

The Kansas Environmental Report Card

A Replication of the 8th Annual National
Report Card on Environmental Attitudes,
Knowledge and Behavior

November 2001

KANSAS ASSOCIATION FOR CONSERVATION AND ENVIRONMENTAL
EDUCATION (KACEE)

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Table of Contents

Executive Summary.....	1
Part I: Environmental Attitudes.....	4
Part II: Environmental Knowledge.....	14
Part III: Environmental Activities.....	20
Appendix A: Methodology and Questionnaire.....	23

The Kansas Environmental Report Card: A Replication of the 8th Annual National Report Card on Environmental Attitudes, Knowledge and Behavior

This survey is based on a representative sample of 414 Kansans, age 18 and over, surveyed by Wichita State University's Interdisciplinary Communication Research Institute in June and July of 2001. The survey was conducted under contract with the Kansas Water Office on behalf of the Kansas Association for Conservation and Environmental Education, with funding from the State Water Plan Fund. The study is a replication of the Eighth Annual National Report Card on Environmental Attitudes, Knowledge and Behavior, dated December 1999 and published by the National Environmental Education and Training Foundation (NEETF). Where appropriate, Kansas data are compared to the national data; however caution must be used when interpreting the comparisons as some of the questions may be less relevant to environmental issues and concerns in Kansas. Furthermore, it should be noted that while the percent distribution of the education levels attained by the survey respondents may be different than the Kansas population as a whole, and may introduce a bias in the results, weighting the results for educational attainment was not possible because current education levels in Kansas are not available from the 2000 Census. However, it is thought that the representative sample used is close enough that the un-weighted results would not differ significantly from weighted results. The differences between the percent distribution by age group of the respondents and the population of Kansas are not statistically significant (U.S. Census, 2000), therefore the results have not been weighted for age.

Executive Summary

As environmental issues become increasingly complicated, it will become imperative that we have an informed citizenry capable of understanding the complexities of these issues and making informed and responsible decisions. Whether these decisions come in the form of regulations at the federal, state and local levels or are the daily decisions made by the general public, National Survey data suggest that we lack a basic environmental understanding and knowledge as a citizenry to make informed decisions. At the same time, attitudes about various environmental issues influence individuals' behaviors and activities that may or may not contribute to the solution of environmental problems. Such behaviors are largely governed by environmental attitudes and knowledge. To have a better understanding of how well prepared Kansans are to make informed and responsible decisions about increasingly complex environmental issues, the following survey was conducted.

Environmental Attitudes

Generally, most respondents believe that environmental protection and economic development can co-exist, particularly college graduates and those age 35-44. Similarly most younger respondents in particular, believe that environmental protection is more important. This reflects a trend seen in other parts of the survey, i.e. that younger respondents tend to be more environmentally aware and, perhaps as a result, are more likely to want to do something about the environment.

With regard to environmental issues, most Kansans believe that more regulation is required to deal with water pollution and air pollution, with natural areas fairly close behind. Looking forward to emerging environmental issues, Kansans view polluted water, fresh water shortage, cutting forests and air pollution as the most serious, hardly surprising in a mainly rural state. Water pollution was ranked as the highest concern in all age, income and education levels.

On the other hand Kansans seem slightly more optimistic than the general population when it comes to the eventuality of an environmental catastrophe in the next decade. Along the same lines, they appear to be less concerned about the importance of environmental factors as a source of global conflict, although like the general population they rank environmental factors in fourth place after territorial or border issues, economic factors and racial tensions.

When it comes to solving environmental problems, Kansans view environmental organizations as the most reliable compared to citizen groups and private business. These results mirror national results. It is interesting to note that Kansans view individuals as more likely to solve environmental problems than either private business or above all government agencies. This reliance on individual action is reflected very strongly in Kansans' willingness to recycle waste, particularly when compared to national behaviors.

Environmental Knowledge

About 70% of Kansans believe they know a lot or a fair amount about environmental issues and problems. This figure mirrors almost exactly results from the national survey. However, when asked to take a ten-question quiz about environmental issues, Kansans performed quite poorly scoring only 3.7 correct answers out of the ten. As might be expected, those with a college degree are more likely to provide correct answers but even they scored only 4.7 out of the ten. In general the most knowledgeable group are those age 45-64.

Judging from responses to specific questions Kansans appear to be the most knowledgeable about why animal species become extinct, why toxic waste areas are hazardous and the main cause of global climate change. They also have a fairly good idea of how electricity is generated and how chemicals enter the body. In most of the other questions their knowledge levels are either poor or very poor.

Analysis of knowledge levels correlated with levels of support for the environment confirms the relationship between knowledge, concern and subsequent action. Detailed responses are included in the full report, but two specific issues further demonstrate this relationship. They are air

pollution and water pollution, which are of particular interest to Kansans. Respondents were sorted into three knowledge groups, high, average and low, based on the number of correct answers scored in the quiz. With regard to air pollution, the most knowledgeable are more likely to believe we have struck a balance between too much and not enough regulation. The least knowledgeable tend to believe we have not gone far enough. On the issue of water pollution, once again the most knowledgeable believe we have struck a balance, although a substantial percentage believe we have not gone far enough. An even greater percentage of both the average and low knowledge groups believe we have not gone far enough.

Environmental Activities

In general, Kansans engage in activities that benefit the environment in the same proportions as the rest of the population. However, there are two very striking differences. Far more Kansans participate in the recycling of waste such as newspapers, cans and glass than do Americans in general. This could be the result of extensive media coverage related to landfill issues in the state of Kansas as well as some of the programs run by the Waste Management Bureau of KDHE. With regard to the other difference, far fewer Kansans use alternative types of transportation, e.g. biking or the bus, instead of using a car. This makes sense in a mainly rural state where distances are large and bus services practically non-existent.

While the relationship between knowledge, concern and subsequent action is generally thought to be strong, the results of this survey also suggest that even the perception of having a fair amount or a lot of environmental knowledge can motivate people to engage in day-to-day activities that benefit the environment. This is encouraging in light of the relatively poor performance of Kansans in the environmental knowledge quiz.

Conclusions and Recommendations

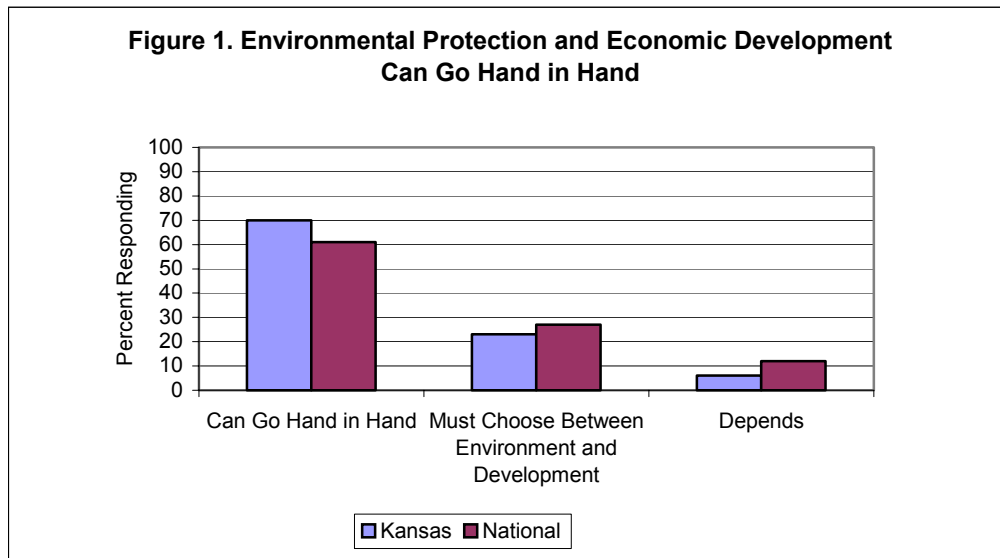
All in all, this replication mirrors many of the findings of the 1999 study. However, there are some interesting differences with regard to levels of environmental knowledge and willingness to engage in activities that benefit the environment. As for the national survey, the Kansas results suggest that increased education on environmental issues is called for and that new ways of informing the public, such as internet and web-based delivery systems, should be explored alongside traditional methods. The baseline measures established by this survey should be useful to evaluate future progress in environmental attitudes, perceptions, knowledge and activities.

Part I.

Environmental Attitudes

Can environmental protection and economic development go hand in hand?

The majority of Kansans (70%) believe that environmental protection and economic development can go hand in hand while just over one-fifth (23%) believe we must choose between environmental protection and economic development. These results are similar to those seen nationally (Figure 1).



