2000 Vermonter Poll: Trust in Various Sources of Agricultural Information

Introduction

Consumers often rely on a variety of sources of information when forming opinions on agricultural issues. The government, the media, businesses, and educational institutions all work to inform and persuade consumers. An important aspect of informing the public is gaining trust. In order to be believed and listened to, an organization must be trusted.

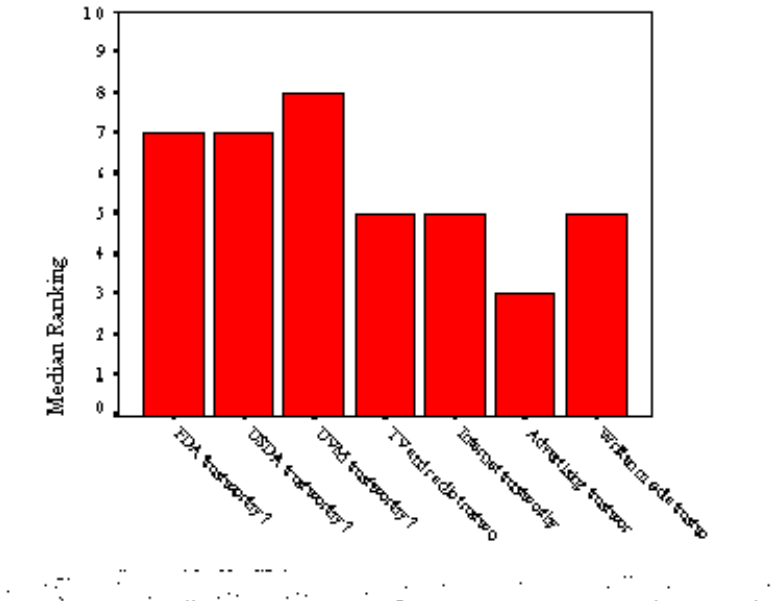
Individuals assign different levels of personal trust to each of these different groups. The public also forms judgements on the reliability and credibility of these mediums (Mazis, 1997). The focus of this study is to:

1. *Ascertain the different levels of trust Vermont residents have in these various sources of agricultural information;*
2. *Examine how different demographics play a role in levels of trust;*
3. *Investigate how levels of trust influence the way Vermont residents feel about agricultural issues; and*
4. *Investigate how levels of trust influence what Vermont residents think are important research topics.*

To make it possible to look at these relationships we broke down the sources of information we previously listed into workable units based on how that group communicates agricultural information. The major governmental sources of agricultural information are the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA). The business interests use advertising to inform consumers. The media uses a variety of mediums including the written media, broadcast media such as television and radio, and most recently the Internet to reach the public. Finally, universities, such as the University of Vermont, use a variety of media

particular medium. The demographics we looked at were gender, age, employment status, family composition, income, education, and geographic location.

We also conducted an analysis of how trust influences what Vermont residents know about genetically modified organisms (GMO) and how



Having ascertained the different levels of trust people have in the various sources of information we began to look at the role demographics plays in a persons level of trust. The demographics we examined were education, income, employment, location, family composition, and gender.

From the data we found numerous significant relationships between educational attainment and how trustworthy respondents found the different sources of agricultural information. These findings are listed below.

♦ Fewer people with a Bachelors degree or higher (14.8%) were likely to find the *FDA* trustworthy than people who did not graduate from high school (31.6%) (p-value =.002)

♦ Fewer people with a Bachelors degree or higher (12.5%) were likely to find the *USDA* trustworthy than people who did not graduate from high school (34.6%) (p-value =.001)

♦ Fewer people with a Bachelors degree or higher (11.6%) were likely to find the *University of Vermont* trustworthy than people who did not graduate from high school (40.4%) (p-value =.000)

♦ Fewer people with a Bachelors degree or higher (8.2%) were likely to find the *broadcast media* (television and radio) trustworthy than people who did not graduate from high school (30.4%) (p-value = .000)

♦ Fewer people with a Bachelors degree or higher (13.5%) were likely to find the *Internet* trustworthy than people who did not graduate from high school (46.3%) (p-value =.000)

♦ Fewer people with a Bachelors degree or higher (11.6%) were likely to find advertising trustworthy than people who did not graduate from high school (45.5%) (p-value =.000)

From our analysis we found no significant differences between educational attainment and the perceived trustworthiness of the written media. Based on these results we can say that there was a moderate, negative correlation between a person's level of education and how trusting they were. This means as educational attainment increased, trust in the various organizations decreased.

We then began to look for any significant and meaningful relationships between trust and location, employment, family composition, and gender. From the data we found very few correlations between trust and the demographics. There were a few relationships between the data.

♦ More people living in Chittenden County (19.2%) were found to be suspicious of the *University of Vermont* than people living in the Northeast Kingdom (11.7%) (p-value = .066)

♦ However, more people living in Chittenden County (16.5%) found the *University of Vermont* to be trustworthily than people living in the Northeast Kingdom (11.7%) (p-value = .066)

♦ More people living in Northeast Kingdom (24.2%) were found to be relatively trusting of *advertising* for agricultural information than people living in the Chittenden County (15.6%) (p-value = .044)

From the results we can see that people who live in Chittenden County are more split over their trust of UVM. People in Chittenden County are more likely to be highly trusting of UVM or highly suspicious. People in the Northeast Kingdom tend to have a more neutral opinion of the University of Vermont.

There were a few other relationships between trust and these demographics. However, nothing meaningful could be determined from them with regard to their influences on how trustworthy a person finds a particular source of agricultural information.

