

Lessons from the Environment

Why 95% of Adult Americans Endorse Environmental Education

**The Ninth Annual National Report Card
on Environmental Attitudes,
Knowledge, and Behavior**

May 2001

The National Environmental Education & Training Foundation
Roper Starch Worldwide

Lessons from the Environment

Why 95% of Adult Americans
Endorse Environmental Education

*The Ninth Annual National Report Card on
Environmental Attitudes, Knowledge, and Behaviors*

May 2001

©The National Environmental Education & Training Foundation

©Roper Starch Worldwide

About The National Environmental Education & Training Foundation

The National Environmental Education & Training Foundation (NEETF) is a private non-profit organization authorized by Congress in 1990. The Foundation strives to help America meet critical national challenges by connecting environmental learning to issues of national concern such as health care, educational excellence, business profitability, and effective community participation. NEETF awards leveraged challenge grants to outstanding environmental projects across the nation, and issues an annual NEETF/Roper Report Card on Environmental Attitudes, Knowledge, and Behaviors. In addition, NEETF seeks funds to support several innovative environmental education programs. Our work is organized into the following six programs:

- I. The **“ECO-Essentials” Program** is an exciting new effort to more effectively educate the adult population on environmental issues through the thoughtful use of television, radio, print media, and the Internet.
- II. The **National Education and Environment Partnership** takes environmental learning into the mainstream of the K-12 education system, demonstrating how it produces high performance students and schools.
- III. The **EnvironMentors™** Project matches adult mentors with students at under-resourced urban high schools.
- IV. The **Health and Environment Partnership** aims to dramatically improve health care by better educating doctors and nurses on environmental risk factors.
- V. The **Green Business Network** is a “green” business website and community college-based training system that will put affordable, profit-making environmental practices into the hands of millions of small business owners.
- VI. The **Environments-for-Learning Program** works to improve school environments, and to make America’s public lands and nature centers more accessible to schools and teachers as tools of environmental education.

Acknowledgments

The trustees and staff of The National Environmental Education & Training Foundation are grateful to all those who helped support this survey. We greatly appreciate the work done on the survey by David Lintern of Roper Starch Worldwide who, as account manager, managed the field research and analysis, as well as the writing of this report.

Table of Contents

- Foreword: 95% Support for Environmental Learning.....i**
- Executive Summaryii**
- Part I. Support for Environmental Education for Both School Children and Adults...1**
 - Americans Overwhelmingly Support Environmental Education in Schools1
 - Americans Strongly Believe Environmental Education Affects Children Positively.....2
 - Americans Offer Resounding Support for Environmental Education for Adults3
- Part II. Attitudes on Balancing the Environment and the Economy6**
 - Working Together: Environmental Protection and Economic Development6
 - If Forced to Choose, Americans Want Environmental Protection8
 - Gender and Age Gaps Persist8
 - Healthy Environment, Healthy Economy9
 - Will Technology Save the Environment?10
 - Americans Continue to Support Environmental Laws.....11
 - Strongest Public Support s Aimed at Water and Air Regulations.....14
 - Trends in Support of Regulations for Key Environmental Areas.....16
- Part III. The State of Environmental Knowledge, Year 2000.....19**
 - Americans Self-Report Adequate Knowledge of the Environment.....19
 - In Reality, Most Americans Are Environmentally Illiterate,
Failing a Knowledge Quiz20
- Part IV. Environmental Activities.....28**
 - Everyday Environmental Action is High, But Falling.....28
 - Regional Differences30
 - Knowledge and Action30
- Part V. Conclusions and Recommendations.....32**
 - Recommendations for Combating Environmental Illiteracy.....33
- Appendix A: Special Subgroup Analyses34**
- Appendix B: Methodology and Questionnaire.....39**

List of Figures

Figure	Page
1: Awareness and Opinion of Environmental Education in Schools.....	2
2: Expected Effects of Environmental Education	3
3: “Great Deal of Effect” from Environmental Education, by Gender	4
4: Government Support of Environmental Education Programs	4
5: Environmental Training for Employees of Private Companies	5
6: Environmental Protection and Economic Development Can Go Hand in Hand	7
7: When Compromise Is Impossible, Environment Favored Over Economic Development	8
8: Trend Data: Preference for the Environment Over the Economy, by Gender and Age.....	9
9: Healthy Environment Equals Healthy Economy?	10
10: Will Technology Save the Environment?.....	10
11: Opinion of Environmental Laws and Regulations	11
12: Attitudes Toward Environmental Laws, by Gender and Age	12
13: Trend Data: Environmental Laws “Do Not Go Far Enough,” by Gender and Age	13
14: Current Regulation of Specific Environmental Issues.....	14
15: Trend Data: Water Pollution Laws “Do Not Go Far Enough,” by Gender, Age, and Region....	16
16: Trend Data: Air Pollution Laws “Do Not Go Far Enough,” by Gender, Age, and Region	17
17: Self-Assessed Knowledge of Environmental Issues and Problems	20
18: National Environmental Report Card.....	23
19: Percentage Answering Knowledge Questions Correctly.....	24
20: Environmental Activities Performed Frequently in Day-to-Day Life.....	29
21: Environmental Activities Performed Frequently, by Region	30
22: Environmental Activities Undertaken Frequently in Day-to-Day Life, by Performance on Environmental Knowledge Quiz.....	31
23: The Environmental Gender Gap, 2000	35
24: Responses to Environmental Quiz Questions, by Gender	36
25: Responses to Environmental Quiz Questions, by Age	37

Foreword:

95% Support for Environmental Learning

The American public seems to understand two critical aspects of environmental knowledge. First, there isn't enough of it around, and second, there will be a need for even more of it in the future as environmental issues become more complicated and the nation is challenged to find workable solutions. The good news is that the American public is on board for the challenge.

When we first conducted this version of the NEETF/Roper Survey in 1997, we wondered how much support there was for environmental education. The '97 study clearly showed that the public needed more basic environmental knowledge. Only about a third of the public had even the most superficial understanding of basic environmental issues. The 2000 survey confirms America's shortage of essential environmental knowledge, showing virtually no progress in the past three years.

Nevertheless, despite — or perhaps because of — their own lack of knowledge, Americans are firmly supportive of environmental education efforts. We were amazed to learn that fully 95% of adult Americans, even most of those concerned that government regulations have “gone too far,” believe that environmental education belongs in our schools. Importantly, the 2000 survey probes more deeply into why Americans support environmental education in the schools. It also looks at the high level of support for adult environmental education.

The National Environmental Education & Training Foundation is pleased to present this 2000 NEETF/Roper Report Card, and in so doing, to call for dramatic measures to increase environmental literacy in America.

Kevin Coyle

President,

The National Environmental Education & Training Foundation

Executive Summary

A Worrisome Lack of Knowledge... but Clear Support for a Solution

Although there is a persistent and troubling lack of environmental knowledge among Americans today, there is also a remarkable level of support for one possible solution: Fully 95% of adult Americans (including 95% of parents) feel that environmental education should be taught in our K-12 schools. The reason for this phenomenal level of support runs deeper than originally thought: There are numerous benefits that adults see children receiving from environmental education programs. Most adults also think they should themselves have improved access to environmental education at home and in the work place.

The 2000 survey confirms that widespread environmental illiteracy persists. A majority of the public still does not know the leading causes of such issues as water pollution, air pollution and solid waste. However, this is not reflected in most peoples' attitudes. In fact, there is increasing public concern about pollution of the environment.¹ Americans endorse government programs to protect water and air from pollution.

The 2000 NEETF/Roper Survey evaluates public attitudes and knowledge on the environment and how these characteristics have changed over the past nine years. It is based on a nationally representative sample of 1,505 Americans, age 18 and older, surveyed by Roper Starch Worldwide in August 2000 by telephone.

Americans Want Environmental Education for School Children

In the last three decades, many schools have incorporated the environment into their science curriculum. About one half of all schools offer some environmental education in the curriculum but usually just for a few hours a year.² Support seems to be on the rise, however. For example, there is now an advanced placement course for environmental science in some high schools and a growing number of environment-based schools. Perhaps because they had few such classes themselves as students or perhaps because of the burgeoning interest in the environment society-wide, the vast majority of American adults view the study of the environment as a positive development. Fully 95% support the practice of teaching school children about the environment.

To investigate possible reasons for the public's support of environmental education, the 2000 NEETF/Roper Survey added questions about the potential effects of environmental education on young people. A majority of Americans (57%) say that environmental education has "a great deal" of effect in preparing children to better understand environmental issues as adults. Another 31% say environmental education has "a moderate effect" on young people's preparedness for understanding the environment as adults. This adds up to a total of 88% of Americans who find some benefits to environmental education. In addition, fully half of the American public believes that environmental education has a great deal of effect in teaching children to respect the people and places around them and in encouraging children to be involved in community service projects.

Americans believe that environmental education should extend beyond the classroom and that an appreciation and understanding of the environment creates well-rounded children prepared to enter into and contribute to the larger society.

Environmental Education for Adults Is Strongly Supported

Importantly, Americans do not want environmental education to end with graduation. There is strong support for governmental and corporate involvement in environmental education for adults. In a new question on the 2000 NEETF/Roper Survey, Americans were asked whether the government should be involved in educating adults about environmental issues and problems. The vast majority of Americans (86%) agreed that government agencies should support such educational programs.

In addition, the public endorses the concept of turning to private companies to help solve environmental problems. Over 80% agree that "private companies should train their employees to solve environmental problems." Americans appear to want environmental education on the national agenda, and want government agencies and corporate America to be involved in educating adults about the environment.

Americans Want Environmental Balance: They See the Environment and the Economy as Interdependent

As in the previous eight years of this research, a majority of Americans say that environmental protection and economic development can go hand in hand. Of those surveyed, 63% agree with this option, rather than the alternative — that one must be chosen over the other (25%).

Americans say that a balance between the environment and the economy is required for prosperity. Fully 89% either strongly or mostly agree that "The condition of the environment will play an increasingly important role in the nation's economic future." Thus, Americans believe that environmental protection and economic development must

be achieved together to ensure a vibrant nation. Still, when people are asked to choose between environmental protection and economic development, fully 71% say they would choose the environment.

There is room for improvement in our efforts to protect the environment. Close to half (46%) of Americans hold the view that current laws “do not go far enough” to protect the environment. One-third (32%) hold the view that existing laws have struck “about the right balance,” while 15% contend that laws and regulations already “go too far.”

Two Out of Three Adult Americans Still Fail a Simple Environmental Quiz

When asked directly, most Americans (70%) say they know at least “a fair amount” about environmental issues and problems. However, when knowledge is measured via performance on a pre-tested environmental quiz (12 multiple choice questions about recent environmental topics), most Americans do not do so well. If the public were graded on the quiz, just one third (32%) would receive a passing grade of “C” or better (9 or more correct answers). Moreover, just one in ten adults (11%) in the U.S. would receive a grade of “A,” answering at least 11 of the 12 simple questions correctly.

Because the quiz included in the 2000 NEETF/Roper Survey repeats the questions asked in the 1997 NEETF/Roper Survey, it is possible to analyze responses over time. Over the last three years, Americans seem to have learned little about the issues covered in the quiz, improving their score on only one question (the most common source of water pollution). On two questions — the largest source of carbon monoxide and the function of ozone — a lower proportion of respondents answered correctly in 2000 than in 1997.

While the reason for particular changes is not entirely clear, what is certain is that Americans need further education about the environment.

Engagement in Most Environmental Activities Is High, But May Be Falling

Asked how often they perform each of eight activities that benefit the environment, a majority of Americans perform four “frequently” (as opposed to “occasionally” or “never”). As in the past, one of the simplest behaviors tops the list: 85% report that they frequently turn off lights and electrical appliances when not in use. Majorities also frequently try to conserve water, to reduce the amount of garbage they produce, and to recycle newspaper, cans, and glass.

