

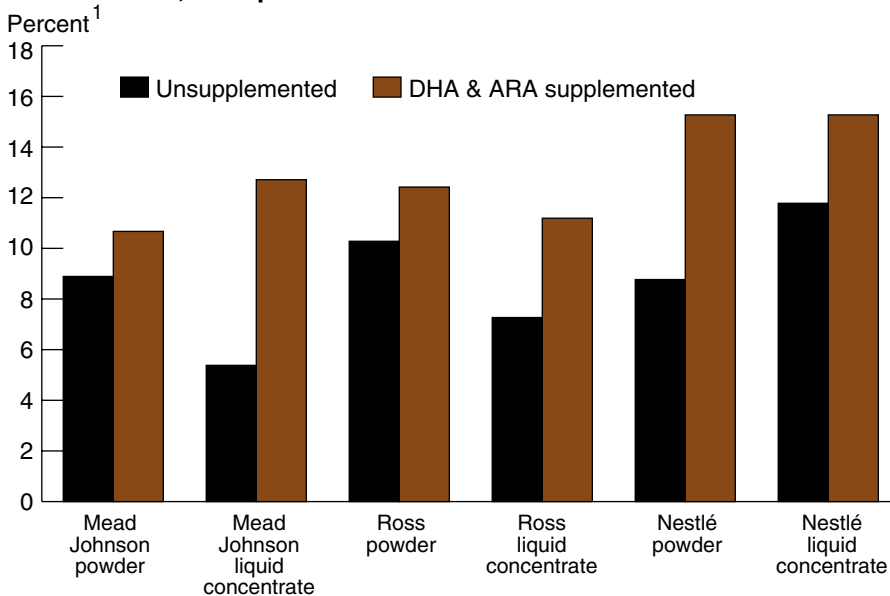
Retail Markup

All States except Mississippi and Vermont use the retail food delivery system to provide infant formula to eligible infants. Under this system, participants (i.e., the infants' caretakers) obtain the formula by transacting a check or voucher at an authorized retailer. The WIC State agency then reimburses the vendor for the full retail price of the formula. Thus, the cost of the formula to the WIC State agency equals the net wholesale price plus the retail markup, defined as the difference between the retail and wholesale price (i.e., the infant formula manufacturer's lowest national wholesale price per unit for a full truckload of infant formula).⁵⁰

The role of retailers is important, as they—not the infant formula manufacturers—set the retail price. Although wholesale prices are a major determinant of retail prices, retailers consider additional factors such as the cost of transporting the formula from the store warehouse to the store, shelf space, overhead, product movement, profit, and other local supply and demand factors. Retail markup can vary widely depending on a store's pricing strategy. For example, at one extreme, some retailers may use infant formula as a loss leader, whereby they price the product below cost to attract people into their store to purchase other items at full markup.

The information on retail markup presented in this chapter is based on published national wholesale prices and ERS analysis of ACNielsen Scantrack retail price data, which are representative of sales in supermarkets with \$2 million or more in annual sales.⁵¹ The retail markup by manufacturer and physical form for both the supplemented and unsupplemented types of formula during the 2nd quarter of 2004 (April to June), the most recently available retail data, is shown on a percentage basis in figure 16.⁵²

Figure 16
Percentage retail markup of infant formula by form and manufacturer, 2nd quarter of 2004



¹The percentage retail markup is the difference between the retail and wholesale price as a percentage of the retail price.

Source: ERS analysis of ACNielsen Scantrack data.

⁵⁰Wholesale prices vary by volume, with larger volume purchases (up to a truckload of formula) receiving a bulk discount. Smaller retail stores that purchase smaller volumes of infant formula will therefore pay more for formula per unit than larger stores. Although the cost to WIC is unaffected, part of the "retail markup," as defined in this report, may actually include part of the wholesale price that smaller retailers pay to the infant formula manufacturers.

⁵¹ The ACNielsen Scantrack data exclude formula purchased at mass merchandisers such as Wal-Mart, pharmacies, and small groceries.

⁵² The percentage retail markup is the difference between the retail and wholesale price as a percentage of the retail price. The comparisons are product specific, that is, they are based on the same infant formulas and same size cans as specified by the manufacturers in their bids for the rebate contracts.

