

KNOWLEDGE OF ECONOMIC CONCEPTS AND UNDERSTANDINGS  
OF SELECTED HIGH SCHOOL SENIORS

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Presented to the Faculty of the Division of  
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Master of Science

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by

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## CHAPTER I

### APPROACH TO THE PROBLEM

The importance of economic education cannot be denied. The members of the National Task Force on Economic Education state, "Economic understanding is essential if we are to meet our responsibilities as citizens and as participants in a basically private enterprise economy."<sup>1</sup>

### JUSTIFICATION FOR THIS STUDY

Many business, educational, agricultural, professional, and labor leaders believe that citizens generally have a limited understanding of the American economic system. They are concerned about the attitudes held by large numbers of people toward government, labor, business, and personal freedom. It is believed that many of these questionable attitudes stem from a lack of knowledge and understanding of the American economic system.<sup>2</sup> The future of the free enterprise system and democracy depends in part upon raising the level of economic understanding of great numbers of Americans.<sup>3</sup>

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<sup>1</sup>National Task Force on Economic Education, Economic Education in the Schools (New York: Committee for Economic Development, September, 1961), p. 7.

<sup>2</sup>Elvin S. Eyster, "The Need for Economic Education," Educating Youth for Economic Competence, The Fifteenth American Business Education Yearbook (Somerville, New Jersey: Somerset Press, 1958), p. 11.

<sup>3</sup>Ibid., p. 18.

## CHAPTER I

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<sup>3</sup>Ibid., p. 18.

## THE PROBLEM

Statement of the problem. The purpose of this study is to determine whether groups of selected high school seniors have an adequate knowledge, understanding, and appreciation of basic economic concepts and attitudes at or near the time of graduation.

The following questions concerning the problem were considered in this study:

1. Are students getting adequate economic education through other subjects and student activities?
2. Do students have an understanding of the basic economic systems in the world?
3. Are students able to make reasoned judgments about economic problems?
4. Do students understand basic economic principles?
5. Which type of school organization is doing the best job of teaching economic principles?
6. What is the relative degree of economic understanding attained by those selected students?

Hypotheses. The major hypothesis of this study is that high school students are graduating without a minimum background of economic understanding.

A second hypothesis is that despite the trend to incorporate more economics in the schools through the business and social science departments far too many teachers and schools are doing an inadequate job.

## DEFINITION OF TERMS

Economic Education. Good defines economic education as a broad term for all education that is aimed at increasing the individual's understanding, knowledge, and appreciation of the economic structure of modern life; includes business, consumer, and distributive education, as well as the study of such areas as economics, economic geography, banking, finance, and foreign trade.<sup>4</sup>

Adequate knowledge, understanding, and appreciation. This term is used to mean that minimum amount of knowledge, understanding, and appreciation of fundamental economics to enable a person to live effectively within the complex American society.

Reasoned judgments. Reasoned judgments is defined as the ability to think about economic issues objectively and rationally so decisions will not be made on the basis of ignorance and prejudice.

## METHODS AND PROCEDURES

The method of procedure used in this study was as follows:

1. Current literature in the field of economic education was examined in order to determine, as near as possible, what an adequate knowledge, understanding, and appreciation of economic concepts and attitudes consists of.

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<sup>4</sup>Carter V. Good, Dictionary of Education (New York: McGraw-Hill Book Company, Inc., 1959), p. 115.

2. The National Task Force on Economic Education indicates that the following nineteen areas of economic material represents an ideal which high schools should seek to achieve for the largest possible number of students:<sup>5</sup>

- a) The fact of scarcity.
- b) Economic systems - The big economic problems.
- c) Some important facts and concepts concerning resource use.
- d) The role of incentives, competition, and markets.
- e) Modern business, economic concentration, and monopoly.
- f) Government and the allocation of resources (Taxes and government spending).
- g) The international allocation of resources - International trade.
- h) Measure of national income and production.
- i) Main forces determining national production and income.
- j) The role of government budgets (Expenditures, taxes and borrowing).
- k) The banking and monetary system.
- l) The problem of economic growth and stability.
- m) Growth and the underdeveloped economies.
- n) Personal distribution of income in the United States.
- o) Labor, wages, and labor unions.
- p) Farm incomes - The "farm problem".
- q) Communism.

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<sup>5</sup>National Task Force on Economic Education, op. cit., pp. 22-63.

r) Socialism.

s) Capitalism.

3. Preliminary contacts with nine business educators were made during summer school, one year prior to completion of this study. Final arrangements for testing were made, through use of the telephone, with each participating school.

4. In order to explore this problem, it was necessary to develop a test on economic understanding. Multiple-choice type questioning was chosen to test for understanding. The preliminary instrument developed for this study consisted of ninety-four questions. (Appendix A)

5. The evaluation of four educators in the field of economic education was then sought. These educators were asked to rank each of the ninety-four questions in one of the following categories: (1) best, (2) good, or (3) poor. Limitations and faults were pointed out by these specialists and corrections in the instrument were undertaken. Twelve additional test items were added to the preliminary instrument to fill in weak areas indicated by the evaluating economists. A question which received two poor ratings was thrown out. Only questions receiving best and good ratings, by the specialists, were used in the final instrument. The test was designed to cover nineteen different areas of economic principles. Each area was covered by a maximum of three questions.

6. The final instrument constructed for this study consisted of fifty multiple-choice questions. (Appendix B) Each question had four responses, from which the student was asked to choose the one which best answered the question or completed the statement.

7. The final test was given to a small pilot group of high school seniors for the purpose of determining if the test could be given in one fifty-five minute period of instruction.

8. The population selected for this study were high school seniors in nine different schools. For this study high schools were chosen according to the following Kansas classifications:<sup>6</sup>

- a) Comprehensive - these schools must provide a minimum of fifty units of instruction covering nine curricular areas.
  - (1) Three schools - One high school in a first class city and two high schools in second class cities.
- b) Standard - these schools must provide a minimum of thirty-two units of instruction covering eight curricular areas.
  - (1) Three schools - One high school in a second class city, one a consolidated high school, and one a rural high school.
- c) Approved - these schools must provide a minimum of eighteen units of instruction covering six curricular areas.
  - (1) Three schools - One consolidated high school and two rural high schools.

9. The instrument was administered to the population during the last four weeks of the school year.

10. The data from the answer sheets were punched into punch cards for complete analysis and processing. The following was obtained:

- a) The number of students responding to each choice.
- b) Percentage of students responding to each choice.
- c) Frequency distribution, percentile rank, standard deviation, and mean of the total group.

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<sup>6</sup>Adel F. Throckmorton, Kansas Secondary School Handbook, (Kansas: The State Printing Plant, 1961), pp. 33-35.

- d) A Frequency distribution by individual schools.
- e) A Frequency distribution by groups of schools.
- f) Percentage of students making correct responses to groups of questions.
- g) Z scores of responses.

11. The tables produced by automatic data processing were examined in order to discover facts, make comparisons, and draw conclusions concerning the economic understanding of high school seniors near the time of graduation.

#### DELIMITATIONS

The principal limitations of this study were as follows:

1. Only 512 students, graduating from eight Kansas high schools, were tested and included in this study.
2. The instrument developed for this study possibly had some weaknesses.
3. The validity and reliability of the instrument had not been established.
4. Any attempt to condense the broad field of economics into a few summary statements or questions may be inadequate.
5. Limitations that apply to the instrument itself will be discussed in Chapter IV.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

There has been a great awakening of interest and concern about economic competence in the high schools. Literature covering the general subject of economic education is characterized by its comparative newness and the wide variety of approaches to the subject.

Bond gives two basic reasons for studying economics: (1) to gain an understanding of modern economic society, and (2) to develop an analytical mind.<sup>1</sup>

Woolschlager states, "To achieve desired understandings, all teaching must be oriented toward understanding."<sup>2</sup> Memorization of factual data does not guarantee the ability to perceive or analyze a situation in real life. The ability is derived from a real effort on the part of the teacher to channel learned information toward its eventual use. Through teaching for understanding, students can form the habit of using factual information to solve new problems.

A major purpose of the analytical approach is to help the student see the alternative courses of action, evaluate them, and then take the course of action which seems best in the light of all available evidence.<sup>3</sup>

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<sup>1</sup>Floyd Bond, "Need for Economic Competence," California Journal of Secondary Education, 31:171, March, 1956.

<sup>2</sup>Ruth B. Woolschlager, "Teaching for Understandings in Basic Business," Business Education Forum, 14:14, March, 1960.

<sup>3</sup>Harold Leith, "An Advanced Course in Basic Business," Business Education Forum, 15:12, March, 1961.

Bittner stated that if there were more basic business courses offered in the high schools there would be fewer business failures.<sup>4</sup> He gave two primary causes for business failures: (1) undercapitalization, and (2) ignorance of basic business precepts.

A survey by Brown and Daily encompassing approximately fifteen hundred seniors in thirty-three selected Kansas high schools reported the following:<sup>5</sup>

1. Out of sixty questions on the test, only one student made a score of forty-six.
2. The median score for all schools was thirty-one.
3. On thirty-four questions, over 50 per cent of the students gave the wrong answer.

The test results showed that high school seniors in Kansas are confused as to how American capitalism works.<sup>6</sup> Some of their confusion was in the areas of: (1) labor unions, and (2) how the money and banking system works.

Brown and Daily also found that over 50 per cent of the graduating seniors taking the test think the following:<sup>7</sup>

1. That over half of the American labor force are union members.
2. That most labor negotiations are settled by strikes.

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<sup>4</sup>Henry A. Bittner, "A Businessman's Look at Business Education," Business Education Forum, 15:9, March, 1961.

<sup>5</sup>Richard Brown and Victoria Daily, "Is Economics Essential?" Balance Sheet, 43:162, December, 1961.

<sup>6</sup>Ibid., p. 163.

<sup>7</sup>Ibid.

3. That labor unions should not be allowed to organize on a national level.
4. That bargaining power of labor is equal to that of management.
5. That a centrally planned economic system will use its human and natural resources more efficiently than a free enterprise system.
6. That government planning would produce goods and services that people want better than production in the market system.
7. That the tax portion of the dollar results in more real benefit than any other amount spent.
8. That the only way that medical needs can be met is by some government program.
9. That the national income depends upon the amount of gold backing the money supply.
10. That undistributed profits are not necessary to maintain and increase means of production.
11. That capital funds are not derived from savings.
12. That in a welfare state the government does not take responsibility for the individual's security.

Brown and Daily concluded that capitalism is losing in the race for the minds of men the world over and recommended that:<sup>8</sup> (1) educators must wake up to their responsibility for teaching how the American economic system operates, and (2) economics must be taught in every high school.

Madsen tested 1,605 senior students in the Granite School District, Salt Lake County, Utah.<sup>9</sup> He found that students were not able to recognize,

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<sup>8</sup>Ibid.

