

Infant Formula Prices and Availability by Market Area

In 2000, ERS was directed by Congress to report “on the number of suppliers of infant formula in each State or major marketing area, and to compare the cost of formula that is included in the WIC rebate program versus the cost of formula that is not in the WIC rebate program” (H.R. 106-948). This chapter presents findings from the *Report to Congress* that responded to these directives made by Congress (Oliveira et al., 2001). The section “Availability of Infant Formula” examines the number of infant formula suppliers by market area while the section “Retail Infant Formula Prices by Market Area” compares the cost of formula that is included in the WIC rebate program versus the cost of formula that is not in the WIC rebate program. In addition, two new sections, not included in the *Report to Congress*, examine the use of infant formula as a loss leader and discuss the implications of variations in the contract brand retail prices on costs to WIC State agencies, respectively.

Availability of Infant Formula by Market Area

InfoScan data contain information on the volume sales of infant formula in supermarkets by company for the 64 local market areas.¹ The data indicate that milk-based formulas produced by Mead Johnson, Ross, and Carnation were available in all 64 market areas in 2000.² Milk-based formula produced by Wyeth but sold in supermarkets by the new marketing firm PBM Products was available in 53 of the 64 of the market areas (fig. 7-1). This may be an undercount since data based solely on supermarket sales may underestimate the availability of PBM Products. Unlike the other manufacturers of infant formula, PBM sells a larger proportion of its formula through mass merchandisers and drugstores (41 percent in 2000) relative to the industry as a whole (31 percent). Despite the possible undercount, the results indicate that formula sold by PBM products was widely available throughout the country (in 83 percent of the market areas). Furthermore, PBM has continued to expand its market since 2000 and recently introduced both liquid concentrate and ready-to-feed infant formulas to their line of products.

Retail Infant Formula Prices by Market Area

The InfoScan data contained retail price information for 64 market areas. Of those areas, 23 spanned 2 or more States. In some of these multi-State areas, the WIC contract brand was the same throughout the market area. In others, a different WIC contract brand made up only a small share of the market area. Since the objective of this analysis is to compare the cost of WIC contract brand infant formula with other brands of infant formula, those market areas located in two or more States with different WIC contract-winning manufacturers present a problem in identifying the WIC contract brand of infant formula. The criterion for including a multi-State market area in this analysis was that a market area had to have at least 90 percent of the area’s population in an area that had the same WIC contract brand throughout the reference period, which ran from January 2000 through September 2000.³ Fifty-four of the market areas met this criterion. However, one of these market areas, Mississippi, does not use a retail food delivery system and was excluded from the analysis on this basis. There-

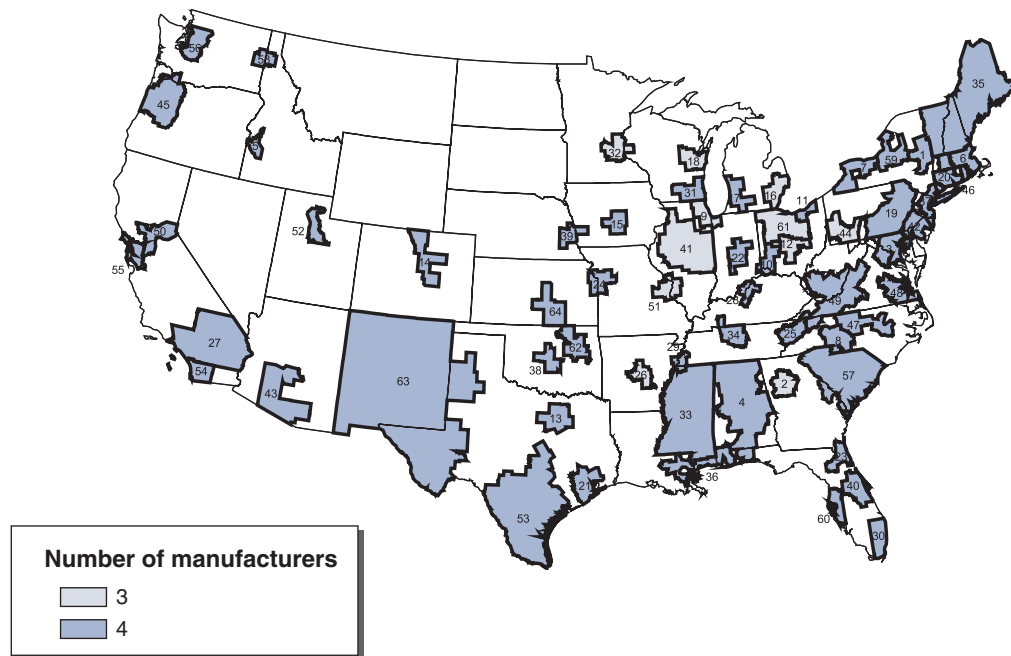
¹ About 69 percent of all infant formula was sold in supermarkets in 2000.