Question wording: *Most of the time, do you think environmental protection and economic development can go hand in hand, or that we must choose between environmental protection and economic development?*

Generally, members of different age groups were similarly divided on this issue (Figure 2). However, older respondents (age 65 and older) tended to be less inclined (17%) to believe we must make a choice between economic development and environmental protection while about one-quarter of younger respondents (18-34) and one-third of respondents age 35-44 believe we must make a choice.

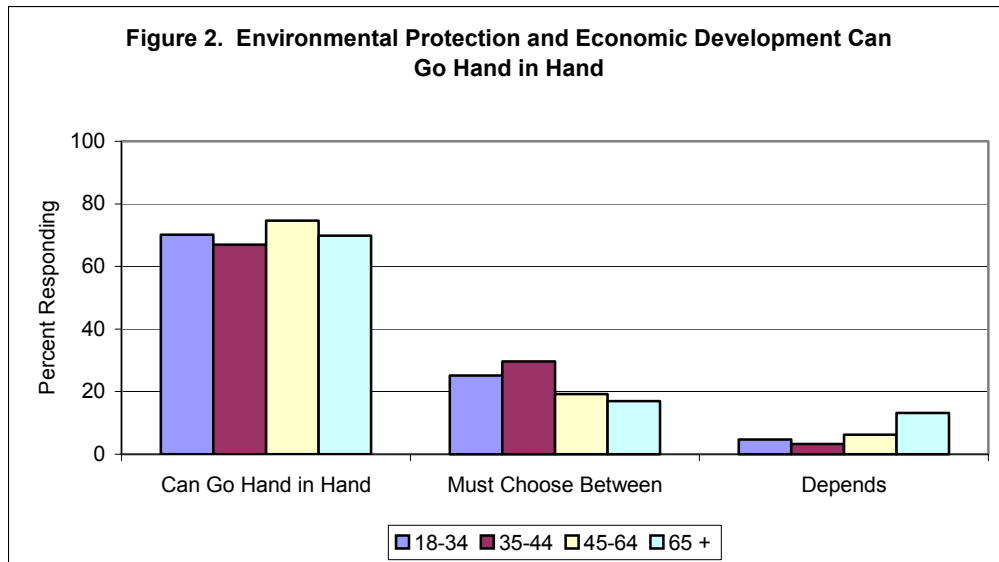
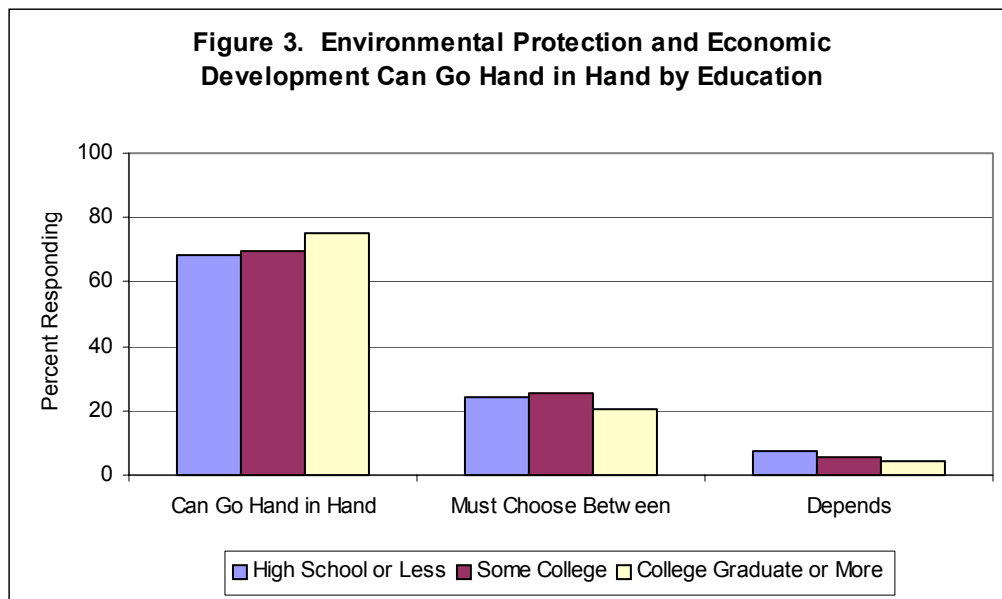
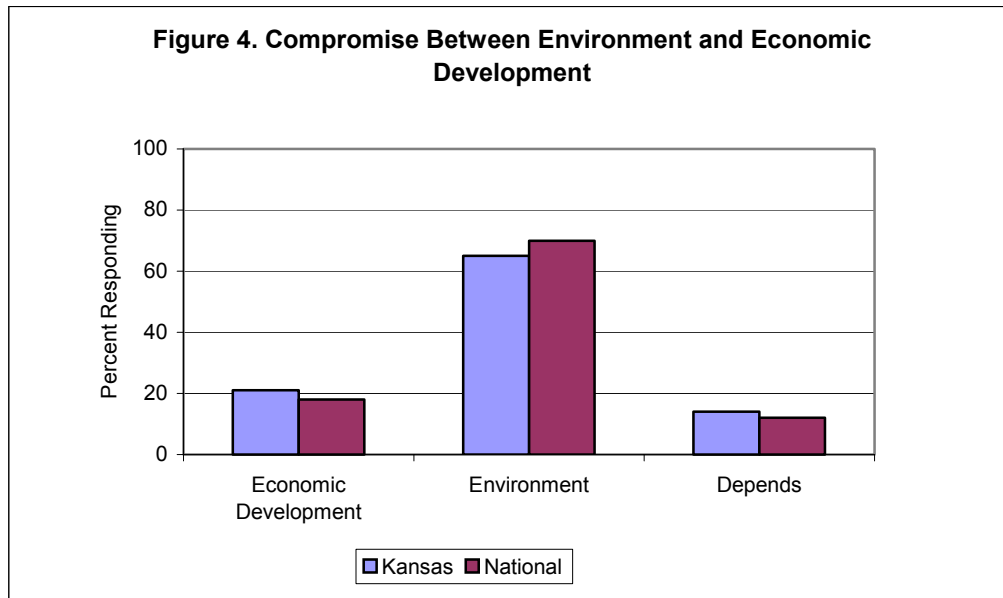


Figure 3 shows that college graduates are more optimistic about economic and environmental harmony (72%) than those with a high school education (65%).



Which is more important when compromise is not possible?

Similar to Americans nationally, a little more than one-half (65%) of Kansans believe that we should choose environmental protection over economic development when a reasonable compromise is not possible (Figure 4). Fourteen percent believed that it “depends” while 21% felt economic development should come before environmental protection when a compromise is not possible.



Question wording: *When it is impossible to find a reasonable compromise between economic development and environmental protection, which do you usually believe is more important: economic development or environmental protection?*

Younger respondents (18-34) were more likely to choose the environment than older respondents (age 65 and older) with 71% and 59% respectively. Across all age groups, environmental protection was seen as more important with about 20-25% in each age group choosing economic development and 10-20% saying it depends. See Figure 5 below.

