
Joint Council on Economic Education, New York, N.Y.

Jan 84


Reports - Research/Technical (143) -- Information Analyses (070) -- Speeches/Conference Papers (150)

The "National Survey of Economic Education 1981" presented an overly optimistic view of the status of economic education which is not substantiated by a careful review of national and state data or the many recent national surveys on precollegiate education. This review of both national and state survey data indicates problems in both teacher preparation and curriculum. Teacher weaknesses include lack of preparation in the content area, lack of use of appropriate teaching strategies, and reluctance to take additional coursework. Curriculum problems include the limits of time in teaching economics at the elementary level and absence of economics as a separate course offering at the secondary level. Teachers at all grade levels expressed the desire for easier access to economics curriculum materials. In attempting to upgrade economics instruction, the next step for researchers should be an extensive national effort to obtain more reliable input and output data about economic education in the schools. (LP)
TEACHING ECONOMICS IN THE SCHOOLS:
A REVIEW OF SURVEY FINDINGS

by

William Walstad and Michael Watts

(January 1984)
The **National Survey of Economic Education 1981** was conducted by the public opinion polling firm of Yankelovich, Skelly, and White (1981; YSW) to investigate selected characteristics of the nation’s economics teachers, when and how economics is taught, what concepts teachers are teaching, and what needs teachers express for additional economics training. For the study, YSW used scientific sampling techniques to select a stratified, random sample of teachers in grades six through twelve who were "teaching economics under any of its guises, either as a separate subject or as part of another subject" in the nation’s public, private, and parochial schools (p. 17). The survey provided the most comprehensive national data on precollege economic education in over a decade, and the major findings were published in the *Journal of Economic Education* (Clark and Barron, 1981).

About the same time as the **National Survey** was being conducted, 15 state surveys on precollege economic education were completed across the nation in: Arizona, Idaho, Indiana (two surveys), Kentucky, Minnesota, Nebraska, New Hampshire, Ohio, Oregon, Rhode Island, Tennessee, Utah, Virginia, and Wisconsin. Despite the obvious statistical limitation of the mail survey methodology used in most of the state studies, when reviewed as a group they provide important overall data on precollege economic education. So long as care is exercised in the interpretation of the survey data, the information can be used to amplify the results presented in the **National Survey** and to present a richer perspective on precollege economic education.

Two basic questions were examined in this review of the survey data:

1. What is known about teacher training in economics; and,

2. What is revealed about the "economics" curriculum in the schools.

Obviously other questions could be addressed, but answering these two questions best demonstrates the need for a critical synthesis of the survey data. The amount of information presented in the state and national studies is...
overwhelming. Unless trends and interrelationships are identified for the most important inputs influencing the economics instruction in the schools (i.e., the teacher and the curriculum) an overall perspective is lost in the extensive reporting of item responses to survey questions.

Unfortunately, the composite picture which emerges from the synthesis of state and national information is disturbing. Teacher training in economics is limited, and there is little interest on the part of most teachers in correcting this deficiency. Data on the structure of the "economics" curriculum suggest that many students may not be receiving any significant economics instruction through an "infusion" approach and only a few students take it as a separate senior high course. If economics instruction is to be effective in elementary and secondary schools, these conditions will need to be corrected. If the problems are ignored no progress can be made in developing a strategy to improve the situation.

Teacher Training in Economics

Surprisingly, the YSW National Survey, which is so comprehensive in many areas, provides little information about the economics training of the nation's precollege economics teachers. The survey reported that 84 percent of the teachers have had a college or graduate level course in economics and that 30 percent report taking a college or graduate level coursework in how to teach economics (p. 31) The conclusion, which is based on comparisons with a few previous surveys, states: "it would appear that the last 12 years witnessed a marked improvement in the professional qualifications of economics teachers" (p. 25). No data, however, were collected on the number of economics courses taken so all that can be inferred from the YSW results is that most teachers of economics in grades 6-12 have taken at least one course in economics, and this result is not markedly different from past survey findings cited (c.f., Bach and Saunders, 1965, p. 340).
On the other hand, the statewide surveys offer more insight on the training question. To simplify the presentation below, the state data on teacher qualifications have been organized into two sections: (1) the broadly defined group of elementary and/or secondary teachers; and, (2) the narrower group of secondary teachers who teach a course or unit in economics. The data on teacher coursework are also summarized in Table 1.

