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INVENTORY OF ECONOMIC UNDERSTANDINGS OF
SKY VIEW HIGH SCHOOL GRADUATES, 1966

by

J. Karl Worthington

A report submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Business Education

Plan B

UTAH STATE UNIVERSITY
Logan, Utah

1967

378.2
W2962

ACKNOWLEDGMENTS

Much appreciation is here extended to some people and organizations that were most helpful in completion of this study. Thanks to the Joint Council on Economic Education for furnishing samples of the tests and other materials. Thanks to Principal J. Kenneth Webb of Sky View High School for permitting me to conduct this study. Thanks to the counselors and teachers who helped to administer the test. Thanks to the students who were the subjects of the study. Thanks to the supervising committee for the helpful suggestions, time and encouragement of each of its members. To each of these people I give my sincere appreciation.

J. Karl Worthington

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CHAPTER I

INTRODUCTION

Statement of the problem

All societies are faced with the problems of what to produce, how to produce, and for whom to produce goods and services. To each of the many facets of each of these questions are many alternatives. The different economic systems in the world allow different segments or parts of the system's population to select the answers to economic questions from the alternatives to the economic questions all systems face. The quality of the decisions made is of vital importance to the progress of the particular economic system.

Within each economic system are certain rules, principles, methods, and skills that are operative. Some of these rules, principles, methods, and skills may be common to several different economic systems. One example of such a situation is the fact of scarcity. Some rules, principles, methods, and skills may be peculiar to one or two different economic systems. An example of this is free enterprise. Knowledge and understanding of the operative factors controlling an economy are most important to those making decisions that should be based upon this knowledge and understanding. These decisions shape the future of the economy.

American capitalism, the economic "system" that operates in the

United States, places responsibility on each individual who is a part of the society and therefore a part of the economic system. This responsibility is given to the individual citizen to exercise through his vote, both in the political affairs of the nation, which are increasingly economic, and in the market place, an example of economics in action. Since the individual in this capitalistic system shares in the decisions, it follows that a knowledge and understanding of the operative factors in the economy in which he lives and participates would be helpful.

Of course, experience is the best teacher. However, experience is often a hard teacher. This fact could reasonably be the basis of an educational institution. Positive reinforcement from guided, successful experiences can eliminate the hard knocks of negative experiences and be equally as fruitful in providing learning for the student. In fact, the school is attempting to do this very thing in many areas of subject matter. Here, an economic question of allocation of time and other resources presents itself because of the vastness and variety of information that is available and important.

In recent years, groups such as the Committee for Economic Development and the Joint Council on Economic Education have devoted much effort to presenting and selling the importance of more and better economic understanding. One of the areas of concentration of their efforts has been the public schools. The logic of this is that the schools have a good chance of contacting a large percentage of the population of the United States. The high school in particular has contact with much of the citizenry

at some time in their lives, a time when they are able to comprehend much of the knowledge and skills encircled by economics.

Cache County Schools, as do most school districts, state an interest in the area of economic education. The Board of Education's "Statement of Philosophy," as stated in its Statement of Policies reads:

We in Cache County, Utah, subscribe to the philosophy that education is a means of individual development and social improvement, that every individual is educable, that society should provide educational opportunity for everyone, and enlightened self-government is dependent on education of the masses. (5, p. 1)

The concern in this study is what constitutes "enlightened self-government," and is it being achieved? Also found in the policies of the Cache County Schools under Section III, Instructional Program, are the "Aims, Purposes, and Objectives." Among these are two of particular significance to this study:

1. Citizenship. To give each student a feeling of personal responsibility to uphold and perpetuate fundamental concepts of democracy on a local, state, national and world basis
5. Economic Efficiency. To increase the student's economic efficiency and feeling of security; to teach the dignity of work and the value of honest effort. (6, p. 11)

Some questions present themselves in light of the preceding discussion. How much economic understanding do American citizens have? Are the participating members of the United States capitalistic economy basing their selections of alternatives on adequate knowledge? As they consider different solutions to the same problem, are they able to visualize the effects and base their decisions on rational consideration of what they

really want? Are the schools doing an adequate job in disseminating economic information, or should they do more?

Specifically, what level of understanding of economic facts and principles do students graduating from Sky View High School have? Does this level of understanding equal the understanding of students graduating from other school systems in the United States? Is the economics class that is being taught at Sky View of value to the students in increasing their economic understanding? Can the existing situation at Sky View concerning development of economic understanding be improved? If so, should it be, and, if so, how?

To answer the above questions, the study described in the following pages was conducted. Students at Sky View High School who graduated in 1966 were tested with a measuring device that provided norms gathered from a sample that included all the geographic areas of the United States. Achievement was evaluated in terms of specific economic topics, areas of economics, and the understanding that the entire test was designed to measure. Students who had taken an economics class were compared to the national sample of students who had taken an economics class. Students who had not taken an economics class were compared with a sample of students with similar exposure to economics. In the recommendations a look at curriculum and suggestions for change were made.

Objectives of the study

The purpose of this study was to discover the levels of economic understanding of the approximately four hundred 1966 seniors of Sky View

High School. The levels of economic understanding were quantified for the purpose of comparison to the national norms of the measuring device. The comparison of scores was desired so that strengths and weaknesses of the Sky View graduates in specific areas of economics could be determined. Comparisons were made for both groups--the students who had taken a formal economics class and the students who had not taken an economics class. This comparison of the "economics group" and the "no economics group" allowed the quantitative observation of the merits of the economics class in developing economic understanding.

Delimitations and limitations

The population examined in this study was all of the senior students at Sky View High School who graduated in 1966. The assumption was made that the 1966 graduating class was representative of the graduating classes from Cache County Schools.

The inventory that was taken of economic understanding was not comprehensive. The inventory was based upon recommendations of the National Task Force, whose objective was to identify areas of economic understanding needed for minimal effective citizenship. The economic areas identified by the National Task Force were interpreted in the measuring device by a distinguished group of people involved in economics and economic education.

No attempt was made to define an adequate level of economic understanding although the measuring device is supposed to measure economic understanding considered necessary for effective citizenship.

This study cannot be considered any better than the measuring device

and norms used. Also, factors outside the school would have influenced the student's level of economic understanding.

Definitions

In this paper several terms are used interchangeably and no difference in meaning is intended. The reader will encounter "economic efficiency," "economic literacy," "economic understanding," and "economic competence." The Council for Advancement of Secondary Education states the identification of the terms as they are referred to in this paper:

The Council has consistently used the term "economic literacy" to denote the possession of that basic equipment in economic understandings and skills needed by the citizen for intelligent and responsible participation in the everyday activities of a modern economy. The principal concern is with those fundamental economic facts, concepts, and relationships that every citizen should command. More specifically, this essential equipment includes:

1. Understanding of the basic economic areas and topics needed for making reasoned judgments and sound decisions.
2. As a result of familiarity with the economic terms commonly used in the press, ability to read with comprehension the more thoughtful parts of the newspapers and magazines of the day.
3. Information and skill sufficient to perform efficiently and wisely such functions as making purchases in cash or on credit, maintaining a bank account, entering into loan, rental, insurance, hospitalization, or other contractual agreements, carrying out tax obligations of every kind, and voting intelligently on local, state, and national issues of economic import. (11, p. 5)

Summary of problem

Many people and organizations express the opinion that more and better economic education is imperative. They cite as reasons such facts

as the involvement and participation that citizens in the United States have in making decisions based on economic considerations. The future of the American economy is shaped by the quality of decisions made in the voting booth and in the market. These champions of economic education contend that to make the quality of decisions that will maintain and improve the type of economy that the citizen wants, more and better knowledge and understanding by the citizen is needed.

The schools play an important part in providing much of the information a student takes with him into his adult life. Many questions arise from the relationship of the schools and economic education. How much are the schools doing in providing economic information? How well informed in economics are the students when they leave high school? Are Cache County Schools doing as much for their students as other districts in the United States are doing in developing economic understanding? These and other questions were of concern to the investigator in this study.

Chapter two presents a discussion of literature related to the problem. Chapter three discusses, in some detail, the procedures that were incorporated to achieve the objectives of the study. The results and data collected are objectively presented in chapter four. Conclusions that could be drawn and recommendations that seemed logical and desirable are the subject of chapter five.

CHAPTER II

REVIEW OF LITERATURE

Need for economic education

Citizenship need.--Bach states that economic literacy poses several questions which should be of vital concern to everyone but, as he suggests, very few are prepared to deal with adequately. For example, Bach (1, p. 139-140) asks questions like, "Can we afford more and better schools? If so, who should pay for them? Should we borrow to pay the cost or enact new taxes? What would be the effects of new income, sales, or property taxes on private spending . . . ?" He poses other thoughtful questions concerning topics affecting many people, such as how labor unions should view displacement of workers by electronic computers and other scientific advances.

Frankel states that, in a comparatively free economic system where the individual has obligations as well as privileges, the individual and collective action of each citizen will determine the direction of the economy. He adds (16, p. 15), "If those decisions are informed and wise, the nation will prosper. If they are based on emotion, prejudice and ignorance, the nation will stagnate and collapse."

Bond (7) gives three reasons for the study of economics. First he lists culture, suggesting that a man ignorant of the workings of the

economic system in which he lives and works cannot be considered well-informed or educated. Bond's second reason is the proposition of fulfilling the role of citizen with wisdom and insight using the economic problems of government as the basis for this need. The third reason is the enhancement of the person's own self-interests in such things as choosing a vocation, consuming, and saving.

Food, clothing, shelter, health care, education, employment--these are essentially economic needs. Economics constitutes the warp and woof of the fabric of modern society; it is the foundation on which our political and social structure rests. It follows logically, then, that a sound understanding of the economic process is an imperative for modern citizenship.

The purposes of economic education may properly be to provide the individual with such a grasp of basic concepts and principles as will enable him to understand, appreciate, and seek to improve that economy the benefits of which he shares, to vote intelligently on economic questions, and to use his knowledge for his own and for social good. (11, p. 2-3)

Bach (1) points out that the complexity of the economic issues with which government must deal have grown enormously in the past fifty years. The literature seems to say, then, that citizens in an economy which involves them in making economic decisions, both public and private, should be well prepared to make those decisions.

Personal need.--Much of the literature that a person comes in contact with is filled with economic terms and stories. Drown (14) explains that many of these economic terms and stories require explanation, study, and consideration of the implications. He says that the reader will discover that each day's news is made of the subjects of which an economics course is made. Price (31, p. 9) gave some specific examples; "... students

must learn to distinguish between such look-alikes as balance of trade and balance of payments; tax base and tax rate; economic growth and economic development; demand and quantity demanded; diminishing returns and diminishing utility."