The proportion of Americans saying they try to conserve water, reduce the amount of garbage they produce, purchase biodegradable products, or avoid using chemicals in their

yard or garden is lower than in the past two years. It is difficult to say why Americans are less engaged in these activities, but one obvious tool to help reverse this trend is environmental education for adults.

Indeed, for several activities on the list there is a relationship between environmental knowledge and engaging in an activity. As overall knowledge increases (as measured by the number of correct answers to the quiz section), the likelihood of participating in several activities also increases. This trend is most evident for turning off lights when not in use, recycling newspapers, cans, and glass, and avoiding the use of chemicals in the yard.

Clearly, knowledge of the environment has an effect on the likelihood of engaging in day-to-day activities that directly or indirectly benefit the environment. Increasing environmental knowledge for all Americans should increase individual involvement in environmental affairs.

PART I.

Support for Environmental Education for Both School Children and Adults

For most adult Americans, environmental education was not a topic they learned during their formative school years. Students studied the basics of biology or geology in science class, but there was little concentrated focus on the environment in most schools until the early 1980s. In the last two decades, earth sciences and environmental education have entered the curriculum at many schools.

The vast majority of adults say this is a positive development, stating that environmental education in schools has a major impact on several aspects of the lives of today's children. In addition, there is strong support for governmental and corporate involvement in environmental education for adults.

Americans Overwhelmingly Support Environmental Education in Schools

In 1997, the NEETF/Roper Survey included two questions about environmental education in schools, to determine whether Americans think such classes belong in schools and whether local schools offer environmental education classes. The 2000 Survey updates the answers to both of these questions (Figure 1). Despite (or perhaps due to) their own lack of environmental knowledge, fully 95% of American adults support the practice of teaching children about the environment in school. This is virtually the same proportion of people who held this opinion in 1997.

The other question asked Americans whether environmental education is taught in their community schools. Again, the results in 2000 match those of 1997: 50% responded that environmental education is taught in their local schools, while most of the remaining respondents (41%) don't know whether the topic is taught in their

Figure 1: Awareness and Opinion of Environmental Education in Schools

	Percent Responding					
	Yes		No/Depends		Don't know	
	2000	1997	2000	1997	2000	1997
Do you think environmental education should be taught in schools?	95	94	3	4	2	2
Do the schools in your community have environmental education?	50	51	9	9	41	40

community's schools. In 1997, 51% said their local schools offer environmental education and 40% did not know.

Clearly, adult Americans want environmental education for today's young people.

Americans Strongly Believe Environmental Education Affects Children Positively

To investigate the sources of the public's support for environmental education, the 2000 NEETF/Roper Survey added several questions about the possible effects that environmental education may have on school children (Figure 2). Overall, Americans believe that environmental education extends beyond the classroom, and that an appreciation and understanding of the environment creates well-rounded children better prepared to be part of society.

The most notable effect of environmental education, according to 87% of those surveyed, lies in helping children to better understand environmental issues when they become adults. Almost as important, 85% of American adults think that environmental education contributes to building respect for people and places, and encourages children to get involved in community service work.

As with other issues, gender is a key factor driving attitudes regarding the effects of environmental education. For four of the six effects mentioned in the survey question, women are significantly more likely than men to state that environmental education in schools has a great deal of effect on young people (Figure 3). This is especially true for two of the effects: encouraging children to get involved in community service projects (57% of women responded "a great deal of effect" versus 41% of men) and teaching children to respect the people and places around them (56% of women vs. 44% of men).

In other words, women appear to be more optimistic than men about the possible benefits of environmental education. By extension, women are probably more likely to give environmental education a chance to prove its worth (although the vast majority of both genders say that environmental education should be taught in schools). It is worth noting

that women have consistently shown more support of, and concern for, the environment than men. (See Appendix A, “Environmental Gender Gap,” for details.)

Americans Offer Resounding Support for Environmental Education for Adults

Too Little Government Support for Environmental Education Programs?

In another question added to the 2000 NEETF/Roper Survey, Americans were asked to what extent government should be involved in educating adults about environmental issues and problems. The vast majority (86%) of Americans endorse the statement, “Government agencies should support environmental education programs for adults”

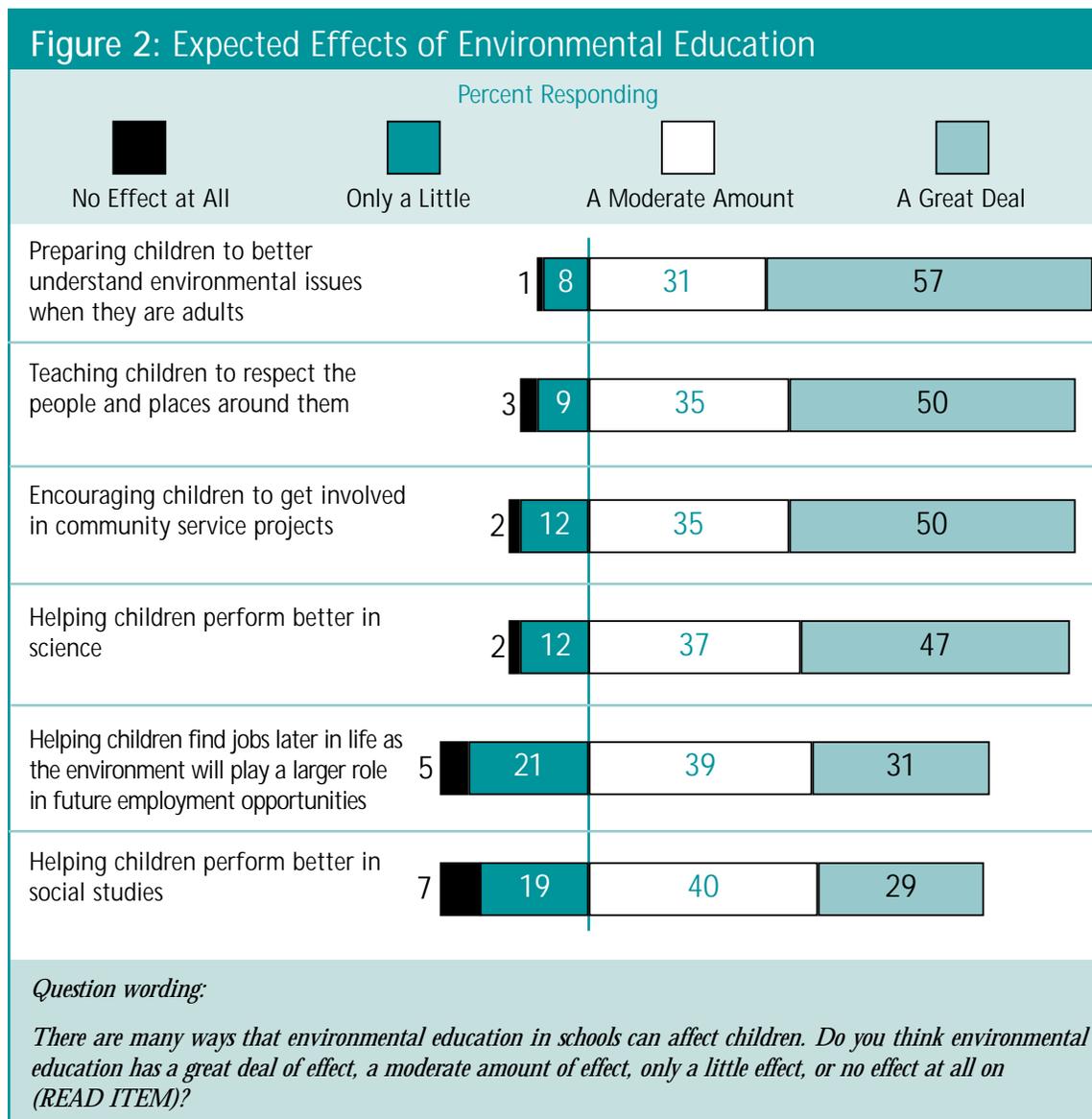


Figure 3: "Great Deal of Effect" from Environmental Education, by Gender

	Gender		
	Total	Male	Female
	%	%	%
Preparing children to better understand environmental issues when they are adults	57	52	62
Teaching children to respect the people and places around them	50	44	56
Encouraging children to get involved in community service projects	50	41	57
Helping children perform better in science	47	44	49
Helping children find jobs later in life as the environment will play a larger role in future employment opportunities	31	29	32
Helping children perform better in social studies	29	25	34

(Figure 4). Nearly half (48%) strongly agree with this idea, while an additional 38% mostly agree.

Only one subgroup differs significantly from the national average on government support for adult education on the environment: those who think that current environmental regulations “go too far.” But even among this group, a high number (62%) agree that government agencies should be involved in adult environmental education programs.

Environmental Training for Employees of Private Companies

The public also endorses the concept of turning to private companies to help solve environmental problems (Figure 5). Asked to state their agreement with the following statement: “Private companies should train their employees to solve environmental

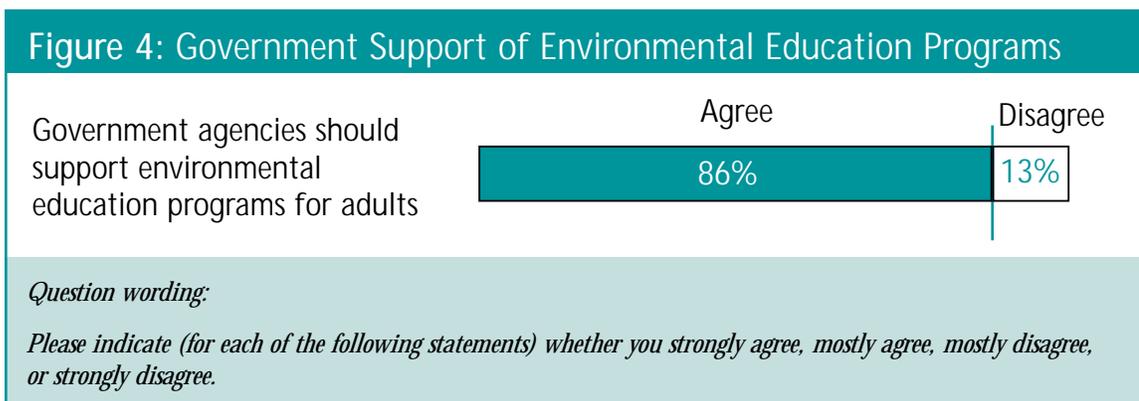


Figure 5: Environmental Training for Employees of Private Companies

*Question wording:*

Please indicate (for each of the following statements) whether you strongly agree, mostly agree, mostly disagree, or strongly disagree.

problems,” 82% say they agree either strongly (45%) or mostly (37%). Clearly, Americans want corporate America to be involved in educating adults about the environment.

Even among those who think that current environmental regulations go too far, 77% agree that having private companies train their employees to solve environmental problems may be a good idea, as it addresses a need without increasing government intervention.

Americans want environmental education for both children and adults. Perhaps this desire for continued learning reflects a growing understanding of the complexity of environmental issues, or perhaps it is spurred by continuing reports of environmental and energy problems. Whatever the source, the recognition that environmental education needs to be a lifelong effort is one of the most positive statements coming out of the 2000 NEETF/Roper Survey.

PART II:

Attitudes on Balancing the Environment and the Economy

A growing number of financial analysts agree that the most successful businesses of the future will have to be top environmental performers. Good environmental performance is closely tied to product and service quality. It is also closely tied to employee health and safety, as well as lower operating costs as a result of energy and materials savings. American companies will have to be as environmentally sophisticated as their foreign competitors or they will be shut out of many markets.