² Availability was determined by whether any of that company’s formula was sold in the area. Data on the number of supermarkets in which the product was sold were not available.

³ Geocoding analysis was used to estimate the proportion of the population within each market area that resided in specific States.

Figure 7-1

Number of milk-based infant formula powder manufacturers with products in supermarkets, 2000



Note: Numerical identifiers of markets are provided in figure 5-1.

Source: ERS analysis of Infoscan supermarket data, 2000.

fore, a WIC contract brand was designated in 53 of the 64 market areas (fig. 7-2).⁴ Mead Johnson had the WIC contract in 32 of these market areas, Ross in 17 market areas, and Carnation in 4 market areas. It was not possible to assign a meaningful “WIC brand” to the remaining market areas.

Milk-Based Powdered Formula. The average retail price of milk-based powdered infant formulas sold in supermarkets in the 64 market areas in 2000 is shown in table 7-1.⁵ Prices differed significantly by brand across the market areas. PBM brand formula (in those market areas where sales were recorded) was always the lowest priced, and with several exceptions, Carnation brand formula was priced below the Mead Johnson and Ross brands. Similarly, within the same brand of formula, retail prices varied significantly across market areas. For example, the price of Mead Johnson formula ranged from \$1.97 per 26 reconstituted ounces in Albany, NY, to \$3.12 in Chicago, IL.

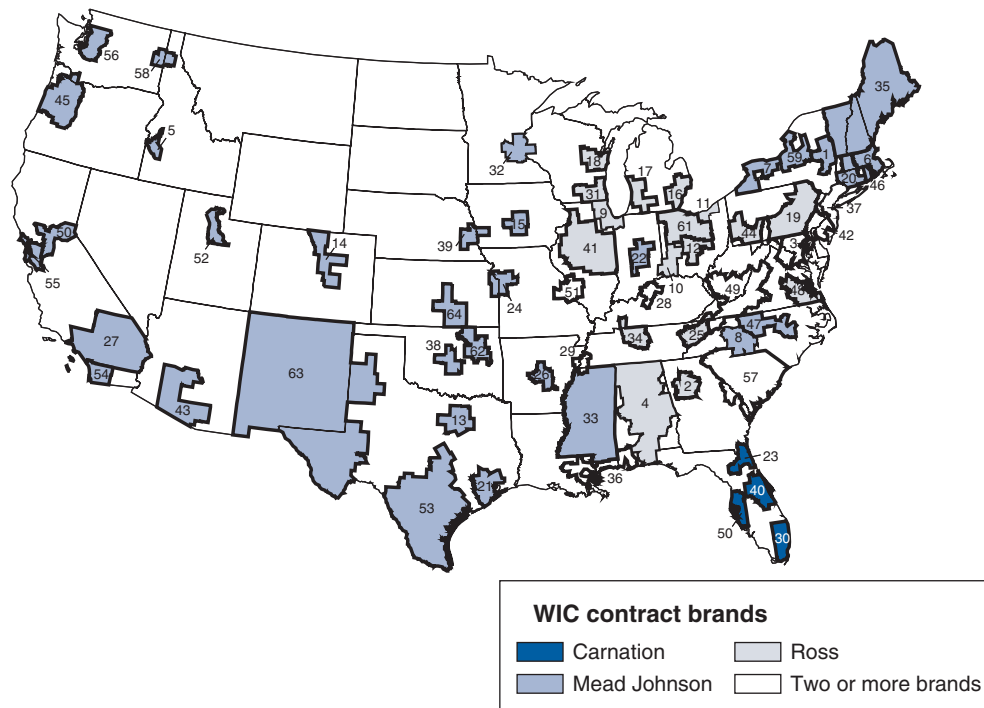
There was no apparent relationship between a formula being the WIC contract brand and being the highest priced formula. In 23 of the 53 market areas in which a WIC contract brand was designated (43 percent), the WIC brand was the highest priced milk-based formula. In the remaining 30 market areas, the WIC contract brand was not the highest priced formula.

