

Vermonters Awareness, Knowledge and Opinions of
Genetic Modification
Vermont Poll 2004

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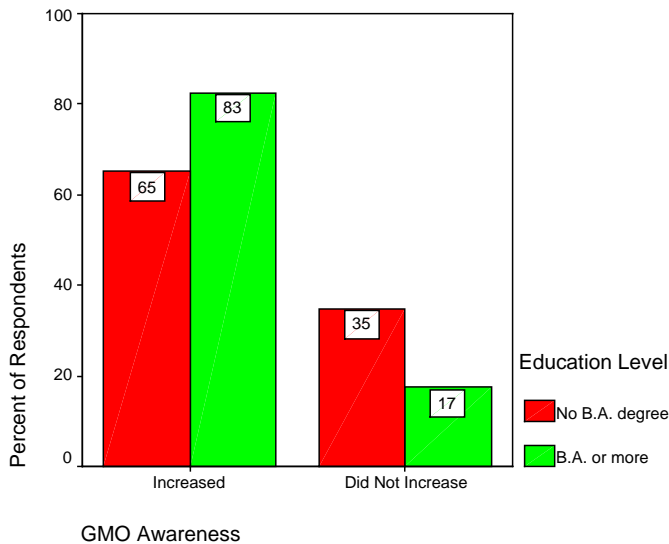


degree or higher. The majority of households consisted of two adults, with only 37 percent of respondents with one child or more in the house.

Those with a bachelor's degree also appeared more likely to report an increase in awareness than those without a bachelor's degree (Figure 1); Respondents with more household income (more than \$35,000) were more likely to have heard of a GMO (significance <0.001) and more likely to report increased awareness than respondents with lower incomes (significance = 0.05)²; and, Vermonters with a bachelor's degree or higher were also more likely to say that media attention to GMOs had increased (significance = 0.05) compared to those without a bachelor's degree.

Based on our Vermont sample, families with children did not appear to be more or less aware of GMOs compared to families without children. The age of the respondent also did not appear to be related to the respondent's awareness of GMOs.

Figure 1: Change in GMO Awareness vs. Education Level
(n=402, significance < 0.001)



Source: Center for Rural Studies, University of Vermont, 2004 Vermont Poll

Knowledge

Our examination of Vermonters' know

Table 1. Ability to Define the term “Genetic Modification”

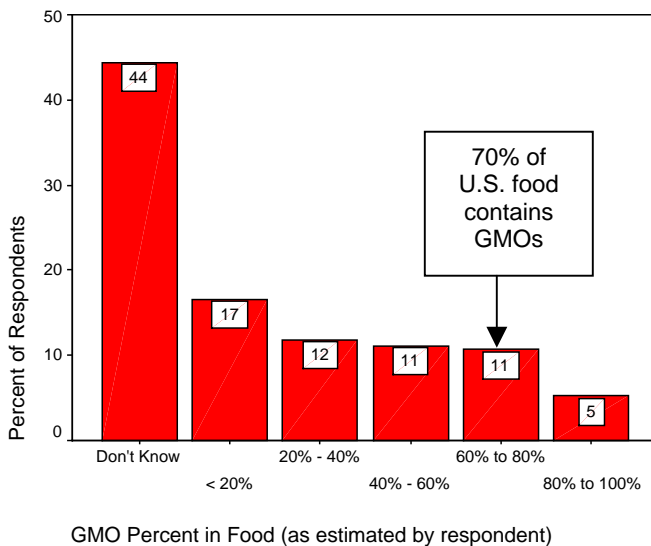
Definition of GM	Frequency	Percent
<i>Correct:</i> “the selective, deliberate alteration of genes . . .that would not naturally occur in nature or through traditional breeding”	267	63.1%
<i>Incorrect:</i> “the movement of genes . . .that may or may not occur naturally or through traditional breeding”	85	20.1%
Don't Know	71	16.8%
<i>Total</i>	423	100%

Source: Center for Rural Studies, University of Vermont, 2004 Vermonter Poll

When asked if their knowledge of GMOs had changed in the last five years, 57.5% of Vermonters believed that their knowledge about GMOs had increased. Furthermore, more people who claimed to have increased knowledge both thought that they knew the definition of genetic modification (did not choose “Don't Know”) and in fact did know the correct definition answer compared to those who said their knowledge did not increase. This result shows a connection between perceived knowledge and actual knowledge.

When asked how much of the processed food in the U.S. contained GMOs, 44% of respondents answered “Don't Know” while only 11% gave an answer close to the correct amount (about 70% of food in the U.S. contains GMOs) (Figure 2).

Figure 2: Knowledge of Percentage of GMOs in Food (n=421)



Source: Center fo

Figure 5: Support for Labeling GE Seed for Farmers (n=594)

Influence of Knowledge on Opinion. Vermonters with greater actual and perceived knowledge were more likely than others to oppose the use of GMOs in food. All three of our measures of GMO knowledge appeared related to Vermonters' opposition to GMO use.

