

# **Assessment of WIC Cost-Containment Practices**

## **An Interim Report to Congress**

E-FAN-01-005  
February 2001

**By John A. Kirlin and Nancy Cole, Abt Associates Inc**

### **Abstract**

This report presents progress from the first year of a study to assess the effects of cost-containment practices by State agencies administering USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The WIC program augments the diets of eligible pregnant, breastfeeding, and postpartum women, infants, and children and is funded by cash grants to State WIC agencies from annual congressional appropriations. To serve as many eligible individuals as possible, State WIC agencies often implement practices designed to reduce food costs. These practices include limiting authorized food vendors to those stores with lower food prices; limiting food item selection according to brand, package size, form, or price; and negotiating rebates with food manufacturers or suppliers. There is concern these practices may have the inadvertent effect of countering the program's goal of supplementing diets with nutritious food.

**This study was conducted by Abt Associates Inc. under a cooperative research contract with USDA's Economic Research Service (ERS) Food Assistance and Nutrition Research Program (FANRP): contract number 53-K06-9-11 (ERS project representative: Phil R. Kaufman). The views expressed are those of the authors and not necessarily those of ERS or USDA.**

**Assessment of WIC Cost-Containment Practices, *An Interim Report to Congress***, John A. Kirlin and Nancy Cole, Abt Associates, Inc. for the U.S. Department of Agriculture, Economic Research Service, under contract number 53-K06-9-11, February 2001.

## **Acknowledgements**

The authors would like to thank the many individuals who have contributed to this study of WIC cost-containment practices and to preparation of the study's Interim Report. First, as project officer at ERS, Phil Kaufman has provided valuable support and guidance throughout the course of the entire study, both in terms of the study's research approach and with respect to operational details. Gerry Plato, also of ERS, has provided valuable insight into matters of research design as well. At FNS, Dawn Aldridge of OANE has been most helpful, both in providing input into the study's research design and in providing comments on this report and earlier written materials.

The study began with interviews with FNS regional staff and representatives of groups with special interest in WIC cost-containment practices. Though too many to thank individually, we would like to express our gratitude for the numerous public officials and organizational representatives who gave their time to help us understand more clearly the cost-containment issues faced by WIC program officials, WIC participants, WIC-authorized vendors, and food manufacturers. Most particularly, we wish to thank Chris Casey of FNS for his assistance in helping set up the interviews with regional staff.

Six states have agreed to participate in the study, and we would like to thank the WIC directors and their staff in each state for their willingness to support this research effort. State program staff face large constraints on their time and resources, and we are very grateful that all six states recruited for this study agreed to participate.

Finally, we wish to thank the many individuals at Abt Associates who have helped with this study. Chris Logan, Mary Kay Crepinsek and Lisa Litin conducted many of the interviews and assembled information for the report. Susan Byers Paxson formatted the report text and tables.

## **Contact for further information**

The Economic Research Service Contract Office Representative (COR) for this study is Phil R. Kaufman. For further information, please e-mail him at [pkaufman@ers.usda.gov](mailto:pkaufman@ers.usda.gov); write to him at Food Markets Branch, Food and Rural Economics Division, Economic Research Service, 1800 M St. NW, Room 2118, Washington, DC 20036-5831; or call him at 202-694-5376.

# Contents

- Abstract.....v**
- Section 1: Introduction .....1**
- Section 2: Cost-Containment Practices .....4**
  - Vendor Selection Practices .....4
    - Competitive Pricing.....5
    - Ratio of WIC Vendors to FSP Vendors .....5
  - Item Selection Practices.....10
    - Least-Expensive Brand Requirements .....11
    - Limits on Package Sizes.....13
    - Limits on Product Types and Forms .....13
    - Limits on Branded Items .....13
    - Summary of Item Restrictions.....14
  - Manufacturer Rebates .....15
- Section 3: Classification of WIC Agencies and Selection of States .....18**
  - Criteria for State Selection.....18
  - State Recommendations.....21
    - Group VR: Vendor Restriction, No Severe Food Item Restrictions .....21
    - Group VR/NC: Vendor Restriction, Narrow-Choice Policy for Item Selection .....21
    - Group VR/LE: Vendor Restriction, Least-Expensive Policy for Item Selection .....21
    - Group VR/NC-LE: Vendor Restriction, Both Least-Expensive and Narrow-Choice Policies for Item Selection .....23
    - Group NC-LE: No Vendor Restriction, Least-Expensive Policy or Narrow-Choice Policy for Item Selection.....23
    - Group M: Medium Vendor Restriction, No Severe Item Restrictions .....24
    - Group NONE: No Vendor Restriction, No Severe Item Restriction.....24
  - Summary of Selected States .....24
- Section 4: Planned Data Collection and Analysis.....27**
  - Program Participation .....28
  - Access and Availability of Prescribed Foods .....29
  - Voucher Redemption Rates and Actual Food Selections by Participants.....29
  - Participants on Special Diets or With Specific Food Allergies .....30
  - Participant Use of and Satisfaction with Prescribed Foods .....31
  - Achievement of Positive Health Outcomes .....31
  - Program Costs.....32
- Appendix: Groups Contacted for Information and Views about WIC Cost-Containment Practices**

## List of Exhibits

|           |   |    |
|-----------|---|----|
| Exhibit 1 | Use of competitive pricing for vendor selection .....     | 6  |
| Exhibit 2 | Number of WIC vendors by state and vendor type .....      | 8  |
| Exhibit 3 | Types of item restriction cost-containment practices..... | 12 |
| Exhibit 4 | Item cost-containment practices.....                      | 16 |
| Exhibit 5 | Classification of states.....                             | 19 |
| Exhibit 6 | WIC participant characteristics .....                     | 22 |
| Exhibit 7 | Summary information on selected case study states .....   | 25 |
| Exhibit 8 | Racial/Ethnic composition of WIC caseloads.....           | 26 |

# Abstract

The Food and Nutrition Service (FNS) of the U.S. Department of Agriculture, together with designated State agencies, administers the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The WIC program, which augments the diets of eligible pregnant, breastfeeding, and postpartum women, infants, and children, is funded by cash grants to State WIC agencies, from annual congressional appropriations. Each State's cash grant includes a food grant and a nutrition services and administration (NSA) grant. In FY2000, food grants represented approximately 74 percent of the total cash grant of \$4.1 billion.

Because WIC is not an entitlement program, some eligible individuals have been turned down when appropriations are insufficient. In an effort to serve as many eligible individuals as possible, State WIC agencies often implement one or more practices designed to reduce the average food cost per WIC participant. These practices include limiting authorized food vendors to those stores with lower food prices; limiting food item selection according to brand, package size, form, or price (e.g., requiring purchase of least-cost items); and negotiating rebates with food manufacturers or suppliers.

Concern has been raised that vendor-selection practices may reduce WIC participants' access to WIC vendors, and item-selection practices and manufacturers' rebates may reduce participant satisfaction with the range of food items available for purchase within WIC. Reduced satisfaction may, in turn, lead to reduced consumption of certain food items or even a decision to leave the program. In either case, the cost-containment practices would have the inadvertent effect of countering the program's goal of supplementing diets with nutritious food.

As part of the William F. Goodling Child Nutrition Act of 1998, the Economic Research Service (ERS), U.S. Department of Agriculture (USDA), has been directed to conduct a study to assess the impacts of cost-containment practices on the following seven outcome measures: program participation; access and availability of prescribed foods; voucher redemption rates and actual food selections by participants; participants on special diets or with specific food allergies; participant use of and satisfaction with prescribed foods; achievement of positive health outcomes; and program costs.

This Interim Report presents results from the first year of the study, including details of State WIC agencies' cost-containment practices, classification of States according to cost-containment practices, and the selection of six States for case studies. The information on cost-containment practices is based on the following: review of State WIC manuals, vendor application materials, and approved food lists; comparison of numbers of WIC vendors and Food Stamp Program (FSP)-approved retailers in each State; and interviews with representatives of FNS, the National Association of WIC Directors (NAWD), and several food industry associations.

This report also describes planned data collection efforts and subsequent analyses to be conducted to address each of the seven objectives specified in the legislation mandating the study. The data collection efforts include a survey of WIC participants, a survey of food prices, collection of store scanner data to assess brand choice, focus groups with WIC participants who have dropped out of the program, and interviews with State and local WIC officials to learn about how cost-containment practices are implemented and their administrative cost.



# Section 1

## Introduction

The William F. Goodling Child Nutrition Act of 1998 directed the USDA ERS to conduct research to assess the impacts of cost-containment practices within the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). This interim report describes the current status of this research effort.

WIC is not a Federal entitlement program. Each State must operate within annual funding levels established by Congress. This necessitates setting a maximum caseload for each local agency. When a local agency reaches this maximum, a system of priorities is used to allocate benefits to eligible applicants. As a consequence, WIC officials seek to contain program costs, particularly food costs, so that they can serve the maximum feasible number of eligible persons with the available funds.

State WIC agencies use three general types of cost-containment practices to lower the average food package cost: (1) policies affecting the selection of vendors for participation in the program; (2) policies restricting the brands, food package sizes, or food package forms WIC participants may select when redeeming their WIC food vouchers; and (3) food rebate contracts with selected manufacturers. One of the WIC program's primary cost savings practices is the negotiation of rebate contracts with manufacturers of infant formula. In accordance with the legislation authorizing this study, however, infant formula rebates will not be assessed during this research effort.

The purpose of the research is to assess the impact of the above cost-containment practices on seven outcome measures. Specifically, how do cost-containment practices affect:

1. Participation levels in the WIC program?
2. Availability of prescribed foods and participant access to these foods?
3. Voucher redemption rates and actual food selections by participants?
4. WIC participants on special diets and those with specific food allergies?
5. Participant use of and satisfaction with prescribed foods?
6. Participants' achievement of positive health outcomes?
7. Program costs?

In a competitive bidding process, ERS contracted with Abt Associates Inc. in September 1999 to conduct this research study. The project is currently on schedule and has received approval by the Office of Management and Budget (OMB). Data collection is scheduled to begin in January 2001 and end by July 2001, with a final report on the study to be completed by September 2002.

This report summarizes research conducted by Abt Associates since October 1999. Section 2 presents a description of the specific types of cost-containment practices in use by State WIC agencies, the ways that cost-containment practices have been implemented, and the rates of implementation across States. This

information was used to classify State WIC agencies according to their use of cost-containment practices, and to select States for inclusion in the study.

To estimate the impacts of WIC cost-containment practices, the contractor plans to collect data in six States specifically selected for their mix of cost-containment practices. This case-study approach will maximize the study's ability to relate specific outcomes to specific cost-containment practices. The six States selected for the study are California, Connecticut, North Carolina, Ohio, Oklahoma, and Texas.

Section 3 of this report explains the criteria used to select the six States for this study; generally, the study sought States that exhibited different combinations of the following cost-containment practices:

- Vendor selection—a practice that requires applicant stores to meet or exceed selection criteria, such as having competitive prices, to be authorized as vendors;
- Food item selection—a practice in which the State restricts the foods that WIC participants may purchase with their WIC vouchers, within Federal regulations; and
- Manufacturer rebates—a practice in which the State negotiates a rebate with a manufacturer in exchange for a sole-source contract for a particular food item (e.g., infant cereal).

The final section of the report, Section 4, describes the data collection activities planned for the upcoming year and the analysis methods to be used in evaluating the impact of cost-containment practices.

The information on cost-containment practices summarized in this report relies primarily on documents collected from State WIC agencies (including State WIC-approved food lists and State vendor materials) and on discussions with national and regional WIC officials. Two national databases created and maintained by the USDA FNS were used as well. The Store Tracking and Redemption Subsystem (STARS) database was used to obtain counts of retailers authorized to participate in the FSP, by State and store type classification (e.g., supermarkets and grocery stores). The Integrity Profile (TIP) database was used to obtain counts of WIC-authorized vendors, by State.

In addition to collecting information from WIC agencies, project staff from Abt Associates contacted representatives from food industry associations and from the National Association of WIC Directors (NAWD). These organizations, listed in the appendix, had earlier expressed concerns about WIC cost-containment practices. Many of these concerns, summarized below, will be investigated as part of the study:

- The NAWD is a voluntary membership organization representing State and local WIC agencies nationwide. NAWD members expressed two main concerns with respect to cost-containment practices: (1) the negative impact of food item restrictions on program participation; and (2) obstacles to States' utilization of food cost savings to increase Federal NSA funds in support of higher WIC participation levels.<sup>1</sup> They stressed that States need flexibility in designing food packages to attract and retain program participants.

---

<sup>1</sup> NAWD's concern with States' use of food cost savings was addressed by FNS shortly after the interview was conducted. In December 1999, FNS published a rule expanding conversion authority for cost-containment savings to NSA funds.



- The Grocery Manufacturers of America (GMA) is a trade organization representing companies that manufacture and market most of the best-known national brand products. Their biggest concern with cost-containment efforts is those practices that reduce WIC participants' choices among brands of WIC-approved products, especially breakfast cereals. They believe that such restrictions reduce participant satisfaction and can lead to decreased participation in WIC.
- Members of the Private Label Manufacturers Association (PLMA) are pleased that private label, or store brand, items are being added to WIC-approved food lists in many States. They perceive, however, that some State WIC agencies are biased against private label foods. Members also are concerned with policies that require WIC-approved food items to be available statewide, because not all food chains operate throughout a State. Finally, PLMA members believe that limiting vendors may (unintentionally) eliminate many private label products from the WIC program and lead to increased costs and reduced product availability for the WIC program and participants.
- The Food Marketing Institute (FMI) and the National Grocers Association (NGA) are trade associations representing food retailers and wholesalers. These groups do not like cost-containment practices designed to limit the number of WIC-authorized vendors, arguing that such practices are inefficient and expensive to implement. These groups believe that such practices tend to reduce participation of smaller neighborhood stores, which in turn affects WIC participants' accessibility to WIC-authorized stores. The associations also do not like price ceilings, which they claim are unfair to small retailers whose cost structures are higher, and least-expensive brand policies, which they claim confuse store clerks and WIC customers.