<sup>9</sup>Gibb Russell Madsen, "Economic Concepts and Understandings of Senior High School Students," Dissertation Abstracts, 22:3068, March, 1962.

identify, classify, and arrive at generalized economic concepts as well as they were able to recognize or identify more simple economic terms used in the test of economic understandings.

Madsen found that the majority of students believed that:<sup>10</sup> (1) government should assume a major responsibility for unemployment, and (2) that labor unions are too influential in the industrial economy. Student responses showed inadequate comprehension concerning economic concepts and understandings as follows: (1) money is secure only when backed by gold, (2) taxes are not identified as revenue sources for the government, (3) while most students could identify economic terms of contrasting economic systems, many were not aware that the American free enterprise system is also a form of a capitalistic economic system.

Madsen also reported the following student responses:<sup>11</sup>

1. Almost all students responded with a definite opinion to the total number of items in the section concerning economic understandings.
2. Only 84 per cent of the total number of students responded in a definite way to the total number of items in the section dealing with economic concepts.
3. Sixteen per cent of the students indicated indecision.

A report by the National Task Force on Economic Education states:<sup>12</sup>

(1) The first lesson to be learned in the study of economics is the

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<sup>10</sup>Ibid.

<sup>11</sup>Ibid.

<sup>12</sup>National Task Force on Economic Education, Economic Education in the Schools (New York: Committee for Economic Development, September, 1961), pp. 15-21.

replacement of emotional, unreasoned judgments by objective, rational analysis, (2) economic analysis depends upon a body of theory; fortunately, the ones that can be emphasized in the high schools are simple, powerful and the most valuable, and (3) a major step in rational, objective thinking about economic problems is a clear definition and understanding of the terms being used.

A few of the numerous recommendations given by Task are as follows:<sup>13</sup>

1. That more time be devoted in the curriculum to the development of economic understanding.
2. That all business education curricula include a required course in economics.
3. That central emphasis on the rational way of thinking be a prime objective of the teaching of economics.
4. That the improvement of economics in the schools be given widespread public support.

Forkner, in one of his many articles on economic education writes, "Practically nothing is being done to teach the average citizen how he can go about to remedy unpalatable situations that threaten America's position in the world."<sup>14</sup> Latest statistics show that "apparently only about five per cent of all high school students ever take a separate course in economics."<sup>15</sup>

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<sup>13</sup>Ibid. pp. 64-78.

<sup>14</sup>Hamden L. Forkner, "A Recipe for Economic Suicide," Business Education Forum, 16:12, March, 1962.

<sup>15</sup>National Task Force on Economic Education, op. cit., p. 8.

Bell writes, "In view of the current academic emphasis, no business subject is in a more favorable position than economic education. Research is packed with evidence that confirms the discomfoting accusation that this nation's citizens are economic vacuums. And with each passing generation, the collective ignorance grows."<sup>16</sup>

"Economic literacy means 'reasonable competence' of the largest possible proportion of the population in administering their affairs, and similar competence in making their choices as voters," says Edwin G. Nourse.<sup>17</sup> He also stated:

The man or woman entitled to be called economically literate will be not only an attentive but also discriminating listener. He will have some ability to defend himself against the class bias of business and labor spokesmen, the propaganda of partisan politicians and even the dogmas of overardent professors. He will not be satisfied with a neat little packet of "truths" handed out in a school course, or glib generalizations deduced from individual or group experience. Economic literacy is a digestive process; it cannot be achieved by trying to gulp the wisdom of others.<sup>18</sup>

Nourse stated, "Certain qualities identify the economically literate person and safeguard him against gullibility in economic matters." These qualities are as follows:<sup>19</sup>

1. The ability--the habit of searching for cause-and-effect relations.

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<sup>16</sup>R. Der Mont Bell, "Economic Education and the Malady of Indifference," Business Education Forum, 16:12, March, 1962.

<sup>17</sup>Edwin G. Nourse, "What Would Economic Literacy Be Like?," Challenge, 12:5, March, 1964.

<sup>18</sup>Ibid., p. 6.

<sup>19</sup>Ibid.

2. The capacity--the habit of weighing alternatives thoughtfully before making choices in action or belief.
3. The need to be as objective as possible in all economic activities.

"I presume that our goal is to teach a majority of our youngsters that minimum amount of economics," says G. L. Bach.<sup>20</sup> To achieve this minimal goal, he suggests we provide the following:

1. A rough overview of the way our economic system works.
2. An awareness of some of the big economic problems of our day.
3. A rough understanding of a few major institutions, fundamental economic concepts, and relationships needed to understand the issues that the average person faces in his personal life and as a voter.
4. Some experience in applying these concepts and relationships to a few typical problems.
5. A general impression of how other major economic systems operate, especially communism.

"Economic understanding can and should be stressed whenever possible and wherever needed," says Albert Alexander. "But the real burden of fostering economic literacy belongs to the economics course."<sup>21</sup>

The Policies Commission for Business and Economic Education makes the following pronouncement, "Economic activities are an indispensable part of the daily living of every person. Ample provision should be made through the curriculum for every student."<sup>22</sup>

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<sup>20</sup>G. L. Bach, "What Economics Should We Teach?," Challenge, 12:8, March, 1964.

<sup>21</sup>Albert Alexander, "Teaching High School Economics," Challenge, 12:27, March, 1964.

<sup>22</sup>Policies Commission for Business and Economic Education, "This We Believe about Business Education in the High School," Business Education Forum, 17:1, January, 1963.

1. To develop economic literacy.
2. To gain an understanding and appreciation of our economic system.
3. To become an intelligent consumer of goods and services.

In a study by Kenneth K. Harsha he reported that approximately eighty-four, or 12 per cent, of 616 Kansas high schools offered a course in economics during the 1960-61 school year. He also stated that economic education in Kansas was inadequate in terms of: (1) schools offering economics courses, and (2) percentages of students enrolled in such courses.<sup>23</sup>

Bond sums it up this way, "Economic competence is not the ability to spout fancy jargon; it consists instead of a basic understanding of the fundamentals and the ability and disposition to use the knowledge in a responsible manner."<sup>24</sup>

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<sup>23</sup>Kenneth K. Harsha, "A Study of Economic Education in the High Schools and Junior Colleges of Kansas" (unpublished Master's thesis, The Kansas State Teachers College, 1961), p. 21.

<sup>24</sup>Floyd Bond, "Need for Economic Competence," California Journal of Secondary Education, 31:174, March, 1956.



## CHAPTER III

### PRESENTATION OF DATA COLLECTED FROM COOPERATING SCHOOLS

After the test had been given, scored, and tabulated complete analysis was undertaken of all accumulated data. To facilitate the presentation of material, this chapter is divided into the following sections: (1) general information, (2) presentation of data--total group, (3) presentation of data--by schools, and (4) presentation of data--by groups of schools.

#### GENERAL INFORMATION

It is not the purpose of this study to determine which students or how many students took a course or courses in economic information. Rather, the purpose is to determine whether students graduating from high school were gaining from the courses offered an adequate knowledge, understanding, and appreciation of basic economic concepts and attitudes.

Nine schools agreed to administer the test for this study. Of these nine, eight schools completed the testing and returned 512 answer sheets. These 512 students represent the graduating seniors in eight schools across the state of Kansas. These students represent broad socio-economic and parental occupational background of students in the schools of Kansas.

An unplanned finding of this study revealed that five out of eight or 62 1/2 per cent of the schools offered a separate course in economics.

Harsha reported in his 1961 study that eighty-four out of 616 Kansas high schools were offering a course in economics.<sup>1</sup> Thus, the five schools in this study offering a course in economics represent approximately 6 per cent of all schools in Kansas offering such a course.

#### PRESENTATION OF DATA--TOTAL GROUP

The mean score for all 512 students was 24.947, the middle score or median was twenty-five, and the most frequent score or mode was twenty-nine with a frequency of thirty-five. The standard deviation was 6.5352.

Table I, page 18, shows the frequency distribution for all 512 participating seniors. The highest score attained on the test was forty-three. The lowest score as shown by the distribution was five. Table II, page 19, presents the Z scores of the scores achieved.

Table III, page 20, shows the number of students in each percentile range. There were sixty-three students in the ninetieth percentile, sixty-one students in the fiftieth percentile, sixty students in the seventieth percentile, fifty-eight students in the fortieth percentile, and from forty-two to forty-nine in all other percentile ranges.

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<sup>1</sup>Kenneth K. Harsha, op. cit., p. 21.

TABLE I  
 FREQUENCY DISTRIBUTION OF ALL 512 STUDENTS

Score	Frequency	Score	Frequency
50	0	25	29
49	0	24	28
48	0	23	30
47	0	22	23
46	0	21	20
45	0	20	20
44	0	19	22
43	1	18	17
42	1	17	17
41	1	16	13
40	2	15	13
39	3	14	10
38	4	13	8
37	5	12	6
36	4	11	5
35	10	10	2
34	14	9	0
33	18	8	0
32	19	7	0
31	25	6	0
30	25	5	1
29	35	4	0
28	21	3	0
27	28	2	0
26	32	1	0
			TOTAL 512

TABLE II  
Z SCORES OF STUDENTS SCORE\*

Score	Z Score	Score	Z Score
50		25	.008
49		24	.144
48		23	.297
47		22	.450
46		21	.603
45		20	.757
44		19	.910
43	2.762	18	-1.063
42	2.609	17	-1.216
41	2.456	16	-1.369
40	2.303	15	-1.522
39	2.150	14	-1.675
38	1.997	13	-1.828
37	1.844	12	-1.981
36	1.691	11	-2.134
35	1.538	10	-2.287
34	1.385	9	
33	1.232	8	
32	1.079	7	
31	.926	6	
30	.773	5	-3.052
29	.620	4	
28	.467	3	
27	.314	2	
26	.161	1	

$$* Z = \frac{x-m}{\sigma}$$

x = An individual score

m = mean which is 24.947

$\sigma$  = standard deviation which is 6.5352

TABLE III  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR ALL 512 STUDENTS

Percentile	Number of Students
90	63
80	44
70	60
60	49
50	61
40	58
30	43
20	42
10	47
0	45
TOTAL 512	

## PRESENTATION OF DATA--BY SCHOOLS

The highest mean score was 26.622 for all schools and was achieved by school number four. School number five was lowest with a mean score of 21.400.

Table IV, page 22, presents test data of individual schools. Column one gives the school number. Column two gives the school classification. Column three gives the number of seniors in each school. Column four gives the mean for each school. Column five gives the standard deviation for each school. Column six gives the median score for each school, column seven gives the mode, and column eight gives the mode frequency for each school.

School Number One

This school with sixty-two graduating seniors is classified as a standard high school. The mean score was 24.193 which was fifth among all schools and lowest of the three standard high schools. Also the school was one of the three schools not offering a course in economics.