Data on Elementary and/or Secondary Teachers

The general survey data indicate that teachers have limited coursework or inservice training in economics and often feel inadequately prepared to teach the subject. For example, an Ohio survey reported that 54 percent of its K-12 teachers had never had a formal undergraduate economics course during their 4 years bachelor's degree program and 25 percent had only 1 course. Moreover, only 11 percent had any form of preservice training that focused on economics teaching or had participated in inservice training (not necessarily coursework) in economics (Ohio Department of Education, 1980, pp. 3-6). Also, a New Hampshire survey reported that 69 percent of the teachers surveyed felt that their undergraduate studies inadequately prepared them to teach economics at the elementary or secondary level, and 74 percent of the respondents had not taken "inservice courses, institutes, or workshops" in economics (Hart, 1979, p. 12).

Even when the data are broken down by elementary and secondary levels, there is still a lack of preparation evident, although the amount of coursework is better among secondary social studies teachers. An Idaho survey revealed that both elementary teachers and secondary teachers were teaching content related to economics (depression, inflation, tariffs, money, banking, etc.), but over 73 percent of the elementary teachers and 48 percent of the secondary teachers had never taken a course in economics, and two-thirds of all the
respondents acknowledged their inadequate preparation in the subject (Bowman and Draayer, 1979, p. 68). In addition, a Wisconsin survey showed that 44 percent of the elementary and 11 percent of the secondary teachers have no coursework; another 34 percent of the elementary and 18 percent of the secondary teachers have taken just 1 course, and 11 percent of the elementary and 33 percent of the secondary have taken just 2 courses (Schug, 1983, p. 61).

A Virginia survey reported more encouraging findings for the economics preparation of teachers because at least one course was required for elementary certification and two courses were required for secondary social studies certification. On average, Virginia elementary teachers (grades 4-7) have received four semester hours of undergraduate economics credit and one semester hour of graduate credit (or about 1.67 courses), and secondary (grades 9-12) teachers have taken an average of seven semester hours of undergraduate economics and one semester hour of graduate or inservice credit (or about 2.67 courses). When questioned about the adequacy of their economics preparation, however, 5 percent of the elementary teachers claimed not to teach economics at all because they believe they were "not qualified" to teach it and 44 percent felt inadequately prepared or unsure of the quality of their preparation. At the secondary level, 30 percent feel inadequately prepared or uncertain of their preparation to teach the subject (O'Toole, 1980, p. 34, 37).

An Indiana study, based on stratified random sample of 5th, 8th, 11th, and 12th grade teachers, showed similar trends in limited coursework, but better preparation at the highest grade levels. Over 50 percent of the 5th grade teachers had never taken an economics course and another one-fourth had taken only one to three credit hours of instruction. Among 8th grade social studies teachers, 21 percent reported no coursework, 25 percent had 1 to 3 credits, and another 25 percent had only 4 to 6 credits. As expected, the results for the 11th grade social studies teachers were better, with only 7 percent with no
coursework, 26 percent with 1 to 3 credit hours, and 30 percent with 4 to 6 credit hours. Twelfth grade social studies teachers who were not teaching an economics course had similar preparation to the 11th grade teachers, but were more likely to have taken three rather than two courses (Watts, 1983).

The more interesting finding from this Indiana survey concern additional in-service training and the number of years since the last economics course. About 85 percent of the 5th and 8th grade teachers and 70 percent of the 11th and 12th grade teachers had not taken any economic education workshops. In addition, over 90 percent of the 5th, 8th, and 12th grade teachers and 83 percent of the 11th grade teachers had not taken an economics course or workshop in the past 4 years. About 75 percent of each teacher group had not taken a course within the past 8 years. Obviously, over a 4 or 8 year period economic knowledge will depreciate and there will be new developments in the field which must be mastered, so even substantial coursework does not necessarily ensure adequate preparation to teach the subject.