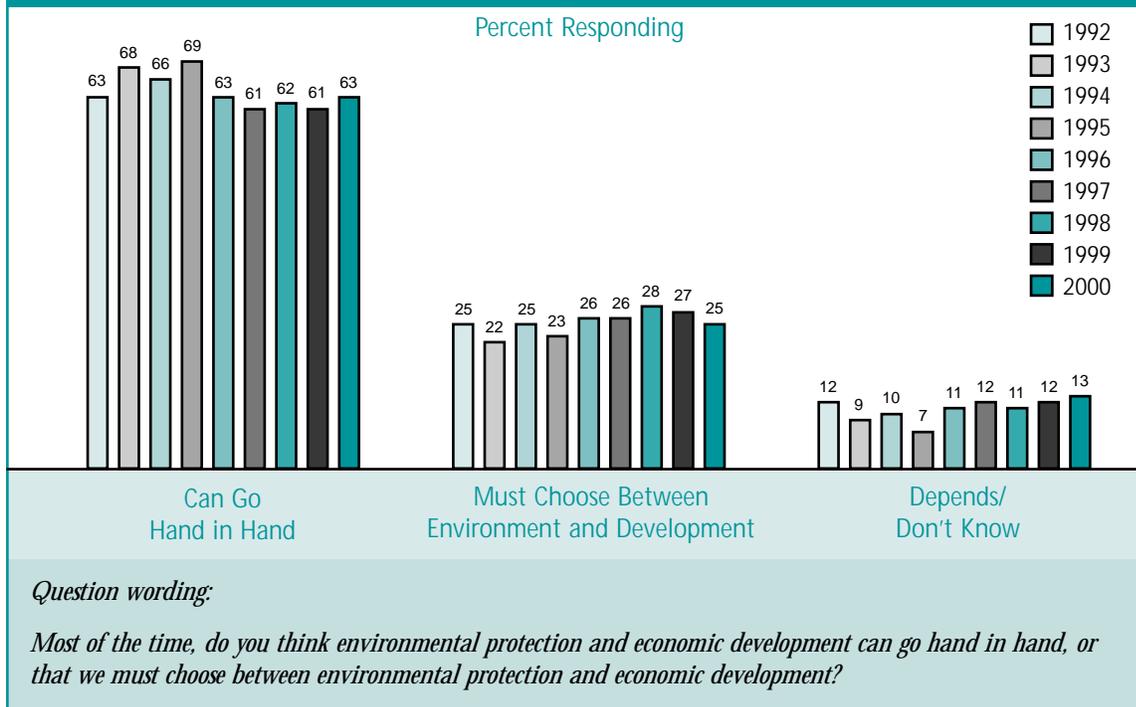
Financial analysts are catching on to what the majority of Americans already believe — pitting economic success against environmental quality is a false dichotomy. Americans want a thoughtful balance between the environment and the economy. They believe the two realms must be in concert if the nation is to have a vibrant, prosperous future.

The 2000 NEETF/Roper Survey finds once again that the majority of Americans want the government to maintain an active role in protecting the environment. Relatively few individuals believe that current environmental regulations go too far in the direction of protecting the environment. Moreover, if forced to choose between environmental protection and economic development, most Americans opt to protect the environment. We recognize that such a question, in the abstract and without the threat of a local plant closing or the loss of a job, will have a bit of a “halo” effect. Over time, however, the public consistently registers support for the environment when a choice must be made.

Working Together: Environmental Protection and Economic Development

Reading a newspaper, watching television, or listening to a political debate, one might think that no bridge could span the differences between the needs of the environment and

Figure 6: Environmental Protection and Economic Development Can Go Hand in Hand

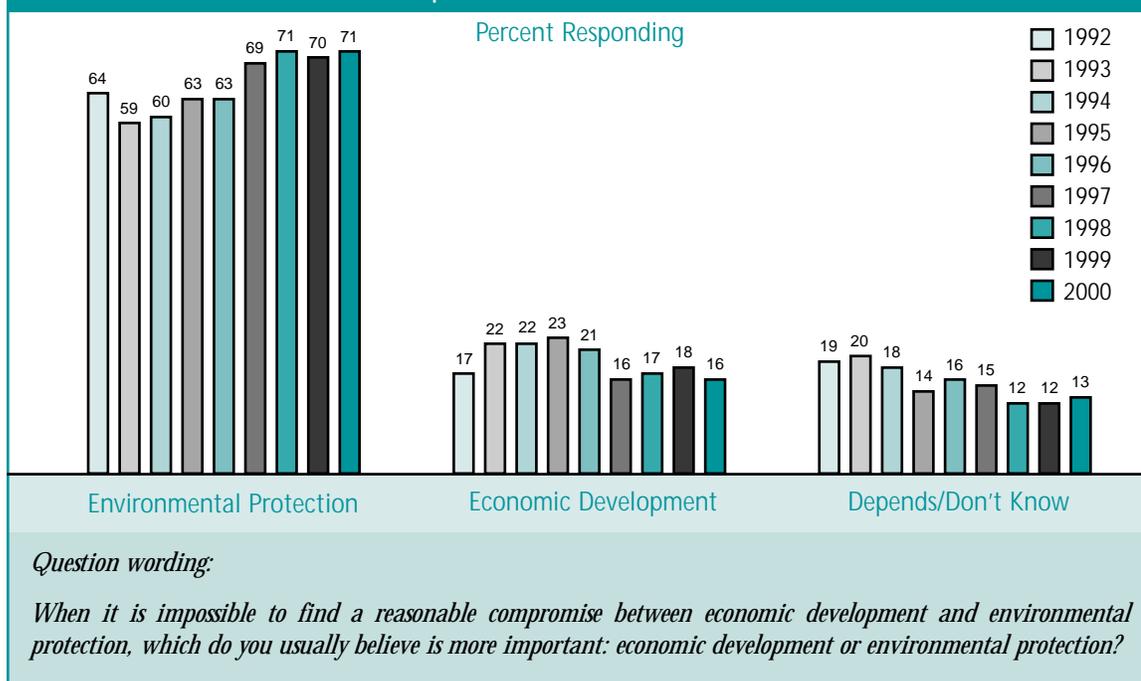


the needs of the economy. However, in recent years, Roper Starch Worldwide has found that as Americans have become more optimistic about the robustness of the nation's economy, they have also become more optimistic about the potential quality of the natural environment. Like the previous eight NEETF/Roper Surveys, the 2000 Survey finds the majority of Americans (63%) firmly believing that environmental protection and economic development can go hand in hand (Figure 6). Only a quarter of respondents believe that one must choose between environmental protection and economic development.

As in the past, these attitudes are consistent across sex and age subgroups, varying only by education, environmental knowledge, and income levels: 72% of those with a college degree select the hand-in-hand opinion, compared to 63% of those with some college education and 59% of Americans with a high school education or less. Seventy percent of respondents who were top performers in the survey's environmental knowledge quiz (nine or more correct answers out of 12 questions — see Part III for details) feel the economy and environment can go hand in hand. This compares to 52% among the lowest performers in the quiz (four or fewer correct answers).

Similarly, 67% of higher income households (\$50,000+) believe that economic development and environmental protection go hand in hand, compared to 57% of lower income households (under \$20,000).

Figure 7: When Compromise Is Impossible, Environment Favored Over Economic Development



If Forced to Choose, Americans Want Environmental Protection

When people are faced with a choice between environmental protection and economic development, fully 71% say they would choose the environment, while only 16% would choose the economy — more than a four-to-one ratio (Figure 7). These proportions are similar to past years, and show a clear pro-environment attitude among adult Americans. Again, real-life situations might cause some individuals to change their views, and attitudes might well be different if respondents were asked to choose between environmental protection and preserving current jobs (rather than economic development). But, in general, when the economy is strong, as it has been in the last decade, support for the environment is strong as well.

One of the clearest indications of the strength of environmental support in America is that even among those who think that environmental laws “go too far,” there is significant support for choosing the environment over economic development when it comes down to a choice. Nearly one half (47%) of those who feel that environmental laws go too far would choose the environment if they had to make a choice.

Gender and Age Gaps Persist

As in past years, a significant difference exists between the attitudes of men and women, evidence of an “environmental gender gap.” There is an 8 point spread between the sexes

in preference for environmental protection over the economy (67% among men, 75% among women). (See Figure 8.) This gap in attitudes and behavior has been documented in past NEETF/Roper Surveys, as women generally express greater pro-environment sentiments than do men. Over the last eight years, women's preference for environmental protection over economic development when forced to choose between the two has increased 11 points, while male preference for the environment has increased just 3 points.

A generation gap is also evident, with younger Americans favoring the environment over the economy when forced to choose (Figure 8). Younger Americans age 18-34 voted 75% in favor of the environment on the 2000 NEETF/Roper Survey, compared to 68% of those age 54-64, and 65 and over. While this generational pattern has been seen in previous surveys, it is worth noting that the most pronounced shift in attitude in the last eight years

Figure 8: Trend Data: Preference for the Environment Over the Economy, by Gender and Age

	Gender			Age			
	Total	Male	Female	18-34	35-44	45-64	65+
	%	%	%	%	%	%	%
2000	71	67	75	75	72	68	68
1999	70	66	74	77	71	70	57
§							
1993	59	56	61	66	61	54	50
1992	64	64	64	73	62	57	56
Change in preference for environment since 1992	+7	+3	+11	+2	+10	+1	+12

has occurred among older Americans (+12 percentage points among ages 65 and over). As the population ages, the proportion who favor environmental protection over economic development when the two are in conflict may continue to increase over time.

Healthy Environment, Healthy Economy

In a question added in 2000, Americans were asked about the importance of the relationship between the economy and the environment. The public overwhelmingly agrees that “the condition of the environment will play an increasingly important role in the nation's economic future.” Fully 89% of respondents either strongly or mostly agreed with this statement, further supporting the belief that environmental protection and economic

Figure 9: Healthy Environment Equals Healthy Economy?



Question wording:

Please indicate (for each of the following statements) whether you strongly agree, mostly agree, mostly disagree, or strongly disagree.

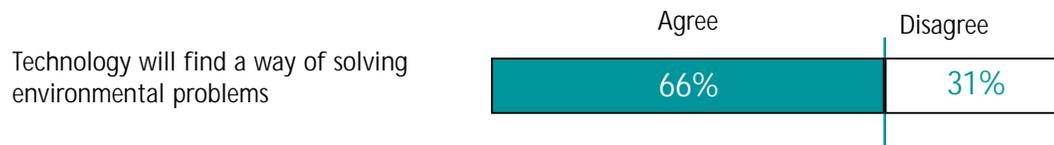
development can and must work together to ensure a prosperous nation (Figure 9). Whether that agreement reflects a hazy instinct on the subject or a growing understanding of the interdependency of the economy and environment was beyond the scope of the survey to determine. But it is notable that a majority of adult Americans (55%) strongly agree with the assertion. Top performers in the survey quiz and the most highly educated respondents were also a few percentage points more likely to believe that the environment will play an important role in our economic future.

Will Technology Save the Environment?

During the 20th century, technology was often viewed as a panacea for society's ills. This belief has long been applied to environmental issues, in the hope that scientists and engineers will discover a technology "fix" to slow global warming or to change polluted water into potable water. Many Americans have accepted this belief, with 66% agreeing with the statement, "Technology will find a way of solving environmental problems" (Figure 10). While this shows some optimism among the public that solutions to environmental problems can be found, it also shows that the public is looking to technology, rather than individual action, for environmental solutions.

Although overall agreement on the role of technology is similar among men (67%) and women (65%), men are significantly more likely to "strongly agree" (26% vs. 17%) that technology will solve environmental problems.

Figure 10: Will Technology Save the Environment?

