A survey questionnaire sent to 371 public school superintendents in Arkansas sought to identify schools offering a program of family life/sex education. An attempt was also made to determine if schools which offered such programs could be distinguished from those that did not, based on responses of school officials to a set of attitudinal statements. The questionnaire achieved a 37 percent response rate (137 usable responses), and there was some doubt about the identity of the respondents (not necessarily superintendents). A map presents a profile of Arkansas, identifying school districts with schools reporting no program in sex education, those reporting at least some type of program, and counties with no schools reporting any type of sex education program. Numbers on the map indicate counties reporting the highest rate of teenage pregnancy. Some correlation was noted between lowered incidence of teenage pregnancy in some counties recently implementing sex education programs. Previous studies on the subject have indicated that one of the major barriers to initiation of family life/sex education programs is the presumed lack of public support. Findings have revealed, however, that a majority of parents and the general public do support such programs. It was noted in this study that, though Arkansas has an extremely high rate of adolescent pregnancy, less than one-third of the respondents indicated that any type of sex education was offered in their school system. Most of the respondents indicated personal support for sex education programs, with perceived lack of community support a major barrier to implementing them.

(JD)
Attitudes of School Officials Toward Sex Education Programs: A Discriminant Analysis

Michael Young
Health Education Faculty
University of Arkansas
Fayetteville, AR

Rod Roth
Dean, College of Education
University of Alabama
Tuscaloosa, AL

Running Head: Sex Education
Attitudes of School Officials Toward Sex Education Programs: 
A Discriminant Analysis

The subject of sex education in the public schools has received frequent public attention. Public debate in some communities has become a matter of some notoriety. Major arguments for and against sex education are well known. Opponents of sex education may hold that sex education is the sole providence of the parents, that sex education in the schools is taught in a moral vacuum, that sex education is dangerous, that it leads to sexual experimentation, and every so often one still hears the argument that sex education really is a communist plot. Supporters of sex education are often of the opinion that sex education is a vital part of the total educational process. Typically, the high rate of teenage pregnancy, the widespread incidence of venereal disease, and the lack of sex education in the home are cited as indicators of the need for public school programs of sex education.

Studies (as Mahoney, 1979 and earlier work by Snyder and Spreitzer, 1976, and Libby, 1970) have examined characteristics of individuals favoring and opposing sex education. A few researchers have also examined attitudes of school officials toward supporting programs of sex education. This has included work as early as that of Johnson in 1966 and as recent as that of Wayne in 1982.

This study dealt with sex education programs in the secondary schools of Arkansas. The purpose of this study was twofold: (1) To identify those schools in Arkansas which currently offer a program of family life/sex education in their curriculum and (2) To determine if those schools which offer a family life education program in their curriculum could be distinguished from those that did not, based on the response of school officials to a set of attitudinal statements regarding the general area of family life and sex education.
As a state, Arkansas has consistently been among the national leaders in the rate of teenage pregnancy. In 1980, Arkansas ranked number 2. When considering white teenagers only, we ranked number 1 in the nation. At the same time, our state has not been known as an innovative leader in sex education, or any other kind of education. We usually rank about 50 in such educational indices as teacher pay or amount of money spent per student. Thus, it was felt that this study was particularly appropriate for our state and that it might yield information of value in planning programs both in our state and elsewhere.

Method

Subjects

The subjects for this study were the superintendents of the 371 public school districts in Arkansas.

Testing Instrument

The testing instrument for this study was a questionnaire adapted from Fields (1974). Included in the questionnaire were 20 general statements concerning the teaching of family life/sex education. Subjects were asked to respond to each statement indicating their agreement or disagreement by the utilization of a five point Likert Scale.

Procedure

Questionnaires were mailed to all 371 public school superintendents in the state. Usable questionnaires were returned from 137 schools. Following receipt of the completed questionnaires, schools were placed into one of two categories according to how the question "Is sex education now being taught in your school district?" was answered (either "no program" or "yes, some type of program").

To determine if schools classified according to their sex education status could be distinguished on the basis of the attitude of school officials toward
sex education, data were analyzed by Wilk's Lambda discriminant analysis. In the analysis, the subjects' responses to the 20 attitudinal items were used as a single set of independent variables. Variable inclusion was based on an $F$ of 1.0.

Results

Forty-three of the responding schools indicated they offered some type of sex education program, eighty-eight indicated they had no program. There were five ungrouped cases. There were 108 respondents who indicated that they supported a good curriculum in sex education.

