

Bottled Water Issues • No. 162 • 10/05

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Size and State of Bottled Water Industry

1. Datamonitor. **Bottled water in the United States: Industry profile.** February 2004. 17 pages.

“The US bottled water market reached a value of \$30.3 billion in 2003, having grown with a compound annual growth rate (CAGR) of 5.4% in the 1999-2003 period.”

2. Datamonitor. **Global bottled water: Industry profile.** February 2004. 17 pages.

“The global bottled water market reached a value of \$55.7 billion in 2003, having grown with a compound annual growth rate (CAGR) of 5.3% in the 1999-2003 period. This growth was primarily driven by the strong expansion of the Asia-Pacific market, but was held back by the weaker growth of its European counterpart.”

3. Todd, Heather. **Riding the wave.** *Beverage World*, v. 124, no. 5, p. 34, May 15, 2005. 5 pages.

“The real success of the bottled water category is the continued rise in per cap consumption, which reached 23.8 gallons in 2004, a 7.7-percent increase over 2003’s 22.1 gallons, which was up 1.4 gallons from 2002. Per cap consumption of bottled water has risen steadily since 1976 and since 1994, when consumers drank an average of 11 gallons, the bottled water category has managed to double its per cap consumption level.”

4. Turcsik, Richard. P. **H2 Oh!: Bottled water continues to ride an unquenchable popularity wave, with no crest in sight.** *Progressive Grocer*, v. 83, no. 5, p. 53, April 1, 2004. 5 pages.

“One thing in supermarket life is certain – the bottled water category is far from being all washed up. In fact, new bottle shapes, multibottle packaging, and calorie- and carb-free flavored waters promise that sales will be surging for the foreseeable future, especially in the single-serve bottle segment, which is tapping into the lucrative in-home consumption market.”

5. Sheridan, Margaret. **Clear options: Operators discover that bottled water is a pour that’s long on profits.** *Restaurants & Institutions*, v. 115, no. 2., p. 36, February 1, 2005. 2 pages.

“Water has staying power and sales appeal in any foodservice segment. Free of sugar, calories, and alcohol, it outruns beer, wine, juice, coffee and soda as a beverage for all dayparts. Smart operators enhance dining experiences by offering various brands of still or sparkling water, a gesture that increases check averages and gratuities.”

6. Clitheroe, Paul. **Am I better off buying bottled water or using water filters?** *Money (Australia)*, No. 2, p. 24, May 2005. 4 pages.

“To my way of thinking, if you’re on a strict budget than sticking with tap water is the obvious way to go. But if you can’t stand the taste of your local tap water or have some concerns about the quality, it’s pretty obvious that filtered water (1 cent to 15 cents a litre) is a cheaper option than buying bottled water (ignoring imports, about \$0.42 to \$2.40 a litre).”

7. Jordan, Jeffery L. and He, Senhul. **Size counts: The economic value of bottled water.** *Choices: The Magazine of Food, Farm & Resource Issues*, v. 17, no. 3, p. 38, Fall 2002. 3 pages.

“It is likely that when people buy bottled water, they are purchasing the convenience rather than attempting to avert unsafe tap water. Ignoring the expenditure effect of bottle size allows overstatement of consumer willingness to pay for safer drinking water by more than 100 percent.”

Varieties and Content of Bottled Water

8. Petrie, Keith J. and Wessely, Simon. **Getting well from water.** *British Medical Journal*, v. 329, p. 1417, December 18-25, 2004. 2 pages.

“The public is particularly unforgiving when companies produce water that is less than pure. When high concentrations of benzene were found in Perrier, sales plummeted and the company has struggled to regain its market share.”

9. McGrath, Tom. **Liquid Assets.** *Men's Health*, v. 19, no. 2, p. 142, March 2004. 6 pages.

“By ‘problems’ Olson means that the waters exceeded either some state limits for contamination or guidelines recommended by the bottled-water industry itself. The most common concern was an elevated level of heterotrophic plate count, or HPC, bacteria, which while not harmful in themselves, may indicate the presence of other, more-difficult-to-detect bacteria.”

10. Armour, Lawrence A. **Eau, neu!** *Fortune*, v. 147, no. 5, p. 53, March 17, 2003. 2 pages.

“In 1996, the state of Massachusetts uncovered an industrial solvent and possible carcinogen called trichloroethylene in a well that was providing raw material for a local brand of bottled water. In 1997 the state shut down a gentleman from Dorchester who was allegedly pumping water from a grungy basement into bottles labeled YOUTH FOUNTAIN and selling them at a storefront down the street.”

11. Gugino, Sam. **Water, water everywhere: Spring, mineral and other bottled waters explained.** *Wine Spectator*, v. 28, no. 1, p. 33, April 30, 2003. 3 pages

This article explains the different kinds of bottled waters available today, from plain drinking water to “enhanced water” (water with supplements). Also briefly outlines federal regulation of water.