Milk-Based Liquid Concentrate Formula. The comparison of the average retail price of WIC contract brand and other brands of milk-based liquid concentrate infant formula by market area is

⁴ The *Report to Congress* recognized 55 market areas (including Mississippi) in which a WIC contract brand was designated.

⁵ Prices are based on the specific infant formula products specified in table 6-1 plus an aggregate average price of all PBM Products milk-based powdered infant formula sold in 16-oz cans.

Figure 7-2

WIC infant formula contract brand by market area, 2000

Note: Numerical identifiers of markets are provided in figure 5-1.

Source: ERS analysis of FNS WIC contracts.

shown in table 7-2. Because the data did not identify any PBM Products in liquid concentrate, only three companies—Ross, Mead Johnson, and Carnation—were represented. In all 53 market areas in which a WIC brand was designated, Carnation brand formula had the lowest retail prices. The company producing the highest priced formula varied between Ross and Mead Johnson. There was not a consistent relationship between being the WIC contract brand of formula and having the highest average price. In 30 of the 53 market areas with a designated WIC contractor (57 percent), the WIC contract brand of infant formula was the highest priced formula, and in one additional market area it tied for the highest price. In the remaining 22 market areas, the WIC contract brand was not the highest priced infant formula.

Soy-Based Powdered Formula. Infant formula sold by PBM was the lowest priced soy-based powdered formula in each of the 44 market areas in which it was available, followed by Carnation brand formula (table 7-3). In 43 market areas, Mead Johnson had the highest priced formula. In 33 of the 53 market areas (62 percent) in which a WIC contract brand was designated, the WIC brand was the highest priced soy-based powdered formula, and in an additional market area it tied for the highest price.

Soy-Based Liquid Concentrate Formula. The average retail prices of soy-based liquid concentrate infant formulas made by Carnation, Mead Johnson, and Ross are shown in table 7-4 (PBM did not market liquid concentrate formula during the study period). In all 53 market areas, Carnation had the lowest priced formula. The WIC contract brand was the highest priced formula in 32 of the 53 market areas (60 percent), and in 4 more it tied for the highest.

Table 7-1—Infant formula average retail prices: 12- to 16-oz cans of milk-based powder in supermarkets by market area, 2000¹

Market area	PBM (Wyeth)	Carnation	Mead Johnson	Ross
<i>Dollars per 26 ounces reconstituted</i>				
Albany	1.72	2.13	1.97	2.31
Atlanta	—	2.16	2.46	2.62
Baltimore/Washington	1.51	2.09	2.57	2.60
Birmingham/Montgomery	1.81	2.14	2.53	2.66
Boise	1.50	2.16	2.38	2.53
Boston	1.73	2.12	2.29	2.50
Buffalo/Rochester	1.43	2.11	2.22	2.30
Charlotte	1.49	2.06	2.51	2.58
Chicago	—	2.57	3.12	2.94
Cincinnati/Dayton	1.73	1.98	2.12	2.43
Cleveland	1.62	2.17	2.41	2.52
Columbus	—	2.10	2.38	2.56
Dallas/Ft. Worth	1.60	2.24	2.54	2.73
Denver	1.50	2.28	2.62	2.68
Des Moines	1.67	2.23	2.67	2.72
Detroit	—	2.16	2.53	2.74
Grand Rapids	1.64	2.11	2.14	2.34
Green Bay	—	2.28	2.77	2.86
Harrisburg/Scranton	1.51	2.12	2.40	2.55
Hartford/Springfield	1.73	2.18	2.43	2.60
Houston	1.53	2.12	2.48	2.66
Indianapolis	1.73	2.29	2.43	2.40
Jacksonville	1.50	2.18	2.49	2.55
Kansas City	1.58	2.27	2.65	2.51
Knoxville	1.44	2.09	2.48	2.60
Little Rock	—	2.32	2.70	2.90
Los Angeles	1.64	2.22	2.86	2.81
Louisville	1.53	1.99	2.37	2.41
Memphis	1.63	2.30	2.76	2.93
Miami/Ft. Lauderdale	1.62	2.34	2.53	2.60
Milwaukee	1.54	2.25	2.67	2.78
Minneapolis/St. Paul	—	2.13	2.46	2.63
Mississippi	1.60	2.20	2.57	2.81
Nashville	1.49	2.13	2.53	2.72
New England	1.73	2.18	2.16	2.51
New Orleans/Mobile	1.51	2.23	2.73	2.68
New York	1.71	2.13	2.56	2.59
Oklahoma City	1.60	2.28	2.62	2.73
Omaha	1.58	2.16	2.52	2.60
Orlando	1.60	2.29	2.53	2.61
Peoria/Springfield	—	2.27	2.40	2.66
Philadelphia	1.81	2.11	2.49	2.65
Phoenix/Tucson	1.66	2.10	2.27	2.39
Pittsburgh	—	2.21	2.42	2.48
Portland, Oregon	1.62	2.37	2.69	2.82
Providence	1.73	2.11	2.26	2.52