---

According to the rule, a State WIC agency “may now convert food funds to NSA funds based on projected increases in participation instead of just actual participation increases. The NSA expenditure standard was reduced to 10 percent to improve accountability for the new conversion authority and to prevent this expanded conversion authority from being used to substantially shift food money to NSA spending without increased cost containment savings and participation.”

## Section 2

### Cost-Containment Practices

State WIC agencies use several different approaches to control the costs of WIC food packages. One approach is to reduce the prices WIC participants pay for food items by selecting lower-priced stores for vendor authorization. Another approach is to reduce the unit price of food purchases by restricting the brands or the product packaging allowed for purchase with WIC food instruments. A third approach is to enter into agreements with specific manufacturers to negotiate a lower unit price for certain food items.

Some State WIC agencies use all three types of cost-containment practices; others use only one or two; very few States use none. Furthermore, within each type of cost-containment practice, there is variation in the scope and restrictiveness of the practice; for example, food item restrictions and rebates may be used to reduce food costs in one or more categories of food. This section documents what has been learned about the cost-containment practices being used by State WIC agencies.

### Vendor Selection Practices

As stated in Food and Nutrition Service (FNS) regulations, the following principle governs the authorization of WIC vendors:

The State agency shall authorize an appropriate number and distribution of food vendors in order to assure adequate participant convenience and access and to assure that State or local officials can effectively manage review of authorized food vendors in their jurisdiction.<sup>2</sup>

Thus, States must balance the goal of adequate participant access with the goal of adequate oversight. The regulations recognize this trade-off by allowing, but not mandating, States to establish criteria to limit the number of vendors. State WIC agencies restrict the number of vendors by placing numeric limits on the number of authorized vendors. Vendor limits are defined in terms of an absolute maximum number of authorized vendors (for the whole State or portions of it), or in terms of a maximum ratio of WIC participants to vendors.<sup>3</sup>

Furthermore, States must establish selection criteria for WIC vendors that applicant stores must meet in order to be selected for vendor authorization. Selection criteria include requirements that vendors do not

---

<sup>2</sup> 7 CFR 246.12(e)(2).

<sup>3</sup> According to vendor application materials collected from States for this study, 23 States set a limit on the number of authorized WIC vendors. Eleven States limit the ratio of participants to vendors, two States limit the absolute number of authorized vendors in the State, and nine States specify use of vendor limits but did not specify the mechanism for setting the limit.

exceed maximum price limits, that they meet requirements for competitive pricing and stock a minimum variety and quantity of supplemental foods, and that they meet certain business integrity requirements.<sup>4</sup>

### **Competitive Pricing**

The principal vendor selection criterion used for cost-containment purposes is a competitive pricing standard to select lower-priced vendors. States with a competitive pricing criterion require that vendors charge a “fair and competitive price.” States differ in defining the fair and competitive price and whether they use a competitive pricing criterion at application or in evaluating redemptions.

Exhibit 1 presents information on the use of competitive pricing standards, based on information from vendor application materials and vendor handbooks collected for this study from all States using retail food delivery systems. For the purpose of the current study, the contractor identified whether competitive pricing is used at application and, if so, the relative stringency of the criterion.

Exhibit 1 shows that almost all States with retail delivery systems use competitive pricing at application. The relative stringency of competitive pricing criterion is shown in the classification of States as “highly-restrictive” or “less-restrictive” in Exhibit 1 (last column). States requiring that applicants’ prices be lower than 110 percent of existing vendors’ average prices were classified as having a “highly-restrictive” criterion. States with a threshold greater than 110 percent were classified as having a “less-restrictive” criterion. Twenty of the 45 States using competitive pricing use the 110 percent, highly-restrictive threshold; they are shown in the last column with an “H.” Those States using a less-restrictive threshold (and those for whom the threshold could not be determined) are shown with an “L.”

Competitive pricing policies identify States that seek to contain WIC food costs by selecting lower-priced stores for vendor authorization. It is apparent from Exhibit 1, however, that the precise details of competitive pricing criteria could not be discerned for all States. Moreover, vendor selection practices that are comparable across States may nonetheless result in different levels of participant access to vendors, depending on the precise details of implementation and the grocery retailing environment in each State.

### **Ratio of WIC Vendors to FSP Vendors**

To compare the effective levels of participant access to WIC vendors across States, the number of WIC vendors in each State was tabulated and compared to the number of FSP-authorized retailers. The FSP data are used to create a comparable measure across States. The ratio of the number of WIC vendors to the number of FSP-authorized retailers indicates the effective restrictiveness of WIC vendor policies. The higher this ratio, the greater the number of retailers participating in WIC and the less restrictive the State’s WIC vendor selection policy; States with more restrictive policies have lower ratios.

---

<sup>4</sup> Other selection criteria, which are used less frequently, include minimum days and hours of operation, minimum store size or total food sales volume, and minimum distance from the nearest authorized WIC vendor.

---

**Exhibit 1****Use of competitive pricing for vendor selection**

---

| <b>State</b>                   | <b>State uses competitive pricing</b> | <b>Competitive pricing criterion<sup>a</sup></b> | <b>Stringency of criterion<sup>b</sup></b> |
|--------------------------------|---------------------------------------|--|--|
| <b>Northeast</b>               |                                       |  |  |
| Connecticut                    | ✓                                     | Prices < avg + NS%                               | L  |
| Maine                          | ✓                                     | Prices < avg + 10%                               | H  |
| Massachusetts                  | ✓                                     | No*  | H  |
| New Hampshire                  | ✓                                     | Prices < avg + NS%                               | L  |
| New York                       | ✓                                     | Prices < avg + 10%                               | H  |
| Rhode Island                   | ✓                                     | Prices < avg + NS%                               | L  |
| Vermont (home delivery)        |                                       |  |  |
| <b>Mid-Atlantic</b>            |                                       |  |  |
| Delaware (price-bid contracts) |                                       |  |  |
| District of Columbia           | ✓                                     | Prices < avg + NS%                               | L  |
| Maryland                       | ✓                                     | Prices < avg + 25%                               | L  |
| New Jersey                     | ✓                                     | Prices < avg + NS%                               | L  |
| Pennsylvania                   | ✓                                     | Prices < max allowed                             | L  |
| Virginia                       | ✓                                     | If vendor limit reached                          | L  |
| West Virginia                  | ✓                                     | Prices < avg + 10%                               | H  |
| <b>Southeast</b>               |                                       |  |  |
| Alabama                        | ✓                                     | Prices < avg + NS%                               | L  |
| Florida                        | ✓                                     | Prices < avg + NS%                               | L  |
| Georgia                        | ✓                                     | Prices < avg + 10%                               | H  |
| Kentucky                       | ✓                                     | Prices < avg + 10%                               | H  |
| Mississippi (home delivery)    |                                       |  |  |
| North Carolina                 |                                       |  |  |
| South Carolina                 | ✓                                     | Prices < avg + NS%                               | L  |
| Tennessee                      | ✓                                     | Prices < avg + 10%                               | H  |
| <b>Midwest</b>                 |                                       |  |  |
| Illinois                       | ✓                                     | Prices < avg + 5%                                | H  |
| Indiana                        | ✓                                     | Prices < avg + 10%                               | H  |
| Michigan                       | ✓                                     | Prices < avg + NS%                               | L  |
| Minnesota                      | ✓                                     | Prices < avg + 20%                               | L  |
| Ohio                           | ✓                                     | If vendor limit reached                          | L  |
| Wisconsin                      | ✓                                     | Prices < avg + 15%                               | L  |
| <b>Mountain Plains</b>         |                                       |  |  |
| Colorado                       | ✓                                     | Prices < avg + 10%                               | H  |
| Iowa                           | ✓                                     | Prices < avg + 5%                                | H  |
| Kansas                         | ✓                                     | Prices < avg + NS%                               | L  |
| Missouri                       | ✓                                     | Prices < avg + 10%                               | H  |
| Montana                        | ✓                                     | Prices < avg + NS% **                            | L  |
| Nebraska                       | ✓                                     | Prices < avg + 10%                               | H  |
| North Dakota                   |                                       |  |  |
| South Dakota                   | ✓                                     | Prices < avg + 15%                               | L  |
| Utah                           | ✓                                     | Prices < avg + 5%                                | H  |
| Wyoming                        | ✓                                     | Prices < avg + 15%                               | L  |
| <b>Southwest</b>               |                                       |  |  |
| Arkansas                       | ✓                                     | Prices < avg + 10%                               | H  |
| Louisiana                      | ✓                                     | Prices < avg + 10%                               | H  |
| New Mexico                     | ✓                                     | Prices < avg + 10%                               | H  |
| Oklahoma                       | ✓                                     | Prices < avg + 5% **                             | H  |
| Texas                          | ✓                                     | Prices < avg + 8%                                | H  |

---

**Exhibit 1****Use of competitive pricing for vendor selection**

---

| State          | State uses competitive pricing | Competitive pricing criterion <sup>a</sup> | Stringency of criterion <sup>b</sup> |
|----------------|--------------------------------|--|--------------------------------------|
| <b>Western</b> |                                |  |                                      |
| Alaska         | ✓                              | Prices < avg + NS %                        | L                                    |
| Arizona        | ✓                              | Prices < avg + 30%                         | L                                    |
| California     | ✓                              | Prices < avg + NS %                        | L                                    |
| Hawaii         | ✓                              | Prices < avg + 30%                         | L                                    |
| Idaho          | ✓                              | Prices < avg + 25%                         | L                                    |
| Nevada         | ✓                              | Prices < avg + 5%                          | H                                    |
| Oregon         |                                |  |                                      |
| Washington     | ✓                              | Prices < avg + 20%                         | L                                    |
| <b>Total</b>   | <b>45</b>                      |  | <b>H: 20/L: 25</b>                   |

---

a "Price < avg + NS %" denotes that State uses competitive pricing at application, but vendor materials do not specify the terms of the competitive pricing scheme.

b States with limits of 10 percent or less above average prices are rated as "H—highly restrictive" States; other States using prices for selection are rated as "L—Less-restrictive" States.

\* Massachusetts does not reject applicants based on prices, but the State informs applicants if prices are above average and likely to incur penalties. The effect of this process is considered highly selective.

\*\* Montana vendor selection information is from FNS profile; no materials received from State.

\*\*\* Oklahoma uses competitive pricing criteria at reauthorization only.

---

Exhibit 2 presents the number of WIC-authorized vendors, by category, and the ratio of WIC to FSP retailers for three store categories: supermarkets, grocery stores, and all other store types. The last two columns of the exhibit indicate the relative restrictiveness of a State's vendor selection policies according to the ratio.

The ratios in Exhibit 2 have been calculated based on data contained in two databases. The number of FSP-authorized retailers comes from FNS' August 1999 Store Tracking and Redemption Subsystem (STARS), and the number of WIC-authorized vendors comes from FNS' October 1999 The Integrity Profile (TIP) database.

For supermarkets, the ratio of WIC vendors to FSP retailers varies from a low of 0.55 in Ohio to a high of 1.33 in Alaska.<sup>5</sup> The distribution for grocery stores varies from a low of 0.06 in both Hawaii and New Jersey to a high of 0.96 in North Dakota. In many instances, States with a highly-restrictive rating for one ratio have a highly-restrictive rating for both ratios. Similarly, many States have the less-restrictive rating for both ratios.

---

<sup>5</sup> Because the STARS and TIP databases cover different time periods, it is possible for the ratio of WIC vendors to FSP retailers to exceed 1.0.

