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ABSTRACT

This publication examines techniques for integrating consumer and economic education into the K-12 social studies curriculum. The intended audience includes school administrators, curriculum developers, and classroom teachers. Many practitioners have found that consumer education is an excellent area for developing the skills of economic analysis. Students find relevance in applying economic concepts to consumer situations since they have already assumed the role of consumers. Consumer education provides many opportunities to show how the public and private sectors allocate resources which are consumed by student and other individuals in the society. There are three major sections to the publication. The first section presents a rationale for including consumer economics in the curriculum. Discussed are the role of economics in consumer education, the multi-grade and multi-disciplinary thrust of consumer education, and the need for focusing on concepts. The second major section presents a methodology to help establish an appropriate sequence for the introduction of specific economic concepts. The third section contains a procedure by which consumer economics can be newly emphasized in the existing curriculum. Examined are the planning procedures for curriculum change, determining the implementation method, and the process of curriculum development and change. The appendices contain a glossary of concepts and a ranking procedure used to develop the hierarchy. (Author/RM)

INTEGRATING CONSUMER AND ECONOMIC EDUCATION INTO THE SCHOOL CURRICULUM

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Joint Council on Economic Education

U.S. Department of Education
Office of Consumers' Education

JCEE Checklist No 310

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FOREWORD

The development of economic understanding and an economic way of thinking through consumer education has been a focus of the Joint Council on Economic Education for a number of years. Recent research funded by the Office of Consumers' Education has also indicated the need for the inclusion of economics in consumer education units and courses. Many practitioners in the field of consumer and economic education have found that consumer education is an excellent arena for developing the skills of economic analysis. Students find relevance in applying economic concepts to consumer situations since they have already assumed the role of consumers. Consumer education provides many opportunities to show how the public and private sectors allocate resources which are consumed by students and other individuals in the society.

The Joint Council through its years of existence has focused on materials and programs showing how to integrate economics into various grade levels and subject matter areas. This particular document is consistent with this philosophy in that it delineates one set of processes which can be used by schools to integrate economics into units and courses in consumer education or consumer studies.

The monograph is a companion piece to *Consumer Education and Economic Education in the Public Schools* [5]. Many ideas were generated at that seminar, some of which are included in this document.

On behalf of the Joint Council on Economic Education, appreciation is extended to Dr. Judith S. Brenneke, Project Director, for developing this monograph which will undoubtedly be beneficial to curriculum developers and teacher trainers as they move toward the goal of integrating economics into consumer education courses and units of study.

John E. Clow
Director, Business and Consumer Programs
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Finally, I wish to acknowledge that although many people assisted with the project and this monograph, any errors remaining in the monograph are my responsibility. It should also be understood that the views and professional judgments expressed here are those of the author and do not necessarily correspond with the official positions of either the JCEE or the OCE.

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Integrating Consumer and Economic Education into the School Curriculum

Each year curriculum specialists and developers must deal with the difficulties posed by adding new units to a curriculum that is already crowded. The problem usually arises because of new mandates from the state or the district or increased interest among teachers or the public. It is clear that a demand for "consumer economics" is increasingly being voiced. Such a demand raises particular questions such as: (1) What is consumer economics and how does it differ from consumer education? (2) Why should we teach it? (3) In what year(s) should the subject be taught? (4) What are the optimal methods with which to incorporate consumer economics into the curriculum?

Two organizations have been active in assisting school districts to find answers. The Joint Council on Economic Education (JCEE) has been helping to introduce economics into school curricula since 1949. During its six-year lifespan, the Office of Consumers' Education (OCE), U.S. Department of Education, has attempted to assist in the development of a structure for consumer education. It has commissioned studies on topics such as the role of the consumer, the history of the consumer education movement, and the relation of consumer education to economic education.

In July, 1979, under contract with the OCE, the JCEE began to develop a framework designed to link consumer education and economic education. The project tapped the expertise of leaders in various fields of education—economics, consumer studies, social studies, business, and home economics—in order to improve and expand the integration of economic and consumer education begun in prior OCE projects.

A further purpose of the project was to provide orientation and advice to school administrators, curriculum developers, and classroom teachers interested in integrating consumer and economic education in the classroom. This monograph is designed to help accomplish that purpose. It outlines a new structure for education in consumer economics by providing: (1) a rationale for including consumer economics in the curriculum; (2) a methodology to help establish an appropriate sequence for the introduction of specific economic concepts; (3) a procedure by which consumer economics can be newly emphasized in the existing curriculum.

I. RATIONALE

When investigating how to insert a new field of study into the curriculum of a school district, one must have a firm grasp of the nature and scope of the subject or, in other words, its definition. In the case of "consumer education," there is no shortage of definitions. There are more than 38 state mandates, recommendations, or policies about consumer education that differ considerably among themselves. [1, p. 5] If one adds the definitions contained in various textbooks, research reports, and federal directives, the proliferation of meanings becomes vast. To cut through the potential confusion, we will offer but two definitions:

> As defined by the Office of Education, [consumers' education] is an effort to impart the skills and understandings that will prepare consumers to participate intelligently in the marketplace and in the economy. It educates people to recognize marketplace alternatives and make rational choices in light of their personal values, their citizenship responsibilities, and social, economic, and ecological considerations.
>
> Office of Consumers' Education
> U.S. Office of Education [14]

> Consumer education is the study of the knowledge and skills needed by individuals and groups in managing consumer resources and taking actions as citizens to influence the factors which affect consumer decisions.
>
> *A Classification of Concepts in Consumer Education*
> Consumer Education Development Program [3]

Although they are not fully consistent, both definitions concur that teaching consumers to manage resources is an essential ingredient of consumer education. Further, since one mentions "the citizenship responsibilities" and the other calls for "taking actions as citizens," both appear to recognize the role voting can play in achieving consumers' objectives.

THE ROLE OF ECONOMICS IN CONSUMER EDUCATION

A primary focus of economics is the study of how resources are allocated, and the assumption undergirding economics is that there are limited resources compared to the demands for them. Economics thus provides tools to help decision-makers estimate the effects of alternative ways to use resources. Many of these economic tools are universal in that they can be used by individuals and groups of individuals in deciding on resource use.

The focus of consumer education is on the individual. Consumer education primarily deals with preparing students to become better decision-makers in using their individual resources, such as money and time. In order to make these decisions effectively, individuals must understand their economic environment, including how they can affect economic institutions (i.e., the marketplace, government, etc.) and how existing economic institutions can, in turn, affect these decisions. In other words, consumer education focuses on the individual but not in isolation. The aforementioned definitions of consumer education show that this broad perspective is an important component of consumer education.

The need for a broad perspective or context underscores why economics should be a part of the consumer education curriculum. Economic concepts assist in the analysis of alternative choices and their consequences, thereby allowing individuals to make more informed judgments about how to use their resources.

The term *consumer economics* is occasionally substituted for consumer education. Although these terms are often used interchangeably, such substitution is frequently incorrect. *Consumer economics* concepts are those economic concepts that apply to consumer issues and problems. *Consumer education* also uses concepts and information from other disciplines—sociology, ecology, political science, law, medicine, etc. Only the economics content of consumer education should be equated with consumer economics.

The warning is clear. One must not automatically assume that consumer economic analyses and concepts dominate or are even present in all consumer education courses. A basic precondition for the presence of economics in consumer education courses is an understanding of basic economic concepts by the classroom teacher and the curriculum developer. They must also be able to recognize how economic concepts and analysis can be applied to issues and problems involving the consumer.

Of course, teachers and curriculum developers who undertake to weave economic concepts into consumer education generally need to have some formal schooling in economics. Courses at the undergraduate or graduate level may be adequate. However, additional training may be necessary. Sources of such training include the workshops and in-service programs offered by the JCEE's state councils and university centers for economic education. These workshops focus on basic economics and how economic concepts can be integrated into consumer education and other courses or units in the school curriculum. Most consumer courses contain a great number of opportunities for teaching economic concepts. If the teachers lack sufficient background in economics, the economic concepts involved are all too likely to be taught incorrectly or the opportunities for teaching them will go unrecognized.

It is also important to keep in mind the two principal approaches by which consumer economics may be taught. One stresses the application of economic analysis to circumstances that confront consumers. It seeks to familiarize consumers with the tools of economics to help them understand how markets and other economic institutions work and to understand the students' own positions as consumers. This approach attempts to present the situations consumers face in an "if . . . then" fashion: "if" certain things happen, "then" there will be various effects or consequences. For example, "if" the price of hamburgers goes up relative to the price of chicken, "then" people will probably buy less hamburger and more chicken. Economists call this approach *positive economics*.

The second approach focuses on what "ought to be." It emphasizes value judgments about what is right or wrong, good or bad. For example, some consumer educators convey their belief that government should provide a national health insurance program in order to give everyone access to good health services. This constitutes an "ought to" statement. Those who disagree present a belief that keeping our present system is better than running the risk of too much government control. This is also an "ought to" statement. The "ought too" approach—referred to by economists as the *normative approach*—results in propositions that are harder to prove or disprove than does the "if . . . then" approach. The reason is that "ought to" statements are based on personal/societal values or goals not subject to objective measurement or comparison.

The concept sequence in Section II of this monograph places primary emphasis on the *positive economics* approach of "if . . . then." Before "ought to" economic statements can be analyzed effectively, students must know how positive economic principles operate in the world around them.

There is, however, one part of the schema which focuses on the "ought to" statements. The concepts for evaluating economic actions and policies take into account the analysis of alternative values and goals of the individual or society.

THE MULTI-GRADE AND MULTI-DISCIPLINARY THRUST OF CONSUMER EDUCATION

Consumer education is generally found in grades K–12 and in a wide variety of subjects. In fact, it might be more appropriate to speak of the entire field as *consumer studies*. The consumer education course is much more limited. In such courses the teacher typically attempts to deal in 9–36 weeks with specific information necessary for decision making. The distinction between consumer studies and consumer education becomes important when considering how consumer economics is introduced.