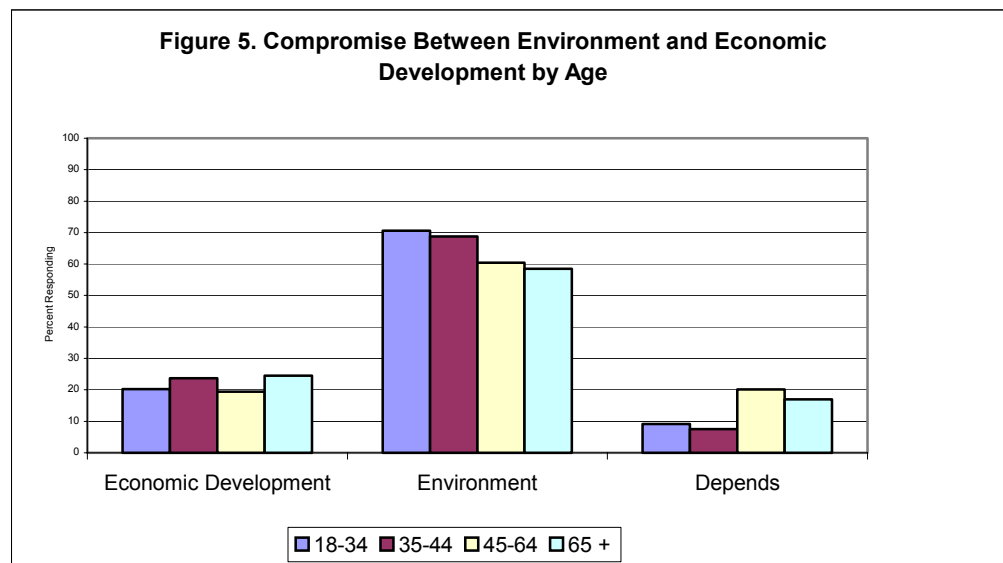
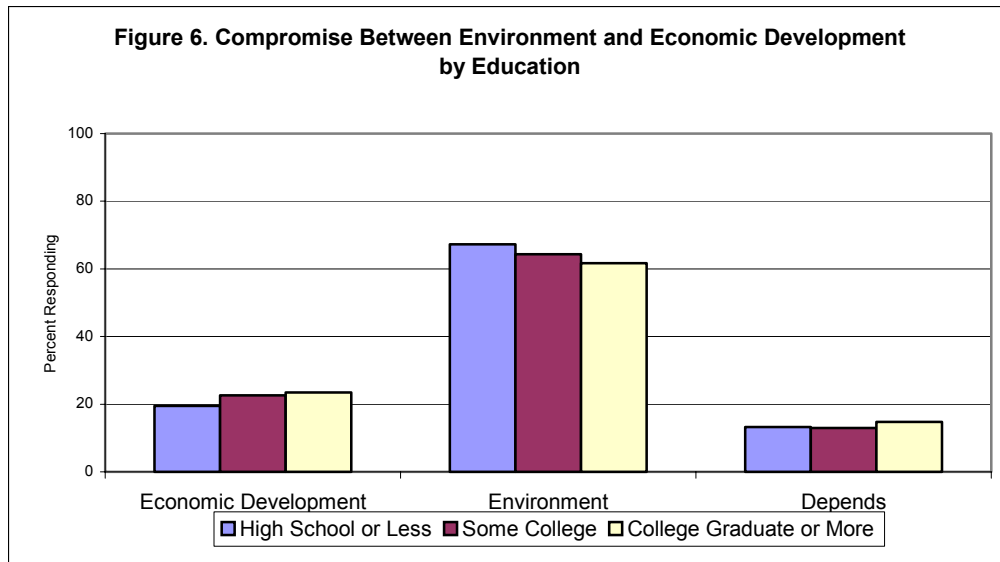
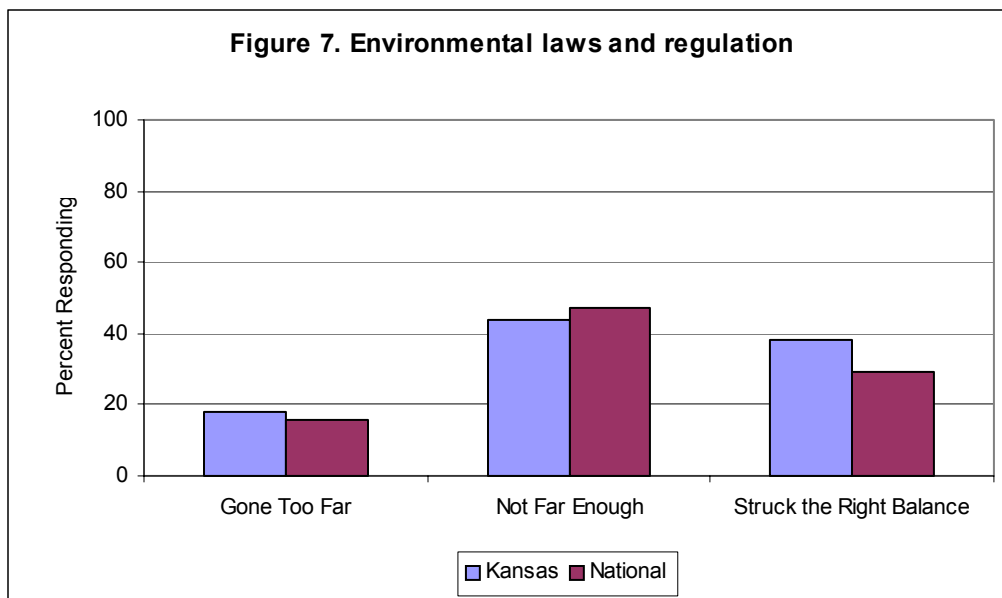


Figure 6 shows those with a high school education or less are slightly more likely to choose environmental protection than those with a college degree or more (67% compared to 62% respectively).



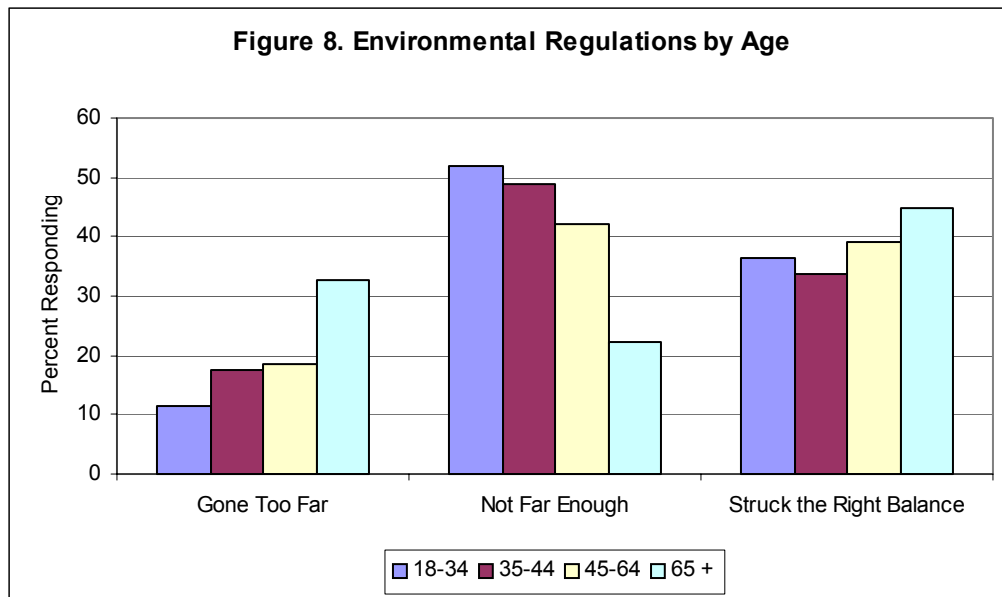
Have environmental laws and regulations gone too far?

When considering whether current environmental protection laws and regulations have gone too far, there was no majority opinion among Kansans. Forty-four percent believe we have not gone far enough while only slightly less (38%) believe we have struck about the right balance. Only 18% believe we have gone far enough. Figure 7 shows these results are similar to the national survey results.

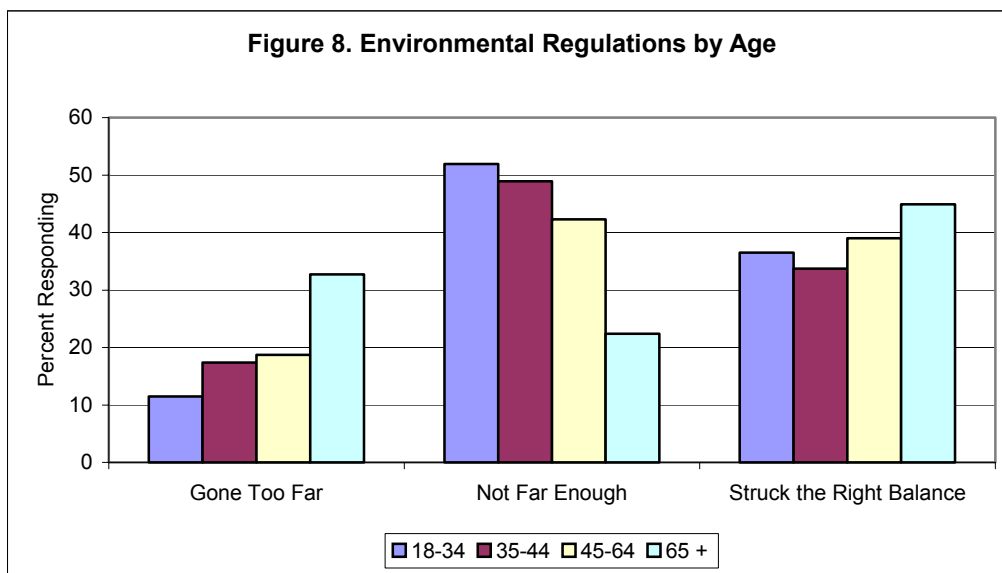


Question wording: *There are differing opinions about how far we've gone with environmental protection laws and regulations. At the present time, do you think environmental protection laws and regulations have gone too far, not far enough, or have struck about the right balance?*

When analyzed by age, younger respondents (18-34 years) were more likely to say we have not gone far enough while older respondents (age 65 and older) were more likely to say we have struck the right balance.