**Exhibit 2**

**Number of WIC vendors by state and vendor type, and ratio of WIC vendors to FSP stores within vendor category (alphabetical by region)**

| State                  | Number WIC vendors by category <sup>b</sup> |                     |               |          |                 |              |               |                |              |              | Ratio of WIC/FSP retailers |                |              | Level of vendor restrictions <sup>a</sup> |  |
|------------------------|---|---------------------|---------------|----------|-----------------|--------------|---------------|----------------|--------------|--------------|----------------------------|----------------|--------------|---|--|
|                        | Military commissary                         | Direct distribution | Home delivery | Pharmacy | WIC-only stores | Super-market | Grocery store | Other retailer | Type unknown | Super-market | Grocery store              | Other retailer | Super-market | Grocery store                             |  |
|                        | <b>Northeast</b>                            |                     |               |          |                 |              |               |                |              |              |                            |                |              |   |  |
| Connecticut            | 1   |                     |               | 78       |                 | 267          | 257           | 200            | 32           | 0.93         | 0.70                       | 0.35           |              | L   |  |
| Maine                  | 4   |                     |               | 3        |                 | 141          | 124           | 94             | 15           | 1.06         | 0.62                       | 0.08           | L            | L   |  |
| Massachusetts          | 2   |                     |               | 130      |                 | 370          | 171           | 157            | 4            | 0.78         | 0.34                       | 0.09           | H            |   |  |
| New Hampshire          |   |                     |               | 27       |                 | 127          | 28            | 65             | 3            | 0.97         | 0.44                       | 0.15           |              |   |  |
| New York               |   |                     |               | 163      |                 | 1,555        | 2,527         | 342            | 195          | 0.84         | 0.44                       | 0.07           | H            |   |  |
| Rhode Island           |   |                     |               | 4        |                 | 50           | 72            | 60             | 6            | 0.70         | 0.53                       | 0.14           | H            | L   |  |
| <b>Mid-Atlantic</b>    |   |                     |               |          |                 |              |               |                |              |              |                            |                |              |   |  |
| Delaware               | 1   |                     |               | 3        |                 | 47           | 13            | 4              | 2            | 0.64         | 0.18                       | 0.02           | H            | H   |  |
| Dist. of Columbia      | 1   |                     |               | 2        |                 | 20           |               |                | 3            | 0.51         | 0.00                       | 0.00           | H            | H   |  |
| Maryland               | 8   |                     |               | 22       |                 | 430          | 41            | 25             | 50           | 0.81         | 0.07                       | 0.02           | H            | H   |  |
| New Jersey             | 2   |                     |               | 33       |                 | 430          | 96            | 12             | 32           | 0.63         | 0.06                       | 0.01           | H            | H   |  |
| Pennsylvania           |   |                     |               |          |                 | 957          | 289           | 78             | 45           | 0.76         | 0.14                       | 0.02           | H            | H   |  |
| Virginia               | 13  |                     |               | 9        | 2               | 797          | 173           | 92             | 33           | 0.96         | 0.27                       | 0.04           |              | H   |  |
| West Virginia          |   |                     |               | 15       |                 | 274          | 136           | 88             | 21           | 0.98         | 0.31                       | 0.06           |              |   |  |
| <b>Southeast</b>       |   |                     |               |          |                 |              |               |                |              |              |                            |                |              |   |  |
| Alabama                |   |                     |               |          |                 | 671          | 170           | 129            | 14           | 1.01         | 0.43                       | 0.07           | L            |   |  |
| Florida                | 12  |                     |               | 6        | 45              | 1,450        | 227           | 101            | 42           | 0.93         | 0.20                       | 0.02           |              | H   |  |
| Georgia                | 12  |                     |               | 155      |                 | 915          | 333           | 135            | 153          | 0.94         | 0.42                       | 0.05           |              |   |  |
| Kentucky               | 2   |                     |               | 78       |                 | 565          | 389           | 294            | 32           | 0.90         | 0.44                       | 0.13           | H            |   |  |
| North Carolina         | 6   |                     |               | 126      | 2               | 1,134        | 305           | 452            | 153          | 1.01         | 0.62                       | 0.17           | L            | L   |  |
| South Carolina         | 7   |                     |               | 116      |                 | 607          | 97            | 58             | 30           | 1.03         | 0.32                       | 0.04           | L            |   |  |
| Tennessee              | 1   |                     |               | 92       | 2               | 734          | 284           | 131            | 43           | 0.98         | 0.32                       | 0.06           |              |   |  |
| <b>Midwest</b>         |   |                     |               |          |                 |              |               |                |              |              |                            |                |              |   |  |
| Illinois               |   | 13                  |               |          |                 | 857          | 414           | 323            | 161          | 0.74         | 0.24                       | 0.14           | H            | H   |  |
| Indiana                |   | 2                   |               | 95       |                 | 569          | 102           | 9              | 17           | 0.83         | 0.22                       | 0.01           | H            | H   |  |
| Michigan               |   |                     |               | 50       |                 | 977          | 383           | 310            | 42           | 1.02         | 0.41                       | 0.09           | L            |   |  |
| Minnesota              |   |                     | 10            | 156      |                 | 433          | 285           | 310            | 33           | 1.06         | 0.73                       | 0.17           | L            | L   |  |
| Ohio                   |   |                     | 2             | 170      |                 | 675          | 248           | 120            | 41           | 0.55         | 0.20                       | 0.04           | H            | H   |  |
| Wisconsin              | 2   |                     |               | 130      |                 | 595          | 316           | 103            | 34           | 1.01         | 0.69                       | 0.09           | L            | L   |  |
| <b>Mountain Plains</b> |   |                     |               |          |                 |              |               |                |              |              |                            |                |              |   |  |
| Colorado               | 4   |                     |               | 12       |                 | 311          | 66            | 5              | 5            | 0.87         | 0.31                       | 0.01           | H            |   |  |
| Iowa                   |   |                     |               | 114      |                 | 349          | 270           | 30             | 15           | 1.00         | 0.85                       | 0.03           | L            | L   |  |
| Kansas                 | 3   |                     |               | 10       |                 | 262          | 88            | 2              | 2            | 0.77         | 0.44                       | 0.00           | H            |   |  |
| Missouri               | 2   |                     |               | 31       |                 | 601          | 134           | 39             | 5            | 0.86         | 0.33                       | 0.02           | H            |   |  |
| Montana                | 1   |                     | 17            | 7        |                 | 139          | 99            | 46             | 4            | 1.03         | 0.68                       | 0.10           | L            | L   |  |
| Nebraska               | 1   |                     |               | 40       |                 | 184          | 196           | 13             | 5            | 0.99         | 0.74                       | 0.03           |              | L   |  |
| North Dakota           | 1   |                     | 3             | 19       |                 | 98           | 124           | 16             | 8            | 0.98         | 0.96                       | 0.06           |              | L   |  |
| South Dakota           | 1   |                     |               |          |                 | 104          | 151           | 21             | 13           | 1.13         | 0.89                       | 0.08           | L            | L   |  |
| Utah                   | 2   |                     | 3             | 23       | 1               | 204          | 56            | 26             | 6            | 1.03         | 0.53                       | 0.07           | L            | L   |  |
| Wyoming                |   |                     |               | 4        |                 | 66           | 20            | 3              | 8            | 0.97         | 0.56                       | 0.02           |              | L   |  |

**Exhibit 2 (cont.)**

**Number of WIC vendors by state and vendor type, and ratio of WIC vendors to FSP stores within vendor category (alphabetical by region)**

| State      | Number WIC vendors by category <sup>b</sup> |                     |               |          |                 |              |               |                |              |              | Ratio of WIC/ FSP retailers |                |              | Level of vendor restrictions |  |
|------------|---|---------------------|---------------|----------|-----------------|--------------|---------------|----------------|--------------|--------------|-----------------------------|----------------|--------------|------------------------------|--|
|            | Military commissary                         | Direct distribution | Home delivery | Pharmacy | WIC-only stores | Super-market | Grocery store | Other retailer | Type unknown | Super-market | Grocery store               | Other retailer | Super-market | Grocery store                |  |
|            | Southwest                                   |                     |               |          |                 |              |               |                |              |              |                             |                |              |                              |  |
| Arkansas   | 1   | 1                   |               | 1        | 3               | 365          | 175           | 18             | 9            | 1.02         | 0.34                        | 0.02           | L            |                              |  |
| Louisiana  | 3   |                     |               |          | 4               | 518          | 302           | 115            | 12           | 0.95         | 0.32                        | 0.06           |              |                              |  |
| New Mexico | 2   |                     |               | 8        | 3               | 182          | 58            | 29             | 2            | 0.98         | 0.38                        | 0.04           |              |                              |  |
| Oklahoma   | 4   |                     |               | 31       | 5               | 387          | 134           | 17             | 5            | 1.04         | 0.44                        | 0.01           | L            |                              |  |
| Texas      | 14  |                     |               | 32       | 87              | 1,928        | 248           | 218            | 77           | 1.01         | 0.13                        | 0.03           | L            | H                            |  |
| Western    |   |                     |               |          |                 |              |               |                |              |              |                             |                |              |                              |  |
| Alaska     | 6   |                     |               | 1        |                 | 65           | 29            | 97             | 5            | 1.33         | 0.31                        | 0.29           | L            |                              |  |
| Arizona    | 1   |                     |               | 4        |                 | 437          | 64            | 18             | 6            | 0.97         | 0.24                        | 0.01           |              | H                            |  |
| California |   |                     |               | 5        | 153             | 2,595        | 647           | 268            | 109          | 0.89         | 0.14                        | 0.03           | H            | H                            |  |
| Hawaii     | 6   |                     |               |          |                 | 107          | 11            | 8              |              | 0.91         | 0.06                        | 0.01           |              | H                            |  |
| Idaho      | 1   | 4                   | 2             | 6        |                 | 158          | 92            | 14             | 3            | 1.02         | 0.73                        | 0.06           | L            | L                            |  |
| Nevada     | 2   |                     |               |          |                 | 131          | 9             | 14             | 1            | 0.99         | 0.09                        | 0.04           |              | H                            |  |
| Oregon     |   |                     |               | 7        |                 | 376          | 98            | 29             | 98           | 0.90         | 0.28                        | 0.03           | H            | H                            |  |
| Washington | 6   |                     |               | 2        |                 | 632          | 91            | 31             | 33           | 0.95         | 0.21                        | 0.02           |              | H                            |  |

a An “H” indicates a highly-restrictive policy in authorizing WIC vendors, with “highly restrictive” defined as having a ratio that falls in the lowest one-third of the distribution of ratio values. Those States whose ratios are in the top one-third of the distribution are labeled as “L,” or having less-restrictive policies. States with neither an “H” nor an “L” have ratios falling in the middle one-third of the distribution.

b WIC retailers are categorized as “supermarket,” “grocery store,” or “other retailer” based on a match of the TIP and STARS databases. Vermont and Mississippi are excluded from the exhibit because they use home delivery of WIC food items.

Source: WIC vendors: USDA, Food and Nutrition Service, *The Integrity Profile (TIP) Database*, October 1999.

Food stamp retailers: USDA, Food and Nutrition Service, *Store Tracking and Redemption Subsystem (STARS)*, August 1999.

For the purpose of this study, we use the vendor ratios presented in Exhibit 2 as a consistent measure of the restrictiveness of vendor selection across States. It should be noted, however, that we cannot—with complete certainty—attribute all differences in vendor ratios across States to the competitive pricing criteria implemented for cost-containment purposes. Other vendor selection policies, unrelated to cost containment (such as numeric limits and minimum standards), restrict the number of vendors to a level that can be effectively managed by State agencies and ensure that vendors meet standards to adequately provide program benefits. These vendor selection policies also may contribute to variation in ratios across States.<sup>6</sup>

<sup>6</sup> All States with numeric limits also have competitive pricing criteria. Discussions with FNS regional staff, confirmed by comparison of numeric limits with actual numbers of vendors, suggest that numeric limits are rarely binding on a statewide basis, although they may be binding in certain areas within a State.

## Item Selection Practices

Federal regulations define standard food packages for seven categories of WIC participants: (I) infants 0 through 3 months; (II) infants 4 through 12 months; (III) children and women with special dietary needs; (IV) children 1 to 5 years; (V) pregnant and breastfeeding women (basic); (VI) non-breastfeeding post-partum women; and (VII) breastfeeding women (enhanced).<sup>7</sup> The regulations specify the types of foods in each package and the maximum quantities of each food that may be prescribed.

For participants receiving packages I, II and III, the purchase of infant formula, or medically-prescribed formula, is the principal food expense. Food packages II and III also contain breakfast cereal and juice. Food packages IV through VII each contain four major food groups: milk or cheese, eggs, breakfast cereal, and juice. In addition, packages IV and V contain legumes (peanut butter or dry beans), and package VII contains legumes, canned tuna fish, and carrots.<sup>8</sup>

Within the guidelines provided by the Federal regulations, States establish more specific policies for the quantities of foods prescribed to participants. By FNS policy, food quantities must not be reduced for cost-saving reasons, but States may tailor food packages to reduce quantities of foods for individual participants, or categories of participants, based on their nutritional needs, to accommodate participant preferences or intolerances, and to accommodate household conditions. States, however, are encouraged by FNS to consider cost as well as nutritional impacts when determining the allowable types and forms of foods in each food group. The flexibility to make “administrative adjustments” to allowable packaging and brands of foods is an important tool for controlling WIC costs.<sup>9</sup>

State WIC agencies implement the Federal regulations by assembling a list of “WIC-approved foods” that satisfy both the Federal regulations and the selection criteria of the State. Detailed State selection criteria are not always codified in State plans, but selection is generally based on:

- item availability within the State
- participant preferences
- per-unit cost, and
- nutrient content (a few States specify criteria more stringent than Federal regulations).

States review and revise their WIC-approved food list annually or biennially to add new food items, drop discontinued food items, or implement new selection criteria.

Cost-containment item restrictions limit WIC participants’ choice of the food items that may be purchased within the prescribed food package. WIC food lists collected from the States indicate four main methods by which item selection is limited:

- “least expensive brand” policies

---

7 7 CFR 246.10.

8 Food packages IV through VI provide either milk or cheese or a combination of the two; package VII provides specific quantities of both milk and cheese.

9 Final WIC Policy Memorandum #97-7, May 1997.



- limits on package size
- limits on product types and forms, and
- limits on the number of approved brands.

These item restriction policies are summarized in Exhibit 3, as is the related use of manufacturer rebates.<sup>10</sup>

Different methods of cost containment are applied to the different groups of WIC foods (milk, cheese, eggs, peanut butter, cereal, juice). For the most part, States use some strategies for the “dairy” items (milk, cheese, and eggs), but use different strategies for “branded” items (cereal, juice and, peanut butter). These differences in strategies arise because participants are more likely to have stronger choice preferences among branded items than among dairy items.

Different brands of milk, cheese, and eggs are not highly-differentiated in terms of ingredients, nutrient content, and product quality. As a result, limits on product choice within these food categories may not adversely affect participant satisfaction with WIC purchases. The cost-containment practices most often observed within the dairy food groups are “least-expensive-brand” policies, limits on package sizes, and limits on package form.