Senesh (34) points out the need a person has to be identified as an individual in a complex, specialized society. The individual sometimes has difficulty in relating his work to the rest of the business operation. The student should be shown how the jobs of all--scientists, mail clerks, business managers, teachers, etc.--relate to each other. Citizens should know that each individual and his job are part of a larger system, and that the success of the system depends on the contributions of the individuals. Bond (7) provides a good example after pointing out that man now depends more on his fellows than ever before. Using a cup of coffee as an example, he illustrates that international cooperation may be necessary to get the coffee, the sugar, the cream, the spoon, and the cup in one place for a nickel or a dime. This understanding of how millions of individuals and business units are organized to provide America's goods in about the right proportions requires some study and learning of economic concepts and facts.

Business need.--In 1961 over 17,000 businesses failed. In noting this fact, Swearingen and Garrison (35) suggest that many of these failures could have been avoided if the enterprisers and their employees understood more about simple business economics. With business of such integral importance in advancing the economic status, the need for adequate economic

decision-makers in business mounts.

Comparative need.--A good example of an economic question is the subject of economic education and the schools. The decision-makers in education, at various levels, must decide what is to be taught, how much is to be taught, and for whom. These questions--what? how much? and for whom?--are the basis of economic interrogation.

Allocation of the student's time in school is a perplexing economic problem. McMurtry (23) says that the disciplines now so important in the curriculum, science, math, languages, history, and English, are not all that the student needs. He indicates that education for living in this complex society, "pervaded by business," cannot be properly developed by the incidental learnings of prior years. He is suggesting, it appears, that some formal education in economics is desirable.

Olson makes this observation:

For years students have been required to take courses in the physical and biological sciences so that they will know something about the physical environment in which they live. They have had courses in English so that they can communicate effectively within that environment, both orally and in writing. They have studied history, particularly American history, so that they might gain an insight into the political and social foundations of our country and so that they might appreciate their heritage of freedom and justice, both with responsibilities. But this is not enough. For all students to an important degree, . . . it is becoming more and more necessary that they understand the nature of their business economic environment and that they be prepared to act effectively within that broad field of operation. (27, p. 2)

These comments suggest the consideration of not only broadening the scope of economic education in the schools to include more students, but of making economics a part of the core of instruction all students receive.

And here is one of the real problems of economic education right now, the problem of numbers.

If education for better economic understanding is important for all, and the schools are to provide this education, then the schools have a long way to go. Bach (1) indicates that a small number of citizens are exposed to economic principles in a school situation. He says that only about five percent of high school students take a formal course in economics. Nationally, less than half of the high school graduates go on to college and only a quarter of these people take even one course in economics.

According to Nichols (25) there are seventeen dropouts before graduation for every one hundred students in the ninth grade in Utah. If the figures given by Bach in the last paragraph hold true in Utah, then about four of the eighty-three high school graduates will have taken an economics class. Of the eighty-three graduates, about fifty-five (in Utah) will proceed to more education in a post-secondary institution. Not considering the dropouts (the rate is much higher in college than in high school) and applying the national figure, about fifteen of the students still in school after high school will take a course in economics. Of these fifteen, there is a chance that four of them are the students that took an economics class in high school. At best, nineteen of the original ninth graders will take an economics class. This estimate is probably generous. And there is still the question of what good those students who take economics get out of the class or classes that they do take.

Obviously, if the educational objectives and goals with relation to economic efficiency are not being achieved, and if economic curriculum considerations could help, something would still have to be done about the numbers involved in formal instruction.

Summary of needs.--Consideration has been given to the need for economic education in light of a person's roles as citizen, consumer, businessman or employee, and with respect to other areas of economic knowledge. Some statements that summarize the thinking presented are offered.

Frankel says that political questions that must be decided by citizens have economics as their substance. He states (16, p. 14), "Individual citizens determine national policies by what they do or do not do. . . . Intelligent decisions can be made only when people understand economic considerations and weigh the consequences and implications of alternative courses of actions." Baker (3) writes in the same vein, stating that most political issues now are questions of finance and economic policy. Each person exerts influence by himself, in union organizations, trade associations, farm organizations, professional organizations, and social and civic groups.

The history of the development of our economy is studded with gains, but these did not occur through chance. They are the composite result of individual, group, and governmental decisions. And the future quality of such decisions will determine whether this nation and the world will progress, stagnate, or retrogress economically. The future is controlled by the economic decisions of our citizens. Economic education, which makes possible increasingly wise citizen decisions, therefore, is essential to the survival of our free society. (16, p. 14)

Consumer economics, which enjoys more exposure than many of the other areas of economics because of its everyday use, is not enough. This is the conclusion of a poll taken and reported by the Council for Advancement of Secondary Education (11). They, as others reported here, suggest that more instruction in other areas is needed to equip youth for intelligent decision making in a modern economy. Price, in an address to business educators, presented this argument as follows:

Although economic understanding is probably desirable for people of all nations it is obligatory for the people of nations like ours. Remember that ours is a society in which the economic future is largely shaped by the decisions all of us make as individuals, both in the market place and at the polls.

We live in a nation where our daily papers devote more space to economic problems--inflation, deflation, economic growth, employment, unemployment, etc.--than to any other single topic. Even our ventures into outer space--because of their astronomical cost, not only in terms of money but in terms of manpower and resources, as well--are as much an economic problem as a scientific one.

We live in a nation where man's effectiveness as a worker is no longer simply a matter of how skillfully he performs his tasks. It is also a matter of how well he understands the business system which affords him a living, how it is organized and how it operates--how income is related to productivity--and how his own activities as a producer are related to his activities as a consumer.

We live in a nation where only a small number of our students will become scientists or engineers, but where most of them will take jobs, marry, raise families, live in communities, pay taxes, and vote.

We live in a highly complex industrialized nation where our continued freedom depends as much on the smooth functioning of our economic system as it does on the preservation of our democratic form of government. In fact, political freedom and economic freedom are inseparable. One is possible only so long as we hold on to the other. But both can be lost

if future generations of citizens are allowed to go on making far-reaching economic decisions on the basis of misinformation or complete ignorance. (32, speech)

Examples of illiteracy

The unsolved problem of American education is "economic illiteracy" or "the ninth wonder of the world." This remark was made by G. Keith Funston (17), retiring director of the New York Stock Exchange, to a group of school administrators. Mr. Funston makes a statement that others have attempted to prove.

A survey made in 1955 by the Division of Educational Reference of Purdue University indicated general lack of economic understanding. Some of the results of this study are related by Bond (7, p. 173): "Boys scored slightly higher than girls, twelfth graders slightly above tenth and eleventh graders, students with Republican party preference a bit above those with Democratic party preference, and those in higher socio-economic groups above those in lower ones." Another study reported by Bond in the same article is a nation-wide study by Opinion Research Corporation. A few of the twelfth grade students scored very well. However, the median score was only slightly better than one based on pure chance.

Luther H. Hodges (18) reports a study where college-caliber high school graduates were asked how to raise the standard of living. Only one-fourth realized that more goods per man hour are needed.

A Business Week editorial (15) appearing in the May 29, 1965, issue, reported results of a test given to 12,000 high school seniors, high school social studies teachers, college sophomores, and industrial employees and

managers. Bach and Saunders, who analyzed the results of the test, describe the test as "very elementary." Some results of this test revealed that high school seniors without formal economics instruction averaged 24.2 correct responses out of fifty questions. High school seniors who had taken an economics class averaged 29.7. Social studies teachers who had taken no economics classes scored 32 correct out of 50. Those social studies teachers with one or two economics courses scored 32.8, and those with five or more formal economics courses scored 37.2. Industrial foremen and first-line supervisors averaged 34.2 on the test, and middle managers achieved 36.3. The test used, which was the same test as that used in this study, has been criticized by Tonne (38) as an inaccurate measure of economic understanding because the questions, although not technical themselves, are written in the "jargon of economists."

In his doctoral study, Madsen (22) tested economic "concepts" with twenty-five questions and five controversial questions. The students' achievement on this section was 48 percent. Another section tested economic "understandings" with fifty objective questions. The achievement level in this area was 54 percent for the group. In Madsen's study, there was no significant difference in achievement between the students who had taken classes with economic content and those students who had not taken the classes with economic content. There was no significant difference between boys and girls in either area of the test. One of the conclusions of the dissertation is that the competency level of senior high school students with respect to economic concepts and understandings is not that of

an economically literate citizen.

The conclusion reached by Madsen is a popular one. Economic illiteracy exists, according to the literature. Olson (27, p. 3) indicates the importance of the problem of economic illiteracy: "A person can act intelligently only within his area of competence and understanding." A research scientist may be very competent and achieve much in his vocational field. However, he may be a failure in handling his financial problems. Olson summarizes (27, p. 3), "There can be little doubt, as surveys repeatedly show, that understanding of the simple economic facts of life--how our private economy operates with the emphasis on individual responsibility--is almost totally lacking among many otherwise intelligent people."

Advantages of economic literacy

Bond (7) gives, as reasons for studying economics, the following: (a) to gain an understanding of modern economic society and (b) to develop an analytical mind. Comprehension of the forces of selection at work in our social, political, and business environment is valuable. A study of economics, while motivated primarily by content, also provides training in logic. The ability to think clearly and well is one of the objectives of education.

Personal advantages. --A view of one of the problems of economic illiteracy is provided by two twelfth-grade students. Eric Wilson and Don Koch (39) identify the too common problem of the person who finds that he cannot buy a car without a down payment. Or, this person reads in the

newspaper that curbs on credit have been approved. Without understanding, Wilson and Koch (39, p. 184) suggest, this person will condemn the economic system because of flaws that affect him personally rather than being able to perceive the over-all picture. "Through his lack of understanding of the interdependence of the many phases of our economic system, he is actually weakening it."

Students live in a world in which economics is woven into every fiber of society. Economics affects every phase of their lives; their very existence is dependent upon a compatible relationship with economic principles. Certain basic principles as, for example, the law of supply and demand, run through all economic activity. Once they know and understand a few of these basic principles, they have concrete evaluating devices. If citizens understand the fact that resources are limited, they will not at the same time demand defense manufacturing and more consumer goods such as refrigerators or automobiles. If they understand the fundamental concepts, they will realize the futility of demanding increased wages without either a rise in the level of productivity or a rise in the price of goods. (8, p. 181)

Bowsky (8) states further that facts alone will not give economic understanding. Thinking, acting, ideas, and experiences all contribute to the individual's economic competence. A working vocabulary is an important asset, Bowsky observes, because communication depends so much on word symbols for similar understanding. Each area of knowledge has some vocabulary peculiar to itself. Since much of the popular and general literature is filled with economic terms, an understanding and appreciation of this literature and the problems discussed in it requires a knowledge of the basic economic terms.