Several patterns in retail markup are apparent, with implications for the prices that States pay to retailers. First, the percentage retail markup of the DHA- and ARA-supplemented formula was always greater than the markup for the unsupplemented formulas. This is likely because supplemented formula is more expensive than unsupplemented formula and because purchasers of supplemented formula may be less sensitive to price than purchasers of unsupplemented formula. The Child Nutrition and WIC Reauthorization Act of 2004 requires State agencies to offer the primary contract infant formula chosen by the manufacturer as the first choice of issuance (by physical form) to participants. Since all three manufacturers now submit bids based on the DHA- and ARA-supplemented formulas, it is expected that these formulas will be offered to all WIC participants in the future. Higher retail markups for these supplemented formulas will result in higher costs to WIC State agencies than if they previously provided only unsupplemented formulas.

Second, the percentage retail markups for supplemented formula found in this study exceed those of unsupplemented formula during 1994-2000 found in a previous ERS analysis of the retail infant formula market (Oliveira et al., 2004).⁵³ This suggests that costs to WIC associated with the retail markup have increased over time.

Third, formula made by Nestlé, which has increased its share of the WIC market in recent years (fig. 7), had a higher percentage retail markup than did the Mead Johnson and Ross brands. Because the wholesale prices of Nestlé infant formula products during the 2nd quarter of 2004 were lower than those of the other two manufacturers, retailers could mark them up more and they would still be priced below the other brands. However, Nestlé, unlike the other two manufacturers, has raised its wholesale prices since then (effective in July 2004). The wholesale prices of Nestlé's DHA- and ARA-supplemented formulas are now similar to those of the other two manufacturers.⁵⁴

Table 5 shows the estimated net wholesale price and retail markup per 26 reconstituted ounces of milk-based powder faced by WIC State agencies during the 2nd quarter of 2004. The estimates are based on the assumption that *all* States offer the DHA- and ARA-supplemented formulas.⁵⁵ In reality, because many States were operating under contracts awarded prior to the introduction of the supplemented formulas, not all States offered the supplemented formulas during the second quarter of 2004.⁵⁶ However, those States that did not offer the supplemented formulas at that time either now offer the supplemented formulas or will be required to offer them in their next contract (as long as the formula manufacturers continue to submit bids for the rebate contracts based on the supplemented formulas). Average retail markups by State were estimated based on analysis of supermarket scanner data.⁵⁷

The effect of the retail markup on the cost to WIC State agencies can be significant. In 25 of the 33 States (76 percent) in which retail markups could be estimated, the retail markup for the supplemented powdered formulas exceeded the net wholesale price. And in 30 of the 33 States (91 percent), the retail markup for the supplemented formulas in liquid concentrate exceeded the net wholesale price (table 6).

⁵³ For example, the average retail percentage markup of the milk-based unsupplemented formulas by manufacturer and physical form during 1994-2000 was less than 7 percent (except for Nestlé liquid concentrate at 12 percent), while the percentage retail markup for the supplemented formulas in the 2nd quarter of 2004 ranged from 10 to nearly 16 percent.

⁵⁴ As of August 2005, the wholesale price for the DHA- and ARA-supplemented formulas in liquid concentrate was the same for all three manufacturers.

⁵⁵ For those States whose primary contract brand was not a DHA- and ARA-supplemented formula, the net wholesale price was calculated using the same percentage discount rebate as the primary contract brand applied to wholesale price of the supplemented formula in effect during the 2nd quarter of 2004.

⁵⁶ The Government Accountability Office (2006) reported that as of mid-2005, 8 States did not provide supplemented formula; 23 States provided supplemented formula to all participants, or provided it to all participants unless unsupplemented formula was requested; while the remaining States provided supplemented formula under certain circumstances such as when a prescription was provided or when unsupplemented formula was not available in retail outlets.

⁵⁷ Retail markups were estimated only for those States in which ACNielsen Scantrack retail price data were available. The retail prices used to estimate retail markups are based on an average of all supermarkets (i.e., WIC-authorized stores as well as stores not WIC-authorized) in a particular State. It was not possible to determine the actual retail markup paid by State WIC agencies since information on retail prices in WIC-authorized stores was not available.