Data on Economics Teachers

Seven state studies examined the training of secondary teachers who taught a specialized unit or separate course in economics. As expected, the results show more economics training for these teachers, but the extent of exposure to the subject was still limited. For example, a Rhode Island survey of secondary teachers who teach courses specializing in economic concepts found that 8 percent had no economics, 6 percent with less than 3 credit hours and 55 percent with only 3 to 6 hours (Sapinsley, 1980). Similarly, a Kentucky study of the credentials of secondary teachers who teach a separate unit in "basic" economics (not consumer economics), found 31 percent with no college coursework, 20 percent with 1 course, and 28 percent with 2 courses (Ha on, 1980). And, in Oregon one unit of economics and personal finance instruction (130 clock hours) is required during grades 9-12 for high school graduation, but 11 percent of the
teachers have no hours, 14 percent have only 3 hours, and 15 percent have only 6 hours of instruction. The hours of inservice credit was substantially less since 70 percent have no hours (Oregon Department of Education, 1982).

While Arizona and Tennessee have mandated courses in "free enterprise," the limited extent of teacher preparation calls into question the effectiveness of the mandates. The most shocking statistics are found in Arizona with 92 percent of the teachers never having any formal training in economics and only 5 percent with any graduate or undergraduate work (Grossman, 1983, pp. 10-11). In Tennessee about one-third of the teachers survey were not certified in economics meaning they had less than six semesters hours or two courses, and of those teachers who were certified, many did not feel comfortable or competent to teach economics (Dalton, 1979, p. 1, 3).

The best results were found among 12th grade economics teachers in Indiana and 9-12 grade economics teachers in Nebraska. In Indiana, all teachers reported having completed at least 1 course with 41 percent having taken 2 to 4 courses and an admirable 56 percent having taken more than 5 courses (15+ hours of semester credit) (Watts, 1983, p. 3). In Nebraska, 17 percent had 7 to 11 hours, 26 percent had a minor in the subject (12-23 hours), and 12 percent had a major (24+ hours) (Gillies, 1980, p. 11). Of course, these groups of teachers are highly specialized, so one would expect substantial economics training.

Conclusion on Teacher Coursework

The conclusion drawn from the statewide survey results is that most teachers are inadequately prepared to teach economics, based on the number of courses taken (c.f., Bach and Saunders, 1965, pp. 348-350). In general, the surveys of elementary teachers indicate that about half have no coursework and another 25 percent have taken just one course. The surveys of the broad group of secondary social studies teachers or teachers who specialize in teaching courses or units in economics indicate that about 10 to 20 percent have no
coursework, about 25 percent with 1 course, and about 30 percent with 2 courses. Even among the smaller percentages of teachers with substantial coursework, we often do not know how long ago courses were taken or the quality of the coursework, which is an important consideration given knowledge depreciation and changing economic issues and analysis. It is probably understandable, therefore, that many teachers, with or without coursework, often feel that their training in economics is deficient and they do not feel confident in their ability to teach the subject.4

Almost two decades ago a California task force offered recommended guidelines for teacher training in economics. Two courses were recommended for all K-12 teachers, three courses were recommended for all grades 7-12 social studies teachers, and seven semester courses with a minor in economics for all 12th grade teachers who want to teach the separate course in economics. Though these guidelines were viewed as a minimum standard, they were never widely adopted even in reduced form by teacher training institutions across the nation (Mackey, Glenn, and Lewis, 1977). This development may explain why many teachers have limited training and suggests that until conditions change teacher background in economics will not improve.

The weak economics background of teachers also probably solves the puzzle raised in the YSW National Survey:

It is of specific concern to economists, however, that teachers at both levels rank the key economic concepts of trade-offs (24%) and opportunity cost (34%) as relatively unimportant. It is reasonably well accepted in the profession that these are two key concepts in the discipline and yet very few junior and senior high school teachers emphasize them . . . The vast majority of quality teaching materials and programs available from almost all sources stress the importance of these concepts. This puzzle obviously needs much more attention from those involved in both research and teacher training. (pp. 23-24)

Teachers usually do not teach concepts they feel they do not understand, even if they are presented in student materials. The concepts of opportunity cost and trade-offs are not likely to be presented to teachers in any source other than
an economics course. This situation differs from information on other basic
economics concepts, such as inflation or supply and demand, which are presented
and discussed in the media—a major source of information for teachers. The YSW
puzzle is merely another indication of the fact that most teachers know little
economics and this fact influences the concepts taught.