Allocation of resources for ultimate satisfaction is a problem not only to government, but also to each individual. Whether the resource be

wages, time, or property, the best use of it requires consideration. Bahr is talking about this when she says:

Young people need to develop basic understandings about personal economic security, develop a spirit of inquiry concerning personal economics, and develop the skills and information required to solve the personal economic problems that they will meet in the years ahead. (2, p. 149)

Tonne identifies some of the areas of consumer weaknesses that may be overcome by making oneself economically literate. These areas are:

1. Lack of method in buying;
2. Lack of foresight in method of payment, particularly abuse of the installment system;
3. Failure to make better use of avenues of borrowing money;
4. Susceptibility to the enticements of false advertising;
5. Unsound programs of investment;
6. Inadequate attention to the reduction of economic risk;
7. Inability to manage the monetary affairs of the individual and his family (36, p. 46).

Leamer (20, p. 636) writes of a threat to the personal advantages provided by economic competence. He states that a sad commentary will be written if education fails to prepare citizens to share in the debate over the goals of the economy and the result is the citizens "unknowing sacrifice of freedom in their quest for efficiency and security."

Advantages to the economically competent individual in an economic system come through many channels. Enjoyment and understanding of the daily newspaper, wise expenditure of the individual's money resources,

participation in a stimulating political controversy, or the selection on a ballot that provides better opportunities for the competent individual and his fellows are possible examples of advantages suggested for the economically competent.

Business advantages.--"No individual can be well educated in present-day society without an intelligent understanding of the business world, regardless of his occupation. . . . all young people must be taught the application of economic principles to business functions." (13, p. 18)

A common objective of educational systems is to prepare the terminal student for initial job competency. Tonne (36, p. 83) lists some requisites for vocational success. The second one suggests that the student should acquire a general business understanding of economics and related subjects. These subjects should help the student--the future participant--to understand the mechanisms of business. Another hoped-for result would be the appreciation of the relationships between his job and that of other workers, both in his firm and elsewhere. These attributes should help the student get his first job and should appreciably aid his opportunity for advancement. Olson (26, p. 244) echoes the ideas stated by Tonne, pointing out that "vocational business education is broad in scope, involving attitudes and understandings as well as skills." These attitudes and skills are the very essence of economic education.

A summary statement by Olson (27, p. 4) points out that today's young business employee "must know something about the business organization of which he is a part and about the economic system in which the

business, its customers, his employer, his fellow workers, and he himself are significant elements."

What economics to teach

Price and Hosler (30) indicate in an article that the campaign for economic education is not a "crash" program. It also is not restricted to one subject matter area, but may be enhanced by several areas. These authors suggest that the attention that economic education receives is born of an increasing awareness of the need for it rather than some "cataclysmic event such as Sputnik." As the movement gains ground, one important question that has to be answered is what to teach.

Much of the answer to the question of what to teach comes from the needs of the individual and his society that have been discussed previously. However, as might be expected, the exact content is far from crystal clear. For example, Baker (3) criticizes the fact that even where some efforts have been made to improve economic education, the concepts and understandings presented have been too narrow and limited to gain the desired advantages intended.

Even though many specific needs are defined for economic education, agreement on one particular list of subject matter has not been reached. An illustration of the differences of opinion is given by Dawson (12). He reports that the New York University Center for Economic Education attempted to determine what should be included and what should be emphasized in an economics course for the terminal high school student. The Center polled high school teachers of social studies and college economists interested

in economic education. Generally, those polled were quite far apart-- the high school teachers favoring "personalized" or consumer economics, and the college group stressing analytical and theoretical concepts. The two groups agreed strongly on four topics out of forty: (a) economics and what it is, (b) an overview of the United States economy, (c) inflation-deflation, and (d) a study of other economic systems. All agreed that more than these four areas needs to be taught.

In an effort to help teachers improve their teaching of economics, Barron and Hoff (4) have reduced the field of economics to five areas. They state that understanding in the following areas is "essential" if a person is to claim a basic understanding of economics:

1. The concept of scarcity--choice making;
2. The concept of property--resource ownership;
3. The concept of supply and demand (market price);
4. The concept of money;
5. The concept of income (employment).

The Council for Advancement of Secondary Education (11) conducted an extensive survey to determine which topics are basic to economic competency. Representatives from agriculture, business, economics, education, labor and high school economics teachers judged, in their own group, a comparatively comprehensive list of topics. The rankings of the topics within each group were averaged and then the six groups' average rankings were averaged. In order of importance, then, the rank order listing from this process placed the topics in this order:

1. Characteristics of our modern economy;
2. Contrasting economic systems;
3. The price system;
4. The production and marketing of goods and services;
5. Industrial relations;
6. Government finance--national, state, local;
7. Economic fluctuations;
8. Economics and world peace;
9. Agriculture;
10. Consumer economics;
11. Nature and problems of business enterprise;
12. Money, credit, and banking;
13. Population and natural resources as they affect our economy;
14. Economics as a way of thinking and reasoning.

One significant study (in terms of impact) concerning economic education was conducted by the National Task Force on Economic Education. The primary objective of the Task Force was to describe the minimum understanding of economics essential for good citizenship and attainable by high school students. The main object was to provide helpful guidelines for high school teachers, administrators, and school boards. With these goals, this group of outstanding economists and secondary school educators produced the following suggestions for "minimum understanding" for the high school student. Development and understanding of:

1. A reasoned approach to economic problems;

2. An overview of the economic system;
3. What the economy produces and how;
4. Economic growth and stability;
5. The distribution of income;
6. Comparison of economic systems (24).

Other compilations of goals to be attained in the economics class and topics to be taught have been prepared. Frankel's (16, p. 20-25) list emphasizes a general, basic knowledge of the subject of economics. Olson (28, p. 175) suggests a list of items of economic understanding which the economics instruction should prepare the student for. He emphasizes the consumer points but introduces the societal aspects.

Dean (13) says that the backbone of a free-enterprise system is political, intellectual and spiritual freedom. To preserve this system, certain areas of knowledge and understanding should not be left to chance. Dean (13, p. 19) identifies some of these areas as "a high standard of ethics in business practices. . . . Morality must be defined and applied to business activities. Future citizens must realize that national unity is closely related to the individual's economic well-being." Dean suggests that these topics should be approached in business classes.

The suggested areas and specific topics listed by authors quoted here are evidence that the question of what to teach concerning economics has been considered seriously. In many instances the attention that has been given the problem has been quite sophisticated.

Tonne offers the methods he thinks best for teaching the economic

factors suggested in this section. He says (36, p. 359) that "word pictures, concrete situations, and definite problems, rather than . . . abstract rules and principles" are the best way to introduce a study of economic life to the high school student. Theoretical material must be presented in terms of present or future experiences.

Responsibility for economic education

Formal education function. --"There is no greater challenge in education today than to provide students with adequate preparation to apply economic knowledge to living." As indicated in the preceding statement, Dean (13, p. 19) is quite forceful and specific in placing the responsibility for the development of economic skills, attitudes, and knowledge on the formal education process. He supports his statement by citing the increasing complexity of society in the United States. He further cites the fact that government is "big business" and that governmental strength is, in part, determined by economic factors. The importance of these items to education, he continues, is the fact that a citizen today must participate in these business activities.

Certainly, much learning takes place by interactions within an environment. Case (9, p. 106) cautions, however, that "our economic system, dynamic and still developing as it is, remains a part of our American heritage, and for both reasons we can no longer afford to leave economic understanding to the processes of intuition and osmosis."

The Council for Advancement of Secondary Education (11, p. 3) states that economic education is "an integral and essential part of

general education for all young people, hence the responsibility and obligation of every public school." The Council indicates that economic education is a low-cost investment in protecting economic liberty in the United States and is a prudent step.

Bahr (2) points out that adults are involved with economics in everyday activity, and because of this, personal financial information, skills and attitudes should be learned while the person is young. Good consumer practices are not taught in the home, Bahr contends. Changes in a society's economy require changes in ideas and attitudes. In most instances the parents haven't the time or are not interested in keeping pace. If the parents are not providing this economic education, and consumer practices need to be learned while young, then the schools are the natural place to teach them.

From Tonne (36, p. 47), a summary statement: "The development of a better understanding of economic relationships is uniquely the function of the school."

Secondary school appropriate time.--With the existing education levels, McMurtry (23, p. 56) suggests the upper junior high school and high school as the appropriate time for presentation of economic information. He selects this time because he notes there is an "economic awakening" at this stage of the person's development. Economics and business become more and more a part of the student's life. McMurtry cites the fact that the "sixteen million junior and senior secondary school boys and girls control six billion dollars of annual spendable income of their own." He

concludes by saying that, if this type of education is postponed, the average adult will become another unprepared economic citizen.

A statement (29) concerning business education in the high school makes the suggestion that provision should be made in the high school curriculum for the development of economic literacy for the citizen and consumer. The source from which the above suggestion is taken was prepared by the Politics Commission for Business Education which is sponsored by the National Business Education Association and Delta Pi Epsilon.

The Research and Policy Committee of the Committee for Economic Development (10, p. 11-12) choose the high school for teaching economics because the high school facilitates reaching a large number of students. "The opportunity to give a majority of Americans some knowledge of economics is lost after high school."

Leppert (21) contends that, because a minority of the population attends college, the public schools are the most likely area in which to teach a workable knowledge of the American economic system. The logic that is being presented by the authors read is that schools have the responsibility to present economic education. The authors are further suggesting that the high school is the best place to teach these economic principles because the principles are beginning to have application in the lives of the students. This is also the time when society can reach the greatest number of people when they can understand the information.

The question of how much economic information the high school student

can gain and benefit from is one that receives debate. Bach presents this discussion:

There is disagreement as to whether the economic understanding needed for effective citizenship can be taught before graduation from high school. We believe it should be, and can be for most students above the lowest ability levels, if schools are willing to devote a full course or its equivalent to economics in high school. Ideally, cumulative teaching, beginning in the lower grades, should be used to develop understanding of economic institutions and the way the modern economy works. (1, p. 140-141)

Hodges (18) cites the suggestions of the National Task Force concerning what an American should know about economics. He says that mastering the few essentials suggested by the Task Force should not be too difficult, and that it is obvious that the high school is the place to teach these things. Hodges (18, p. 10) further suggests, "We need to increase the amount of time given to economics in high school, and we need to improve the level of teaching ability."