Breakfast cereal, juice, and peanut butter are branded grocery items. These products may be highly-differentiated in terms of ingredients, nutrient content, or product quality. All State WIC-approved food lists include specific enumeration of allowable brands and flavors of breakfast cereal and juices; most States allow purchase of any brand of peanut butter.

The next sections describe the specific ways in which item restrictions are implemented on State WIC-approved food lists.

### **Least-Expensive Brand Requirements**

As noted in Exhibit 3, State agencies with a least-expensive-brand policy specify on the WIC-approved food list that participants “must buy least expensive brand” for one or more particular food groups. Details of exactly what this means vary slightly from State to State. Variants of the least-expensive-brand policy include:

- |                                 |  |
|---------------------------------|--|
| Current lowest price:           | Within a food group, participants must select the brand that is least expensive at the time of purchase.       |
| Traditionally least expensive:  | Within a food group, items chosen for the food list are those that have traditionally been least expensive.    |
| Store brand or least expensive: | Within a food group, participants are required to purchase either the store brand or the least expensive item. |

---

<sup>10</sup> Some States (e.g., Missouri) receive grants from a juice manufacturer based on total sales of the manufacturer’s juices, without having any formal agreement. In the Northeast region, the State agencies receive compensation to offset the effects of the region’s dairy compact on wholesale prices. These arrangements are not considered in this study, because they have no impact on participants’ choice of WIC foods.

**Exhibit 3****Types of item restriction cost-containment practices**

| <b>Type of practice</b>       | <b>Definition</b>   | <b>Examples</b>  |
|-------------------------------|---|--|
| Require least expensive brand | Food list specifically states "must buy least-expensive brand." Policy is most often used for "commodity items": milk, cheese, eggs. The most common statements of this policy, appearing on food lists, are listed at right. | "Least expensive is defined as the least-expensive brand on the shelf at the time of purchase." (AR, FL, KS, NM)<br>"Least expensive brand in the category of the participant's choice." (LA, ME)<br>"Store brand/least expensive." (CT, NH)<br>"Generic or store brand if available." (CO)<br>"Must buy least cost brand." (CA, OK)<br>"Least expensive brand." No further guidance. (GA, IL, MA, NV, NC, TX, UT, VA) |
| Limit package size            | Food list specifies minimum allowable package sizes. Goal is to limit choice to products with low unit cost or to prohibit package sizes that would preclude purchase of full food prescription.                              | Milk: restrict to 1/2 gallon or gallon size<br>Cheese: restrict to 8 oz. size or larger<br>Eggs: restrict to dozen per package<br>Frozen juice: restrict to 12 oz. size<br>Peanut butter: restrict to 18 oz. jar<br>Cereal: restrict to 9 oz. size or larger   |
| Limit types and product forms | Food list specifies certain product forms as prohibited, or lists certain allowable product forms. Goal is to limit choice to products with low unit cost.  | Cheese: prohibit string, shredded, grated, whips, spreads, "cheese foods"<br>Eggs: limit to "large white" eggs<br>"Shelf juice": prohibit liquid concentrates<br>Peanut butter: prohibit organic, low-fat, added jelly, or added honey<br>Infant cereal: prohibit cereal with fruit  |
| Limit brands                  | Food list contains a subset of available foods meeting Federal WIC nutrient requirements. Goal is to limit choice to products with low unit cost, and/or keep the list of items "manageable."                                 | Juice: limit number of national brands listed in each flavor category<br>Cereal: limit number of national brands and/or the number of products for each national manufacturer  |
| Manufacturer rebates          | Contracts negotiated between State WIC agencies and manufacturers, specifying rebate amount on items purchased with WIC vouchers. State WIC-Approved Food List limits choice to rebate item within food category.             | States have current contracts for infant cereal and infant juice   |

States often adopt a “traditionally least expensive” approach because of the difficulties of implementing a food list with a lowest price policy. Whereas the “current lowest price policy” places the burden on participants and vendors to determine the lowest price item at the time of purchase, the traditionally least-expensive approach allows the State to enumerate specific items on the food list. The “store brand or least expensive” approach is also adopted as an alternative to the lowest price policy approach, to allow for the purchase of name brand items when name brands are on sale, or when use of a coupon makes the name brand less expensive than the store brand.

### **Limits on Package Sizes**

Choice of package size is generally limited for one of two reasons. The primary reason is to reduce food cost: larger packages generally have lower unit prices. Package size also is limited sometimes to ensure that the entire food prescription is purchased.<sup>11</sup>

When setting package size restrictions, States take into account the circumstances of participants and retailers. States with many small retailers (either in older cities or in rural areas) may have to be more flexible, because smaller retailers do not carry as many different sizes as larger supermarkets. Some States choose to take an educational approach rather than a regulatory one: they stress the lower unit cost of larger packages in nutrition education.

### **Limits on Product Types and Forms**

Some food lists prohibit certain product forms within a product group (e.g., string, shredded or grated cheese) or indicate allowable product forms (e.g., large white eggs). In either case, the goal is to limit choice to products with low unit prices, thereby cutting the total cost of the food package.

### **Limits on Branded Items**

As previously stated, peanut butter, breakfast cereal, and juice are branded grocery items, and these products may be highly differentiated in terms of ingredients, nutrient content, or product quality. Because of this differentiation, all brands within a product category may not meet the Federal WIC nutrient requirements. The primary purpose of State WIC-approved food lists is to enumerate products that meet WIC nutrient requirements; a secondary purpose is to enumerate products that meet State criteria for cost savings.

All peanut butter brands meet Federal WIC requirements for nutrient content, except product forms containing added jelly, honey, or other sweetener. As a result, most WIC States approve all peanut butter brands for WIC purchase, but exclude some types of peanut butter from WIC approval based on product form (e.g., organic/natural peanut butter, added sweetener). Some States also limit peanut butter purchases based on product size, restricting purchases to 18-ounce jars. As noted above, however, the product size restriction is most likely motivated by the desire to have WIC participants purchase the full food prescription.

---

11 For example, Federal WIC food package regulations stipulate 18 ounces of peanut butter per month. Most States require purchase of peanut butter in 18-ounce jars. This package size requirement is likely due to the fact that purchase of 12- or 16-ounce jars of peanut butter cannot be supplemented with purchases of 6- or 2-ounce jars (because peanut butter is not available in these sizes). Therefore, only purchase of an 18-ounce jar represents full food package consumption.

Only six States restrict peanut butter purchases for cost containment; these States require the least-expensive brand of peanut butter. As noted above, the meaning of this requirement varies from State to State, so it is not clear whether some or all of these States effectively require the purchase of store-brand peanut butter, which would usually be the least-expensive brand. A few States, such as Texas, experimented with requiring store brands for peanut butter but then withdrew these requirements, citing participant dissatisfaction and reduced consumption of peanut butter.<sup>12</sup>

Within the cereal and juice categories, there is a wide range of choice available in a typical supermarket, but only subsets of all manufactured cereals and juices meet the Federal WIC nutrient requirements. Within those subsets, each State WIC agency selects items eligible for WIC purchase within their State and enumerates specific products (brand and flavor) on their WIC-approved food list.

There is considerable variation across States in the number of breakfast cereals and juices enumerated on the food lists. Some variation in the number of branded items appears to be due to the time and effort required to update the lists. States must annually review the nutrient content of items on their WIC-approved food list. By limiting the number of items on the food list, a State conserves costs of reviewing current items, approving newly-available items, and disseminating the changes to local agencies, participants, and vendors. Competing priorities for program managers also may lead some States to lag behind others in responding to the introduction of new brands in the marketplace.

Many of the State limits on branded food items, however, are clearly for cost-containment reasons. When item restrictions are used for cost-containment purposes, the restrictions typically limit participants to items with low unit cost. For example, containment of food costs is clearly the motive when WIC agencies require purchase of store brands, or place limits on package size.<sup>13</sup> These two types of restrictions are directly observable on State WIC-approved food lists. (Some States use a per-unit price cutoff when approving items for their food list, but the actual price cutoffs are generally not documented in State publications.)

In addition to restricting food lists to low-cost brands, WIC agencies are increasingly aware of the cost-reducing advantages of adding store brands to their food lists. Both FNS and industry sources indicate that numerous States have opened up their food lists to increasing numbers of store brands in recent years, responding to the increasing availability and popularity of these alternatives to national brands. Because State agencies often track the food lists of neighboring States, this change has tended to spread on a regional basis.

### **Summary of Item Restrictions**

The item restrictions observed on State WIC-approved food lists are summarized in Exhibit 4. For this exhibit, and in the subsequent discussion, the focus is on the main categories of food that account for most WIC purchases, e.g., fluid milk as opposed to evaporated, dry, or lactose-free milk; peanut butter as opposed to beans/peas. The first three columns of Exhibit 4 contain indicators of the presence of least-expensive brand policies, store brand requirements, and product size restrictions, respectively. In each of

---

12 Interview with Texas WIC director conducted on February 27, 1997 by Peter Bramble and Leigh White, U.S. General Accounting Office.

13 Except, as noted above, for peanut butter.

these columns, food groups are denoted by abbreviation (e.g., “m” stands for milk, “c” for cheese, “e” for eggs, and so on, as defined in the footnote to the exhibit).

Under “Range of Choice,” Exhibit 4 indicates whether the range of choice is “narrow” or “broad” for branded food items. States are classified as either narrow or broad choice based on the number of national-brand breakfast cereals and national-brand juices on the State food list. States with a number of items in the top quartile are classified as broad choice; States with a number of items in the bottom quartile are classified as narrow choice. For example, approximately one-fourth of all States allow 22 or fewer juice choices for WIC purchase, and approximately one-fourth of States allow 13 or fewer national brands of cold breakfast cereals. These States are classified as narrow-choice States in Exhibit 4. Conversely, States allowing the highest number of choices (in the top quartile) are classified as broad-choice States.

Regardless of the specific form of a food item restriction, these restrictions may affect participants’ satisfaction with the WIC program in a number of different ways. First, to the extent that preferred brands are eliminated from the State’s approved food list, participants may consume less of that product than they would in the absence of cost-containment practices. Second, the shopping experience itself may become more difficult as participants spend more time looking for the appropriate brands or packaging or trying to determine which item is least expensive within a food group. This may be a particular problem for WIC participants on special diets or with food allergies, requiring them to spend time investigating ingredient labels of new products or calling product manufacturers to determine whether specific ingredients are present in a food item.<sup>14</sup>

Restrictions on brands and packaging could also lead to partial redemption of WIC food instruments if allowed items are too difficult to find or pose dietary or allergy problems. It is also possible that these restrictions could lead to reduced consumption of nutritious foods. In the extreme, some participants might decide to leave the program if their dissatisfaction with allowed food items became great. Any reduction in consumption of nutritious foods or WIC participation would counter the program’s goal of providing nutritious foods to supplement the diets of low-income women, infants and children.

## **Manufacturer Rebates**

Manufacturer rebates are the third type of cost-containment practice to be examined by this study. WIC state agencies competitively solicit sole-source rebate contracts for a particular food item, for example, infant cereal. In exchange for a rebate for each unit of food purchased, the State agency issues only the contracted food item to participants. For example, a State having a rebate agreement with Gerber for infant cereal approves only the Gerber brand for WIC purchases of infant cereal. Thus, from the WIC client’s view, a manufacturer’s rebate appears as an item restriction.

---

<sup>14</sup> For those WIC participants with medically documented food allergies, the WIC program offers tailored food packages to avoid problems with some food allergens. The WIC program also attempts to alleviate potential problems with food allergies and special diets through nutrition education and counseling.

