

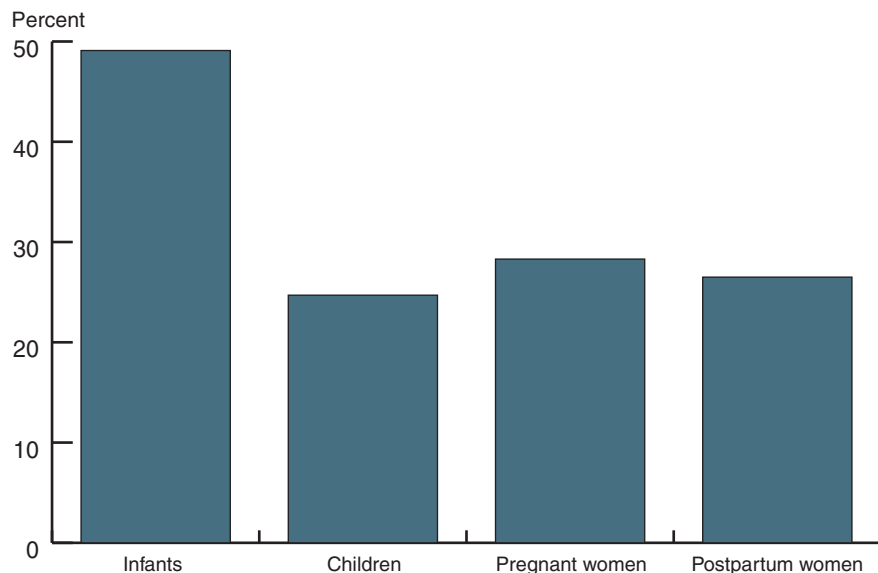
## Administrative-Based Issues in WIC

Numerous issues are associated with administering a program of WIC's size and complexity, including administrative-based issues and their economic implications. These administrative issues include expanding WIC enrollment, Federal funding and State incentives, funding for NSA, potential impacts of revisions to the WIC food packages, food prices, and infant formula costs. Many of these issues are interrelated. For example, food prices may affect the expansion of the WIC program, which, in turn, could impact the costs of infant formula to WIC. Administrative-based issues may also impact program outcomes, which are discussed in the next chapter.

### Expansion of the WIC Program

The number of WIC participants has increased dramatically over time (see fig. 4). By 2006, almost half of all infants and a quarter of all children ages 1-4, pregnant women, and postpartum women (up to 1 year after giving birth) in the United States were estimated to have participated in the program (fig. 12). Although funding has been sufficient to serve all eligible people seeking to enroll in recent years, many eligible people still do not participate in WIC. The latest estimates of 2003 WIC program coverage show that only 57 percent of the 13.5 million people eligible for WIC actually participated (USDA, 2006). The proportion of the eligible population that participated varied by participant category, ranging from 45 percent of children to 83 percent of infants (fig. 13). Some groups contend that WIC should continue efforts to increase participation among those eligible. For example, the Food Research and Action Center (FRAC) claims that having unserved eligibles in WIC "is especially disturbing in light of the obesity epidemic and the

Figure 12  
**WIC recipients as a share of U.S. population subgroups, 2006**



Note: Postpartum women include both breastfeeding and nonbreastfeeding women.  
Source: Economic Research Service estimates (see appendix on p. 82 for information on how the percentages were estimated).

continuing hunger, poverty, poor nutrition, and ill health among the Nation's low-income families" (Food Research and Action Center, 2005). On the other hand, Besharov and Germanis (2001) contend that the WIC program has expanded beyond the truly disadvantaged and that cutbacks should be made at the upper levels of income eligibility.

***WIC's Eligibility Requirements Are Less Restrictive Than Those of Food Stamps***

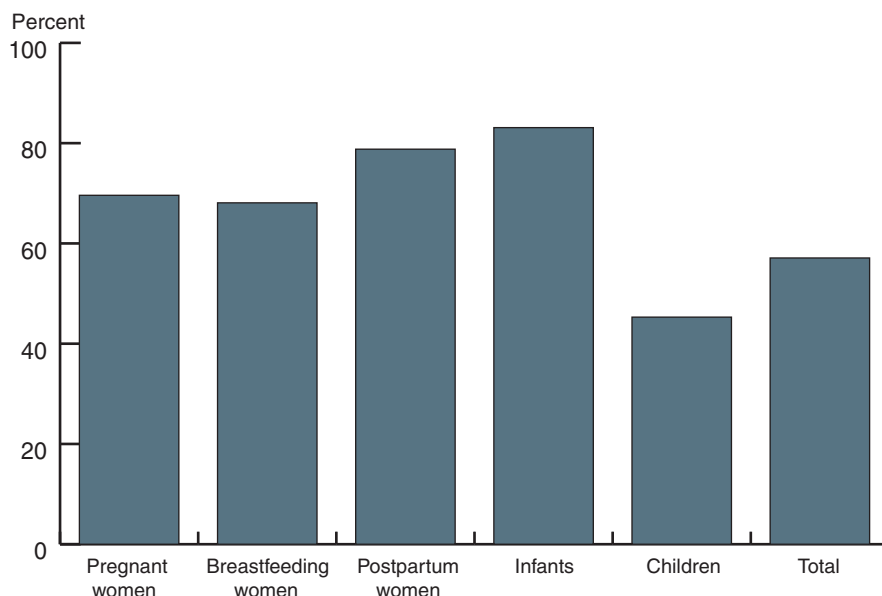
Among the arguments for tightening WIC's eligibility requirements is that many of WIC's eligibility requirements are too lenient, especially when compared with those of the Food Stamp Program (the country's principal food and nutrition assistance program). For example:

- Undocumented immigrants are eligible to receive WIC benefits, but are not eligible for food stamp benefits.
- A family's assets play no role in determining its income eligibility for WIC, unlike the rules governing the Food Stamp Program.<sup>57</sup>
- The income eligibility limit for WIC is 185 percent of poverty, which is higher than the 130 percent of poverty limit required for participation in the Food Stamp Program.
- WIC regulations allow for considerable flexibility in how WIC agencies interpret the period used in determining an applicant's income eligibility. WIC State agencies may "consider the income of the family during the past 12 months and the family's current rate of income to determine which indicator more accurately reflects the family's status" (7 CFR 246.7).<sup>58</sup> (Note that WIC regulations leave the period for determining a family's "current rate" of income undefined.) As a result, people

<sup>57</sup> Under Food Stamp Program rules, households may have no more than \$2,000 in countable resources, such as a bank account (\$3,000 if at least one person in the household is age 60 or older or is disabled). Certain resources are not counted, such as a home and lot. Special rules are used to determine the resource value of vehicles owned by household members ([http://www.fns.usda.gov/fsp/applicant\\_recipients/eligibility.htm](http://www.fns.usda.gov/fsp/applicant_recipients/eligibility.htm)).

<sup>58</sup> WIC regulations define "family" as a group of related or nonrelated individuals living together as one economic unit, but does not include residents of a homeless facility or an institution (7 CFR 246.7).

Figure 13  
**WIC program coverage rates, by participant category, 2003**



Note: Coverage rate equals the number of WIC participants as a share of persons estimated to be eligible for WIC.  
Source: USDA, 2006.

whose *annual* income is above 185 percent of poverty, but who are experiencing a temporary decline in monthly earnings (e.g., from deciding not to work right before and/or right after childbirth), may still meet the income eligibility criteria for WIC. FNS estimates that 29 percent of the 13.5 million people eligible for WIC (but not necessarily participating in WIC) in 2003 had annual incomes above 185 percent of poverty (USDA, 2006). These people were presumably eligible because they had periods of low income during the year or because they were adjunctively eligible due to enrollment in Medicaid (see next section).

- WIC regulations do not require WIC participants to report changes in income that would make them ineligible if they were applying for benefits (that is, their income increases to above 185 percent of poverty). On the other hand, food stamp recipients are required to report changes in income that would make them ineligible for benefits.

### ***Expansion of Adjunctive Eligibility Through Medicaid***

A number of States now allow some people with incomes greater than 185 percent of the poverty guidelines to participate in Medicaid programs, and participation in Medicaid makes them automatically income eligible for WIC.<sup>59</sup> As of January 2008, 24 States and the District of Columbia had Medicaid programs for *infants* with income eligibility guidelines greater than 185 percent of the Federal poverty guidelines, including four States (Hawaii, Maryland, New Hampshire, and Vermont) and the District of Columbia that had income eligibility guidelines at 300 percent of the Federal poverty guidelines.<sup>60</sup> Twelve States and the District of Columbia had Medicaid programs for *children* with income eligibility guidelines greater than 185 percent of the Federal poverty guidelines, including three States (Hawaii, Maryland, and Vermont) and the District of Columbia that had income eligibility guidelines at 300 percent of the Federal poverty guidelines. Nineteen States and the District of Columbia had Medicaid programs for *pregnant women* with income eligibility guidelines greater than 185 percent of the Federal poverty guidelines, with the District of Columbia having income eligibility guidelines at 300 percent of the Federal poverty guidelines.

As shown earlier in figure 10, almost two-thirds (63 percent) of all WIC participants at the time of certification in 2006 participated in Medicaid, up from 48 percent in 1992. This increase in the proportion of WIC participants who also participate in Medicaid (and who may therefore have income greater than 185 percent of the Federal poverty guidelines) has led some to suggest that WIC may be increasingly serving those who are less economically needy. Questions have also been raised as to whether WIC can continue to absorb increases in participation associated with the expansions in Medicaid eligibility (Thiel, 2008). Examination of WIC participants' family income as a percentage of the Federal poverty guidelines shows that it has shifted modestly over time—a smaller proportion of participants report incomes at or below 50 percent of poverty, while a larger proportion report incomes between 101 and 185 percent of poverty (table 6). The number of WIC participants reporting income above 185 percent of poverty, however, remains relatively small—only 2 percent in 2006 (Bartlett et al., 2007). Thus,

<sup>59</sup> The legislation (P.L. 101-147) establishing adjunct income eligibility for food stamp, Medicaid, and AFDC participants was intended to simplify the WIC application process since, at the time the legislation was enacted in 1989, the income eligibility criteria for these other programs were lower than those for WIC.

<sup>60</sup> Figures are based on income eligibility levels under Medicaid or State Children's Health Insurance Program (SCHIP) funded Medicaid expansions. The source of the data is the Kaiser Family Foundation website at <http://www.statehealthfacts.org/compare-table.jsp?ind=203&st=3>, accessed October 2008.