Consumer studies, since is it multi-grade and interdisciplinary, covers a very wide set of concepts and knowledge. For instance, the basic mathematics course emphasizing addition, subtraction, multiplication, and division can be designed to use examples from typical consumer shopping activities that require arithmetic calculations. Learning how to determine the unit price of an item can assist in developing a consumer skill as well as enhancing the ability to divide. The ability to read with comprehension developed in language arts courses can be taught through the reading and analysis of contracts and advertising claims, as well as through the reading and analysis of Shakespeare. In social studies, an examination of how our industrial society developed and how the world economy functions — among many other topics — helps students to understand their position as consumers.

Consumer economic concepts can be used to enrich these same courses. Mathematics teachers can have students do comparative shopping in order to discover that prices of a given good or service can vary greatly. The student might then discuss why the differences exist. Advertisements can be studied in language arts, and students can discuss the role that advertising plays in non-price competition and how advertising affects the cost of goods and services. In social studies, where attention is given to different countries and what they produce, students can be shown how the consumer benefits when nations specialize in making items that they are best at producing (comparative advantage).

If consumer and economic instruction is to be integrated, as a prerequisite teachers must be familiar with both consumer and economics concepts and how to insert them into the curriculum. That is a primary reason why in-service training is often necessary and desirable.

THE NEED FOR FOCUSING ON CONCEPTS

The focus in consumer economics education is on concept development and the use of concepts in looking at problems and issues confronting the consumer. The concepts are general in nature and can, therefore, be applied to new situations and issues. As the use of consumer economics is presented in more complex fashion in the progression of the K–12 curriculum, student ability to use these concepts in a variety of situations increases. The concept of opportunity cost refers to what must be given up — that is, the next most attractive use of the resource — when decisions are made to use scarce resources for one purpose rather than another. Students at the primary level understand this concept when they are confronted with the need to choose only one out of a selection of snacks because their allowances are limited. The satisfactions they lose by foregoing their second best choice would be their opportunity costs. More complicated applications of opportunity costs can be taken up in later grades. For example, public policy decisions to use tax revenues to bolster police forces may come at the expense of using the funds to improve health facilities (or even to reduce taxes and return the money to the taxpayers).

Use of economic vocabulary allows the communication of specific understandings of concepts and increases the possibilities for concrete application. *Scarcity* has a definite and specific meaning in economics which may be applied in a variety of circumstances; just as the concept of *multiplication* has a definite and specific meaning which is much easier understood than if the term *repeated addition* were used. Terminology can serve as a shorthand allowing more precise application. Every subject has its terminology which, once learned, can then be applied under differing conditions. Since consumer studies can and should be a multi-grade and multi-disciplinary endeavor, there is a need to determine which economic concepts are most useful for consumer decision making and to provide a sequence for developing an understanding of these concepts. This is the primary purpose of the next section.

II. A CONCEPTUAL HIERARCHY FOR CONSUMER ECONOMICS

In 1976, the JCEE asked four respected economists to determine what a graduating high school senior should understand about economics. The result was the list and definition of economic concepts that are included in the *Master Curriculum Guide in Economics for the Nation's Schools*, Part I, *A Framework for Teaching Economics: Basic Concepts* [7]. Since its publication, the *Framework* has been accepted country-wide as a basis for the development and evaluation of the pre-college economics curriculum. These concepts and their definitions are given in Appendix A.

The economic concepts presented in the *Framework* are not arranged in priority order. They do, however, appear in concept clusters that indicate the skills and knowledge high school graduates should have in order to make effective economic decisions. These same *Framework* concepts can be used to specify the desirable economic content of consumer education.

A variety of schema have been used to identify consumer economic concepts. The more common method has been to assume that all concepts noted on a given list are equally important (see Trujillo [12], Bannister [2], Bymers [6], and Morton [9]).

However, it can be argued that economic concepts can and should be presented in a hierarchical manner. For instance, it is extremely difficult to deal with the concept of government intervention and regulation without first achieving an understanding of supply and demand, competition, and market structure. Without an adequate understanding of the simpler or more basic economic concepts, it may be extremely difficult for the consumer education student to intelligently examine more complex economic concepts or issues.

Another consideration is the limited amount of time allocated to the consumer education curriculum. Economics isn't the whole story in a consumer studies program. "Although consumer education that does not include solid economic understanding is misnamed, consumer education also deals with skills and understandings that do not necessarily include an economic basis." [6] Therefore, a Conceptual Hierarchy for Consumer Economics is presented here to help curriculum developers choose the economic content that fit. their district structure.

INTRODUCING THE HIERARCHY OF CONSUMER ECONOMICS

Because of the conflicting demands of scarce time and the need to encourage basic economic understanding, it is necessary to sequence the *Framework* concepts in order to integrate them into consumers' studies. Two recent independent projects have used a version of this approach. The JCEE *Strategies* volume dealing with consumer education employs a modified list of eighteen concept clusters for use in the book's accompanying activities [10]. These activities were developed as examples of how the economic concepts and principles most applicable to consumer education might be taught. By totaling the number of times a given concept cluster is used in all the activities presented, a frequency weighting scheme can be derived. This weighting can be subdivided into primary, intermediate, and advanced categories.

Similarly, Kienzle and Wyatt, in a curriculum development project for the State of Oregon, developed weights for a series of twenty-six concept clusters [8]. By assigning numbers to these rankings, one can also create a primary, intermediate, and advanced weighting classification. A composite weighting for the *Framework* economic concepts was developed from the two studies described. (The further numeric procedures used to derive the rankings are described more fully in Appendix B.)

The results show that the *Framework* concepts can be classified into three groupings for use in consumer economics education: primary, inter-mediate, and advanced concept clusters. The Conceptual Hierarchy for Consumer Economics, Figure 1, lists the concept clusters in this sequence.

The same procedure described above and in Appendix B can be used to analyze and adopt the conceptual bases of other resource materials for consumer economics and curriculum projects. In fact, the author believes that such analysis would be worthwhile additions serving to advance the "State of the Art." The author, though, found a paucity of consumer economic resources which focused on the concepts used in the *Framework* and which assigned a weighting or ranking to these concepts.

It should be noted that the hierarchy of Figure 1 is not meant to neces-

Figure 1. A CONCEPTUAL HIERARCHY FOR CONSUMER ECONOMICS

Primar Concept Clusters

Concepts for Evaluating Economic Actions & Policies
Economic Incentives
Economic Wants and Resources
Income Distribution & Government Redistribution
Markets, Supply and Demand
Opportunity Costs and Trade Offs
Scarcity and Choices
The Price Mechanism

Intermediate Concept Clusters

Competition & Market Structure
Fiscal Policy: Taxes, Expenditures, & Transfers
Interdependence
Marginalism & Equilibrium
Measurement Concepts
Savings, Investment, & Productivity
Specialization, Comparative Advantage, & the Division of Labor
Voluntary Exchange

Advanced Concept Clusters

Aggregate Demand: Unemployment & Inflation
Aggregate Supply & Productive Capacity
Economic Growth
Economic Institutions
Government Intervention & Regulation
"Market Failures"; Information Costs, Resource Immobility, Externalities, etc.
Money & Monetary Policy
Nature & Types of Economic Systems
Price Level Changes

sarily exclude any other economic co epts from the study of consumer issues. It does, however, recognize t.e limitation on the time available for consumers' education and the content that competes for that time. Th e concept clusters deemed to be ary concepts are essential to an understanding of the consumer's ro analysis of consumer concerns, and to the study of more compl or specialized economic concepts.

The primary concept clusters make up a core of economic knowledge. Once understood, this core can be expanded and built upon with concepts found in the intermediate and advanced clusters.

The advanced *Framework* concept clusters exemplify more sophisticated or specialized economic concepts. Although many of these clusters deal with concerns that directly affect the consumer, such as government intervention and regulation, the sophistication and complexity of economic knowledge required to use them makes it extremely difficult to introduce them without prior understanding of the primary and some of the intermediate concepts.

AN APPLICATION OF THE CONSUMER ECONOMICS HIERARCHY

In order to better understand this sequencing of economic concepts in the consumer education classroom, it is useful to examine its application to a typical consumer unit; for example, **housing**. In examining current consumer education texts and their treatment of the housing unit, Walstad [13] determined that the typical content includes the following:

1. What *alternative* types of housing are available?
2. What are the *advantages and disadvantages* of the major types of housing?
3. What factors are important to consider in the *selection* of a house, an apartment, or a mobile home?
4. What type of *financing* is available for housing purposes?
5. What *legal information* is required for buying a house or renting?
6. What are the *social problems* in housing?

The matrix for housing presented in Figure 2 helps one to apply concept sequencing. The cells of the matrix show that the economic concepts most frequently used in housing appear in the primary group. In fact, if one projects the use of these primary concepts, one can see that they are applicable to nearly every consumer unit.

The true integration of economics into consumer education takes place through the examination of each consumer unit and the determination of the use and placement of economic concepts in it. A specific example dealing with housing is helpful here. Let us take the row labeled "Economic incentives." It is checked at four of the six columns representing the six fundamental housing topics. To a large extent, economic incentives govern the availability of housing *alternatives* because producers of housing (at least in the private sector) respond to market incentives when they plan housing construction. If a particular housing alternative is NOT available in a given area, it is probably because private builders do not foresee substantial enough profits by providing that type of housing in that market. A statement of whether or not that alternative OUGHT to be available would be a normative statement based on value judgments.