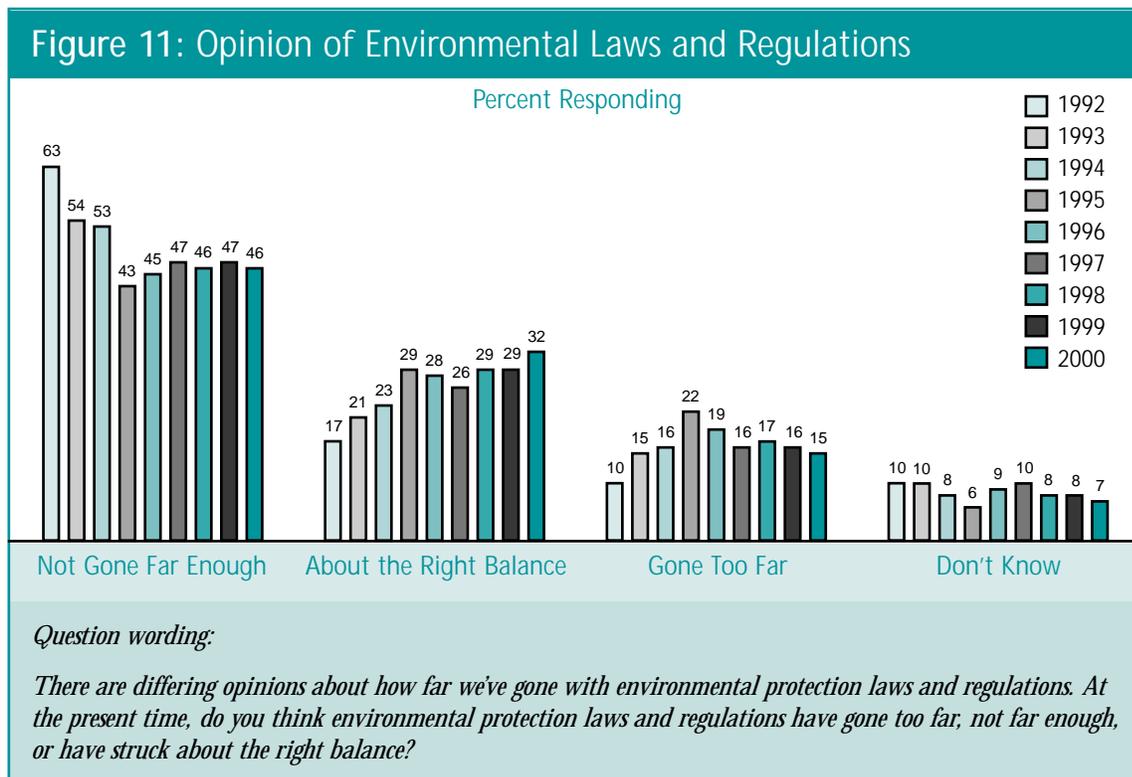


Question wording:

Please indicate (for each of the following statements) whether you strongly agree, mostly agree, mostly disagree, or strongly disagree.

Americans Continue to Support Environmental Laws

Much national debate occurs over the need for and scope of environmental laws in the United States. Laws regulating air and water pollution, protecting natural areas and wetlands, and conserving endangered species are often the subjects of heated public discussion, as these laws have both environmental and economic impacts. Most Americans feel that government — federal, state, and local — should be involved in protecting the environment; the question is how much.



As Figure 11 shows, a plurality of Americans (46%) believe that environmental laws and regulations have “not gone far enough,” while one-third (32%) hold the view that current laws have struck “about the right balance.” Fewer than 1 in 5 adults (15%) say that current regulations “go too far.” These three positions have held fairly steady over the last six years, although in the early 1990s, as many as 63% of Americans felt that environmental laws and regulations had not gone far enough. The increase in satisfaction with the role of regulation could reflect the environmental gains of the 1990s or it could indicate a shift against the environment. However, the growing number of Americans who favor environmental protection above economic development would seem to indicate that no such shift has occurred.

Figure 12: Attitudes Toward Environmental Laws, by Gender and Age

Extent of Current Environmental Laws	Gender			Age			
	Total	Male	Female	18-34	35-44	45-64	65+
	%	%	%	%	%	%	%
Gone too far	15	20	11	9	15	16	26
Not gone far enough	46	42	49	51	45	45	38
Struck about the right balance	32	32	31	33	33	32	25
Don't Know	7	6	8	7	6	6	12

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?

As might be expected, opinions differ within gender, age, and community subgroups as to the status of environmental laws and regulations. Here are some key patterns:

Gender: As with attitudes towards the environment and the economy, the environmental gender gap also comes into play on the subject of environmental laws and regulations (Figure 12). Women (49%) are significantly more likely than men (42%) to say that current laws and regulations do not go far enough, while more men (20%) than women (11%) state that current laws go too far. (The two sexes are equally likely to say that current laws strike about the right balance: 32% of men and 31% of women). Other Roper data confirm this pattern, with men more likely than women to say there is too much government regulation in areas as varied as cable television, nuclear energy, fuel economy standards for cars, and the use of pesticides and herbicides. At the same time, women are more likely than men to say current laws do not go far enough for the disposal of toxic wastes, airline safety, prescription drugs, and the use of pesticides and herbicides.³

Age: Attitudes toward environmental laws and regulations by age group are also in line with age group attitudes towards the environment and the economy. The largest difference is between the youngest (age 18-34) and the oldest (age 65+) subgroups (Figure 12). Among the younger group, 51% believe that laws for protecting the environment do not go far enough, compared to 38% among those age 65 and over. Conversely, only 9% of the younger group find that environmental regulations have gone too far, compared to 26% of the older group. Differences by gender and age toward environmental laws will need to be considered when enacting new laws or enforcing existing laws, as all Americans need to understand the benefits and consequences of environmental legislation.

Despite a substantial change in attitude toward environmental regulation since 1992, in the last several years, the proportion of each sex or age subgroup giving the “not gone far enough” response has been quite stable, evidence that Americans have settled into their opinions on this issue (Figure 13).

Type of Community: Support for environmental laws and regulations is higher in urban than rural areas. The “not gone far enough” position was chosen by 52% of respondents living in urban areas, but only by 38% of rural residents. This difference may reflect more traditional views of the environment by those living in rural areas or the concerns that people in the food and timber production industries have about the effects of regulation on their livelihoods. Conversely, people in congested urban areas may have more concern about the adequacy of environmental protection laws for air and water quality.

Recreational Use: On the whole, Americans who make recreational use of the environment tend to have similar patterns of views on environmental laws and regulations as other Americans. However, there are significant differences in views depending on the type of recreational use involved. For example, while only 10% of Americans who have gone jogging in the last year think that regulations have gone too far, 31% of Americans who have gone hunting in the last year hold the same view. Conversely, only 36% of hunters think that regulations do not go far enough, a view shared by 55% of joggers. Other recreational uses fall between these two extremes.

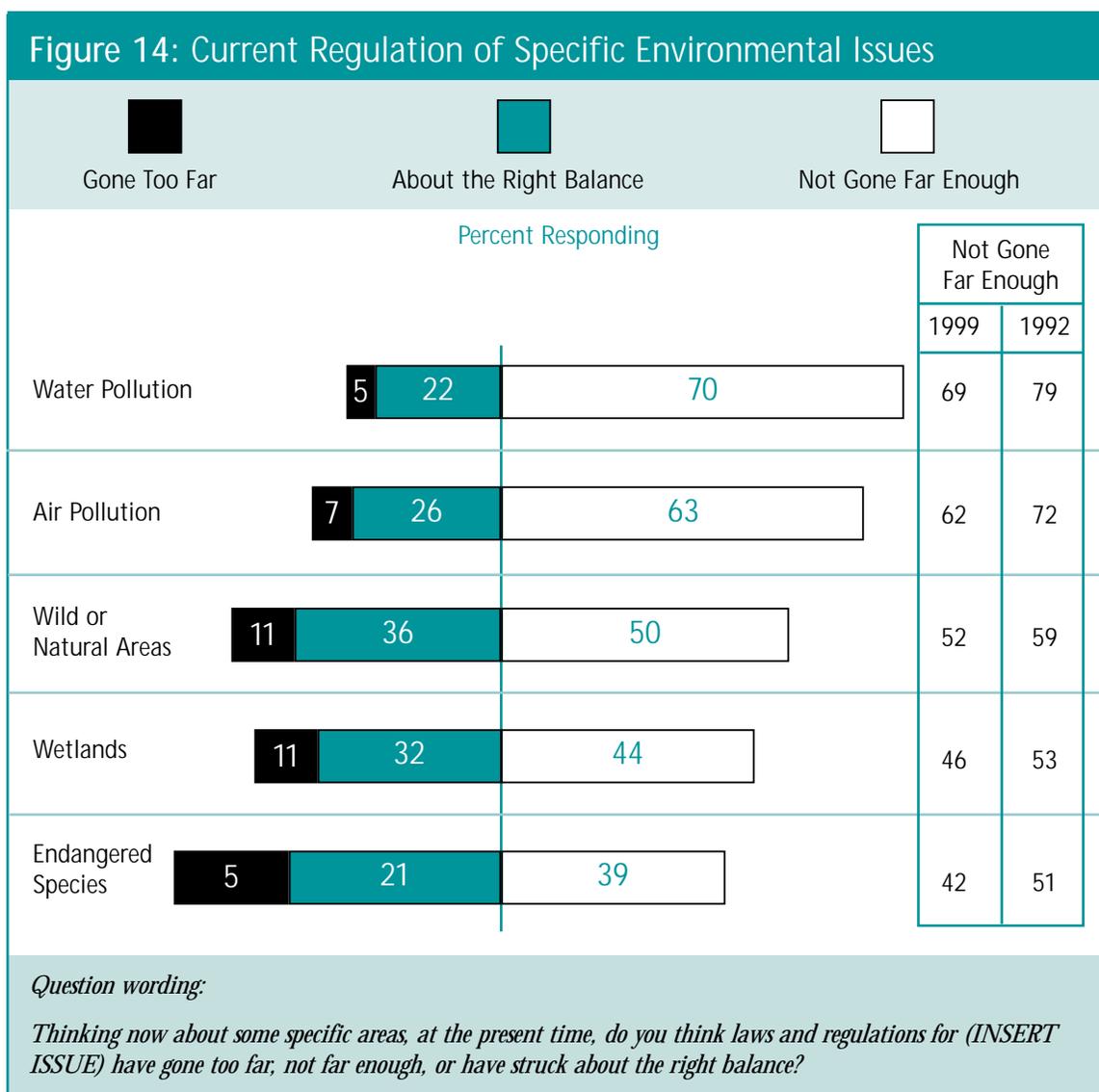
Figure 13: Trend Data: Environmental Laws “Do Not Go Far Enough,” by Gender and Age

	Gender			Age			
	Total	Male	Female	18-34	35-44	45-64	65+
	%	%	%	%	%	%	%
2000	46	42	49	51	45	45	38
1999	47	45	49	56	47	44	36
§							
1993	54	49	58	62	60	45	39
1992	63	59	67	69	68	54	57
Change in “not gone far enough” since 1992	-17	-17	-18	-18	-23	-9	-19
Change in “struck right balance” since 1992	+15	+11	+17	+17	+16	+11	+8

Strongest Public Support Is Aimed at Water and Air Regulations

When asked to consider laws for the protection of five specific environmental issues, Americans clearly rank two as most important: preserving water quality and air quality (Figure 14). While 46% of respondents think that environmental laws in general have not gone far enough, a much larger percentage (70%) believe that environmental laws and regulations to fight water pollution have not gone far enough. Also, 63% say the same thing about laws to fight air pollution. Support for additional regulations to protect wild or natural areas drops to 50%, and below 50% for additional protection of wetlands and endangered species.

Other Roper data confirm that a majority of Americans believe that current laws to regulate the quality of the nation's air and water do not go far enough.⁴ Public concern



that regulations are insufficient to protect water from pollution is also supported by Roper's annual Green Gauge report. When asked about the seriousness of 29 environmental issues, the top two selected were contamination of drinking water and water pollution from industrial waste.⁵ The higher level of support for air and water quality programs, as compared to other issues, may be due to the perceived adverse effects of polluted air and water on human health.