Table 6

**Distribution of WIC participants by percentage of Federal poverty level among those reporting income, 1992-2006**

Percent of Federal poverty level	1992	1994	1996	1998	2000	2002	2004	2006
	<i>Percent</i>							
0-50	40.7	43.4	39.1	34.0	30.9	31.7	33.4	33.0
51-100	34.4	33.4	34.2	34.7	34.0	32.8	33.5	34.3
101-130	12.1	12.0	12.9	15.1	15.9	16.1	15.3	15.1
131-185	12.0	10.6	13.0	15.4	18.0	17.8	16.2	15.6
Over 185	0.7	0.7	0.7	0.7	1.1	1.6	1.7	2.0

Source: USDA, Food and Nutrition Service, program characteristics (PC) data, 1992-2006.

even with the more relaxed income eligibility guidelines in some States, program data do not indicate that WIC has been flooded in recent years by participants with incomes above the 185-percent level.<sup>61</sup> Furthermore, analysis conducted by the Center on Budget and Policy Priorities indicates that WIC caseloads in States with Medicaid eligibility limits greater than 185 percent of poverty have not grown more rapidly than caseloads in States with Medicaid limits at or below 185 percent of poverty (Greenstein, 2008).<sup>62</sup>

Differing Medicaid eligibility standards across States raise issues of equity in WIC. For example, Fox et al. (2003) asks, “should individuals in states with Medicaid eligibility higher than 185 percent of poverty qualify for WIC while those in other states do not?” Others have argued for eliminating adjunctive eligibility for people with incomes above some specified level. For example, the President’s FY 2009 budget for USDA proposed limiting automatic WIC income eligibility to Medicaid participants with household incomes that fall below 250 percent of the Federal poverty guidelines (USDA, 2008e). One of the arguments against capping adjunctive eligibility above some level of household income is that adjunctively eligible applicants do not have to provide information about family income, thereby speeding up the application process for applicants and staff and lowering administrative costs. The National WIC Association claims that the proposal to cap adjunctive eligibility would eliminate eligibility for only a small number of individuals and would increase costs due to additional administrative burden in affected States by requiring duplicative income documentation for all Medicaid recipients applying for WIC and discouraging otherwise eligible applicants from applying to WIC if they think they are not eligible (National WIC Association, 2008).

### ***Nutritional Risk Eligibility Requirements Are Nonbinding***

WIC applicants seemingly face one eligibility requirement that applicants of other food and nutrition assistance programs do not. In order to participate in WIC, applicants must meet one of several nutritional risk criteria.<sup>63</sup> These criteria include detrimental or abnormal nutritional conditions detectable by biochemical or anthropometric measurements; other documented

<sup>61</sup> An average of 16 percent of WIC households included in the eight PC reports published from 1992-2006 did not report income. FNS is currently conducting an income verification study for the WIC program that will provide more information on the income of WIC recipients.

<sup>62</sup> Between 1997 and 2007, WIC caseloads in States with Medicaid limits at or below 185 percent of poverty increased 13 percent compared with a 12-percent increase in WIC caseloads in States with higher Medicaid eligibility limits (Greenstein, 2008).

<sup>63</sup> The nutritional risks reported in the various PC reports were not examined in this report due to differences in the methodology used to collect the information that affect comparisons across years. For example, prior to 1999, the nutritional risk criteria used to determine eligibility varied from State to State. In 1999, FNS implemented nationally uniform standards that were first reflected in PC2000. Beginning in PC2006, States could report up to 10 nutritional risks for participants, whereas prior to 2006, only 3 nutritional risks could be reported.

nutritionally related medical conditions; dietary deficiencies that impair or endanger health; conditions that directly affect the nutritional health of a person, including alcoholism or drug abuse; and conditions that predispose people to inadequate nutritional patterns or nutritionally related medical conditions, including, but not limited to, homelessness and migrancy (7 CFR 246.12). However, an FNS-sponsored study by the Institute of Medicine (2002) to evaluate the dietary assessment methods used by WIC to establish nutritional risk estimated that more than 96 percent of all people in the United States (and an even greater percentage of the low income) do not usually consume the number of servings recommended by the Food Guide Pyramid and would therefore be at dietary risk based on the criteria *failure to meet Dietary Guidelines*. IOM concluded that because “nearly all U.S. women and children” are at dietary risk and therefore meet the nutritional risk criteria established by WIC, in practice the WIC nutritional risk criteria have little effect on restricting program participation.

### ***Instead of Expanding Enrollment, Should WIC Target Those Most in Need?***

WIC has also been criticized because all WIC recipients in the same participant category (i.e., children, postpartum women, etc.) basically receive the same package of benefits despite differences in need among the individuals within each participant group (Besharov and Germanis, 2001). That is, although family income is used to determine eligibility for WIC, once a person is deemed eligible for WIC, income is not used to determine the amount of benefits they receive. For example, a child in a family with income less than 50 percent of poverty will receive the same WIC benefits as a participating child in a family with income 185 percent of poverty (or even 300 percent of poverty due to participation in some States’ Medicaid program). In contrast, food stamp benefits are reduced by 30 cents for every dollar of income net of program deductions, and there are different subsidy levels for meals served in the National School Lunch Program and the School Breakfast Program depending on the child’s household income.

A report by the U.S. General Accounting Office (1985) stated that WIC program officials generally considered income to be an unreliable indicator of vulnerability. With the exception of the Commodity Supplemental Food Program, participation in WIC does not preclude an individual from participating in other food assistance programs, such as food stamps. Therefore, the child at 50 percent of poverty may be able to receive food stamps in addition to WIC benefits, while the child at 185 percent of poverty would not be eligible for food stamps. The report further stated that many WIC policy officials believed that individuals whose family incomes are too high to be eligible for assistance from other programs may have greater economic need and nutritional risk than individuals with lower incomes but who qualify for other assistance programs.

In their book *Rethinking WIC*, Besharov and Germanis (2001) state that “WIC’s positive effects are probably concentrated among its most disadvantaged recipients” and that, “instead of adding more people to the rolls, it might make sense to change WIC’s rules to allow local agencies to provide more food benefits and educational services to poorer families who

palpably need more aid than those at higher incomes.”<sup>64</sup> Because of the lack of data on the issue, however, little is known about the degree to which WIC benefits accrue to the most disadvantaged, such as those at the lowest income, the most nutritionally at risk, the youngest children, etc. Increasing benefits or services to some WIC participants also raises regulatory and budgetary questions. WIC regulations currently limit the types and amounts of foods that can be provided to participants (7 CFR 246.10). State and local WIC agencies are prohibited from providing either additional types of food or additional amounts of foods to participants without a change in the regulations. Although WIC regulations do not prohibit local WIC agencies from providing additional *services* to participants, budget constraints would necessitate either reducing other services or cutting back services to other WIC recipients in order to do so. (See the section on “Effectiveness of WIC’s Nutrition Education Program,” p. 62, for an expanded discussion on the implications of enhancing nutrition education in WIC.)

### ***Economic Factors Could Impact Future WIC Caseloads***

WIC funding in recent years (up to FY 2008) has been sufficient to provide services to all eligible people seeking to participate, and participation levels continued to increase. The program is likely to face increased demand for program services in the upcoming years. If the current recession continues, the number of people eligible for the program may increase, resulting in more applicants and/or participants staying in the program longer (for example, more infants participating in WIC as children).<sup>65</sup> At the same time, costs per participant will also increase if several economic trends continue (such as, increasing infant formula costs and rising food prices) or if the revisions to the WIC food packages raise the total cost of packages (see the sections on “Potential Impacts of the Revised WIC Food Packages,” p. 44, “Food Prices and WIC,” p. 48, and “Infant Formula Costs,” p. 51, for more information). Increases in the number of applicants and in per person program costs will increase budgetary pressure on the program. Congressional appropriations will have to increase to serve all eligible applicants or the seven-point priority system may once again be needed to allocate program slots among applicants on waiting lists.

### **Federal Funding and State Incentives**

As mentioned earlier, WIC is 100 percent federally funded (i.e., State matching funds are not required).<sup>66</sup> This differentiates WIC from the other large food assistance programs that require States to share at least some expenses. For example, States share approximately half of all administrative expenses in the Food Stamp Program (7 CFR 277.4), and the average cost of producing school meals exceeds Federal subsidies for the meals (Bartlett et al., 2008). Other major assistance programs, such as Medicaid and TANF, also receive substantial State and local funding, in addition to Federal funding (Isaacs, 2008). WIC’s unique status, in which States are not required to share the program’s expenses, may be a factor in the increasing number of WIC participants over time as well as the proliferation of WIC-only stores in the early 2000s.

<sup>64</sup> Some have referred to the provision of increased WIC benefits to families based on some measure of need as “WIC-Plus.”

<sup>65</sup> December 2007 marked the beginning of the current recession (National Bureau of Economic Research, 2008).

<sup>66</sup> Some States, however, use their own funds to supplement the Federal grant.

## ***Moral Hazard and the Expansion in WIC Caseloads***

As seen previously, participation in the WIC program has grown dramatically over time, fueled largely by funding increases from Congress and savings from cost-containment practices. In fact, except for a 3-year period from 1998 to 2000 (when participant numbers fell 1-2 percent each year), the number of WIC participants has grown each year since its establishment in 1974. Some believe that WIC's unique financial status, whereby the program is funded in full by the Federal Government but operated by State and local WIC agencies, has contributed to this almost continual expansion of participants. Since States bear little of the costs associated with more participants in their WIC programs, they have little incentive to curtail expanding WIC caseloads. Besharov and Call (2009) refer to the separation of determining WIC eligibility from paying WIC program costs as an example of a "moral hazard," whereby a party insulated from risk (or costs) may behave differently than if it were fully exposed to the risk (or costs). Since States and local WIC agencies bear little of the costs associated with expanding their WIC programs, they have little incentive to restrict WIC enrollment.<sup>67</sup>

In contrast, only 46 of the 90 WIC State agencies participate in the WIC Farmers' Market Nutrition Program (FMNP), which requires State funding contributions.<sup>68</sup> Federal funds support 100 percent of FMNP food costs, but only 70 percent of the administrative costs (i.e., States operating the FMNP must contribute at least 30 percent of the total administrative cost of the program). WIC also differs from the Food Stamp Program, where States share approximately half of all administrative expenses, but Federal funding is also tied to performance (e.g., State agencies' federally funded share of Food Stamp Program administrative costs can increase if the State has payment error rates below specified levels (7 CFR 275.23)).