Figure 2. SAMPLE WEIGHTING OF CONSUMER ECONOMICS CONCEPTS FOR HOUSING

Consumer Economic Concepts	Alternatives	Advantages & Disadvantages	Selection	Financing	Legal Information	Social Problems
Primary Concepts						
Concepts for evaluating economic actions & policies		X	X	X	X	X
Economic incentives	X		X	X		X
Economic wants & resources	X	X	X	X		X
Income distribution & government redistribution				X		X
Markets, supply & demand	X		X	X		X
Opportunity costs & trade offs	X	X	X	X		X
Scarcity & choices	X	X	X	X		X
The price mechanism	X	X	X	X		
Intermediate Concepts						
Competition & market structure	X					
Fiscal Policy taxes, expenditures, & transfers				X		
Interdependence				[illegible]		X
Marginalism & equilibrium	X			X		
Measurement concepts				X		
Savings, investment, & productivity			X			
Specialization, comparative advantage, & the division of labor						
Voluntary exchange				X		
Advanced Concepts						
Aggregate demand unemployment & inflation				X		
Aggregate supply & productive capacity	X					
Economic growth						
Economic institutions				X	X	X
Government intervention & regulation				X	X	X
Market failures, information costs, resource immobility, externalities			X	X	X	X
Money & monetary policy				X		
Nature & types of economic systems					X	X
Price level changes			X	X		

The statement that the alternative is not present is a positive, "if . . . then," statement.

Economic incentives also enter into the *selection* of housing. Home buyers (or consumers of housing services) implicitly or explicitly evaluate relative economic incentives as they grope toward a purchase or rental decision. Among the considerations might be: Is this house or apartment a "good value?" Will our commuting costs be too high? Will the resale value increase? Could we sublet? Are there tax advantages to this purchase? Can we make needed repairs at a reasonable cost?

Economic incentives also enter into the *financing* of the consumer's housing decision. Is "cheap" mortgage financing available? Is the rent within our budget? Where can we get the least costly financing—from a bank, savings and loan association, mutual savings bank, the seller, etc.?

Economic incentives are also intertwined with *social problems* of housing. Do rent controls remove the economic incentive for the landlord to maintain the building in which we are renting? Do current changes in the neighborhood suggest the value of this property may increase, stay the same, or decline?

The row "Economic incentives" is NOT checked for the *advantages and disadvantages* and *legal information* columns of Figure 2. Such exclusions do not necessarily mean that the concept in the row has no connection whatsoever with the housing topics. Rather, the suggestion is that such housing topics contain RELATIVELY LITTLE or RELATIVELY WEAK connections to the concept in any row that is not checked.

An alternative approach to Figure 2 is to move DOWN any given column, rather than ACROSS any given row. For instance, the *legal information* column is checked for: "Nature and types of economic systems" (e.g., to what extent is public housing provided by the given economic system); "Government intervention and regulation" (e.g., is there rent control, rent subsidization, are there zoning restrictions); "Market failures" (e.g., what are the effects of neighborhood developments and zoning laws in this area); "Economic institutions" (some types of housing—e.g., cooperatives—are available only in certain places). Finally, "Concepts for evaluating economic actions and policies" is checked because it is significantly related to "Legal information" (e.g., are my property rights likely to be compromised by an impending zoning or taxing decision).

The major benefit of developing a hierarchy of economic concepts for consumer education curricula is that it suggests a structure that can be used by curriculum developers. It also eases the task of deciding which concepts should be stressed in the scarce classroom time available. Once those concepts have been specified, the next step is to place them into appropriate points of the curriculum with the least possible cost to the district. In addition, a hierarchy offers a procedure for developing curriculum with flexible time frames and adjustability to ability levels.

III. METHODS FOR INTEGRATING CONSUMER ECONOMICS CONCEPTS INTO EXISTING CURRICULUM

A school district may introduce consumer economics into the existing curriculum in several ways. It can opt for a single course. It can introduce consumer economics concepts in all or some of grades K–12. It can also decide to do both, preferably by using the single course as a capstone offering someplace in the higher grades. Each approach requires different budgets and commitments. The best procedure is a carefully structured infusion of consumer economics concepts into the K–12 curriculum plus, where possible, a separate course that sums up and integrates all that has gone before.

Infusion allows for the integration of new subject matter into existing curricula in a cost-effective manner and, in an already crowded curriculum, for making changes gradually rather than as major revisions. The infusion approach has been successful in many districts [11, 4]. But whatever the procedure used, a decision about how to introduce consumer economics involves four basic steps:

1. examination of district objectives and district structure;
2. evaluation of the district's budgetary, personnel, and other resource constraints;
3. designation of a coordinator responsible for the program's success; and
4. determination of the desired outcomes for the introduction of consumer economics.

PLANNING PROCEDURES FOR CURRICULUM CHANGE

It is worthwhile to discuss some of the elements of these steps in greater detail.

Step 1: Examination of Objectives and Structure

Because the socioeconomic make-up of the communities in which school districts function differ, so do the objectives of the districts. Moreover, all school districts within a given state must, at a minimum, satisfy state mandates and requirements. Curricula should satisfy all such needs.

The basic structure and procedures of curriculum development and modification already being used within a district are also important. Most school systems provide resources for curriculum development although the priorities for their use can change from year to year. In one district curriculum development may be extremely centralized, with one or more people at the central office deciding what changes are to take place at which specific time. In another district, responsibility may be highly decentralized with decision-making vested in individual school principals, curriculum committees, or individual teachers. Educators seeking to introduce consumer economics should use the structure and procedures already in place and tailor curriculum modifications to existing priorities.

Step 2: Evaluation of Resource Constraints

School districts have a wide range of resources available at any given time. All of them—e.g., time, money, pesonnel—are scarce or limited. Therefore, channeling resources into any particular project has costs, both direct costs such as those in terms of dollars, and costs in terms of other projects that cannot be undertaken because the resources are committed to this endeavor—the "opportunity cost" of the decision.

Many districts are confronted by declining enrollments (and, eventually, less funding) while they also face increasing costs. With the curriculum already crowded, and the size of staff probably declining, such districts may be hard put to install new programs. Other districts may be encountering the problems associated with growing enrollment.

In addition, districts must appraise the total cost of training the teaching staff to infuse consumer economics into the existing curriculum. It isn't always sufficient to find financial resources for teacher training. The training may move faculty members into a higher pay category. However, the added cost to the district in such cases may be justified in terms of the extra efforts put forth by teachers and the improved teaching that results.

Step 3: Designation of a Coordinator

In order to properly infuse a consumer economics program into the curriculum, it is necessary to appoint a coordinator. The designee may be an administrator or a teacher already in the district, but it is important that the person named be given the authority necessary to put the program in place properly AND the responsibility necessary for accountability. The coordinator should be involved in the project from its inception in order to understand the program and its desired results completely. Having one person in charge does much to insure that the project will not be lost in the press of other district concerns. This strategy has been successfully used by the Joint Council in numerous projects of economic education in local schools. The coordinator should be able to pull together all the human, physical, and financial resources necessary to achieve the district's goals with respect to integrating consumer economics concepts into the curriculum.

Step 4: Determination of Desired Outcomes

The objectives the district wishes to achieve by introducing economics concepts must be made explicit. In many cases there may be a single, though not necessarily simple, goal to respond to a state resolution, policy, or law. If so, the state may specifically mandate what the students should learn. If not, the district must set forth specific objectives. Likewise, if the suggestions for introducing consumer economics has come from a teacher or a department but without sufficient attention to the objectives, the district must formulate them.

Whatever the objectives are, they should be measurable. In this age of increased demands for accountability, it is only through measurement of how much has been achieved that educators can prove whether or not an innovation has been successful and beneficial.

Once the over-all objectives have been developed, short range and long range timetables for accomplishment of the integration can be established. Each year, additional portions of the curriculum can be modified and additional teachers trained. Although the process may have a haphazard look, so long as it occurs within an overall framework of objectives, an integrated curriculum in the subject will result.

Assistance in the integration process may be provided by the school board, parent groups, special interest education groups, etc. Outside expertise and resources with which to help introduce consumer economics are often available to the district.

The coordinator should be the principal agent in developing the framework and objectives for infusing consumer economics. Setting objectives will provide guidelines for the coordinator's work and also offer means by which the success of the project may be gauged.

DETERMINING THE IMPLEMENTATION METHOD

A curriculum is best modified by infusing consumer economics concepts throughout the K–12 curriculum and the addition of a capstone course. Infusion may take many forms. Consumer economics concepts can be inserted into a limited number of grades, into a specific discipline, and/or by instituting a single course. The accompanying flowchart for curriculum change (Fig. 3) shows a possible sequence of curriculum infusion for grades K–12. It also indicates points at which those wishing to limit the innovation can end the process.

Since there are virtually unlimited demands that compete for a district's resources, it is imperative to introduce new content at the least cost while retaining maximum benefits. Minimizing costs may require gradual infusion, possibly beginning with lower grades and progressing to the higher grades (and disciplines). The process can take three or four years and end with a capstone course. Whatever strategy is used, it is essential that the coordinator view past, present, and future efforts in terms of the program's overall goals.

