



The Current Status of Environmental Knowledge in Kentucky

Do we need environmental education in Kentucky? Or do Kentuckians already have the knowledge they need to make informed decisions about the environment? As part of the master plan process, the committee on adult literacy created a survey that would not only ask some basic questions about Kentuckians' knowledge of the environment, but also examine their attitudes and behaviors.

It should be noted that this survey does not in any way measure the environmental literacy of Kentuckians. Environmental literacy is very difficult to define, let alone measure. This survey, conducted by the University of Kentucky Survey Research Center on a random sample of 668 adults in March 1999, is simply a snapshot of whether Kentuckians can answer some very basic questions about issues that deal with air, land and water quality. It also asks Kentuckians to share their attitudes about certain environmental issues such as how well we are protecting our natural resources. Finally it asks Kentuckians to identify whether or not they engage in behaviors that might improve the environment.

Please note that all percentages have been rounded to the nearest decimal for easier reading.

Results of the Survey

KNOWLEDGE

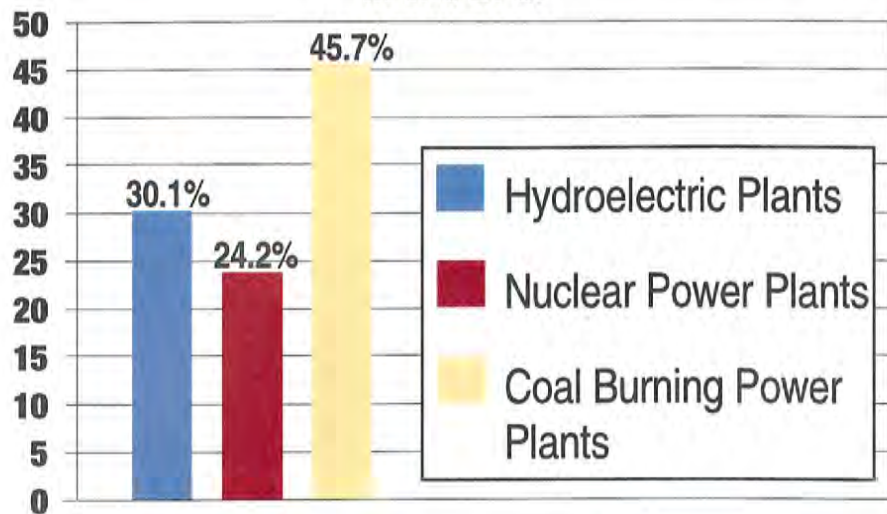
The survey asked eleven questions that measured Kentuckians' knowledge of current environmental topics. The committee designed the questions to be extremely easy. These are questions that any sixth grader should be able to answer; as expected, a majority of the respondents to the survey were able to answer many, though not all, questions correctly. However, for most questions, a large minority of respondents was not able to give correct answers to these very basic questions.

Kentuckians did well answering questions that are "hot topics" in the media. For example, 81% of respondents know that the major benefit of the ozone layer is protection from cancer-causing ultraviolet rays. Eighty-nine percent know that the primary method of dealing with nuclear waste is to store it underground. Ninety-five percent know that paints, acids, and pesticides are considered hazardous waste, while glass, newspapers, and most building materials are not.

On topics not highlighted as strongly by the media, respondents did less well. For example, while 61% of those surveyed know that solar energy and trees are renew-

able resources, a full 39% think coal, oil, iron, and other metals are also renewable resources. While 49% of respondents correctly identify the best definition of “biodiversity” as the many different types of plants and animals, another 40% think biodiversity is the many differing opinions on environmental issues. Seventy-two percent of those surveyed correctly identify the primary benefit of wetlands as helping to clean water systems, but a full 18% think the primary benefit of wetlands is to reduce the number of plant and animal species in an area, and another 10% think they are useful for the development of landfill sites.

Percentage of Kentuckians Surveyed Who Correctly Identified Coal as the Largest Source of Electricity in the U. S.



Seventy-three percent of respondents correctly identify landfills as the primary destination of household garbage in the U.S., but another 23% (perhaps understandably) identify illegal dumps as the primary destination of household garbage. Surprisingly, only 46 % of those surveyed are able to identify coal-burning power plants as the number one source of electric power in the U.S. Fifty-five percent believe the primary source of electricity is either hydroelectric power or nuclear power. This is of special concern in a state where electricity costs are relatively low due to our proximity to coal and where coal, the jobs it creates, and the way it is mined are major sources of public debate.

When asked about the most common reason for the extinction of plants and animals, 62% of respondents correctly identify habitat loss. However another 30% believe poisoning is the most common reason for the extinction of plants and animals, and another 8% identify overhunting as the cause. A fairly large percentage of respondents (73%) correctly identify fumes from motor vehicles as the leading source of carbon monoxide in the air, while another 24% incorrectly believe most carbon monoxide comes from factory emissions.

Respondents incorrectly identify the leading source of water pollution as household waste in sewers and landfills and the second leading cause as factory runoff. Only 21% correctly identify runoff from city streets, farms and yards as the leading source of water pollution. This statistic is especially interesting since, when asked to identify the most important environmental problem in Kentucky, the most common answer (23%) is water pollution. Fifteen percent identify air pollution as the most important environmental problem and another 15% identify littering and illegal dumps as the most important issues. See the chart on page 20 for the five most important environmental problems identified by those surveyed.



