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AUTHOR Marsh, C. Paul; Christenson, James A.
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ABSTRACT

This study investigates preferences of public support for allocation of expenditures toward environmental controls or toward economic growth from 1973-1975. The author considered four previously noted correlates of environmental support--education, family income, place of residence, and political orientation. Two state-wide surveys were conducted to examine the environmental control/economic growth question. Both North Carolina surveys were conducted in the same manner. In 1973 and 1975, questionnaires were mailed to 5,082 heads of households. These residents were asked whether they wanted less, the same, or more tax dollars allocated to air pollution and water pollution control. Findings indicate that there was a significant decrease in the desired level of public support for both items, although there was a significant increase in desired expenditures to promote agricultural and industrial development. As suggested by previous literature, education was positively correlated with support for air and water pollution controls. Contrary to most findings, however, income was not consistently related to support for either item. In summary, support for environmental controls decreased while support for economic development increased from 1973-75, indicating that reaction to public issues responds quickly to societal situations. Changes in the situation of the population between 1973 and 1975 seem to have been great enough to have similar impact on the public responses to environmental issues regardless of socioeconomic differences. A list of references concludes the document. (Author/DB)

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SUPPORT FOR ECONOMIC GROWTH AND  
ENVIRONMENTAL PROTECTION 1973 - 1975

by

C. Paul Marsh  
Department of Sociology and Anthropology  
North Carolina State University

and

James A. Christenson  
Department of Sociology  
University of Kentucky

SX 009 763

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New York, New York.*

SUPPORT FOR ECONOMIC GROWTH AND  
ENVIRONMENT PROTECTION 1973-1975

The concentration of support for environmental protection among the affluent, highly educated, and urban is noted by a number of authors (National Wildlife Federation, 1969; Dillman and Christenson, 1972, 1975; Constantini and Hanf, 1972; Tognacci, et al., 1972; Morrison, et al., 1972; Dunlap, 1975). While conflicting data are available, it is also generally assumed that the environmental movement is a liberal movement (Albrecht and Mauss, 1975; Dillman and Christenson, 1972, 1975; Dunlap, 1975; Tognacci, et al., 1972). A few years ago, Buttel and Flinn (1974) suggested that as the environmental movement gained greater support, environmental concerns would move beyond the isolated support of high status groups. They demonstrated the widening of the base of support in a Michigan sample with data from 1968 to 1970. However, support of the environmental movement seems to have peaked by the early seventies and to have been in decline in recent years. For example, Dunlap (1975:6) in a panel study of Washington respondents found that there was a substantial drop in public support for environmental protection from 1970 to 1974.

Albrecht and Mauss (1975:577) suggest there may be a basic conflict between the concept of economic growth and environmental control. Presumably, then, the structure of support for environmental controls would be quite different than the structure of support for economic development. While support for environmental controls may be strongest among the urban, affluent, and well educated, support for economic development would likely come from the less well-off and the less well educated, who are presumably more concerned with economic survival than others. This is an empirical question yet to be answered.

It is our intent in this research note to present data dealing with the trend and structure of support for both environmental control and economic development from 1973, a year of low fuel prices and high employment, to 1975, a year of much higher fuel prices and severe recession. In examining the structure of support we looked at education, family income, place of residence, and political orientation, previously noted correlates of the environmental support.

#### Sample and Data Collection

Two state-wide surveys conducted in North Carolina seemed appropriate for examining the environmental control, economic growth question. The first survey was conducted in the spring of 1973 when fuel prices were still relatively low, before the energy crisis was widely recognized, and when employment was high. The second study was conducted in the spring of 1975 when both fuel prices and unemployment had increased dramatically.

Both North Carolina state-wide surveys were conducted in the same manner (Dillman, et al., 1974; Christenson, 1975). In 1973 and 1975, mail questionnaires were sent to 5082 heads of households. Respondents' names were systematically drawn from telephone listings of every county throughout the state based upon a 1/1000 total population sample. In 1973, approximately 85 percent of the households in North Carolina had telephone service. Some of the heads of households (612 in 1973 and 578 in 1975) were inaccessible because they had moved out of state, had moved with no forwarding address, were deceased, or were not able to be contacted after repeated attempts by mail and telephone. Of the remaining potential

respondents, 3115 (70 percent) returned usable questionnaires in 1973 and 3054 (68 percent) returned usable questionnaires in 1975.

