## Retail Price of Infant Formula

The examination of infant formula prices in this report was confined to milk-based "standard" formula in liquid concentrate and powder forms. Although prices vary by form and size, these are the most common products sold and are representative of pricing patterns found for other infant formula products. Milk-based infant formula currently accounts for 77 percent of all infant formula sold, and standard formulas account for more than 91 percent of all formula sold in this country. Standard infant formula excludes specialized formulas that are generally, but not always, more expen-
sive than standard formulas. ${ }^{22}$ The use of the term "specialized formula" in this study does not necessarily mean that it is not available to WIC recipients or is available only with a medical diagnosis warranting a specific brand of formula. Rather, it was developed for use in the study's examination of prices of infant formula in order to compare similar types of conventional formulas and/or formulas with similar price structures. The inclusion of several higher price specialized for-

[^0]Figure 10
WIC infant formula contract brand by market area, 2000


Note: Numerical identifiers of markets are provided in figure 3. Source: ERS Analysis of FNS WIC contracts.

Figure 11
Average retail price of standard milk-based infant formula in supermarkets by company and product form, 2000


Note: PBM infant formula is manufactured by Wyeth. Source: ERS analysis of InfoScan data.
mulas produced by a specific manufacturer could bias the results of the study.

Two different physical forms were examined-milkbased powder in 12- to 32 -ounce containers and milkbased liquid concentrate in 13 -ounce cans. The data represent supermarkets, which account for 69 percent of all infant formula sold by volume. Information on the retail price of infant formula by market area is not available for drugstores or mass merchandisers. These two types of formulas-standard milk-based powder in 12- to 32-ounce containers sold in supermarkets ( 30.3 percent) and standard milk-based liquid concentrate in 13 -ounce cans sold in supermarkets ( 15.6 percent) accounted for almost 46 percent of all infant formula sold by volume in 2000.

The InfoScan data contained price information for 64 market areas. Of those areas, 23 spanned 2 or more States. In some of those multistate areas, the WIC contract brand was the same throughout the market area. In others, a different WIC contract brand comprised 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 multistate market area in this analysis was that a market area have at least 90 percent of the area's popu-
lation in an area that had the same WIC contract brand throughout the reference period, which ran from January 2000 through September 2000. ${ }^{23}$ Of the 64 market areas, 55 met this criterion; it was not possible to assign a "WIC brand" to the remaining 9 market areas (fig. 10).

## Milk-Based Liquid Concentrate

Retail prices of standard milk-based infant formula sold in supermarkets varied by company and product form (fig. 11). The price of PBM and Carnation brand infant formula was, on average, considerably lower than for that manufactured by Mead Johnson and Ross. 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 shown in table 3. Because the data did not identify any PBM Products in liquid concentrate, only three com-panies-Ross, Mead Johnson, and Carnation-were represented. In all 55 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 clear relationship between being the WIC contract brand of formula and having the highest average retail price. In 28 of the 55 market areas with a designated WIC contractor ( 51 percent), the WIC contract brand of infant formula was the highest priced formula, and in an additional 5 market areas it tied for the highest price. In the remaining 22 market areas, the WIC contract brand was not the highest-priced infant formula.

## Milk-Based Powder Formula

Table 4 shows the average retail price of standard milk-based powdered infant formula sold in supermarkets by the three previous companies and PBM Products (manufactured by Wyeth), by market area. In all 55 market areas examined, PBM Products had the lowest retail price, and in 54 of these market areas, Carnation brand formula had the next lowest. Ross brand formula was the highest priced formula in 48 of the 55 market areas. As with liquid concentrate, there was no apparent relationship between a formula's being the WIC contract brand and having the highest average retail price. In 22 of the 55 market areas ( 40 percent), the WIC contract brand of infant formula was the highest priced formula, and it tied for the highest price in one other market area.

