

# **Evaluating Public Perceptions in Kansas: A survey on Health and Environmental Issues**

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## **INTRODUCTION**

As demonstrated since the 1940=s, population surveys are an effective way to determine which members of a population are concerned about or interested in the subject in question (Roper, 1940; Stephan, 1948). The purpose of this project is to analyze and interpret the responses of participants who completed the statewide survey *Evaluating Public Perceptions in Kansas: a Survey of Health and Environmental Issues* conducted in Kansas during June of 2003.

Many Kansas grass roots advocacy groups who work on environmental and related health issues share deficiencies that limit their effectiveness as educators and advocates in the public health and public policy process in the state. With minimal funding, narrow goals and often both too little and too much information in their hands at the same time, individual organizations have little sense of goals held in common with other similar groups and neither the means nor the time for effective communication and coordination with those groups. These deficiencies limit their effectiveness by sometimes misdirecting already scarce resources and not identifying collaboration opportunities.

Improving that effectiveness is the purpose of this survey. The Center for Environmental and Human Health at Wichita State University developed a survey instrument to assess public perceptions on the link between health and the environment and their priorities for addressing them in terms of public policy. Ultimately, completion of the project will lead to developing and implementing strategies and mechanisms for

continuing coordination and communication among nonprofit environmental health stakeholders.

The Center for Environmental and Human Health believes this project will provide two extremely important positive factors in the culture of all nonprofit activity in the state. This project will provide an educational focus on advocacy work that is often missing in today's environmental health issues in the state. It will also raise the bar of expectations for organized advocates' effectiveness. It is believed that the combination of greater planning effectiveness and the higher bar of expectations will add significantly to perceived nonprofit credibility and, thus, make their work even more effective.

### **SURVEY INSTRUMENT AND ADMINISTRATION**

The survey instrument consisted of 54 questions that were developed by the Center for Environmental and Human Health to assess Kansans' perceptions of environmental and health issues. The first few questions were multiple-choice variables that addressed general health and environmental issues. The next questions revisit many of these issues in more specific terms. Additionally, this question set addresses topics such as, but not limited to, effectiveness of government involvement and financial responsibility for remediation of current environmental problems. Each question is phrased as a statement that the respondent may answer as strongly disagree, disagree somewhat, agree somewhat or strongly agree. The third portion of the survey is a small section of questions designed to evaluate the current effectiveness of non-profit environmental groups in the state. The remaining questions were used to evaluate demographics for the respondent and included questions concerning zip code, gender, age and levels of education and income (cf. survey on disk).

The Interdisciplinary Communication Research Institute (ICRI) at Wichita State University used this survey instrument in a stratified telephone campaign during June 2003. Housed in the Elliott School of Communications, ICRI maintains the staff and facilities to provide expertise in conducting stratified phone surveys and collection of large data sets. Stratified phone surveys are hailed for their efficacy and are widely used

for sampling large population sizes. To complete the statewide survey *Evaluating Public Perceptions in Kansas: a Survey of Health and Environmental Issues*, phone numbers were randomly generated within the given survey parameters by *Survey Sampling, Inc.*, a company that specializes in this service. Survey parameters included statewide coverage, and even distribution from urban, small town and rural populations within Kansas. Over 7000 phone calls were placed by ICRI staff members in order to produce 626 completed surveys, and fulfill the survey parameters. Once the surveys were completed the responses were systematically coded by *Survey System* (a software program), saved to a spreadsheet for analysis.

### **Project Goals**

The first objective of this project was to gain statewide and statistically valid coverage with the survey instrument. To this end, all counties in the state were included in the telephone survey to insure the most complete and consistent statewide coverage. According to Utts and Heckard (2002), the number 400 is both valid and significant statistically to represent any larger human population with a margin of error of +/-0.05. Based upon our funding cap, we were able to conduct additional analyses with this survey. Thus, a total of 626 completed surveys were obtained from 90/103 counties. Results from these surveys were statistically analyzed for statewide trends in respondent answers to each survey question.

Additional statistical analyses were conducted on three demographic subdivisions: urban, small town and rural categories. These state subdivisions were chosen because public health workers use them commonly. To collect completed, evenly distributed surveys in all 3 demographic areas, and not exceed our funding cap, a minimum of 200 surveys was collected in each region. Urban areas include all towns with populations greater than 5000. This figure is clearly not what most people would consider an urban area, however, since many areas in Kansas are sparsely populated, the adjustment becomes necessary in order to have a consistent distribution of urban respondents statewide. Small towns are defined as cities with populations less than 5000. Therefore, rural areas are defined as unincorporated areas in a county where people live.

## **STATISTICAL METHODS**

The project focused primarily on the analysis of statistical data provided by this survey. Using SPSS software, the initial step in this process reviewed the raw data for the population of Kansas as a whole. Primary analysis included response frequency means, standard deviation and standard mean error for each question. To identify differences in trends among the three smaller demographics (i.e., urban, small town and rural), the same battery of descriptive statistical tests were performed on each of these smaller subpopulations.

## **RESULTS AND DISCUSSION**

Percentage bar graphs of these results are available in \*.jpg format on this disk. Each jpg is identified by question and subpopulation. For example Question 1 is labeled Q1. The letter following each question can be decoded as follows: u = urban, st = small town, and r = rural. Thus, Q1r.jpg is question 1 rural subpopulation. Each jpg is the bar graph percentage of responses from each subpopulation for the question indicated.

As you peruse these data, keep in mind that ***each of the answers represents a respondent=s perception of the issues in each question.*** Thus, there is no right or wrong answer to most of the survey questions. From survey data, you can interpret only what each respondent >understands= about the question asked. This >understanding= is based upon each respondent=s ***a priori*** information base. As such, you are >viewing a snapshot= of the respondents perceptions of the health and environmental issues about which they are queried. If you want additional information on any of the survey questions, contact the authors.

What is the value of this information? For NGOs, these base-line data can provide a jumping-off-point for structuring educational programs and allocating resources. Since these data represent what Kansans think they know, we can focus our resources to help correct misconceptions or to reinforce appropriate conceptions. In addition, these data can help NGOs develop partnerships and increase the number of stakeholders involved in their projects. Ultimately, this form of collaboration will strengthen all NGOs and offer insight into how to allocate already scarce financial resources to more effectively accomplish their goals.