### Measurement of Variables

Two items were selected to measure support for environmental protection: air pollution and water pollution. Respondents were asked whether they wanted "less, the same, or more" tax dollars allocated to these areas.<sup>1</sup> This same question was asked respondents in relation to the two items concerned with economic growth: promotion and development of industry and promotion and development of agriculture.<sup>2</sup> A score of one was assigned for a response of "less," a score of two for "the same," and three for "more." Mean scores based on this three-point scale are used to measure level of support. In order to test for significance of changes in means from 1973 to 1974 t-tests are used while F-tests are used to test differences within each of the years.

### Findings

As expected there was a significant decrease in the level of support for public expenditures for both air pollution and water pollution

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<sup>1</sup>The response categories for the questions asked in the 1973 and 1975 surveys were slightly different. In the 1973 survey, four response categories were used: no, less, same, more. Less than two percent of the responses to all four items being considered fell into the "no" category. Thus, this category was combined with the "less" category in the 1973 survey and eliminated in the 1975 survey. In the 1975 survey, an additional category was added to indicate whether those who wanted "more" tax dollars spent would also be willing to have their taxes increased to get needed tax dollars in that area. This category was combined with the "more" category in this presentation.

<sup>2</sup>The wording of the items in the 1973 survey was: air pollution, water pollution, industrial development, and develop agricultural production and marketing. The wording in the 1975 survey was: air pollution control, water pollution control, promotion of industry, and promotion of agriculture. It is assumed that the slight variation in wording did not affect the tenor of public response.

controls, though the decrease in support for air pollution controls was quite small (Table 1). On the other hand, there was a significant increase in support for public expenditures to promote both agricultural and industrial development.<sup>3</sup>

The structure of support for environmental controls (Table 1) only partially followed that suggested by the literature. Education was positively related to the support for both air pollution and water pollution controls in 1973 and 1975, though the relationship was weak for air pollution. Contrary to most findings, income was not consistently related to either support for air pollution controls or water pollution controls in either 1973 or 1975. On the other hand, support for public expenditures for economic development was inversely related to both education and income. As has been the case in most other studies, we found support for environmental controls was greatest among the most urbanized respondents with those living on farms reporting least support. Support for agricultural development was greatest among those living on farms with support decreasing as size of place of residence increased. A similar pattern was found for support for industrial development except that support for development was greatest among those who lived in or near towns of less than 10,000.

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<sup>3</sup>The extent to which the increase of support for economic growth came directly at the expense of support for environmental controls is not clear, but the data (not reported here) suggests that there was not the direct exchange suggested by the literature. For example, there was no clear-cut evidence that support for pollution controls came at the expense of support for economic growth. In both 1973 and 1975, a slightly higher proportion of those who advocated greater expenditures for economic growth also supported greater expenditures for air pollution controls.

TABLE 1. MEAN SCORES OF SUPPORT FOR AIR POLLUTION CONTROLS, WATER POLLUTION CONTROLS, AGRICULTURAL DEVELOPMENT, AND INDUSTRIAL DEVELOPMENT BY EDUCATION, INCOME, RURAL-URBAN RESIDENCE, AND POLITICAL ORIENTATION, 1973 AND 1975