A suggestion made by Case (9, p. 102) is that "the youthful mind is perfectly capable of grasping--and even finding illuminating and exciting--provided it is given half a chance. . ." He is talking about equipping the student with "something sharper than ignorance" for participation as a citizen.

Economic education in several departments.--Teachers in different departments pass over opportunities to make economic concepts concrete and practical for their students.

The students do not see the interrelationship between the facts presented in different classrooms. In a sheet metal class, they might learn the price of metal has gone up and is hard to get.

In social studies classes, they might learn there has been an increase in defense spending because national security has been threatened. In a science course, they might learn about the principle of a new atomic weapon. Some of them know that their fathers have been working overtime. Yet the students may never associate these different facts. They may never realize that the threat to our national security has affected their lives directly. Too seldom does the subject matter of the classroom become meaningful in students' lives. It would seem that it is every teacher's responsibility to provide classroom experiences which will help the students to recognize these interrelationships. We cannot hope to gain economic competence unless each student is cognizant of the effects of economic activity on his life. (8, p. 181)

Baker (3, p. 110) tells that a review of the area that needs to be taught show "opportunities for integration in social studies, English, business education, mathematics, science, home economics, vocational subjects, and student activities," if teachers were prepared.

Economic concepts are necessarily taught in many classes in many departments of a school. The social studies teacher necessarily involves economic concepts as he teaches citizenship, government, and history. The home economics class in family living must involve economics. These observations are made by Dean (13), and he further points out that in business education the teacher has the "applied economics approach." Dean states that repetition in departments in teaching economic principles is desirable and necessary.

Senesh (34, p. 132) writes that both social science teachers and business education teachers should work on developing economic competency. "The business education courses should look upon the economic world from the inside out, and the social science course should look upon the economic world from the outside in."

Leamer (20) talks specifically about the problem of teachers and administrators who lack economic understanding or a philosophy of economic education. Regardless of where economic concepts should be taught, the teacher must have some understanding.

Business education and economic education

Relationship.--The needs of students are foundation stones for building school programs. Olson (26, p. 244) recognizes this and cites students' needs as the reason for the rapid growth of business education. He says, "Today's students need and want skills--more and better skills than ever before; today's students also need and want economic understandings." Olson suggests that neither need should be so prominent as to eliminate the satisfaction of the other need.

Credit for the increased concern about economic competence can be given primarily to the Joint Council on Economic Education. Price and Hosler (30) suggest that some share of the credit for growth with regard to economic education is due the business teachers. As a group they have probably done more than any other group of teachers in promoting economic education. The volume of literature that has been written by business educators on the subject of improved economic education is given as evidence of the concern of this group.

Dean (13, p. 18) makes the statement that "business education is the key to economic literacy because it deals with the application of economic concepts." Kastner (19) is talking about this relationship when he says that assuming allocation of resources could include production, distribution, and

consumption of goods and services, the business education program could meaningfully be described as the study of applied economics.

Kastner also points out that the general program of business education is oriented toward building occupational competencies. Teaching economic understandings which support the business activity of the occupational field the student is studying, seems imperative for viewing the occupation in perspective.

The need for economic understanding along with vocational knowledge and skills in business is said to be not only an opportunity for business educators, but a responsibility. This conclusion is arrived at by Swearingen and Garrison (35, p. 28) who further suggest that, for the most part, students in business education are preparing for a job in the business area. "These students have a special need to understand the entire operation of the business organization and its place in the American economy."

Price (32) discusses the relationship of business education and economic education in terms of business. He writes that although opportunities exist at all levels and in all areas to teach economic understanding, business education deals with the very things that economics is about. He says that since an economic system is an arrangement for satisfying wants, and that 90 percent of the goods and services people buy to satisfy their wants are produced by business, that the relationship of business education and economics is very strong. Price's contention is that many subjects that teach economic understanding overlook the significant role of business.

Price, in the same speech, mentioned that the business curriculum of

most schools already provides the courses that would develop many of the concepts in economics that are deemed desirable. The basic business subjects such as general business, consumer economics, principles of business, business law, and economics, "provide them in abundance." These thoughts from Price relate well to the thoughts of Olson. Olson (27) says that the subject matter of business courses lends itself well to teaching economic concepts as well as being well suited to developing critical thinking and sound judgment about business and economic problems.

Economics integrated into business education courses.--Senesh (34) criticizes the present "introduction to business" or "general business" course because there is little or no economic analysis. Examples and illustrations of economic principles and concepts are presented but not pointed out and clarified. Senesh (34, p. 105) states, "There is no other way to understand the functioning of the market, the role of profit, the significance of competition."

The introductory business course presently lacks design and character. It contains elements of consumer economics but not enough to make the students well-informed consumers. The course contains elements of vocational guidance, but overemphasizes deadend clerical jobs. The course contains slight elements of economic analysis, but hardly touches on price theory, depressions and inflations, or on government policies which influence business decisions. The course includes some elements on business management, but hardly anything on the location of industry, on the production process, or on the skills and knowledge necessary in the production and distribution process. (34, p. 105)

The main plea to business educators according to Olson (26) is to maintain perspective. He says that business education has a responsibility to produce good employees for business and to equip young people to

participate effectively as citizens and consumers.

Who should teach economics

Since the end of World War II, business education has begun to look at its responsibility to the general goals of education in a broader sense than "only" vocational preparations. This observation is made by Dean. He says (13) further that one of the problems with this broader, more realistic view of business education responsibility, is the business education teacher. Many of the teachers were trained when vocational competence was paramount, and they haven't yet realized the importance and opportunity of developing economic understandings.

Olson (27) tells that the properly prepared business teacher has been exposed to areas of natural science, humanities, the behavioral sciences and the social sciences. He has studied economic theory and his business classes have taught him some applied theory. Some of the students in business education teacher preparation programs gain work experience and see concepts and skills applied. This type of student, or teacher, should be prepared to teach some economic concepts in his business classes and to teach an economics class. However, the number of economics classes offered by business education departments, as reported by Wiper (40) is too negligible to determine.

Most classes called "economics" are taught by social studies departments and by social studies teachers. Many business educators question the effectiveness of this situation. The Committee for Economic Development (10) reports that 77 percent of the social studies teachers do not have

even six hours' academic preparation in economics. At least six hours is recommended by the National Task Force. The Committee for Economic Development also reports that only eighteen states require a course in economics for certification in the social sciences.

From an article by Price and Hosler we read:

It is interesting to note that business teachers have gone on record as recommending that economic education be part of each student's general education and that courses for this purpose be taught by those best qualified in terms of educational background. (30, p. 23-24)

Price and Hosler (30) add that high school business teachers usually are quite a bit better prepared to handle economic education than are social studies teachers.

Tonne (37) cautions that business teachers "feel" that they are better qualified than others. He points out that most business teachers are primarily skills teachers, just as most social studies teachers are history teachers. Tonne also criticizes studies of economic teaching which almost always ignore the business education teacher. Tonne concludes:

The fact remains that business teachers have repeatedly emphasized their concern with economic education, have demonstrated the integration of economic study into their program, have showed relative competency in economics. (37, p. 9)

Summary of chapter

A majority of the thoughts and opinions on the subject of economic education were found in the literature of the business education profession. The business educators appear very interested in the area of economics and have written much concerning it. However, a deliberate attempt was made

to explore the writings of those concerned specifically with economic education, also the social studies educators, and the general educators. Much of the information read was in agreement but, of course, there were differing opinions on many of the topics.

Proportionally, much of the literature dealt with a concern on the part of most educators and writers of a need for more and better economic education. Other prominent information dealt with problems of "economic illiteracy," economic relationships in social, political, and monetary living, the responsibility of the school for economic education, and the relationships of various departments in the total effort for improved economic understanding. The relationship and responsibility that the business education department has to economic education was considered. Other facets of economic education were discussed in less detail.

A most helpful and positive area of the literature presented constructive suggestions of what economic concepts and skills needed development. These suggestions for economic course content and topic integration in other departments were very good. A broad view of the suggested areas of instruction in economics finds compatible suggestion from the authors. However, when the suggestions get specific there are marked differences of opinion. The most significant split is between the personalized approach and the theoretical and analytical approach.

CHAPTER III

PROCEDURES

Permission to conduct the study

The principal of Sky View High School, Smithfield, Utah, was contacted to discuss the possibility of conducting this study. Permission was given with the request that the testing not be put off too late in the school year. The test was scheduled and administered through the school counseling services.

Selection of the measuring device

Basic to any worth that could be produced from this study was the tool with which to measure the degree of economic understanding. The necessity for some criteria for selection of a test was evident. Since a primary goal of the study was a comparison of achievement of Sky View students to achievement of students in other areas and other school systems, one requisite was availability of national norms. Another requisite was that the understanding to be tested be attainable at the high school level. A third criteria came from the assumption that a current test would be more likely to include some of the students' experiences. These primary criteria were the basis of selecting the test. Other criteria such as validity, reliability, cost, length, and test administration requirements were of importance.

Of five economic understanding measurement tools located, the "Test of Economic Understanding," published by Science Research Associates, Inc., was selected. This test, copyrighted by the Joint Council on Economic

Education, best met the criteria established for selection of the measuring device. The "Test of Economic Understanding" has national norms, was designed to measure high school students, and has a 1964 copyright.

"Test of Economic Understanding"

History of the test.--The National Task Force on Economic Education, which was created in 1960 by the American Economic Association and the Committee for Economic Development which funded its activities, identified many of the problems in economic education. A situation in which the Task Force could operate without any influence from pressure groups was created. The group was asked to describe minimum levels of economic understanding for effective citizenship that can and must be taught at the high school level.

The release of the findings of the Task Force was followed by a policy statement discussing problems remaining in economic education as viewed by the Committee for Economic Development. One of the remaining problems identified by this group was the problem of measuring economic development.

The Joint Council on Economic Education decided to eliminate the measurement problem. They appointed a special committee to prepare two forms of a test of economic understanding for high school students. Using the guidelines of the National Task Force, fifty questions were devised to determine the students' knowledge of the areas deemed necessary and achievable for high school students.