See notes at end of table.

Continued—

Table 7-1—Infant formula average retail prices: 12- to 16-oz cans of milk-based powder in supermarkets by market area, 2000¹—Continued

Market area	PBM (Wyeth)	Carnation	Mead Johnson	Ross
<i>Dollars per 26 ounces reconstituted</i>				
Raleigh/Greensboro	1.49	2.06	2.51	2.57
Richmond/Norfolk	1.51	2.05	2.52	2.59
Roanoke	1.48	2.12	2.54	2.60
Sacramento	1.67	2.18	2.82	2.68
St. Louis	—	2.51	2.48	2.65
Salt Lake City	1.57	2.34	2.65	2.71
San Antonio/Corpus Christi	1.50	2.16	2.28	2.50
San Diego	1.64	2.21	2.68	2.79
San Francisco/Oakland	1.66	2.23	2.66	2.77
Seattle/Tacoma	1.70	2.07	2.52	2.48
South Carolina	1.50	2.09	2.50	2.59
Spokane	1.63	2.03	2.46	2.51
Syracuse	1.39	2.19	2.11	2.33
Tampa/St. Petersburg	1.64	2.28	2.52	2.64
Toledo	—	2.17	2.42	2.58
Tulsa	1.59	2.26	2.62	2.73
West Texas/New Mexico	1.57	2.31	2.79	2.77
Wichita	1.58	2.27	2.60	2.30
U.S. average	1.56	2.21	2.57	2.63

— = Not applicable.

¹ Numbers in color indicate WIC contract brand. Numbers in italics indicate a retail price below the wholesale price. Average refers to volume-weighted average during the first three quarters.

Source: ERS tabulations of InfoScan supermarket data.

Infant Formula as a Loss Leader

The earlier analysis of the retail markup by major brand of infant formula showed that, on average, the different categories of formula had positive retail markups, ranging from less than 1 percent to over 12 percent. However, in some individual market areas, the average retail price of infant formula in 2000 was priced below the listed wholesale price shown in table 6-1.⁶ While it may be that the listed wholesale prices may not represent the actual costs to retailers of purchasing infant formula, we have no information to support the presence of off-schedule adjustments. It seems reasonable to conclude that the wholesale prices do represent actual transaction costs to the retailer and that some retailers use infant formula as a loss leader.⁷ If a major retailer in an area sells a particular brand of infant formula at a low price, many of the other retailers may follow suit and drop their prices, resulting in an entire market area selling a particular brand of formula below the wholesale price. Formulas with higher sales volumes—i.e., the Mead Johnson and Ross brands, (which are also the highest priced)—were more likely to be priced below wholesale costs (tables 7-1 through 7-4). For milk-based powder, the retail price for the Mead Johnson brand of infant formula was less than the wholesale price in 28 of the 64 market areas. In 19 market areas, the retail price of the Ross brand of milk-based powder was below wholesale, and in 6 market areas, the retail price of the Carnation brand of the milk-based powder was below wholesale. In no market area was the average retail price of formula marketed by PBM below the wholesale price. This same general pattern held across the other three types of formula as well.