However, as with environmental regulations overall, support for additional regulation (i.e., the position that "current laws do not go far enough") has eroded somewhat for each of the five issues since the first National Report Card study in 1992. Still, these proportions have been stable since 1995, again an indication that Americans have settled into their opinions on environmental issues.

As expected, opinions differ within gender, age, and community subgroups as to the efficacy of current laws for specific environmental issues. Following are some key patterns:

Gender: For water pollution, air pollution, the protection of wild areas, and the protection of endangered species, women opt for the "not gone far enough" option significantly more often than men (74% vs. 65% for water and 69% vs. 56% for air). More men than women say regulations already go too far for the protection of endangered species, wetlands and wilderness areas, and air pollution. Men (27%) are nine percentage points more likely than women (18%) to say that current laws to prevent water pollution have struck the right balance, and nine points more likely to state that air pollution laws have struck the right balance (31% vs. 22%).

Age: Young American adults (age 18-34) are at least 8 percentage points more likely than older Americans (65+) to say that current laws for the five specific environmental issues do not go far enough. Older Americans are more likely than the youngest adults to feel that current laws go too far for protecting endangered species, wetlands, and wilderness areas. As the younger, pro-environment American population ages, their attitudes will likely grow in popularity, perhaps changing the outlook for future environmental laws and regulations.

Type of Community: Urban residents are especially likely to feel that current laws and regulations for all five issues do not go far enough, while rural residents are more likely to find that regulations for protecting endangered species, wetlands, and wilderness areas already go too far. Rural Americans are more likely than urban Americans to feel that current laws to reduce water and air pollution have struck about the right balance. These attitudes may relate to the relative impact that environmental laws and regulations have on the jobs and leisure activities of rural and urban Americans.

Trends in Support of Regulations for Key Environmental Areas

As noted, support for additional regulation in key environmental areas has eroded since 1992, although it has been roughly stable in the last six years. Following is a detailed analysis of trends in support of further regulation in each of the five environmental areas included in the 2000 NEETF/Roper Survey.

Water Pollution: Although the large majority of Americans (70%) support additional regulations to protect water quality, that support has declined by 9 percentage points since 1992 (Figure 15). This trend is surprising in light of several large-scale waterborne epidemics in the 1990s, media attention to the threats of microorganisms (such as *Cryptosporidium* and *E. Coli*) in drinking water, and publicized research findings that water quality has a clear impact on human health. Since 1992, support for additional water pollution regulation has decreased most dramatically among four subgroups: Americans age 65 and over (down 21 percentage points); males (-13 points); residents of Western states (-11 points); and residents of Southern states (-10 points).

Figure 15: Trend Data: Water Pollution Laws “Do Not Go Far Enough,” by Gender, Age, and Region

	Gender			Age				Region			
	Total	Male	Female	18-34	35-44	45-64	65+	North-east	Mid-west	South	West
	%	%	%	%	%	%	%	%	%	%	%
2000	70	65	74	73	72	68	63	68	70	71	69
1999	69	65	72	71	69	69	64	69	63	73	67
§											
1993	77	73	80	80	78	75	69	73	73	80	79
1992	79	78	79	80	81	71	84	76	77	81	80
Change in “not gone far enough” since 1992	-9	-13	-5	-7	-9	-3	-21	-8	-7	-10	-11
Change in “struck right balance” since 1992	+9	+11	+7	+5	+10	+8	+14	+10	+9	+7	+11

Air Pollution: A similar 9 point decline in support of further regulation occurred with respect to air pollution from 1992 to 2000 (Figure 16). Nevertheless, a 63% majority of Americans still agree that current regulations to fight air pollution do not go far enough. Interestingly, the decline in support for additional air regulations comes from somewhat

**Figure 16: Trend Data: Air Pollution Laws “Do Not Go Far Enough,”
by Gender, Age, and Region**

	Gender			Age				Region			
	Total	Male	Female	18-34	35-44	45-64	65+	North-east	Mid-west	South	West
	%	%	%	%	%	%	%	%	%	%	%
2000	63	56	69	71	58	58	63	60	61	64	65
1999	62	56	67	67	61	62	52	65	59	65	58
§											
1993	71	68	73	76	72	68	61	75	63	74	69
1992	72	68	75	76	72	66	72	70	69	72	75
Change in “not gone far enough” since 1992	-9	-12	-6	-5	-14	-8	-9	-10	-8	-8	-10
Change in “struck right balance” since 1992	+8	+9	+6	+4	+13	+7	+6	+8	+10	+4	+12

different subgroups than was the case for water: Americans age 35-44 (down 14 percentage points); males (-12 points); and residents of the Northeast and West (-10 points).

Protection of Endangered Species: On the highly contentious issue of protecting endangered species, support for the position that “current laws do not go far enough” has also been declining over time — by 12 percentage points since 1992. Of the five issues tested in the survey, the belief that laws to protect endangered species do not go far enough gets the least support (39%). Women (42%) are significantly more likely than men (36%) to feel this way, and urban residents are 10 points more likely than rural residents (45% vs. 35%) to feel that endangered species laws should go farther. At the same time, the proportion of all Americans saying these laws have now struck the right balance has increased 6 points, to 37%, since 1992.

Surprisingly, support for additional endangered species protection is inversely related to education and level of environmental knowledge. While 42% of those with a high school education feel endangered species laws should go further, just 36% of those with college degrees feel that way. Similarly, 47% of those who correctly answered four or fewer questions in the survey’s environmental quiz feel that species protection laws do not go far enough, while just 30% who correctly answered nine or more questions hold that opinion. This is the only issue exhibiting this pattern, and the reasons for it are unclear.

Protection of Wild or Natural Areas: Opinions on protection of wild or natural areas follow the general pattern on environmental regulations: women, younger Americans, and urban residents are the most likely to say current laws do not go far enough, while men, older Americans, and rural residents show greater than average support for the “gone too far” option (though this is still a minority view among these groups). Since 1992, the “not gone far enough” position has fallen 9 percentage points, while the “right balance” position has risen 9 points.

A majority of women (54%) support additional regulation for the protection of wild or natural areas, as compared to 45% for men. A similar point spread exists between urban residents (54%) and rural residents (44%).

Protection of Wetlands: A similar but less pronounced demographic pattern exists for wetlands protection as for protection of wild or natural areas. Men were more likely than women (16% vs. 7%) to feel that wetland protection has gone too far; so were urban residents and older Americans. Somewhat surprisingly, roughly equal percentages of women and men thought that wetlands regulations had not gone far enough (45% and 44%), or that they had struck the right balance (31% and 32%). Since 1992, the “not gone far enough” position has decreased 9 percentage points, while the proportion saying current laws strike the right balance has increased 8 points.

PART III:

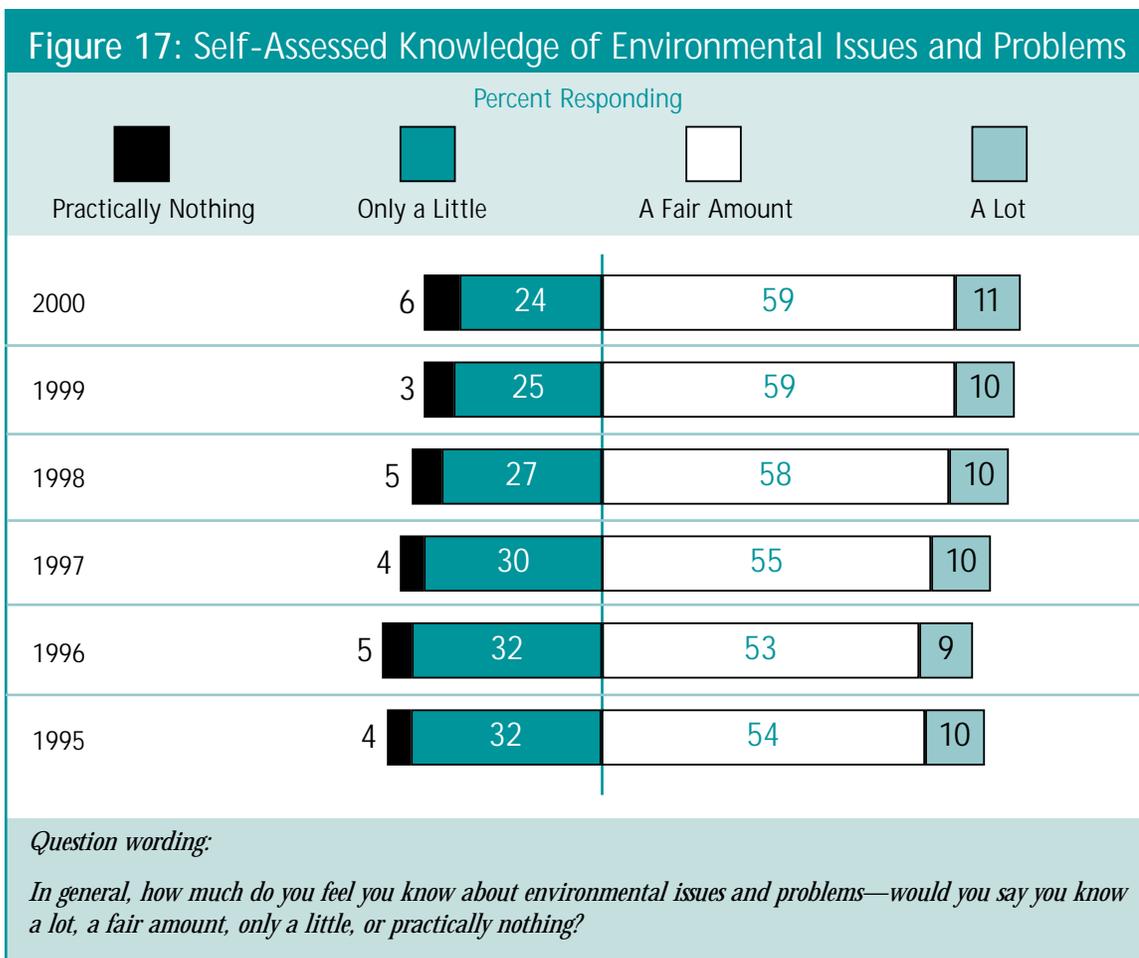
The State of Environmental Knowledge, Year 2000

Does the public's embrace of environmental protection stem from a high level of knowledge about the environment? To determine if this is the case, since 1997 the NEETF/Roper Surveys have included questions to assess adult Americans' knowledge of the environment. The 2000 survey revisits the knowledge questions posed in 1997, and looks at whether people have a simple understanding of some rudimentary environmental issues — how energy is produced, where trash ends up, and the chief sources of water and air pollution.

The questions asked in this part of the survey span many aspects of environmental knowledge. The questions are not technical or complex, and are largely based on information the public could have seen in the media in the previous year or two. Multiple-choice questions were developed with each question having a correct answer, a plausible but incorrect choice, and two implausible choices. The questionnaire was subjected to field testing in 1997 with different focus groups to determine whether any of the questions were confusing or led to unusual results.

Americans Self-Report Adequate Knowledge of the Environment

By their own estimation, Americans believe themselves to be fairly knowledgeable about environmental issues and problems. Seven in ten rate themselves as having “a lot” (11%) or “a fair amount” (59%) of knowledge about the environment (Figure 17). Following the pattern seen in recent years, self-assessed knowledge is higher among men than women (76% vs. 65%), and peaks among people age 45-64 (76%, compared to 68% among those 18-34 and 62% among those 65 and older).



In Reality, Most Americans Are Environmentally Illiterate, Failing A Knowledge Quiz

In an effort to gauge the reliability of the public’s self-assessment of environmental knowledge, and to determine whether the public has learned about key environmental issues in the past few years, the 2000 NEETF/Roper Survey included a test of environmental knowledge. (See next two pages.)