THE PROCESS OF CURRICULUM DEVELOPMENT AND CHANGE

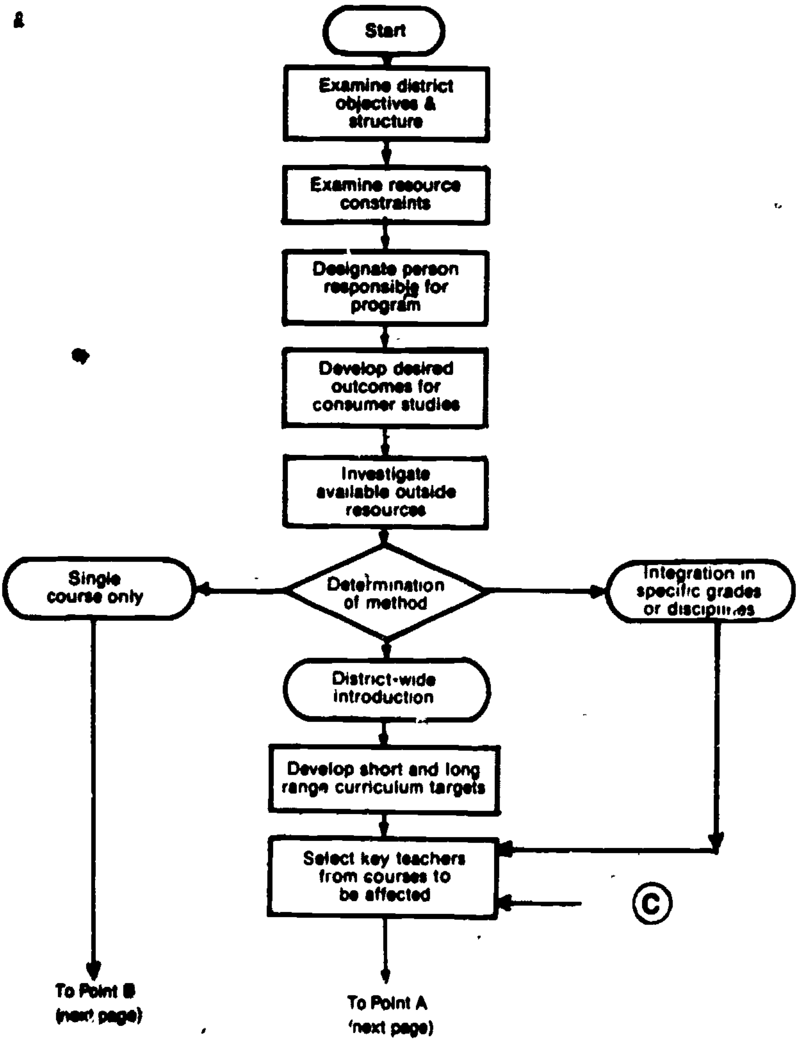
Once the four steps just reviewed have been taken, the specific activities associated with installing the new content can be taken.

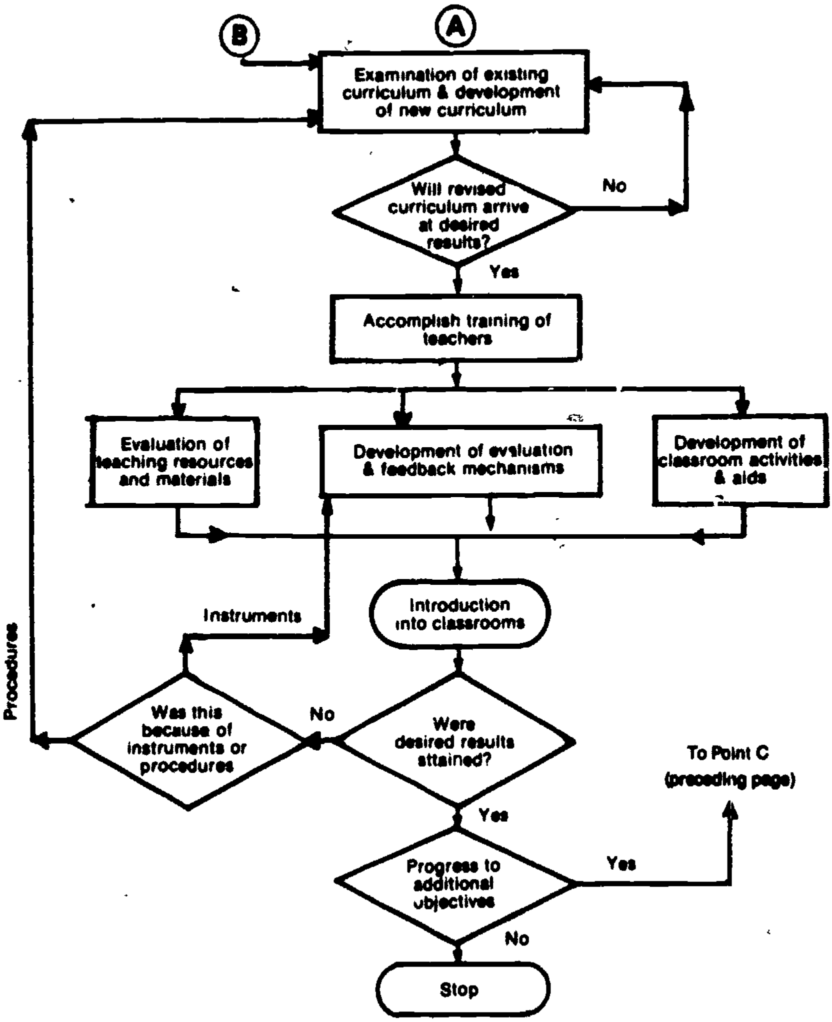
Development of short and long range targets. In any district there will be courses in which consumer economics concepts can be easily fitted. These are typically found in home economics, business education, social studies, or mathematics. In some other courses, the concepts may be readily infused with somewhat more effort. In such courses, especially those with content that can in some way be described as consumer economics, the process can appear deceptively easy. For example, it may not be possible to treat transportation concepts more than superficially in a drivers' education course.

Because of this, districts should prioritize their plans for integrating consumer economics and develop a schedule for high and low priority areas. This enables infusion of the most obvious and easily accomplished curricula first, and allows for additional infusion later while doing so within a logical framework. If possible, these priorities should be established by a district-wide curriculum committee under the direction of the designated coordinator (depending, of course, upon the district's curriculum development structure). The coordinator should pull together a committee of teachers representing different grade levels and disciplines to do so. Two points need to be kept in mind: (1) the committee must be representative of the district curriculum structure so that there will be articulation among grade and discipline levels; (2) the committee members must have a basic knowledge of the economic concepts to be introduced. The latter requirement does not mean that all teachers must be economists to participate in this work. It does mean—to take a concrete example—that teachers who do not understand how opportunity cost applies to comparison shopping will not know how best to put the notions of opportunity cost and of comparison shopping into the curriculum.

Identification of key teachers. Once the priority of courses and/or disciplines has been established, key teachers who are representative of the teaching staff to be involved must be named by the coordinator and formed into a committee. The committee will have many tasks that require extensive effort. (Many are described below.) How well the committee functions will depend heavily on the incentives offered by the district. These incentives may include additional pay, released time, district-wide recognition, or other approaches. If the revised curriculum is to be as effective as possible, the teaching staff should be intimately involved in the revision and should develop a feeling of "ownership."

Figure 3. FLOWCHART FOR CURRICULUM DEVELOPMENT




B
A
Examination of existing curriculum & development of new curriculum
Will revised curriculum arrive at desired results?
No
Yes
Accomplish training of teachers
Evaluation of teaching resources and materials
Development of evaluation & feedback mechanisms
Development of classroom activities & aids
Introduction into classrooms
Instruments
Procedures
Was this because of instruments or procedures
No
Were desired results attained?
To Point C
(preceding page)
Yes
Progress to additional objectives
Yes
No
Stop

Examination and modification of existing curriculum or development of new curriculum. In order for the key teachers to work with the new curriculum, they must have an understanding of the consumer economics concepts they will teach that is at least as deep as that of the district curriculum committee discussed earlier. The committee of key teachers must also understand the existing curriculum. The key teachers should examine the existing curricula for places where the sequence of consumer economics concepts can be infused. They may also discern where linkages, duplications, and omissions may occur among different curricula. Upon locating these points, the committee may wish to further revise the new curriculum to avoid repetition, to provide linked reinforcement of primary concepts, or include concepts in the intermediate and advanced concept clusters. The matrix approach previously used to analyze a housing unit may provide a useful tool for this examination.

Teacher training. All teachers involved in the new curriculum will require training. This can be accomplished through the efforts of the coordinator, the key teachers, and possibly outside training sources such as the JCEE or local universities. Teachers should be introduced to the program as modified by the key teachers, as well as to a Conceptual Hierarchy for Consumer Economics, and they should offer their own suggestions or changes to the program. During training the teachers can also (1) evaluate available teaching resources and materials; (2) develop classroom activities and aids; (3) develop evaluation and feedback mechanisms.

Evaluation of teaching resources and materials. Existing texts and materials may be inadequate to assist in teaching the revised curriculum. They and any new materials need to be examined in terms of their adaptability to the consumer economics concept sequence. It may well turn out that supplementary materials or activities are needed.

Development of classroom activities and aids. It is often possible to remedy inadequate textbook coverage of a topic with teacher-developed activities and aids, but this is a time-consuming and difficult task. It is essential that classroom teachers be assisted in producing new materials so that they reflect the teaching objectives and consumer economics content properly. The development of activities should be part of the teacher training.

Development of evaluation and feedback mechanisms. The success of any new curriculum can be shown by measuring the extent to which predetermined objectives have been achieved. Therefore, a method of evaluating the revised curriculum in relation to the district's objectives must be developed.

Completing the process of curriculum integration. Once the actual curriculum infusion has successfully taken place and has been evaluated, the district can then proceed to the next priority area. If the district originally decided to integrate consumer economics content into a limited number of grades or disciplines, the same process may be used. However, only those teachers to be affected by this infusion need take part in the process. It should be stressed that no matter where consumer economics content will be infused the process will remain the same. Once the district has identified its goals and objectives for the new consumer economics curriculum, the course content, materials to be used, and system of evaluation should be developed around these objectives.

SUMMARY

In this monograph we have attempted to outline a three-part structure for introducing consumer economics education by providing the answer to three questions: (1) Why do it? (2) What should be done? (3) How can it be accomplished? The "why" of consumer economics was answered by providing a brief curriculum rationale. The "what" was answered by establishing a hierarchy of concepts that stresses core concepts and clusters of concepts. The "how" was answered by presenting a specific model and by discussing the process of curriculum change.

