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Insights and Applications

# Residents' Perceptions of Tap Water and Decisions to Purchase Bottled Water: A Survey Analysis from the Appalachian, Big Sandy Coal Mining Region of West Virginia

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## Abstract

In this exploratory effort, we examine the possible externalities associated with coal mine production and its ensuing effects on drinking water. Past experiences in the coal fields suggest that this has significant economic impacts on household budgets, with many residents choosing to buy bottled water rather than rely on their local tap water for consumption and household usage. Through an analysis of survey data, this study explores the relationship between resident perceptions of watershed pollution associated with coal mining, its perceived effects on drinking water quality, and decisions to purchase “store-bought” water (bottled water). While findings reveal an indirect association between perceived pollution impacts, perceived drinking water

quality, and resident decisions to purchase bottled water, the most robust direct predictors of purchase are perceived tap water quality, the saliency of drinking water concerns, and trust/distrust in the local water treatment facility.

Keywords:

- Appalachia
- coal mining
- drinking water
- environmental risks

## Notes

Note. Statistically significant difference indicated by \* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$ .

<sup>a</sup> “Our home purchases distilled and bottled water” (model 1).

<sup>b</sup> “Water from my tap is always of good quality” (model 2).

<sup>c</sup> “Drinking water is a problem in my community” (model 3).

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[Effects of components of protection-motivation theory on adaptive and maladaptive coping with a health threat.](#)

Source: Journal of Personality and Social Psychology

[Determinants of Risk Perceptions of a Hazardous Waste Site](#)

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[Acid mine drainage composition and the implications for its impact on lotic systems](#)

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