⁶ Not all retailers in these market areas are necessarily pricing formula below the wholesale price. The retail price refers to the average price for a given market area. Prices may vary considerably within an area.

⁷ A recent study of WIC vendors conducted by an association of food retailers and wholesalers stated that most retailers treat infant formula as a loss leader, setting prices “very low in order to draw customers into the store” (Food Marketing Institute, 1998).

Table 7-2—Infant formula average retail prices: 13-oz cans of milk-based liquid concentrate in supermarkets by market area, 2000¹

Market area	Carnation	Mead Johnson	Ross
<i>Dollars per can</i>			
Albany	2.45	2.56	2.38
Atlanta	2.47	2.99	3.11
Baltimore/Washington	2.41	3.10	2.96
Birmingham/Montgomery	2.54	3.15	3.17
Boise	2.60	3.14	3.23
Boston	2.34	2.85	2.92
Buffalo/Rochester	2.44	2.86	2.78
Charlotte	2.43	3.01	3.02
Chicago	2.80	3.30	3.46
Cincinnati/Dayton	2.20	2.71	2.91
Cleveland	2.45	2.76	2.88
Columbus	2.48	2.91	2.99
Dallas/Ft. Worth	2.56	3.11	3.20
Denver	2.38	3.01	2.88
Des Moines	2.51	3.24	3.08
Detroit	2.51	3.14	3.14
Grand Rapids	2.35	2.63	2.92
Green Bay	2.47	3.26	3.27
Harrisburg/Scranton	2.38	2.93	2.91
Hartford/Springfield	2.46	2.98	3.04
Houston	2.41	2.98	3.05
Indianapolis	2.59	2.95	2.91
Jacksonville	2.57	3.02	3.04
Kansas City	2.52	3.19	2.84
Knoxville	2.37	2.94	2.95
Little Rock	2.74	3.48	3.55
Los Angeles	2.56	3.54	3.34
Louisville	2.49	2.86	2.88
Memphis	2.69	3.56	3.63
Miami/Ft. Lauderdale	2.72	3.13	3.15
Milwaukee	2.46	3.33	3.25
Minneapolis/St. Paul	2.45	3.15	3.18
Mississippi	2.52	3.26	3.34
Nashville	2.45	3.18	3.16
New England	2.46	2.79	2.66
New Orleans/Mobile	2.61	3.37	3.30
New York	2.40	3.17	3.12
Oklahoma City	2.50	3.11	3.19
Omaha	2.40	3.03	2.84
Orlando	2.72	3.20	3.15
Peoria/Springfield	2.47	3.00	3.09
Philadelphia	2.60	3.03	3.11
Phoenix/Tucson	2.28	2.74	2.80
Pittsburgh	2.37	2.74	2.78
Portland, Oregon	2.72	3.70	3.27
Providence	2.51	2.87	3.03

See notes at end of table.

Continued—

Table 7-2—Infant formula average retail prices: 13-oz cans of milk-based liquid concentrate in supermarkets by market area, 2000¹—Continued

Market area	Carnation	Mead Johnson	Ross
<i>Dollars per can</i>			
Raleigh/Greensboro	2.41	2.99	2.96
Richmond/Norfolk	2.41	2.99	2.96
Roanoke	2.44	3.10	2.96
Sacramento	2.37	3.41	3.29
St. Louis	2.65	3.28	3.31
Salt Lake City	2.76	3.39	3.27
San Antonio/Corpus Christi	2.39	2.96	2.93
San Diego	2.55	3.59	3.36
San Francisco/Oakland	2.43	3.13	3.34
Seattle/Tacoma	2.62	3.10	3.03
South Carolina	2.44	3.01	3.09
Spokane	2.31	3.00	3.02
Syracuse	2.42	2.77	2.72
Tampa/St. Petersburg	2.68	3.09	3.12
Toledo	2.49	2.96	3.05
Tulsa	2.53	3.11	3.32
West Texas/New Mexico	2.67	3.34	3.16
Wichita	2.54	3.01	2.95
U.S. average	2.59	3.11	3.09

¹ Numbers in color indicate WIC contract brand. Numbers in italics indicate a retail price below the wholesale price. Average refers to volume-weighted average during the first three quarters.