The results of the stepwise discriminant analysis are shown in Table 1. The discriminant function yielded by the analysis was statistically significant. This indicated that the variables selected were, as a set, able to distinguish among the defined groups. Eight of the twenty attitudinal items were selected by the stepwise procedure for their contribution to the discriminant function. These were, in order of selection: (1) Community support - The majority of parents in this community will (or do) accept sex education as a good program, (2) Harmful in elementary - It is harmful to teach sex education in the elementary schools, (3) Receive from peers - At present, most students receive the majority of their sex education from their peers, (4) Panacea - Sex education should be a panacea for all community ills (such as juvenile delinquency, increasing illegitimate births, VD, etc.), (5) Parent option - Parents should have the option to keep their children out of sex education classes, (6) Required by law - Sex education should be required by law, (7) Accomplishing purpose - Sex education, as it is now being taught, is accomplishing its purpose, and (8) Contraceptive effectiveness - Sex education classes should teach how effective contraceptive devices are. Univariate $F$ ratios were non-significant except for the statement, "Community support". This item also made the
greatest contribution to group discrimination.

To determine the ability of the responses to the attitudinal statements to distinguish accurately among the two groups of schools, the schools were reclassified on the basis of the discriminant function derived from the discriminant analysis. The percentage of total cases correctly classified was 74.05 percent.

Discussion

The results raise a number of interesting questions. There are also a few problems associated with the study which need to be mentioned. The problems first.

The analysis of data was based on responses from 137 school districts. While this may sound like a large number of school districts, in Arkansas, it figures out to a 37 percent response rate; not good. To what extent the non-respondents differ from those who did respond is something we do not know, because they did not respond.

Another problem concerns who actually completed the returned questionnaires. The questionnaire was sent to the superintendent of each school district. In reviewing the returned questionnaires, however, it became evident that at least some of the questionnaires had been completed by persons other than the superintendent. For example, the questionnaire returned by one school district represented the collective opinions of eight different people, none of whom was the superintendent. On another questionnaire we found a note which said "I am the home economics teacher. I found this questionnaire in the trash can. I have completed it and am returning it to you." Some of the remaining respondents did identify themselves as the superintendent. Others specifically identified themselves as someone else within the school system. Most of the respondents did not identify themselves in this manner. It seems safe to assume that
these questionnaires were returned by someone within the school system and that in many cases, this person was the superintendent. Interpretation of the results should be viewed in light of these findings.

The first stated purpose of the study was to identify schools reporting some type of sex education program. The map (figure 1) indicates which schools, by county, in Arkansas reported sex education programs and which did not. Looking at the map, each circle represents a school which said they had no sex education program. Each asterisk represents a school which reported some type of program. The striped area represents those counties which had no school reporting any type of sex education program. There, of course, are probably schools which have programs that failed to respond to our survey. Those counties which are not striped in have at least one school reporting a sex education program. In some of these (as White and Jefferson Counties) all reporting schools indicated some type of sex education program. In other counties (as Independence and Ashley) schools reporting sex education programs were definitely in the minority (1 of 5 in Independence, 1 of 4 in Ashley). It is clear from this picture that large numbers of Arkansas children are not receiving any formal program of sex education.

It is also of interest to note the location of sex education programs relative to adolescent pregnancy rates. The numbered counties are the top ten in adolescent pregnancy rates for ages 17 and under. These rankings have been determined from Arkansas State Department of Health Statistics compiled over the years 1978, 1979, and 1980. Seven of the ten counties did not have a school reporting any type of sex education program: The school in Phillips County reporting a program indicated that some aspects of sexuality were taught in a 12th grade human development class. In Mississippi County the school reporting a program, indicated that sex education was taught as a part of home economics.
In Jefferson County all five reporting schools indicated some type of sex education program, some starting as early as the fourth grade. It is interesting to note that this county placed in the top 10 in teenage pregnancy in 1978 and again in 1979. It is shown in figure 1 at number 9 for the three-year period 78-80; but for the year 1980 (the most recent for which figures were available) it placed number 20. While certainly no cause and effect relationship can be shown in Jefferson County (or anywhere else in Arkansas) between the establishment of sex education programs and rates of teenage pregnancy, this does make for interesting armchair speculation.

The second purpose of this study was to determine if schools reporting sex education programs could be distinguished from schools that do not have programs, through the utilization of data. Based upon the results of the discriminant analysis, the attitudinal statement which made the greatest contribution to distinguishing between the two groups was "Community support", as seen by the discriminant function co-efficient value for this item. Community support was also the only statement for which the univariate F ratio was significant. One should note that this item did not actually measure community support, but the respondents' perception of community support.