Authors of the test.--The "Test of Economic Understanding" is sometimes referred to as the Stalnaker test because John M. Stalnaker, President of the National Merit Scholarship Corporation, served as chairman of the test development committee. A list of other members of the committee follows:

Albert Alexander, Executive Secretary, New York Council on Economic Education;
 George Leland Bach, Maurice Falk Professor of Economics and Social Science, Graduate School of Industrial Administration, Carnegie Institute of Technology;
 Arno A. Bellack, Professor of Education, Teachers College, Columbia University;
 Bernard Berelson, Vice-President, the Population Council, New York City;
 Edgar O. Edwards, Chairman, Department of Economics, Rice University;
 Joseph A. Kershaw, Provost, Williams College;
 Ben W. Lewis, Chairman, Department of Economics, Oberlin College;
 Lewis E. Wagner, Director, Bureau of Business and Economic Research, University of Iowa.

Serving as consultants to the committee were:

Laurence E. Leamer, Professor of Economics, Harpur College, and
 Ralph W. Tyler, Director, Center for Advanced Study in the Behavioral Science.

Test data. --The norms established for the test were based on the scaled scores of 6,435 twelfth-grade students. The students came from all geographic regions of the United States and varied sizes of communities and schools. One requirement for the participating schools in the sample was that they offer at least twelve weeks of economics instruction. Sixty-two schools in twenty-four states composed the sample.

Reliability and validity criteria were applied to the "Test of Economic Understanding." Reliability coefficients were all greater than .80, a level high enough to justify use of the scores in individual evaluation. Ninety-five percent of the time a true scaled score would be within two standard errors of the obtained scaled score.

The concurrent validity criteria application determined that in all but one case the observed mean differences were significant beyond the .01

level of confidence. Content validity is left to the judgment of the user.

The "Test of Economic Understanding" is a power test, since only 1.9 percent of the standardization sample failed to complete it in forty minutes.

Administration of the test

On the afternoon of April 28, 1966, the students of Sky View High School were called into class meetings. The senior students had been informed that some questions were to be asked of them, but they were not aware of the nature of the test. The senior class met in the school auditorium. There were 383 senior students present.

Several teachers distributed the test booklets and answer sheets. Mr. Amos Bair, senior students' counselor, gave the verbal instructions. In addition to the instructions written in the interpretive guide for the test, the students were told that this particular test was for the purpose of curriculum considerations for the students that followed them and that it had no bearing on the individual student personally. The students worked quietly and appeared attentive to the test.

At the conclusion of the forty minutes allowed for the test, the materials were collected as the students left the auditorium. Answer sheets for each student present were accounted for.

Collection of data

Each of the answer sheets was hand scored with the aid of a punched cardboard answer guide provided by the publishers of the test. Each answer sheet was inspected for more than one selection of the multiple-choice

items. The raw scores were then determined. Using the table provided with the test for converting raw scores to scaled scores, the scaled scores were assigned. From the scaled scores a percentile rank was given using the conversion tables.

Sky View High School offers a one-semester course called "economics." The course is taught for eighteen weeks. Provision for comparison of students who have had formal economics class instruction was made in the sample norms of the test. It was necessary to determine which students in the 1966 graduating class had taken this economics class. The question, "Have you had a course in economics?" was printed on the test answer sheet. The students were to check one of the three alternatives, "yes," "no," or "in process." The students who were "in process" have been considered as "yes" because they had completed fourteen weeks of the economics class at the time the test was given.

The tests were sorted into the classifications of having had or not having had economics instruction. Then a check was made of the roll books of the economics teacher. This check allowed the exact determination of who should have been in the "economics class" group. Test answer sheets were then compared with the roll, and corrections of classification were made.

After the graduation list had been compiled, indicating who was and who was not going to graduate, the answer sheets of those not graduating were eliminated. This was done because this study was intended to measure graduates. One answer sheet was unidentifiable and was eliminated.

At the conclusion of these processes, there were 380 valid answer sheets. Of this number, 328 were from students who had not taken the economics class offered. Fifty-two were completed by students who had completed the semester course in economics or who were taking the course at the time the test was given. Seven of the fifty-two students with economics had taken the course as juniors. There were nine senior students absent on the day of the test.

An item analysis was performed on the answer sheets to determine the number of students who missed each question. The figures were compiled for the "no economics" group and for the "economics" group. From this information, achievement on each question and the areas the test was constructed to cover was determined.

CHAPTER IV

FINDINGS

General achievement on complete test

Averages of the raw scores of the "no economics" and the "economics" groups revealed the following information: As a group, the Sky View students who had not taken the class designated economics achieved a mean score of 21.26. The Sky View students who had completed an eighteen-week semester or who were fourteen weeks through a semester of the formal economics class achieved an average score of 28.71 for the group. If these raw scores are assigned a scaled score and converted to percentiles, the "no economics" group would rank in the 31st percentile. The group score for the "economics" students in terms of percentile would be 35.

The mode of the "no economics" group fell at a raw score of 24. This score, as interpreted on the conversion charts, would be in the 39th percentile of the norm sample who had not taken an economics class. The "economics" group mode score was 23. This raw score would be a percentile score of 19 as compared to the economics students in the norm sample.

The median scores of the Sky View groups examined were as follows: The "no economics" group median was 22, with a percentile rank of 31. The "economics" group median was 25, with a percentile rank of 25. Table 1 on page 43 summarizes the preceding information.

TABLE I
 SKY VIEW HIGH SCHOOL 1966 GRADUATES' GROUP
 ACHIEVEMENT ON MEASURING DEVICE

	No Economics Group		Economics Group	
	Raw Score	Percentile Rank	Raw Score	Percentile Rank
Mean	21.3	31	28.7	35
Mode	24	39	23	19
Median	22	31	25	25

The range of raw scores for the "no economics" group showed as few as five correct responses out of fifty choices, and as many as forty correct selections. The "economics" group ranged from ten to forty correct responses.

A comparison of the mean scores reported in the Business Week (15) editorial and cited earlier in this study shows a deficit for the 1966 SkyView graduates. The 21.7 raw score achieved by the Sky View students who had no formal economics class is 2.5 raw score points below the 24.2 reported for the sample of 12,000 seniors in the test mentioned in the Business Week editorial. In the same sample, the mean raw score achieved by the students who had taken an economics class was 29.7. This is one point above the 28.7 mean raw score of the "economics group" at Sky View.

Inventory of economic understanding

The following is an inventory of test questions. With each question

TABLE 2

INVENTORY AND COMPARISON OF SKY VIEW GRADUATES'
ACHIEVEMENT AND MEASURING DEVICE NORMS

Question Number	No Economics Group			Economic Group		
	% Right Norm	% Right SVHS	Difference + or -	% Right Norm	% Right SVHS	Difference + or -
1	32	32	0 ^a	52	44	- 8
2	41	28	-13	67	40	-27
3	62	59	- 3	76	69	- 7
4	66	67	+ 1	79	79	0
5	27	23	- 4	61	58	- 3
6	73	74	+ 1	83	83	0
7	23	27	+ 4	31	38	+ 7
8	74	69	- 5	87	67	-20
9	77	80	+ 3	85	81	- 4
10	61	66	+ 5	76	58	-18
11	79	81	+ 2	84	73	-11
12	69	70	+ 1	80	75	- 5
13	28	24	- 4	46	19	-27
14	40	41	+ 1	58	40	-18
15	56	52	- 4	67	60	- 7
16	20	19	- 1	24	12	-12
17	59	46	-13	63	58	- 5
18	68	61	- 7	74	63	-11
19	52	50	- 2	61	56	- 5
20	72	52	-20	78	65	-13
21	53	51	- 2	69	48	-21
22	26	21	- 5	25	13	-12
23	28	33	+ 5	43	33	-10
24	45	43	- 2	66	48	-18
25	54	46	- 8	84	63	-21
26	30	26	- 4	49	35	-14
27	55	52	- 3	65	63	- 2
28	77	78	+ 1	84	79	- 5
29	20	23	+ 3	39	29	-10
30	48	50	+ 2	65	54	-11
31	61	38	-23	71	56	-15
32	69	58	-11	77	73	- 4
33	28	31	+ 3	51	38	-13
34	30	30	0	33	21	-12
35	23	43	+20	29	29	0

TABLE 2--continued

Question Number	No Economics Group			Economic Group		
	% Right Norm	% Right SVHS	Difference + or -	% Right Norm	% Right SVHS	Difference + or -
36	46	46	0	51	35	-16
37	52	46	- 6	63	54	- 9
38	48	50	+ 2	62	54	- 8
39	36	32	- 4	59	38	-21
40	39	42	+ 3	46	37	- 9
41	39	33	- 6	51	60	- 9
42	51	53	+ 2	65	62	- 3
43	32	37	+ 5	42	33	- 9
44	33	30	- 3	47	37	-10
45	65	55	-10	79	67	-12
46	29	24	- 5	50	31	-19
47	47	44	- 3	63	56	- 7
48	53	39	-14	57	54	- 3
49	47	36	-11	58	63	+ 5
50	38	32	- 6	44	40	- 4

^aThe percent right for Sky View High School graduates has been rounded up or down. The difference is computed from the rounded off figures and designated + (plus) if the Sky View students achieved a higher percent of correct responses than the national sample.

3. Which of the following best characterizes the relation between producers, consumers, and government in a private enterprise economy?
- Producers decide what to produce, government how it shall be produced, and consumers who shall receive the product.
 - Consumer spending leads producers to decide what shall be produced and how resources shall be used. Government seeks to maintain competition and the rights of private property.
 - Consumers decide what should be produced, producers how best to produce it, and government who shall receive which products.
 - Government ultimately decides what shall be produced and how. Consumers and producers, as voters, control the government.

National sample: No economics group, 62%

Economics group, 76%

Sky View graduates: No economics group, 59%

Economics group, 69%

4. Three of the following are essential to the operation of a private enterprise economy. Which one might such an economy operate without?