Source: ERS tabulations of InfoScan supermarket data.

Often the average retail prices of two or more brands of formula within the same market were priced below their respective wholesale prices. For example, in 65 percent of the cases (across the four different types of formula—i.e., milk-based powder, milk-based liquid concentrate, soy-based powder, and soy-based liquid concentrate) in which the average retail price of the Mead Johnson brand of formula in a market area was below its wholesale price, the Ross brand was also priced below its wholesale price. In 81 percent of cases in which the Ross brand was priced below the wholesale price, the Mead Johnson price was also below its wholesale price. In 60 percent of the cases in which the Carnation brand was priced below the wholesale price, either the Mead Johnson or Ross brand was also priced below its wholesale price, and in 50 percent of the cases, both the Mead Johnson and Ross brands were priced below their respective wholesale prices.

Contract brand status and loss leaders. The relationship between WIC contract brand status and loss leader pricing varied across the different brands. For example, in 36 percent of the cases (excluding Mississippi which does not use the retail food delivery system) across the various types of formula in which Mead Johnson was the contract brand, the Mead-Johnson product's average retail price was below the wholesale price. In 25 percent of the cases in which Ross was the contract brand, the Ross product's average retail price was below the brand's wholesale price. In contrast, there were no cases in which the Carnation brand was priced below its wholesale price when it was the contract brand.⁸

⁸ By comparison, in 32 percent of the cases in which Mead Johnson was *not* the contract brand, the Mead-Johnson product had average retail prices below the wholesale price. In 30 percent of the cases in which Ross was *not* the contract brand, the Ross product was priced below the wholesale price. In 4 percent of the cases in which the Carnation brand was *not* the contract brand, the Carnation product was priced below the wholesale price.

Table 7-3—Infant formula average retail prices: 14- to 16-oz cans of soy-based powder in supermarkets by market area, 2000¹

Market area	PBM (Wyeth)	Carnation	Mead Johnson	Ross
<i>Dollars per 26 ounces reconstituted</i>				
Albany	1.79	2.04	2.32	2.29
Atlanta	1.52	2.03	2.87	2.77
Baltimore/Washington	1.59	2.01	2.87	2.78
Birmingham/Montgomery	1.75	2.11	2.84	2.88
Boise	1.55	2.04	2.65	2.59
Boston	1.79	2.06	2.71	2.62
Buffalo/Rochester	1.60	1.94	2.46	2.38
Charlotte	1.51	2.00	2.84	2.76
Chicago	—	2.21	3.38	3.09
Cincinnati/Dayton	1.51	1.93	2.52	2.56
Cleveland	1.68	2.09	2.77	2.65
Columbus	1.53	1.81	2.79	2.72
Dallas/Ft. Worth	1.63	2.11	2.95	2.89
Denver	1.69	2.10	2.91	2.90
Des Moines	1.75	2.12	3.26	2.84
Detroit	1.55	2.01	2.81	2.79
Grand Rapids	1.46	1.95	2.43	2.44
Green Bay	—	2.09	3.13	3.04
Harrisburg/Scranton	1.55	2.01	2.79	2.70
Hartford/Springfield	1.78	2.09	2.68	2.69
Houston	1.57	2.07	2.83	2.77
Indianapolis	1.62	1.98	2.78	2.54
Jacksonville	1.58	2.09	2.87	2.72
Kansas City	1.62	2.14	3.06	2.86
Knoxville	1.54	1.99	2.80	2.72
Little Rock	1.59	2.06	3.09	3.18
Los Angeles	1.80	2.05	3.14	2.89
Louisville	1.56	1.96	2.67	2.59
Memphis	1.60	2.10	3.15	3.17
Miami/Ft. Lauderdale	1.69	2.10	2.92	2.73
Milwaukee	1.73	2.13	2.92	3.02
Minneapolis/St. Paul	—	2.05	2.94	2.78
Mississippi	1.49	2.10	2.94	3.03
Nashville	1.55	1.98	2.83	2.89
New England	1.79	2.09	2.68	2.55
New Orleans/Mobile	1.56	2.14	3.14	2.85
New York	1.75	2.18	2.88	2.70
Oklahoma City	1.64	2.10	3.05	2.91
Omaha	1.66	2.06	2.83	2.75
Orlando	1.66	2.09	2.93	2.78
Peoria/Springfield	1.56	2.10	2.87	2.73
Philadelphia	1.83	2.21	2.82	2.74
Phoenix/Tucson	1.66	1.85	2.48	2.35
Pittsburgh	—	2.19	2.87	2.60
Portland, Oregon	1.64	2.23	3.13	2.94
Providence	1.79	2.13	2.72	2.62

See notes at end of table.