Table V, page 23, shows the frequency distribution for school number one. The highest score attained was thirty-seven and the lowest scored was eleven. Of the sixty-two students, eleven scored in the ninetieth percentile and twelve scored in the tenth percentile, as shown by Table VI, page 24.

TABLE IV  
INDIVIDUAL SCHOOL TEST DATA

(1) School Number	(2)* Type	(3) No. of Seniors	(4) Mean	(5) Standard Deviation	(6) Median	(7) Mode	(8) Mode Frequency
1	S	62	24.193	7.0203	24	33	6
2	A	14	24.857	4.5175	23.5	23	3
3	A	12	23.583	7.5106	26	26,29	2
4	C	135	26.622	6.0367	27	29	15
5	A	15	21.400	5.2255	21	16,17 24	2
6	S	69	25.579	6.7810	25	23	7
7	C	182	24.104	6.5444	24	25	14
8	S	23	25.000	5.7860	25	22,25 29,31	3
ALL SCHOOLS		512	24.947	6.5352	25	29	35

\* S--standard school  
A--approved school  
C--comprehensive school

TABLE V  
 FREQUENCY DISTRIBUTION OF SCHOOL NUMBER ONE

Score	Frequency	Score	Frequency
50	0	25	2
49	0	24	3
48	0	23	2
47	0	22	2
46	0	21	3
45	0	20	1
44	0	19	3
43	0	18	3
42	0	17	4
41	0	16	5
40	0	15	2
39	0	14	1
38	0	13	1
37	1	12	1
36	2	11	1
35	1	10	0
34	1	9	0
33	6	8	0
32	1	7	0
31	3	6	0
30	2	5	0
29	2	4	0
28	5	3	0
27	3	2	0
26	1	1	0
			TOTAL 62



TABLE VI  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR SCHOOL NUMBER ONE

Percentile	Number of Students
90	11
80	4
70	4
60	8
50	3
40	5
30	5
20	4
10	12
0	6
TOTAL 62	

### School Number Two

This school with fourteen graduating seniors is classified as an approved high school. The mean score was 24.857 which was fourth among all schools and highest of the three approved high schools. Also the school was one of the three schools not offering a course in economics.

Table VII, page 26, shows the frequency distribution for school number two. The highest score achieved was thirty-three and lowest scored was sixteen. Of the fourteen students, one scored in the ninetieth percentile and four scored in the fortieth percentile, as shown by Table VIII, page 27.

### School Number Three

This school with twelve graduating seniors is classified as an approved high school. The mean score was 23.583 which was seventh among all schools and second highest of the three approved high schools. Also the school was one of the three schools not offering a course in economics.

Table IX, page 28, shows the frequency distribution for school number three. The highest score attained was thirty-three and the lowest scored was ten. Of the twelve graduating seniors, one scored in the ninetieth percentile and three each in the fiftieth and zero to nine percentile, as shown by Table X, page 29.

TABLE VII  
 FREQUENCY DISTRIBUTION OF SCHOOL NUMBER TWO

Score	Frequency	Score	Frequency
50	0	25	1
49	0	24	1
48	0	23	3
47	0	22	2
46	0	21	0
45	0	20	1
44	0	19	0
43	0	18	0
42	0	17	0
41	0	16	1
40	0	15	0
39	0	14	0
38	0	13	0
37	0	12	0
36	0	11	0
35	0	10	0
34	0	9	0
33	1	8	0
32	1	7	0
31	0	6	0
30	0	5	0
29	2	4	0
28	0	3	0
27	1	2	0
26	0	1	0
			TOTAL 14

TABLE VIII  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR SCHOOL NUMBER TWO

Percentile	Number of Students
90	1
80	1
70	2
60	1
50	1
40	4
30	2
20	1
10	1
0	0
TOTAL 14	

TABLE IX  
 FREQUENCY DISTRIBUTION OF SCHOOL NUMBER THREE

Score	Frequency	Score	Frequency
50	0	25	1
49	0	24	0
48	0	23	0
47	0	22	0
46	0	21	1
45	0	20	0
44	0	19	0
43	0	18	0
42	0	17	0
41	0	16	0
40	0	15	0
39	0	14	1
38	0	13	0
37	0	12	0
36	0	11	1
35	0	10	1
34	0	9	0
33	1	8	0
32	0	7	0
31	1	6	0
30	0	5	0
29	2	4	0
28	1	3	0
27	0	2	0
26	2	1	0
			TOTAL 12

TABLE X  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR SCHOOL NUMBER THREE

Percentile	Number of Students
90	1
80	1
70	2
60	1
50	3
40	0
30	1
20	0
10	0
0	3
TOTAL 12	

#### School Number Four

This school with 135 graduating seniors is classified as a comprehensive high school. The mean score was 26.622 which was highest among all schools.

Table XI, page 31, shows the frequency distribution for school number four. The highest score attained was thirty-nine, by two students, and the lowest scored was ten. Of the 135 graduating seniors, nineteen scored in the ninetieth percentile and nine scored in the zero to nine percentile, as shown by Table XII, page 32.

#### School Number Five

This school with fifteen graduating seniors is classified as an approved high school. The mean score was 21.400 which was lowest among all schools.

Table XIII, page 33, shows the frequency distribution for school number five. The highest score attained was thirty-four and the lowest was fifteen. Of the fifteen graduating seniors, one scored in the ninetieth percentile and five in the tenth percentile, as shown by Table XIV, page 34.

#### School Number Six

This school with sixty-nine graduating seniors is classified as a standard high school. The mean score was 25.579 which was second among all schools and highest of the three standard high schools.

TABLE XI  
 FREQUENCY DISTRIBUTION OF SCHOOL NUMBER FOUR

Score	Frequency	Score	Frequency
50	0	25	6
49	0	24	5
48	0	23	5
47	0	22	7
46	0	21	5
45	0	20	3
44	0	19	3
43	0	18	2
42	0	17	2
41	0	16	0
40	0	15	3
39	2	14	1
38	2	13	1
37	4	12	2
36	1	11	1
35	4	10	1
34	3	9	0
33	3	8	0
32	6	7	0
31	8	6	0
30	7	5	0
29	15	4	0
28	5	3	0
27	14	2	0
26	14	1	0
			TOTAL 135



TABLE XII  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR SCHOOL NUMBER FOUR

Percentile	Number of Students
90	19
80	14
70	22
60	19
50	20
40	10
30	12
20	6
10	4
0	9
TOTAL 135	

TABLE XIII  
 FREQUENCY DISTRIBUTION OF SCHOOL NUMBER FIVE

Score	Frequency	Score	Frequency
50	0	25	0
49	0	24	2
48	0	23	1
47	0	22	1
46	0	21	1
45	0	20	0
44	0	19	1
43	0	18	1
42	0	17	2
41	0	16	2
40	0	15	1
39	0	14	0
38	0	13	0
37	0	12	0
36	0	11	0
35	0	10	0
34	1	9	0
33	0	8	0
32	0	7	0
31	0	6	0
30	0	5	0
29	1	4	0
28	0	3	0
27	0	2	0
26	1	1	0
			TOTAL 15

TABLE XIV  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR SCHOOL NUMBER FIVE

Percentile	Number of Students
90	1
80	0
70	1
60	0
50	1
40	3
30	2
20	1
10	5
0	1
TOTAL 15	

Table XV, page 36, shows the frequency distribution for school number six. The highest score attained was forty-one and the lowest was eleven. Of the sixty-nine graduating seniors, twelve scored in the ninetyeth percentile and seven scored in the zero to nine percentile, as shown by Table XVI, page 37.

#### School Number Seven

This school was the largest high school included in this study with 182 graduating seniors. It was classified as a comprehensive high school. The mean score was 24.104 which was sixth among all schools and lowest of the two comprehensive high schools.

Table XVII, page 38, shows the frequency distribution for school number seven. The highest score attained was forty-three and the lowest was five. Of the 182 graduating seniors, sixteen scored in the ninetyeth percentile and eighteen scored in the zero to nine percentile, as shown by Table XVIII, page 39.

#### School Number Eight

This school with twenty-three graduating seniors is classified as a standard high school. The mean score was 25.000 which was third among all schools and second highest among three standard high schools.

Table XIX, page 40, shows the frequency distribution for school number eight. The highest score attained was thirty-six and the lowest was fifteen. Of the twenty-three graduating seniors, two scored in the ninetyeth percentile and three in the tenth percentile, as shown by Table XX, page 41.

TABLE XV  
 FREQUENCY DISTRIBUTION OF SCHOOL NUMBER SIX

Score	Frequency	Score	Frequency
50	0	25	2
49	0	24	6
48	0	23	7
47	0	22	2
46	0	21	3
45	0	20	2
44	0	19	2
43	0	18	3
42	0	17	1
41	1	16	0
40	1	15	1
39	1	14	4
38	0	13	1
37	0	12	0
36	0	11	1
35	4	10	0
34	2	9	0
33	3	8	0
32	2	7	0
31	4	6	0
30	4	5	0
29	3	4	0
28	0	3	0
27	3	2	0
26	6	1	0
			TOTAL 69

TABLE XVI  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR SCHOOL NUMBER SIX

Percentile	Number of Students
90	12
80	6
70	7
60	3
50	8
40	13
30	5
20	4
10	4
0	7
TOTAL 69	

TABLE XVII  
 FREQUENCY DISTRIBUTION OF SCHOOL NUMBER SEVEN

Score	Frequency	Score	Frequency
50	0	25	14
49	0	24	11
48	0	23	11
47	0	22	6
46	0	21	6
45	0	20	13
44	0	19	12
43	1	18	7
42	1	17	8
41	0	16	3
40	1	15	5
39	0	14	3
38	2	13	5
37	0	12	3
36	0	11	1
35	1	10	0
34	6	9	0
33	4	8	0
32	9	7	0
31	6	6	0
30	12	5	1
29	7	4	0
28	8	3	0
27	7	2	0
26	8	1	0
			TOTAL 182

TABLE XVIII  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR SCHOOL NUMBER SEVEN

Percentile	Number of Students
90	16
80	15
70	19
60	15
50	22
40	22
30	12
20	25
10	18
0	18
TOTAL 182	



TABLE XIX  
 FREQUENCY DISTRIBUTION OF SCHOOL NUMBER EIGHT

Score	Frequency	Score	Frequency
50	0	25	3
49	0	24	0
48	0	23	1
47	0	22	3
46	0	21	1
45	0	20	0
44	0	19	1
43	0	18	1
42	0	17	0
41	0	16	2
40	0	15	1
39	0	14	0
38	0	13	0
37	0	12	0
36	1	11	0
35	0	10	0
34	1	9	0
33	0	8	0
32	0	7	0
31	3	6	0
30	0	5	0
29	3	4	0
28	2	3	0
27	0	2	0
26	0	1	0
			TOTAL 23

TABLE XX  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR SCHOOL NUMBER EIGHT

Percentile	Number of Students
90	2
80	3
70	3
60	2
50	3
40	1
30	4
20	1
10	3
0	1
TOTAL 23	

## PRESENTATION OF DATA--BY GROUPS OF SCHOOLS

The results of testing seemed to bring into focus the fact that the larger schools were doing the best job of educating youth. Table XXI, page 43, shows that the comprehensive high schools had a composite mean score of 25.176 while the standard high schools score was 24.935 and the approved high schools score was 23.219. The difference in mean score between the comprehensive and standard high schools was .241. A difference of 1.716 was found between standard and approved high schools. The widest difference to be found was between the comprehensive and approved high schools which was 1.957.