Like the 1997 study, the 2000 NEETF/Roper Survey found some disturbing knowledge gaps. Thirty years after the first Earth Day and after three decades of environmental education programs, only one-third of American adults pass a simple test of environmental knowledge with a grade equivalent to A, B, or C (Figure 18). While it seems clear that environmental consciousness has risen over time, environmental illiteracy is still rampant.

The knowledge questions — fairly easy by most standards — found that just one in ten adults in the U.S. receives a grade of “A,” answering at least 11 of the 12 questions correctly. As will be discussed below, men and women diverged in their results on the quiz, particularly at the highest and lowest levels of knowledge.

Test Your Environmental Knowledge!

1. There are many different kinds of animals and plants, and they live in many different types of environments. What is the word used to describe this idea? Is it ...	% Response
a. Multiplicity.....	6
b. Biodiversity.....	41
c. Socio-economics	7
d. Evolution?	9
Don't know	36
2. Carbon monoxide is a major contributor to air pollution in the U.S. Which of the following is the biggest source of carbon monoxide? Is it ...	
a. Factories and businesses	25
b. People breathing	3
c. Motor vehicles, or.....	65
d. Trees?.....	3
Don't know	4
3. How is most of the electricity in the U.S. generated? Is it ...	
a. By burning oil, coal, and wood.....	33
b. With nuclear power	12
c. Through solar energy.....	2
d. At hydro electric power plants?.....	39
Don't know	13
4. What is the most common cause of pollution of streams, rivers, and oceans? Is it ...	
a. Dumping of garbage by cities	14
b. Surface water running off yards, city streets, paved lots, and farm fields.....	28
c. Trash washed into the ocean from beaches, or	4
d. Waste dumped by factories?.....	45
Don't know	9
5. Which of the following is a renewable resource? Is it ...	
a. Oil	12
b. Iron ore	4
c. Trees, or.....	65
d. Coal.....	6
Don't know	24
6. Ozone forms a protective layer in the earth's upper atmosphere. What does ozone protect us from? Is it ...	
a. Acid rain.....	4
b. Global warming.....	27
c. Sudden changes in temperature, or.....	6
d. Harmful, cancer-causing sunlight?.....	54
Don't know	9

7. Where does most of the garbage in the U.S. end up? Is it in...	
a. Oceans.....	5
b. Incinerators.....	4
c. Recycling centers, or	4
d. Landfills?	85
Don't know	2
8. What is the name of the primary federal agency that works to protect the environment? Is it the...	
a. Environmental Protection Agency (the EPA).....	72
b. Department of Health, Environment, and Safety (the DHES)	3
c. National Environmental Agency (the NEA), or	4
d. Federal Pollution Control Agency (the FPCA)?	6
Don't know	15
9. Which of the following household wastes is considered hazardous waste? Is it...	
a. Plastic packaging	16
b. Glass.....	3
c. Batteries, or	67
d. Spoiled food?.....	10
Don't know	5
10. What is the most common reason that an animal species becomes extinct? Is it because...	
a. Pesticides are killing them.....	8
b. Their habitats are being destroyed by humans	74
c. There is too much hunting, or	6
d. There are climate changes that affect them?.....	5
Don't know	6
11. Scientists have not determined the best solution for disposing of nuclear waste. In the U.S., what do we do with it now? Do we...	
a. Use it as nuclear fuel.....	7
b. Sell it to other countries	3
c. Dump it in landfills, or	12
d. Store and monitor the waste?.....	57
Don't know	21
12. What is the primary benefit of wetlands? Do they...	
a. Promote flooding.....	7
b. Help clean the water before it enters lakes, streams, rivers, or oceans.....	53
c. Help keep the number of undesirable plants and animals low, or	7
d. Provide good sites for landfills?	3
Don't know	30

Correct Answers: 1b, 2c, 3a, 4b, 5c, 6d, 7d, 8a, 9c, 10b, 11d, 12b.

Figure 18: National Environmental Report Card				
Subject: Environmental Knowledge				
Student: The American Public				
Grade		Percent of Total Sample Receiving Grade	Percent of Men Receiving Grade	Percent of Women Receiving Grade
A (11 or 12 correct)	Pass	11	15	6
B (10 correct)	Pass	10	14	7
C (9 correct)	Pass	11	14	8
D (8 correct)	Fail	13	13	13
F (7 or fewer)	Fail	55	45	65
Overall percentage passing		32	43	21

Figure 19 shows the percentage of Americans correctly answering each question, for the 2000 and 1997 quizzes.

Overall, there is little change from 1997, with majorities of respondents correctly answering 9 of the 12 questions. In other words, many Americans are knowledgeable about one or two environmental topics, but relatively few (the 11% overall who achieve an 'A' grade) have broad environmental knowledge.

A closer analysis of the questions where a majority of respondents answered incorrectly reveals a different array of factors. The term biodiversity was much more familiar to younger and better educated respondents. Biodiversity received the largest number of "Don't Know's" (36%) of any question.

The two questions on electricity generation and sources of water pollution similarly showed marked differences by education, but they also showed strong differences by gender rather than age. Twice as many men answered these questions correctly compared to women, and twice as many college graduates answered correctly as those with high school graduation or less education. Nevertheless, there was not a single subgroup (by gender, age, income, education, region, or type of community) in which a majority of the members answered either question correctly.

Just three issues evinced a change in the proportion answering correctly between 1997 and 2000: the most common source of water pollution (higher number of respondents answering correctly); the largest source of carbon monoxide (lower number correct); and the function of ozone (lower number correct). A brief analysis of these three issues follows.

Figure 19: Percentage Answering Knowledge Questions Correctly

Content of Environmental Knowledge Question	2000	1997
	%	%
The most common source of water pollution	28	23
How most electricity in the U.S. is generated	33	33
Definition of biodiversity	41	40
The primary benefit of wetlands	53	53
Protection provided by ozone in upper atmosphere	54	57
Disposal of nuclear waste in the U.S.	57	58
Recognition of a renewable resource	65	66
The largest source of carbon monoxide (air pollution) in U.S.	65	69
Knowledge about materials considered hazardous waste	67	67
Name of the primary federal agency that works to protect environment	72	74
The most common reason for extinction of animal and plant species	74	73
Where most household garbage ends up	85	83

Knowledge Increase: Sources of Water Pollution

Although significantly more Americans in 2000 than in 1997 can correctly identify run-off as the primary source of water pollution (28%, up from 23%), this is still the lowest proportion of correct answers for any topic. The increase in knowledge may be a reflection that the media are now identifying run-off problems as a source of water pollution to a greater extent than before; it is only in the last few years that run-off has become widely recognized as a greater threat than factory wastewater. Or the increase in correct responses may reflect a greater awareness of issues related to tap water as a result of water quality reports which water companies are now required by law to publish and distribute.

Knowledge Decrease: Largest Source of Carbon Monoxide

The reason for a decrease in awareness of the largest source of carbon monoxide is puzzling. Although a majority still answer correctly (65% choosing “motor vehicles,” down from 69%), accurate information is reaching fewer Americans. It may be that coverage of automakers’ efforts to produce lower-polluting vehicles has led some Americans to miss the forest for the trees. In fact, there are more cars than ever before on the road and even with lower emissions per car, the additional vehicles ensure that automobiles remain the largest source of carbon monoxide.⁶

Knowledge Decrease: Function of Ozone in the Atmosphere

The decrease in awareness that the ozone layer serves to block harmful sunlight (54%

answering correctly, down from 57% in 1997) may reflect the lessening of media attention to holes in the ozone layer that were prominently featured in the news some years earlier. The generally low level of knowledge about the issue may reflect the complexity of the relationship between the ozone layer and global warming.

Performance on the 12 knowledge questions is related to the background of the individual respondents. A summary of the key demographic factors follows.

Factor: Education

The most significant factor in whether people have environmental knowledge appears to be their level of education. Americans with less than a high school education averaged 5.8

Education	Mean Number of Correct Answers
High School or less	5.8
Some College	7.6
College Grad or more	8.6

correct answers (5.7 in 1997). This compares to 7.6 correct answers for those with some college education (7.5 in 1997), and 8.6 (8.3 in 1997) among those who graduated from college.

The issues with the greatest divergence in the number of correct responses between college graduates and high school graduates are: the definition of biodiversity (70% college graduates, 23% high school graduates), the primary benefit of wetlands (71% vs. 41%), and disposal of nuclear waste in the United States (74% vs. 45%).

The issues with the greatest divergence in the number of correct responses

Factor: Gender

The environmental “gender gap” with respect to attitudes is reversed with respect to environmental knowledge. It is clear that gender has considerable bearing on the number of correct responses to the questions. Men averaged 7.7 correct answers (7.8 in 1997) while women answered an average of 6.3 questions correctly (6.2 in 1997). Looking at the

Gender	Mean Number of Correct Answers
Male	7.7
Female	6.3

responses of those who received a “passing grade” (see Figure 18), the difference is more pronounced: 43% of men received a passing grade while only 21% of women passed (9 or more correct answers).

The topics with the largest differences between males and females are: the primary benefit of wetlands (64% males vs. 43% females), disposal of nuclear waste in the United States today (67% vs. 48%), the function of ozone (63% vs. 46%), and how most electricity in the United States is generated (46% vs. 22%).

Ironically, men possess greater environmental knowledge than women, even though women show more support for the environment over the economy, more support for

further air and water quality regulations, more support for laws to protect endangered species and natural areas, and higher expectations from environmental education. Environmental concern and environmental knowledge may represent two alternative paths toward environmental support for women and men. It is possible that exposure to environmental education and information tends to solidify environmental knowledge among men — possibly because men have traditionally been more comfortable with the science underlying environmental issues — but translates into greater environmental concern among women.

Factor: Age

Environmental knowledge has an unusual relationship with age. Americans age 35-54 are the most knowledgeable about the environment. This suggests that environmental knowledge may be acquired over time, and most likely through a variety of sources —

Age of Respondents	Mean Number of Correct Answers
18-24	7.0
25-34	6.8
35-44	7.5
45-54	7.5
55-64	6.8
65 or older	5.8

jobs, friends, television, etc. — as is the case with most adult learning. However, Americans age 65 and above had the lowest level of environmental knowledge, perhaps because their primary exposure to environmental education came prior to the environmental awakening of the 1960s. This may explain their above average belief that current regulations go too far. The idea that children are a large factor in

passing on environmental knowledge to their parents is not supported by the data. Parents and non-parents continue to perform virtually the same on the quiz (7.0 correct answers vs. 6.9), similar to the 1997 results.

The quiz questions with the largest differences among age groups are: the disposal of nuclear waste in the United States, the chief reason for extinction of species, the type of household waste considered to be hazardous, and the definition of biodiversity. Knowledge of these topics is generally highest among 35-44 year olds, and lowest among those 65 and older.

Factor: Region

Geographic region is also a factor in environmental knowledge. As seen in past NEETF/Roper Surveys, Americans in Western states tend to score better (7.6 correct answers) than those in

Region	Mean Number of Correct Answers
Northeast	6.9
Midwest	7.0
South	6.5
West	7.6

other parts of the nation. Other Roper data show that Westerners spend more time outdoors or engaged in recreational activities than other Americans.⁷

The questions with the largest differences among the four regions of the nation are: the disposal of nuclear waste in the United States, the definition of biodiversity, and an example of a renewable resource. Accurate knowledge was significantly higher in the West than elsewhere.

Factor: Community Type

A final demographic factor influencing environmental knowledge is the type of community in which a person lives. Suburban residents score significantly better (7.4 correct answers) than their urban and rural counterparts (6.8 and 6.7, respectively). The reason for these differences is unclear, and does not appear to be related to education level or the presence of children in the household.