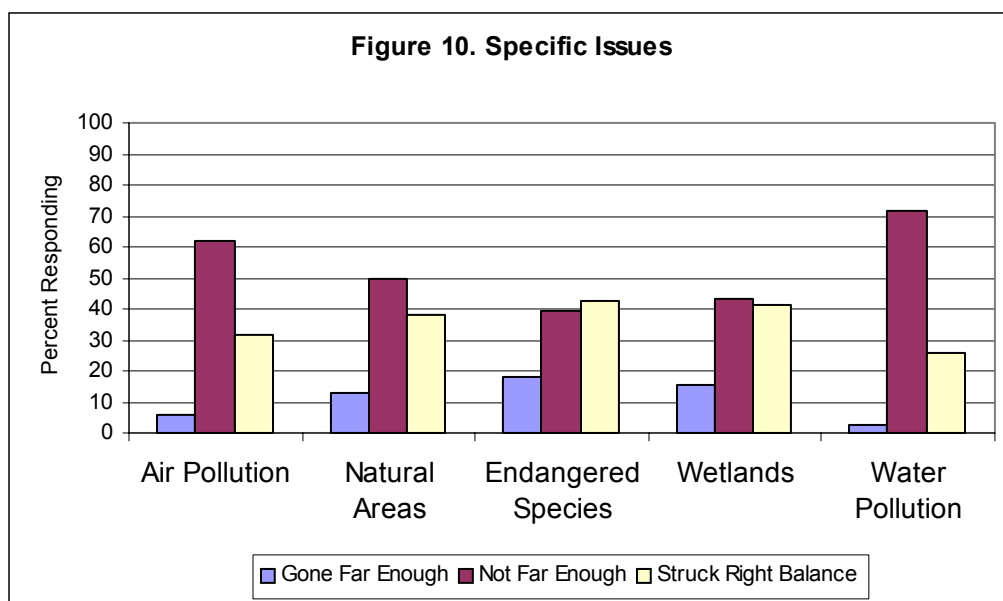
Those with a high school diploma or less were less likely to believe we struck the right balance and more likely to say we have not gone far enough than those with a college degree or more.



Correlation with the Role of the Individual: The more Kansans believe in the role of the individual, the more likely they are to believe we have gone too far. (Spearman' rank order correlation coefficient, $r_s = .105$, $p < .05$). This was contrary to the national findings indicating no relationship between those who see an important role for individuals in solving our future environmental problems and support for further regulation.

Attitudes toward specific areas of regulation.

Respondents were asked about five specific areas of regulation: water pollution, air pollution, protection of wild or natural areas, protection of wetlands, and protection of endangered species of plants, animals and insects. Generally, Kansans were split on all issues between whether we have not gone far enough or have struck the right balance. The only exceptions were for air and water pollution where Kansans overwhelmingly believed we have not gone far enough.



Question wording: Thinking now about some specific areas, at the present time, do you think laws and regulations for (INSERT ISSUE) have gone too far, not far enough, or have struck about the right balance?

◆ **Water Pollution Regulation:** Support for governmental regulation of water pollution is the highest of the five specific areas with 71% endorsing the belief that we have not gone far enough. Only 3% of Kansans think we have gone too far and 26% believe we have struck the right balance. Age does not seem to play a role in attitudes toward governmental regulation of water pollution with each age group endorsing the belief in similar proportions. Nationally, water pollution also ranks as the issue that garners the most support.

◆ **Air Pollution Regulation:** Only 4% of Kansans believe regulation in this area has gone too far while 62% believe it has not gone far enough. Roughly one-third believes we have struck the right balance. Older respondents were much less likely to believe we have not gone far enough compared to respondents age 35-44 (49% and 70% respectively).

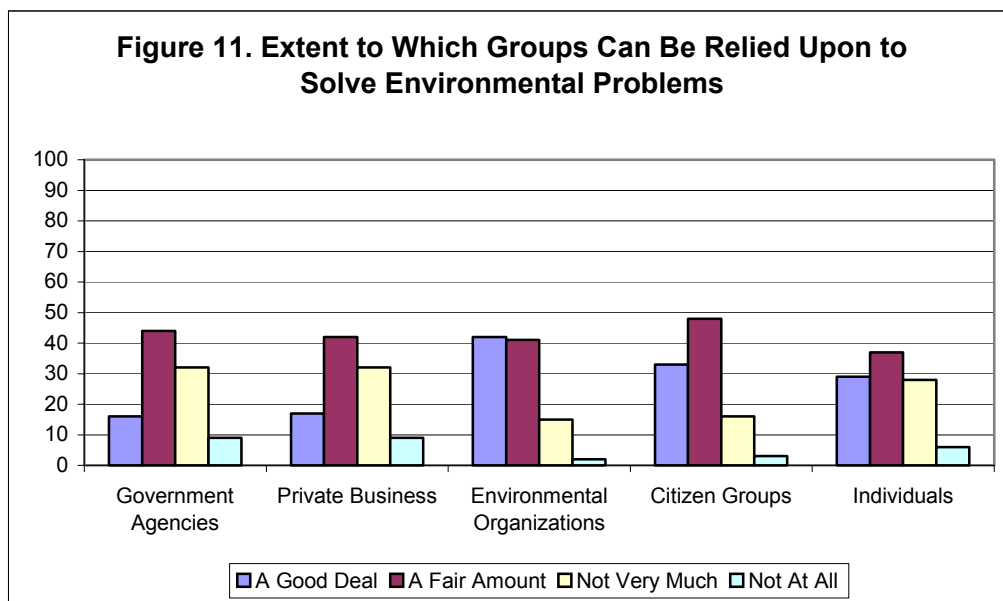
◆ **Natural Areas Regulation:** Just under half (49%) of Kansans believe we have not gone far enough in regulation to protect wild and natural areas while 38% believe we have struck the right balance. Only 13% believe we have gone too far. Again, younger respondents (18-34) are more likely to believe we haven't gone far enough than older respondents (65+) (55% and 39% respectively).

◆ **Wetlands Regulation:** Kansans were split on attitudes toward protection of wetlands with 43% believing we have not gone far enough and 42% believing we have struck the right balance. Younger respondents (18-34) were much more likely to believe we have not gone far enough compared to older respondents (65 +) (53% and 28% respectively).

◆ **Endangered Species Regulation:** Forty-two percent of Kansans believe we have struck the right balance when it comes to protecting endangered species of plants and animals while 40% believe we have not gone far enough. Similar to other specific areas, older respondents (65 +) are much less likely to believe we have not gone far enough compared to younger respondents (18-34) (21% and 48%).

Role of Others to Solve Future Environmental Problems

Respondents were asked to rate five entities or groups on the extent to which each can be relied on to solve the nation’s worst environmental problems. Similar to the national survey, environmental organizations were considered most reliable with 42% of Kansans believing they could be relied upon “a good deal.” This compares to 33% for citizen groups, 29% for individuals, 17% for private business and 16% for government agencies. Only older respondents (age 65 +) were more likely to rank citizen groups over environmental groups (35% and 24% respectively). Although environmental agencies are still ranked as most reliable in all age groups, respondents with a college degree or more rank citizen groups a close second with 35% (compared to 39% for environmental groups). Environmental agencies are ranked the highest (44%) by those with a high school degree or less with the next highest rankings going to individuals at 30% and citizen groups at 29%.

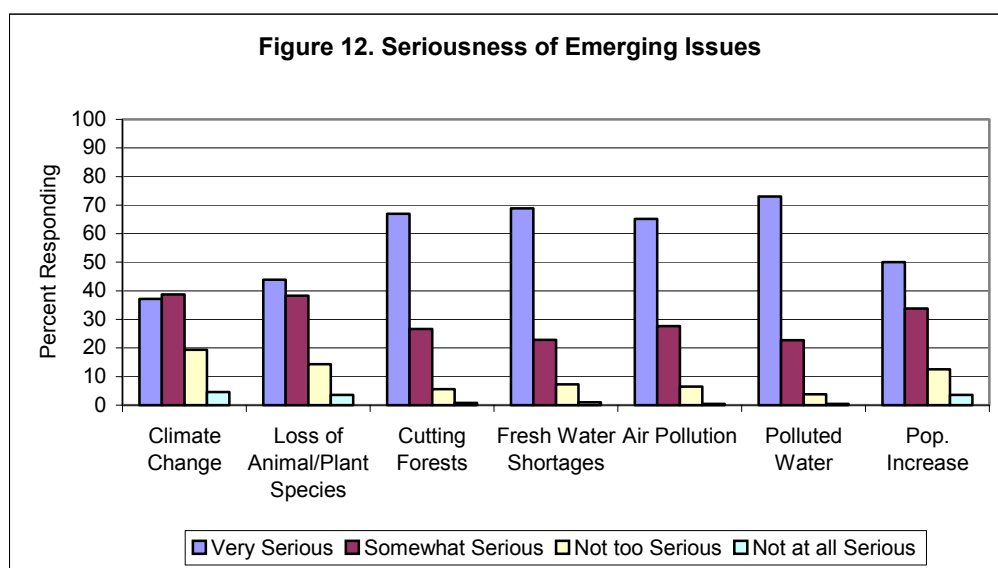


Question wording: *In the future, to what extent do you think each of the following sources can be relied on to solve our worst environmental problems? Would you say (READ ITEM) could be relied on a good deal, a fair amount, not very much, or not at all to solve our most serious environmental problems?*

Kansans weigh the seriousness of emerging issues.