- A. Profit motive
- B. Markets
- C. Corporations
- D. Prices

National sample: No economics group, 66%
Economics group, 79%

Sky View graduates: No economics group, 67%
Economics group, 79%

5. Of the following, the principle of diminishing returns is best illustrated by
- A. small firms being driven out of business by large firms
 - B. any decline in the average rate of profits
 - C. a slowing rate of increase in output as a farmer adds increasing amounts of fertilizer to his land
 - D. the decline in personal income as workers age

National sample: No economics group, 27%
Economics group, 61%

Sky View graduates: No economics group, 23%
Economics group, 58%

6. Business firms wish to sell their products at a high price; households wish to buy products at low prices. In a private enterprise economy this conflict of interests
- A. is reconciled by competitive markets
 - B. is reconciled by government regulation
 - C. does not exist; there is really no conflict of interest between households and firms
 - D. is not reconciled; since all household heads are members of firms, the interests of firms prevail

National sample: No economics group, 73%
Economics group, 83%

Sky View graduates: No economics group, 74%
Economics group, 83%

7. In a private enterprise economy, government encourages freedom of choice by
- A. guaranteeing complete freedom of choice to households and firms
 - B. limiting this freedom for some if their choices might reduce freedom of choice significantly for others
 - C. requiring individuals and firms to use their freedom of choice wisely
 - D. seeing that individuals and firms choose what the majority believes best

National sample: No economics group, 23%
Economics group, 31%
Sky View graduates: No economics group, 27%
Economics group, 38%

8. A rise in the price of which product would be likely to increase the demand for butter?
- A. Butter
 - B. Oleomargarine
 - C. Bread
 - D. Any of the above

National sample: No economics group, 74%
Economics group, 87%
Sky View graduates: No economics group, 69%
Economics group, 67%

9. Assuming that the supply of a product remains constant as the demand for it increases, its price will normally
- A. fall
 - B. rise
 - C. stay the same
 - D. either rise or fall

National sample: No economics group, 77%
Economics group, 85%
Sky View graduates: No economics group, 80%
Economics group, 81%

10. Which of the following elements is the most essential for a private enterprise economy?
- A. Active competition in the marketplace
 - B. The functioning of labor unions
 - C. Action by responsible business leaders
 - D. Extensive government regulation

National sample: No economics group, 61%
Economics group, 76%
Sky View graduates: No economics group, 66%
Economics group, 58%

11. The price of shoes is likely to be increased by
- A. more capital investment by producers
 - B. a decrease in the demand for shoes
 - C. a decrease in the supply of shoes
 - D. new machines reducing the cost of shoe production

National sample: No economics group, 79%
 Economics group, 84%
 Sky View graduates: No economics group, 81%
 Economics group, 73%

12. If the government were to levy a tax of one dollar on every pair of shoes sold, which of the following would most likely result?
- A. Consumers would pay a higher price for shoes and probably buy a smaller quantity.
 - B. Suppliers would increase the quantity sold in order to offset the taxes paid to the government.
 - C. Consumers would pay a higher price and as a result suppliers would make larger profits.
 - D. Suppliers would sell more and charge a higher price.

National sample: No economics group, 69%
 Economics group, 80%
 Sky View graduates: No economics group, 70%
 Economics group, 75%

13. Generally, when a monopoly replaces private competitive enterprises,
- A. production efficiency is increased because of the larger scale of operation
 - B. the market no longer tends to bring about the most efficient allocation of resources
 - C. there is an increase in the number of firms making the product
 - D. the monopolist controls both consumers and labor

National sample: No economics group, 28%
 Economics group, 46%
 Sky View graduates: No economics group, 24%
 Economics group, 19%

14. The purpose of the Sherman and Clayton Antitrust Acts is to
- A. keep markets effectively competitive
 - B. keep firms from becoming large
 - C. prevent banks from becoming trusts
 - D. protect the investing public

National sample: No economics group, 40%
 Economics group, 58%
 Sky View graduates: No economics group, 41%
 Economics group, 40%

15. Common stocks, limited liability, and a charter are characteristic of
- A. individual proprietorships
 - B. partnerships
 - C. private business corporations
 - D. most small business firms

National sample: No economics group, 56%
 Economics group, 67%
 Sky View graduates: No economics group, 52%
 Economics group, 60%

16. Over the past fifty years, the share of the total U.S. market controlled by the hundred largest firms has
- changed by only a small amount
 - risen substantially
 - increased to more than 90 percent
 - fallen steadily

National sample: No economics group, 20%
 Economics group, 24%
 Sky View graduates: No economics group, 19%
 Economics group, 12%

17. The following arguments have been used regarding the proposals for increased public expenditures on education. Which one shows the best use of economic reasoning, using the alternative (or opportunity cost) principle?
- Taxpayers should compare the probable sacrifices resulting from the added tax with the probable advantages of the new program.
 - In real terms, the added school tax will cost us necessary food and clothing, adequate support of our churches, and essential medical care.
 - Luxuries are the real alternative cost of the proposed educational improvements.
 - Whenever a product is good, public or private expenditure on it is always desirable.

National sample: No economics group, 59%
 Economics group, 63%
 Sky View graduates: No economics group, 46%
 Economics group, 58%

18. For which of the following is government expenditure (federal, state, and local combined) now the greatest?
- Social services, including health and social security
 - Salaries of elected public officials, upkeep of public buildings, and cost of hearings, of the court system, and of highways
 - Public education--elementary, secondary, and higher
 - National defense and related operations

National sample: No economics group, 63%
 Economics group, 74%

Sky View graduates: No economics group, 61%
Economics group, 63%

19. Most taxes divert spending power; as a result, control over some resources passes from
- the government to individuals and businesses
 - individuals and businesses to government
 - the federal government to the state government
 - gross national product to national income

National sample: No economics group, 52%
Economics group, 61%

Sky View graduates: No economics group, 50%
Economics group, 56%

20. Given our present pattern of government expenditure, the graduated or progressive income tax causes
- income after taxes to be more evenly distributed
 - the rich to get richer and the poor to get poorer
 - wage earners to pay more tax than property owners
 - it to be impossible to inherit wealth

National sample: No economics group, 72%
Economics group, 78%

Sky View graduates: No economics group, 52%
Economics group, 65%

21. Specialization and division of labor by nations followed by increasing international trade probably would
- increase total world production of wanted goods and services
 - lower living standards in the wealthy nations
 - increase the likelihood of worldwide unemployment
 - eliminate differences in standards of living among nations

National sample: No economics group, 53%
Economics group, 69%

Sky View graduates: No economics group, 51%
Economics group, 48%

22. A nation has a deficit in its international balance of payments when
- it buys more goods and services abroad than it sells
 - it makes more payments, excluding gold, to other countries than it receives from them
 - it has an unfavorable balance of trade
 - it owes more gold to other nations than it has

National sample: No economics group, 26%
Economics group, 25%

Sky View graduates: No economics group, 21%
Economics group, 13%

23. All of the following statements about tariffs are likely to be true except which one?
- A. Tariffs preserve employment in domestic industries whose products they protect.
 - B. Tariffs reduce the market for our exports by reducing our imports.
 - C. Tariffs encourage the growth of our most efficient industries and eliminate the least efficient.
 - D. Tariffs benefit some groups at the expense of the national standard of living.

National sample: No economics group, 28%
Economics group, 43%

Sky View graduates: No economics group, 33%
Economics group, 33%

24. Inflation is most likely to benefit
- A. savings bank depositors
 - B. debtors
 - C. life insurance policyholders
 - D. persons living on fixed pensions

National sample: No economics group, 45%
Economics group, 66%

Sky View graduates: No economics group, 43%
Economics group, 48%

25. The best single measure of the total economic output in the U.S. is the
- A. gross national product
 - B. total amount of take-home pay
 - C. consumer price index
 - D. index of industrial production

National sample: No economics group, 54%
Economics group, 84%

Sky View graduates: No economics group, 46%
Economics group, 63%

26. The limit of an economy's real output at any time is set by
- A. business demand for goods and services
 - B. the quantity and quality of labor, capital, and natural resources
 - C. government regulations and spending
 - D. the amount of money in circulation

National sample: No economics group, 30%
Economics group, 49%

Sky View graduates: No economics group, 26%
Economics group, 35%

27. In the economy of the United States, the actual gross national product is most likely to be less than the potential GNP at full capacity when—
ever
- A. business investment is large
 - B. consumer spending is rising
 - C. government spending is falling
 - D. total spending is falling

National sample: No economics group, 55%
Economics group, 65%

Sky View graduates: No economics group, 52%
Economics group, 63%

28. Which one of the following events would tend to reduce consumer spending?
- A. A reduction in personal income tax rates
 - B. A decline in consumer incomes
 - C. An expectation that prices will soon rise
 - D. Increased government payments to individuals

National sample: No economics group, 77%
Economics group, 84%

Sky View graduates: No economics group, 78%
Economics group, 79%

29. When the economy fluctuates between boom and depressions, the part of total spending that changes by the largest percent is
- A. spending by families on consumer goods and services
 - B. business spending on factories, machinery, and inventories
 - C. state and local government spending on all activities
 - D. business spending on wages and salaries

National sample: No economics group, 20%
Economics group, 39%

Sky View graduates: No economics group, 23%
Economics group, 29%

30. If, when there is full employment, the federal government increases its spending without increasing its tax revenues, generally
- A. a serious depression will occur
 - B. an increase in unemployment will occur
 - C. the national debt will increase
 - D. inflation will occur

National sample: No economics group, 48%

Economics group, 65%

Sky View graduates: No economics group, 50%

Economics group, 54%

31. A government budgetary deficit exists
- A. whenever the national debt is decreasing
 - B. whenever taxes are reduced
 - C. whenever government expenditures are increased
 - D. when total government spending exceeds receipts

National sample: No economics group, 61%

Economics group, 71%

Sky View graduates: No economics group, 38%

Economics group, 56%

32. When more money is created through government mints or through increased bank lending, the result is generally
- A. more spending
 - B. less spending
 - C. higher interest rates
 - D. decreased savings

National sample: No economics group, 69%

Economics group, 77%

Sky View graduates: No economics group, 58%

Economics group, 73%

33. The Federal Reserve Board generally tries to increase the money supply when it wants to
- A. fight unemployment in depressions
 - B. fight inflation
 - C. hold down the government debt
 - D. make large profits

National sample: No economics group, 28%

Economics group, 51%

Sky View graduates: No economics group, 31%

Economics group, 38%

34. Most of the funds on deposit in commercial banks originate through
- A. individuals depositing currency in banks
 - B. the rise of our gold stock
 - C. business firms extending credit to customers
 - D. banks making loans and investments

National sample: No economics group, 30%

Economics group, 33%

Sky View graduates: No economics group, 30%

Economics group, 21%

35. A monetary policy is often ineffective when used to check a recession, because at such times
- banks lack reserves to make loans
 - there may not be a strong demand for loans
 - the Federal Reserve cannot engage in open-market operations
 - reserve requirements cannot be lowered

National sample: No economics group, 23%

Economics group, 29%

Sky View graduates: No economics group, 43%

Economics group, 29%

36. Rapidly growing economies differ from slowly growing economies in that the former are always characterized by
- a slow rate of population growth
 - an abundant supply of natural resources
 - a high rate of investment
 - a balanced national budget

National sample: No economics group, 46%

Economics group, 51%

Sky View graduates: No economics group, 46%

Economics group, 35%

37. If effective demand (i.e., total spending) periodically falls short of productive capacity, the rate of growth of the economy over a long period will be
- higher because inefficient plants, equipment and labor no longer need to be employed
 - higher because production will be concentrated on necessary
 - lower because some productive resources will not be employed
 - lower because of a heavier reliance on the raw materials of foreign countries

National sample: No economics group, 52%

Economics group, 63%

Sky View graduates: No economics group, 46%

Economics group, 54%

38. Three of the following statements are true of the so-called under-developed economies. Which one is not?
- Approximately two-thirds of the world's population live in such areas.
 - These areas would soon achieve developed economies if their domestic money supply could be greatly increased.
 - Low income in these areas makes savings for economic growth difficult.
 - Political and social conditions exist that hold back their economic development.