Table XXII, page 44, shows the frequency distribution for the two comprehensive high schools. The highest score of this group was forty-three and the lowest was five. These two scores were also the high and low for all 512 students.

The two comprehensive schools had thirty-five students in the ninetieth percentile and twenty-seven in the zero to nine percentile, as shown by Table XXIII, page 45.

Table XXIV, page 46, shows the frequency distribution for the three standard high schools. The highest score of this group was forty-one and the lowest was eleven.

Fourteen students scored in the ninetieth percentile and twenty-five scored in the zero to nine percentile, as shown by Table XXV, page 47.

TABLE XXI  
TEST DATA OF GROUPS OF SCHOOLS

(1) School Number	(2) Type	(3) No. of Seniors	(4) Mean	(5) Standard Deviation	(6) Median	(7) Mode	(8) Mode Frequency
<u>Comprehensive</u>							
4		135	26.622	6.0367	27	29	15
7		182	24.104	6.5444	24	25	14
Group Composite		317	25.176	6.4544	26	26, 29	22
<u>Standard</u>							
6		69	25.579	6.7810	25	23	7
8		23	25.000	5.7860	25	22, 25 29, 31	3
1		62	24.193	7.0203	24	33	6
Group Composite		154	24.935	6.7714	25	23, 31	10
<u>Approved</u>							
2		14	24.857	4.5175	23.5	23	3
3		12	23.583	7.5106	26	26, 29	2
5		15	21.400	5.2255	21	16, 17 24	2
Group Composite		41	23.219	5.9694	23	29	5

TABLE XXII  
 FREQUENCY DISTRIBUTION OF THE TWO  
 COMPREHENSIVE SCHOOLS

Score	Frequency	Score	Frequency
50	0	25	20
49	0	24	16
48	0	23	16
47	0	22	13
46	0	21	11
45	0	20	16
44	0	19	15
43	1	18	9
42	1	17	10
41	0	16	3
40	1	15	8
39	2	14	4
38	4	13	6
37	4	12	5
36	1	11	2
35	5	10	1
34	9	9	0
33	7	8	0
32	15	7	0
31	14	6	0
30	19	5	1
29	22	4	0
28	13	3	0
27	21	2	0
26	22	1	0
TOTAL 317			

TABLE XXIII  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR THE COMPREHENSIVE HIGH SCHOOLS

Percentile	Number of Students
90	35
80	29
70	41
60	34
50	42
40	32
30	24
20	31
10	22
0	27
TOTAL 317	

TABLE XXIV  
 FREQUENCY DISTRIBUTION OF THE  
 THREE STANDARD SCHOOLS

Score	Frequency	Score	Frequency
50	0	25	7
49	0	24	9
48	0	23	10
47	0	22	7
46	0	21	7
45	0	20	3
44	0	19	6
43	0	18	7
42	0	17	5
41	1	16	7
40	1	15	4
39	1	14	5
38	0	13	2
37	1	12	1
36	3	11	2
35	5	10	0
34	4	9	0
33	9	8	0
32	3	7	0
31	10	6	0
30	6	5	0
29	8	4	0
28	7	3	0
27	6	2	0
26	7	1	0
			TOTAL 154

TABLE XXV  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR THE STANDARD HIGH SCHOOLS

Percentile	Number of Students
90	14
80	19
70	9
60	14
50	19
40	14
30	13
20	14
10	13
0	25
TOTAL 154	



Table XXVI, page 49, shows the frequency distribution of the three approved high schools. The highest score attained was thirty-four and the lowest was ten.

The approved schools had four students in the ninetieth percentile and five in the twentieth percentile, as shown by Table XXVII, page 50.

TABLE XXVI  
 FREQUENCY DISTRIBUTION OF THE  
 THREE APPROVED SCHOOLS

Score	Frequency	Score	Frequency
50	0	25	2
49	0	24	3
48	0	23	4
47	0	22	3
46	0	21	2
45	0	20	1
44	0	19	1
43	0	18	1
42	0	17	2
41	0	16	3
40	0	15	1
39	0	14	1
38	0	13	0
37	0	12	0
36	0	11	1
35	0	10	1
34	1	9	0
33	2	8	0
32	1	7	0
31	1	6	0
30	0	5	0
29	5	4	0
28	1	3	0
27	1	2	0
26	3	1	0
			TOTAL 41

TABLE XXVII  
NUMBER OF STUDENTS IN PERCENTILE RANGES  
FOR THE APPROVED HIGH SCHOOLS

Percentile	Number of Students
90	4
80	6
70	2
60	5
50	7
40	5
30	2
20	5
10	2
0	3
TOTAL 41	

## CHAPTER IV

### ANALYSIS OF THE INSTRUMENT USED IN THIS STUDY AND STUDENT RESPONSES TO QUESTIONS

This chapter, to be better understood, is organized into the following categories: (1) analysis of selected questions and percentages of students choosing the various responses, (2) percentages of students making correct responses to groups of questions, and (3) apparent weaknesses.

#### ANALYSIS OF SELECTED QUESTIONS

Twenty-one questions were selected for analysis out of the fifty test questions. These twenty-one questions represent fourteen of the nineteen areas of economic understanding. These twenty-one questions were chosen because of unreasoned choices made by the seniors in responding to the questions.

Question one was missed by more students than any other question. The question asked for the best definition of economics. Only twenty-four seniors or 5 per cent chose the correct response which defined economics as the study of the allocation of scarce resources among alternative uses. Approximately 41 per cent think it is the study of the business world and how it operates while 36 per cent think it is the study of the application of capital in the production of wealth.

Question two with 47 per cent of the seniors responding correctly, think that all economic systems face the same basic economic problems. On the other hand, 37 per cent of the seniors think they face different economic problems.

Question four was answered correctly by 43 per cent of the seniors. The disturbing fact is that 38 per cent think that the profit motive in a basically private enterprise economy is of lesser importance than government regulation.

On question five only 21 per cent of the seniors think that real capital is created from savings. Almost 35 per cent think it is created from income and 29 per cent think it is created from earnings.

Question fourteen states that the economic desirability of government's participation in the economy is the effects of its participation. Only 23 per cent of the seniors think correctly that participation is desirable in the efficiency of the allocation of resources. The disturbing finding here is that 24 per cent think the government should plan the uses of capital funds.

On question number twenty-one, 49 per cent of the seniors think that consumer demands set the upper limit to an economy's real output. Only 28 per cent think correctly, the upper limit is set by an economy's stock of productive resources.

Question twenty-two concerned events which would possibly reduce consumer spending. A drop in consumer income was chosen correctly by 63 per cent of the seniors, but 29 per cent think that a rise in prices would reduce consumer spending.

Question twenty-four questions when a government budgetary surplus exists. Only 48 per cent of the seniors were correct when they said, when government spending is less than receipts. Approximately 30 per cent think a surplus exists when government spending decreases.

Question twenty-seven concerns itself with what backs the money supply. About 20 per cent of the seniors think it is backed dollar-for-dollar with gold and silver. Only about half of the seniors responded correctly.

On question twenty-eight, 24 per cent of the seniors think that the power to change bank reserve requirements is vested in the secretary of the treasury. Slightly more than half were correct when they said, the federal reserve board.

Question twenty-nine concerned inflation and which policies would do the most to reduce inflation. Only 25 per cent of the seniors chose correctly. Approximately 35 per cent think it can be done best by reducing both taxes and government expenditures and 30 per cent think it could be done best by increasing taxes.

Question thirty-two questioned the annual growth of real Gross National Product in the United States. Almost 40 per cent of the seniors think that it is from 8 to 12 per cent and only 33 per cent were correct in their response of 3 per cent.

On question thirty-four, 57 per cent of the seniors responded correctly, but 24 per cent think underdeveloped nations are not characterized by a high percentage of population in agriculture.

Question thirty-six concerns the factors of production. About 27 per cent of the seniors think the largest share in the return of productive factors goes to capital and 27 per cent think that management receives the larger share. Only 40 per cent were correct in responding that labor receives the larger share.

On question thirty-seven, 51 per cent of the seniors think that there is about equal distribution of income in America among low, middle, and high income groups.

On question thirty-eight, 51 per cent of the seniors think that high wages are a result of union demands. Almost 27 per cent think that they are a result of government wage policies, but only 18 per cent were correct when they indicated that the high output per worker resulted in high wages.

Question forty-one asked students to identify a statement which is not characteristic of American agriculture. Approximately 37 per cent of the seniors think the statement that farmers buy in markets which are largely noncompetitive is not characteristic. About 27 per cent think that the demand for farm products tends to be inelastic is not characteristic. Only 16 per cent identified the statement which was not characteristic of American agriculture.

On question forty-three, 38 per cent of the seniors think that if prices of most agriculture products dropped, total demand would rise. Only 24 per cent recognized the fact that total demand would remain relatively stable.

Question forty-four stated that Russian planners have had a great deal of difficulty in maintaining efficiency in a certain area. While 67 per cent of the seniors correctly identified agriculture as the area, 24 per cent think Russian planning difficulty is in the creation of capital goods.

On question forty-five, 30 per cent or 154 seniors think that economic growth in Russia resulted largely from world trade. About 30 per cent think it resulted largely from increased world domination and population growth. Only 24 per cent recognized the fact that Russian growth resulted largely from capital formation.

Question forty-nine stated that individual freedom of choice is essential to a certain economic system. Approximately 64 per cent of the seniors responded that individual freedom of choice is closely related to the private enterprise system. The disturbing fact is that 23 per cent did not link individual freedom of choice with any economic system.

PERCENTAGES OF STUDENTS MAKING CORRECT RESPONSES  
TO SELECTED GROUPS OF QUESTIONS

The instrument constructed for use in this study consisted of fifty multiple choice questions. These fifty questions were designed to test nineteen areas of economic understanding. Of these nineteen areas there were eight areas in which more than 50 per cent of the Kansas seniors made incorrect responses to groups of questions. Five of these eight areas were selected for discussion in this section. The incorrect responses ranged from 52 per cent to 72 per cent. Area number one contained only one question and could not be considered a group. In area one, 95 per cent of the seniors responded incorrectly. There were ten areas to which correct responses were made in excess of 50 per cent. Four of these ten areas are listed on a following page. The correct responses ranged from 51 per cent to 67 per cent.