Despite limited economics coursework and the feelings of inadequate pre-
paration, the large majority of teachers do not want to take additional courses
in economics, but prefer short workshops. In the YSW National Survey, about 50
percent of the nation’s economics teachers wanted “in service seminars/workshops”
in either the subject matter of economics or on how to teach economics, whereas
only about 25 percent desired summer or college graduate-credit courses in
economics or how to teach economics (pp. 86-87). These findings are also con-
sistent with results reported in several surveys (Virginia, New Hampshire, Rhode
Island, and Arizona).5

The state and national results pose serious questions about the economic
education of teachers. Can teachers learn much economics in short programs?
Will they really take more training if it is offered in these formats? Are the
lasting effects of such programs for teachers and students significantly
different from more traditional programs? Finally, how do economic educators
reach the sizeable percentage (44 percent) of the nation’s economics teachers
found in the National Survey who are not even interested in the short seminars
or workshops?

The “Economics” Curriculum

A precise description of the quantity and quality of economics instruction
in the nation’s schools is not provided in the surveys, but a careful review of
the data suggests several problems. In the YSW study, 47 percent of the
teachers reported teaching economics as part of another subject, most likely
U.S. history, U.S. government, or another social studies course. Only 25 per-
cent of the teachers teach economics as a separate subject, while another 27 percent teach it both separately and as part of another subject (p. 49). Clearly, the dominant method for teaching economics in the United States is "infusion," or an integration approach, which usually is supposed to occur in a social studies course. Whether much economics is learned with this approach is debatable given the weak economics background of most teachers, and as will be described below, the poor quality of economics material in social studies textbooks and the perceived lack of supplementary materials.

The Infusion Approach to Economics

The Ohio survey presented the most detailed analysis of the integration of economics into the K-12 curriculum. Teachers in the sample were asked to select from a list of economic concepts, as stated in the Master Curriculum Guide (MCG) (Hansen, et. al., 1977), those concepts they include in their curriculum. About half the teachers reported including at least one or more economic concepts, but as the surveyer explained that fact does not tell us in what context the concepts were included, whether the concepts were actually taught, or whether any of the concepts were combined into a meaningful whole for students. In fact, the study showed that only 3.5 percent of the K-12 teachers reported teaching the seven basic MCG concepts necessary for presentation of the circular flow model (pp. 7-9).

Further evidence of the integration problem is provided in the New Hampshire survey. Secondary educators were given a description of the five basic concept clusters included in the MCG and asked to indicate self perceptions of their ability to teach each concept cluster. Although about 25 percent felt they could teach with confidence about the basic economic problem or economic systems, only about 10 percent could do so with the concept clusters related to microeconomics, macroeconomics, or the world economy (p. 14). Among elementary teachers surveyed, 10 percent or less felt confident of their ability
to teach scarcity, opportunity cost, economic systems, or inflation or deflation (p. 15). In other words, even if concepts are integrated into the K-12 curriculum as a conceptual whole, teachers may lack confidence in their ability to teach them.

A recent national study of curriculum guides in DEEP schools also suggests problems with the infusion approach and the presentation of economics concepts in the school curriculum as a basis for later instruction. Armento (1983) concluded that: "it appears from an examination of these 43 guides that concepts are dealt with at the introductory, definitional level—whether the guide is intended for 9th or 12th grade. If this is the case, there must be an assumption by curriculum builders that prior instruction in economic education has not occurred" (p. 26). The low level of sophistication in presentation of concepts and the fact that many MCG concepts (especially in macroeconomics) are not included in many guides raises doubts about instruction in districts which support economic education.

Additional problems with the infusion approach are the weak presentation of economic concepts in student materials and the limited availability of supplementary materials—points cited in surveys in Virginia (pp. 35-37); Indiana (Buckles, Strom, Walstad-BSW, 1981, p. 18); New Hampshire (pp. 12-13); and in the National Survey (pp. 69-84). This perception by teachers is supported by textbook analysis from economists and educators. For example, Robert Main (1978) reported that studies of textbooks in U.S. history, world history, sociology, and government propagated misconceptions about how the economic system operates and presented ad hoc explanations for economic phenomena (p. 18). Also, a detailed study of the discussion of the "Great Depression" in 16 U.S. history texts showed inadequate economic analysis of this event (Miller and Rose, 1983). Since the infusion of economics usually occurs in social studies courses, the standard textbooks provide little help for teachers.
Instructional time for economics may also be insufficient in infusion courses. In Indiana, for instance, teachers in grades 5, 8, 11, and 12 claim to spend about 20 to 30 minutes per week on "economic" topics. Virginia elementary and secondary teachers also report devoting about 30 to 50 minutes a week to economics instruction. While teachers in both states would like to increase the class time for economics, the perceived lack of time is a major barrier, to more instruction, especially at the elementary level where the focus is on "basic" subjects.