National sample: No economics group, 48%
 Economics group, 62%
 Sky View graduates: No economics group, 50%
 Economics group, 54%

39. "Americans are a mixed-up people with no sense of ethical values. Everyone knows that baseball is far less necessary than food and steel, yet they pay ball players a lot more than farmers and steelworkers." Why?
- A. Ball players are really entertainers rather than producers.
 - B. Ball players are more skilled than persons who get less pay.
 - C. Excellent baseball players are scarcer relative to the demand for their services.
 - D. There are fewer professional ball players than farmers or steelworkers.

National sample: No economics group, 36%
 Economics group, 59%
 Sky View graduates: No economics group, 32%
 Economics group, 38%

40. The average annual family income before taxes in the United States in 1963 was between
- A. \$1000 and \$3000
 - B. \$3000 and \$5000
 - C. \$5000 and \$9000
 - D. \$9000 and \$15,000

National sample: No economics group, 39%
 Economics group, 46%
 Sky View graduates: No economics group, 42%
 Economics group, 37%

41. In the United States, the high wages received by most workers depend largely on
- A. actions of the federal government
 - B. the social responsibility shown by business
 - C. our minimum wage laws
 - D. the high output per worker

National sample: No economics group, 39%
 Economics group, 51%
 Sky View graduates: No economics group, 33%
 Economics group, 60%

42. Labor unions in the United States have
- A. strengthened the bargaining position of laborers in relation to their employers

- B. substantially increased the real wages of organized labor as compared with those of unorganized labor
- C. increased the percent of Americans who earn their living by rendering labor services
- D. increased competition in the labor market

National sample: No economics group, 51%

Economics group, 65%

Sky View graduates: No economics group, 53%

Economics group, 62%

43. The government program for agriculture is best summarized in which of the following ways?
- A. Output has been drastically reduced, so that surpluses have not accumulated; thus farm income and prices of farm products have been high.
 - B. An attempt has been made to improve farm incomes by taking a variety of measures to raise the price of farm products above the free market price.
 - C. The government pays farmers enough money to bring their yearly incomes after taxes up to the level of incomes received by average non-farm laborers.
 - D. Ours has been a policy of laissez faire--of expressing concern for the farmer but generally doing nothing to affect the level of his income.

National sample: No economics group, 32%

Economics group, 42%

Sky View graduates: No economics group, 37%

Economics group, 33%

44. Which of the following explanations of the "farm problem" in the United States is false?
- A. The growth of agricultural productivity has been much less rapid than that of the rest of the economy.
 - B. Technological change has made it economical to use less labor and more capital in agriculture.
 - C. As our economy has grown, the total demand for agricultural products has increased much less than for industrial products.
 - D. When farm prices fall, the consumption of agricultural products increases only slightly.

National sample: No economics group, 33%

Economics group, 47%

Sky View graduates: No economics group, 30%

Economics group, 37%

45. Of the following features of capitalism, communism as practiced in the U.S.S.R. (Russia) functions without
- A. prices
 - B. capital goods
 - C. private profit
 - D. all three of the above

National sample: No economics group, 65%

Economics group, 79%

Sky View graduates: No economics group, 55%

Economics group, 67%

46. Which of the following is characteristic of both communism as practiced in the U.S.S.R. and private enterprise as practiced in the United States?
- A. Nearly all capital goods and natural resources are owned by the state.
 - B. Trade unions have an important role in setting wages and conditions of work.
 - C. Market prices automatically reflect consumer demand.
 - D. Differences in money wages and salaries are used as an economic incentive.

National sample: No economics group, 29%

Economics group, 50%

Sky View graduates: No economics group, 24%

Economics group, 31%

47. As compared with communism in the U.S.S.R., democratic socialism (e.g., in the United Kingdom, Sweden, and India)
- A. Nearly all capital goods and natural resources are owned by the state.
 - B. Trade unions have an important role in setting wages and conditions of work.
 - C. Market prices automatically reflect consumer demand.
 - D. Differences in money wages and salaries are used as an economic incentive.

National sample: No economics group, 47%

Economics group, 63%

Sky View graduates: No economics group, 44%

Economics group, 56%

48. Judging from your inspection of the charts on page 10, which of the following seems to be the most serious economic problem of the early 1960's?
- A. Decline in the output of the economy
 - B. Rapid inflation

- C. Unemployment
- D. The increase of the gross national product to a new all-time high

National sample: No economics group, 53%
Economics group, 57%

Sky View graduates: No economics group, 39%
Economics group, 54%

49. The fact that the consumer price index on the chart was approximately 75 in 1947 means that the average price of consumer goods and services in 1947 was about
- A. 75¢ a unit
 - B. 75% above the average level of prices since 1947
 - C. 25% less than 1957-59 prices
 - D. 75% lower than at present

National sample: No economics group, 47%
Economics group, 58%

Sky View graduates: No economics group, 36%
Economics group, 63%

50. On the charts, note the behavior of the economy between 1956 and 1958. Which of the following statements most correctly analyzes the situation and states the most appropriate monetary and fiscal policies for these years?
- A. With GNP moving to an all-time high, no change in policy is necessary to keep the economy stable.
 - B. Unemployment is rising. A budgetary deficit and/or an easy money policy is called for.
 - C. Inflation continues and accelerates. A budgetary surplus and/or a tight money policy is called for.
 - D. A dilemma exists. The appropriate monetary-fiscal policy to reduce unemployment is likely to increase the inflation, and policies to check inflation may increase unemployment.

National sample: No economics group, 38%
Economics group, 44%

Sky View graduates: No economics group, 32%
Economics group, 40%

Table 2, pages 45 and 46, shows that the Sky View "no economics group" achieved a higher percentage of correct responses than the norm group on eighteen of the fifty test items. The percentage of correct responses for the "no economics groups" was the same on three test items.

Three times the Sky View "no economics group" was between five percent and nine percent (inclusive) higher, and on one question this group had twenty percent more correct responses.

Also, Table 2 reveals that the Sky View "economics group" only twice achieved more correct responses per student tested than the norm group, once five percent more, and once seven percent more. The "economics group" from the norm sample and Sky View had no difference in percent of correct responses on three of the test items.

For the "no economics group," differences where the norm sample gave a better percentage of correct responses occurred as follows:

- 1- 4 percent better on 13 test items
- 5- 9 percent better on 7 test items
- 10-19 percent better on 7 test items
- 20-up percent better on 2 test items

The differences favoring the norm sample in the "economics" groupings were:

- 1- 4 percent better on 7 test items
- 1- 4 percent better on 7 test items
- 5- 9 percent better on 13 test items
- 10-19 percent better on 19 test items
- 20-up percent better on 6 test items

Let us point out that thirteen of the twenty-nine test items on which the norm sample scored better than the Sky View students in the "no economics group" are less than five percent better. However, the principal component group of the forty-five "economics group" negative differences is in the ten to nineteen percent area.

On thirteen of the fifty questions, the "no economics group" from Sky View outsourced their classmates who had taken economics. This happened only once in the national sample. Nine of the questions on which the Sky

View "no economics group" did better dealt with questions concerning what the economy produces and how. However, the difference favoring the "no economics group" was slight, ranging from one-half of one percent to just over eight percent. On question number 34, the Sky View "no economics group" outscored the "economics group" by just barely under nine percent; and on question number 35, the difference favored the "no economics group" by over fourteen percent. The remaining two questions on which the "no economics group" did better dealt with the distribution of income. Each of these questions was answered correctly by about five percent more of the "no economics group."

Achievement on areas and topics

Results were compiled for groups of related questions. This was done to identify the strengths and weaknesses of specific topics and areas of economic understanding. The National Task Force identified four areas of understanding: (a) what the economy produces and how, (b) economic growth and stability, (c) the distribution of income, and (d) comparison of economic systems. Each of the questions in the measuring device was placed in one of the preceding groups according to what the question was supposed to measure. Several questions were placed in more than one group. The percentage of correct responses given for the group of questions was computed for the Sky View graduates; consideration was again given to both the group without an economics class and the group with the economics class experience. The results of this procedure are reported in Table 3, page 62.

TABLE 3

ACHIEVEMENT OF SKY VIEW GRADUATES ON TEST QUESTIONS
GROUPED IN AREAS OF ECONOMIC UNDERSTANDING
IDENTIFIED BY THE NATIONAL TASK FORCE

Area of Economic Understanding	Numbers of Related Questions	Percentage of Correct Responses	
		No Economics Group	Economics Group
What does the economy produce and how?	4, 6-19, 21-23, and 39	49.0	50.1
Economic growth and stability	1, 3, 5, 18-20, 24-38, 48-50	43.3	51.3
The distribution of income	20, 39-44	39.9	47.2
Comparison of economic systems	2, 45-47	37.6	48.5

Each of the areas of economic understanding identified by the National Task Force was further broken down into more directly related and more specific topics. Questions were grouped for the topic information they were designed to measure. The number of correct responses for the group of questions related to the topic were determined for the Sky View graduates and are expressed in terms of percents in Table 4, pages 63 and 64.