Table 5

Estimated net wholesale price and retail markup of powdered formula in the 2nd quarter of 2004, by State

State	Date contract started	Contract holder	Net wholesale price per 26 oz	Retail markup per 26 oz
TN	7/1/1999	Ross	\$0.65	\$0.30
NJ	10/1/1999	Nestlé	\$0.12	\$0.36
SC	4/7/2000	Ross	\$0.33	\$0.21
AL	10/1/2000	Ross	\$0.58	\$0.32
WI	1/1/2001	Ross	\$0.22	\$0.32
IL	2/1/2000	Ross	\$0.18	\$0.35
VA	6/29/2001	Nestlé	\$0.23	\$0.32
KY	7/1/2001	Nestlé	\$0.18	\$0.43
ND	7/1/2001	Nestlé	\$0.48	NA
NEATO (New England and Tribal Organizations)				
CT	10/1/2001	Mead Johnson	\$0.18	\$0.30
ME	10/1/2001	Mead Johnson	\$0.18	NA
MA	10/1/2001	Mead Johnson	\$0.18	\$0.37
NH	10/1/2001	Mead Johnson	\$0.18	NA
RI	10/1/2001	Mead Johnson	\$0.18	NA
WSCA (Western States Contracting Alliance)				
AK	10/1/2001	Mead Johnson	\$0.10	NA
AZ	10/1/2001	Mead Johnson	\$0.10	\$0.38
DE	10/1/2001	Mead Johnson	\$0.10	NA
HI	10/1/2001	Mead Johnson	\$0.10	NA
ID	10/1/2001	Mead Johnson	\$0.10	NA
KS	10/1/2001	Mead Johnson	\$0.10	\$0.37
MD	10/1/2001	Mead Johnson	\$0.10	\$0.33
MT	10/1/2001	Mead Johnson	\$0.10	NA
NV	10/1/2001	Mead Johnson	\$0.10	NA
OR	10/1/2001	Mead Johnson	\$0.10	\$0.71
UT	10/1/2001	Mead Johnson	\$0.10	NA
WA	10/1/2001	Mead Johnson	\$0.10	\$0.57
DC	10/1/2001	Mead Johnson	\$0.10	NA
WY	10/1/2001	Mead Johnson	\$0.10	NA
MI	11/1/2001	Ross	\$0.20	\$0.30
FL	2/1/2002	Nestlé	\$0.17	\$0.49
GA	10/1/2002	Mead Johnson	\$0.13	\$0.40
OH	10/1/2002	Ross	\$0.24	\$0.35
Southwest/Mountain Plains/Midwest Regions				
TX	10/1/2002	Mead Johnson	\$0.11	\$0.33
MN	10/1/2002	Mead Johnson	\$0.11	\$0.41
IA	10/1/2002	Mead Johnson	\$0.11	\$0.45
CO	1/1/2003	Ross	\$0.25	\$0.36
OK	1/1/2003	Nestlé	\$0.18	\$0.60
LA	2/1/2003	Ross	\$0.22	\$0.34
NY	7/1/2003	Mead Johnson	\$0.83	\$0.27
CA	8/1/2003	Ross	\$0.12	\$0.55
Southwest/Southeast Region				
AR	10/1/2003	Mead Johnson	\$0.31	\$0.46
NM	10/1/2003	Mead Johnson	\$0.31	NA
NC	10/1/2003	Mead Johnson	\$0.31	\$0.24
IN	10/1/2003	Mead Johnson	\$0.45	\$0.34
Mountain Plains Region				
MO	10/1/2003	Mead Johnson	\$0.48	\$0.48
NE	10/1/2003	Mead Johnson	\$0.48	\$0.33
SD	10/1/2003	Mead Johnson	\$0.48	NA
PA	10/1/2003	Ross	\$0.11	\$0

Source: USDA's Economic Research Service based on formula manufacturers' bids and ACNielsen Scantrack data.

Table 6

Estimated net wholesale price and retail markup of liquid concentrate formula in the 2nd quarter of 2004, by State