The above factors make the infusion approach troublesome for most teachers to implement. Without good instructional materials scarce teacher time must be invested in the preparation of new materials that will teach economics in other subjects. If teachers' background in economics is weak, they may not have the skills to develop new materials or the motivation to integrate economics into an already crowded curriculum. Looking at the situation from an economic perspective, if the additional costs of teaching economics in the context of other subjects is high relative to teaching the course in a more standard fashion, then there is little incentive for economics to be taught, unless the additional benefits outweigh the additional costs.

Separate Course Data

The alternative to the infusion method is to teach economics as a separate subject, but there are difficulties with this approach too. Among the separate subject teachers in the National Survey only 56 percent actually called their classes "economics". Over a fourth (27 percent) called their classes "consumer economic education"; 13 percent referred to their classes as "free enterprise". The remaining responses for course titles included U.S. history, civics, and sociology (p. 51). If course title is an indication of course content, then a portion of what is called "economics" at the precollege level cannot be con-
sidered the "basic" economics that would be recognized by most economists. Furthermore, when the economics teachers were asked what type of economics instruction they stress in the classroom, one third (34 percent) reporting stressing primarily practical or "how to" economics. Only 16 percent of the teachers reported stressing primarily theoretical or "basic" economics in their economics classes (i.e., "principles, concepts, and systems"). The biggest group (47 percent) say they stress both theoretical and practical economics, but no weighting information is given. A large dose of "practical economics," therefore, is found in most economics courses. Although there is no precise definition of this term other than, "knowledge that students need in their everyday lives," it suggests a focus on consumer economic topics (e.g., money management, purchasing, careers) and a descriptive and nonanalytical treatment of topics and issues. The more conceptual, analytical, and comprehensive Master Curriculum Guide approach would probably be found mostly in those courses or units specifically labelled "economics."

The state surveys, also, indicate that elective courses called "economics" reach few students. For example, a Rhode Island survey of 7 school districts with active economic education programs listed 18 titles of full year, half year, and part year courses that included economic concepts. The courses reaching the most students were consumer economics, Project Business, the Stock Market Game (a course component), and Dollars and Sense. No information was provided on the economic concepts included in those courses, or how much time was devoted to teaching them. The myriad of course titles, various departmental sponsors, and elective nature of courses suggest that exposure to the subject for students was likely to be spotty, superficial, and inconsistent--a point made by all curriculum coordinators surveyed. While 1 course title was labelled "economics", only 7.8 percent of the approximately 11,000 students taking "economics-oriented" courses were enrolled in it, and overall this meant that
only about 1 percent of the 72,000 secondary students (9-12) in the 7 districts took a "basic" economics course (pp. 10-11).

Similar percentages for those taking a separate economics course were found in other state surveys during 1979-1980. A Kentucky survey showed that just 23 percent of the schools offered "basic" economics courses, but only 1.6 percent of the state's high school students (9-12) took an economics course that year (p. 1). Although over 15,000 students were enrolled in a separate economics course in Ohio, this number represented only 2.4 percent of the total public school enrollment in grades 9-12, and by historical standards this percentage had dropped by 5 points (p. 13). Also, the data for Nebraska show about 6 percent of students in grades 9-12 enrolled in a separate course in economics, which is offered in only 37 percent of the high schools.

Since a separate course reaches few students on an elective basis, it could reach more students if it was a required course for graduation. Only eight states have mandated courses in economics or free enterprise. These states include: Alabama, Arizona, Georgia, Louisiana, Oregon, South Carolina, Tennessee, and West Virginia (Brennan and Banaszak, 1982). Little is known about the content of these courses or effectiveness of this approach for improving economic understanding. Apparently, the mandated course is not a popular option since 15 other states with a legislative or state board of education mandate for instruction in economics or free enterprise have adopted the infusion approach. The remaining states have no mandate and essentially use guidelines or recommendations to encourage economics instruction in school districts.