**Exhibit 4****Item cost-containment practices (alphabetical by region)**

| State                            | Least expensive brand <sup>a</sup> | Require store brands | Restrict product size <sup>a,b</sup> | Range of choice |                           | Rebates on foods      |
|----------------------------------|------------------------------------|----------------------|--------------------------------------|-----------------|---------------------------|-----------------------|
|                                  |                                    |                      |                                      | Cold cereals    | Adult juices <sup>c</sup> |                       |
| <b>Northeast</b>                 |                                    |                      |                                      |                 |                           |                       |
| Connecticut                      | m,c,e,j,pb                         |                      | cer, fj                              |                 |                           | Gerber (cereal)       |
| Maine                            | j                                  |                      | cer, fj                              | Narrow          |                           |                       |
| Massachusetts                    | m                                  |                      | cer,fj                               | Broad           |                           |                       |
| New Hampshire                    | m,e,pb                             |                      | m,fj                                 |                 |                           |                       |
| New York                         |                                    |                      | m,cer,fj                             | Narrow          |                           | Gerber (cereal)       |
| Rhode Island (missing food list) |                                    |                      |                                      |                 |                           |                       |
| Vermont (home delivery)          |                                    |                      |                                      |                 |                           |                       |
| <b>Mid-Atlantic</b>              |                                    |                      |                                      |                 |                           |                       |
| Delaware                         |                                    |                      | c                                    | Narrow          | Narrow                    | Gerber (cereal/juice) |
| District of Columbia             |                                    |                      |                                      |                 | Narrow                    | Gerber (cereal/juice) |
| Maryland                         |                                    |                      | m, fj                                |                 | Broad                     | Gerber (cereal/juice) |
| New Jersey                       |                                    |                      | m,cer,fj                             |                 |                           |                       |
| Pennsylvania                     |                                    |                      | cer,fj                               |                 |                           |                       |
| Virginia                         | m                                  |                      | m,fj                                 |                 |                           |                       |
| West Virginia                    |                                    |                      | fj                                   |                 |                           | Gerber (cereal/juice) |
| <b>Southeast</b>                 |                                    |                      |                                      |                 |                           |                       |
| Alabama                          |                                    |                      | m,fj                                 |                 |                           |                       |
| Florida                          | m,e,j                              |                      | m,cer                                |                 | <i>Narrow</i>             |                       |
| Georgia                          | e,j                                |                      | m,c,cer                              |                 |                           |                       |
| Kentucky                         |                                    |                      | fj                                   |                 |                           |                       |
| Mississippi (home delivery)      |                                    |                      |                                      |                 |                           |                       |
| North Carolina                   | m                                  |                      | cer,fj                               |                 | Broad                     |                       |
| South Carolina                   |                                    |                      | fj                                   |                 | Broad                     |                       |
| Tennessee                        |                                    |                      | m,cer,fj                             | Broad           | Broad                     |                       |
| <b>Midwest</b>                   |                                    |                      |                                      |                 |                           |                       |
| Illinois                         | m,c                                |                      | m,fj                                 | Broad           | Broad                     |                       |
| Indiana                          |                                    |                      | m,cer,fj                             |                 |                           | Beechnut (cereal)     |
| Michigan                         |                                    |                      | cer,fj                               |                 | Broad                     |                       |
| Minnesota                        |                                    |                      | m,cer,fj                             | Broad           | Broad                     |                       |
| Ohio                             |                                    |                      | m                                    | Broad           | Broad                     |                       |
| Wisconsin                        |                                    |                      | m,fj                                 | Broad           | Broad                     |                       |
| <b>Mountain Plains</b>           |                                    |                      |                                      |                 |                           |                       |
| Colorado                         |                                    | m,c,e                | c,fj                                 | Broad           |                           |                       |
| Iowa                             |                                    |                      | fj                                   | Broad           |                           |                       |
| Kansas                           | m,c,e,j,pb,ic                      |                      | c,cer,fj                             | Narrow          |                           |                       |
| Missouri (missing food list)     |                                    |                      |                                      |                 |                           |                       |
| Montana                          |                                    |                      |                                      | Broad           |                           |                       |
| Nebraska                         |                                    | m                    | fj                                   |                 | Narrow                    |                       |
| North Dakota                     |                                    |                      | m                                    | Broad           |                           |                       |
| South Dakota                     |                                    |                      | cer                                  |                 |                           |                       |
| Utah                             | m,c,e,j,pb                         |                      | fj                                   |                 | Narrow (f)                |                       |
| Wyoming                          |                                    |                      | fj                                   |                 | Narrow (f)                |                       |
| <b>Southwest</b>                 |                                    |                      |                                      |                 |                           |                       |
| Arkansas                         | m,c,e,j                            |                      | c                                    | Broad           |                           |                       |
| Louisiana                        | m                                  |                      | m,c,fj                               | Narrow          |                           |                       |
| New Mexico                       | m,c,e,j,pb                         |                      | cer,fj                               | Narrow          | Narrow (f)                |                       |
| Oklahoma                         | m,c,e                              | cer                  | m,cer,fj                             | Narrow          | Narrow                    |                       |
| Texas                            | m,j                                |                      | m,cer,fj                             | Narrow          | <i>Narrow</i>             | Gerber (cereal)       |

**Exhibit 4 (continued)**

**Item cost-containment practices (alphabetical by region)**

| State          | Least expensive brand <sup>a</sup> | Require store brands | Restrict product size <sup>a,b</sup> | Range of choice |                           | Rebates on foods            |
|----------------|------------------------------------|----------------------|--------------------------------------|-----------------|---------------------------|-----------------------------|
|                |                                    |                      |                                      | Cold cereals    | Adult juices <sup>c</sup> |                             |
| <b>Western</b> |                                    |                      |                                      |                 |                           |                             |
| Alaska         |                                    |                      | fj                                   |                 | Broad                     |                             |
| Arizona        |                                    |                      | fj                                   | Narrow          |                           |                             |
| California     | m                                  |                      | m,c,cer,fj                           | Narrow          | Broad                     | Gerber (cereal);adult juice |
| Hawaii         |                                    |                      | m,cer,fj                             | Narrow          | Narrow                    |                             |
| Idaho          |                                    |                      | fj                                   | Narrow          |                           |                             |
| Nevada         | m,e,pb                             |                      | cer                                  |                 | Narrow                    | Gerber (cereal)             |
| Oregon         |                                    |                      | fj                                   |                 | Narrow                    |                             |
| Washington     |                                    |                      | fj                                   |                 | Broad                     |                             |

a Definitions: m=milk, c=cheese, e=eggs, j=juice, pb=peanut butter, cer=cereal, ic=infant cereal, fj=frozen juice.

b Restrict product size is indicated if minimum size is: 1/2 gallon or gallon for milk; 9 oz. or larger for cheese; larger than 6 oz. of frozen juice; any specified size for cereal. If food list requires "least-expensive or store brand," then only "least expensive" column is checked.

c "Narrow" denotes that least-expensive-brand policy is holding down the number of allowed national brands. Narrow (f) denotes that only frozen juice is allowed.

The presence of manufacturer rebate contracts, across States, is shown in the last column of Exhibit 4. Nine States and the District of Columbia had rebate contracts in place in fall 1999.<sup>15</sup> Nearly all rebate contracts are for infant cereal and infant juice; the exception is California's contracts for adult juice, which expired in January 2000.

<sup>15</sup> As noted earlier, the study does not plan to assess the impacts of infant formula rebates.

## Section 3

### Classification of WIC Agencies and Selection of States

Assessment of the impact of WIC cost-containment practices will be based on case studies of six States. This section describes the criteria used to classify WIC agencies and select States into the study.

#### Criteria for State Selection

To estimate the separate impacts of different types of cost-containment practices on study outcomes, it is necessary to select States for the case studies that represent different combinations of vendor and food-item restrictions described in Section 2. Two types of food-item restrictions—least-expensive policies and limits on the number of allowed brands—were deemed sufficiently important to warrant separate examination. Thus, the study defined the following seven combinations of cost-containment practices:

| Group    | Description  | Number of States |
|----------|--|------------------|
| VR       | Vendor restriction, no severe food item restrictions                 | 7                |
| VR/NC    | Vendor restriction, narrow-choice State                              | 8                |
| VR/LE    | Vendor restriction, least-expensive policy                           | 8                |
| VR/NC-LE | Vendor restriction, least-expensive policy, narrow-choice State      | 5                |
| NC-LE    | No vendor restriction, least-expensive policy or narrow-choice State | 2                |
| M        | Medium vendor restrictions, no severe food item restrictions         | 6                |
| NONE     | No vendor restriction, no severe food item restrictions              | 9                |

The numbers of States within each category are taken from Exhibit 5 on the next page. This exhibit presents summary information about the types of cost-containment practices adopted by each State. All States lacking severe food item restrictions (groups VR, M and NONE) are presented in the top portion of the exhibit. The remaining States are in the lower portion of the exhibit. The exhibit excludes the following States: Delaware, District of Columbia, Mississippi, Missouri, Rhode Island, and Vermont.<sup>16</sup>

Exhibit 5 indicates whether or not competitive pricing is used by each State at vendor application. The exhibit also provides summary information regarding the ratio of WIC to FSP retailers in the State. A State's WIC/FSP ratio for supermarkets is listed as "H" in Exhibit 5 if the ratio is less than 0.93 and "L" if the ratio exceeds 0.99. The grocery store ratio is listed as "H" if the ratio is less than 0.29 and as "L" if the ratio exceeds 0.44. States are considered to have vendor restrictions if they have highly-restrictive (H) competitive pricing, or have highly-restrictive ratios.

<sup>16</sup> Mississippi and Vermont are excluded because they use home delivery systems. Delaware is excluded because it uses a retailer selection practice (price bid contracts) that is not viewed as replicable elsewhere. The District of Columbia is excluded because it contains no rural areas. Finally, Missouri and Rhode Island are excluded because the study was unable to obtain needed information from these two States.



**Exhibit 5**  
**Classification of states**

| Group <sup>a</sup>      | Ratio of WIC/FSP<br>retailers <sup>b</sup> |         | Competitive<br>pricing at<br>application <sup>c</sup> | Item restrictions           |   |  | Range of choice <sup>e</sup> |                 |                     |
|-------------------------|--|---------|---|-----------------------------|---|--|------------------------------|-----------------|---------------------|
|                         | Super-<br>markets                          | Grocers |   | Least<br>expensive<br>brand | Require<br>store<br>brands <sup>d</sup> | Restrict<br>product<br>size <sup>d</sup> | Cold<br>cereals              | Adult<br>juices | Rebates<br>on foods |
| <b>Group "VR"</b>       |  |         |   |                             |   |  |                              |                 |                     |
| Indiana                 | H  | H       | H   |                             |   | m,cer,fj                                 |                              |                 | InfCer              |
| Kentucky                | H  |         | H   |                             |   | fj                                       |                              |                 |                     |
| Maryland                | H  | H       | L   |                             |   | m,fj                                     |                              | Broad           | InfCer&J            |
| Massachusetts           | H  |         | H   | m                           |   | cer,fj                                   | Broad                        |                 |                     |
| New Jersey              | H  | H       | L   |                             |   | m,cer,fj                                 |                              |                 |                     |
| Ohio                    | H  | H       | L   |                             |   | m  | Broad                        | Broad           |                     |
| Pennsylvania            | H  | H       | L   |                             |   | cer,fj                                   |                              |                 |                     |
| <b>Group "M"</b>        |  |         |   |                             |   |  |                              |                 |                     |
| Iowa                    | L  | L       | H   |                             |   | fj                                       | Broad                        |                 |                     |
| North Dakota            |  | L       |   |                             |   | m  | Broad                        |                 |                     |
| Tennessee               |  |         | H   |                             |   | m,cer,fj                                 | Broad                        | Broad           |                     |
| Virginia                |  | H       | L   | m                           |   | m,fj                                     |                              |                 |                     |
| Washington              |  | H       | L   |                             |   | fj                                       |                              | Broad           |                     |
| West Virginia           |  |         | H   |                             |   | fj                                       |                              |                 | InfCer&J            |
| <b>Group "NONE"</b>     |  |         |   |                             |   |  |                              |                 |                     |
| Alabama                 | L  |         | L   |                             |   | m,fj                                     |                              |                 |                     |
| Alaska                  | L  |         | L   |                             |   | fj                                       |                              | Broad           |                     |
| Michigan                | L  |         | L   |                             |   | cer,fj                                   |                              | Broad           |                     |
| Minnesota               | L  | L       | L   |                             |   | m,cer,fj                                 | Broad                        | Broad           |                     |
| Montana                 | L  | L       | L   |                             |   |  | Broad                        |                 |                     |
| North Carolina          | L  | L       |   | m                           |   | cer,fj                                   |                              | Broad           |                     |
| South Carolina          | L  |         | L   |                             |   | fj                                       |                              | Broad           |                     |
| South Dakota            | L  | L       | L   |                             |   | cer                                      |                              |                 |                     |
| Wisconsin               | L  | L       | L   |                             |   | m,fj                                     | Broad                        | Broad           |                     |
| <b>Group "VR/NC"</b>    |  |         |   |                             |   |  |                              |                 |                     |
| Arizona                 |  | H       | L   |                             |   | fj                                       | Narrow                       |                 |                     |
| California              | H  | H       | L   | m                           |   | m,c,cer,fj                               | Narrow                       | Broad           | InfCer;j            |
| Hawaii                  |  | H       | L   |                             |   | m,cer,fj                                 | Narrow                       | Narrow          |                     |
| Louisiana               |  |         | H   | m                           |   | m,c,fj                                   | Narrow                       |                 |                     |
| Nebraska                |  | L       | H   |                             | m                                       | fj                                       |                              | Narrow          |                     |
| New York                | H  |         | H   |                             |   | m,cer,fj                                 | Narrow                       |                 | InfCer              |
| Oregon                  | H  | H       |   |                             |   | fj                                       |                              | Narrow          |                     |
| Wyoming                 |  | L       | L   |                             |   | fj                                       |                              | Narrow(f)       |                     |
| <b>Group "VR/LE"</b>    |  |         |   |                             |   |  |                              |                 |                     |
| Arkansas                | L  |         | H   | m,c,e,j                     |   | c  | Broad                        |                 |                     |
| Colorado                | H  |         | H   |                             | m,c,e                                   | c,fj                                     | Broad                        |                 |                     |
| Connecticut             |  | L       | L   | m,c,e,j,pb                  |   | cer,fj                                   |                              |                 | InfCer              |
| Florida                 |  | H       | L   | m,e,j                       |   | m,cer                                    |                              | Narrow          |                     |
| Georgia                 |  |         | H   | e,j                         |   | m,c,cer                                  |                              |                 |                     |
| Illinois                | H  | H       | H   | m,c                         |   | m,fj                                     | Broad                        | Broad           |                     |
| Nevada                  |  | H       | H   | m,e,j, pb                   |   | cer                                      |                              | Narrow          | InfCer              |
| New Hampshire           |  | L       | L   | m,e,pb                      |   | m,fj                                     |                              |                 |                     |
| <b>Group "VR/NC-LE"</b> |  |         |   |                             |   |  |                              |                 |                     |
| Kansas                  | H  |         | L   | m,c,e,j,pb,ic               |   | c,cer,fj                                 | Narrow                       |                 |                     |
| Maine                   | L  | L       | H   | j                           |   | fj,cer                                   | Narrow                       |                 |                     |
| New Mexico              |  |         | H   | m,c,e,j,pb                  |   | cer,fj                                   | Narrow                       | Narrow(f)       |                     |
| Texas                   | L  | H       | H   | m,j                         |   | m,cer,fj                                 | Narrow                       | Narrow          | InfCer              |
| Utah                    | L  | L       | H   | m,c,e,j,pb                  |   | fj                                       |                              | Narrow(f)       |                     |