State	Date contract started	Contract holder	Net wholesale price per 26 oz	Retail markup per 26 oz
TN	7/1/1999	Ross	\$0.35	\$0.40
NJ	10/1/1999	Nestlé	\$0.13	\$0.46
SC	4/7/2000	Ross	\$0.07	\$0.33
AL	10/1/2000	Ross	\$0.17	\$0.39
WI	1/1/2001	Ross	\$0.10	\$0.66
IL	2/1/2000	Ross	\$0.08	\$0.63
VA	6/29/2001	Nestlé	\$0.07	\$0.38
KY	7/1/2001	Nestlé	\$0.15	\$0.50
ND	7/1/2001	Nestlé	\$0.53	NA
NEATO (New England and Tribal Organizations)				
CT	10/1/2001	Mead Johnson	\$0.15	\$0.38
ME	10/1/2001	Mead Johnson	\$0.15	NA
MA	10/1/2001	Mead Johnson	\$0.15	\$0.45
NH	10/1/2001	Mead Johnson	\$0.15	NA
RI	10/1/2001	Mead Johnson	\$0.15	NA
WSCA (Western States Contracting Alliance)				
AK	10/1/2001	Mead Johnson	\$0.11	NA
AZ	10/1/2001	Mead Johnson	\$0.11	\$0.58
DE	10/1/2001	Mead Johnson	\$0.11	NA
HI	10/1/2001	Mead Johnson	\$0.11	NA
ID	10/1/2001	Mead Johnson	\$0.11	NA
KS	10/1/2001	Mead Johnson	\$0.11	\$0.50
MD	10/1/2001	Mead Johnson	\$0.11	\$0.42
MT	10/1/2001	Mead Johnson	\$0.11	NA
NV	10/1/2001	Mead Johnson	\$0.11	NA
OR	10/1/2001	Mead Johnson	\$0.11	\$0.78
UT	10/1/2001	Mead Johnson	\$0.11	NA
WA	10/1/2001	Mead Johnson	\$0.11	\$0.79
DC	10/1/2001	Mead Johnson	\$0.11	NA
WY	10/1/2001	Mead Johnson	\$0.11	NA
MI	11/1/2001	Ross	\$0.09	\$0.38
FL	2/1/2002	Nestlé	\$0.07	\$0.39
GA	10/1/2002	Mead Johnson	\$0.14	\$0.56
OH	10/1/2002	Ross	\$0.08	\$0.44
Southwest/Mountain Plains/Midwest Regions				
TX	10/1/2002	Mead Johnson	\$0.11	\$0.55
MN	10/1/2002	Mead Johnson	\$0.11	\$0.27
IA	10/1/2002	Mead Johnson	\$0.11	\$0.47
CO	1/1/2003	Ross	\$0.08	\$0.42
OK	1/1/2003	Nestlé	\$0.08	\$0.65
LA	2/1/2003	Ross	\$0.08	\$0.49
NY	7/1/2003	Mead Johnson	\$0.89	\$0.35
CA	8/1/2003	Ross	\$0.12	\$0.56
Southwest/Southeast Region				
AR	10/1/2003	Mead Johnson	\$0.62	\$0.70
NM	10/1/2003	Mead Johnson	\$0.62	NA
NC	10/1/2003	Mead Johnson	\$0.62	\$0.43
IN	10/1/2003	Mead Johnson	\$0.55	\$0.60
Mountain Plains Region				
MO	10/1/2003	Mead Johnson	\$0.58	\$0.64
NE	10/1/2003	Mead Johnson	\$0.58	\$0.44
SD	10/1/2003	Mead Johnson	\$0.58	NA
PA	10/1/2003	Ross	\$0.11	\$0.34

Source: USDA's Economic Research Service based on formula manufacturers' bids and ACNielsen Scantrack data.

In most States, the retail markup and not the net wholesale price is the largest component of infant formula costs. Furthermore, this may be an underestimate of the actual retail markup paid by WIC State agencies. An earlier analysis of retail infant formula prices found that being the WIC-designated brand of formula increased the retail price of formula (Oliveira et al., 2004). Since being the WIC-designated brand presumably would have less effect on retail prices in stores that do not participate in the program, estimates of the retail markup used in this analysis (which are based on both WIC-authorized as well as non WIC-authorized retailers) are probably less than the actual retail markup paid by WIC State agencies, which is based solely on the retail markup at WIC-authorized stores. Moreover, the data used in this analysis are representative of sales in supermarkets with \$2 million or more in annual sales, and smaller WIC-authorized stores not included in the data set are likely to have larger retail markups than are indicated in tables 5 and 6.

Our analysis indicates that the retail markup makes up most of the infant formula costs to many WIC State agencies. However, it is unlikely that WIC vendor management practices can yield the magnitude of savings obtained through the manufacturers' rebates, primarily due to the vast number of participating retailers and the broad range of retailer pricing strategies.