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APPENDIX A. GLOSSARY OF CONCEPTS

Basic Economic Concepts

The Basic Economic Problem

Economics is that branch of the social sciences which deals with how people use productive *resources* to satisfy their *wants*. The basic economic problem confronting individuals, groups of individuals, and entire societies is that resources are limited relative to their wants. This basic condition of *scarcity* requires them to make *choices* about how to utilize these resources most effectively in satisfying their wants. Were resources available in unlimited quantities, people would be able to produce and consume all they wanted. This would eliminate the need to make many difficult decisions about resource allocation. In the absence of such a world, people must make choices and, to make such choices, they must have a decision-making apparatus, which we call an economic system.

The basic economic problem of *scarcity* that has confronted all societies—ancient and modern, developed and underdeveloped, capitalist or communist—is *the central* problem from which all other economic problems flow. It is the starting point for an understanding of economics.

1. Economic Wants

Satisfying people's wants for goods and services is the main purpose of economic activity. This is what economics is all about. In modern societies people have a wide variety of wants. Some, such as food and shelter, are basic or subsistence wants. Others, such as snowmobiles and entertainment, provide the convenience and pleasant living most people desire. Still others concern the kinds of work people desire and the amount of leisure they seek. Some wants are individual in nature, whereas others, such as a family home, are collective. Most wants are private, but others are public, such as society's provision for highways, education, and national defense.

The process of satisfying wants is called *consumption* and the people whose wants are satisfied are called *consumers*. In addition to goods and services, consumers also want leisure time in which to enjoy consumption. In some cases they also derive certain satisfactions from the work that is necessary to produce goods and services. Thus, we can think of people's wants as having both consumption and production dimensions.

2. Productive Resources

Before goods and services can be consumed, they must be produced. For this to occur, *productive resources* (also called factors of production) are necessary. Productive resources constitute the input to production, while the goods and

Reproduced from [7, pp. 7-24].

services produced constitute the output. There are several kinds of productive resources.

Natural resources are the gifts of nature used to produce goods and services. They include land, water, oil and mineral deposits, the fertility of the soil, climates suitable for growing crops, timber, and so on. Some of these resources are used up in the process of production, others renew themselves, while still others can be renewed through the conscious efforts of people.

Human resources are people and their physical and mental capacities. The number of people available for work and the hours they work constitute one dimension of labor input. Another is the quality of the labor skills provided and the motivation of those who provide them. The quality of the labor force reflects past efforts to improve skills and knowledge by means of education and training.

Capital goods are those things created by man's past efforts that are available to produce goods and services in the future. They include machines, tools, and factories. The kinds of capital goods used and how they are used reflect the state of technology which, in turn, is a reflection of scientific knowledge and the resources devoted to acquiring this knowledge.

Two dimensions of productive resources are often important. One is *time* which is required in the production as well as the consumption of goods; time cannot be recaptured, stored, or renewed. All people face the prospect of finite days and of finite lives, thereby forcing them to make decisions about how to allocate their time among various activities. *Space* is also important. The amount of living space available, the density of an area's population, and the distances that must be traveled to carry out economic activities influence economic behavior and are influenced by it.

3. Scarcity and Choice

The overriding characteristic of all productive resources is that these resources are limited relative to human wants, and that adding to them requires the use of additional resources. Consequently, the goods and services that can be produced with these limited resources are themselves limited. These two conditions require that people must continuously make *choices* about how to use the scarce resources available to them. The fact that people's total economic wants exceed available resources creates the basic economic problem of *scarcity* which confronts *all* societies. Individuals confront scarcity deciding how to allocate their limited money incomes among alternate uses. Societies face scarcity in deciding how to allocate limited productive resources among alternate uses.

The basic economic problem for all societies is in deciding what goods and services shall be produced, which ones shall be foregone or postponed until later, and when and how productive resources will be transferred from one use to another. Decisions must also be made about how the total output of a society shall be divided among its members—that is, how real income will be distributed.

4. Opportunity Cost and Trade-Offs

Opportunity cost refers to what must be given up when decisions are made to use scarce productive resources to produce particular goods or services. A decision to produce one good means giving up the possibility of producing something else. Thus, the opportunity cost—what could have been produced with the resources instead—is the cost of producing that good. For an individual, the opportunity cost of something purchased is the other things which must be foregone. For a society, it is the alternate uses to which productive resources could have been put.

When a person or a group chooses one good instead of another, they are making a *trade-off*—that is, they are trading off less of one thing for more of something else. Society has to make trade-offs too, e.g., between its need for more energy and its desire to preserve the environment. Essentially this involves comparing the various costs and benefits of each of the alternatives. It also involves determining how these costs and benefits will affect different groups within the economic system.

5. Marginalism and Equilibrium

Rather than viewing choices as an all-or-nothing proposition, many decisions involve small changes—a little more of this or a little less of that. Consumers continuously practice *marginalism* as they consider the effect of purchasing one more or one less unit of a consumption good or service. Producers must decide whether to produce more or fewer units of output or to hire or fire additional workers. Decisions about small changes are made more often than decisions about big changes, and the former are usually easier to assess than the latter.

An examination of the effect of small or marginal changes leads us to the concept of *equilibrium*. Equilibrium is a state of "rest" in which there is no tendency for change. When some change does occur in an economy, this tends to set off a series of reactions whose effects eventually subside, and a new equilibrium occurs, i.e., there is no tendency for further change. If, for example, prices go up, consumers will react by reducing their purchases until they have fully adjusted to the new price—until the level of purchases displays no tendency toward further change. This we call equilibrium. In a rapidly changing world, other events often intervene before equilibrium is reached, setting off a new process of change toward a new equilibrium. The concept of equilibrium is useful, nonetheless, because it enables us to analyze the effects of marginal changes and the direction of change in economic activity, thereby throwing light on the trade-offs among alternative choices.

Economic Systems

6. Types of Economic Systems

The way people and societies organize economic life to find answers to the questions posed above is called an *economic system*. An economic system can be described as the collection of institutions, laws, activities, controlling values, and human motivations that collectively govern economic decision-making.

We can identify four major types of economic systems. One is based on *tradition*—that is, people generally repeat the decisions made at an earlier time or by an earlier generation. A second is based on *command*—that is, the decisions are made largely by an authority, such as a feudal lord, a dictator, or a government agency, and then are passed down to the people who must accept them. The third is a system known as a market economy. This is a system of *decentralized* decision-making in which all persons participate by registering their desires in the market, in their varying capacities as consumers, producers, workers, savers, and investors. The market "adds up" these individual desires and creates out of them aggregate forces called demand and supply which in turn determine prices. Prices act as signals to producers, telling them what consumers want, and also act as regulators, allocating productive resources and finished goods and services among members of society.

We have chosen not to use "socialism," "communism" or "capitalism" to describe economic systems because these terms are often misunderstood, mean different things to different people, and are associated with value biases. No real world economy is a pure form of a tradition, command, or decentralized market system. Each economy uses somewhat different allocating mechanisms to answer the basic economic questions and each has somewhat different institutions, controlling values, and motivating forces at work which affect the operation of the economy.

Most societies are, in fact, examples of *mixed economies*—that is, their economic systems embrace more than one of the above-mentioned kinds of decision-making, though usually one dominates. The element of tradition is most evident in the rural areas of the less developed countries of Asia and Africa. The element of authoritarian command, where the individual has little or no input into decision-making, is most evident in the Soviet Union, the People's Republic of China, and other centrally planned economies. The element of decentralized or market decision-making is most evident in the United States, Canada and Western Europe. Among Western democracies, however, there exists a great deal of diversity in the degree of government planning and in types of economic institutions. Even in the United States there is a continuing and as yet unresolved debate concerning the role of government in economic planning.

To understand the nature of an economic system, four basic questions must be asked:

First, what is the nature of the "mix" of allocating mechanisms? How many economic decisions are left to the market? How many are made by authoritarian command? How many are made by a representative government subject to popular control? How many are tradition-oriented?

Second, what are the most important economic institutions of the society?

Third, what are the controlling values and motivating forces of the society? How well is its economic system performing in the light of its goals? And what kinds of policies are being followed to promote the achievement of the goals?

Fourth, what significant changes appear to be taking place in the economic system?

These four questions offer a systematic "way of thinking" about economic systems.

Finally, it should be noted that people of all societies, regardless of the type of economic system, engage in certain basic economic activities. These include *producing*, *exchanging*, and *consuming* goods and services, as well as *saving* and *investing* so that capital goods can be accumulated to increase future production. These activities take place within different institutional frameworks, depending on the kind of economic system. For example, the pattern of production in a command economy, such as that of the Soviet Union, will be decided by government planners but in a market economy it is decided by the demands emanating from individual choices. The distinguishing characteristics of an economic system are thus not the economic activities carried on but the kinds of economic institutions and the way in which decision-making is organized.

7. Economic Incentives

In mixed market economies perhaps the most important motivating force behind economic behavior is *individual self-interest*. Consumers allocate their limited incomes to increase their total satisfaction. Producers seek to maximize their profit and are pushed by the profit motive to combine productive resources in the most efficient ways to produce the goods and services consumers want to buy. Workers seek to sell their labor where the return in money and working conditions is highest, just as savers search out high interest rates in capital markets; both are motivated by self-interest. Similarly, losses (negative profits) are a signal to move resources elsewhere.

Profits are a particularly important incentive in a market economy. Profit is what remains after the costs of production have been deducted from the revenue derived from the sale of goods. It is the desire for profit that persuades entrepreneurs to establish new businesses and later to change the pattern of production (e.g., from big cars to small cars). It is the profit motive which stimulates managers to make businesses more efficient, to introduce new cost-cutting technologies in production, and to compete more vigorously with other businesses for the consumers' dollars. Realized profits provide an important source of funds for new investment and thereby stimulate future growth. Thus, in a competitive market economy, profit spurs both efficiency and growth.