**Exhibit 5 (continued)**  
**Classification of states**

| Group <sup>a</sup>   | Ratio of WIC/FSP<br>retailers <sup>b</sup> |         | Competitive<br>pricing at<br>application <sup>c</sup> | Item restrictions           |   |  | Range of choice <sup>e</sup> |                 |                     |
|----------------------|--|---------|---|-----------------------------|---|--|------------------------------|-----------------|---------------------|
|                      | Super-<br>markets                          | Grocers |   | Least<br>expensive<br>brand | Require<br>store<br>brands <sup>d</sup> | Restrict<br>product<br>size <sup>d</sup> | Cold<br>cereals              | Adult<br>juices | Rebates<br>on foods |
| <b>Group "NC-LE"</b> |  |         |   |                             |   |  |                              |                 |                     |
| Oklahoma             | L  |         | H   | m,c,e                       | cer                                     | m,cer,fj                                 | Narrow                       | Narrow          |                     |
| Idaho                | L  | L       | L   |                             |   | fj                                       | Narrow                       |                 |                     |

- a "VR" denotes vendor restrictions in place; "NC" indicates a narrow-choice State; "LE" indicates a least-expensive State.
- b An "H" indicates a highly-restrictive policy in authorizing WIC vendors, with "highly restrictive" defined as having a ratio that falls in the lowest one-third of the distribution of ratio values. Those States whose ratios are in the top one-third of the distribution are labeled as "L," or having less-restrictive policies. States with neither an "H" nor an "L" have ratios falling in the middle one-third of the distribution.
- c "H" denotes "highly-restrictive": prices must be within 10 percent or less of average prices. "L" denotes "less-restrictive": criteria range from "within 15 percent of average" to "within 30 percent of average."
- d Definitions: m = milk, c = cheese, e = eggs, j = juice, pb = peanut butter, cer = cereal, ic = infant cereal, fj = frozen juice.
- e "Narrow" denotes the number of allowed national brand products is less than 14 for cold cereals and less than 23 for adult juices. *Narrow* (in italics) denotes that least-expensive-brand policy is holding down the number of allowed national brands. *Narrow (f)* denotes that only frozen juice is allowed.

The sections below discuss the selection of six study States within the seven classification groups. In making the selections, a number of different selection criteria were used. The most important criteria were:

- In States using vendor- or item-selection policies, the policies be restrictive and therefore more likely to have measurable effects. In assessing the restrictiveness of vendor-selection policies, the study gave more weight to the ratios of WIC vendors to FSP retailers (a comparable measure across all States) than to stated policies in WIC manuals.
- One State be selected from each classification group except group M, whose States' vendor-selection practices are not restrictive.
- As a group, the six selected States include some States with larger WIC caseloads so that the cost-containment practices examined are those that affect a significant number of WIC participants.
- Insofar as possible while meeting the above criteria, the selected States be geographically diverse.
- Again, insofar as possible while meeting the above criteria, the selected States have WIC caseloads with diverse racial and ethnic backgrounds.
- Finally, if possible, at least one of the selected States has an electronic benefits transfer (EBT) system capable of handling WIC transactions.

To assist in the following discussion, Exhibit 6 shows, for each State, the size of the WIC caseload (and whether it increased or decreased between 1996 and 1998), the distribution of WIC participants across racial/ethnic categories, and the percentage of WIC participants served by local agencies located in a metropolitan area.

## **State Recommendations**

This section uses the group classification scheme above to discuss the selected States.

### **Group VR: Vendor Restriction, No Severe Food Item Restrictions**

The study selected Ohio within group VR. With a supermarket WIC/FSP ratio of 0.55 and a grocery store ratio of 0.20, Ohio appears to have very restrictive vendor-selection policies. Furthermore, with a “broad” designation for both ranges of food choice, the State has very few restrictions on food items. Ohio, which is in the Midwest region, is interesting as well because it is relatively large (257,222 WIC participants) and expects to have a WIC EBT system in place by 2001. The study hopes to use the EBT data to supplement collected scanner data for the investigation of impacts on partial redemptions of WIC vouchers.

### **Group VR/NC: Vendor Restriction, Narrow-Choice Policy for Item Selection**

California was selected to represent group VR/NC. With WIC/FSP ratios of 0.89 and 0.14 for supermarkets and grocery stores, respectively, its vendor-selection policies are restrictive. California also offers only a narrow choice of food items within the cold cereal category.

California was selected for several other reasons as well. First, the study wants to include at least one of the four big WIC caseload States of California, Texas, New York and Florida. With 1,346,740 WIC participants, California has the largest WIC caseload in the country. Second, California is one of only two States within the group to use food rebates. Third, California has had an interesting experience with its juice rebate contracts; State officials should be able to provide useful information regarding food rebates and their administrative costs. Finally, California increases the study’s geographical mix by representing the Western region.

### **Group VR/LE: Vendor Restriction, Least-Expensive Policy for Item Selection**

The study selected Connecticut to represent group VR/LE for several reasons. First, Connecticut uses a least-expensive-brand policy for more WIC food items than any other State in the group. Second, it is only one of two States in the group that uses manufacturers’ rebates for infant cereal. Third, with the inclusion of the large WIC caseload States of California and Texas, a State with a small caseload (59,297 WIC participants) should be included to examine the potential difficulties of implementing cost-effective cost-containment policies in a small State. Finally, Connecticut serves as a representative of the Northeast region.

**Exhibit 6**

**WIC participant characteristics**

| State                  | Number of participants | Percentage of national caseload | Percent change, 1996-98 | Percentage by race <sup>a</sup> |       |          |       |                 | Distribution of state caseload by local agency service area |           |       |
|------------------------|------------------------|---------------------------------|-------------------------|---------------------------------|-------|----------|-------|-----------------|---|-----------|-------|
|                        |                        |                                 |                         | White                           | Black | Hispanic | Asian | American Indian | Metro   | Non-Metro | Mixed |
| <b>Northeast</b>       |                        |                                 |                         |                                 |       |          |       |                 |   |           |       |
| Connecticut            | 59,297                 | 0.7                             | -0.4                    | 33.5                            | 29.9  | 35.2     | 1.2   | 0.2             | 99.8  | -         | -     |
| Maine                  | 26,712                 | 0.3                             | -3.4                    | 96.3                            | 1.2   | 0.7      | 0.9   | 0.4             | -   | 15.7      | 84.3  |
| Massachusetts          | 131,309                | 1.6                             | 1.0                     | 48.7                            | 18.5  | 27.1     | 5.6   | 0.2             | 95.1  | -         | 2.7   |
| New Hampshire          | 18,722                 | 0.2                             | -2.7                    | 98.5                            | 0.4   | 0.8      | 0.2   | 0.0             | 55.6  | 20.3      | 24.1  |
| New York               | 531,890                | 6.6                             | 1.5                     | 29.6                            | 29.1  | 31.8     | 5.4   | 0.5             | 84.2  | 5.4       | 9.4   |
| Rhode Island           | 23,363                 | 0.3                             | -4.3                    | 50.3                            | 14.3  | 30.9     | 4.0   | 0.4             | 100.0   | -         | -     |
| Vermont                | 16,469                 | 0.2                             | 8.4                     | 97.6                            | 0.8   | 0.3      | 1.1   | 0.2             | 26.6  | 73.4      | -     |
| <b>Mid-Atlantic</b>    |                        |                                 |                         |                                 |       |          |       |                 |   |           |       |
| Delaware               | 16,299                 | 0.2                             | 4.5                     | 39.3                            | 42.2  | 14.4     | 0.5   | 0.1             | 74.5  | 25.5      | -     |
| Dist. of Columbia      | 17,739                 | 0.2                             | -0.0                    | 1.3                             | 81.6  | 15.6     | 1.4   | 0.2             | NA  | NA        | NA    |
| Maryland               | 96,344                 | 1.2                             | 8.8                     | 34.4                            | 53.7  | 9.6      | 2.1   | 0.2             | 90.4  | 7.3       | -     |
| New Jersey             | 148,776                | 1.8                             | -4.2                    | 23.2                            | 34.8  | 37.3     | 3.7   | 0.6             | 98.0  | -         | -     |
| Pennsylvania           | 257,406                | 3.2                             | -3.8                    | 63.7                            | 25.1  | 9.2      | 1.8   | 0.2             | 56.2  | 7.1       | 36.6  |
| Virginia               | 162,704                | 2.0                             | 4.9                     | 45.7                            | 42.0  | 9.3      | 2.2   | 0.2             | 59.2  | 14.3      | 26.5  |
| West Virginia          | 54,441                 | 0.7                             | -0.2                    | 93.4                            | 5.5   | 0.3      | 0.5   | 0.1             | -   | 49.9      | 50.1  |
| <b>Southeast</b>       |                        |                                 |                         |                                 |       |          |       |                 |   |           |       |
| Alabama                | 117,814                | 1.5                             | -11.5                   | 47.6                            | 48.5  | 2.6      | 1.0   | 0.3             | 58.1  | 41.9      | -     |
| Florida                | 402,403                | 5.0                             | 4.3                     | 40.0                            | 33.6  | 25.1     | 1.1   | 0.2             | 93.1  | 6.9       | -     |
| Georgia                | 267,094                | 3.3                             | 9.6                     | 36.5                            | 51.0  | 10.1     | 1.4   | 0.1             | 36.2  | 12.8      | 51.0  |
| Kentucky               | 127,251                | 1.6                             | 2.6                     | 85.9                            | 12.2  | 1.2      | 0.5   | 0.1             | 30.6  | 58.5      | 10.4  |
| Mississippi            | 107,412                | 1.3                             | 3.8                     | 36.0                            | 62.7  | 0.8      | 0.4   | 0.1             | 37.8  | 61.0      | -     |
| North Carolina         | 223,900                | 2.8                             | 2.7                     | 44.2                            | 40.3  | 11.8     | 1.7   | 1.9             | 56.8  | 37.7      | 5.5   |
| South Carolina         | 120,434                | 1.5                             | -2.2                    | 42.3                            | 54.1  | 2.9      | 0.6   | 0.2             | 22.9  | 6.8       | 70.3  |
| Tennessee              | 163,593                | 2.0                             | 15.7                    | 66.8                            | 31.0  | 1.9      | 0.3   | 0.0             | 40.3  | 11.1      | 48.6  |
| <b>Midwest</b>         |                        |                                 |                         |                                 |       |          |       |                 |   |           |       |
| Illinois               | 277,059                | 3.4                             | 5.2                     | 32.3                            | 33.6  | 29.8     | 1.7   | 0.1             | 82.6  | 14.9      | 0.8   |
| Indiana                | 151,030                | 1.9                             | -1.2                    | 71.9                            | 19.6  | 7.0      | 0.4   | 0.1             | 55.1  | 17.1      | 24.9  |
| Michigan               | 244,198                | 3.0                             | 2.7                     | 59.7                            | 31.8  | 6.7      | 1.1   | 0.6             | 75.2  | 18.6      | 6.2   |
| Minnesota              | 99,304                 | 1.2                             | -3.5                    | 63.8                            | 13.2  | 9.2      | 9.6   | 4.2             | 62.7  | 35.3      | 1.3   |
| Ohio                   | 257,222                | 3.2                             | -2.9                    | 65.4                            | 29.4  | 3.1      | 0.6   | 0.1             | 77.0  | 19.7      | 3.4   |
| Wisconsin              | 114,664                | 1.4                             | 6.0                     | 56.6                            | 23.9  | 11.0     | 6.0   | 2.5             | 62.2  | 25.7      | 9.2   |
| <b>Mountain Plains</b> |                        |                                 |                         |                                 |       |          |       |                 |   |           |       |
| Colorado               | 86,173                 | 1.1                             | 11.2                    | 50.4                            | 7.0   | 38.2     | 1.8   | 0.8             | 47.8  | 22.4      | 29.7  |
| Iowa                   | 65,340                 | 0.8                             | -0.9                    | 81.0                            | 7.0   | 9.5      | 2.0   | 0.5             | 22.0  | 36.3      | 27.8  |
| Kansas                 | 53,110                 | 0.7                             | -5.5                    | 62.5                            | 13.7  | 20.8     | 2.1   | 0.9             | 19.8  | 49.9      | 24.4  |
| Missouri               | 151,712                | 1.9                             | 0.3                     | 70.8                            | 24.1  | 3.1      | 0.8   | 0.2             | 55.5  | 40.3      | -     |
| Montana                | 21,750                 | 0.3                             | 2.9                     | 72.6                            | 0.9   | 3.0      | 0.8   | 22.6            | 20.6  | 66.0      | 13.3  |
| Nebraska               | 31,074                 | 0.4                             | -17.3                   | 64.5                            | 11.9  | 19.0     | 1.9   | 1.3             | 48.0  | 37.7      | 14.3  |
| North Dakota           | 14,606                 | 0.2                             | -9.2                    | 77.2                            | 2.7   | 4.0      | 1.0   | 15.1            | 24.9  | 62.4      | 12.7  |
| South Dakota           | 18,909                 | 0.2                             | -11.5                   | 69.1                            | 2.2   | 2.2      | 0.6   | 25.9            | 32.7  | 65.1      | -     |
| Utah                   | 58,627                 | 0.7                             | 4.7                     | 68.3                            | 1.2   | 24.0     | 2.8   | 2.2             | 61.5  | 20.0      | 18.6  |
| Wyoming                | 11,165                 | 0.1                             | -5.3                    | 79.4                            | 2.0   | 14.2     | 0.6   | 1.3             | 32.5  | 67.5      | -     |
| <b>Southwest</b>       |                        |                                 |                         |                                 |       |          |       |                 |   |           |       |
| Arkansas               | 90,488                 | 1.1                             | -0.9                    | 61.2                            | 31.6  | 6.3      | 0.6   | 0.3             | 41.1  | 58.9      | -     |
| Louisiana              | 138,781                | 1.7                             | 1.1                     | 39.2                            | 58.2  | 1.6      | 0.8   | 0.3             | 61.0  | 33.1      | -     |
| New Mexico             | 68,119                 | 0.8                             | -2.5                    | 22.8                            | 2.5   | 70.2     | 0.8   | 3.6             | 52.4  | 47.0      | -     |
| Oklahoma               | 89,379                 | 1.1                             | -3.1                    | 67.3                            | 15.5  | 10.3     | 1.7   | 4.5             | NA  | NA        | NA    |
| Texas                  | 739,400                | 9.2                             | -0.1                    | 19.5                            | 14.1  | 63.7     | 1.3   | 0.1             | 41.1  | 4.3       | 51.6  |

