

## **ENVIRONMENTAL QUALITY: A FACTOR IN THE SELECTION OF A RETIREMENT COMMUNITY**

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### **Abstract**

*A group of preretirees was surveyed regarding environmental quality issues. The relative importance of three environmental issues was compared to three quality-of-life issues that relate to retirement location decisions over four demographic variables. The environmental issues were "available safe water supplies," "safe methods of waste disposal," and "air pollution." The quality-of-life issues were "affordable energy supplies," "availability of mass transportation," and "crime rate." The demographic variables were age, income, occupation, and education. No statistically significant differences were found in the relative importance of these issues over the four demographic variables. The sample included 604 land-grant university employees from Arizona. From a possible 200 percent, safe water supplies were ranked first at 89 percent; affordable energy was second at 62 percent. Crime rate came in last at five percent.*

### **Introduction**

Many researchers have studied the factors preretirees consider when deciding on a place to retire or to age-in-place (Barsby and Cox, 1975; Biggar, 1980a, 1980b; Cebula, 1974; Lee, 1980; Longino, 1980). Most of these studies, however, focused on medical services, transportation, climate, and shopping facilities. Concern for safe water, clean air, and proper waste disposal was not discussed in this previous work. In the current study preretirees were surveyed to establish how this group ranks these environmental factors relative to issues of affordable energy, availability of mass transportation, and crime rates.

The United States has evolved from a country with plentiful water resources and clean air to one in which water rationing and smog alerts are increasingly common (Moore et al., 1986). Scarcity of safe water and clean air are by-products of urban overcrowding and are also caused by widespread pollution from pesticides, industrial and auto emission, waste disposal, and erosion (Feliciano, 1986; Moore et al., 1986).

The southwestern United States has long been championed as a mecca for retirement. Surveys indicate that the maturing population envisions the southwest as a solution to cold winters, blowing snow, high humidity, and also as a place to escape industrial and agricultural pollution (Hogan, 1986). Unfortunately, moving to the southwest to escape such problems may be more myth than fact.

Major southwestern communities rely on groundwater for all their public needs and have few alternative sources (Kister, Radtke, and Graf, 1986). In some Arizona communities the groundwater is polluted with trichloroethylene as a result of careless waste disposal methods used by the military and local industries. The technology to remove these types of pollutants is insufficient, difficult, and expensive (Kister, Radtke, and Graf, 1986).

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At one time many physicians around the country recommended that patients with heart and respiratory problems move to the southwest. They believed the climate and clean air would be beneficial (Pinnas, 1986). In the past 10 years, however, physicians in the southwest have notified the medical community that the abundance of pollen, pesticides, and auto emissions have made southwestern cities unsafe for many of these patients (Pinnas, 1986). In 1988 and 1989 both Phoenix and Tucson began issuing smog alerts to warn people with health problems to remain indoors.

### Methods

These data were collected in October 1988 as part of W-176 Western Regional Research Project. The survey instrument included two state-specific pages. There was a 71 percent return rate in Arizona with a total of 604 participants. The sample ranged from age 40-65 and all worked at a land-grant university in positions ranging from ground maintenance to upper administration. Fifty-five percent of the respondents were male. Two-person households accounted for 59 percent of the respondents. The median income range was \$35,000-\$40,000.

### Findings

A list of six current issues that were spawned by rapid population growth and development in the southwest was featured in the questionnaire. Respondents were asked to indicate which issues would create the most concern and the second most concern in regards to their retirement community-of-choice. Table 1 presents the combined percentage of respondents and their responses. The availability of safe water supplies was selected by the largest number of respondents, almost 90 percent from a possible 200 percent. Concern about crime rates had the smallest number of respondents at five percent.

Table 1. Environmental quality issues selected as first and second concerns by respondents (N=604).

Issue of Concern	Percentage of Respondents	
	First	Second
Availability of safe water supplies	74.0	15.0
Affordable energy supplies	17.0	45.0
Safe methods of waste disposal	4.0	15.0
Air pollution	3.0	11.0
Availability of mass transportation	1.0	10.0
Crime rate	1.0	4.0

Chi-square tests were used to identify relationships among the six issues and each of the demographic characteristics. These demographic variables were age, income, education, and occupation. None of these tests were statistically significant.

T-tests were performed to disclose possible differences in levels of concern based on age, income, and education. First, age groups of 40-55 and 56-65 were tested, then middle- and upper-income groups and finally respondents with less than a graduate degree were compared with respondents with a graduate degree. No significant relationships were found, but some trends seem evident. One indicated that respondents under age 56 were slightly more concerned with the availability of safe water supplies while respondents age 56 and over were more concerned about the air quality.

Since air pollution is created by a variety of sources, the respondents were asked about specific types of air pollution which might concern them. Using a five-point Likert scale ranging from "little concern" to "great concern," respondents indicated their level of concern regarding auto emissions, industrial emissions, smelter emissions, cigarette smoke, pollen, pesticides, and dust. The demographic variables of age, income, edu-

cation, and occupation were then used in Chi-square and t-test analyses to indicate any significant associations. There were no statistically-significant findings beyond a pattern of concern with respect to age.

Results in Table 2 indicate that emissions from autos, industries, and smelters were of great concern to over 70 percent of the older respondents. Over 50 percent of the younger respondents indicated emissions greatly concerned them. Cigarette smoke in public places was of great concern to 65 percent of the respondents over age 55. One half of the respondents under age 55 were concerned about cigarette smoke. The use of pesticides in homes and in agriculture was more of a concern among the older respondents, 70 percent, than among the younger respondents, almost 50 percent. Though pollen and dust were not considered as harmful as other forms of air pollution, concern for these natural pollutants did increase with age.

Table 2. Percentages of foremost and second-most concerns about types of air pollution by age.

Types of Air Pollution	Age 40-55 (n=291)	Age 56-65 (n=313)
Industrial emissions	55.2	74.9
Auto emissions	52.3	73.0
Smelter emissions	53.7	72.0
Pesticides	48.7	69.6
Cigarette smoke	49.5	64.5
Pollen	29.9	47.6
Dust	27.6	48.6

### Discussion

This regional project was not designed to thoroughly examine how environmental issues influence selection of a retirement location. By including a few questions about environmental quality, however, it may have uncovered some possible trends regarding these issues. Preretirees may be concerned about safe water supplies and factor it into the decision-making process when considering a retirement location. Safe water disposal and air-quality issues ranked above mass transportation and crime rates in this study. The concern for clean air among this group is unclear. Energy-consumption levels clearly affect the quality of the air, yet affordable energy supplies were ranked second, and air pollution was fourth.

Arizona prohibits smoking in all government buildings. This provides a near smoke-free workplace for these respondents. The results of this study, however, indicate that smoking in public places is still a great concern to this group. The questionnaire did not reveal whether the concern was for less smoking or more freedom to smoke in public.

### Implications

More in-depth studies should be conducted to examine how environmental issues impact preretirees and their selection of a retirement community. Findings from such studies would be useful to communities and planning groups. Future communities may need to consider air and water quality in addition to established concerns like accessibility of medical facilities. One day, marketing may hinge on a community's environmental quality rather than on the number of golf courses and the measure of security it can offer. This regional project was not designed to continue investigation into environmental issues, but it has identified a potential for such studies and has opened the door for investigation of such topics.

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