### ***"Orphan Program" and WIC-Only Stores***

The proliferation of WIC-only stores is another consequence of State's insulation from WIC program costs. WIC-only stores—vendors that derive all or nearly all of their annual food sales revenue from WIC food instruments—came about because entrepreneurs recognized the profit-making potential of targeting WIC participants (see the section on "2000 to the Present: Recent Developments," p. 20, for an expanded discussion on WIC-only stores). Since transaction of the WIC food instrument provides foods to the WIC participant without any payment from personal funds, WIC participants are not sensitive to a particular store's price for the item. As a result, WIC-only stores have little economic incentive to keep prices low.<sup>69</sup>

WIC-only stores competed for WIC customers using nonprice factors, such as convenience and increased customer services. For example, many WIC-only stores were located in close proximity to WIC clinics and some provided free transportation to and from the store (Neuberger and Greenstein, 2004). A study by the U.S. Government Accountability Office (GAO) found that WIC-only vendors often gathered the food items listed on the food instrument for WIC participants from food maintained behind a counter, eliminating participants' need to search store aisles and shelves for the

<sup>67</sup> Besharov argues that WIC has expanded to serve less needy families. For example, in some States, Medicaid participants with income up to 300 percent of the Federal poverty guidelines are adjunctively income eligible for WIC.

<sup>68</sup> Based on information provided by FNS in October 2008.

<sup>69</sup> Federal regulations require that each State establish a maximum reimbursement amount that it will pay WIC-approved vendors for WIC food instruments. The maximum reimbursement amount was typically set high enough to cover the higher costs associated with small stores. Regular stores generally set their prices for WIC food items in a competitive fashion, usually considerably below the maximum allowed in order to attract non-WIC shoppers. Data suggest that food instruments from WIC-only stores tend to be closer to the maximum allowable reimbursement levels (Neuberger and Greenstein, 2004).

specified food type, brand, and size (U.S. Government Accountability Office, 2006b). Shopping at WIC-only vendors is also likely to reduce the stigma associated with using Government checks to purchase food in regular grocery stores. In the past, WIC-only vendors also gave away incentive items to attract customers, including strollers, diapers, gift certificates, and even cash (U.S. Government Accountability Office, 2006b).<sup>70</sup>

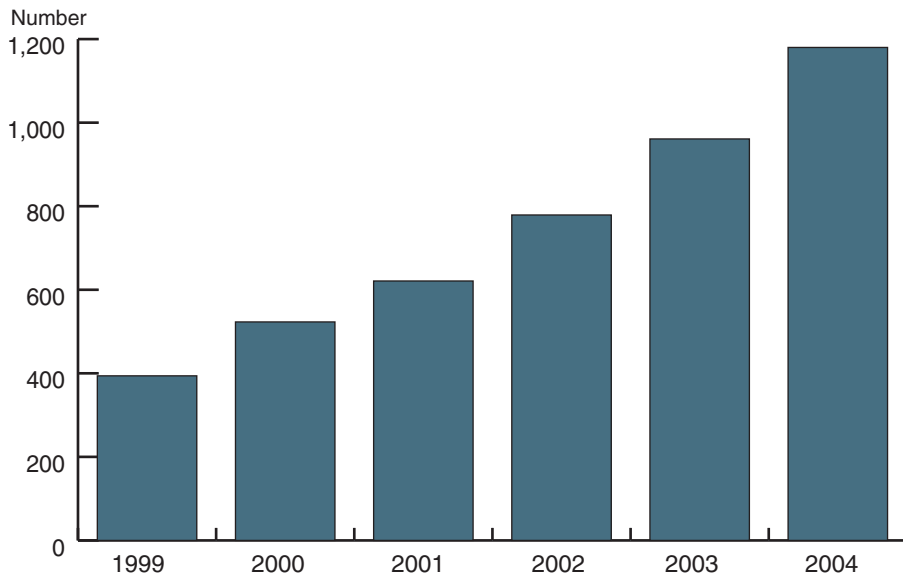
WIC-only stores proved to be popular with WIC participants and, beginning around 2000, the number of WIC-only stores increased rapidly (U.S. Government Accountability Office, 2006b). From 1999 to 2004, the number of WIC-only stores almost tripled (fig. 14). Although WIC-only stores accounted for only 2 percent of all WIC vendors in 2002, they accounted for 9 percent of all WIC redemptions that year (Neuberger and Greenstein, 2004). In California, the State with the largest number of WIC participants, WIC-only stores accounted for about 40 percent of WIC redemptions in FY 2004. WIC-only stores in California have been estimated to increase WIC food costs by about \$33 million per year (Neuberger and Greenstein, 2004).

WIC's status as an "orphan program" at the State legislative level may be one factor responsible for the rapid increase in WIC-only stores.<sup>71</sup> Because States are not required to match Federal funds, State government officials have little financial stake—and therefore little interest—in WIC operations. As a result, State WIC administrators may have difficulty instituting vendor cost-containment measures through State law and regulations. Although WIC State agencies have considerable latitude in the design and operation of their vendor management practices, including the authorization of WIC vendors, California illustrates the difficulty that State WIC administrators may have instituting vendor cost-containment measures through State law and regulations (California WIC Association, 2005). In the early 2000s, the

<sup>70</sup> P.L. 108-265, enacted in 2004, largely eliminated the giveaway of incentive items at WIC-only stores.

<sup>71</sup> The authors first heard of the term "orphan program" to describe WIC during a discussion in 2006 with Larry Sawyer, former Director of Government Relations at General Mills.

Figure 14  
National total of WIC-only vendors, FY 1999-2004



Source: U.S. Government Accountability Office, 2006b.



California WIC agency attempted to enact State legislation that would have ensured that WIC-only stores in California would not be reimbursed for higher food prices than regular price-competitive stores. The owners of WIC-only stores responded by hiring lobbyists to fight the proposed legislation. With no State funds at stake, the California WIC agency had difficulty garnering the political support needed to overcome the lobbying effort, and the agency's attempt to enact State legislation was defeated (Neuberger and Greenstein, 2004).

When the WIC State agencies were unable to address the growth of WIC-only stores and increased food costs to WIC, the Federal Government intervened and enacted legislation to stop the growth of these stores (see box, "Federal Legislation Affects WIC-Only Stores," p. 40).<sup>72</sup>

### ***Tradeoffs and Preferences***

Because States are not required to provide funds for WIC, they experience few negative consequences when the program expands. They do, however, face tradeoffs with regard to the authorization of WIC-only stores. In California, State interest in supporting WIC-only store owners—and thereby promoting small businesses—overrode concerns that higher cost WIC-only stores might reduce the number of low-income residents served by WIC.<sup>73</sup> Congress also faces tradeoffs when it comes to the WIC program. Because WIC is a discretionary program, it has to compete with other discretionary programs for congressional appropriations. The annual increases in congressional appropriations for WIC, which in recent years have allowed every eligible person who applies for WIC to participate, suggests that Congress has revealed its preference for expanding WIC.

## **Funding for Nutrition Services and Administration (NSA)**

WIC State agencies receive Federal funding under two separate grants: (1) food grants, which cover the cost of the supplemental foods; and (2) Nutrition Services and Administration (NSA) grants, which cover not only the costs of administering the program (certifying participants, voucher issuance and redemptions, vendor management, and cost containment) but also the costs associated with providing key services (nutrition education, breastfeeding promotion and support, and preventative and coordination services, such as health care and immunization referrals).<sup>74</sup> Food and NSA grants are allocated to WIC State agencies through a formula based on caseload, inflation, and poverty indices.<sup>75</sup> In FY 2008, WIC grants to States totaled approximately \$6.2 billion, \$4.5 billion of which went to food and \$1.7 billion went to NSA (USDA, 2008b). In recent years, NSA funding has been the subject of considerable conflict.

### ***NSA Funding Changes From Fixed Percentage to Per Participant Basis***

Prior to 1989, NSA grants to WIC State agencies were allocated as a fixed percentage (20 percent) of the total WIC grants to States. Fixed-percentage allocations discouraged WIC State agencies from developing cost-

<sup>72</sup> An association of WIC-only stores and three food companies filed suit in December 2005 to stop the Federal legislation, claiming that it would reduce the stores' WIC reimbursements to an unsustainable level (U.S. Government Accountability Office, 2006b). The case was dismissed in February 2006.

<sup>73</sup> The association of WIC-only stores that filed the lawsuit to stop implementation of the 2004 Federal regulations aimed at stopping the growth in the number of WIC-only stores characterized themselves as small businesses (U.S. Government Accountability Office, 2006b).

<sup>74</sup> According to FNS, "salary costs represent by far the most significant contributor to WIC NSA costs" (64 *Federal Register* 56670).

<sup>75</sup> WIC State agencies typically retain about a fourth of the funds for State-level operations and distribute the remaining funds to local WIC agencies (U.S. General Accounting Office, 2001b).

## Federal Legislation Affects WIC-Only Stores

The Child Nutrition and WIC Reauthorization Act of 2004 (P.L. 108-265) includes several vendor cost-containment provisions in response to the rapid increase in the number of WIC-only stores. State agencies must establish peer groups to determine the competitive-price criteria and maximum allowable reimbursement levels applicable to each peer group. Vendors are assigned to peer groups based on characteristics such as geographic location, number of cash registers, WIC sales volume, and type of ownership (sole proprietorship, corporate, or partnership), and other criteria, indicating that all of the vendors in a peer group would be expected to have similar prices. State agencies must use the competitive-price criteria to evaluate the prices a vendor applicant charges for supplemental foods as compared with those charged by other vendor applicants and authorized vendors and must authorize vendors selected from those that offer competitive prices.

P.L. 108-265 mandated special requirements to contain the costs of “above-50-percent vendors” (i.e., vendors that derive more than 50 percent of their annual food sales revenue from WIC food instruments). State agencies must ensure that the prices of above-50-percent vendors do not inflate the competitive-price criteria and allowable reimbursement levels for the peer groups or result in higher total food costs if program participants transact their food instruments at above-50-percent vendors rather than at other vendors. The new law also prohibits the authorization of payments to above-50-percent vendors who provide incentive items or other free merchandise to program participants, unless the incentives are of nominal value or were obtained at no cost.

P.L. 108-447, which contained the FY 2005 appropriations for WIC, and P.L. 109-97, which contained the FY 2006 appropriations for WIC, prohibited the authorization of new above-50-percent vendors with the exception of stores needed to ensure participant access to program benefits. This prohibition was not continued in succeeding years because P.L. 108-265 required FNS certification of a State agency’s vendor cost-containment system as a condition for authorizing above-50-percent vendors; these certifications were completed by the end of FY 2006.

containment measures to reduce WIC food costs, since WIC State agencies that lowered their food costs and used the savings to serve more eligible individuals could not receive additional NSA funds to cover the additional participants. This resulted in a reduction in the per participant NSA grant. To correct for this disincentive to reduce food costs, the methodology used to distribute WIC funds between food and NSA was changed by P.L. 101-147 in 1989 to allocate NSA costs on a per participant basis. That is, per person NSA funding at the national level is held constant over time, except for an adjustment for inflation.<sup>76</sup> Under this system, WIC State agencies that serve more eligible individuals through cost-containment savings are not penalized with a decrease in their per participant NSA funds.