TABLE 4

PERCENT OF CORRECT RESPONSES GIVEN BY SKY VIEW GRADUATES FOR
QUESTIONS TESTING RELATED TOPICS WITHIN TASK FORCE
IDENTIFIED AREAS OF ECONOMIC UNDERSTANDING

Related Questions Dealing with:	Numbers of Related Questions	Percentage of Correct Responses	
		No Economics Group	Economics Group
What does the economy produce and how?			
(1) Interaction of supply, demand, and prices in the market, (2) role of profits, (3) advantages of competition, (4) structure and finances of businesses.	4, 6, 8-16 and 39	56.2	57.0
(1) Government control of use of the tax dollar, (2) government control through rules in private enterprise.	7, 13-19	41.5	45.8
(1) Effects of international division of labor and specialization, (2) finance and foreign trade.	21-23	35.0	31.4
Economic Growth and Stability			
(1) Limit of output dictated by total resources, (2) effects of varied use of same resources, (3) effects of total spending, (4) influence of consumers, businesses and government.	1, 3, 5, 24-29, 36-37, 48-50	41.5	52.4
(1) Government taxes and budgets, (2) effects of government spending on income, employment, and prices in the economy.	18-20, 30-31, and 50	47.2	55.7

TABLE 4--continued

Related Questions Dealing with:	Numbers of Related Questions	Percentage of Correct Responses	
		No Economics Group	Economics Group
(1) The money supply, (2) money and banks, (3) money and the Federal Reserve System	32-35	40.6	40.3
(1) Relationship of growth rates and per capita output, (2) economic growth problems of "underdeveloped economies."	25, 36-38	46.9	51.4
The Distribution of Income			
(1) Market determination for whom to produce, (2) employers paying for service rendered and capital, (3) relationship of productivity and wages.	20, 39-41	39.5	50.0
(1) Labor unions and income, (2) agriculture and income.	42-44	40.4	43.5
Comparison of Economic Systems			
(1) How systems other than American capitalism answer the questions of what, how much, and for whom to produce	2, 45-47	37.6	48.5

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The conclusions drawn from the procedures and results discussed in earlier chapters are presented in an enumerated form below:

1. If the measuring device is a valid method of determining minimal economic understanding necessary for effective citizenship, a great deal remains to be done in the United States to help senior high school students reach the level defined by the Task Force for effective citizenship.
2. The general achievement on the measuring device by the Sky View graduates is very low compared to norms and achievement possible.
3. Other things being equal, the economics class taught at Sky View High School contributes to and improves economic understanding by about 14.8 percent as measured by the "Test of Economic Understanding."
4. The 1966 Sky View graduates, on the average, are below the average of the national sample tested for the norms. This is true whether the student has taken an economics course or not.
5. The 1966 Sky View graduates, on the average, are below the scores achieved by other samples of national scope. These samples, outside of the norm group, were tested with the same test and their scores match closely with the scores of the test norm group.

6. The "no economics group" from Sky View scored nearer the national sample achievement than the "economics group" from Sky View scored, compared to the achievement of the norm group.

7. In some areas of instruction in economics, the instruction tends to confuse the understanding rather than improve it. Questions concerning effects of division of labor and specialization on an international basis showed a high degree of misunderstanding in the economics class at Sky View.

8. In the area of "what the economy produces and how," economics instruction at Sky View does not provide a particular advantage.

9. If the goals of "citizenship" and "economic efficiency" described by the Cache County School's Board of Education are to be achieved, in terms of the testing criteria suggested by the National Task Force and developed by the CED and AEA Committee for Measurement of Economic Understanding, some new emphasis and improvement must take place.

Recommendations

Cache County schools should attempt to improve the economic understandings of their students before graduation. The recommendations that follow may be of help in determining how to provide more and better economic education for Cache County students.

Further study is needed. What constitutes the "citizenship" and "economic efficiency" desired by the Board of Education and school patrons of Cache County? This question must be answered in detail. From more specific goals for economic literacy, an efficient guideline can be developed.

To what extent do classes now in the curriculum contribute to economic efficiency? Study is needed to find out if the development of economic understanding by students taking the junior high school general business class is significant. Can the approach and content of general business be altered to improve economic literacy? Could the information being presented be understood better at a different age? Study to answer these questions should be made. The same questions should be asked and answered for the American problems class and other classes that present economic content.

Investigation of teacher awareness concerning economic content should be made. Inter-departmental cooperation and planning should follow. The teachers, probably department heads, and the district secondary supervisor could develop the necessary guides and suggestions for implementing an improved awareness and explanation of economic concepts in the classes already being offered and taught.

Much work involving economics implementation in the elementary grades has been done. Lawrence Senesh of Purdue University has been a leader in this area. The investigator recommends that study of the materials developed be made by the district personnel. Elementary teachers should participate with the district personnel in the evaluation and in any development of materials and guides that the evaluation might suggest should be made.

A last recommendation is that at least one year of business-economic classwork be required of each student. Because of the pressure for time,

more than one year of specific classwork devoted to developing economic literacy would not be feasible. The economic instruction should be divided so that a semester of the work would emphasize the personal or consumer approach. The class filling this requirement should be placed first in the sequence of economic content classes and should present an introduction to societal economics along with the consumer points emphasized. Another semester class for each student should emphasize the societal aspects and the economic laws that are operative. Preferably, this class would be similar to the present economics class. In offering this required economics class, a program that would phase students according to their abilities should be given consideration and study.

Any advancement of the quality and quantity of economic understanding is desirable. Further consideration of methods of attaining the goals of "citizenship" and "economic efficiency" is recommended.

LITERATURE CITED

- (1) Bach, George Leland. 1963. Desired outcomes in the development of economic literacy, p. 139-147. In New perspectives in education for business, the yearbook of NBEA, 1963. National Business Education Association, Washington, D. C.
- (2) Bahr, Gladys. 1963. Desired outcomes in the development of personal economics--consumer understandings, knowledges, skills and attitudes, p. 148-169. In New perspectives in education for business, the yearbook of NBEA, 1963. National Business Education Association, Washington, D. C.
- (3) Baker, G. Derwood. 1954. Education for economic competence. Bulletin of the National Association of Secondary-School Principals 38:108-110.
- (4) Barron, J. F., and Marilyn L. Hoff. 1964. Some concepts essential to a basic understanding of economics. South-Western Publishing Co., Cincinnati, Ohio. Monograph 110, 41 p.
- (5) Board of Education, Cache County Schools. (No Date). Philosophy, operating procedures, and policies relating to the board of education. Section I, p. 1. In Statement of policies. Logan, Utah.
- (6) Board of Education, Cache County Schools. (No Date). Instructional program. Section III, p. 11. In Statement of policies. Logan, Utah.
- (7) Bond, Floyd A. 1956. Need for economic competence. California Journal of Secondary Education 31:170-174.
- (8) Bowsky, Don. 1956. Classroom experiences for economic competence. California Journal of Secondary Education 31:180-182.
- (9) Case, Everett. 1965. Progress toward economic literacy. National Association of Secondary-School Principals Bulletin 49:101-106.
- (10) Committee for Economic Development, Research and Policy Committee. 1962. Economic literacy for Americans. Committee for Economic Development, New York, 50 p.
- (11) Council for Advancement of Secondary Education. 1956. Key Understandings in economics. Washington, D. C., 76 p.

- (12) Dawson, George C. 1967. Economics for the terminal high school student. *Balance Sheet* 48:196-197.
- (13) Dean, Alma.. 1963. Business teachers should prepare to teach economics. *Business Education World* 43:18, 19, 42.
- (14) Drown, Bayne W. 1962. Economics--a testimony of revival. *Business Education Forum* 17:23 and 27.
- (15) Economic Commentary. 1965. Why there's more heat than light on economics. *Business Week* 1865:147-148.
- (16) Frankel, M. L. 1965. Economic education. The Center for Applied Research in Education, Inc., New York, 112 p.
- (17) Funston, G. Keith. Address to 44th Annual Convention, National Association of Secondary-School Principals, Portland, Oregon, March 1, 1960.
- (18) Hodges, Luther H. 1962. We're flunking our economic ABC's. *Saturday Evening Post* 235:8, 10.
- (19) Kastner, Jr., H. H. 1965. Economics for the business educator. *Balance Sheet* 46:296-298.
- (20) Leamer, Laurence E. 1958. Everyone needs economic understanding. *NEA Journal* 47:635-636.
- (21) Leppert, Ella C. 1960. An experimental high school course in economics. *The Councilor* 21:57-68.
- (22) Madsen, Gibb Russell. 1961. Economic concepts and understandings of senior high school students. PhD dissertation. University of Utah, Salt Lake City.
- (23) McMurtry, David C. 1964. Business-economic education in the secondary school: a philosophy. *Balance Sheet* 46:56, 57, 93.
- (24) National Task Force on Economic Education. 1961. Economic education in the schools (summary). Committee for Economic Development, New York, 14 p.
- (25) Nichols, Mark. Address to Regional Vocational Conference, Cedar City, Utah, September 28, 1966.
- (26) Olson, Milton C. 1963. Maintaining perspective in business education. *Balance Sheet* 44:244-246.

- (27) Olson, Milton C. 1963. The challenge of economic education to business education, p. 1-5. In A teacher's guide to economics in the business education curriculum. Joint Council on Economic Education, New York.
- (28) Olson, Myron S. 1956. Educating for economic competence. California Journal of Secondary Education 31:175-176.
- (29) Policies Commission for Business and Economic Education. undated. This we believe about business education in the high school. National Business Education Association and Delta Pi Epsilon, Washington, D. C. unpagged.
- (30) Price, Ray G. and Russell J. Hosler. 1962. Business teacher preparation for teaching economic understandings. Business Education Forum 16:23, 24, 34.
- (31) Price, Ray G. 1963. What is economic education? p. 6-11. In A teacher's guide to economics in the business education curriculum. Joint Council on Economic Education, New York.
- (32) Price, Ray G. The impact of recent developments in general business and economic education. Address to Western Business Education Association Convention, Palo Alto, California, April 12, 1965.
- (33) Price, Ray G. Opposition to teaching economics in general business. Address to Utah Business Education Association Convention, Salt Lake City, Utah, October 7, 1966.
- (34) Senesh, Lawrence. 1963. Desired outcomes in the development of economic literacy, p. 104-138. In New perspectives in education for business, the yearbook of NBEA, 1963. National Business Education Association, Washington, D. C.
- (35) Swearingen, Eugene L. and Lloyd L. Garrison. 1963. The teaching problem and approaches in business education, p. 12-28. In A teacher's guide to economics in the business education curriculum. Joint Council on Economic Education, New York.
- (36) Tonne, Herbert A. 1961. Principles of business education. Gregg Division, McGraw-Hill, New York, 533 p.
- (37) Tonne, Herbert A. 1965. Economics and business education. Journal of Business Education, 41:8-9.
- (38) Tonne, Herbert A. 1965. A research study in economic education. Journal of Business Education, 41:52-53.

- (39) Wilson, Eric and Don Koch. 1956. Twelfth graders look at education for economic competence. California Journal of Secondary Education, 31:183-185.
- (40) Wiper, Robert E. Office of the future. Address to USU business education students, Logan, Utah, June 21, 1966.

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