**Exhibit 6 (continued)****WIC participant characteristics**

| State          | Number of participants | Percentage of national caseload | Percent change, 1996-98 | Percentage by race <sup>a</sup> |       |          |       |                 | Distribution of state caseload by local agency service area |           |       |
|----------------|------------------------|---------------------------------|-------------------------|---------------------------------|-------|----------|-------|-----------------|---|-----------|-------|
|                |                        |                                 |                         | White                           | Black | Hispanic | Asian | American Indian | Metro   | Non-Metro | Mixed |
| <b>Western</b> |                        |                                 |                         |                                 |       |          |       |                 |   |           |       |
| Alaska         | 23,960                 | 0.3                             | 4.6                     | 47.4                            | 7.3   | 5.8      | 4.1   | 33.1            | NA  | NA        | NA    |
| Arizona        | 125,091                | 1.6                             | -1.5                    | 31.5                            | 5.0   | 60.3     | 1.0   | 2.3             | 83.5  | 11.5      | -     |
| California     | 1,346,740              | 16.7                            | 14.7                    | 13.7                            | 8.8   | 70.2     | 6.4   | 0.6             | 97.3  | 2.7       | -     |
| Hawaii         | 39,728                 | 0.5                             | 43.4                    | 17.1                            | 4.9   | 4.4      | 72.3  | 0.3             | NA  | NA        | NA    |
| Idaho          | 34,509                 | 0.4                             | -4.0                    | 70.9                            | 0.9   | 24.6     | 0.9   | 2.7             | -   | 46.0      | 54.0  |
| Nevada         | 47,539                 | 0.6                             | 36.3                    | 37.4                            | 13.1  | 45.9     | 3.0   | 0.7             | 86.1  | -         | 13.9  |
| Oregon         | 92,407                 | 1.1                             | 7.0                     | 66.7                            | 3.3   | 25.0     | 3.1   | 1.9             | 66.1  | 33.9      | -     |
| Washington     | 163,969                | 2.0                             | 11.7                    | 53.2                            | 7.2   | 24.0     | 5.7   | 3.3             | 74.7  | 17.9      | -     |

a Racial composition percentages do not sum to 100 percent because cases with missing data are not included in the table.

Source: PC98 Survey of State Agencies and PC98 WIC participant characteristics data submission.

### **Group VR/NC-LE: Vendor Restriction, Both Least-Expensive and Narrow-Choice Policies for Item Selection**

The study selected Texas to represent this group for a number of reasons. First, Texas uses competitive pricing at application to exclude high-cost stores. With WIC/FSP ratios of 1.01 for supermarkets and 0.13 for grocery stores, this policy has been very effective within the grocery store segment of the industry. Second, Texas uses a variety of stringent food item restrictions, including least-expensive brand for milk and juice, and a narrow choice of brands for both cold cereals and adult juices. Third, the State also uses manufacturers' rebates for infant cereal. Together, these practices enable Texas to have one of the lowest average food package costs in the entire WIC Program. Fourth, with a WIC caseload of 739,400, Texas is the second largest WIC State in the country.

### **Group NC-LE: No Vendor Restriction, Least-Expensive Policy or Narrow-Choice Policy for Item Selection**

As shown in Exhibit 5, only Oklahoma and Idaho fall into the group of States with few or no vendor restrictions, but either a least-expensive-brand policy or a narrow-choice policy for food item selection. Oklahoma is clearly the preferred choice within this group. It is the only State in the country to restrict national brands of cold cereals completely, which is one of the more hotly-contested of all cost-containment practices. With a WIC caseload of 89,379, Oklahoma is also more suitable than Idaho, whose caseload of 34,509 makes it one of the smallest WIC States in the country.

Together, Oklahoma and Texas represent the Southwest region. Selecting another State as a substitute for Texas in order to introduce more geographical variation was considered, but the advantages of selecting Texas outweighed the relatively minor disadvantage of selecting two States from the same region.

### **Group M: Medium Vendor Restrictions, No Severe Food Item Restrictions**

The study did not select a State from group M because the six States in this group generally have vendor-selection practices that are only moderately restrictive. To estimate the impacts of cost-containment practices on outcome measures, the study wanted to include only States with very restrictive practices or no practices at all.

Iowa's ratios of WIC vendors to FSP retailers suggest a non-restrictive set of vendor-selection policies, but its WIC manual indicates use of a highly restrictive competitive pricing policy at application. In addition, Virginia and Washington have restrictive WIC/FSP ratios for grocery stores, but less restrictive policies regarding competitive pricing at application. The lack of consistency in these measures of restrictiveness led to these States being classified in this group.

### **Group NONE: No Vendor Restriction, No Severe Item Restriction**

There were several States available to represent this group. The study selected North Carolina, in part because it is the only State in the group that has no stated vendor restriction policy. Two other advantages for selecting North Carolina are that it will represent the Southeast region and that it has a relatively large African-American caseload, which will help balance out the overall demographic characteristics of the States selected for the study.

## **Summary of Selected States**

Summary characteristics of the six selected case-study States are presented in Exhibit 7. The six States represent, as planned, a mixture with respect to caseload size, the vendor restrictions they implement, and the food item restrictions they implement. As shown in Exhibit 8, the States also show diversity with respect to the racial/ethnic composition of their WIC caseloads.

Together, the six States serve about one-third of all WIC participants in the nation. They include two very large States (California and Texas), two relatively small States (Connecticut and Oklahoma), and two medium size States (North Carolina and Ohio). The study will thus be able to assess the impacts of cost-containment practices across a wide spectrum of caseload size as well as region of the country. Furthermore, even though the States have been specifically selected to represent a wide set of cost-containment practices, study results will be representative of a large percentage of the overall WIC caseload.

The first four States in Exhibit 7 (Ohio, California, Connecticut, and Texas) have restrictive vendor selection policies. Compared to the number of FSP retailers authorized to participate in WIC, these States authorize relatively few supermarkets, grocery stores, or both--as evidenced by their ratios of WIC to FSP stores. Furthermore, Texas uses a highly restrictive pricing criterion at application. Although Oklahoma also has a highly-restrictive pricing policy in its manual, the policy is applied only at vendor reauthorization, and Oklahoma's ratios of WIC to FSP stores are high enough that it would be misleading to view its vendor selection policies overall as highly restrictive. North Carolina does not use a pricing criterion when evaluating vendor applicants.

---

**Exhibit 7****Summary information on selected case study states**

---

|                | WIC caseload | Vendor restrictions        |                |                                    | Food item restrictions                   |              |
|----------------|--------------|----------------------------|----------------|------------------------------------|--|--------------|
|                |              | Ratio of WIC/FSP retailers |                | Competitive pricing at application | Least-expensive policy                   | Brand choice |
|                |              | Super-markets              | Grocery stores |                                    |  |              |
| Ohio           | 257,222      | 0.55                       | 0.20           | Less restrictive                   | None                                     | Broad        |
| California     | 1,346,740    | 0.89                       | 0.14           | Less restrictive                   | Milk                                     | Narrow       |
| Connecticut    | 59,297       | 0.93                       | 0.70           | Less restrictive                   | Milk, eggs, cheese, juice, peanut butter | Medium       |
| Texas          | 739,400      | 1.01                       | 0.13           | Highly restrictive                 | Milk, juice                              | Narrow       |
| Oklahoma       | 89,379       | 1.04                       | 0.44           | Highly restrictive <sup>a</sup>    | Milk, eggs, cheese                       | Narrow       |
| North Carolina | 223,900      | 1.01                       | 0.62           | None used                          | Milk                                     | Broad        |

---

<sup>a</sup> Oklahoma uses competitive pricing at reauthorization only.

---

The six selected States also vary considerably in their food selection policies. Ohio, California, and North Carolina either do not require WIC participants to purchase the least-expensive brand of a food item, or the least-expensive-brand policy applies only to milk. In contrast, Connecticut requires that WIC participants purchase the least-expensive brand of milk, eggs, cheese, juice, and peanut butter. Texas imposes the least-expensive-brand policy for both milk and juice, and Oklahoma imposes least-expensive brands for milk, eggs, and cheese.

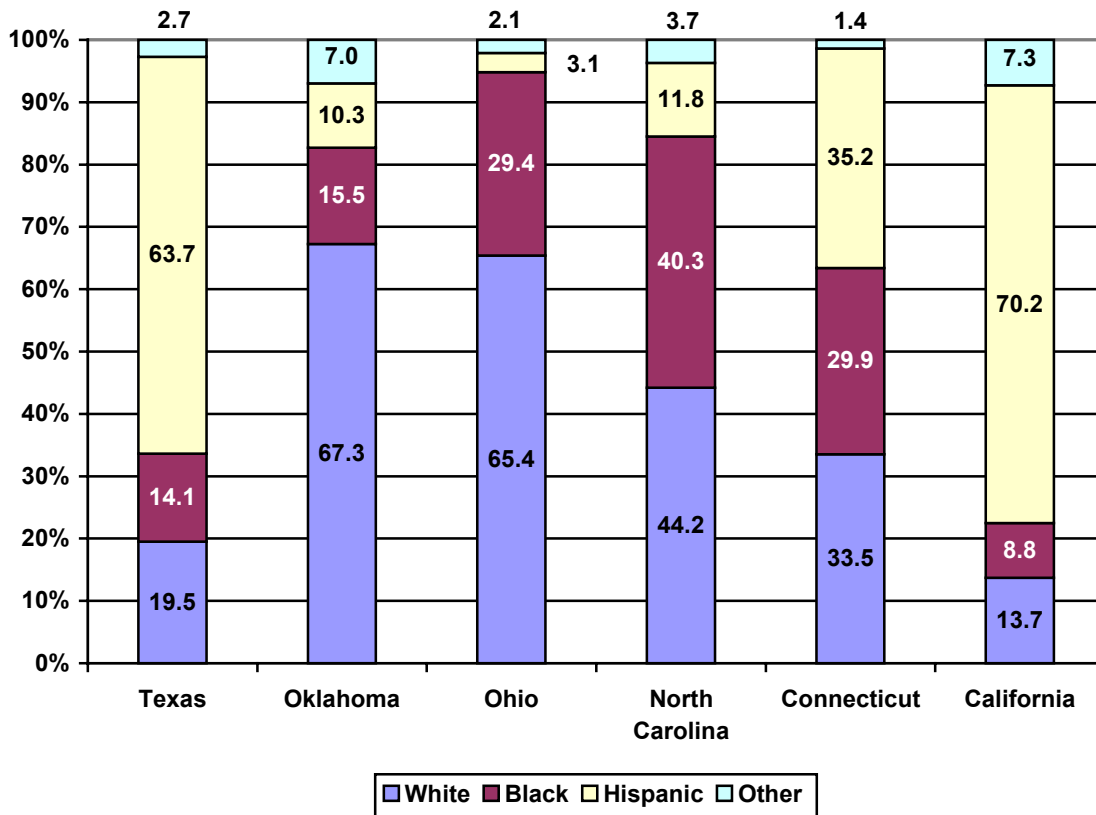
In terms of restrictions on which brands of food WIC participants may purchase with their food instruments, three of the States (California, Texas, and Oklahoma) offer a narrow choice of food items, and the other three (Ohio, Connecticut, and North Carolina) offer a medium or broad choice of items. In addition, though not shown in the exhibit, three of the States (California, Connecticut, and Texas) either have current or prior contracts for manufacturers' rebates on infant cereal. These rebates act to limit brand choice, and the study will be able to collect information from the States on the perceived advantages and disadvantages of such rebates.

Finally, as shown in Exhibit 8, the six States also show diversity with respect to the racial/ethnic composition of their WIC caseloads. Two State WIC caseloads are predominantly Caucasian (Oklahoma and Ohio); two caseloads are predominantly Hispanic (California and Texas); and three caseloads include substantial representation by black participants (North Carolina, Connecticut, and Ohio). The percentage of white Caucasian WIC participants varies from a low of 13.7 percent in California to a high of 65.4 percent in Ohio. Black participants represent from 8.8 percent of WIC participants in California to 40.3 percent of participants in North Carolina. At 3.1 percent of the caseload, Hispanic participants represent only a small portion of the Ohio WIC caseload, but they represent 70.2 percent of the caseload in

California. This diversity ensures that the impacts of WIC cost-containment practices will be assessed across the main racial/ethnic categories of the WIC population.