The issues are: climate change, loss of animal and plant species, cutting of large forests, freshwater shortages, air pollution, water pollution, and population increase.

Four issues were rated “very serious” by over half of Kansans: polluted water (73%), Freshwater shortages (69%), cutting of large forests (67%) and air pollution (65%). Population increase was considered very serious by half of Kansans (50%). Loss of animal and plant species and climate loss were considered very serious by less than a majority of respondents (44% and 37% respectively). Water pollution was ranked as the highest concern in all age groups, education and income levels.



Question wording: I am now going to read you a list of some things that environmentalists have said may be problems in the next 15 to 25 years. For each item I read, please tell me how serious a problem you think it will be in the future... very serious, somewhat serious, not too serious, or not serious at all.

◆ **Polluted Water:** Poor water quality is recognized by 73% of Kansans as very serious yet only 25% were aware that the most common cause of pollution in streams, rivers, and oceans is surface water running off yards. Most (49%) thought it was caused by waste dumped by factories.

◆ **Freshwater Shortages:** Nearly 7 in 10 Kansans (69%) see this as a very serious issue yet only 16% were aware that only 1% of the world’s water is fresh and available for use. Most (26%) thought 5% was available for use.

◆ **Cutting of Large Forests:** Fully 67% of Kansans see this as a very serious issue in our future.

◆ **Air Pollution:** Sixty-five percent of respondents ranked this issue as very serious.

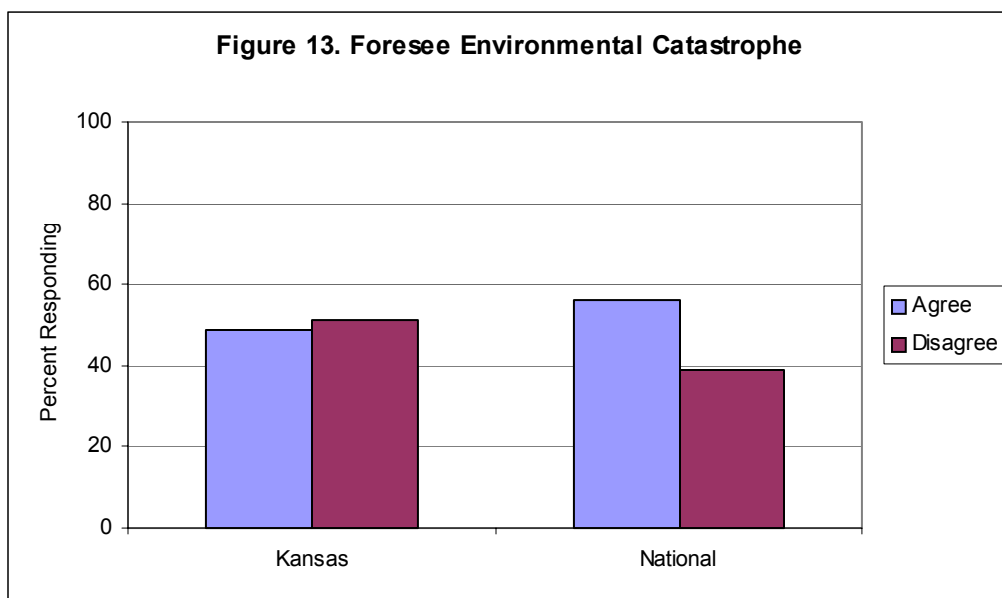
◆ **Population Growth:** Population increase is rated as very serious by 50% of adult Kansans.

◆ **Loss of Animal and Plant Species:** Less than half of Kansans (44%) believe this is a very serious issue.

◆**Climate Change:** Only 37% of Kansans believe climate change is a very serious issue in our future yet a large majority (54%) were aware that the main cause of global climate change is more carbon emissions from autos, homes, etc.

Do Kansans foresee some type of “environmental catastrophe” in the next decade?

Figure 13 indicates Kansans seem somewhat more optimistic than the general population when it comes to the future of our environment. Just under half (48.6%) of Kansans either strongly or mostly agree that we are headed for an environmental catastrophe in the next decade. Educational background and income do not change this split between agreeing and disagreeing about impending environmental catastrophe. Not surprisingly, of those who think environmental regulation has gone too far, 42% strongly disagree about an impending catastrophe. Of those who think environmental regulation has not gone far enough, 58% strongly or mostly agree there will be an environmental catastrophe in the next decade.



Question wording: Please tell me whether you strongly agree, mostly agree, mostly disagree or strongly disagree with the following statement: “The next ten years are the last decade when humans will have a chance to save the earth from environmental catastrophe.”

Importance of environment in global security.

Kansans were asked about several possible factors that could cause outbreaks of war and conflict. The results (shown in Figure 14) indicate that territorial or border issues are seen as a very important cause of conflict by well over half of Kansans while environmental factors are seen as important by only one-fifth. Kansans are slightly more concerned about territorial and border issues than the national as a whole (66% compared to 58%).

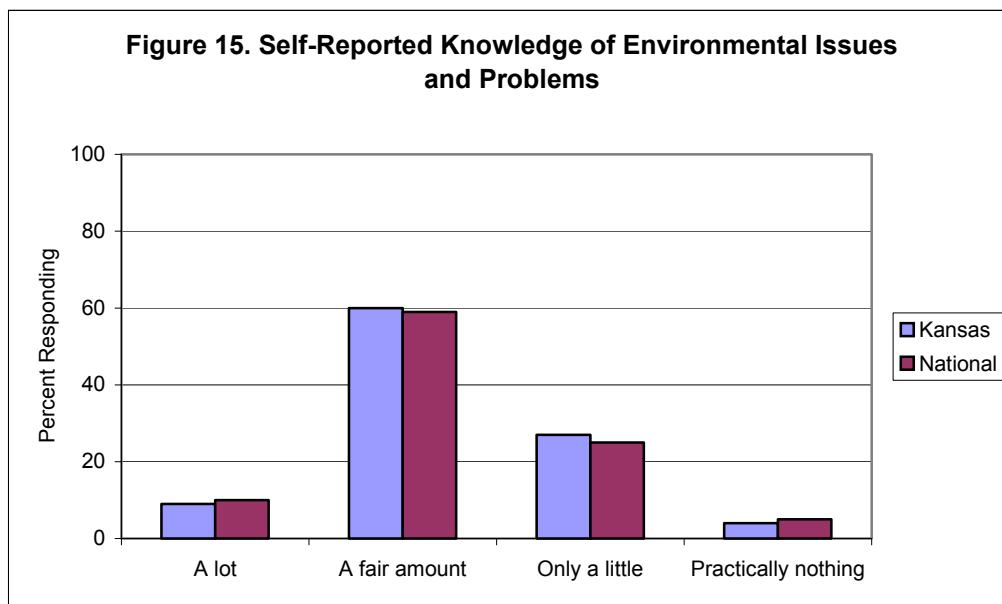
Figure 14. Views on Causes of War and Conflict

Factor	% Saying "Very Important"	
	Kansas	National
Territorial or border issues	66	58
Economic Factors	52	58
Racial Tension	47	58
Environmental factors	20	32
Language barriers	15	22

PART II.

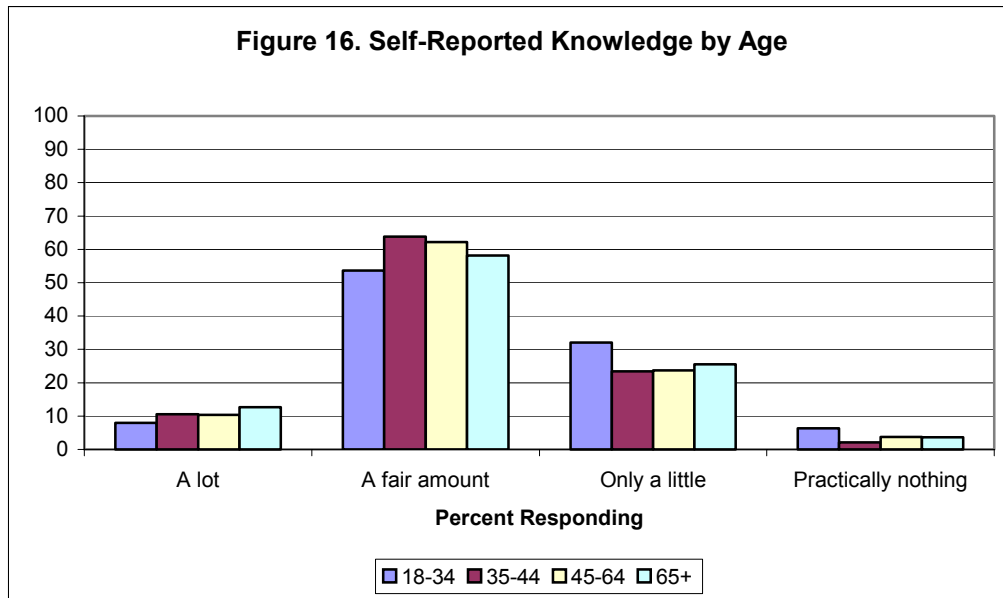
Environmental Knowledge

Similar to the national survey, about 70% of Kansans rate themselves as having either “a lot” (10%) or a “fair amount” (60%) of knowledge about environmental issues and problems (Figure 15). Unfortunately, the level of knowledge that Kansans have on environmental subjects does not match up to what they think they know. The average was 3.7 correct answers out of 10 questions.