[^1]Table 3-Infant formula retail prices: Standard, 13-ounce cans of milk-based liquid concentrate in supermarkets by market area, $2000^{1}$

| Market area | Carnation | Mead Johnson | Ross | Average |
| :---: | :---: | :---: | :---: | :---: |
|  | Dollars per can |  |  |  |
| Albany | 2.39 | 2.55 | 2.42 | 2.55 |
| Atlanta | 2.29 | 2.99 | 3.12 | 3.09 |
| Baltimore/Washington | 2.24 | 3.09 | 2.96 | 3.07 |
| Birmingham/Montgomery | 2.47 | 3.15 | 3.17 | 3.15 |
| Boise | 2.39 | 3.12 | 3.22 | 3.07 |
| Boston | 2.26 | 2.86 | 2.94 | 2.83 |
| Buffalo/Rochester | 2.42 | 2.86 | 2.78 | 2.83 |
| Charlotte | 2.29 | 3.02 | 3.04 | 2.99 |
| Chicago | 2.65 | 3.28 | 3.46 | 3.41 |
| Cincinnati/Dayton | 2.11 | 2.70 | 2.91 | 2.89 |
| Cleveland | 2.37 | 2.76 | 2.89 | 2.83 |
| Columbus | 2.39 | 2.91 | 2.99 | 2.96 |
| Dallas/Ft. Worth | 2.42 | 3.12 | 3.22 | 3.09 |
| Denver | 2.42 | 3.02 | 2.86 | 2.96 |
| Des Moines | 2.39 | 3.22 | 3.30 | 3.20 |
| Detroit | 2.39 | 3.15 | 3.15 | 3.09 |
| Grand Rapids | 2.21 | 2.60 | 2.94 | 2.89 |
| Green Bay | 2.29 | 3.25 | 3.28 | 3.20 |
| Harrisburg/Scranton | 2.26 | 2.94 | 2.91 | 2.89 |
| Hartford/Springfield | 2.31 | 2.96 | 3.04 | 2.96 |
| Houston | 2.26 | 2.99 | 3.07 | 2.96 |
| Indianapolis | 2.42 | 2.94 | 2.89 | 2.94 |
| Jacksonville | 2.55 | 3.02 | 3.07 | 2.65 |
| Kansas City | 2.42 | 3.17 | 2.91 | 3.15 |
| Knoxville | 2.24 | 2.94 | 2.96 | 2.96 |
| Little Rock | 2.50 | 3.48 | 3.48 | 3.48 |
| Los Angeles | 2.44 | 3.54 | 3.35 | 3.48 |
| Louisville | 2.37 | 2.86 | 2.91 | 2.91 |
| Memphis | 2.47 | 3.56 | 3.61 | 3.59 |
| Miami/Ft. Lauderdale | 2.70 | 3.12 | 3.17 | 2.81 |
| Milwaukee | 2.34 | 3.33 | 3.25 | 3.20 |
| Minneapolis/St. Paul | 2.34 | 3.15 | 3.17 | 3.09 |
| Mississippi | 2.37 | 3.25 | 3.35 | 3.22 |

Table 3-Infant formula retail prices: Standard, 13-ounce cans of milk-based liquid concentrate in supermarkets by market area, 2000¹-Continued

| Market area | Carnation | Mead Johnson | Ross | Average |
| :---: | :---: | :---: | :---: | :---: |
|  | Dollars per can |  |  |  |
| Nashville | 2.29 | 3.15 | 3.15 | 3.15 |
| New England | 2.39 | 2.78 | 2.68 | 2.76 |
| New Orleans/Mobile | 2.52 | 3.38 | 3.30 | 3.33 |
| New York | 2.39 | 3.17 | 3.09 | 2.91 |
| Oklahoma City | 2.37 | 3.09 | 3.17 | 3.09 |
| Omaha | 2.34 | 3.04 | 2.86 | 2.96 |
| Orlando | 2.70 | 3.20 | 3.20 | 2.78 |
| Peoria/Springfield | 2.34 | 3.04 | 3.09 | 3.07 |
| Philadelphia | 2.55 | 3.02 | 3.12 | 2.96 |
| Phoenix/Tucson | 2.24 | 2.76 | 2.81 | 2.70 |
| Pittsburgh | 2.31 | 2.76 | 2.81 | 2.76 |
| Portland, Oregon | 2.60 | 3.69 | 3.28 | 3.59 |
| Providence | 2.39 | 2.86 | 3.04 | 2.86 |
| Raleigh/Greensboro | 2.26 | 2.96 | 2.96 | 2.96 |
| Richmond/Norfolk | 2.29 | 2.99 | 2.96 | 2.91 |
| Roanoke | 2.34 | 3.07 | 2.96 | 2.96 |
| Sacramento | 2.26 | 3.41 | 3.28 | 3.33 |
| St. Louis | 2.60 | 3.15 | 3.30 | 3.17 |
| Salt Lake City | 2.70 | 3.38 | 3.30 | 3.30 |
| San Antonio/Corpus Christi | 2.26 | 2.96 | 2.96 | 2.94 |
| San Diego | 2.42 | 3.59 | 3.33 | 3.51 |
| San Francisco/Oakland | 2.31 | 3.12 | 3.30 | 3.09 |
| Seattle/Tacoma | 2.52 | 3.09 | 3.04 | 3.07 |
| South Carolina | 2.29 | 3.02 | 3.09 | 3.04 |
| Spokane | 2.31 | 2.99 | 3.04 | 2.94 |
| Syracuse | 2.39 | 2.76 | 2.73 | 2.76 |
| Tampa/St. Petersburg | 2.65 | 3.09 | 3.12 | 2.73 |
| Toledo | 2.39 | 2.96 | 3.07 | 3.02 |
| Tulsa | 2.39 | 3.12 | 3.28 | 3.07 |
| West Texas/New Mexico | 2.55 | 3.33 | 3.17 | 3.33 |
| Wichita | 2.52 | 3.02 | 2.96 | 2.99 |
| U.S. average | 2.55 | 3.09 | 3.09 | 3.04 |

