

## Shrinking the Price Gap for Whole Grains

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### ABSTRACT SUMMARY

Whole grains have historically cost more than refined grains, creating an additional barrier to consumer acceptance. Although this price gap has diminished over the past few years, the ideal outcome would be to see whole grain foods achieve price parity with refined/enriched grain foods.

The price premium for whole grain foods is due to many reasons, including processing issues and supply-and-demand. While the gap is indeed closing, especially since 2005, when the Dietary Guidelines changed and the Whole Grain Stamp was introduced, regional and category differences still exist.

There are many knowledge gaps in this area, because government data lag years behind current time. (A recent USDA ERS report on this topic included information only through 2006–2007.) However, official data are not key to understanding this problem: a trip through a typical grocery store confirms the state of the situation.

### Factors Contributing to the Price Gap

Whole grain foods should cost less than refined grain foods, since a bushel of wheat can make 60 loaves (24 oz each) of whole grain bread and only 42 loaves of refined/enriched bread (2).

It's not that simple, however. There are increased production costs in working with whole grains. Whole grain flour costs more (since it's a niche product) and extra ingredients like additives and dough conditioners may be needed. Longer rising times or baking times may limit throughput and fixed costs are spread over fewer units.

Distribution costs may also be higher for whole grain products. They have a shorter shelf life, and their higher price may mean slower sell-through, resulting in more potential waste. In short, economies of scale and other factors result in a price premium for whole grain products.

On the other hand, it must be acknowledged that whole grains also offer greater value than refined grains. Refining grains removes half to two-thirds or more of scores of nutrients; even grains that are enriched have only had five of those nutrients returned (and not in the same original proportions). Part of the "solution" to the price gap may involve educating consumers to understand that whole grains may sometimes cost more because they are worth much more.

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### The Price Gap is Shrinking

USDA data from 2006 show that the price premium for whole grains varies widely by region and by market within regions (4). In the nonmetro Pacific West and in San Francisco markets, the gap was the smallest, with whole grain consumers paying about 23–24% more than refined grain consumers. At the same time, in the nonmetro Middle Atlantic, consumers paid the highest premium for whole grains, spending about 66% more than refined grain consumers.

In addition to regional differences, there are category differences. In a 2009 grocery store survey (3) of best-price choices for both whole grain and refined grain foods, eleven categories showed a premium for whole grains, while five (cold cereal, hot cereal, granola bars, granola, and wraps/tortillas) actually offered less expensive whole grain options than refined grain ones.

Overall, the price gap is shrinking. In the period 1998 to 2006, areas with the smallest gap decreased from about a 35% premium to about 23%, while those with the highest gap decreased from a peak of about 66% to about 45%(4).

### The 2012 Gap: A Grocery Store Visit

Official data lag so far behind the momentum of the whole grain surge that a look at today's real-world conditions may be more instructive than analysis of numbers that are six or even three years old.

A May 2012 visit to supermarkets in Portsmouth, NH (1), showed that many whole grain foods have already achieved price parity with refined foods, while others retained the whole grain premium and a few even offered a savings for whole grains. For instance, see Table I.

As we compare products, it also becomes apparent that de-

**Table I. Price comparison of selected whole grain and refined grain products.**

Product	Refined vs. Whole
Thomas' bagels	both cost same
Chi-Chi 12" tortillas	both cost same
King Arthur Flour	both cost same
Success Rice	both cost same
P. F. Goldfish Crackers	both cost same
Newtons Cookies	both cost same
Manichewitz Matzos	whole = 17% more
Joseph's Pita Bread	whole = 26% more
Generic Sandwich Bread	whole = 33% more
Generic Pasta (rotini)	whole = 24% more

fining “parity” isn’t as simple as we might expect. A box of Carr’s Water Crackers appeared at first glance to have price parity, at \$2.00 for either the refined or whole grain crackers in identically shaped boxes. The whole wheat crackers weighed 7 oz, however, while the refined wheat crackers weighed just 4.25 oz—so the whole grain cost 39% less per pound. However, there were 24 thicker, heavier crackers in the whole grain box, and 34 lighter, thinner crackers in the refined grain box—so the whole grain crackers actually cost 41% more per cracker.

Were the whole grain crackers cheaper or more expensive? Most consumers would likely judge them as more expensive, because they would not last as many eating occasions.

### Implications for the Family Budget

As our final exercise in price comparisons, we decided to assess just how much of a premium a family of four would pay to choose whole grains instead of refined grains for a week’s worth of food (3).

Our family of four comprised mom (age 44), dad (age 45), son (age 15), and daughter (age 12). Following the 2010 Dietary Guidelines for Americans, the females would each need six grain servings a day, and the males would need nine servings each. To keep things simple, we assumed they would eat cold cereal (3x), hot cereal (3x), and French toast (1x) for

breakfast; sandwiches (7x) for lunch; and rice (2x), pasta (2x), tortillas (2x), and pita pizza (1x) for dinner. For each food, we set out to find the least expensive option in Table II.

As Table II shows, the family will pay a price premium of 16.36% to buy whole grain products instead of comparable refined grain ones. This premium is much smaller than the 2006 data shown earlier, indicating that the gap is still shrinking.

However, it’s useful to note that the dietary guidelines advise Americans to “make at least half your grains whole.” If our family follows this advice—buying their bread in refined form and their cereal, pasta, rice, and tortillas in whole form—they will have spent only \$16.51, a sum less than eating an all-refined diet. By paying careful attention to categories, our family can make the whole grain price premium completely disappear.

### Conclusion

Earlier data and current store experiments illustrate that the whole grain price premium is shrinking, and that it’s possible to follow the dietary guidelines’ advice for consuming whole grains while actually saving money rather than spending more.

Recommended next steps should focus on a campaign with manufacturers to work toward further price parity. Walmart has already begun this process, as it pledged in January of 2011 to work with its suppliers to erase the price gap between whole and refined grains.

### References

1. *Are We There Yet?* Whole Grains Council conference proceedings, April 2009. Based on data from a Hannaford supermarket in early 2009.
2. Kansas Wheat Commission, at [www.kswheat.com](http://www.kswheat.com).
3. Supermarket data from Hannaford or Market Basket stores in Portsmouth, NH, May 2012.
4. Todd, J., Leibtag, E., and Penberthy, C. *Geographic Differences in the Relative Price of Healthy Foods*. USDA, Economic Research Service, June 2011

**Table II. Feeding a family of four: Cost comparison of refined vs. whole grains.**

		Refined	Whole	WG as % of refined grain
RTE cereal	30 oz	\$3.33	\$2.80	-15.91%
Hot cereal	30 oz	\$2.71	\$2.56	-5.28%
French toast	10 slices	\$0.50	\$0.83	+66.53%
Sandwiches	70 slices	\$3.47	\$5.78	+66.53%
Pasta	20 oz	\$1.21	\$1.80	+23.24%
Rice	20 oz	\$0.81	\$0.81	0.00%
Tortillas	20 pcs	\$2.82	\$2.82	0.00%
Pita Pizza	5 pitas	\$1.75	\$2.36	+26.00%
<b>Total</b>	<b>210 svgs</b>	<b>\$16.72</b>	<b>\$19.45</b>	<b>+16.36%</b>