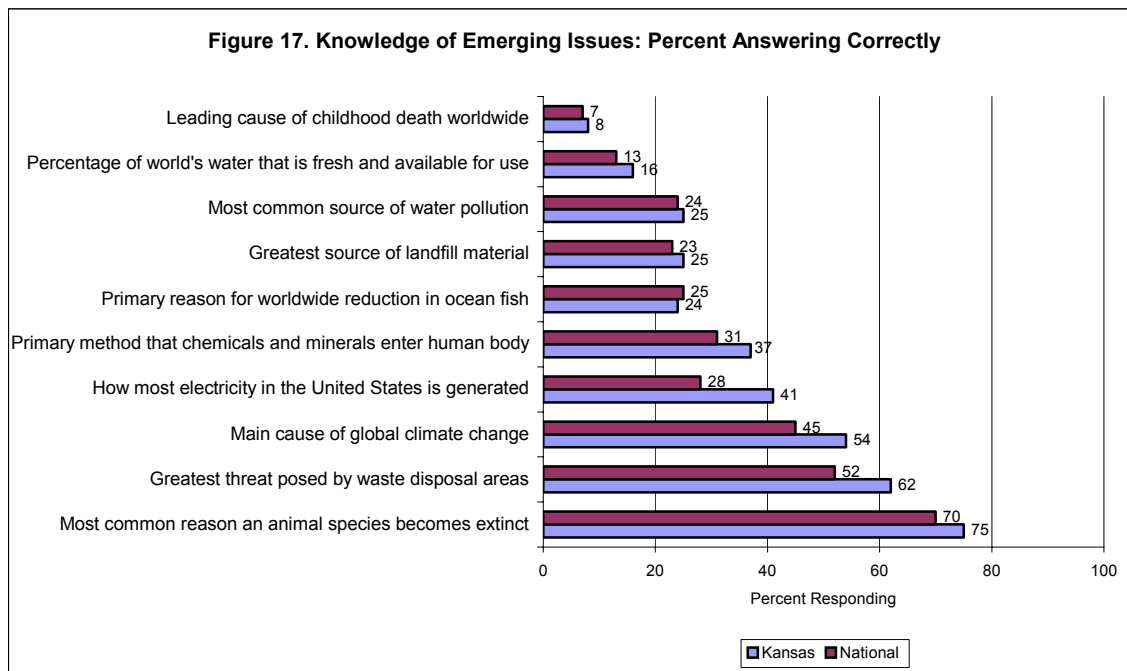
Question wording: *In general, how much do you feel you know about environmental issues and problems – would you say you know a lot, a fair amount, only a little, or practically nothing.*

◆ **Age:** Younger respondents are just as confident as older respondents of their environmental knowledge – approximately 70% of respondents under the age of 65 reported that they know at least a fair amount about environmental issues and problems, compared to 71% among those 65 or older. However, despite their confidence, the youngest and oldest respondents had the least amount of knowledge about the environment, averaging 3.6 and 3.3 correct answers respectively. Those 35-44 averaged 3.9 correct answers. Respondents age 45-64 had the most knowledge with an average of 4 correct answers. See Figure 16 below.



◆ **Education:** Respondents with a college degree are more likely than those with a high school education or less to give the correct answer – although even those with a college degree averaged just 4.7 correct answers. Those with high school or less averaged 3.1 correct answers and those with some college averaged 3.8 correct answers.

Specific Quiz Responses



Most Common Reason an Animal Species Becomes Extinct

This issue received the highest number of correct responses of any of the 10 questions. Three-quarters of respondents correctly replied that extinction is most commonly caused by the destruction of animal habitats by humans.

Greatest Environmental Threat Posed by Toxic Waste Disposal Areas

Over half of Kansans know why waste disposal sites can be hazardous to human health, with 62% correctly answering “contamination of water supplies.”

Main Cause of Global Climate Change

Just over half of Kansans (54%) realize that increased carbon emissions contribute to global change.

Primary Source for Chemicals and Minerals that Enter the Human Body

Less than half (37%) of the public correctly identifies drinking water as the primary source for the ingestion of chemicals and minerals. Another 18% incorrectly believe unhealthy chemicals enter the human body primarily through the air people breathe.

Source of Most Electricity

Only 41% of Kansans know that most of the nation’s electricity (some 70% of all electricity) is produced from sources such as burning coal, oil and wood. Surprisingly, 29% see hydropower (dams) as our leading method of electricity production, despite the fact that water power accounts for approximately 10% of America’s power needs.

Primary Reason for Worldwide Reduction in Ocean Fish

One-quarter (24%) of Kansans realize that increased harvesting by fishing vessels is the primary cause of the reduction in the number of ocean fish. Thirty percent place the main blame on pollution in coastal waters, while 14% say changes in ocean temperatures are at fault.

Most Common Source of Water Pollution

Only one-quarter of Kansans know that run-off is the leading cause of pollution of streams, rivers and oceans. Almost twice as many (49%) think the most common form of water pollution is waste dumped by factories.

Greatest Source of Landfill Material

Only one-third of Kansans know that paper products are the greatest source of landfill material. Most think it is due to glass and plastic bottles and aluminum and steel cans (28%) or disposable diapers (18%).

Fresh Water Available for Use

Only 16% of Kansans know that just 1% of the world’s available water is fresh water.

Leading Cause of Childhood Death Worldwide

This was by far the most difficult question with only 8% of Kansans correctly identifying germs in water as the leading cause of childhood death worldwide. Most (58%) believe malnutrition and starvation to be the leading cause.

Comparing Knowledge of the Environment and Level of Support

Further analysis of the survey results was done by examining the attitudes of respondents according to how many questions they got right on the quiz. Respondents were split into three groups: a high knowledge group who gave five or more correct responses to the quiz (32%); an average knowledge group with 3 or 4 correct answers (42%); and a low knowledge group with two or fewer correct responses (32%). Following is a discussion of the attitudes of these three groups on key questions in the survey.

Can the environment and the economy go hand in hand?

Three-quarters (76%) of the high knowledge group and 66% of the average knowledge group believe that a balance can be found between the environment and the economy. Interestingly, 71% of the low knowledge group also believe a balance can be found.

If you must choose, would you pick the environment or the economy?

The majority in each group chose the environment over the economy: 58% in the low knowledge group, 70% in the average knowledge, and 64% in the high knowledge group. The low knowledge group was more likely to choose economic development (27%), compared to 20% in the average and high knowledge groups.

Have environmental regulations gone too far, not far enough, or achieved the right balance?

The low knowledge and average knowledge groups were equally likely to agree we haven't gone far enough with environmental regulations (roughly 46%). However, in the high knowledge group only 40% held this opinion while 43% believe we have struck the right balance.

Air pollution regulation:

When it comes to air pollution, those in the high knowledge group are the most likely to believe we have struck a balance (39%) compared to 28% in each of the other groups. Those in the low-knowledge group are the mostly likely (65%) to believe we have not gone far enough.

Water pollution regulation:

A similar pattern is found for water pollution regulations with those having the most knowledge believing we have struck a balance (33%) and those in the low and average groups believing we have not gone far enough (74% and 75% respectively). Sixty-four percent of the high knowledge group believes we haven't gone far enough.

Regulation of wetlands, wild or natural areas, and endangered species:

When it comes to regulation of wetlands and wild/natural areas, Kansans in all knowledge groups are evenly divided between whether we have struck a balance or not gone far enough (roughly 40% in each category).

Test Your Knowledge!

*For Kansas, "Don't know" includes those who refused to answer.

