendor types.

A50 vendors, on the other hand, increased participant access to WIC vendors and provided relatively low prices in the Greater Los Angeles Area. Over half of the WIC participants redeemed their benefits at A50 vendors, more than at any other vendor type. Had A50 vendors not operated in California, the majority of this participant subset would have faced longer distances to vendors compared to the observed average distances traveled to redeem WIC benefits. Furthermore, A50 vendors—including those recently authorized by the program or existing near large vendors—enjoyed levels of WIC customer loyalty comparable to large vendors. Lastly, A50 vendors' share of the total value of WIC redemptions in California was more than double their share of vendor numbers in the State. Altogether, this indicates that A50 vendors were at least on par with large vendors in terms of quality and customer loyalty.

The extent to which the findings of these studies of WIC vendors in GLA could apply in other States depends on the underlying food retail environment and key aspects of vendor management. Whereas GLA participants living in areas with low food access had multiple small or A50 vendors nearby to redeem benefits, this may not be the case in other regions; the access provided by one small vendor, for instance, may be critical to many participants. On the other hand, WIC participants nationally have been observed to bypass the nearest food retailer to conduct non-WIC food shopping at a supermarket or supercenter (i.e., a large store) at a frequency similar to that of all American households (Ver Ploeg et al., 2015). Furthermore, achieving cost-effective improvement in store access requires that maximum vendor reimbursement levels set by State agencies strike a balance between preventing vendors from charging higher prices and ensuring their profitability.

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