12. Bullers, Anne Christiansen. **Bottled Water: Better than the tap?** *FDA Consumer*, v. 36, no. 4, p. 14, July/August 2002. 5 pages

“But he says consumers should feel the same way about the quality of their tap water. Tap water may sometimes look or taste differently, he says but that doesn’t mean it’s unsafe. In fact, the most dangerous contaminants are those that consumers cannot see, smell or taste.”

13. Howard, Brian. **Message in a bottle.** *E Magazine: The Environmental Magazine*, v. 14, no. 5, p. 26, September/October 2003. 11 pages.

“The Kansas Department of Health and Environment tested 80 samples of bottled water from retail stores and manufacturers. All 80 of the samples had detectable levels of chlorine, fluoride and sodium. Seventy-eight of the 80 contained some nitrate, 12 had nitrite, 53 had chloroform, 33 contained bromodichloro-methane, 25 had arsenic and 15 tested positive for lead.”

14. Manassis, Mitrakas & Constantinos, Simeonidis. **Conditions affecting bromate formation during ozonation of bottled water.** *Ozone: Science & Engineering*, v. 25, no. 3, p. 167, June 2003. 9 pages.

“Thus, today a few bottlers may face a new challenge in applying ozone without exceeding the newly established Maximum Contaminant Level (MCL) for BrO(3).”

15. Zohouri, F.V., et al. **Fluoride content of still bottled waters available in the north-east of England, UK.** *British Dental Journal*, v. 195, no. 9, p. 515, November 8, 2003. 4 pages.

“When the results of the present study are used to estimate daily fluoride intake from drinking water by age and gender, it is clear that bottled water consumers receive less than the recommended level of fluoride for optimal oral health.”

16. Buzalaf, Marilia Afonso Rabelo, et al. **Risk of fluorosis associated with infant formulas prepared with bottled water.** *Journal of Dentistry for Children*, v. 71, no. 2, p. 110, May/August 2004. 4 pages.

“The results of this study suggest that bottled water, when used to reconstitute formula concentrate, can exceed fluoride levels associated with increased likelihood of fluorosis.”

17. Johnson, Sissy A. and DeBiase, Christina. **Concentration levels of fluoride in bottled drinking water.** *Journal of Dental Hygiene*, v. 77, no. 3, p. 161, Summer 2003. 7 pages.
 “Until manufacturers include optimal levels of fluoride in bottled drinking water, bottled water should not be the sole alternative to fluoridated tap water. Proper testing should be conducted on all bottled drinking water to determine the exact fluoride content of these products.”
18. Dabeka, R. W., et al. **Survey of bottled drinking waters sold in Canada for chlorate, bromide, bromate, lead, cadmium and other trace elements.** *Food Additives & Contaminants*, v. 19, no. 8, p. 721, August 2002. 12 pages.
 “Consumers skeptical about the safety of tap water are more frequently substituting it with bottled water. Of the 199 samples analysed in this study, 22% exceeded either Canadian or WHO guidelines for one or more of the elements: B (Boron), Mn (Manganese), Cr (Chromium), Ni (Nickel), As (Arsenic), Se (Selenium) and Pb (Lead). Additional surveillance of bottled water is required for continued assessment of compliance.”
19. Evans, Meirion R. **Hazards of healthy living: Bottled water and salad vegetables as risk factors for Campylobacter infection.** *Emerging Infectious Diseases*, October 2003, v. 9, no. 10, p. 1219, October 2003, 7 pages.
 “To our knowledge, campylobacter has not been identified in mineral water, but this may simply be because testing for campylobacter is rarely undertaken. Mineral water has, however, been identified in the past as a vehicle of transmission during a cholera epidemic and as a potential source of typhoid fever in travelers.”
20. Thurman, Robert B., et al. **Bottle wars: England versus Scotland versus France.** *International Journal of Food Sciences & Nutrition*, v. 53, no. 3, p. 209, May 2002. 8 pages.
 “The lowest priced brand of water had the highest nitrate content (46.9 mg/L), while the most expensive brand did not necessarily have the best values for pH, total dissolved solids, turbidity or plate count.”



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Suggested Internet Resources (Accessed October 10, 2004)

International Bottled Water Association

<<http://www.bottledwater.org>>

Main bottled water industry site. Contains links to model policies for bottling water and to facts about bottled water.

National Spring Water Association

<<http://www.nswa.org>>

Group of bottled water producers who pledge that their water comes from natural springs and agree to periodic inspections. Contains links explaining why natural springs are different from borehole extraction of spring water sources.

Kentucky Division of Water Bottled Water page

<<http://www.water.ky.gov/dw/bottled/>>

Explains Kentucky's regime of regulating bottled water, including weekly microbial testing.

21 CFR PART 129--Processing and bottling of bottled drinking water

<http://www.access.gpo.gov/nara/cfr/waisidx_05/21cfr129_05.html>

Provides information on federal regulations for the processing and bottling of drinking water as of April 1, 2005.

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