	Survey Response	
	% Kansas	% National
1. How is most of the electricity in the U.S. generated? Is it...		
a. By burning oil, coal, and wood	41	28
b. With nuclear power	10	14
c. Through solar energy	3	4
d. At hydroelectric power plants?	29	37
e. Don't know	17	18
2. What is the most common cause of pollution of streams, rivers, and oceans? Is it...		
a. Dumping of garbage by cities	9	17
b. Surface water running off yards, city streets, paved lots, and farm fields	25	24
c. Trash washed into the ocean from beaches	4	5
d. Waste dumped by factories?	49	44
e. Don't know	14	9
3. What do you think is the main cause of global climate change, that is, the warming of the planet Earth? Is it...		
a. A recent increase in oxygen in the atmosphere	4	5
b. Sunlight radiating more strongly through a hole in the upper ozone layer	16	26
c. More carbon emissions from autos, homes, and industry	54	45
d. Increased activity from volcanoes worldwide?	4	5
e. Don't know	21	19
4. To the best of your knowledge, what percent of the world's water is fresh and available for use? Is it...		
a. 1%	16	13
b. 5%	26	20
c. 10%	19	27
d. 33%	11	17
e. Don't know	29	23
5. The current worldwide reduction in the number of ocean fish is PRIMARILY due to which of the following:		
a. Pollution in coastal waters worldwide	30	40
b. Increased harvesting by fishing vessels	24	25
c. Changes in ocean temperature	14	12
d. Loss of fishing shoals and other deep sea habitats	7	6
e. Don't know	25	16
6. What is the leading cause of childhood death worldwide? Is it...		
a. Malnutrition and starvation	58	60
b. Asthma from dust in the air	4	4
c. Auto and home accidents	16	17
d. Germs in the water	8	7
e. Don't know	15	12

*For Kansas, "Don't know" includes those who refused to answer.

	Survey Response	
	% Kansas	% National
7. What is the most common reason that an animal species become extinct? Is it because...		
a. Pesticides are killing them	7	9
b. Their habitats are being destroyed by humans	75	70
c. There is too much hunting	6	8
d. There are climate changes that affect them?	3	6
e. Don't know	9	7
8. There are thousands of waste disposal areas – dumps and landfills – in the U.S. that hold toxic waste. The greatest threat posed by these waste disposal areas is:		
a. Chemical air pollution	9	19
b. Contact with farm animals and household pets	4	5
c. Contamination of water supplies	62	52
d. Human consumption through contaminated food	6	6
e. Don't know	20	17
9. Many communities are concerned about running out of room in their community trash dumps and landfills. Is the greatest source of landfill material...		
a. Disposable diapers	18	28
b. Lawn and garden clippings, trimmings, and leaves	13	8
c. Paper products including newspapers, cardboard, and packaging	25	23
d. Glass and plastic bottles and aluminum and steel cans	28	28
e. Don't know	16	12
10. Some scientists have expressed concern that chemicals and certain minerals accumulate in the human body at dangerous levels. Do these chemicals and minerals enter the body PRIMARILY through...		
a. Breathing air	18	32
b. Living near toxic waste dumps	7	11
c. Household cleaning products	16	10
d. Drinking water	37	31
e. Don't know	21	16

Correct Answers: 1a,2b,3c,4a,5b,6d,7b,8c,9c,10d

PART III.

Environmental Activities

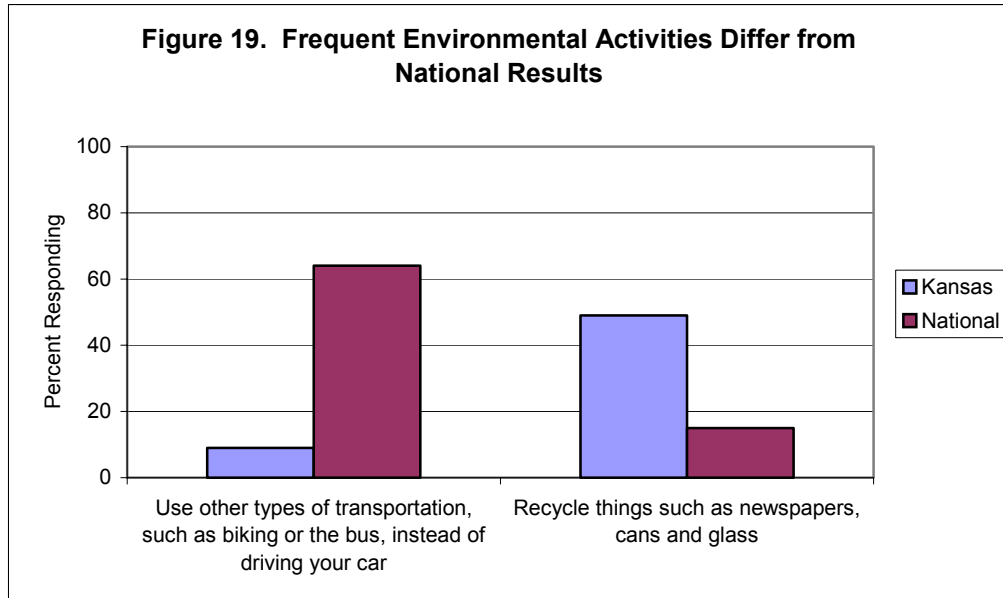
This section of the report describes actions Kansans take that benefit the environment in some way. Overall, Kansans participate in activities that benefit the environment in close to the same proportion as Americans in general. See Figure 18 below.

Figure 18. Environmental Activities Done Frequently in Day-to-Day Life

<u>Activity</u>	<u>Kansas</u>	<u>National</u>
Turn off lights and electrical appliances when not in use	85	83
Use other types of transportation, such as biking or the bus, instead of driving your car	9	64
Conserve water in your home and yard	61	59
Try to cut down on the amount of trash and garbage you create	54	57
Buy biodegradable or recyclable products	44	46
Avoid using chemicals in your yard and garden	39	39
Recycle things such as newspapers, cans and glass	49	15
Participate in a public land clean-up day	13	10

***Question wording:** Now I would like to ask you about some of the things you may do in your day-to-day life. For each of the following things, would you please tell me whether you never do it, sometimes do it, or frequently do it.*

However, there were two striking differences between Kansas and the national survey. When it came to using other types of transportation, only 9% of Kansans reported doing this activity frequently compared to more than 60% of Americans. However, recycling was an activity that Kansans reported doing frequently much more than Americans in general (49% compared to 15%). See Figure 19 on the following page.



Americans with more environmental knowledge take action more frequently.

For all specific activities listed, the percent reporting to engage “frequently” increases with increasing self-reported knowledge (Figure 20). However, it is apparent that level of self-reported knowledge does not make much of a difference when it comes to turning off lights and electrical appliances when not in use or cutting down on the amount of trash and garbage created. In the national survey, it was suggested that this pattern may mean that environmental knowledge is a proxy for concern for the environment. People who think they know a lot about the environment translate this into action.

Figure 20. Activities Done Frequently in Day-to-Day Life that Benefit the Environment, By Self-Reported Environmental Knowledge

Activity	Level of Self-Reported Knowledge (Percent Participating Frequently)		
	A Lot	A fair amount	Little/practically nothing
Turn off lights and electrical appliances when not in use	90	85	84
Use other types of transportation, such as biking or the bus, instead of driving your car	15	8	8
Conserve water in your home and yard	73	63	55
Try to cut down on the amount of trash and garbage you create	60	54	54
Buy biodegradable or recyclable products	53	48	35
Avoid using chemicals in your yard and garden	46	41	34
Recycle things such as newspapers, cans and glass	63	51	41
Participate in a public land clean-up day	20	12	11

Appendix A:

Methodology and Questionnaire

Methodology

Description of the Sample

A cross-sectional sample of 414 Kansans, 18 years of age and older, was interviewed for this study. The margin of error due to sampling is plus or minus 4.9 percentage points at the 95% confidence level, although it is larger for the results for smaller subgroups of the public. The age distribution and educational levels of the respondents are shown in Figures A1 and A2.

Figure A1. Age Distribution of Respondents

Age Group	Frequency	Percent	Valid percent	Cumulative %
65+	56	13.5	14.0	14.0
55-64	52	12.6	13.0	26.9
45-54	83	20.0	20.7	47.6
35-44	94	22.7	23.4	71.1
25-34	73	17.6	18.2	89.3
18-24	39	9.4	9.7	99.0
Refused	4	1.0	1.0	100.0
TOTAL	401	96.9	100.0	
Missing	13	3.1		
TOTAL	414	100.0		

Figure A2. Respondent Educational Levels

Education	Frequency	Percent	Valid percent	Cumulative %
8 th grade	7	1.7	1.7	1.7
Some HS	17	4.1	4.2	6.0
HS grad	140	33.8	34.9	40.9
Some college	115	27.8	28.7	69.6
College grad	118	28.5	29.4	99.0
Refused	4	1.0	1.0	100.0
TOTAL	401	96.9	100.0	
Missing	13	3.1		
TOTAL	414	100.0		

Sampling Method

The basic sample was drawn at random from the adult population of the state of Kansas, excluding institutionalized segments of the public. The sample was weighted by relative population size per county in order to obtain the most representative sample for the state. Households contacted for the survey were selected at random by a procedure known as random-digit dialing, which ensures that households with unlisted telephone numbers, as well as those with listed numbers, are included in the sample. All interviews were conducted between 4 and 8 p.m. on weekdays and between 11 a.m. and 3 p.m. Saturdays to ensure that both working and non-working segments of the population would be included.