Community Type	Mean Number of Correct Answers
Urban	6.8
Suburban	7.4
Rural	6.7

Quiz questions with the largest differences in correct answers between suburban and other residents are: the primary benefit of wetlands, the name of the primary federal environmental agency, and the source of most electricity in the United States.

These differences may reflect the overall higher level of education attained by suburbanites as compared to urban or rural residents.

PART IV:

Environmental Activities

Almost every human activity impacts the environment in some way. Some activities result in pollution, others help to preserve the natural world we inhabit. As in past years, the 2000 NEETF/Roper Survey sought to determine which actions people are performing to benefit the environment, and to demonstrate how these actions relate to beliefs and knowledge about the environment. Unfortunately, as the survey results show, there has been a noticeable decline in involvement in environmentally-friendly activities on the part of Americans over the past two years.

Everyday Environmental Action Is High, But Falling

Although they may not realize it, many Americans perform activities each day which benefit the environment in some way. Asked how often they perform eight activities that benefit the environment, a majority of Americans say they perform four of them “frequently” (Figure 20). As in the past, the simplest behavior tops the list: 85% report frequently turning off lights and electrical appliances when not in use. Do people consciously do this to benefit the environment, out of habit, or to save money on the electric bill? The reason may be less important than the fact that they are indeed conserving energy, which protects the environment by reducing the need for power generation at electric plants, many of which burn pollutant-heavy oil or coal to produce energy.

Another 59% of Americans say they frequently recycle newspapers, cans, and glass. A large part of this may be due to local laws and regulations mandating recycling rather than an awareness of the value of recycling in reducing the demand for raw materials. Last year’s NEETF/Roper Survey showed that few Americans are in fact aware that newspapers and paperboard are the chief sources of landfill material. Whether by law or their own volition, the critical result is that six Americans in ten report doing recycling on a frequent basis.

Figure 20: Environmental Activities Performed Frequently in Day-to-Day Life

	Percent Responding	2000	1999	1998
Turn off lights and electrical appliances when not in use		85	83	85
Conserve water in your home and yard		61	64	65
Recycle things such as newspapers, cans and glass		59	59	61
Try to cut down on the amount of trash and garbage you create		54	57	62
Buy biodegradable or recyclable products		42	46	50
Avoid using chemicals in your yard or garden		36	39	39
Use other types of transportation, such as biking or the bus, instead of driving your car		14	15	16
Participate in a volunteer clean-up day*		9	10	8

* In 1999, asked as "Participate in a public land clean-up day"

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. (First/Next)... (Ask about each)

Majorities of Americans also say they frequently try to conserve water in their home and yard (61%), and cut down on the amount of trash their household creates (54%).

Importantly, the activities performed most frequently which benefit the environment have two things in common. First, they can be done easily at home. Second, these actions do not require large changes in lifestyle. By contrast, fewer than two Americans in ten say they frequently use alternative transportation or participate in volunteer land clean-up days, the two activities on the list that obviously benefit the environment.

Surprisingly, the proportion of Americans who try to conserve water, reduce the amount of garbage they produce, purchase biodegradable products, or avoid using chemicals in their yard or garden is lower than in the last two years. The reason for these changes is unclear but the trend is supported by other data. Roper's Green Gauge 1999 research

found a similar decrease in the proportion of Americans regularly engaging in several environmental activities.⁸

Regional Differences

Regional differences play a role in the level of participation in environmentally-friendly activities (Figure 21). Perhaps due to different laws in different areas, recycling of newspapers, cans, and glass is higher in the Northeast (67%) and West (66%) than in the South (51%), with the Midwest (60%) close to the national average.

Weather conditions may also affect water conservation efforts by region. With a dry spring and summer in 2000, residents of Southern (65%) and Western (63%) states were more likely than those in the cooler and damper Northeastern (57%) or Midwestern (57%) states to report that they frequently try to conserve water. By contrast, there were no reported regional differences in water conservation in 1999. Also, Westerners (91%) are more likely than those in other regions to report that they frequently turn off lights and electrical appliances when not in use. Whether deregulation of the energy industry impacts this measure remains to be seen.

Knowledge and Action

Is there a relationship between environmental knowledge and frequent engagement in environmentally-friendly activities? As overall knowledge increases (as measured by the number of correct answers to the quiz section), the likelihood of participating in some

Figure 21: Environmental Activities Performed Frequently, by Region

	Region				
	Total	North-east	Mid-west	South	West
	%	%	%	%	%
Turn off lights and electrical appliances when not in use	85	80	83	85	91
Conserve water in your home and yard	61	57	57	65	63
Recycle things such as newspaper, cans, and glass	59	67	60	51	66
Try to cut down on the amount of trash and garbage you create	54	56	55	54	51
Buy biodegradable or recyclable products	42	41	44	40	45
Avoid using chemicals in your yard or garden	36	34	37	33	42
Use other types of transportation, such as biking or the bus, instead of driving your car	14	16	12	13	18
Participate in a volunteer clean-up day	9	8	5	11	8

activities also seems to increase (Figure 22). This trend can be seen most clearly for three of the eight measures: turning off lights when not in use; recycling newspapers, cans, and glass; and avoiding the use of chemicals in the yard. (An inverse relationship is evident for the use of alternative types of transportation, but this may be largely reflective of household income and type of community, as lower income households and urban residents are more likely to have access to, and the need to use, mass transit.)

Figure 22: Environmental Activities Undertaken Frequently in Day-to-Day Life, by Performance on Environmental Knowledge Quiz

	Performance on Environmental Quiz			
	Total Correct	9-12 Correct	5-8 Correct	0-4 Correct
	%	%	%	%
Turn off lights and electrical appliances when not in use	85	88	84	80
Conserve water in your home and yard	61	58	65	59
Recycle newspaper, cans, and glass	59	70	58	47
Try to cut down on the amount of trash and garbage you create	54	52	55	55
Buy biodegradable or recyclable products	42	41	45	37
Avoid using chemicals in your yard or garden	36	45	34	29
Use other types of transportation; biking or the bus, instead of driving your car	14	11	14	22
Participate in a volunteer clean-up day	9	7	9	11

Indeed, where there are statistically significant differences in activity between the knowledge groups (i.e., 4 or more percentage points), the people that performed most poorly on the quiz also undertook environmental action less frequently. Thus it is reasonable to conclude that knowledge of the environment has an effect on the likelihood of engaging in day-to-day activities that directly or indirectly benefit the environment. Increasing the environmental knowledge of all Americans should increase individual involvement in environmental affairs, for education about the environment is required if Americans are to 1) understand how their actions affect the environment, 2) be able to communicate their attitudes toward the environment to others (such as their firm belief in a balance between environmental protection and economic development), and 3) become more involved in activities which directly or indirectly benefit the environment.

PART V:

Conclusions and Recommendations

For nine years, the NEETF/Roper Surveys have recorded American attitudes toward and knowledge of the environment. In the last few years, Americans appear to have settled into stable positions about environmental issues. For example, the proportion saying current regulations do not go far enough to protect the environment has been stable for four years, as has the proportion who believe that environmental protection is more important than economic development.

Just as environmental attitudes are relatively entrenched, so too is environmental knowledge, or the lack of it. Unfortunately, many Americans overestimate their knowledge of environmental issues and problems. And although their general support for the environment is strong, it may be their lack of knowledge on specific environmental topics — such as the leading causes of pollution or sources of energy — that are holding people back from taking effective actions to protect the environment.

Despite holding an overly rosy view of their own environmental knowledge, Americans are eager to support more education of the public on the environment. Over the last 20 years, environmental education has made significant inroads in elementary or secondary school curricula. However, the 2000 NEETF/Roper Survey finds that Americans favor environmental education for adults as well as for school children. The public wants both the government and private businesses to find ways to help adults learn more about the environment and how its problems might be resolved.

Americans are concerned about the environment, its protection, and how they can learn more about it. Now, opportunities must be created for the public to expand its environmental knowledge, leading not only to better-educated adults, but perhaps also to new perspectives and ideas for solving current environmental problems.

Recommendations for Combating Environmental Illiteracy

Working with colleague organizations, the Congress, and the Administration, NEETF recommends implementing a set of strategic programs for adult and youth environmental learning. The key to environmental learning is to influence the effectiveness of a few strategic public education sources — the Internet, schools, and the media. Other, less-commonly used resources, such as broadcast meteorology and training institutes for journalists, can also be helpful. Our recommendations include:

1. **Maximize the educational value of television** by working to convert regular television weather reporting into environmental reporting. Support model programs that link educational television to educational programs on the Web. Test programs with educational television that make use of feature broadcasts in concert with Web-driven educational programs.
2. **Develop programs that facilitate the infusion of environmental education into school programs** in science, reading, service learning, and after-school programming.
3. **Support improved environmental news coverage** through training institutes and through associations with leading schools of journalism.
4. **Continue to measure and report on the extent and impact of the lack of adult environmental knowledge** and report findings to leaders and decision-makers. Use such devices as:
 - an annual index and rating system of the most “people-caused” environmental problems; and
 - an annual assessment of the adult American “Environmental Quotient (EQ)” through such research efforts as the NEETF/ Roper Report Card on environmental attitudes, knowledge, and behavior.
5. **Develop a comprehensive Web Gateway for lifelong environmental learning.** The gateway would collect comprehensive information on all facets of environmental education and training and serve as an entry point to other more detailed or technical sites and resources.

APPENDIX A:

Special Subgroup Analyses

Throughout this report, attention has been given to differences in environmental attitudes, knowledge, and behavior among subgroups of American adults. This appendix focuses on the results for two demographic subgroups, gender and age.

Gender Differences

As in past NEETF/Roper Surveys, an “environmental gender gap” emerges for many of the questions. For the most part, women express more pro-environment sentiments than men. For example, while a large majority of all Americans (71%) favor the environment over the economy if a choice between them must be made, 75% of women favor the environment, compared to 67% of men. While a majority of both men and women support environmental protection regulations, the pro-environment feelings of American women remain stronger than those of men. Twenty percent of men think environmental regulations have gone too far, but just 11% of women feel this way. Conversely, significantly more women (49%) than men (42%) say that current regulations should go farther.

In addition, there is a 13 point difference between women (69%) and men (56%) on whether specific government regulations to fight air pollution should go farther. Similarly, 74% of women feel that the regulation of water pollution needs to go farther as compared to 65% of men. The same pattern holds true for protecting wild or natural areas (women are 9 percentage points higher than men) and for protecting endangered species (women are 6 percentage points higher than men).

Women and men also differ in their attitudes towards the effects of environmental education on today’s school children. For four of the six possible effects mentioned in the survey, women are more likely than men to state that environmental education in schools has a great deal of effect on young people. This is especially true for the possible outcomes of

Figure 23: The Environmental Gender Gap, 2000

	Males %	Females %
Relationship Between Environmental Protection and Economic Development:		
Can Go Hand in Hand	64	62
Must Choose Between the Environment and the Economy	24	25
If No Compromise Is Possible Between Environmental Protection and Economic Development:		
Favor economic development	20	13
Favor environmental protection	67	75
Environmental Laws and Regulations:		
Not gone far enough	42	49
Struck the right balance	32	31
Gone too far	20	11
Environmental Laws and Regulations: Not gone far enough, for:		
Water pollution	65	74
Air pollution	56	69
Wild and natural areas	45	54
Wetlands	44	45
Endangered species	36	42
"Great Deal of Effect" from Environmental Education on:		
Preparing children to better understand environmental issues when they are adults	52	62
Teaching children to respect the people and places around them	44	56
Encouraging children to get involved in community service projects	41	57
Helping children perform better in science	44	49
Helping children find jobs later in life as the environment will play a larger role in future employment opportunities	29	32
Helping children perform better in social studies	25	34
Environmental Knowledge: Self-Assessed		
A lot / A fair amount	76	65
Only a little / practically nothing	24	35
Environmental Knowledge: Average Number Correct on Quiz	7.7	6.3

encouraging children to get involved in community service projects and teaching children to respect the people and places around them. Although the vast majority of both genders think environmental education should be taught in schools, it may be women's stronger pro-environment sentiments — as well as their often greater involvement in the school system — that lead them to a stronger belief in the potential beneficial results of environmental education. Figure 23 summarizes the data on the environmental gender gap.