Continued—

Table 7-3—Infant formula average retail prices: 14- to 16-oz cans of soy-based powder in supermarkets by market area, 2000¹—Continued

Market area	PBM (Wyeth)	Carnation	Mead Johnson	Ross
<i>Dollars per 26 ounces reconstituted</i>				
Raleigh/Greensboro	1.53	2.01	2.86	2.74
Richmond/Norfolk	1.58	1.99	2.84	2.76
Roanoke	1.60	2.14	3.00	2.78
Sacramento	1.74	1.99	3.09	2.82
St. Louis	—	2.31	2.86	2.65
Salt Lake City	1.63	2.06	3.06	2.82
San Antonio/Corpus Christi	1.55	2.00	2.66	2.68
San Diego	1.77	2.05	3.05	2.85
San Francisco/Oakland	1.74	2.05	3.01	2.90
Seattle/Tacoma	1.72	2.03	2.84	2.50
South Carolina	1.51	2.07	<i>2.83</i>	2.79
Spokane	1.69	1.91	2.85	2.65
Syracuse	1.58	1.96	2.45	2.39
Tampa/St. Petersburg	1.69	2.09	2.92	2.80
Toledo	1.52	1.91	<i>2.83</i>	2.74
Tulsa	1.66	2.09	2.93	2.93
West Texas/New Mexico	1.71	2.08	3.08	2.93
Wichita	1.58	2.07	2.94	2.81
U.S. average	1.61	2.08	2.90	2.74

— = Not applicable.

¹ Numbers in color indicate WIC contract brand. Numbers in italics indicate a retail price below the wholesale price. Average refers to volume-weighted average during the first three quarters.

Source: ERS tabulations of InfoScan supermarket data.

The finding that the retail price of the WIC contract brand is being priced below the manufacturer's listed wholesale price in some market areas raises the question: if WIC consumers are not sensitive to changes in price since they receive the formula free of charge, why should retailers price the contract brand so low? One reason may be that the relative size of the WIC program is a major factor that influences retail price in a market area. The presence of WIC consumers, relative to non-WIC consumers who pay for formula out of pocket, differs across market areas. If the WIC program has a relatively small presence in a market area, then the presence of out-of-pocket consumers is relatively large and a retailer may use loss-leader pricing to attract the latter group to the supermarket. In most of the areas in which the retail price of the contract brand was below the wholesale price, the relative size of the WIC program—as measured by the number of WIC formula-fed infants divided by the number of non-WIC formula-fed infants—was below the average for the market areas in the sample. That is, if an area has relatively few WIC infant formula consumers, then the program has relatively little influence on prices. The analysis of other factors behind the use of loss leader pricing in some market areas is discussed in appendix C.

Contract Brand Retail Prices and Costs to the WIC Program

Variation in the retail prices of the contract brand of infant formula across geographic areas has cost implications for WIC. As described previously, the actual cost of infant formula to a WIC State agency equals net price (i.e., national wholesale price minus the rebate level offered by the manufacturer) plus the retail markup.⁹ Since wholesale prices for a specific brand and type of

⁹ It was not possible to determine the actual cost of infant formula to specific WIC State agencies since (1) none of the market areas included in the study covered an entire State and only that State; and (2) information on the retail price of contract formula paid specifically by WIC authorized vendors was not available.