**Exhibit 8**

**Racial/Ethnic composition of WIC caseloads**





## Section 4

### Planned Data Collection and Analysis

Between January and June 2001, data will be collected from a variety of sources in the six States to analyze the impacts of WIC cost-containment practices on study objectives. The key data sources include:

- A **Survey of WIC Participants** will provide estimates of the percentage of WIC participants affected by cost-containment practices, through restricted item selection or vendor selection. The survey of 1,200 WIC participants across the six case study States will provide information on how cost-containment practices affect participants' use of and satisfaction with prescribed foods.
- A store **Survey of Food Prices and Item Availability** for WIC food items will be used to estimate the food cost savings from WIC cost-containment practices. The total number of stores included in the survey will be 162.
- **Interviews with State and local WIC officials** will provide information about the administrative costs of implementing and maintaining cost-containment practices. The State WIC director in each of the six States will be interviewed, as will the director of each of three local WIC offices in each State.
- **State WIC administrative data** will be used to examine the variation in voucher redemption rates across States, and to correlate food satisfaction measures expressed by survey respondents with their actual voucher redemption behavior. WIC administrative data also will be used to determine the extent to which incomplete voucher redemption affects health outcomes over the course of a WIC certification period.
- **Focus group discussions with WIC program dropouts** will be used to assess the relative importance of different cost-containment practices on the participants' decisions to drop out of the program. Six focus groups are planned, one in each of the six study States.
- **WIC transaction data from supermarkets**—in the form of scanned bar code data—will be used to examine the differences in WIC food purchases across States with different cost-containment practices.
- If available in time for the study, **EBT data on WIC purchases** from a demonstration in Ohio will be used to further examine which food items WIC participants actually buy and which prescribed items are not purchased.

A notice of the above planned data collection activities was published in the *Federal Register* on June 28, 2000 (pages 39854-39856). No comments were received during the 60-day comment period. The OMB is currently reviewing data collection instruments for clearance.

The assessment of WIC cost-containment practices involves several lines of analysis. Cost-containment practices are expected to lower WIC food costs. The concern, however, is that they may also lead to reduced participant satisfaction, lower voucher redemption rates, and reduced consumption of WIC foods. Additionally, it is obvious that any policy affecting consumption of the prescribed WIC food package may also compromise the health benefits derived from that food package.

To determine the effect of WIC cost-containment practices, the analyses will first rely on across-State comparisons between groups of States with and without specific cost-containment practices. For example, when examining the impact of item restrictions on satisfaction with and consumption of WIC-prescribed breakfast cereal, the study will consider differences between States with and without cereal restrictions. These analyses will reveal the average impact of cost-containment practices on WIC participants in selected cost-containment States. One of the dangers of across-State comparisons, however, is that the impact of cost-containment practices may be confounded with other differences between States, and the study may not be able to adequately control for these other differences (for example, regional differences in food preferences).

Instead of relying solely on across-State comparisons, the study will check the robustness of those results using within-State comparisons. Within-State comparisons are possible, even though cost-containment practices are implemented Statewide, because some WIC participants may not face binding restrictions. For example, in States with restrictions on breakfast cereal, some WIC participants will not face a binding constraint if their preferred cereal is not a “restricted” cereal. The cost-containment practice is binding only if it causes a WIC participant to select a food that would not be selected in the absence of the cost-containment practice. Thus, within-State analyses will indicate the impact of cost-containment practices on those facing a binding constraint; when appropriately weighted, these analyses yield a second measure of the average impact of cost-containment on WIC participants in cost-containment States.

The planned analyses, for each of the seven objectives specified in the legislation, are discussed below.

## **Program Participation**

To estimate the potential increase in participation funded by cost-containment food cost savings, the study will combine results from the food cost savings analysis with participation data and food package issuance data obtained from State WIC agency information systems. This analysis will indicate how much of current participation is funded by cost-containment savings, or, alternatively, how many current participants could not be served if cost-containment practices were discontinued.

In addition to the increased participation funded by food cost savings, there is some concern that cost-containment practices decrease participation as some participants drop out of the program when they find that they are unable to purchase foods to their liking, or are unable to use WIC vouchers at convenient grocers. To shed light on this issue, the study will conduct focus groups with WIC dropouts in each State. Dropouts will be defined as participants who fail to pick up their WIC vouchers for two consecutive months.

## **Access and Availability of Prescribed Foods**

Access to WIC foods requires participant access to WIC vendors who stock WIC-approved food items. The study will separately examine the impacts of cost-containment practices on access to vendors and item availability.

The impact of vendor restrictions on participant access to vendors will be assessed by examining differences between States in the numbers and locations of WIC vendors relative to the numbers and locations of WIC participants and FSP-approved supermarkets and grocery stores (thus taking into account the retailing environment). In addition, the Survey of WIC Participants will ask respondents whether or not the store where they shop for WIC foods is the same as the store where they do most of their grocery shopping. If the stores are not the same, respondents will be asked the distance and time it takes to reach each store. From these data, the study will estimate the impact of cost-containment practices on access to vendors.

The impact of cost-containment on item availability will be determined by directly measuring the availability of WIC-approved food items in a sample of WIC vendors, through the Survey of Food Prices and Item Availability. Additionally, the Survey of WIC Participants will ask respondents whether they ever failed to fully redeem their WIC vouchers, and why. The study will then compare the percentage of respondents failing to redeem vouchers fully because items were unavailable in States with cost-containment item restrictions, compared to States without cost-containment item restrictions.

## **Voucher Redemption Rates and Actual Food Selections by Participants**

Voucher redemption occurs when a WIC participant redeems a WIC voucher for some or all of the items listed on that voucher. WIC participants typically receive multiple vouchers in a month, and the number can range from one to five. State WIC agencies will provide voucher issuance and reconciliation data, and from these data the study will estimate the differences in rates of voucher pickup and redemption between States, controlling for differences in the demographic characteristics of WIC participants between States. The study will examine the percentage of participants who pick up their vouchers for a specified month, the percentage who redeem any vouchers, and the percentage who redeem all vouchers for the month.

For participants in the survey sample, the analysis will match the administrative voucher redemption data to the survey data to compare voucher redemption behavior with the participants' expressed satisfaction with food item choices and access to vendors.

With regard to the impact of cost-containment practices on actual food selections, the issue of possible impacts on item availability was discussed above. The question then turns to whether food item restrictions change what WIC participants actually purchase with their WIC benefits. Actual food selections, within each of the main categories of WIC foods (milk, cheese, eggs, cereal, juice, peanut butter/beans), are made from among the items listed on a State's approved food list. If a State allows few choices, then the observed distribution of actual food selections made by participants within the State will be narrow. It does not necessarily follow, however, that in States with broad choice, the distribution of

actual food selections will fully reflect that broad choice. Actual food selections depend on preferences, so the impact of item restrictions on food selections depends on food preferences.

The Survey of WIC Participants will ask a series of questions about food items purchased with WIC benefits and whether there are other items, within each food group, that the participant would rather purchase with her benefits. If so, information about the preferred items will be collected and the analysis will determine whether the items are Federally approved for WIC. To the extent to which the preferred items are on the Federal list but are restricted by the participant's State WIC agency, this will measure the impact of item restrictions on food choice.

Additional information about the impacts of cost-containment practices on food selections will be gathered from scanner data collected from the major supermarket chains in each State. These scanner data will be analyzed to determine, for each food category, the distributions of actual food selections within each State. These distributions will be compared across States to see how frequently items restricted in one State are purchased in a State that does not impose a similar item restriction.

## **Participants on Special Diets or With Specific Food Allergies**

Based on a physician's determination that a participant has a medical condition that precludes or restricts use of conventional foods, WIC agencies may prescribe food package III to women and infants with special dietary needs. In addition, when participants have certain food allergies, agencies may tailor standard food packages by substituting tolerated food items for those not tolerated by the participant. For instance, lactose intolerance or peanut allergies may be addressed by substitution of lactose-free or lactose-reduced milk for regular milk, and beans instead of peanut butter. Food item restrictions are not expected to affect the food items that these participants may purchase with their WIC benefits, although vendor restrictions could make it more difficult for some participants to find nearby WIC vendors that carry lactose-free or lactose-reduced milk.

All participants with food allergies or intolerance face the challenge of researching food product ingredients. For example, persons with soy or peanut allergies must read product labels to avoid unsafe or inappropriate nuts, oils, or related products in the breakfast cereals purchased with WIC benefits. The danger of item restriction cost-containment practices is that elimination of food products from a State's WIC food list imposes uncertainty of exposure to allergens or non-tolerated ingredients for participants who must choose previously untried products. The WIC program, however, attempts to alleviate these potential problems through nutrition education and counseling.

To address the possible adverse impacts of cost-containment practices on participants on special diets or with specific food allergies, the Survey of WIC Participants will ask all respondents a series of questions to determine whether or not the WIC participants in the family have special dietary needs. Respondents will be asked if they have health concerns associated with special diets (diabetes, high blood cholesterol, or asthma), food allergies or food intolerance, special diets maintained for religious reasons, or special diets to reduce fat, sodium, or sugar. Survey respondents who identify themselves as having special dietary needs will be asked whether their dietary needs pose problems when shopping for WIC foods.

In addition, when conducting analyses to estimate the impact of cost-containment on item availability, voucher redemption, food satisfaction, and food use, the study will include identifiers for participants

with special diets to determine if they have different experiences with respect to each of the outcome variables.

## **Participant Use of and Satisfaction with Prescribed Foods**

Participants' use (i.e., consumption) of prescribed foods and their satisfaction with prescribed foods can only be ascertained by asking them. The Survey of WIC Participants includes questions about participants' satisfaction with prescribed foods in each of the main food categories: these questions ask about satisfaction with the brands of foods allowed as well as the allowed package sizes. The survey will also ask whether or not the WIC participants in the family actually consumed the WIC food items that were purchased during the month.

The estimated impacts of cost-containment item restrictions, within each food category, will be determined by comparing the survey responses of participants in States with and without cost-containment restrictions. This analysis will indicate the average impact on all participants in cost-containment States. The robustness of this result will be confirmed through the within-State analyses, comparing reported satisfaction and consumption of participants within a State, according to whether they report to be constrained by cost-containment practices.

## **Achievement of Positive Health Outcomes**

The WIC program can promote positive health outcomes only if participants come to the WIC service site for nutrition education and health referrals, and only if they consume the foods in the prescribed WIC food package. As a result, cost-containment practices may affect health outcomes if they cause participants to drop out of the program, if they discourage eligible non-participants from applying, or if they reduce consumption of nutritious foods.

With the data collection planned for this study, there is no way to measure impacts among eligible non-participants. The participants invited to the focus groups for WIC dropouts, however, will be asked whether they have health insurance and whether they are continuing to receive medical care.

For active participants, if the study finds that cost-containment practices impact voucher redemption rates, food use, or food satisfaction, then the study will examine impacts on health outcomes. Health outcomes will be measured as the change in health status over the course of a WIC certification period, using nutrition and health status indicators (e.g., height and weight measures, blood iron measures, and nutrition risks) that are routinely collected by WIC clinic staff at certification and re-certification.

A potential difficulty in examining health outcomes is that changes in health status over a six-month period may be small. If changes in health status are small, then impacts within the survey sample may be difficult to detect, especially if the impact of cost-containment on food use or voucher redemption is of relatively small magnitude. The main hypothesis, however—that reduced voucher redemption and food use will be detrimental to health outcomes—can be examined using Statewide participant data on change in health status over the course of a certification period and voucher redemption behavior during the certification period. These results will reflect the impact on health outcomes resulting from all causes of failed voucher redemption. There is no reason, however, to believe that failure to redeem vouchers due to

cost-containment would have a different impact on health outcomes than failure to redeem vouchers for other cause.

## **Program Costs**

The primary purpose of WIC cost-containment practices is to reduce the average cost of WIC food packages to free up additional funds to serve more participants. States, however, may incur additional administrative costs to implement and maintain cost-containment practices. In looking at the impacts of cost-containment practices on program costs, the study must therefore examine impacts on both food package and administrative costs.

The impact of cost-containment practices on average food package costs will be determined by examining the counterfactual: the cost of the food package in the absence of cost-containment restrictions. Prices of foods that are excluded from a State's approved food list are readily observable, and price data will be collected through the Survey of Food Prices and Item Availability. Using scanner data from supermarkets in States without cost-containment restrictions, the study will determine the degree to which restricted WIC food items would likely be purchased by WIC participants in the absence of the restrictions.<sup>17</sup> This information will be coupled with item price information to estimate the savings in food package costs due to cost containment.

The impact of cost-containment practices on administrative costs will be determined through interviews with State WIC officials. Administrative costs are associated with implementing and maintaining cost-containment practices, and administrative cost savings may result from cost-containment practices. The interviews with State WIC agency officials will aim to enumerate all activities and procedures related to cost containment, and determine the costs associated with those activities.

---

<sup>17</sup> There are six States in the study. For each food category (milk, cheese, cereal, etc.), scanner data will be aggregated across all States having no cost-containment item restriction for that food category.

# Appendix

## Groups Contacted for Information and Views about WIC Cost-Containment Practices

USDA, Food and Nutrition Service, National Headquarters

USDA, Food and Nutrition Service, Mid-Atlantic Regional Office

USDA, Food and Nutrition Service, Midwest Regional Office

USDA, Food and Nutrition Service, Mountain-Plains Regional Office

USDA, Food and Nutrition Service, Northeast Regional Office

USDA, Food and Nutrition Service, Southeast Regional Office

USDA, Food and Nutrition Service, Southwest Regional Office

USDA, Food and Nutrition Service, Western Regional Office

Food Marketing Institute (FMI)

Grocery Manufacturers of America (GMA)

National Association of WIC Directors (NAWD)

National Grocers Association (NGA)

Private Label Manufacturers Association (PLMA)