Table XXVIII, page 57, shows the percentages of students making correct responses to groups of questions. It also shows the questions that are contained in each of the nineteen areas of economic understanding.

The area most confusing to the most high school seniors was area sixteen, to which only 28 per cent of the seniors responded correctly. This area concerned farm incomes and the "farm problem."

Area three was responded to correctly by only 32 per cent of the seniors. It might be said that few seniors realize the importance of the profit motive and fewer understand how new real capital is created.

Approximately 59 per cent of the graduating seniors tested did not respond correctly to area fourteen which concerned distribution of personal income in the United States. Almost 60 per cent did not know that the largest share in the return of all productive factors goes to labor. Over 50 per cent think there are just as many people in the high income bracket as are in the low income bracket.

Area twelve dealt with economic growth and stability. About 57 per cent of the seniors responded incorrectly to this area. Almost 40 per cent of the seniors think that the annual growth rate of Gross National Product in the United States is three or four times its actual 3 per cent.

Seniors responded incorrectly to area eleven 56 per cent of the time on questions concerning the banking and monetary system. These seniors seemed to know very little about inflation and what could or should be done about it.

TABLE XXVIII  
 PERCENTAGES OF STUDENTS MAKING CORRECT RESPONSES  
 TO GROUPS OF QUESTIONS

Area Number	Percentages Making Correct Responses	Questions in Each Group
1	.05	1
2	.64	2,3
3	.32	4,5
4	.57	6,7,8
5	.67	9,10,11
6	.48	12,13,14
7	.62	15,16,17
8	.57	18,19,20
9	.48	21,22,23
10	.51	24,25,26
11	.44	27,28,29
12	.43	30,31,32
13	.59	33,34
14	.41	35,36,37
15	.47	38,39,40
16	.28	41,42,43
17	.58	44,45,46
18	.52	47,48
19	.63	49,50

The areas of economic understanding where Kansas seniors did the best are as follows:

1. Modern business, economic concentration, and monopoly with 67 per cent responding correctly.
2. Economic systems and the big economic problems with 64 per cent responding correctly.
3. Capitalism with 63 per cent responding correctly.
4. The international allocation of resources with 62 per cent responding correctly.

#### APPARENT WEAKNESSES

In the event that the instrument used in this study is to be used again, certain changes would be made in the construction of several questions.

The writer thinks the terminology in five questions could be improved by using vocabulary that high school students are more familiar with. These questions are as follows: (Appendix B)

1. Question one with only 5 per cent responding correctly.
2. Question five with only 21 per cent responding correctly.
3. Question fourteen with only 23 per cent responding correctly.
4. Question twenty-one with only 28 per cent responding correctly.
5. Question forty-one with only 16 per cent responding correctly.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

It is evident by the amount of literature being written today and the concern of some individuals, organizations, and educators that citizens of tomorrow are graduating from the secondary schools of America without appreciation and understanding for the economic principles that govern our world. If less than half of the high school graduates go on to college, and only one-fourth of these ever take an economics course in college, the job of educating tomorrow's youth for economic competence is left up to the high schools.

To be able to think clearly and objectively about economic questions and issues is the ultimate goal of economic education. Responsible citizenship requires that the largest possible number of secondary students be exposed to objective and rational analysis of economic problems.

### SUMMARY

Determining whether groups of selected graduating high school seniors have an adequate knowledge, understanding, and appreciation of basic economic concepts and attitudes was the purpose of this study. Data for this study were taken from the answer sheets of 512 seniors who took the economic understanding test developed for this study.

In order to develop an instrument to test for economic understanding it had to be determined what constituted a minimum understanding of economics.

The National Task Force on Economic Education indicated nineteen areas of economic understanding which they thought high school seniors needed for effective citizenship.<sup>1</sup>

A preliminary test containing ninety-four questions was constructed and given to four evaluating economists. These economists were asked to evaluate, criticize, and make suggestions. Twelve additional test items were added to the preliminary test to fill in weak areas indicated by these economists.

The final test consisted of fifty multiple-choice questions. Each question had four responses from which to choose. Each of the nineteen areas of economic understanding were covered by a maximum of three questions.

Nine schools were selected for this study, of these, eight schools completed the testing and returned the answer sheets. In these eight schools there were 512 seniors who comprised the population of this study. Of the eight schools included in this study, five offered a separate course in economics.

Out of the fifty test questions, only one senior made a score of forty-three. Only four other seniors made a score in the forties, while forty-five seniors made a score of fifteen or below. The mean score for all schools was 24.947, the median score was twenty-five, and the mode was twenty-nine with a frequency of thirty-five. The highest score, forty-three, was about three standard deviations away from the mean and had a

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<sup>1</sup>National Task Force on Economic Education, op. cit., pp. 22-63.

Z score of 2.762. The lowest score, five, also was about three standard deviations away from the mean and had a Z score of -3.052.

School number four, which is a comprehensive high school in a second class city, apparently is doing the best job of imparting economic information to its students. It had a mean score of 26.622 which was 1.675 above the mean of all schools. Its mean score was 5.262 above school number five which had the lowest mean score of all schools. School number five, which is an approved rural high school, had a mean score which was 3.547 below the mean score for all schools.

School number four had two students who had a high score of thirty-nine and one student with a low score of ten. In contrast, school number five had one student with a high score of thirty-four and one student with a low score of fifteen. The median score for number four was twenty-seven while school number five had a median score of twenty-one.

As might be expected, the larger schools or comprehensive high schools, as a group, have a group mean score which is higher than the standard and approved high school groups. However, all three standard high schools had a higher mean score than school number seven, which is a comprehensive high school in a first class city. The group doing the poorest job of imparting economic understanding is the smaller approved high schools.

On twenty-six questions, over 50 per cent of the seniors gave the wrong answer. Of the nineteen areas of economic understanding, over 50 per cent of the seniors responded incorrectly to nine areas.

Those areas receiving 50 per cent or more incorrect responses were as follows:

1. The fact of scarcity with 95 per cent wrong.
2. Farm incomes--The "farm problem" with 72 per cent wrong.
3. Some important facts concerning resource use with 68 per cent wrong.
4. Personal distribution of income in the United States with 59 per cent wrong.
5. The problem of economic growth and stability with 57 per cent wrong.
6. The banking and monetary system with 56 per cent wrong.
7. Labor, wages, and labor unions with 53 per cent wrong.
8. Government and the allocation of resources (taxes and government spending) with 52 per cent wrong.
9. Main forces determining national production and income with 52 per cent wrong.

Those areas receiving 50 per cent or more correct responses were as follows:

1. Modern business, economic concentration, and monopoly with 67 per cent correct.
2. Economic systems--The big economic problems with 64 per cent correct.
3. Capitalism with 63 per cent correct.
4. The international allocation of resources--International trade with 62 per cent correct.
5. Growth and the underdeveloped economies with 59 per cent correct.
6. Communism with 58 per cent correct.
7. The role of incentives, competition, and markets with 57 per cent correct.

8. Measure of national income and production with 57 per cent correct.
9. Socialism with 52 per cent correct.
10. The role of government budgets (Expenditures, taxes and borrowing) with 51 per cent correct.

Some of the more disturbing ideas of these high school seniors were as follows:

1. Approximately 37 per cent of the seniors think that all economic systems face different economic problems.
2. About 37 per cent think that in a basically private enterprise economy the profit motive is of lesser importance than government regulation.
3. Almost 35 per cent think that new real capital is created from income.
4. Almost 50 per cent of the seniors think that the upper limit to an economy's real output at any time is set by consumer demands.
5. Slightly more than 40 per cent of the seniors think that the annual growth rate of Gross National Product in the United States since World War II is about 8-12 per cent.
6. Over 50 per cent of the seniors think there is about equal distribution of income among low, middle and high income groups.
7. Over 50 per cent think that high wages in the United States are a result of union demands.
8. Approximately 38 per cent think that if prices of most agricultural products dropped 15 per cent, total demand of consumers would rise 15 per cent.
9. About 30 per cent of the seniors think that economic growth in Russia has resulted largely from world trade while another 30 per cent attribute growth to increased world domination and population growth.
10. Almost 24 per cent think that individual freedom of choice is not central to the private enterprise system.



The ten preceding statements were some of the more obvious misconceptions about economics that were found in studying the data accumulated from the testing of 512 graduating seniors.

### CONCLUSIONS

From the data obtained for this study, it appears that the following conclusions may be drawn from the study:

1. The seniors of this study are not totally illiterate of all economic understanding, but the fact is that they do not have an adequate knowledge, understanding, or appreciation of economics for effective citizenship.
2. While there is incidental treatment of economic problems in a wide assortment of subjects, it is quite evident that only a limited number of students are being reached.
3. There are certain areas of economic information in which students are quite well informed, but there are other areas of necessary economic knowledge where students are very uninformed.
4. While students recognize some of the basic differences of the different economies in our world, they are not able to recognize causes of economic growth in some nations and causes of underdevelopment in others.
5. Apparently economic education, as it is now being practiced in far too many schools, is just a description of economic institutions and happenings. Few students have been taught to think rationally and objectively about economic problems.
6. As might be expected, the larger schools are doing the best job of educating for economic competence. These schools offer the courses and have the qualified teachers to promote economic education. On the other hand, there are some small schools that are striving to educate their students towards effective economic living.
7. While some schools and teachers are doing a good job of imparting economic information, there are not enough schools offering courses in economics and very few students actually being exposed to such information.

## RECOMMENDATIONS

As a result of this study the following recommendations are made:

1. It is recommended that strong consideration be given, by the state of Kansas, to making economics a part of the general education of all students in the state.
2. To implement the previous recommendation, it is recommended that a one semester course in economics be required along with the required course of American government. This offering would make up one unit of high school required credit.
3. It is recommended that only qualified and interested teachers be asked to teach courses in economics.
4. It is recommended that, when a course in economics is being taught in the business department, emphasis be placed on the basic business courses rather than on the skill subjects.
5. High school courses in economics should be made so interesting, well publicized, and well taught that students will want to enroll in the course.
6. A course in applied economics can be the business department's answer for a course challenging academically talented and college bound students.
7. It is recommended that, if separate courses in economics cannot be offered, the social science teachers should make a bigger effort to impart economic understanding along with their courses. Also, the business department should take every opportunity to interject economic education into the curriculum whenever possible.
8. It is recommended that guidance counselors encourage all students to take a course in economics, especially those who are not planning on furthering their education.

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APPENDIX A

The National Task Force on Economic Education in 1961 stated in their report that "economic understanding is essential if we are to meet our responsibilities as citizens and participants in a basically private enterprise economy." They further stated, "if our citizens of tomorrow are to achieve the desired minimum economic understanding, most of them must get it in the high schools, for less than half go on to college."

The Task Force in their report sketched the minimal economic understanding needed for responsible citizenship. It is my purpose in devising this instrument that it test towards these understandings.