<sup>76</sup>The amount allocated for NSA on a national level is based on the national average of NSA grant expenditures that were made per participant per month in 1987, adjusted for inflation.

***NSAs Increasing Share of Program Funding—  
A Sign of Program Inefficiency or Efficiency?***

As intended by the 1989 legislation, per participant NSA grants have remained constant in inflation-adjustment terms—that is, they have increased by the full rate of inflation (58 percent between 1989 and 2006). In recent years, the administration has proposed capping the per participant NSA grant. The President’s proposed budget for FY 2006, which was rejected by Congress, requested that NSA be capped at 25 percent of total WIC grants to States. Subsequent budgets, which have also been rejected by Congress, also included proposals to cap NSA. In FY 2009, the President’s budget proposed capping the average per participant NSA grant at the FY 2007 level (\$14.97) for an estimated savings of \$145 million in FY 2009 (USDA, 2008e).<sup>77</sup> The rationale is that the cap would encourage WIC State agencies “to strive for administrative efficiency and allow for a greater proportion of appropriated funds to be used for food benefits,” which would enable the program to serve more participants (Johner, 2008).

<sup>77</sup> The average NSA grant per person in FY 2008 was \$15.71.

The National WIC Association opposes the cap, which they believe will erode benefits and services for participants and “irreparably damage effective State food and vendor cost containment measures” (National WIC Association, 2008). The Center on Budget and Policy Priorities (CBPP) argues that the increase in the NSA share of program funding simply reflects the success of the current system in reducing WIC food costs (Neuberger and Greenstein, 2006). Between 1989 and 2006, WIC per participant food costs increased by 25 percent—less than half the 53-percent increase in grocery store food costs as measured by the Consumer Price Index (CPI) for food at home. The smaller growth in per participant food grants (25 percent), relative to per participant NSA grants (58 percent), explains the increase in the NSA share of total WIC grants to States. Rather than indicating program inefficiencies, the CBPP argues that the increase in NSA share indicates program efficiencies in reducing food costs.

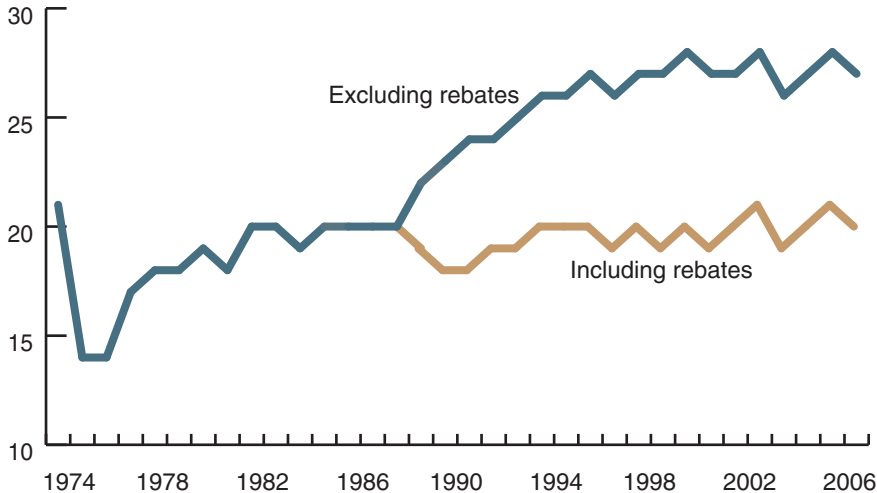
The view that increasing NSA share is not a sign of administrative inefficiencies, but a sign of the success and increased efficiency of WIC’s cost-containment measures, is supported by a GAO study. The study shows that, when total program costs are taken into account—when the infant formula rebate funds are added to Federal program costs—NSA costs remained constant at roughly 20 percent of total program costs between 1988 and 1999 (the most recent year for which data were available at the time of the GAO study) (U.S. General Accounting Office, 2001b). More recent data indicate that NSA costs as a percentage of total program costs plus rebates have continued at about 20 percent through FY 2007 (fig. 15). The CBPP points out that infant formula rebates have leveled off in recent years and the share of WIC funds allocated for NSA has plateaued, remaining fairly constant at about 27 percent excluding rebates (Neuberger and Greenstein, 2006).

The GAO study also describes a number of challenges that raise the cost to WIC of delivering nutrition services (U.S. General Accounting Office, 2001b). For example:

Figure 15

**Percent of WIC expenditures for NSA, including and excluding infant formula rebates, FY 1974-2007**

Percent of WIC expenditures for NSA



NSA=Nutrition Services and Administration.

Note: Update of chart in U.S. General Accounting Office, 2001b.

Source: Economic Research Service analysis of USDA, Food and Nutrition Service data.

- Since the late 1980s, WIC program staff have been required to perform additional administrative and service delivery tasks—such as cost-containment measures, breastfeeding promotion, screening and referring children for immunizations, and controlling program abuse—with no additional funding or reimbursement and little reduction in other activities.<sup>78</sup>
- The rapid growth since 1991 in the percentage of Medicaid beneficiaries who are enrolled in managed care and welfare reform’s elimination of TANF, Food Stamp, and Medicaid benefits for many individuals have made it more difficult for WIC agencies to identify eligible individuals and coordinate services with the participants’ health care providers.<sup>79</sup> As a result, WIC staff spend more time collecting and reviewing documents to determine eligibility and in outreach and coordination efforts.
- The greater prevalence of obesity and related diseases (such as gestational diabetes and noninsulin dependent diabetes) has increased the complexity of nutrition education issues. It takes considerably more than WIC’s typical two short sessions to deliver effective, obesity-related counseling. It may also require greater skills and knowledge by the person providing the nutrition education. Yet, many agencies report a shortage of professional staff, partly as a result of noncompetitive salaries and/or benefits.
- The greater ethnic diversity of WIC’s participants increases the complexity of providing culturally relevant nutrition education, leading many agencies to develop materials in multiple languages. Many agencies also pay for interpreter services. All of these services raise the cost of delivering an effective program.
- Welfare reform’s emphasis on participant work has intensified the pressure on WIC agencies to offer WIC services outside of normal working

<sup>78</sup> Little is known about how much meeting these additional requirements costs the program. Costs have been estimated for only two of these requirements. USDA estimated that strengthening vendor monitoring would cost States and local agencies about \$7 million annually. The National Association of WIC Directors (the predecessor of the National WIC Association) estimated that increasing the emphasis on immunization education, documentation, and referrals could cost as much as \$37 million annually. Officials from the Centers for Disease Control and Prevention agreed with this cost estimate (U.S. General Accounting Office, 2001b).

<sup>79</sup> Many managed care organizations are not colocated with WIC clinics and lack knowledge of WIC services, thereby increasing the barriers to coordination (Bell et al., 2007).

hours. Improving access, which may involve offering evening or weekend hours, can result in higher costs to the WIC program.

- State budget cuts have resulted in reductions in State and local in-kind services, such as shared rent and utilities.

According to the GAO report, 56 percent of WIC State agency automated management information systems (MIS) were not capable of performing or efficiently performing one or more of 19 program automation tasks essential for efficient program operations. The cost of bringing WIC's essential program tasks up to standard over 6 years was estimated by USDA at between \$147 million and \$267 million (U.S. General Accounting Office, 2001b).<sup>80</sup> Since States must meet their MIS needs almost entirely from their Federal NSA grants, GAO's finding suggests that NSA funding is not just insufficient, but may lead to both administrative and outcome inefficiencies.<sup>81, 82</sup> For example, no data are collected on health referrals, which makes it difficult to determine referral effectiveness or its role in participants' health outcomes.

CBPP argues that placing a cap on NSA funds is synonymous with ignoring the lessons policymakers learned in the 1980s, undermining what may be the most effective cost-containment practices instituted by any Federal health-related program. Because of the likely deleterious effects on WIC cost containment, an NSA cap could cost the Federal Government significant sums over time (Neuberger and Greenstein, 2006). A cap on NSA could also increase administrative inefficiencies by hampering WIC State agencies' efforts to update their MIS and further delay efforts to convert from paper food instruments to an EBT system.<sup>83</sup> Lack of funds could also force WIC State agencies to cut costs and make changes in service delivery, with potentially negative impact on the quality of WIC services and participant outcomes.

### ***NSA Cap Could Impact Implementation of the Revised Food Packages***

A cap on NSA in FY 2009 may hinder WIC State agencies' efforts to implement the revised food packages (for additional details on the revised WIC food packages, see the section on "Potential Impacts of the Revised WIC Food Packages," p. 44). The changes reflect the most significant revisions to the WIC food packages since the program's inception and require that all WIC State agencies begin implementing the revised food packages by October 1, 2009. In order to be ready to implement the interim final rule, WIC State agencies must undertake a number of complex and time-consuming activities that will likely increase NSA-related costs, including:

- For the new foods, identify specific brands of foods that meet federally mandated nutritional profiles and are widely available within the State.
- For brands that do not meet federally mandated nutritional profiles or are not widely available within the State, meet with manufacturers regarding their interest and ability to bring their products into compliance.

<sup>80</sup> For example, MIS should be able to automatically assess whether an applicant's income exceeds the maximum income level for eligibility based on data entered into the system (U.S. General Accounting Office, 2001b).

<sup>81</sup> For example, a GAO site visit found staff counting the number of participants manually to generate the monthly participation report required by the State because the agency's MIS was not capable of automatically preparing the report (U.S. General Accounting Office, 2001b).

<sup>82</sup> Other sources of funding—such as special grants or set-asides—have also become more difficult to access. For example, although the 2005 WIC reauthorization legislation established a \$30 million annual set-aside for MIS, in FY 2006, the appropriations legislation overrode the reauthorization set-aside and provided \$20 million for MIS if contingency funds are not needed to serve eligible applicants (Neuberger and Greenstein, 2006). Unfortunately, the contingency funds have been needed, and, as a result, the funds have been unavailable for MIS.

<sup>83</sup> As of March 2008, only two EBT systems have been implemented statewide (Wyoming and New Mexico) (<http://www.fns.usda.gov/wic/EBT/wicestatstatus.htm>). Burger (2008) estimated that the costs of not converting to EBT are quite high. For example, cost studies for EBT pilot studies in Michigan and New Mexico suggest that the paper systems cost \$0.05 more per participant per month than EBT. He estimated that it would take less than 8 years to recoup the costs of implementing WIC EBT nationally.