Percentages Not Totaling 100%

Responses were computerized and rounded off to the nearest whole percentage. As a result, percentages in certain charts and columns may sometimes total slightly more or less than 100%. Also, in certain charts and analyses, the results of those who said “don’t know” or chose not to answer may have been omitted as in the national survey.

NEETF Environmental Attitudes and Knowledge Survey

1. Most of the time, do you think environmental protection and economic development can go hand in hand, or that we must choose between environmental protection and economic development?
 - Can go hand in hand
 - Must choose between environment and development
 - Depends (vol.)
 - Don't know

2. When it is impossible to find a reasonable compromise between economic development and environmental protection, which do you usually believe is more important: economic development or environmental protection?
 - Economic development
 - Environmental protection
 - Depends (vol.)
 - Don't know

3. There are differing opinions about how far we've gone with environmental protection laws and regulations. At the present time, do you think environmental protection laws and regulations have gone too far, or not far enough, or have struck about the right balance?
 - Gone too far
 - Not far enough
 - Struck about right balance
 - Don't know

4. Thinking now about some specific areas, at the present time, do you think laws and regulations for (READ ITEM) have gone too far, not far enough, or have struck about the right balance?

- a. Fighting air pollution
- b. Protecting wild or natural areas
- c. Protecting endangered species of plants, animals and insects
- d. Protecting wetland areas
- e. Fighting water pollution

5. Please tell me whether you strongly agree, mostly agree, mostly disagree, or strongly disagree with the following statement:

“The next 10 years are the last decade when humans will have a chance to save the Earth from environmental catastrophe.”

- Strongly agree
- Mostly agree
- Mostly disagree
- Strongly disagree
- Don't know

6. In general, how much do you feel you yourself know about environmental issues and problems – would you say you know a lot, a fair amount, only a little, or practically nothing?

- A lot
- A fair amount
- Only a little
- Practically nothing
- Don't know

8. The next group of questions are about issues that have been covered in the media during the past two years or so. They are designed to tell us how much accurate information people are getting from television, newspapers, magazines, and other sources. Each question has four possible answers. If you don't know the answer, you can just state that you don't know.
(INTERVIEWER: READ BOTH THE LETTER, e.g., "A", AND THE ANSWER, e.g., "BY BURNING OIL, COAL, AND WOOD", REPEAT AS NECESSARY)
9. How is most of the electricity in the U.S. generated? Is it...
- By burning oil, coal, and wood
 - With nuclear power
 - Through solar energy, or
 - At hydroelectric power plants?
 - Don't know
10. What is the most common cause of pollution of streams, rivers, and oceans? Is it...
- Dumping of garbage by cities
 - Surface water running off yards, city streets, paved lots, and farm fields
 - Trash washed into the ocean from beaches, or
 - Waste dumped by factories?
 - Don't know
11. What do you think is the main cause of global climate change, that is, the warming of the planet Earth? Is it...
- A recent increase in oxygen in the atmosphere
 - Sunlight radiating more strongly through a hole in the upper ozone layer
 - More carbon emissions from autos, homes and industry, or
 - Increased activity from volcanoes worldwide
 - Don't know

12. To the best of your knowledge, what percentage of the world's water is fresh and available for use? Is it...

- 1%
- 5%
- 10%, or
- 33%
- Don't know

13. The current worldwide reduction in the number of ocean fish is PRIMARILY due to which of the following...

- Pollution in coastal waters worldwide
- Increased harvesting by fishing vessels
- Changes in ocean temperature, or
- Loss of fishing shoals and other deep sea habitats
- Don't know

14. What is the leading cause of childhood death worldwide? Is it...

- Malnutrition and starvation
- Asthma from dust in the air
- Auto and home accidents, or
- Germs in the water?
- Don't know

15. What is the most common reason that an animal species becomes extinct? Is it because...

- Pesticides are killing them,
- Their habitats are being destroyed by humans,
- There is too much hunting, or
- There are climate changes that affect them?
- Don't know

16. There are thousands of waste disposal areas – dumps and landfills – in the U.S. that hold toxic waste. The greatest threat posed by these waste disposal areas is...

- Chemical air pollution
- Contact with farm animals and household pets
- Contamination of water supplies, or
- Human consumption through contaminated food
- Don't know

17. Many communities are concerned about running out of room in their community trash dumps and landfills. Is the greatest source of landfill material...

- Disposable diapers
- Lawn and garden clippings, trimmings and leaves
- Paper products including newspapers, cardboard and packaging or
- Glass and plastic bottles and aluminum and steel cans
- Don't know

18. Some scientists have expressed concern that chemicals and certain minerals accumulate in the human body at dangerous levels. Do these chemicals and minerals enter the body primarily through...

- Breathing air
- Living near toxic waste dumps
- Household cleaning products, or
- Drinking water
- Don't know

19. How important would you say each of the following factors are in causing outbreaks of war and conflict? Are (READ ITEM) very important, somewhat important, only a little important, or not at all important in causing outbreaks of war and conflict?

Racial tensions

Economic factors

Environmental disasters

Territorial or border issues

Language barriers

20. In the future, to what extent do you think each of the following sources can be relied on to solve our worst environmental problems? Would you say...(READ ITEM) could be relied on a good deal, a fair amount, not very much or not at all to solve our most serious environmental problems?

Government agencies

Private businesses

Environmental organizations

Citizen groups

Individuals

21. I am now going to read you a list of some things that environmentalists have said may be problems in the next 15 to 25 years. For each item I read, please tell me how serious a problem you think it will be in the future – very serious, somewhat serious, not too serious, or not at all serious. First...(READ ITEM). How serious a problem will this be in the future? (RE-READ ANSWER CATEGORIES AS NECESSARY)

Climate change

Loss of animal & plant species

Cutting of large forests

Freshwater shortages

Air pollution

Polluted water

Population increases

23. Now I would like to ask you about some of the things you may do in your day-to-day life. For each of the following things, would you please tell me whether you never do it, sometimes, do it, or frequently do it.

- a. Recycle things such as newspapers, cans, and glass
- b. Avoid using chemicals in your yard or garden
- c. Buy biodegradable or recyclable products
- d. Conserve water in you home and yard
- e. Turn off lights and electrical appliances while not in use
- f. Try to cut down on the amount of trash and garbage you create
- g. Use other types of transportation, such as biking or the bus, instead of driving your car
- h. Participate in a public land clean-up day

24. Finally, I am going to ask you about some different activities and hobbies that people can engage in. For each one, would you please tell me if you have done it in the past 12 months or not?
- a. Gone fishing
 - b. Gone swimming outdoors
 - c. Gone hunting
 - d. Gone motor boating
 - e. Gone downhill skiing
 - f. Played golf
 - g. Gone hiking
 - h. Gone bicycling
 - i. Gone running or jogging

I have just a few questions for classification purposes.

D-1. Which of the following age categories includes your age?

- 65 or older
- 55 to 64
- 45 to 54
- 35 to 44
- 25 to 34
- 18 to 24
- Refused

D-2. What was the last grade of school you completed, not counting specialized schools like secretarial, art or trade schools?

- 8th grade or less (1-8)
- Some high school (9-11)
- High school graduate (12)
- Some college (13-15)
- College graduate (16)
- Refused

D-3. Do you have any children and/or dependents living in this household under the age of 18?

- Yes No Refused

D-4. How many children are there living at home with you that are...(READ LIST)

Under 5 years old _____

5 to 10 years old _____

11 to 17 years old _____

D-7. Would you describe the area you live in as a: (READ LIST)

- Large city
- A medium size city
- A small city
- A suburban town
- A small town
- Or as a rural or farm area?
- Don't know

D-8. For statistical purposes only, we need to know your total household income. I am going to read off some income categories. Would you please stop me when I name the category that best describes the combined annual income of this household, including wages or salary, interest, and all other sources?

- Under \$10,000
- \$10,000 to \$19,000
- \$20,000 to \$29,000
- \$30,000 to \$39,000
- \$40,000 to \$49,000
- \$50,000 to \$74,999
- Refused/don't know

Thank you for your time and participation!