Even though women express stronger pro-environment attitudes than men, they — quite correctly — do not rate their own knowledge of the environment very highly. Women's positive attitudes do not translate into factual knowledge about the environment. For the fourth straight year, women are less knowledgeable than men about the environment. Of

Figure 24: Responses to Environmental Quiz Questions, by Gender

Content of Environmental Knowledge Question	Percent Answering Correctly		
	Total	Male	Female
	%	%	%
Where most household garbage ends up	85	86	83
The most common reason for extinction of animal and plant species	74	76	73
Primary federal agency that works to protect environment	72	77	67
Knowledge about materials considered hazardous waste	67	70	64
The largest source of carbon monoxide (air pollution) in U.S.	65	66	63
Recognition of a renewable resource	65	70	60
Disposal of nuclear waste in the U.S.	57	67	48
Protection provided by ozone in upper atmosphere	54	63	46
The primary benefit of wetlands	53	64	43
Definition of biodiversity	41	47	36
How most electricity in the U.S. is generated	33	46	22
The most common source of water pollution	28	37	19
Average Number of Correct Answers	6.9	7.7	6.3

12 quiz questions in 2000, women average 6.3 correct answers, significantly lower than the 7.7 correct answers among men. This is critical because knowledge shapes concern and behavior, and the more knowledgeable people are about a topic, the less likely they are to be subject to the whims of popular opinion, or the perpetuation of environmental misinformation. Figure 24 indicates the gender breakdown of responses to the environmental quiz questions.

The exact reasons for the differences in attitudes between the sexes are not well understood and require more research. There are, for instance, no significant differences in education levels between the men and women in the survey sample. Discussions with professional educators may provide a clue, however. They think the difference might be accounted for by the two-to-one ratio of men to women in science-based education and employment in America. Many of the environmental issues covered in the NEETF/Roper Survey have scientific underpinnings. Greater familiarity with scientific subjects or professional experience in science may make the difference between a higher or lower score in the quiz.

Age Differences

As in past years, age often plays an important role in environmental attitudes. In general, pro-environment sentiment declines as people grow older, creating an “environmental

generation gap.” For example, the preference for environmental protection over economic development (if forced to choose) decreases from 75% of Americans age 18-34 to 72% of those age 35-44, and to 68% of those over the age of 45.

The same pattern occurs when Americans offer their opinions of current environmental laws and regulations. The percentage saying that laws for protecting the environment “do not go far enough” decreases from 51% among 18-34 year olds to 45% of those age 35-64, and it falls to 38% among those age 65 and over. Meanwhile, the percentage believing that laws and regulations have gone too far increases from 9% among 18-34 year olds to 26% of those age 65 and over (26%).

A generation gap is also in evidence with regard to attitudes toward specific environmental laws and regulations. With the exception of protecting wetland areas (which elicits similar views across age groups), Americans age 18-34 are more likely than those age 45 and older to say that current laws for the specific environmental issues do not go far enough. In fact, 30% of Americans age 65 and over say current laws go too far in protecting endangered species, compared to just 8% of those age 18-34. Clearly, young Americans want the government to be involved in protection of the environment.

The call for government involvement in the environment among young Americans is strengthened by their strong agreement with the statement “Government agencies should support environmental education programs for adults.” Over half (54%) of those age 18-

Figure 25: Responses to Environmental Quiz Questions, by Age

Content of Environmental Knowledge Question	Percent Answering Correctly				
	Total %	18-34 %	35-44 %	45-64 %	65+ %
Where most household garbage ends up	85	84	86	88	77
The most common reason for extinction of animal and plant species	74	81	76	75	57
Primary federal agency that works to protect environment	72	68	81	77	57
Knowledge about materials considered hazardous waste	67	68	76	69	48
The largest source of carbon monoxide (air pollution) in U.S.	65	64	64	64	68
Recognition of a renewable resource	65	57	66	72	67
Disposal of nuclear waste in the U.S.	57	54	66	63	43
Protection provided by ozone in upper atmosphere	54	56	56	55	44
The primary benefit of wetlands	53	49	61	54	48
Definition of biodiversity	41	47	48	40	21
How most electricity in the U.S. is generated	33	32	34	36	31
The most common source of water pollution	28	24	31	32	22
Average Number of Correct Answers	6.9	6.8	7.5	7.2	5.8

35 strongly agree, compared to 47% of those age 35-44, 45% of those age 45-64, and 42% of those age 65 and older.

Asked to describe the level of their own environmental knowledge, middle-age Americans rate themselves the highest, with approximately three-fourths stating that they know a lot or a fair amount about environmental issues and problems. This falls to 68% among those 18-34 and decreases to 62% among those age 65 and older.

Actual knowledge corresponds fairly closely to self-reported knowledge, with middle-age Americans scoring highest. On the 12-question quiz, Americans age 35-44 averaged 7.5 correct answers, while those age 45-64 averaged 7.2 correct answers (Figure 25). These scores are significantly higher than the 6.8 scored by those 18-34 and the 5.8 scored by Americans age 65 and older.

APPENDIX B:

Methodology and Questionnaire

Description of the Sample

A nationwide cross-section of 1,505 adults, 18 years of age and older, was interviewed for the 2000 NEETF/Roper Survey. Interviews were conducted by telephone from August 15 to September 5, 2000. Results can be projected to the total adult population of the continental United States who would be willing to be interviewed in a telephone study of this kind.

The margin of error due to sampling is plus or minus two percentage points at the .95 confidence level, although it is larger for the results for smaller subgroups of the public. For example, the sampling error is plus or minus four percentage points for results among the 486 adults in the sample aged 18-34. Previous versions of this study (known as the Times Mirror Magazines National Environmental Forum from 1992 to 1995) had a plus or minus three percentage point margin of sampling error.

Sampling Method

The basic sample was drawn at random from the adult population of the continental United States, excluding institutionalized segments of the public (such as those in Army camps, nursing homes, and prisons).

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 during evening hours on weekdays and all day on weekends to ensure that both working as well as non-working segments of the population would be included.

Weighting Procedure

The demographic characteristics of the random sample were compared with the most recent Census Bureau estimates and corrective weights were applied to ensure proper representation based on age, gender and educational attainment.

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.

References

- ¹ Roper Starch Worldwide Inc., *Green Gauge 2000*, 2000.
- ² Environmental Literacy Council and the North American Association for Environmental Education, *Environmental Studies in the K-12 Classroom: A Teacher’s View, Survey of Teachers*, December 2000.
- ³ Roper Starch Worldwide Inc., *Roper Reports*, August 1998.
- ⁴ Ibid.
- ⁵ Roper Starch Worldwide Inc., *Green Gauge 1999*, 1999.
- ⁶ U.S. EPA, “Automobiles and Carbon Monoxide,” EPA 400-F-92-005, OMS Fact Sheet #3, January 1993, (<http://www.epa.gov/orcdizux/03-co.htm>).
- ⁷ Roper Starch Worldwide Inc., *Green Gauge 1999*, 1999.
- ⁸ Ibid.

NEETF Environmental Attitudes and Knowledge Survey 2000

Hello, I'm _____ from The Roper Poll and we're conducting an important survey today about the environment. This is a research study; we are not selling anything and all answers will be kept confidential. For this interview, may I please speak to the youngest adult male, who is at least 18, who lives there and is home? (IF NO MALE IS AVAILABLE) Then may I speak to the oldest adult female, who is at least 18, who lives there and is home?

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 indicate for each of the following statements whether you strongly agree, mostly agree, mostly disagree, or strongly disagree.
- Technology will find a way of solving environmental problems
 - The condition of the environment will play an increasingly important role in the nation's economic future
 - Private companies should train their employees to solve environmental problems
 - Government agencies should support environmental education programs for adults
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

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., "MULTIPLICITY". REPEAT AS NECESSARY)

7. There are many different kinds of animals and plants, and they live in many different types of environments. What is the word used to describe this idea? Is it...
- Multiplicity
 - Biodiversity
 - Socio-economics
 - Evolution?
- Don't know
8. Carbon monoxide is a major contributor to air pollution in the U.S. Which of the following is the biggest source of carbon monoxide? Is it...
- Factories and businesses
 - People breathing
 - Motor vehicles, or
 - Trees?
- Don't know
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
 - At hydro electric 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. Which of the following is a renewable resource? Is it...
- Oil
 - Iron ore
 - Trees, or
 - Coal
- Don't know
12. Ozone forms a protective layer in the earth's upper atmosphere. What does ozone protect us from? Is it ...
- Acid rain
 - Global warming
 - Sudden changes in temperature, or
 - Harmful, cancer-causing sunlight?
- Don't know
13. Where does most of the garbage in the U.S. end up? Is it in...
- Oceans
 - Incinerators
 - Recycling centers, or
 - Landfills?
- Don't know
14. What is the name of the primary federal agency that works to protect the environment?
Is it the...(INTERVIEWER: READ BOTH THE AGENCY NAME AND ITS ABBREVIATION!)
- Environmental Protection Agency (the EPA)
 - Department of Health, Environment, and Safety (the DHES)
 - National Environmental Agency (the NEA), or
 - Federal Pollution Control Agency (the FPCA)?
- Don't know
15. Which of the following household wastes is considered hazardous waste? Is it...
- Plastic packaging
 - Glass
 - Batteries, or
 - Spoiled food?
- Don't know

16. 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
17. Scientists have not determined the best solution for disposing of nuclear waste. In the U.S., what do we do with it now? Do we...
- Use it as nuclear fuel
 - Sell it to other countries
 - Dump it in landfills, or
 - Store and monitor the waste?
- Don't know
18. What is the primary benefit of wetlands? Do they...
- Promote flooding
 - Help clean the water before it enters lakes, streams, rivers, or oceans
 - Help keep the number of undesirable plants and animals low, or
 - Provide good sites for landfills?
- Don't know
19. 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. First / Next...(INTERVIEWER :DO NOT READ ITEM LETTERS)
- Recycle things such as newspapers, cans, and glass
 - Avoid using chemicals in your yard or garden
 - Buy biodegradable or recyclable products
 - Conserve water in your home and yard
 - Turn off lights and electrical appliances when not in use
 - Try to cut down on the amount of trash and garbage you create
 - Use other types of transportation, such as biking or the bus, instead of driving your car
 - Participate in a volunteer clean-up day
20. The following questions are about environmental education for children in grades kindergarten through 12. Please answer each question with yes, no, or don't know.
- Do the schools in your community have environmental education?
 - Do you think that environmental education should be taught in schools?
21. There are many ways that environmental education in schools can affect children. I'd now like you to tell me the extent to which you think environmental education effects

each of the following. First, (READ ITEM) Do you think environmental education has a great deal of effect, a moderate amount of effect, only a little effect, or no effect at all on (READ ITEM)? How about...

- a. Teaching children to respect the people and places around them
- b. Helping children perform better in science
- c. Helping children perform better in social studies
- d. Encouraging children to get involved in community service projects
- e. Preparing children to better understand environmental issues when they are adults
- f. Helping children find jobs later in life as the environment will play a larger role in future employment opportunities

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)
- Post-graduate (17+)
- 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-5. 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
- A rural or farm area?
- Don't know

D-6. 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 \$20,000
- \$20,000 to \$29,999
- \$30,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 and over
- Refused/don't know

THANK YOU FOR YOUR TIME AND PARTICIPATION!