Not all economic decisions in the U.S. economy are left to individuals. People form themselves into groups and use group pressure, both in the market and through political processes, to achieve their goals. For example, workers form labor unions and engage in collective rather than individual bargaining over wages, and companies use trade associations to lobby in Congress for favorable tax laws. The major motivations here are to serve the interest of individual workers and the owners of individual businesses. Government also plays a major role in the U.S. economy and seeks through its activities to enhance the general welfare of the people. This includes establishing conditions to foster the opportunities for individuals, businesses, and groups to achieve their own interests.

In other economic systems, different motivating forces have been evident. In command countries, for example, much emphasis is placed by people in authority on the contribution individuals and groups can make to the welfare of the state rather than to their own personal interests. In some earlier societies, a major motivation was glorifying the ruler (e.g., building pyramids in Pharoah's Egypt), God (e.g., building cathedrals in medieval Europe), or the state (e.g., Hitler's Germany). Whatever the motivations may be, they will influence the form of the economic system and the way it functions.

8. Specialization, Comparative Advantage and the Division of Labor

Modern economic systems are based on *specialization* because it permits scarce resources to be used more efficiently. Specialization occurs when an economic unit produces a narrower range of goods and services than it consumes. Specialization can be practiced by an individual, by a business, by a region, or by a country. Regions of countries, for example, normally specialize in the production of those goods and services which they are best fitted to produce, given their particular endowment of productive resources, and they buy the rest of what they need from other regions. Specialization is the basis of both domestic and international trade.

The principle of *comparative advantage* determines which particular goods and services can be produced most efficiently and by which countries. It states that the greatest gain in total output will occur if each country specializes in producing those goods and services which can be produced with the greatest relative efficiency. In fact, however, a complex system of tax incentives, tariffs, quotas and other regulations influences patterns of international trade and investment.

The concept of *division of labor* is closely related to comparative advantage. Productive tasks are divided among workers so as to take advantage of the gains from worker specialization. Because of the division of labor, individuals must purchase many of the goods and services they need from others. This has led to the development of an *exchange economy* and the use of money to facilitate exchange.

9. Voluntary Exchange

When two individuals decide to exchange something (e.g., A buys a radio from B), we know that both A and B are better off in their own minds, for otherwise they would not have traded. Voluntary exchange is an important feature of the American and other market-oriented economies. Individuals, groups and regions specialize in the production of particular goods and in the performance of particular services, producing more of them than they themselves wish to consume. They then exchange the surplus for goods and services produced by others, and all are better off as a result. Since barter is clumsy, *money* has been developed to facilitate exchange. When buyers and sellers come together to engage in exchange, we say a market exists. Markets and prices, as explained below, constitute the principal allocating mechanism of the American economy, determining what goods and services will be produced, how they will be produced, and who will get them. Underlying this mechanism is the concept of voluntary exchange.

10. Interdependence

When an economy is based on specialization and exchange, as most modern economies are, the people of the economy become *interdependent*. The American economy is characterized by a high degree of interdependence—among individuals, businesses, and regions. One way of demonstrating both interdependence and the overall structure of the economy is through a diagram (see Figure 4) showing the circular flow of finished goods and services, productive services, and money payments.

In the private sector households provide their labor, savings, and property to businesses which use them to produce consumer goods and services; these are then sold to households. This circular flow of productive resources and finished goods and services is paralleled by a reverse flow of money. Producers pay wages, interest, and other forms of income to households who then spend the money buying goods and services from producers.

The presence of the government sector (not shown in Figure 4) results in additional flows of productive services from households and businesses to governments, and of goods and services from governments to households and businesses. The counterflow of money is one of wages, interest, and other forms of income moving from governments to households and businesses, and of money payments, including taxes, moving from households and businesses to governments.

11. Government Intervention and Regulation

In the American economy the questions of what to produce, how to produce it, and how to share it are not left exclusively to free market forces. In our mixed economy, *government* plays a key role. Government influences the allocation of resources in several ways. Control over the *production* of some goods and services (such as national defense, highways and justice) has been removed from the private sector and placed in the public sector where government makes the important decisions. Government also intervenes in many markets with *regulations and controls* with the intent to improve upon the results produced by the free play of market forces. Examples are public utility regulation, tariffs, minimum wage laws, and antipollution and safety requirements. Finally, through its *taxing and spending* activities, government shifts control over resources from private hands to the public, and it also *redistributes* income among individuals through transfer payments. These activities influence what and how much will be produced, how it will be produced, and how it will be shared or used.

Microeconomics: Resource Allocation and Income Distribution

Microeconomics is the study of the behavior of individual households, firms and markets, of how prices and outputs are determined in those markets, and of how the price mechanism allocates resources and distributes income. To understand what goods and services an economy will produce requires that we know how the prices of goods and services are determined, how these prices determine the pattern of production, and how this pattern is influenced both by the structure of markets and by government actions.

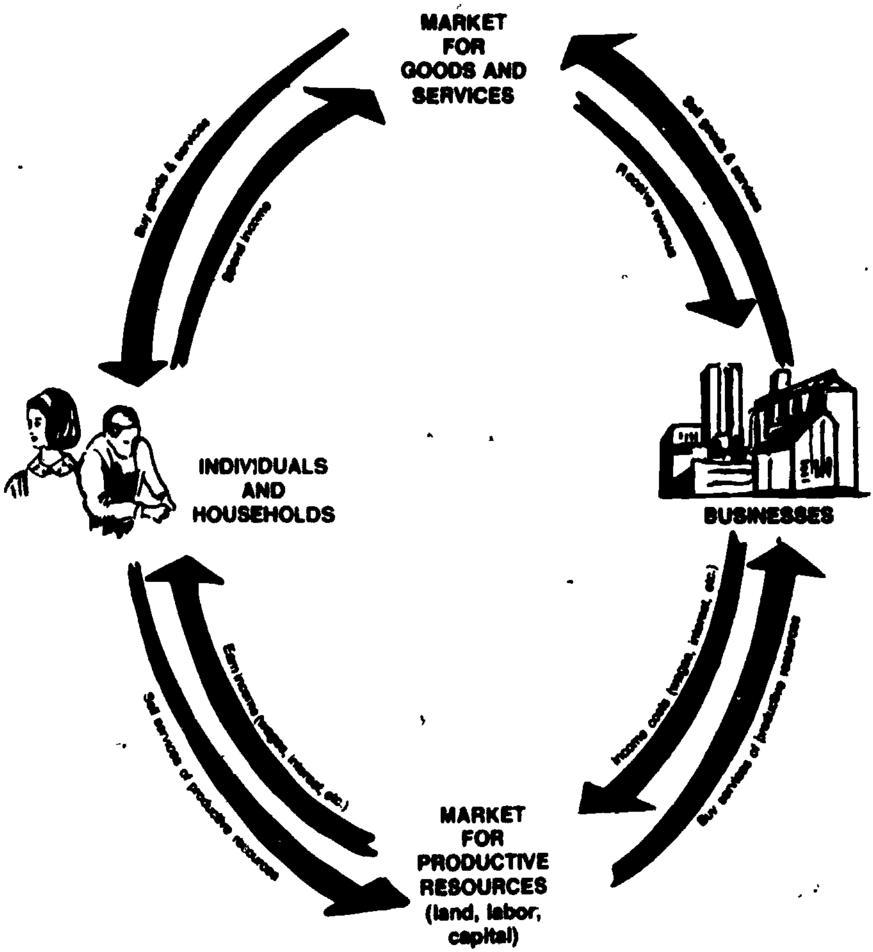
12. Markets, Supply and Demand

As already stated, the *market* is a mechanism whereby individual buyers and sellers register their decisions to buy or sell goods and services and productive resources. The market "adds up" these individual decisions and creates out of them aggregate forces known as supply and demand. As a general rule, supply and demand thus constitute the sum total of all the individual decisions to sell and to buy in the market. Interacting with one another, they determine the price of what is bought and sold.

Supply indicates the amounts of anything that will be offered for sale at various possible prices during some period of time. Generally, the higher the price of something, the more of it will be produced and offered for sale—and vice-versa. *Demand* reflects the amounts that consumers will be willing and able to buy at various possible prices during the same time period. As a general rule, the lower

Figure 4

THE CIRCULAR FLOW OF ECONOMIC ACTIVITY



the price, the more will be demanded—and vice-versa. The *market* price of something is the price that prevails in the market at a particular time. In competitive markets, it reflects the conditions of supply and demand; in other markets, it may reflect monopoly influences or governmental regulation.

13. The Price Mechanism

Market prices constitute the principal allocating mechanism of the American economy. Prices act as "signals," flashing information to households, producers, workers, savers, and investors, helping them to decide what are the most rational and profitable decisions to make in the market. The array of prices confronting individuals and households, for example, helps to determine the way they will spend their limited incomes. Wages and salaries (the price of labor) determine the incomes of workers and also allocate labor among different uses. Interest rates (the price of debt capital) determine what kinds of investments will attract money capital. The prices of finished goods relative to costs indicate to producers the most profitable items to produce while the prices of productive resources determine their costs of production. Changes in prices affect the way consumers spend their money, where workers work, how savings are invested, and what producers produce.

Prices also are a rationing device for allocating goods and services among consumers and productive resources among producers. If, for example, a freeze destroys half the Florida orange crop, the reduced supply will lead to higher prices which ration out those who are unwilling or unable to pay the higher price. If a new technological development makes it possible to produce minicalculators more cheaply, the lower prices will enable more consumers to buy them. Buyers bid against one another for scarce resources; sellers compete with one another for customers. The resulting prices reflect the relative scarcity or abundance of goods and determine who gets them and who goes without.