This test will be given to high school seniors. The test will be administered at nine selected high schools. It will be given to the entire senior class near the time of graduation. The test will need to be given within one 55 minute class period. Therefore, the test in its final form should include 45 to 50 questions.

Along with the test I have included the outline used by the National Task Force. I am submitting 94 questions for your consideration. I am asking that you look over each question and decide as to its worth in relationship to the Task Force's outline. Please feel free to throw entire questions out, make corrections and additions, make comments as to the worth of particular questions, and areas of economic understanding not covered by questions that you as an authority feel are important.

Please rank each question in one of the following categories:

BEST  
GOOD  
POOR

Thank you very much for your valuable time and consideration in this project.

Dean Bacon  
Graduate Student  
Business Department



DIRECTIONS This is a test designed to measure your understanding of economic principals and how our economy operates. Following each question or incomplete statement there are four answers. From these four answers, choose the one which best answers the question. Circle the letter which you feel is the best answer.

I UNDERSTANDING THE ECONOMY: ESSENTIAL ANALYSIS, FACTS AND INSTITUTIONS.

A. The fact of Scarcity

1. Economics is best defined as the study of
  - a. how to conserve natural resources and stimulate consumers' desires.
  - b. the application of capital in the production of wealth.
  - c. the allocation of scarce resources among alternative possibilities.
  - d. the business world and how it operates.
2. Most economic problems result from
  - a. ignorance.
  - b. scarcity.
  - c. intolerance.
  - d. abundance.
3. In all economies people undertake economic activities in order to
  - a. satisfy their desires to work.
  - b. earn money.
  - c. satisfy their urge for competitiveness.
  - d. satisfy their personal desires.

B. Economic Systems - The Big Economic Problems

4. All economic systems
  - a. are fundamentally alike.
  - b. face different economic problems.
  - c. face the same basic economic problems.
  - d. solve basic problems the same way.
5. Most economies are
  - a. pure systems.
  - b. centrally planned.
  - c. profit centered.
  - d. mixed systems.

6. Most economies are
  - a. unchangeable.
  - b. constantly changing.
  - c. constant.
  - d. very stable.

## II HOW THE ECONOMIC SYSTEM USES PRODUCTIVE RESOURCES IN SATISFYING COMPETING WANTS.

### C. Some Important Facts and Concepts Concerning Resource Use

7. A basically private enterprise economy is in need of all of the following essentials. Which one is of the least importance?
  - a. government regulation
  - b. prices
  - c. markets
  - d. profit motive
8. A limit to the rent obtainable on land is reached due to the operation of the law of
  - a. diminishing utility.
  - b. diminishing costs.
  - c. diminishing production.
  - d. diminishing returns.
9. New real capital is created from
  - a. earnings.
  - b. savings.
  - c. income.
  - d. government expenditures.
10. National income will drop as savings are increased unless these are offset by increased
  - a. private investment.
  - b. interest rates.
  - c. consumption spending.
  - d. levels of employment.

### D. The Role of Incentives, Competition, and Markets

11. Competition means that
  - a. there is more than one seller of a product.
  - b. there are large numbers of independently acting buyers and sellers of products.
  - c. a given product can be purchased at different prices.
  - d. sellers can manipulate market prices.

12. Three of the following are major participants in economic activity in the U.S. Which one is relatively unimportant?
    - a. households
    - b. business firms
    - c. governments
    - d. foreign (countries) elements
  13. The demand for goods is a relation between the number of items offered for sale and their
    - a. quality.
    - b. supply.
    - c. price.
    - d. producers.
  14. In a free market, an increase in the supply of a given product would tend to cause
    - a. substitutes to appear on the market.
    - b. a rise in the price of that product.
    - c. an increase in the demand for that product.
    - d. a decrease in the price of that product.
  15. Changes in prices generally cause producers to
    - a. stop production.
    - b. alter output.
    - c. change styles.
    - d. develop new products.
  16. The major characteristic of goods whose demands are elastic is that they
    - a. have several different uses.
    - b. have potential consumer utility for everybody.
    - c. give status to the owner.
    - d. cost too much.
  17. Which of the following industries approximate pure competition?
    - a. steel
    - b. railroads
    - c. agriculture
    - d. farm implements
- E. Modern Business, Economic Concentration, and Monopoly
18. The major disadvantage of monopoly is
    - a. poor allocation of resources.
    - b. satisfaction of consumer wants is inefficient.
    - c. high prices.
    - d. that mass production benefits are missing.

19. The most effective allocation of resources in response to consumer demand can be brought about through
  - a. monopoly.
  - b. competition.
  - c. oligopoly.
  - d. government control.
  
20. The Sherman Act and the Clayton Acts are designed to
  - a. keep businesses from becoming too large.
  - b. prevent trusts from forming.
  - c. regulate and restrain trade.
  - d. insure the benefits of competition.
  
21. Greater industrial concentration has developed in the United States largely because of
  - a. economies of scale, innovations, and the desire for big profits.
  - b. the interference of government in business.
  - c. the absence of legislation to control monopolies.
  - d. the fact of too much competition from great numbers of small businesses.
  
22. Monopolies which the public generally encourages are the
  - a. electronics industry.
  - b. public utilities.
  - c. steel industry.
  - d. automobile manufacturers.
  
23. A form of business organization in which one business has acquired a majority of the stock of several business firms is called
  - a. a monopoly.
  - b. an oligopoly.
  - c. a charter.
  - d. a holding company.
  
24. The business organization form which employs most wage and salary workers in the United States is
  - a. single proprietorships.
  - b. corporations.
  - c. cooperatives.
  - d. partnerships.
  
25. The main advantage of a corporation is
  - a. limited liability among owners.
  - b. larger volume of business.
  - c. freedom from special taxes.
  - d. it can engage in interstate commerce.

F. Government and the Allocation of Resources (Taxes and Government Spending)

26. The federal governments main source of tax revenue is
- corporate taxes.
  - personal income taxes.
  - excise plus sales taxes.
  - property taxes.
27. Today all government expenditures equal approximately what percentage of the American economy's total output?
- 10-15%
  - 15-20%
  - 25-30%
  - 30-35%
28. The largest percentage of the taxpayer's dollar now is used by the Federal government to pay for
- highway construction.
  - price supports.
  - social security and health benefits.
  - defense.
29. Personal income tax is assessed according to
- how much property is owned.
  - an equal scale for everyone.
  - the type of employment in which a person is engaged.
  - a person's ability to pay.

G. The International Allocation of Resources - International Trade

30. The power to raise or lower tariff rates within limits set by Congress is given to the
- federal trade commission.
  - U.S. tariff commission.
  - president.
  - foreign department.
31. France and Belgium are members of the European
- Free Trade Association.
  - Alliance for Conservation of World Peace.
  - Common Market.
  - Export Community.
32. Import duties levied according to the number of goods are said to be
- low.
  - specific.
  - high.
  - ad valorem.

33. The argument that the domestic markets are more stable than foreign markets is called the
- home market argument.
  - foreign market argument.
  - infant industry argument.
  - protection argument.
34. American export industries would be aided by
- a rise in foreign productivity.
  - a general rise in the domestic price level.
  - a rise in the wages abroad.
  - a rise in the wages at home.
35. Our balance of payment deficits could be reduced greatly by
- refusing to exchange dollars for gold.
  - increasing our mining of gold.
  - making heavy cuts of foreign aid programs.
  - calling home all service personnel from abroad.
36. Specialization in production of particular goods by various countries would probably
- increase total world output of goods and services.
  - increase world wide unemployment.
  - bring all nations to the same standard of living.
  - result in less trade among nations.

### III ECONOMIC GROWTH AND STABILITY

#### H. Measure of National Income and Production

37. The most widely used measure of total output today is known as the
- consumer price index.
  - gross national product.
  - industrial production index.
  - total earnings.
38. National income is a measure of
- income of businesses.
  - the combined income of everyone in the country.
  - total income of government agencies.
  - income of small businesses and corporations.
39. The term of unemployment applies to
- idle labor only.
  - idle capital only.
  - idle capital and labor.
  - idle capital, labor, and markets.

40. Personal income minus personal taxes measures
- national income.
  - personal consumption expenditures.
  - personal saving.
  - disposable income.
41. If the price index is 120, this means that prices are
- 20% higher than in base year.
  - 120% higher than in base year.
  - .12% higher than in base year.
  - unequal.
42. During times of rising prices, one way to lower prices would be to
- increase the available supply of goods.
  - increase government expenditures.
  - lower interest rates.
  - lower personal income tax rates.

#### I. Main Forces Determining National Production and Income

43. Which of the following is not a measure of production?
- disposable personal income
  - gross national income
  - net national income
  - net national output
44. The upper limit to an economy's real output at any time is set by
- its stock of productive resources (labor, capital, goods, and natural resources).
  - total amount of money in circulation.
  - consumer demands.
  - government regulation.
45. Of the following events, which would possibly reduce consumer spending?
- more government transfer payments
  - rising prices
  - a drop in consumer income
  - a reduction in personal income tax
46. The total output of the U.S. economy is bought by three of the following large groups. Which one does not belong in this group?
- consumers
  - world wide common market
  - business firms
  - governments

47. The largest part of Gross National Product is bought by
- consumers.
  - our government.
  - foreign governments.
  - all types of business firms.
48. A given period of business depression is usually accompanied by
- high prices.
  - very little unemployment.
  - government domination.
  - a decline in national income.

J. The Role of Government Budgets (Expenditures, Taxes and Borrowing)

49. A government budgetary surplus exists
- when taxes are reduced.
  - when government spending decreases.
  - when government spending is less than receipts.
  - when government expenditures are increasing.
50. Which of the following represents the most important type of expenditure of local governments?
- expenditures for police, fire and city government
  - expenditures for public welfare
  - expenditures for highways
  - expenditures for education
51. Which of the following represents the most important type of expenditure of state governments?
- expenditures for public welfare
  - expenditures for highways
  - expenditures for education
  - expenditures for acquiring new industry
52. The national debt will probably increase when the national government
- balances the budget.
  - has a budget surplus.
  - spends less than it receives.
  - engages in deficit spending.
53. The biggest cause of the current national debt was
- Marshall Plan aid.
  - the Great depression.
  - World War II.
  - wheat and commodity shipments to Russia.



## K. The Banking and Monetary System

54. The money supply is "backed"
- dollar-for-dollar with gold.
  - dollar-for-dollar with gold and silver.
  - by the government's ability to control the supply of money and therefore to keep its value almost stable.
  - by government bonds.
55. Demand deposits are classified as money because
- banks hold currency to cover outstanding deposits.
  - they can be used in making purchases and paying debts.
  - they earn interest for the depositor.
  - the government backs all banks.
56. The major part of the money supply is found in
- coins.
  - paper money in circulation.
  - government bonds.
  - demand deposits.
57. Banks create money when they
- exchange demand deposits for the IOU paper of business and individuals.
  - add to their federal reserves.
  - accept more cash deposits.
  - sell government bonds.
58. The power to change bank reserve requirements is vested in the
- federal reserve banks.
  - secretary of the treasury.
  - federal reserve board.
  - president of the U.S.
59. If the economy expands too rapidly, the federal reserve system may
- buy treasury notes.
  - buy common security.
  - sell securities on the open market.
  - print more money for circulation.
60. Which of the following policies would do the most to reduce inflation?
- Increase taxes by \$10 billion.
  - Reduce both taxes and government expenditures by \$10 billion.
  - Reduce government expenditures for goods and services by \$10 billion.
  - Reduce government transfer payments by \$10 billion.