[^2]Table 4-Infant formula prices: Standard, 12-32-ounce cans of milk-based powder in supermarkets by market area, $2000^{1}$

| Market area | PBM (Wyeth) | Carnation | Mead Johnson | Ross | Average |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dollars per 26 ounces reconstituted |  |  |  |  |
| Albany | 1.72 | 2.00 | 1.98 | 2.29 | 2.03 |
| Atlanta | NA | 2.00 | 2.44 | 2.63 | 2.52 |
| Baltimore/Washington | 1.51 | 1.98 | 2.52 | 2.60 | 2.50 |
| Birmingham/Montgomery | 1.79 | 2.13 | 2.52 | 2.65 | 2.44 |
| Boise | 1.53 | 1.92 | 2.31 | 2.52 | 2.21 |
| Boston | 1.74 | 2.05 | 2.29 | 2.47 | 2.29 |
| Buffalo/Rochester | 1.43 | 2.00 | 2.21 | 2.31 | 2.21 |
| Charlotte | 1.48 | 1.95 | 2.50 | 2.55 | 2.44 |
| Chicago | NA | 2.34 | 2.96 | 2.89 | 2.83 |
| Cincinnati/Dayton | 1.74 | 1.90 | 2.21 | 2.44 | 2.31 |
| Cleveland | 1.61 | 2.05 | 2.37 | 2.50 | 2.42 |
| Columbus | NA | 2.00 | 2.39 | 2.52 | 2.44 |
| Dallas/Ft. Worth | 1.64 | 2.13 | 2.52 | 2.68 | 2.52 |
| Denver | 1.51 | 2.11 | 2.57 | 2.52 | 2.55 |
| Des Moines | 1.66 | 2.11 | 2.68 | 2.70 | 2.63 |
| Detroit | NA | 2.03 | 2.52 | 2.70 | 2.55 |
| Grand Rapids | 1.64 | 1.95 | 2.13 | 2.34 | 2.29 |
| Green Bay | NA | 2.16 | 2.78 | 2.86 | 2.78 |
| Harrisburg/Scranton | 1.51 | 2.00 | 2.37 | 2.55 | 2.44 |
| Hartford/Springfield | 1.74 | 2.05 | 2.42 | 2.52 | 2.42 |
| Houston | 1.61 | 2.03 | 2.47 | 2.65 | 2.47 |
| Indianapolis | 1.74 | 2.16 | 2.42 | 2.42 | 2.42 |
| Jacksonville | 1.56 | 2.13 | 2.52 | 2.57 | 2.29 |
| Kansas City | 1.59 | 2.13 | 2.65 | 2.47 | 2.63 |
| Knoxville | 1.43 | 1.95 | 2.47 | 2.60 | 2.52 |
| Little Rock | NA | 2.16 | 2.70 | 2.81 | 2.68 |
| Los Angeles | 1.61 | 2.11 | 2.83 | 2.78 | 2.78 |
| Louisville | 1.53 | 1.87 | 2.37 | 2.42 | 2.34 |
| Memphis | 1.64 | 2.13 | 2.78 | 2.91 | 2.83 |
| Miami/Ft. Lauderdale | 1.64 | 2.29 | 2.55 | 2.63 | 2.42 |
| Milwaukee | 1.53 | 2.11 | 2.65 | 2.76 | 2.68 |
| Minneapolis/St. Paul | NA | 2.03 | 2.42 | 2.55 | 2.39 |
| Mississippi | 1.61 | 2.13 | 2.57 | 2.81 | 2.57 |

See footnotes at the end of table.