- Conduct price surveys on all brands and package sizes of eligible foods that meet federally mandated nutritional profiles and are widely available within the State, deciding which specific foods, brands, and package sizes, to include on the State food list.
- Modify the State’s MIS (older systems may require extensive upgrades) and incorporate the ability to track the new cash voucher for fruits and vegetables.
- Program hardware to print the new cash vouchers for fruits and vegetables.
- Meet with authorized retailers to ensure that all allowable foods are available at the time of implementation.
- Provide both WIC program staff and authorized retailers with timely training on the revised food package foods.
- Identify what additional nutrition education and breastfeeding promotion and support efforts will be needed to support the food package changes.

### ***No State-Matching Requirements for NSA***

Because WIC has no State-matching requirement, WIC State agencies rely almost entirely on Federal grants to cover NSA costs. Although some State governments voluntarily provide their WIC State agency with additional NSA funds, both the number of States providing additional funds and the amount they contribute have been declining. For example, in FY 1992, 18 States appropriated \$91 million for WIC, while in 2001, 13 States made only \$45 million available (U.S. General Accounting Office, 2001b). Similarly, both monetary and in-kind contributions (such as office space) by local governments and nonprofit organizations have declined, increasing WIC State and local agencies’ dependence on Federal funding to cover NSA costs (U.S. General Accounting Office, 2001b).

Higher per participant NSA amounts may enhance WIC services and administrative efficiencies, helping the program meet its responsibility as an adjunct to health care and improving program outcomes. There are no guarantees, however, that additional resources would be spent efficiently or improve outcomes. Higher NSA amounts (for a given appropriation) reduce resources available for food benefits. It is also difficult to justify additional NSA funds when there is no information about how much it costs to provide essential services and/or the cost-effectiveness of nutrition services (for more information on program effectiveness, see the section on “Effectiveness of WIC’s Nutrition Education Program,” p. 62).

### **Potential Impacts of the Revised WIC Food Packages**

On December 6, 2007, USDA published an Interim Final Rule revising the WIC food packages (72 *Federal Register* 68965-69032).<sup>84</sup> These rule changes represent the most significant revisions to the WIC program since its inception in the early 1970s (see box, “Summary of Major Revisions to the WIC Food Packages,” p. 45).

<sup>84</sup> An interim final rule allows FNS to obtain feedback on the major changes while allowing implementation to move forward. The interim final rule comment period ends on February 1, 2010. USDA will issue a final rule after review and analysis of public comments.

## Summary of Major Revisions to the WIC Food Packages

- Addition of fruits and vegetables (as commercial baby foods for older infants and as cash-value vouchers for children and women).
- More whole-grain foods—at least half of the cereals in a State’s list of approved WIC foods must be whole grain. New whole-grain products are allowed, including breads, brown rice, tortillas, and bulgur.
- Addition of baby food meats for fully breastfed older infants.
- Greater variety, such as soy beverages and tofu as substitutes for milk for women.
- Less milk, cheese, eggs, and juice. New constraints on choices include a reduced amount of cheese that may be substituted for fluid milk; no whole milk except for 1-year-old children or with medical documentation for other participant categories; no juice for infants.
- Delayed provision of complementary infant foods from 4 to 6 months (only infant formula will be provided until the infant is 6 months old).
- Less infant formula for partially breastfed infants and for older infants (6-11 months) and more infant formula for fully formula fed infants ages 4-5 months (to compensate for the elimination of complementary infant foods for this age group).

See table 3 for more information on the specific changes to the WIC food packages.

The WIC food package revisions were designed to bring about positive changes in participants’ behaviors and outcomes, while minimizing vendor burden and maintaining cost neutrality. There are a number of issues, however, that might influence whether the revised food packages achieve their desired objectives. There are also some questions regarding potential impacts of the revised food packages on food manufacturers and on non-WIC consumers.

### *Potential Impact on Program Participants*

**Participation Effects**—The food package revisions may increase food package desirability, thereby attracting new families to the program. Many people eligible for WIC do not participate in the program. For example, in 2003, only about 45 percent of all eligible children participated in WIC compared with 83 percent of all eligible infants (see fig. 13). By offering a greater variety of foods to choose from—including the addition of fruits and vegetables—the revised food packages are more likely to accommodate individual and culturally based preferences, providing more incentives for families to apply for WIC. An increase in applications could lead to an increase in participation, assuming that program funds are sufficient to enroll new applicants.<sup>85</sup>

<sup>85</sup> Some of the changes to the food packages also have the potential to reduce participant satisfaction. For example, some participants may become dissatisfied with the reduced amounts of some WIC foods (such as milk, eggs, and juice), the reduced amount of cheese that can be substituted for fluid milk, the elimination of whole milk from the food packages for women and children age 2 and older (unless participants with qualifying conditions provide medical documentation requesting otherwise), and some of the changes in the infants’ food packages.

**Consumption Effects**—Compared with the old food packages, the revised packages are estimated to provide greater amounts of nearly all the nutrients identified by the IOM as lacking in the diets of the WIC-eligible population, such as iron, fiber, and vitamin E (Institute of Medicine, 2005). The revised food packages for women and children also provide less saturated fat, cholesterol, total fat, and sodium than the old packages. One of the most significant changes is the addition of fruits and vegetables to most food packages.<sup>86</sup> Data from fruit and vegetable voucher demonstration projects in California and New York indicate that the vouchers increased WIC participants' *purchases* of fruits and vegetables (Herman et al., 2006; Klein, 2008).<sup>87</sup> The demonstration project in California also shows an increase in *consumption* of fruits and vegetables (Herman et al., 2008).

The impact of the revised food packages on fruit and vegetable consumption is likely to vary depending on how WIC State agencies choose to operationalize the revised food packages. For example, WIC State agencies have the flexibility to determine what combination of canned, frozen, and fresh forms of fruits and vegetables they will allow; whether to allow participants to redeem their vouchers at farmers' markets; what denomination to use for each voucher; the types of nutrition education provided to participants; and the minimum stocking requirements for authorized stores.<sup>88</sup>

The addition of new substitutes for milk—such as calcium-set tofu and calcium-fortified soy beverages—in the packages for women may increase their calcium intake. Similarly, the addition of whole-wheat bread and other whole-grain products is anticipated to increase consumption of whole grains and fiber. The impact of these changes will depend on the uptake of new foods by participants and, to a large extent, on the availability of some of the new foods.

On the other hand, the reduced amounts of milk, eggs, and juice and the elimination of whole milk from the food packages for women and children age 2 and older could reduce consumption of those foods and potentially increase negative consumption substitutions. For example, some participants may replace some of the “shortfall” in WIC juice with fruit drinks or other sweetened beverages. Participants who do not adapt to the taste of lower fat milks may choose to drink less milk.

**Health Outcomes**—The addition of fruits and vegetables and the emphasis on whole grains are consistent with the *Dietary Guidelines'* recommendations for food patterns that may contribute to a healthy weight, potentially improving the proportion of WIC participants with healthy weight (U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2005). In addition, the revised food packages were designed to encourage breastfeeding, which may also contribute to a reduced risk of overweight in children. (For more information on the impact on obesity and breastfeeding, see the sections on “WIC and Childhood Obesity,” p. 64, and “WIC and Breastfeeding Rates,” p. 66.)

<sup>86</sup> Fruits and vegetables were not added to the food package for infants younger than 6 months.

<sup>87</sup> Note that increased store sales of fresh fruits and vegetables may not necessarily translate to increased total consumption of fruits and vegetables by WIC participants. For example, households may substitute fresh fruits and vegetables for processed fruits and vegetables, and/or other household members may increase their consumption of fruits and vegetables but the WIC participant may not.

<sup>88</sup> WIC State agencies must authorize *fresh* fruits and vegetables in their food packages; canned and frozen fruits and vegetables are options.



## ***Potential Impact on WIC Vendors and Farmers***

Implementation of the revised WIC food packages will impact WIC-authorized vendors in a variety of ways. Vendors will be required to stock at least two varieties of fruits, two varieties of vegetables, and one whole-grain cereal.<sup>89</sup> Thus, some small vendors may have to expand their current stock of foods. Vendors will also have to reprogram their store computers to accept WIC transactions using the standard food instrument as well as the new cash-value voucher for fruits and vegetables.

Vendors will need to provide employee training on the new requirements and may also consider whether they need to provide additional assistance to WIC shoppers (i.e., determining the cost of unpackaged produce selections or identifying the specific types of foods eligible for the program, like whole-grain breads and tortillas). The additional requirements and responsibilities associated with the revised food packages could lead some vendors—small vendors, in particular—to decide not to participate in the program. On the other hand, a pilot demonstration project in New York State showed that providing WIC participants with cash vouchers for fruits and vegetables increased store sales, not just for fruits and vegetables but overall, with little vendor burden other than staff training (Klein, 2008). The pilot significantly increased store sales, even though stores did not have to increase payroll or bring in a new product line and required virtually no operational changes. By the end of the pilot program, participating stores averaged 12-14 voucher transactions per day, with fresh fruits and vegetables (averaging 40 percent gross margin) accounting for 71 percent of sales. Canned fruits and vegetables accounted for 19 percent of sales, and frozen products accounted for the remaining 10 percent. For those stores that were tracked, the produce department averaged a 4.7-percent increase in sales. Furthermore, after the pilot ended, produce sales remained higher than before the pilot began.<sup>90</sup>

The new fruit and vegetable cash-value vouchers could also lead to increased sales opportunities for some fruit and vegetable farmers if their WIC State agency chooses to allow participants to redeem vouchers at farmers' markets.

## ***Potential Impact on Food Manufacturers***

The interim final rule expanded the list of foods allowed by the WIC program to increase the cultural acceptability of the food packages and the variety of foods from which participants could choose. The inclusion of these foods (including fruits and vegetables, soy-based beverages, tofu, whole-grain products, and baby foods) in the WIC food packages may result in increased sales of these products. Conversely, the revised food packages reduce the amounts of some food allowances, particularly milk, eggs, and juice, that could result in a decrease in their sales.

Several of the new foods must meet strict nutritional standards and size requirements that may not be commonly available. For example, the revised food packages established a maximum allowance of 2 pounds of whole-wheat bread or other whole-grain options for children in Food Packages III and IV and 1 pound of whole-wheat bread or other whole-grain options for women in Food Packages III, V, and VII. Bread, however, is not typically

<sup>89</sup> WIC State agencies have the option to increase these requirements and to specify whether vendor fruit and vegetable stocking requirements must include fresh forms. WIC State agencies also have the option to establish different minimum requirements for different vendor peer groups, thereby taking into account the difficulty that some small vendors may have in stocking a wide variety of fruits and vegetables, particularly in fresh form. Larger vendors may be required to stock a wider variety of WIC foods.