14. Competition and Market Structure

Some knowledge of market structure is essential to understanding how a market economy functions and how prices, costs, and output levels are determined. The term *market structure* refers to the degree of competition prevailing in a particular market and the extent to which the government under various laws intervenes in the market to influence the pricing process and the rate of profit. Some markets are highly competitive in that there are many sellers, none of whom can affect the market price, and entry into and exit from the industry are relatively easy. Other markets are dominated by a small number of sellers whose individual actions can affect and sometimes control prices, where entry is difficult, and where as a consequence substantial market power may rest with a few producers. The continuum of market structures runs from highly competitive to monopolistic. There are many cases between these two extremes. Foreign "cartels" (such as OPEC) represent still another device for altering the effects of competition. The purpose of antitrust laws has been to try to maintain competition so the market economy will function more effectively and serve consumers better.

No effort should be made to introduce precollege students to the various cost curves used by economists to illustrate various detailed market situations. Such students should, however, develop an intuitive understanding of these different kinds of markets and, when confronted by a particular situation, should instinctively think in terms of such things as the number of sellers, the degree of product differentiation, possible barriers to the entry of new firms, possible collusive action among sellers, the role of the government in the market, and the level of profits earned. The important thing for students to realize is that prices, which determine what and how much will be produced, are themselves affected by the competitive structure of various markets.

15. "Market Failures": Lack of Information, Resource Immobility, Externalities

Other factors in addition to supply and demand, market structure, and government intervention to prevent monopoly affect the functioning of the market mechanism.

Lack of knowledge of market conditions on the part of consumers, workers, and managers of small businesses affects the decisions they must make and the efficiency with which the market mechanism affects the allocation of resources. Consumers, for example, are not always well-informed about the quality of the products on sale or of the alternatives they have. Unemployed workers may not know of job opportunities in nearby labor markets. Managers of small businesses may be unfamiliar with the nature and the amount of the demand for their product or with the extent of the competition. The high costs of obtaining accurate information needed for the market mechanism to operate more efficiently have often given rise to public provision of information.

Resource immobility can also result in a less-than-perfect functioning of the market mechanism. Workers, for example, may not be able to move from declining to expanding industries because they lack the specialized skills needed or do not have the money needed to relocate themselves. Various public policies have been developed to deal with these problems. They include consumer education and consumer legislation, manpower training programs, and special information and credit facilities for small business executives. To the extent that these policies succeed, the market mechanism will operate more efficiently. Government intervention, however, does not always work effectively; and sometimes it can militate ratner than mitigate market imperfections.

Externalities are side-effects that result when the production or consumption of a good or service in the market directly affects the welfare of others, without being reflected through the price mechanism. Externalities occur in both production and consumption, and they can have positive or negative effects. For example, cigarette smoking is increasingly viewed as having detrimental effects on nonsmokers in close proximity to smokers; on the other hand, more schooling is regarded as improving the well-being not only of the individuals receiving the schooling but also of others through the creation of a better-educated society. Polluting firms along rivers reduce the pleasure derived by people who might swim or fish in the river.

Externalities can be treated in various ways. Positive externalities (resulting from education, for example) can be stimulated by subsidizing those activities which produce them. Negative externalities (resulting from pollution, for example) can be corrected directly by those who produce the externalities, or indirectly by taxing those who produce the externalities, by giving subsidies to help to eliminate the externalities, by compensating those people adversely affected by them, or by direct legal prohibition. If no correction occurs, as often happens, the result is that social welfare is less than it would otherwise be. At the same time, government efforts to correct for externalities are not always successful.

16. Income Distribution and Government Redistribution

The size of a person's money income largely determines his or her share of the total of goods and services produced. Students should have some knowledge of the sources of personal income and how income is distributed in the U.S. Students should also learn how nongovernmental forces (e.g., unions, inflation, business conditions, and unemployment) and governmental policies (e.g., tax and transfer policies) influence this distribution.

Sources of Income. The functional distribution of income focuses on the main sources of personal income: wages and salaries, rent, interest, dividends, the earnings of unincorporated enterprises, and transfer payments. Except for the last source, these are the rewards people receive for contributing their labor, savings, and intellectual and entrepreneurial skill to the productive process. Transfer payments, which have grown rapidly in recent years, are government payments that require little or no current productive activity in return, although in some cases productive activity may have been performed in the past. The most important transfer payments are social security benefits, welfare payments, food stamps, unemployment compensation, veterans benefits, and old-age assistance.

Income Distribution. The size distribution of income shows the number of families arrayed by different levels of income. The basic force determining the distribution of income is the market which establishes the value of a person's services and compensates him or her accordingly. Other forces are also important. Inherited wealth, the ownership of property, custom and tradition, and the influence of strong organizations such as labor unions, employer associations, and government intervention also play a role in determining the pattern of personal income distribution.

Government Modifications. Government policy, as provided by law, has a major effect on the distribution of income. Taxes take money away from people; government spending and transfers put it in their hands. A progressive income tax takes a larger percentage of income from those with higher incomes. Government spending for the most part is not designed to redistribute income. Transfer payments on the other hand are more frequently redistributive in their effect by being directed to those with low incomes. Not all transfer payments, however, go to people with low incomes.

Nongovernmental Modifications. It is important to understand the role of organized groups such as businesses, unions, and farmers in seeking to alter the distribution of income. An increase in the total income of the nation permits everyone to have a larger *amount* (though not to an unlimited extent). But various business, labor, farm, and other groups, including such groups as the poor, the veterans, and the elderly, seek continuously to expand their *share* of total income.

If these groups together try to obtain too much—the total claims on resources exceed what is available—either inflation or unemployment will result, or others will receive less. Finally, other practices and customs, such as discrimination and tradition, also help to shape the distribution of income. The distribution of income and the extent of redistribution are controversial policy areas, with many decisions made through the political process.

Macroeconomics: Economic Stability and Growth

Macroeconomics is the study of the functioning of the economy as a whole—of the total output of the economy, the total level of employment, and movements in the average level of all prices. The essence of macroeconomics lies in analyzing the determinants of aggregate supply (the total productive capacity of an economic system) and of aggregate demand (the total spending by economic units on the goods and services produced). In the short run, the main problem of macroeconomics is why aggregate demand sometimes exceeds and sometimes falls short of aggregate supply, thus bringing on inflation and/or recession. In the long run, macroeconomics is concerned primarily with economic growth—increases in the productive capacity of the economy and average real income per person.

17. Aggregate Supply and Productive Capacity

Aggregate supply is the total amount of goods and services an economy can produce when all of its resources are fully and efficiently employed. This full-employment productive capacity of the economy is substantially fixed at any moment of time, but it can grow over time with increases in the labor force, improved education and training of workers, more saving and capital investment, discovery of new resources, and technological advances.

18. Aggregate Demand: Unemployment and Inflation

Aggregate demand is the sum of spending on goods and services in any time period by individuals, households, businesses, and governments. When aggregate demand falls seriously short of what the economy is capable of producing at full employment, and wage rates are relatively inflexible, *unemployment* and recession or depression will result. When aggregate demand is greater than aggregate supply at full employment, *inflation* results. Keeping aggregate demand roughly equal to full-employment aggregate supply is one key to maintaining a full-employment economy without serious inflation or unemployment. Thus, in analyzing aggregate demand, it is important to study the basic forces controlling spending by households, business, and governments.

Some unemployment occurs for reasons in addition to inadequate aggregate demand. Some people lack the skills or education to fill jobs even when aggregate demand is high. Other people reside in depressed areas where job opportunities are limited. And some people are the victims of discrimination in employment. This means that a variety of policies is needed to deal with unemployment.

Inflationary pressures can also be generated by the actions of businesses and unions in key industries where they push up wages and prices; this is known as "cost-push inflation." Supply shortages, often of a temporary nature, can push up prices, sometimes enough to affect the overall price level. Again, aggregate demand policies are not always the most appropriate way to restrain inflationary forces.

19. Price Level Changes

The *gross national product*, GNP—the total value of all goods and services produced—and national income accounts measure the total output of an economic system. In using these data, it is important to distinguish between changes in *real* output and changes that merely reflect price increases or decreases; the former we call "real income" or "real GNP," and the latter nominal income or nominal GNP. When inflation occurs, money income rises faster than real income, as the price level (the average of the prices of all goods and services) rises. This forces individuals and businesses to make adjustments both to higher prices and to changes in relative prices of different goods and services. Unemployment brings even greater social losses, in human and nonhuman productive capacity wasted and in the social and economic costs of unemployment to the individuals concerned. When society must face a trade-off between the two, difficult problems of measurement, comparison, and choice are involved.

20. Money and Monetary Policy

The government has two major ways—*monetary policy* and *fiscal policy*—of trying to keep the level of aggregate demand roughly in balance with the growing productive capacity of the nation. Monetary policy seeks to affect the amount of money in existence and its cost (interest rates). This is the responsibility of the Federal Reserve System, a quasi-independent government agency.

Money is generally defined as the sum of currency (cash) and demand deposits (checking accounts) in banks. Currency is printed or coined by the government but the bulk of the nation's money supply, demand deposits, is created by the banking system. The banking system increases the money supply by making loans to individuals, businesses, and the government. This lending creates more demand deposits and thus increases the spending power of the economic units which make up aggregate demand.

Banks are required to hold reserves behind their deposits. The principal but not the only instrument of Federal Reserve monetary policy is control over these reserves which are held on deposit at Federal Reserve Banks. If the Federal Reserve provides the banks with more reserves, this permits them to lend more to the public, thus making possible an increase in aggregate demand. Conversely, a "tight money" policy, which involves holding down the size of bank reserves, means restraining aggregate demand.