Table 4-Infant formula prices: Standard 12-32-ounce cans of milk-based powder in supermarkets by market area, 20001ㅡ은

| Market area | PBM (Wyeth) | Carnation | Mead Johnson | Ross | Average |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dollars per 26 ounces reconstituted |  |  |  |  |
| Nashville | 1.51 | 1.98 | 2.47 | 2.70 | 2.65 |
| New England | 1.74 | 2.05 | 2.16 | 2.42 | 2.21 |
| New Orleans/Mobile | 1.59 | 2.13 | 2.73 | 2.68 | 2.65 |
| New York | 1.72 | 2.11 | 2.47 | 2.55 | 2.39 |
| Oklahoma City | 1.64 | 2.13 | 2.63 | 2.73 | 2.60 |
| Omaha | 1.61 | 2.03 | 2.52 | 2.60 | 2.47 |
| Orlando | 1.64 | 2.24 | 2.57 | 2.63 | 2.37 |
| Peoria/Springfield | NA | 2.18 | 2.37 | 2.65 | 2.60 |
| Philadelphia | 1.82 | 2.08 | 2.42 | 2.60 | 2.42 |
| Phoenix/Tucson | 1.64 | 1.92 | 2.26 | 2.37 | 2.24 |
| Pittsburgh | NA | 2.11 | 2.42 | 2.47 | 2.42 |
| Portland | 1.61 | 2.24 | 2.65 | 2.70 | 2.60 |
| Providence | 1.74 | 2.05 | 2.26 | 2.44 | 2.26 |
| Raleigh/Greensboro | 1.48 | 1.95 | 2.50 | 2.55 | 2.44 |
| Richmond/Norfolk | 1.51 | 1.95 | 2.50 | 2.57 | 2.44 |
| Roanoke | 1.48 | 2.03 | 2.55 | 2.60 | 2.47 |
| Sacramento | 1.69 | 2.08 | 2.81 | 2.65 | 2.70 |
| St. Louis | NA | 2.37 | 2.47 | 2.65 | 2.50 |
| Salt Lake City | 1.56 | 2.16 | 2.63 | 2.65 | 2.57 |
| San Antonio/Corpus Christi | 1.59 | 2.05 | 2.29 | 2.52 | 2.29 |
| San Diego | 1.61 | 2.11 | 2.68 | 2.76 | 2.63 |
| San Francisco/Oakland | 1.69 | 2.18 | 2.63 | 2.70 | 2.60 |
| Seattle/Tacoma | 1.69 | 1.95 | 2.50 | 2.52 | 2.44 |
| South Carolina | 1.51 | 1.98 | 2.47 | 2.57 | 2.47 |
| Spokane | 1.66 | 1.92 | 2.44 | 2.52 | 2.39 |
| Syracuse | 1.40 | 2.05 | 2.11 | 2.34 | 2.13 |
| Tampa/St. Petersburg | 1.64 | 2.26 | 2.52 | 2.65 | 2.34 |
| Toledo | NA | 2.08 | 2.42 | 2.57 | 2.47 |
| Tulsa | 1.64 | 2.13 | 2.60 | 2.73 | 2.57 |
| West Texas/New Mexico | 1.66 | 2.21 | 2.78 | 2.73 | 2.78 |
| Wichita | 1.64 | 2.13 | 2.60 | 2.18 | 2.50 |
| U.S. average | 1.59 | 2.11 | 2.55 | 2.60 | 2.52 |

[^3]
[^0]:    ${ }^{22}$ Because the data set used in the analysis did not allow us to determine the iron content of many formulas, we included low-iron formula in our definition of standard formula. In general, there is little price variation between iron and low-iron formulas and the examination of data for major brands, where available, suggests that low-iron formula accounts for only a small portion of all infant formulas.

[^1]:    ${ }^{23}$ Geocoding analysis was used to estimate the proportion of the population within each market area that resided in specific States.

[^2]:    ${ }^{1}$ Numbers in color indicate WIC contract brand. Average refers to volume-weighted average.
    Source: ERS tabulations of InfoScan supermarket data.

[^3]:    NA = Not applicable.
    ${ }^{1}$ Numbers in color indicate WIC contract brand. Average refers to volume-weighted average.
    Source: ERS tabulations of InfoScan supermarket data.