<sup>90</sup> Most of the initial difficulties were easily addressed. For example, lack of participant familiarity with a produce scale was solved by laminating simple instructions in both English and Spanish near the scales. The biggest issue was explaining to WIC participants that a red-skinned potato was still a "white potato" and was therefore not eligible for the voucher (Klein, 2008).

sold in either 1- or 2-pound loaves (typical sizes are 18 or 24 ounces).<sup>91</sup> Similarly, none of the soy beverages currently available in markets meet the required nutritional standards. WIC requirements have influenced manufacturers' behavior in the past, and manufacturers may be willing to redesign their processing lines to produce the WIC-specified size of container or reformulate their products to meet WIC requirements.<sup>92</sup> Such changes are more likely to occur if they are fairly simple and inexpensive, the reformulation does not adversely affect the taste or appearance of the product, and/or the increased demand from the WIC market justifies the cost.<sup>93</sup>

### ***Potential Impact on Non-WIC Consumers***

Increased demand for the new foods from the WIC program may increase food prices, affecting non-WIC consumers.<sup>94</sup> This increased demand may be particularly relevant for baby food fruits and vegetables because nearly half of all infants in the United States participate in the WIC program and the number of baby food manufacturers is limited. It may also be relevant if some of the new foods have to be reformulated to meet the program's requirements and have few manufacturers—such as whole-wheat breads sold in 1- and 2-pound packages and soy beverages. WIC's definition of a particular package size may increase opportunities for stores and manufacturers to price discriminate between WIC and non-WIC customers.

### ***State-Level Food Costs***

The food package revisions were required to be cost-neutral at the national level so the program could continue to serve the same number of eligible applicants. Thus, in order for a new food to be added to the package, something had to be deleted or reduced. Cost-neutrality estimates were based on assumptions about the take-up rates of the various foods among WIC participants. For example, the interim final rule assumed that about 3 percent of WIC women would choose tofu and that fruit and vegetable vouchers would be redeemed at a rate of 87.5 percent.<sup>95</sup> States that experience a higher-than-estimated demand for the higher cost food alternative (i.e., a take-up rate greater than 3 percent for tofu) are likely to see an increase in food costs. Some WIC State agencies may implement or increase cost-containment practices to offset anticipated price increases. Since WIC State agencies retain the right to exclude particular products from their food packages, some WIC State agencies may choose not to include some of the higher cost alternatives.

## **Food Prices and WIC**

Because food accounts for almost three-quarters of total WIC costs, changes in food prices have important implications for program funding and the number of participants who can be served. Variation in food prices across geographic areas also raises issues of equity.

### ***Rising Food Prices***

Overall, prices of food at home rose 6.4 percent in 2008 compared with an average 2.4 percent per year for the previous 10 years (fig. 16). The increase

<sup>91</sup> In the interim final rule, FNS asked the food industry to notify them of whole-wheat and whole-grain products that meet the new WIC food requirements.

<sup>92</sup> The clearest example of how WIC nutritional standards have influenced manufacturers' behavior in the past focuses on WIC's requirement that adult cereals be iron fortified and contain no more than 6 grams of sugar per ounce. Manufacturers responded by reformulating some of their cereals. Many of the cereals currently available to U.S. consumers meet these requirements, including popular brands, such as Cheerios, Corn Flakes, Kix, Life, Honey Bunches of Oats, Grape Nuts, Special K, Total, Wheaties, and Cream of Wheat.

<sup>93</sup> Several manufacturers informed FNS that they are making new WIC foods available to meet the requirements of the interim final rule (based on communication with FNS on October 3, 2008).

<sup>94</sup> WIC has previously been shown to increase the price of food to non-WIC consumers. An ERS study by Oliveira et al. (2004) determined that WIC and its infant formula rebate program resulted in modest increases in the supermarket prices of infant formula, especially in States with a high percentage of WIC formula-fed infants. Infant formula, however, is unique among WIC-authorized foods since WIC accounts for over half of all infant formula sold in this country. WIC is not expected to account for nearly as much of the market share for the new foods included in the revised food packages.

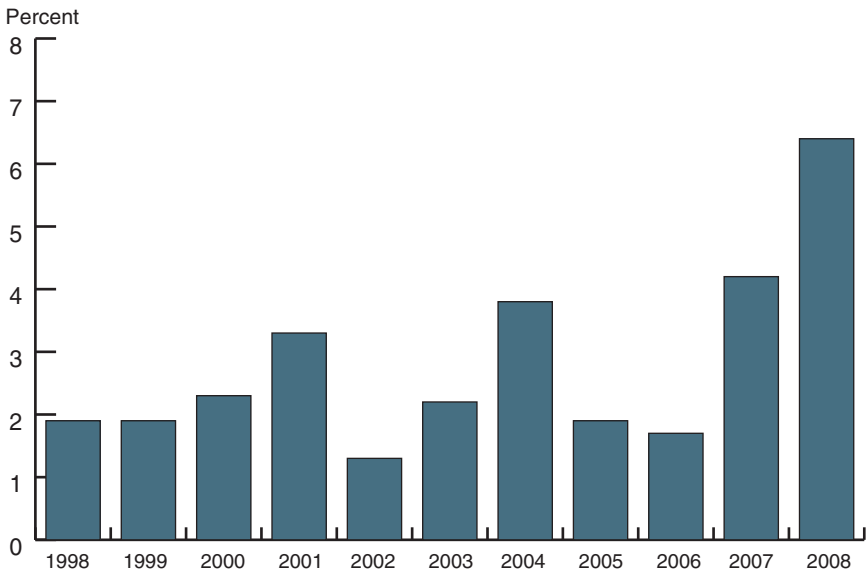
<sup>95</sup> The take-up rate of tofu is based on market consumption data, indicating that about 3 percent of all U.S. households with WIC-eligible incomes purchased tofu (72 *Federal Register* 68965-69032), and the fruit and vegetable redemption rate is based on a 2004 evaluation of a WIC fruit and vegetable intervention in Los Angeles (Herman, 2004).

in 2008 prices represents the largest single-year increase since 1990. Rising commodity prices, led by corn, is one of the main factors impacting retail food-price inflation (Leibtag, 2008).

The percentage increase in food prices varies by food item. In 2008, the price of some items in the WIC food packages, such as eggs (up 14.0 percent), cereals and bakery products (up 10.2 percent), and dairy products (up 8.0 percent), increased by more than the average for all items (table 7).

Higher food prices can strain the WIC State agencies' ability to serve all eligible program applicants. As a discretionary grant program, the number of participants that can be served each year depends upon annual appropriations from Congress and the cost of operating the program. WIC regulations require that the authorized maximum monthly allowances of all WIC foods be made available to participants if medically and nutritionally warranted (7 CFR 246.10). As a result, WIC State agencies are prohibited from reducing the amounts of food offered to participants in order to reduce food costs. However, WIC State agencies can implement cost-containment practices to stretch their food dollars. In addition to negotiating rebate contracts with manufacturers of infant formula, other cost-containment practices used by some WIC State agencies include limiting authorized vendors to outlets with lower food prices; limiting approved brands, package sizes, forms, or prices (e.g., requiring purchase of least-cost items or requiring the purchase of store brands or private labels); and negotiating rebates with food manufacturers or suppliers (e.g., rebate contracts with manufacturers of infant cereal) (Kirlin, et al., 2003). Absent the implementation of further cost-containment practices by WIC State agencies, an increase in food prices will lead to higher WIC food costs and

Figure 16  
**Change in prices for food at home, 1998-2008**



Source: Economic Research Service calculations using Bureau of Labor Statistics' Consumer Price Index data for food at home.

Table 7

**Change in food prices for selected items, 2008**

Food	Annual change
	<i>Percent</i>
All food	5.5
Food at home	6.4
Dairy products	8.0
Eggs	14.0
Cereals and bakery products	10.2
Fruits and vegetables	6.2
Fresh	5.2
Processed	9.5

Source: USDA, 2009.

fewer people will be able to participate in the program without increased congressional appropriations.

Unlike the regular quantity-based WIC food vouchers that entitle participants to a specific amount of WIC-approved food, the new fruit and vegetable vouchers provided in the recent WIC food package revisions have a fixed monthly cash value (\$6 for children, \$10 for fully breastfeeding women, and \$8 for all other women). Thus, it might appear that these vouchers would be immune (from a cost perspective to WIC) from price increases for fruits and vegetables. These vouchers, however, are adjusted annually for inflation, so participants do not lose value (in terms of the amount of food they can purchase) if food prices increase.<sup>96</sup> Therefore, an increase in fruit and vegetable prices will result in an increase in the cost of the fruit and vegetable vouchers, further stressing WIC State agency resources.

### ***Geographic Variation in Food Prices***

Another issue relates to the geographic variation in food prices. To measure differences in prices across States, an ERS study simulated the average food costs for specific quantities of nine WIC-authorized foods in 17 States, using supermarket scanner data on food prices from 1997 to 1999 (Davis and Leibtag, 2005). Average monthly food costs per participant varied markedly across States, ranging from a low of \$29 in Texas to a high of \$37 in Tennessee. Variation in food costs across States may result from differences in cost-containment practices, differences in food prices, as well as differences in the proportion of participants receiving food packages (i.e., WIC caseload composition). Since each category of WIC enrollees (women, infants, or children) qualifies for food packages that differ in cost, variation in overall average food costs can arise as the mix of enrollees (composition of participants) differs across States. The study also found that variation in food prices across the Nation for the same food group plays an important role in the differing costs of WIC food packages from State to State. Simulated average monthly food costs suggest that States with higher-than-average WIC costs usually have higher-than-average food prices. Similarly, States with lower-than-average WIC costs generally have lower-than-average food prices. The study also found that interstate variation in WIC participant

<sup>96</sup> The maximum value of the vouchers is adjusted annually in whole-dollar increments using the Consumer Price Index (CPI) for fresh fruits and vegetables (7 CFR 246.16). That is, the maximum value of the vouchers will not change until the cumulative increase in the CPI is sufficient to raise the voucher's value by a dollar.

caseload composition also contributes to variations in average monthly food costs across States, although to a lesser degree than the interstate variation in food prices. In addition, cost-containment practices by WIC State agencies provide different levels of cost savings in different States.