61. The government has two basic ways of influencing the banking system, they are
- fiscal policy and Federal reserve system.
  - monetary policy and government action.
  - budgetary policy and fiscal policy.
  - both fiscal and monetary policy.
62. The use of government finances to influence the level of national income is called
- fiscal policy.
  - monetary policy.
  - economic forecasting.
  - government spending policy.

L. The Problem of Economic Growth and Stability

63. A nation's economic prosperity is measured best by
- the amount of per capita output annually.
  - a favorable balance of trade.
  - total employment.
  - prices of goods and services.
64. Inflation would probably benefit
- people living on fixed pensions.
  - life insurance policyholders.
  - debtors.
  - people with large savings.
65. Satisfactory growth of output requires a satisfactory growth in
- savings.
  - spending.
  - earnings.
  - deductions.
66. In economic terminology, the alternating phases of good and bad times in business are referred to as
- inflation.
  - deflation.
  - business depression.
  - business fluctuations.
67. All of the following terms are phases of the business cycle except
- expansion.
  - trough.
  - peak.
  - deflationary.

68. In the United States real Gross National Product has increased annually at the rate of about
- 3 per cent.
  - 20 per cent.
  - 1 per cent.
  - 8-12 per cent.

#### M. Growth and the Underdeveloped Countries

69. Economic growth in underdeveloped nations is slowed because of
- too much government control.
  - low rate of population growth.
  - illiteracy.
  - too little business regulation.
70. In order for underdeveloped countries to spur economic growth they should
- rely on tradition.
  - build up defenses.
  - encourage outside investments.
  - secure foreign aid.
71. Which of the following is the most underdeveloped nation?
- Russia
  - India
  - Canada
  - West Germany
72. One of the following is not characteristic of underdeveloped nations.
- low per capita output
  - too few enterprising managers and investors
  - labor supply shortage
  - population explosion

#### IV THE DISTRIBUTION OF INCOME

##### N. Personal Distribution of Income in the U.S.

73. Significant inequality in personal incomes exists in
- private enterprise economies.
  - communistic countries.
  - socialistic countries.
  - all of the above.

74. The largest share in the return of all productive factors goes to
- labor.
  - capital.
  - land.
  - management.

O. Labor, Wages, and Labor Unions

75. High wages in the United States is a result of
- the high output per worker.
  - union demands.
  - government wage policies.
  - business owner's appreciation.
76. Labor unions were necessary so that member workers could
- receive higher wages than non-union members.
  - increase competition in the labor market.
  - strengthen the bargaining position of laborers in relation to their employers.
  - increase the percent of Americans who are classified as laborers.
77. Labor-management problems and differences are settled peaceably through
- collective bargaining.
  - government intervention.
  - strikes.
  - labor union decisions.
78. The value of income in terms of purchasing power is called
- money wages.
  - real wages.
  - non-money wages.
  - time wages.
79. When wages increase and the cost of living increases faster what happens to real wages?
- remain the same
  - are higher than before
  - are unaffected
  - are lower than before

P. Farm Incomes - The "Farm Problem"

80. Which of the following is not characteristic of American agriculture?
- Farmers sell products in highly competitive markets.
  - Farmers buy in markets which are largely noncompetitive.
  - The demand for farm products tends to be inelastic.
  - Agricultural resources tend to be highly mobile.
81. The demand for most farm products
- is increasing faster than the supply.
  - is inelastic.
  - declines as population increases.
  - is declining very slowly.
82. In the following fields of activity, which has the most competitors?
- farming
  - car industry
  - steel
  - public utilities
83. Farmers working independently can do little or nothing to
- apply scientific research.
  - get government help.
  - control total output.
  - raise productivity.
84. If prices of most agricultural products dropped 15 percent, total demand of consumers would
- remain stable.
  - drop 15 per cent.
  - rise 15 per cent.
  - become very unstable.

## V COMMUNISM, SOCIALISM, AND CAPITALISM

### Q. Communism

85. The allocation of resources in a communist society is determined by
- free consumer demands.
  - central planners.
  - major industries.
  - proletariat.
86. Communism strongly advocates all of the following except
- state ownership of most production and services.
  - a minimum of consumer determined production.
  - production resulting in private profit.
  - a strong central government to regulate economic matters.

87. Russian planners have a great deal of difficulty in maintaining efficiency in
- agriculture.
  - science education.
  - the creation of capital goods.
  - defense production.
88. Economic growth in Russia has resulted largely from
- capital formation.
  - increased consumer goods production.
  - world trade.
  - increased world domination and population growth.
89. The "father" of communism is considered to be
- Adam Smith
  - John Keynes.
  - Karl Marx.
  - Joseph Stalin.

#### R. Socialism

90. Socialism can be identified with all of the following except
- a minimum of government control.
  - centralized planning of production.
  - price system.
  - money income as an incentive.
91. Economic scarcity is a problem that faces
- capitalism.
  - communism.
  - socialism.
  - all of these.

#### S. Capitalism

92. Individual freedom of choice is central to the
- communistic system.
  - socialistic system.
  - private enterprise system.
  - none of these.
93. The American economy operates largely as a
- government dominated system.
  - mercantilistic system.
  - centrally directed economy.
  - free market system.

94. Economic instability is more of a problem to which one of the following?
- a. private enterprise system
  - b. communistic society
  - c. mixed system
  - d. all of the above

APPENDIX B



## INSTRUCTIONS TO TEACHERS

1. I am sending you extra copies of the test just in case.
2. Give tests at your leisure during the last weeks of school.
3. Do not send test booklets back to me. Send only the yellow answer sheets that were used. Do anything you want with the test booklets. Use them or throw them away.
4. I am sending you self-addressed stamped envelopes for your use in returning the answer sheets.
5. If you have any questions concerning the test or anything, feel free to call me collect. Home - CHapel 1-0890  
School - CHapel 1-0723.
6. Results of the study will be sent to each participating school after completion.
7. Thank you very much for your willingness to help me in this project.

Dean Bacon

## ECONOMICS TEST

This is a test designed to measure your understanding of economic principles and how our economy operates. Following each question or incomplete statement there are four responses. From these four responses, choose the one which best answers the question or completes the statement.

Do not write in the test booklet. All answers are to be placed on the answer sheet as shown by the following sample question:

0. Which of the following is the most underdeveloped nation?
- A. Russia
  - B. India
  - C. Canada
  - D. West Germany

Place your name on the answer sheet in the space provided. You have only one class period to complete this test. Work fast enough to complete all items.

1. Economics is best defined as the study of
- A. how to conserve natural resources and stimulate consumers' desires.
  - B. the application of capital in the production of wealth.
  - C. the allocation of scarce resources among alternative uses.
  - D. the business world and how it operates.
2. All economic systems
- A. are fundamentally alike.
  - B. face different economic problems.
  - C. face the same basic economic problems.
  - D. solve basic problems the same way.
3. Most economies are
- A. unchanging.
  - B. constantly changing.
  - C. constant.
  - D. very stable.
4. A basically private enterprise economy is in need of all of the following essentials. Which one is of the least importance?
- A. government regulation
  - B. prices
  - C. markets
  - D. profit motive

5. New real capital is created from
  - A. earnings.
  - B. savings.
  - C. income.
  - D. government expenditures.
  
6. Pure competition means that
  - A. there is more than one seller of a product.
  - B. there are large numbers of independently acting buyers and sellers of products.
  - C. a given product can be purchased at different prices.
  - D. sellers can manipulate market prices.
  
7. In a free market, an increase in the supply of a given product would tend to cause
  - A. substitutes to appear on the market.
  - B. a rise in the price of that product.
  - C. an increase in the demand for that product.
  - D. a decrease in the price of that product.
  
8. Which of the following industries approximate pure competition?
  - A. steel
  - B. railroads
  - C. agriculture
  - D. farm implements
  
9. The most effective allocation of resources in response to consumer demand can be brought about through
  - A. monopoly.
  - B. competition.
  - C. oligopoly.
  - D. government control.
  
10. Monopolies which the public generally encourages are the
  - A. electronics industry.
  - B. public utilities.
  - C. steel industry.
  - D. automobile manufacturers.
  
11. A form of business organization in which one business has acquired a majority of the stock of several business firms is called
  - A. a monopoly.
  - B. an oligopoly.
  - C. a charter.
  - D. a holding company.

12. Today all levels of government expenditures equal approximately what percentage of the American economy's total output?
- A. 10 - 15%
  - B. 15 - 20%
  - C. 20 - 25%
  - D. 30 - 35%
13. The largest percentage of the taxpayer's dollar now is used by the Federal government to pay for
- A. highway construction.
  - B. price supports.
  - C. social security and health benefits.
  - D. defense.
14. The economic desirability of government's participation in the economy is the effect of the participation on
- A. the efficiency of the allocation of resources.
  - B. the technology of production.
  - C. the uses of capital funds.
  - D. none of these.
15. France and Belgium are members of the European
- A. Free Trade Association.
  - B. Alliance for Conservation of World Peace.
  - C. Common Market.
  - D. Export Community.
16. American export industries would be aided by
- A. a rise in foreign productivity.
  - B. a general rise in the domestic price level.
  - C. a rise in the wages abroad.
  - D. a rise in the wages at home.
17. Specialization in production of particular goods by various countries could probably
- A. increase total world output of goods and services.
  - B. increase world wide unemployment.
  - C. bring all nations to the same standard of living.
  - D. result in less trade among nations.
18. The most widely used measure of total output today is known as the
- A. consumer price index.
  - B. gross national product.
  - C. industrial production index.
  - D. total earnings.