Structure of support	N <sup>a</sup>	Air pollution controls			Water pollution controls			Agricultural development			Industrial development		
		1973	1975	t	1973	1975	t	1973	1975	t	1973	1975	t
<b>Total sample</b>		2.353	2.317	-3.88*	2.565	2.426	-8.77*	2.341	2.437	+5.79*	2.086	2.315	+12.35*
<b>Education</b>													
Grade school	463	2.36	2.24	-2.56*	2.47	2.37	-2.28*	2.44	2.48	+0.96	2.30	2.45	+3.40*
High school	1256	2.35	2.30	-1.86	2.56	2.41	-6.02*	2.38	2.52	+5.62	2.14	2.41	+9.79*
College	945	2.42	2.33	-2.98*	2.61	2.43	-6.53*	2.28	2.40	+3.98*	1.97	2.34	+11.15*
Higher degree	310	2.46	2.44	-0.41	2.60	2.54	-1.35	2.22	2.21	-0.19	1.90	2.06	+2.81*
	(F)	(3.4)*	(6.6)*		(5.7)*	(5.6)*		(11.9)*	(26.9)*		(31.4)*	(34.3)*	
<b>Income</b>													
Less than \$6,000	641	2.38	2.34	-0.99	2.51	2.42	-2.37*	2.44	2.52	+2.22*	2.22	2.46	+5.93*
\$6,000 to 9,999	738	2.38	2.31	-1.85	2.57	2.44	-3.78*	2.38	2.49	+3.12*	2.16	2.33	+4.37*
\$10,000 to 14,999	770	2.38	2.32	-1.79	2.53	2.42	-3.02*	2.33	2.47	+4.38*	2.05	2.32	+7.52*
\$15,000 to 24,999	519	2.43	2.30	-3.41*	2.63	2.44	-5.55*	2.28	2.37	+2.33*	2.00	2.25	+6.08*
\$25,000 or more	179	2.34	2.32	-0.31	2.53	2.39	-2.39*	2.09	2.30	+3.10*	1.86	2.16	+4.48*
	(F)	(0.7)	(0.2)		(2.9)*	(0.3)		(12.2)*	(9.7)*		(14.7)*	(10.2)*	
<b>Rural-urban location</b>													
Live on a farm	445	2.24	2.16	-1.65	2.48	2.30	-3.96*	2.57	2.58	+0.24	2.14	2.32	+3.74*
Live in or near a town													
less than 10,000	1011	2.34	2.33	-0.33	2.53	2.43	-2.63*	2.34	2.47	+4.72*	2.20	2.40	+6.40*
Live in or near a town													
10,000 to 49,999	723	2.42	2.34	-2.31*	2.57	2.44	-4.15*	2.32	2.40	+2.33*	2.10	2.32	+6.06*
Live in or near a city													
50,000 to 199,999	572	2.46	2.39	-1.81	2.63	2.49	-4.02*	2.24	2.32	+2.02*	1.90	2.13	+6.41*
Live in or near a													
large city 200,000+	183	2.54	2.39	-2.31*	2.71	2.45	-5.24*	2.18	2.33	+2.18*	1.88	2.16	+3.79*
	(F)	(10.9)*	(7.8)*		(7.5)*	(5.5)*		(20.8)*	(11.9)*		(20.1)*	(11.1)*	
<b>Political orientation</b>													
Conservative	1262	2.34	2.26	-4.35*	2.53	2.38	-5.98*	2.33	2.47	+5.41*	2.08	2.30	+7.78*
Middle of the road	1152	2.37	2.32	-1.86	2.56	2.43	-5.31*	2.33	2.44	+4.22*	2.08	2.34	+9.14*
Liberal	415	2.55	2.51	-0.89	2.69	2.59	-2.50*	2.39	2.36	-0.84	2.13	2.29	+2.91*
	(F)	(15.6)*	(20.0)*		(11.5)*	(16.2)*		(1.7)	(4.3)*		(1.0)	(1.1)	

<sup>a</sup>N reported for air pollution 1973. It will vary slightly for other items.

\*Significant at .05 level.

Those who classified themselves as liberals were more favorable to support for pollution controls than those who classified themselves as conservative or middle of the road. There was a decrease in support for water pollution controls among all groups, though only the conservatives showed a significant reduction in support for air pollution controls from 1973 to 1975.

There was no significant difference by conservatism-liberalism for support for either agricultural development or industrial development in 1973 or 1975. However, there was increased support by all groups (except liberals) for additional expenditures for both agricultural development and industrial development. Liberals showed no significant increase in support for agricultural development.

#### Summary and Implications

Support for environmental controls decreased while support for economic development increased from 1973 to 1975, indicating that the public reaction to public issues responds quickly to societal situations. Perhaps Means (1972:203) was correct when he observed that "... social issues come and go in kaleidoscopic fashion ...." However, there was no indication of a zero sum exchange of support but a balancing of support between the environment and the economy. It could suggest that concern of support for the environment is a reflection of a more affluent society and becomes less important with a worsening economic situation.

The findings that there was no consistent relationship between socioeconomic variables and the erosion of support was surprising. Our data seem to suggest that once a pattern of support for environmental controls by socioeconomic structure emerges, it does not necessarily



reverse itself in that changes in level of support for both environmental controls and economic development were relatively consistent across socioeconomic lines.

The findings that farm residents were less committed to environmental controls than other groups is consistent with previous research (e.g., Buttell and Flinn, 1974). It appears noteworthy that the level of support for agricultural growth was similar to the level of support for industrial growth. Neither does there appear to be much difference in the structure of such support. In short, it appears that changes in the situation in the population studied between 1973 and 1975 were great enough to have essentially similar impact on the public responses to these issues regardless of socioeconomic differences and regardless of size of community.



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