Table 7-4—Infant formula retail prices: 13-oz cans of soy-based liquid concentrate in supermarkets by market area, 2000¹

Market area	Carnation	Mead Johnson	Ross
<i>Dollars per can</i>			
Albany	2.33	2.67	2.71
Atlanta	2.36	3.34	3.39
Baltimore/Washington	2.23	3.27	3.26
Birmingham/Montgomery	2.39	3.27	3.31
Boise	2.32	3.34	3.25
Boston	2.39	3.12	2.92
Buffalo/Rochester	2.38	2.89	2.85
Charlotte	2.33	3.30	3.26
Chicago	2.74	3.87	3.59
Cincinnati/Dayton	2.04	3.02	3.11
Cleveland	2.46	3.02	3.01
Columbus	2.31	3.23	3.22
Dallas/Ft. Worth	2.33	3.43	3.39
Denver	2.37	3.20	3.19
Des Moines	2.22	3.66	3.49
Detroit	2.26	3.27	3.29
Grand Rapids	2.22	3.04	3.04
Green Bay	2.18	3.56	3.58
Harrisburg/Scranton	2.15	3.08	3.16
Hartford/Springfield	2.50	3.20	3.20
Houston	2.13	3.23	3.25
Indianapolis	2.53	2.96	2.96
Jacksonville	2.39	3.28	3.29
Kansas City	2.24	3.52	3.36
Knoxville	2.24	3.25	3.21
Little Rock	2.44	3.77	3.80
Los Angeles	2.31	3.60	3.47
Louisville	2.48	3.13	3.08
Memphis	2.38	3.81	3.85
Miami/Ft. Lauderdale	2.52	3.38	3.35
Milwaukee	2.31	3.60	3.46
Minneapolis/St. Paul	2.29	3.30	3.34
Mississippi	2.34	3.45	3.57
Nashville	2.26	3.31	3.41
New England	2.32	3.13	2.85
New Orleans/Mobile	2.36	3.62	3.65
New York	2.49	3.36	3.15
Oklahoma City	2.34	3.41	3.38
Omaha	2.25	3.34	3.06
Orlando	2.49	3.35	3.35
Peoria/Springfield	2.44	3.22	3.27
Philadelphia	2.56	3.26	3.26
Phoenix/Tucson	2.38	3.05	2.93
Pittsburgh	2.39	3.03	3.03
Portland, Oregon	2.75	3.60	3.45
Providence	2.57	3.26	3.04

See notes at end of table.

Continued—

Table 7-4—Infant formula retail prices: 13-oz cans of soy-based liquid concentrate in supermarkets by market area, 2000¹—Continued

Market area	Carnation	Mead Johnson	Ross
<i>Dollars per can</i>			
Raleigh/Greensboro	2.33	3.29	3.23
Richmond/Norfolk	2.30	3.29	3.24
Roanoke	2.33	3.43	3.26
Sacramento	2.42	3.64	3.45
St. Louis	2.64	3.34	3.27
Salt Lake City	2.37	3.72	3.63
San Antonio/Corpus Christi	2.26	3.05	3.20
San Diego	2.31	3.59	3.36
San Francisco/Oakland	2.40	3.44	3.54
Seattle/Tacoma	2.34	3.41	3.30
South Carolina	2.31	3.29	3.31
Spokane	2.02	3.23	3.30
Syracuse	2.53	2.88	2.87
Tampa/St. Petersburg	2.39	3.37	3.36
Toledo	2.29	3.22	3.27
Tulsa	2.38	3.47	3.41
West Texas/New Mexico	2.45	3.50	3.46
Wichita	2.21	3.34	<i>3.16</i>
U.S. average	2.43	3.35	3.29

¹ Numbers in color indicate WIC contract brand. Numbers in italics indicate a retail price below the wholesale price. Average refers to volume-weighted average during the first three quarters.

Source: ERS tabulations of InfoScan supermarket data.

formula (see table 6-1) do not vary across areas, variation in the retail markup is determined solely by variation in the retail price.

Because WIC receives rebates that are generally large relative to the wholesale price, the net price is relatively small—for example, the average net price for a can of milk-based liquid concentrate was only 20 cents as of September 2000. Since the retail markup may approach or even exceed net price in areas with high retail prices, the retail price of the contract brand of formula as well as the amount of the manufacturer's rebate play important roles in determining the cost of infant formula to the WIC program.¹⁰

¹⁰ ERS analysis of InfoScan data indicate that, at the national level, the average retail markup per can of milk-based liquid concentrate, regardless of contract brand status, was about 21 cents for Mead Johnson products, 20 cents for Ross products, and 35 cents for Carnation products.