To analyze the differences between age and trust we used an ANOVA statistic, which is an acronym for an analysis of variance. We looked at the differences between the ages of people who we found to be trusting, middle of the road, and suspicious. There were statistically significant differences in all the cases. However, the only meaningful values for our analysis are the ones where there is a difference between the people whom we labeled trusting and those we labeled suspicious. Furthermore, the differences are only meaningful if the ages are substantially different. In this case only two sources of information have significant and meaningful differences. The differences in estimated mean age can be seen in below (Figure 2 and Figure 3, error bar graphs)

Figure 2: Estimated mean ages of respondents grouped by trust in the Internet (p-value = .000)

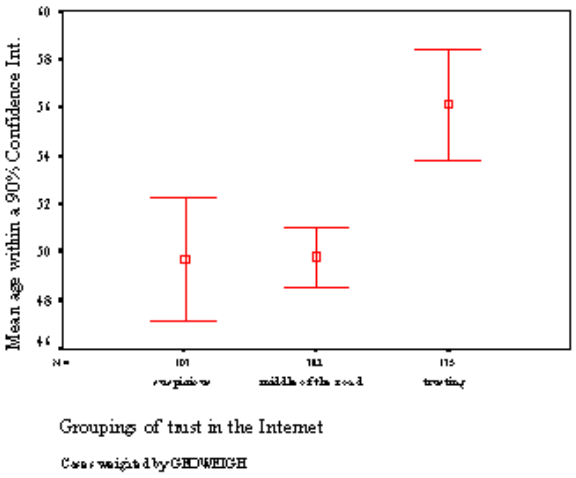
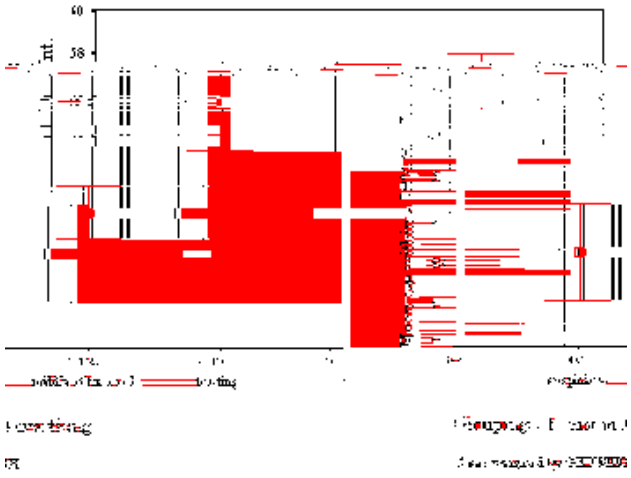


Figure 3: Estimated mean ages of respondents grouped by trust in advertising (p-value = .000)



Our analysis of the effect of income level on trust yielded three significant results.

♦ More people with an income of less than $35,000 (27.8%) found the *University of Vermont* to be trustworthy than people with an income greater than $65,000 (8.7%) (p-value = .000)

♦ More people with an income of less than $35,000 (22.4%) thought the *broadcast media* was trustworthy than people with an income greater than $65,000 (6.3%) (p-value = .000)

♦ More people with an income of less than $35,000 (33.5%) found *advertising* to be relatively trustworthy than people with an income greater than $65,000 (12.4%) (p-value = .046)

From these results we see that as the level of income *increases*, the likelihood of being relatively trusting of the University of Vermont, corporate advertising, and broadcast media *decreases*.

For the third section of analysis we looked for any statistically significant and meaningful differences between the respondents' level of trust and whether or not they knew the correct definition of GMO. Respondents were asked to choose between two possible definitions of what a genetically modified organism is. The results of this question are given below (Figure 4, table).

Figure 4: Table of the frequencies and percentages of whether or not a respondent knew the definition of GMO

	Frequency	**Percent**
Correct definition	160	31.1%
Incorrect definition	267	51.8%
Don't know the definition	88	17.2%
Total	**515**	

We found one significant and meaningful relationship when we compared a person's level of trust with whether or not they chose the correct definition of GMO. Regarding genetically modified organisms we also looked at one more question. The question dealt with a person's confidence in the FDA/EPA to regulate GMO's effectively. We analyzed the level of trust in FDA with respect to whether a person agrees, disagrees, or is neutral with the statement that they are confident in the FDA/EPA's ability to regulate GMO's. As we expected, there is a difference between level of trust in the FDA as a source of agricultural information and confidence in the FDA/EPA's ability to effectively regulate genetically modified organisms. These two results were as follows:

♦ More people who were suspicious of the Internet (41.2%) were likely to know the correct definition of what a GMO is than people who were trusting of the Internet (22.3%)

(p-value = .053)

♦ Of the respondents who thought the FDA was trustworthy (16.87%) for agricultural information 32.5% of them did not believe the FDA/EPA could effectively regulate GMO's

(p-value = .000)

Finally, in our last section of analysis we examined how differences in levels of trust affect what areas of research people see as being the most important. The areas we gave as possible choices were: competitive agriculture, forestry management and Vermont landscapes, protecting Vermont's environment, community economic development, Internet access and use, and a safe,

secure, healthy food supply. People were allowed to choose the top three issues they felt were most important.

We analyzed the data and found that although there were some statistically significant differences, there were no meaningful conclusion

Mazis, Michael B. & Raymond, Mary A. (1997), "Consumer Perceptions of Health Claims in Advertisements and on Food Labels," in *The Journal of Consumer Affairs*, Vol. 31: The American Council on Consumer Interests: 10-26.

Sheehy, Heather (1998), "Consumers and Biotechnology: A Synopsis of Survey and Focus Group Research," in the *Journal of Consumer Policy*, Vol. 21: Biotechnology and the Consumer: 359-386.