These results raise questions about program equity across States. Prior to the 2007 revisions to the WIC food packages, a WIC participant in one State could receive the same amount of food as a participant in either a different part of the State or in a different State altogether. The recent revisions included the introduction of cash-value vouchers for fruits and vegetables for children and women.<sup>97</sup> Because of price differences both *across and within States*, participants in States with relatively high fruit and vegetable prices will not be able to purchase as much as participants in other States or their fruit and vegetable choices may be limited to lower priced products.

## Infant Formula Costs

WIC's most effective cost-containment measure is the use of infant formula rebates. Over half of all infant formula sold in the United States is purchased through the WIC program. Without the rebates, which totaled \$1.8 billion in FY 2007, infant formula would be the single most expensive food item provided by WIC (fig. 17). For example, without the rebates offered in FY 2005, infant formula would have cost the program \$2.3 billion, or 44 percent of all food costs, compared with the actual \$0.6 billion, or 17 percent of all food costs after rebates (USDA, 2007b).<sup>98</sup> The dramatic expansion of the WIC program since the late 1980s is partly due to the savings generated from infant formula rebates. Since 1997, about a quarter of all WIC participants have been supported by infant formula rebates (fig. 18). In recent years, however, some WIC State agencies have reported a marked increase in their per can cost of formula. Because of the large volume of infant formula purchased through WIC, even small increases in the per can cost of infant formula to WIC could have far-reaching negative implications for the program.

### *Infant Formula Rebate Program*

Since 1989, Federal law has required that WIC State agencies enter into cost-containment contracts for the purchase of infant formula.<sup>99</sup> Typically, WIC State agencies obtain substantial discounts in the form of rebates from infant formula manufacturers for each can purchased. In exchange, the manufacturer is given the exclusive right to provide its product to WIC participants in the State. These sole-source contracts are awarded on the basis of competitive bids: The firm offering the lowest *net wholesale price* (equal to the manufacturer's wholesale price minus the rebate) wins the WIC contract. The contract-winning manufacturer is billed by the WIC State agencies for rebates on all infant formula purchased by WIC participants with vouchers at authorized retail outlets. The brand of formula provided by WIC will vary by State depending on which manufacturer holds the contract for that State.<sup>100</sup> Currently, three infant formula manufacturers—Mead Johnson, Abbott, and Nestle—hold rebate contracts in various States. The rebate program has successfully reduced the cost of formula to WIC. The percentage discount rebates (i.e., the amount of the rebate expressed as

<sup>97</sup> Although the fruit and vegetable vouchers may be adjusted annually for inflation, the adjustment would be made at the national, and not the State, level (7 CFR 246.16).

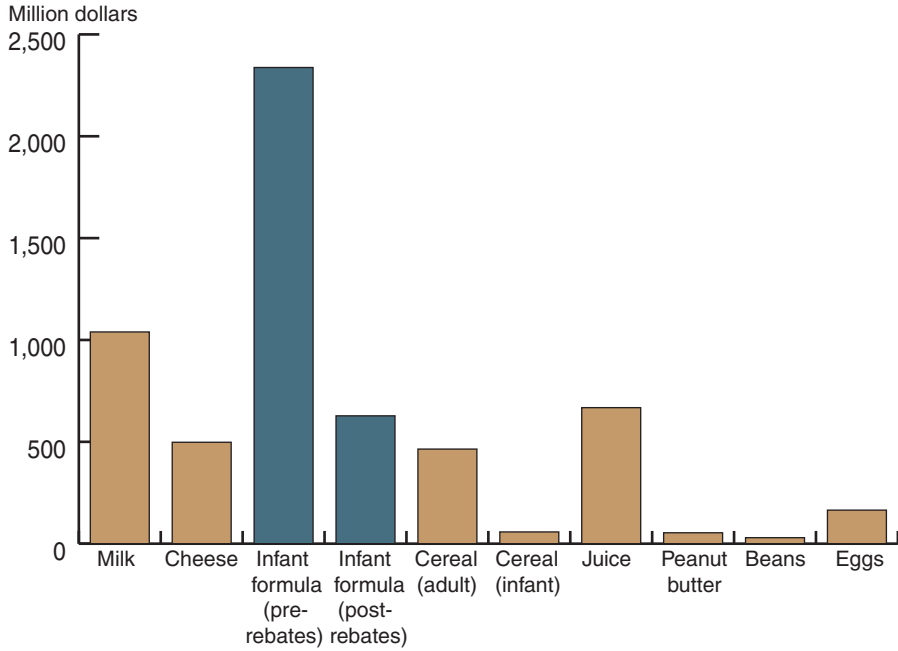
<sup>98</sup> Pre-rebate costs reflect the estimated retail cost of infant formula at the time of the purchase, while post-rebate costs reflect actual reported costs and take into account savings from infant formula rebates (USDA, 2007b).

<sup>99</sup> While the use of infant formula rebates has lowered program costs and enabled more people to participate in WIC, not everyone encourages the practice. For example, Burstein (2001) argued that "it is hard to defend the government's using its monopsony power to extract an involuntary program subsidy from an industry."

<sup>100</sup> States can either hold an individual contract for infant formula or be part of a multistate group contract or alliance whereby WIC State agencies join in a single rebate agreement to obtain infant formula. In this way, WIC State agencies with fewer clients can pool their buying power to leverage higher rebates. In 2004, however, Congress limited the use of this cost-saving practice. P.L. 108-265 prohibits the formation of multistate alliances for the purchase of infant formula if the total number of infants served by the States exceeds 100,000 (except alliances that had 100,000 infants as of October 2003). Any alliance in existence as of October 2003 may expand to serve more than 100,000 infants, but may not expand to include any additional WIC State agencies (an exception is made if the WIC State agency to be added served fewer than 5,000 infants as of October 2003). The belief is that this regulation—which grew out of concern that not all infant formula manufacturers would be able to compete for the larger multistate contracts due to production capacity—will help maintain competition among the infant formula manufacturers by helping to ensure that all manufacturers can compete for the rebate contracts (73 *Federal Register* 11308).

Figure 17

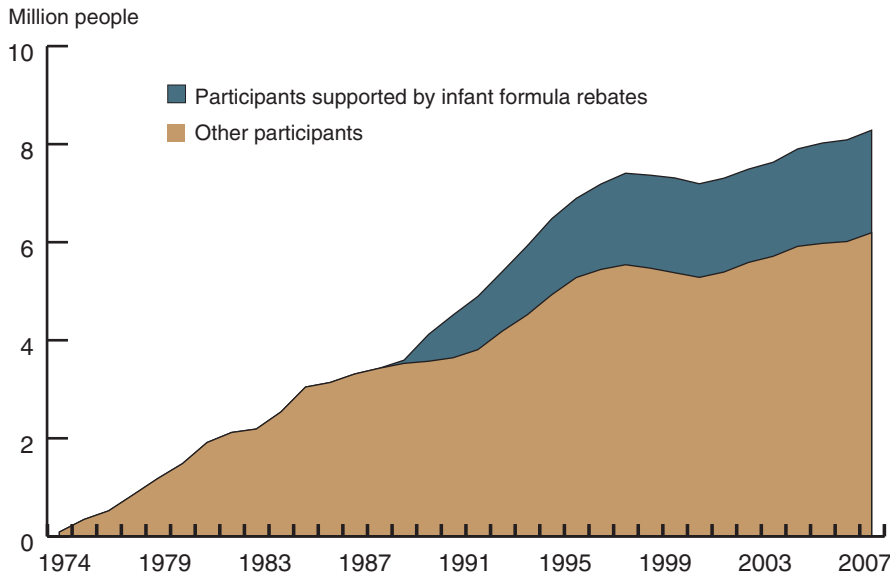
**WIC food costs, by food item, FY 2005**



Source: USDA, 2007b.

Figure 18

**Average number of WIC participants, FY 1974-2007**



Note: The number of WIC participants supported by infant formula rebates was calculated by multiplying the total number of WIC participants by rebates' share of total program expenditures and rebates.

Source: Economic Research Service calculations based on Food and Nutrition Service data.

a percentage of the manufacturer's wholesale price) for contracts awarded from 1999 to 2008 averaged 86 percent. In other words, the infant formula purchased through WIC, on average, cost the program only 14 percent of its wholesale price (plus the amount of the retail markup) (Oliveira and Davis, 2006).<sup>101</sup> Both supply-side and demand-side characteristics of the infant formula market may explain why WIC State agencies receive such large rebates from infant formula manufacturers. On the supply side, the formula market is highly concentrated—a factor often associated with higher profit margins. This could give manufacturers the cushion to offer high rebates. On the demand side, WIC participants purchase over half of all infant formula, ensuring large sales for the contract-winning manufacturer. In addition, manufacturers may realize spillover benefits from their WIC contract: Retailers may devote more shelf space to the WIC contract brand, and hospitals and/or physicians may be more likely to recommend the WIC-contract brand to their patients, spurring sales to non-WIC consumers.

### ***WIC Infant Formula Has Two Cost Components***

Net wholesale price—which is determined by infant formula manufacturers—is only part of the cost that WIC pays for infant formula.<sup>102</sup> Because most WIC participants purchase their WIC foods via the retail food delivery system (i.e., participants purchase WIC foods at full retail price from grocery and other food stores using their WIC vouchers or coupons), WIC also pays for the *retail markup* of the formula.<sup>103</sup> Retail markup is equal to the retail price minus the wholesale price and is determined by retailers (fig. 19).<sup>104</sup>

Retailers play an important role in determining the cost of infant formula to WIC, as they—not the infant formula manufacturers—set the retail price. Although wholesale prices are a major determinant of retail prices, retailers consider additional factors: the cost of transporting the formula from the warehouse to the store, shelf space, overhead, product movement, profit, and other local supply and demand factors.<sup>105</sup> An earlier analysis of retail infant formula prices found that formula identified as the WIC-designated brand increased the retail price of formula, especially in areas with a high percentage of WIC infants (Oliveira et al., 2004). This finding is consistent with economic theory. Winning the WIC contract increases the demand for the contract brand of formula among WIC participants, resulting in an increase in its retail price (WIC recipients do not pay for their WIC formula out of their own pocket, so they are price insensitive). Demand for the contract brand of formula may also increase among non-WIC consumers to the degree that winning the WIC contract results in increased store shelf space and greater product visibility.

### ***Increasing WIC Infant Formula Costs***

Results from a recent ERS study that examined trends in WIC infant formula costs from 1998 to 2006 indicate that after adjusting for inflation, both of the cost components to WIC—net wholesale price and retail markup—have increased in recent years (Oliveira and Davis, 2006).

In most States, the retail markup, and not the net wholesale price, is now

<sup>101</sup> Rebate contracts contain inflationary provisions. In the event of an increase in the wholesale price after the date of the bid opening, there is a cent-for-cent increase in the rebate amounts so the net price remains the same.