Conclusions

The National Survey of Economic Education 1981 presented an overly optimistic view of the status of economic education which is not generally substantiated by a careful review of the national and state data and which also
seems at odds with the many recent national studies criticizing precollege education in general (e.g., National Commission on Excellence in Education, 1983). The data consistently indicate that teacher background in economics and methods of teaching economics is poor, based on the number of courses taken. The great majority of teachers are not interested in additional economics coursework, except for short workshops which may be of limited educational value in improving knowledge of economics.

Curriculum problems are also reflected in the survey information. Time constraints are stated as the main reason elementary teachers feel unable to teach economics and this perceived barrier raises questions about the usefulness or impact of economics materials for elementary students. At the secondary level, economics reaches few students as a separate subject and it is doubtful whether poorly trained teachers can infuse it into another course. Teachers at all grades expressed the desire for easier access to instructional materials that contain more economics, but these materials may not be helpful if teachers do not understand what they are supposed to be teaching. Thus, economic education faces significant problems with teacher training, curriculum structure, and materials development which are compounded because the problems are interrelated.

This conclusion, however, should not be construed as a pessimistic statement on the status of economics instruction in elementary and secondary schools. A realistic appraisal of problems is the first step towards developing a comprehensive plan to solve them. Failure to recognize and address problems using the best available information can preclude the adoption of effective solutions and may lead to a serious underestimation of the resources necessary to make progress.

What is recommended as a second step is the collection of periodic, reliable survey information by researchers or organizations on the condition of precollege economics instruction in the nation’s schools. The National Survey
produced reliable data and served as a starting point for subsequent studies, but it missed several important questions and failed to be very critical in its assessment of the data and the implications for economics instruction. While an overview of the state surveys strongly suggest that there are problems with precollege economics instruction, some of these surveys were flawed in design and analysis, and it would be a waste of scarce financial resources to conduct future studies along these lines. More long-term coordination and review of survey studies is needed at the design, implementation and analysis stages for future work.

Finally, nearly all the state and national studies to date report input information, yet few studies are available on such equally important output measures as student test scores. We need an extensive national effort to obtain more reliable input and output data about economic education in the schools. This information provides the foundation for identifying problems, developing policies, and monitoring future progress. Without this information, organized efforts to improve economic education may repeatedly miss the mark.
TABLE 1
Teacher Coursework in Economics

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<th>Number of Courses in percent&lt;sup&gt;1&lt;/sup&gt;</th>
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<td>2</td>
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</tbody>
</table>

<sup>1</sup>Where credit hour data were reported, one course was equivalent to 1-3 hours

<sup>2</sup>Elementary and broad grade level studies

<sup>3</sup>Social studies teachers

<sup>4</sup>Economics teachers - broadly or narrowly defined

<sup>5</sup>Percent non-response or incomplete reports

<sup>*</sup>Arrow signifies percent covers two or more categories (see text)
Footnotes

Only the most recent studies were used in this review to keep the time period as similar as possible. Earlier state studies have been conducted in North Dakota (1971), Minnesota (1971), Illinois (1969), Oregon (1969), California (1974), and North Carolina (1970).

While most of the mail surveys reviewed reported response rates of 50 percent or better, the problems with mail surveys are well-known (c.f., Babbie, 1973) and this study is not intended as an endorsement of past work. Survey data, however, remains a necessary source, often the only source, of information about important questions. At least the composite survey data suggest answers based on research rather than pure speculation.

Page references will refer to the appropriate survey cited in that paragraph or sentence. When the survey name first appears, the author of that survey will be cited in the text and a complete citation can be found in the references. Thereafter, only the survey name will appear.

Throughout this discussion we have focused primarily on the quantity of teacher preparation since we have some data on that factor. We have no information on the quality of teacher preparation, which would also be an important dimension to observe if data were available.

The reasons for lack of interest in additional training in economics by teachers is not due to the poor quality of inservice courses or workshops. Teachers usually rate economics training programs they have attended very positive (c.f., Minnesota survey by Becker, 1980, pp. 147-150; Indiana survey by BSW, 1981, p. 9.) Also, administrators tend to support teacher training (c.f., Utah survey by Nelson, 1979, p. 8; New Hampshire survey by Hart, 1978, pp. 11-40).
References