63 % of those who correctly defined "genetic modification" opposed GMOs in food, while 43% of those who did not correctly define the term opposed GMOs in food (significance = 0.001).

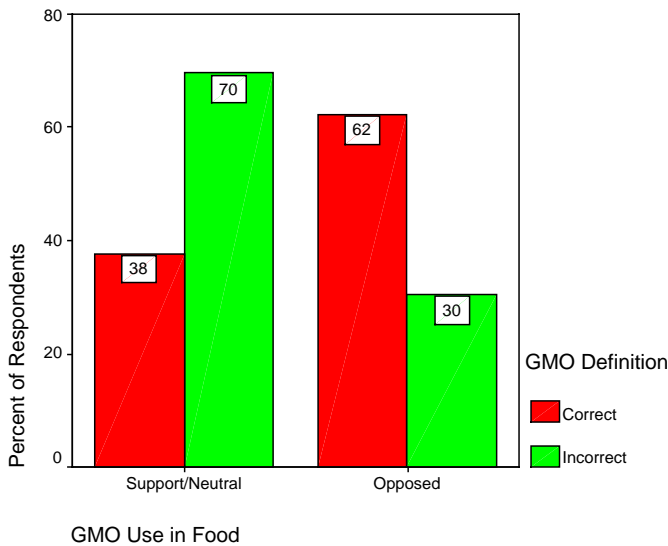
Those who opposed GMO use estimated that 49.2% of processed food in the U.S. contained GMOs (higher and closer to the correct amount of 70%) compared to 36.5% estimated by those who did not oppose GMO use (lower and farther from the correct percentage).

Vermonters who reported increased knowledge were more likely to oppose GMOs (64%) compared to those who did not report increased knowledge (50%) (significance value = 0.004).

Likewise, Vermonters with more GMO knowledge seemed more likely to support GMO seed labeling. Eighty-four percent (84%) of individuals who reported a knowledge increase supported GMO seed labeling compared to 73% of those who did not say their knowledge increased (significance < 0.005). There was no significant difference between the percentages estimated for GMOs in food when comparing those who supported GMO seed labeling and those who did not.

The Effect of Income on Knowledge and Opinion. At this point in the study, a contradiction in the results became apparent. Overall, Vermonters with more education and higher incomes appeared to be those

Figure 6: Knowledge of GM Definition vs. Opinion on GMO Use
High Income Group (> \$50,000)
(n=160, significance < 0.001)



Source: Center for Rural Studies, University of Vermont, 2004 Vermonter Poll

More than half of Vermonters in higher income households who reported increased knowledge (56.3%) also opposed GMOs in food, while only 43% of those who did not report increased knowledge opposed GMOs (significance = 0.069). We observed the same relationship between increased knowledge and opposition to GMOs in our total sample of Vermonters, but the results appeared slightly stronger for the whole sample (significance = 0.004).

The closer analysis presented here failed to find that individuals with higher incomes use information differently to form opinions about GMOs. Having more knowledge about GMOs and believing one's knowledge about GMOs has increased in recent years seems to be related to greater opposition to GMO use in food for both high income households and Vermonters overall. More study may be needed to fully understand why high income respondents in our total sample appeared less opposed to GMO use than respondents with lower incomes.

Conclusions

Two thirds of Vermonters had heard of GMOs, and most of them believed their awareness about GMOs had increased in recent years. More than half of those surveyed also said they noticed an increase in media attention toward GMOs. According to results from the 2004 Vermonter Poll, however, the proportion of people who had heard the term "GMO" has fallen compared to the 2000 Vermonter Poll.

The decrease in people who recognize the term GMO suggests that if media attention has in fact increased, then that increase has not translated into broader awareness. Greater media attention and lower measured awareness of genetic modification presents a paradox that will require further study.

A greater percentage of Vermonters believe their knowledge about GMOs has increased compared to the percentage of Vermonters who have actual knowledge about GMOs. More than half of Vermonters believed their knowledge about GMOs had increased in the past five years. Less than half of the respondents, however, knew the correct definition of "genetic modification." Furthermore, very few Vermonters seemed to know the extent to which GMOs are currently used in the U.S. food industry.

Vermonters with more education and income were more likely to report having greater awareness and knowledge about GMOs. Those with more education also were more likely to have *actual* knowledge about GMOs (i.e., to know the definition of GMO). We did not find, however, that those with more income possessed more actual GMO knowledge than those with less income.

While 58% of Vermonters opposed the use of GMOs in commercial food, more than one third of Vermonters were neutral toward the use of GMOs. This result may reflect consumers' efforts to process both positive and negative perceptions about GMOs. Consumers may support the potential benefits of GE technology and simultaneously have concerns about the potential risks of using genetic modification in food production.

Vermonters overwhelmingly supported the labeling of GE seeds for farmers. Even amongst those who had not heard of genetic modification prior to the 2004 Vermont Poll, the majority of respondents were supportive of the collection and provision of this information. While GE seed labeling received widespread approval by Vermonters, residents with greater educational attainment were even more likely64.7998 698.9404 .0 10.98 360