In relating these results to previous work it should be pointed out that as early as 1966 Johnson found that school administrators in Maryland agreed that sex education was badly needed. These administrators indicated that their lack of sex education programs was due to a lack of qualified teachers and apprehension about community reaction. These findings also held in Johnson's work with persons attending meetings of the National Association of School Administrators.

The principals who responded to Waynes (1982) questionnaire also seemed to be very much aware of possible community reaction. Out of 20 proposed guidelines for sex education programs, number one in acceptability to principles was
the statement "provisions should be made for periodic program evaluation and/or revision; number 2 was that "programs for a given school district should be reflective of the particular interests, needs and standards of that community."

Yarber (1979) indicated that one of the major barriers to the initiation of family life/sex education programs is the presumed lack of public support. His findings, as well as those of most other investigators revealed, however, that a majority of parents and the general public do support schools programs of family life and sex education.

Results of the present study indicate an appalling lack of sex education programs in Arkansas. Perceived lack of community support appears to be a major factor in the absence of such programs. This statement (community support) was identified by the discriminant analysis. Also, through their comments, respondents indicated that parent and community support was necessary, but might not exist in their area.

Although actual assessment of community support was not a part of this study, work has been done in the state that would tend to indicate acceptance of family life/sex education programs. A telephone survey concerning attitudes toward sex education was conducted in Washington County earlier this year (Young, Siedensticker, Bradberry, and Ricks, 1982). The findings of this study indicated strong support for sex education programs; this was particularly true among persons under the age of 40. A representative of the Arkansas Family Planning Council has also indicated that their agency has found general acceptance of sex education throughout the state. There were what he termed "small pockets of resistance" evident only in the Fort Smith and Van Buren area (Crawford and Sebastian Counties) (Shepard, 1981).

In summary, in a state having extremely high rates of adolescent pregnancy, less than one third of the respondents indicated that any type of sex education was offered in their school system. Most of the respondents indicated support
for sex education programs, with perceived lack of community support a major factor in discriminating between schools that reported programs and those reporting no program.

It seems that many of the school officials in Arkansas (and perhaps elsewhere) should thank the advice of Yarber (1979) and actually assess community support for a program of family life/sex education. In doing so, they should realize that they are probably never going to have 100% support. This should not, however, be viewed as a barrier to program implementation if the majority of the parents and community clearly support family life/sex education. This may be a controversial area, one with which many school officials may be reluctant to deal, but it is too important an area to be pushed aside or ignored.
REFERENCES


Shepard, W. D., Personal communication, January, 1981.


Young, M., Siedensticker, M., Bradberry, W., and Ricks, M. A telephone survey of community attitudes toward sex education. Unpublished study, 1982.
Figure 1: Schools in Arkansas by county reporting sex education.

- Schools reporting no program in sex education.
- Schools reporting at least some type of program.
- Counties with no schools reporting any type of sex education program.

Numbers indicate county ranking 1-10 in teen pregnancy rates.
TABLE 1
DISCRIMINANT FUNCTION COEFFICIENTS FOR CONTRACEPTIVE CONSISTENCY

<table>
<thead>
<tr>
<th>Attitudinal Item</th>
<th>Standardized Coefficient Function</th>
<th>Group Means</th>
<th>Univariate F</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Have Program</td>
<td>No Program</td>
<td></td>
</tr>
<tr>
<td>Community Support</td>
<td>-1.095</td>
<td>3.44</td>
<td>2.85</td>
<td>7.82</td>
</tr>
<tr>
<td>Harmful in Elementary</td>
<td>0.629</td>
<td>2.30</td>
<td>2.65</td>
<td>2.87</td>
</tr>
<tr>
<td>Receive from Peers</td>
<td>0.446</td>
<td>3.91</td>
<td>4.14</td>
<td>2.39</td>
</tr>
<tr>
<td>Panacea</td>
<td>0.444</td>
<td>1.88</td>
<td>2.16</td>
<td>1.91</td>
</tr>
<tr>
<td>Parent Option</td>
<td>-0.346</td>
<td>3.74</td>
<td>3.70</td>
<td>0.41</td>
</tr>
<tr>
<td>Required by Law</td>
<td>-0.365</td>
<td>2.65</td>
<td>2.47</td>
<td>0.73</td>
</tr>
<tr>
<td>Accomplishing Purpose</td>
<td>0.263</td>
<td>3.05</td>
<td>3.49</td>
<td>1.17</td>
</tr>
<tr>
<td>Contraceptive Effectiveness</td>
<td>0.262</td>
<td>3.42</td>
<td>3.57</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Function 1: Chi-Squared: 33.193, DF: 8, Significance: 0.0001, Reclassification: 74.05%