19. If the price index is 120, this means that prices are
- A. 20% higher than in base year.
  - B. 120% higher than in base year.
  - C. 12% higher than in base year.
  - D. unequal.
20. During times of rising prices, one way to lower prices would be to
- A. increase the available supply of goods.
  - B. increase government expenditures.
  - C. lower interest rates.
  - D. lower personal income tax rates.
21. The upper limit to an economy's real output at any time is set by
- A. its stock of productive resources (labor, capital goods, and natural resources).
  - B. total amount of money in circulation.
  - C. consumer demands.
  - D. government regulation.
22. Of the following events, which would possibly reduce consumer spending?
- A. more government transfer payments
  - B. rising prices
  - C. a drop in consumer income
  - D. a reduction in personal income tax
23. The largest part of Gross National Product is bought by
- A. our government.
  - B. consumers.
  - C. foreign governments.
  - D. all types of business firms.
24. A government budgetary surplus exists
- A. when taxes are reduced.
  - B. when government spending decreases.
  - C. when government spending is less than receipts.
  - D. when government expenditures are increasing.
25. The national debt will probably increase when the national government
- A. balances the budget.
  - B. has a budget surplus.
  - C. spends less than it receives.
  - D. engages in deficit spending.
26. The American economy is considered at "full employment" when
- A. 3 to 4% of the labor force is unemployed.
  - B. 20% of the labor force is unemployed.
  - C. 100% of the labor force is employed.
  - D. 90% of the labor force is employed.

27. The money supply is "backed"
- A. dollar-for-dollar with gold.
  - B. dollar-for-dollar with gold and silver.
  - C. by the Federal Reserve's ability to control the supply of money and therefore to keep its value almost stable.
  - D. by government bonds.
28. The power to change bank reserve requirements, within limits set by Congress, is vested in the
- A. federal reserve banks.
  - B. federal reserve board.
  - C. secretary of the treasury.
  - D. President of the U.S.
29. Which of the following policies would do the most to reduce inflation?
- A. Increase taxes by \$10 billion.
  - B. Reduce both taxes and government expenditures by \$10 billion.
  - C. Reduce government expenditures for goods and services by \$10 billion.
  - D. Reduce government transfer payments by \$10 billion.
30. A nation's economic prosperity is measured best by
- A. the amount of per capita output annually.
  - B. a favorable balance of trade.
  - C. total employment.
  - D. prices of goods and services.
31. Inflation would probably benefit
- A. people living on fixed pensions.
  - B. life insurance policyholders.
  - C. debtors.
  - D. people with large savings.
32. In the United States real Gross National Product has increased since World War II annually at the rate of about
- A. 3 per cent.
  - B. 20 per cent.
  - C. 1 per cent.
  - D. 8 - 12 per cent.
33. Economic growth in underdeveloped nations is slowed because of
- A. too much government control.
  - B. illiteracy.
  - C. low rate of population growth.
  - D. too little business regulation.

34. Which one of the following is not characteristic of underdeveloped nations?  
A. low per capita output  
B. labor supply shortage  
C. high percent of population engaged in agriculture  
D. population explosion
35. Significant inequality in personal incomes exists in  
A. private enterprise economies.  
B. communistic countries.  
C. socialistic countries.  
D. all of the above.
36. The largest share in the return of all productive factors goes to  
A. labor.  
B. capital.  
C. land.  
D. management.
37. The following is true about the distribution of income in the American economy. There is:  
A. a small middle income class.  
B. a large number of families in the high income bracket.  
C. a large number of families in the low income bracket.  
D. about equal distribution among low, middle, and high income groups.
38. High wages in the United States is a result of  
A. union demands.  
B. the high output per worker.  
C. government wage policies.  
D. business owner's appreciation.
39. Labor-management problems and differences are settled peaceably through  
A. collective bargaining.  
B. government intervention.  
C. strikes.  
D. labor union decisions.
40. When wages increase and the cost of living increases faster what happens to real wages?  
A. remain the same  
B. are higher than before  
C. are unaffected  
D. are lower than before

41. Which of the following is not characteristic of American agriculture?
- A. Farmers sell products in highly competitive markets
  - B. Farmers buy in markets which are largely noncompetitive
  - C. The demand for farm products tends to be inelastic
  - D. Agricultural resources tend to be highly mobile
42. Farmers working independently can do little or nothing to
- A. apply scientific research.
  - B. get government help.
  - C. control total output.
  - D. raise productivity.
43. If prices of most agricultural products dropped 15 percent, total demand of consumers would
- A. remain relatively stable.
  - B. drop 15 per cent.
  - C. rise 15 per cent.
  - D. become very unstable.
44. Russian planners have had a great deal of difficulty in maintaining efficiency in
- A. science education.
  - B. agriculture.
  - C. the creation of capital goods.
  - D. defense production.
45. Economic growth in Russia has resulted largely from
- A. capital formation.
  - B. increased consumer goods production.
  - C. world trade.
  - D. increased world domination and population growth.
46. The "father" of communism is considered to be
- A. Adam Smith.
  - B. Joyn Keynes.
  - C. Karl Marx.
  - D. Joseph Stalin.
47. Socialism can be identified with all of the following except
- A. a minimum of government control.
  - B. centralized planning of production.
  - C. price system.
  - D. money income as an incentive.



48. Economic scarcity is a problem that faces
- A. capitalism.
  - B. communism.
  - C. socialism.
  - D. all of these.
49. Individual freedom of choice is central to the
- A. communistic system.
  - B. socialistic system.
  - C. private enterprise system.
  - D. none of these.
50. The American economy operates largely as a
- A. government dominated system.
  - B. mercantilistic system.
  - C. centrally directed economy.
  - D. free market system.

## ANSWER SHEET

NAME \_\_\_\_\_

DIRECTIONS: Read each question and its lettered responses. When you have decided which response is the best, blacken the corresponding letter on this sheet with your pencil. If you change your mind, erase your first mark completely. Be sure you blacken out the entire letter.

- |             |             |             |
|-------------|-------------|-------------|
| 0. A ■ C D  | 18. A B C D | 36. A B C D |
| 1. A B C D  | 19. A B C D | 37. A B C D |
| 2. A B C D  | 20. A B C D | 38. A B C D |
| 3. A B C D  | 21. A B C D | 39. A B C D |
| 4. A B C D  | 22. A B C D | 40. A B C D |
| 5. A B C D  | 23. A B C D | 41. A B C D |
| 6. A B C D  | 24. A B C D | 42. A B C D |
| 7. A B C D  | 25. A B C D | 43. A B C D |
| 8. A B C D  | 26. A B C D | 44. A B C D |
| 9. A B C D  | 27. A B C D | 45. A B C D |
| 10. A B C D | 28. A B C D | 46. A B C D |
| 11. A B C D | 29. A B C D | 47. A B C D |
| 12. A B C D | 30. A B C D | 48. A B C D |
| 13. A B C D | 31. A B C D | 49. A B C D |
| 14. A B C D | 32. A B C D | 50. A B C D |
| 15. A B C D | 33. A B C D |             |
| 16. A B C D | 34. A B C D |             |
| 17. A B C D | 35. A B C D |             |

APPENDIX C

TABLE XXIX  
STUDENT RESPONSES TO EACH CHOICE

Question Number	Responses				Unmarked
	A	B	C	D	
1	95	183	* 24	209	1
2	58	189	*243	22	0
3	17	*408	62	25	0
4	*220	46	52	194	0
5	151	*105	178	77	1
6	137	*246	76	51	2
7	21	33	30	*428	0
8	89	72	*205	144	2
9	81	*312	22	96	1
10	35	*382	40	54	1
11	129	27	25	*330	1
12	49	120	*207	134	2
13	43	14	46	*409	0
14	*119	90	124	175	4
15	60	36	*401	11	4
16	52	125	*293	41	1
17	*257	77	67	108	3
18	134	*212	75	90	1
19	*247	95	94	72	4
20	*415	35	34	28	0
21	*141	74	250	46	1
22	22	148	*323	18	1
23	94	*274	67	75	2
24	29	155	*248	77	3
25	42	40	65	*364	1
26	*165	82	108	154	3
27	75	101	*283	50	3
28	80	*259	123	47	3
29	152	181	*127	47	5
30	*234	110	105	61	2
31	98	48	*249	115	2

TABLE XXIX (continued)

Question Number	Responses				Unmarked
	A	B	C	D	
32	*170	97	38	203	4
33	61	*314	24	110	3
34	56	*292	122	38	4
35	131	89	46	*241	5
36	*206	139	28	137	2
37	24	46	*180	259	3
38	261	* 91	137	20	3
39	*320	55	38	96	3
40	75	69	59	*307	2
41	98	188	138	* 82	6
42	68	110	*234	95	5
43	*121	72	195	118	6
44	21	*344	122	22	3
45	*122	74	154	155	7
46	8	23	*422	57	2
47	*249	73	57	130	3
48	35	140	50	*283	4
49	17	41	*330	119	5
50	39	87	64	*315	7

\* Denotes Correct Response

TABLE XXX (continued)

Question Number	Responses				Unmarked
	A	B	C	D	
32	*.33	.19	.07	.40	.01
33	.12	*.61	.05	.21	.01
34	.11	*.57	.24	.07	.01
35	.26	.17	.09	*.47	.01
36	*.40	.27	.05	.27	.00
37	.05	.09	*.35	.51	.01
38	.51	*.18	.27	.04	.01
39	*.63	.11	.07	.19	.01
40	.15	.13	.12	*.60	.00
41	.19	.37	.27	*.16	.01
42	.13	.21	*.46	.19	.01
43	*.24	.14	.38	.23	.01
44	.04	*.67	.24	.04	.01
45	*.24	.14	.30	.30	.01
46	.02	.04	*.82	.11	.00
47	*.49	.14	.11	.25	.01
48	.07	.27	.10	*.55	.01
49	.03	.08	*.64	.23	.01
50	.08	.17	.13	*.62	.01

\* Denotes Correct Response

TABLE XXXI  
 THE FREQUENCY DISTRIBUTION, PERCENTILE RANK,  
 STANDARD DEVIATION, AND MEAN  
 FOR ALL 512 SENIORS

Score	Frequency	Smoothed Percentile Rank	Raw Percentile Rank
50	0		
49	0		
48	0		
47	0		
46	0		
45	0		
44	0		
43	1	99	99.902
42	1	99	99.707
41	1	99	99.511
40	2	99	99.316
39	3	99	98.925
38	4	98	98.339
37	5	98	97.558
36	4	97	96.582
35	10	96	95.800
34	14	94	93.847
33	18	91	91.113
32	19	88	87.597
31	25	84	83.886
30	25	79	79.003
29	35	74	74.121
28	21	67	67.285
27	28	63	63.183
26	32	58	57.714
25	29	51	51.464
24	28	46	45.800
23	30	40	40.332
22	23	34	34.472

TABLE XXXI (continued)

Score	Frequency	Smoothed Percentile Rank	Raw Percentile Rank
21	20	30	29.980
20	20	26	26.074
19	22	22	22.167
18	17	18	17.871
17	17	15	14.550
16	13	11	11.230
15	13	9	8.691
14	10	6	6.152
13	8	4	4.199
12	6	3	2.636
11	5	1	1.464
10	2	1	.488
9	0		
8	0		
7	0		
6	0		
5	1	1	.097
4	0		
3	0		
2	0		
1	0		



## PARTICIPATING HIGH SCHOOLS

Eureka High School

Fowler High School

Galva Rural High School

McPherson High School

Severy Rural High School

Ulysses Rural High School

Wichita South High School

Wilson High School