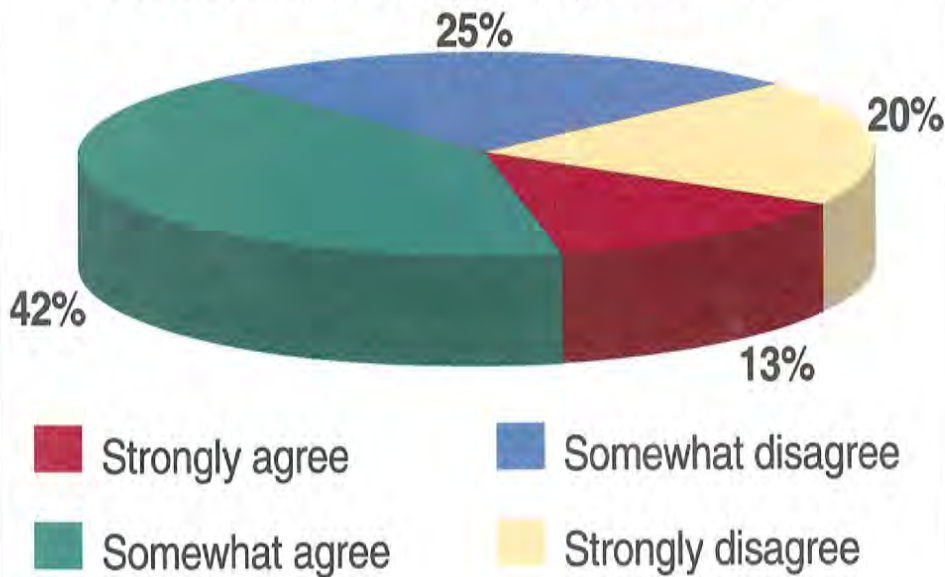


ATTITUDES

The next ten questions in the survey asked Kentuckians to give their opinions on various questions concerning the environment. Kentuckians surveyed tend to believe their local environment is better than the environment in general. For example, when asked to rate the quality of water in general, 44% said that water quality is good or excellent. When asked about the quality of the water in their area, 52% identify their water as either excellent or good. The differences in opinions on air quality are somewhat larger. While only 40% of those surveyed rate air quality in general as excellent or good, 62% rate air quality in their own area as excellent or good.

When asked whether specific areas of the environment are adequately protected, a majority of Kentuckians surveyed said yes. Sixty-nine percent either agree or strongly agree that wild and natural areas are adequately protected. A smaller percentage, 57%, believe wetlands are adequately protected. A small majority believes forests are adequately protected (55%) and a larger majority (63%) believes endangered species of plants and animals are adequately protected.

Survey Responses to the Statement, "Forests are Adequately Protected."



Perhaps the most controversial question in the survey asked respondents whether private landowners should be able to use their land in any way they see fit. Approximately half of all Kentuckians surveyed (52%) agree with this statement, while another half (48%) disagree. This 4% difference is right at the margin of error for the survey and thus may be due to sampling error. Therefore Kentuckians are essentially evenly split on this issue. Not surprisingly, a far greater majority of farm dwellers (65%) agree or strongly agree that private landowners should be able to use their land as they see fit than do those who live in cities of 50,000 or more. Only 43% of city dwellers agree or strongly agree with this statement.

When asked whether human activity is causing the depletion of the ozone in the upper atmosphere, 75% of those surveyed agree with this statement. When asked whether they believe it is possible to have a healthy economy and protect the environment, a whopping 95% say yes.

Finally, when asked whether environmental education should be taught in the schools 96% agree that it should. This is almost exactly the same percentage reported in nationwide polls on environmental education.

BEHAVIORS

The final section of the survey concerned reported behaviors that affect the environment. Respondents were asked to report behaviors or beliefs that would have a positive effect on the environment. Although readers should be aware that positive behaviors are often over reported, Kentuckians surveyed do report a strong interest in protecting the environment. For example, 95% of those surveyed report that knowing about environmental problems is important to them. Another 65% report donating time or money to pro-environmental groups either frequently or sometimes.

Eighty-four percent of those surveyed report that they frequently or sometimes avoid buying products with extra packaging, and 86% report that gas mileage is an important consideration in buying a new vehicle. Ninety-three percent report they frequently or sometimes attempt to reduce the amount of household waste, and another 73% report separating waste for recycling. When asked if they ever planted trees to improve the environment, 28% report that they do so frequently and another 41% say they do so sometimes.

Kentuckians surveyed were asked if they would be willing to pay more for gas, electricity or heat in order to protect the environment. Seventy-three percent say that they would. When asked how much more, 46% say they would be willing to spend 5% more and 29% say they would be willing to spend an additional 10% in order to protect the environment. In a similar question about other goods and services, 79% of those surveyed report that they would be willing to pay more for goods and services in order to protect the environment. Forty-seven percent say they would pay 5% more and 28% say they would pay 10% more for goods and services in order to protect the environment.

In a final question, Kentuckians surveyed were asked whom they would call if they had a question about the environment. These were the top five answers: a federal environmental agency such as the EPA (23%), a state environmental agency such as a university (18%), a local environmental agency such as the county health department (16%), or the Cooperative Extension Service (9%). Another 4% would go to the Internet for information about the environment.

Those who responded to the survey were asked in what type of community they lived, how long they had lived in Kentucky, their ages, genders, education and income levels. The KEEC will publish a more in-depth analysis of the results of the survey in the fall of 1999.