<sup>102</sup> Infant formula manufacturers sell their product at the wholesale price to retailers who are reimbursed by WIC for the formula purchased via WIC vouchers and coupons. The manufacturers then give a portion of the wholesale price to WIC in the form of rebates. As a result, the net wholesale price can be thought of as what WIC ultimately pays manufacturers for the formula.

<sup>103</sup> All States, except Mississippi and Vermont (along with parts of Chicago, IL), use the retail food delivery system to provide infant formula to WIC infants.

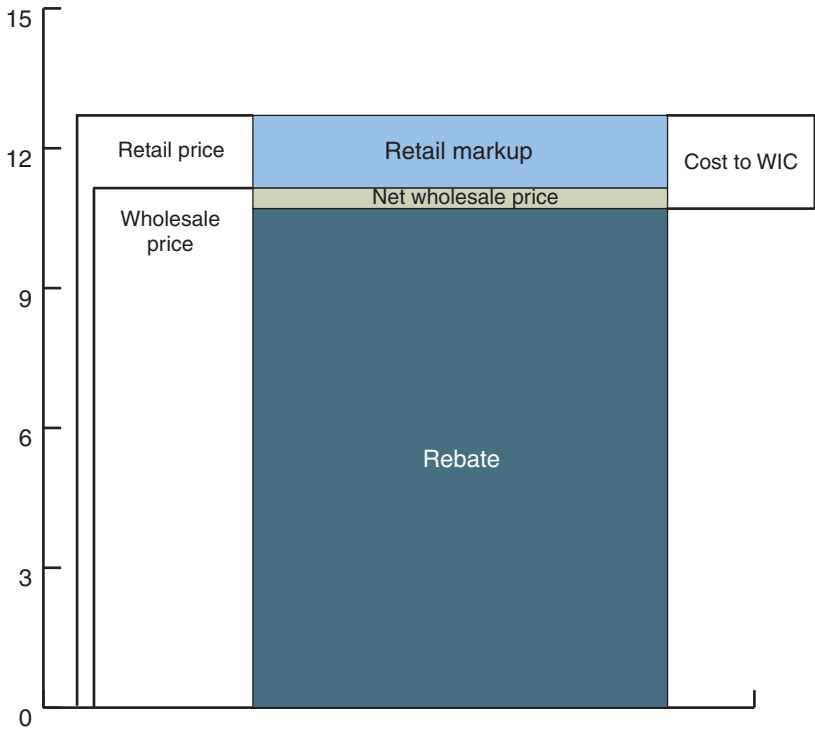
<sup>104</sup> Although retailers are reimbursed by WIC for the full retail price of infant formula, they purchase the infant formula from infant formula manufacturers at the wholesale price. Retailers add a retail markup to the wholesale price and sell the formula to consumers, including WIC. So, the retail markup can be thought of as what WIC ultimately pays retailers for the formula purchased through the program.

<sup>105</sup> Retail markup can vary widely depending on a store's pricing strategy. For example, at one extreme, some retailers may use infant formula as a loss leader, whereby they price the product below cost to attract people into their store to purchase other items at full markup.

Figure 19

**Cost components for can of infant formula**

Dollars per can



Note: Example based on a 12.9-oz can of Ross Similac with iron (milk-based powder) in the California WIC program during the second quarter of 2004.

Source: Oliveira and Davis, 2006.

the largest component of infant formula costs to WIC (because of the effectiveness of the rebate program, net wholesale prices are low relative to retail markups). All WIC State agencies now offer the DHA- and ARA-supplemented formulas (see box, “DHA/ARA-Supplemented Formulas,” p. 55) to their participants, and the percentage retail markup for these formulas exceeds that of the unsupplemented formulas (Oliveira and Davis, 2006). This markup difference is likely because purchasers of the more expensive supplemented formula may be less price sensitive than purchasers of unsupplemented formula.

Real net wholesale prices have been increasing since 2003 (fig. 20). Some of this increase can be attributed to the introduction of DHA- and ARA-supplemented formulas that have higher wholesale prices relative to unsupplemented formulas. So, if the amount of the rebate is held constant, the net wholesale price will be higher. Furthermore, the percentage discount rebates have trended downward. That is, manufacturers are offering lower rebates as a percentage of their wholesale price. The U.S. Government Accountability Office (2006a) estimated that if the average rebate that States received per can in 2004 had fallen from 93 percent of the wholesale price of infant formula to 75 percent of the wholesale price, about 400,000 fewer participants would have been able to participate in WIC.

A number of other factors may explain the increase in net wholesale prices, all of which are based on the premise that the size of the rebates offered



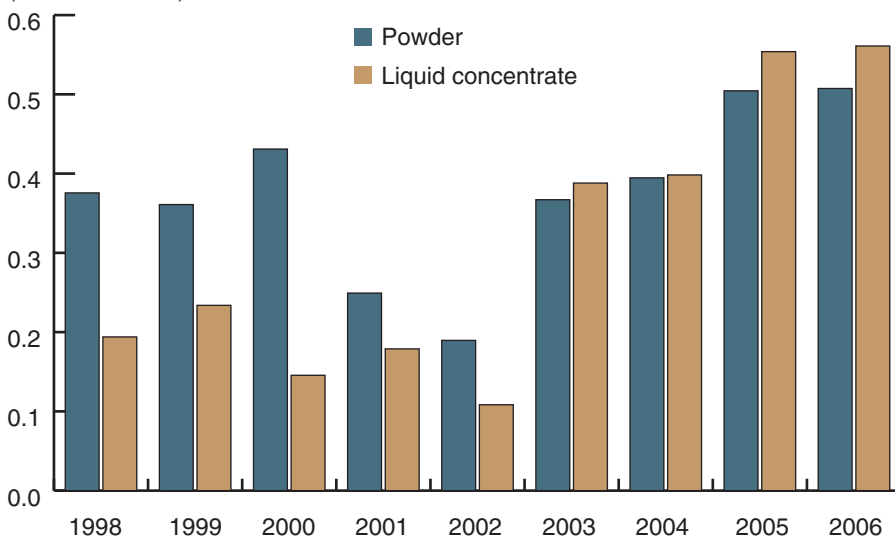
## DHA/ARA-Supplemented Formulas

An important development in the domestic infant formula market was the introduction of infant formulas supplemented with the fatty acids docosahexaenoic acid (DHA) and arachidonic acid (ARA) in 2002. While some studies suggest that the addition of these fatty acids to infant formula may improve visual function and the mental development of infants, other studies have not found such a relationship.

Since their introduction, the share of total sales of infant formula attributed to DHA- and ARA-supplemented formulas has increased dramatically. By the second quarter of 2004, supplemented formula accounted for almost two-thirds (64 percent) of total dollar sales of infant formula sold in supermarkets (Oliveira and Davis, 2006). Both the wholesale and retail price of supplemented formula is significantly greater than that of unsupplemented formula.

Figure 20  
**Average real net wholesale prices of newly awarded infant formula rebate contracts, 1998-2006**

Dollars per 26 reconstituted ounces  
(Jan. 2006 dollars)



Note: Calculations are based on unweighted data—that is, the net wholesale prices for all States awarding contracts in a particular year are counted the same regardless of the size of their WIC infant population.

Source: Oliveira and Davis, 2006.

by formula manufacturers depends on the degree to which winning the WIC contract leads to increased shelf space and/or increased hospital and physicians recommendations, which in turn, lead to increased sales to non-WIC consumers. For example, Neuberger and Greenstein (2004) theorize that the increase in net wholesale price may have been related to the growth in the number of WIC-only stores (which they defined as stores that stock only WIC foods and serve only WIC customers) in the early 2000s. Since shelf space in WIC-only stores does not promote sales to non-WIC customers, as more WIC participants purchase their formula in WIC-only stores, sales of the contract brand of formula to WIC customers in traditional retail food stores decrease. Retail stores may respond by stocking less of the WIC contract brand and/or giving it less shelf space. Infant formula manufacturers may then lower their rebate bids as a result of the reduced opportunity to attract non-WIC customers to their products.

Besharov (2007) links the increase in net wholesale price to the high percentage of infants participating in WIC. He states that, as the percentage of infants in WIC increases beyond some threshold, rebates will decrease since manufacturers will have less to gain from the additional shelf space as the size of the non-WIC market decreases.

A third hypothesis holds that the increase in net wholesale price may be related to the larger retail markups associated with the WIC contract brand of formula. That is, as retail markup for the WIC brand of formula increases, so too does the retail price. Price-sensitive non-WIC consumers will respond by purchasing less of the contract brand, resulting in fewer sales in the non-WIC market. In response, manufacturers will offer lower rebates.

### ***Increasing Breastfeeding Rates in WIC May Reduce Net Wholesale Prices***

One possible way to reverse the trend in higher net wholesale prices is to increase the prevalence of breastfeeding among WIC infants. An increase in breastfeeding would reduce the number of WIC formula-fed infants and decrease WIC's demand for infant formula and its influence on the infant formula market. Retailers would not be able to take advantage of price-insensitive WIC participants to the degree they can currently if WIC consumers account for a smaller percentage of infant formula sales. Similarly, manufacturers might be more willing to offer high rebates and low net wholesale prices to win the WIC rebate contract and increase its visibility among non-WIC consumers.

One of the objectives of the 2007 WIC food package revisions was to provide stronger incentives for breastfeeding (72 *Federal Register* 68965-69032). For example, fully breastfeeding mothers receive the most variety and largest quantities of food, and fully breastfeeding infants 6 months of age or older receive larger quantities of baby food fruits and vegetables along with baby food meat. In addition, partially breastfeeding infants receive less infant formula than previously. These changes narrow the difference in the market value between the food packages for fully breastfed infants (and their mothers) and the other food packages for infant/mother pairs. The effectiveness of these revisions in increasing breastfeeding and reducing the

use of infant formula among WIC infants could reduce the costs of providing infant formula in the WIC program by decreasing both the net wholesale prices and the retail markup of the WIC brand of formula.

However, even if WIC is successful at increasing breastfeeding among program participants and lowering the cost of formula to WIC, *overall* program costs could actually increase due to the higher post-rebate cost of the food packages for fully breastfed infant/mother pairs relative to formula-fed infant/mother pairs. Whether increasing the prevalence of breastfeeding among WIC women would result in an increase or decrease in program costs depends on a number of factors: the ratio of fully formula-fed infants to partially breast fed infants; how long fully breast fed infants are breastfed (e.g., 6 or 12 months); and the impact on infant formula rebates (see the section on “WIC and Breastfeeding Rates,” page 66, for an expanded discussion on increasing breastfeeding rates among WIC mothers and the resulting increase in costs to WIC).