Monetary policy today is an area of considerable controversy with economists divided on what Federal Reserve policy ought to be. We still have much to learn about how to manage the money supply so as to achieve economic stability.

21. Fiscal Policy: Taxes, Expenditures, and Transfers

Fiscal policy consists of changes in taxes, government expenditures on goods and services, and transfer payments to control the level of aggregate demand. Generally, when the government increases spending on goods and services or on transfer payments but does not correspondingly increase tax receipts, total aggregate demand will be stimulated and push the economy toward more employment or inflation. Conversely, when government reduces expenditures without reducing tax receipts, aggregate demand will be reduced and push the economy toward less employment or less inflation. Similar effects can be obtained by cutting or increasing tax receipts, with government expenditures being held constant.

Students should have a rough idea of the magnitude of government expenditures and taxes, and should know something about the practical problems of increasing o decreasing taxes and expenditures flexibly. They should see the difference between government purchases of goods and services, which provide jobs directly, and transfer payments (unemployment insurance, social security payments, and the like), which change recipients' incomes but do not directly provide jobs or use up productive resources. As with monetary policy, we still have much to learn about fiscal policy and how to use it to achieve stable economic growth. It is important to understand both its potentialities and its limitations.

22. Economic Growth

Economic growth is generally defined as the increase over an extended period of the total production of the economy and output per person. If a growing population is to be able to consume more goods and services, more must be produced. Economic growth also creates jobs for our growing labor force. Finally, there are many claims on our economy's output—for more consumer goods and capital goods provided through the private sector as well as more national defense, mass transit, and other social programs provided through the public sector. If the economy does not grow, then one person or group can have more only if another person or group receives less. Such a situation generates both inflationary pressures and social tensions.

In recent years, the national desire for growth has been qualified by a concern over some of its adverse side-effects—air and water pollution, urban congestion, destruction of the natural beauties of the environment by strip-mining, urban sprawl, etc. Hence, the quality of growth is also important. This issue can be understood by using the tools of economic analysis already developed. For example, air and water pollution are examples of negative externalities; we face opportunity costs and trade-offs as we seek to expand our energy supplies and also protect the environment. Preserving the quality of life will require acceptance of a slightly slower rate of growth as some productive resources are diverted into social and environmental projects that will offset some of the negative effects of economic growth.

23. Saving, Investment, and Productivity

Economic analysis gives us a framework for understanding the growth process: why some countries grow faster than others, and why growth rates vary over the years.

Increasing the supply of inputs—natural resources, labor, and capital—leads to an increase in output. Over the years some of the nation's economic growth has resulted from increases in the size of the labor force and the stock of capital. Another main source of growth is increased productivity, meaning that resources are used more efficiently so that there is increased output per unit of input.

Saving and investing is the heart of the growth process since an increased stock of capital contributes to both increased production and increased productivity. *Saving* occurs when individuals, businesses, and the economy as a whole do not consume all of current income or output. *Investment* occurs when these savings are used to increase the economy's productive capacity by developing new technology and by building new factories, machines and the like. Or savings may be invested in human beings through education and training or in research and development. From an individual standpoint savings represent income not spent but placed in financial institutions, such as banks, savings and loan associations, and pension funds, which transfer them to those who wish to buy capital goods. In a real sense, saving and investing represents a diversion of productive resources from consumption into the creation of capital goods which make growth possible.

Government actions and policies may have both positive and negative effects on *productivity*. Historically government has encouraged growth and productivity increases by its investments in transportation, education, and agricultural research. Government has also provided a framework of law and political stability. On the other hand, growth and productivity increases are sometimes hampered by government actions, such as rules which serve particular groups rather than the general welfare, tax policies which adversely affect saving and investment, and regulated prices which prevent resources from moving into other more productive uses.

The World Economy

24. International Economics

Finally, economists are concerned with economic relations among nation-states, including *international trade* and investment and international monetary relationships.

In general, economists use the same tools of analysis to understand the world economy as they do to understand a national economy. The principles underlying international trade are the same as those underlying domestic trade. Goods and services are sold in international markets at prices determined by demand and supply. However, special problems arise in international analysis because of the existence of national boundaries and different monetary systems. Moreover, the free functioning of market forces is modified in many international markets by government intervention in the form of *tariffs*, quotas, subsidies, state trading, and cartel action (e.g., oil).

The principle of comparative advantage explains why countries specialize in producing particular goods and services. *Exchange rates* indicate the relative prices of different currencies and indirectly the relative prices at which these goods and services are traded. Exchange rates are determined by the forces of supply and demand in foreign exchange markets with varying degrees of government intervention influencing the actual rate.

Economic growth is a universal concern but is particularly important to the developing nations which need to increase productivity to raise living standards. International investment and technology transfers are two important processes for promoting the growth of nations. These may be transmitted from one country to another either through private channels (private business investments, including those of multinational corporations) or through public channels (foreign aid, loans by international organizations). Inflation and recession are also international phenomena, being transmitted from one country to another by changes in incomes, prices, international trade, and capital movements.

ECONOMIC INSTITUTIONS

The institutions of an economy are of several kinds. There are formal organizations, such as households, corporations, government agencies, banks, labor unions, and cooperatives. There are also the customary ways of doing things, such as the use of money and of collective bargaining. And there are common prevailing sets of beliefs which pervade an economic system. The nature of economic institutions varies depending on the kind of economic system, although some institutions are common to almost all systems.

In the United States the household is the typical unit of consumption, the private firm (which can take various legal forms, such as the corporation or the partnership) is the typical unit of production, workers organize into labor unions to further their interests, government agencies play an important regulatory role in our economy, and some state-owned enterprises (such as the Tennessee Valley Authority, the Post Office, and municipal bus lines) produce goods and services. Students should know that other economic systems use different institutions. For example, China carries on agricultural production through communes and the Soviet Union through collective farms. Israel has its kibbutzim where people work voluntarily on collective farms. In Sweden and Finland cooperatives are important. Banks flourish in almost every country.

We also have institutions which reflect customary ways of doing things. Students should know that almost all societies—except for some primitive tribes—use money as a medium of exchange and a measure of value. All societies have some system of property ownership. In some, such as the United States, private ownership of property is emphasized. In others, such as China, public ownership is the rule (although this does not necessarily mean that there is public input into decision-making). Government planning is highly centralized and comprehensive in the Soviet Union, more decentralized in Yugoslavia, and nondirective ("indicative") in France. Some institutions are limited to certain types of economic systems, such as collective bargaining in democratic industrial countries.

Cultural traditions of societies also influence the pattern of economic behavior. Examples are the highly visible "work ethic" of the Japanese, the nonmaterialistic philosophy of certain Buddhist countries, and the monthly pattern of retail sales in the United States with buying peaks in the spring and just before Christmas.

The performance of these economic units varies across time and place, in part because economic institutions reflect the interplay of individuals pursuing somewhat different goals and objectives. Moreover, these goals and objectives are constantly evolving in response to the way these institutions affect economic performance. Some economic units or groups possess greater power than others and, consequently have greater potential for affecting the institutional framework within which economic activity occurs. Because economic institutions play such a central role in every economic system, an understanding of them is essential to interpreting how market forces operate to allocate scarce resources among competing wants.

MEASUREMENT CONCEPTS

A number of measurement concepts can help in explaining economic developments and assessing economic performance. These concepts are not unique to economics nor are they limited in their use to the social sciences. Many of these concepts might be incorporated into the mathematics curriculum but taught with an emphasis on their applicability and usefulness in understanding economics.

1. Averages and Distributions Around the Average

Students should be able to distinguish, for example, between the total Gross National Product and per capita or average GNP. They should also understand that an average tells nothing about the distribution of values around the average. Per capita income, for example, provides no information about how income is distributed. Instead, an array of the number or percentage of income recipients by levels of income is required to show how income is distributed.

2. Amounts versus Rates

Students should be able to distinguish between, for example, the amount of unemployment (the number of unemployed workers) and the simple percentage unemployment rate (unemployment expressed as a percentage of the labor force), or between the amount of Gross National Product and its rate of growth (percent per year increase in GNP).

3. Index Numbers

Index numbers are useful statistical devices for measuring average changes in such things as consumer prices and industrial production. Students should know that, for example, the Consumer Price Index measures the average change from some earlier base year in the prices paid by urban blue-collar and clerical workers for the collection of goods and services they usually purchase.

4. Real versus Nominal

Students should be able to distinguish between nominal or money GNP which is measured at current prices, and real GNP which is money GNP adjusted to take account of price changes. If prices increase, for example, the amount of real GNP, as measured in last year's prices, will be less than nominal or money GNP.

5. Ratios

Ratios express the relationship of one numerical value to another. An example would be the roughly 2:1 ratio of unemployed black youths to unemployed white youths.

6. Tables

Tables are used to display numbers in a concise fashion and to reveal particular relationships among quantitative data. A tax table, for example, shows the amounts of tax to be paid for each different income level.

7. Graphs and Charts

Graphs are used to plot the relationships among different data. One example would be demand and supply curves which plot the relationship between price and the amounts of a good offered for sale and demanded in the market. Other examples would be bar charts comparing, say, the percentage unemployment rates of different subgroups of the population, or "pie" charts showing, for example, the way tax revenues are spent.

CONCEPTS FOR EVALUATING ECONOMIC ACTIONS AND POLICIES

Broad Social Goals

The heart of economics is decision-making—choosing among alternatives. Economic decisions are not made in a vacuum. Rather, they are made in the light of a set of goals. These goals vary from one society to another, and they vary among groups and individuals within societies. The goals most evident in the modern world, and particularly in American society are: freedom, economic efficiency, equity, security, stability (full employment and the absence of inflation), and growth.

These goals or criteria provide means for evaluating the performance of economic systems and parts of them, as well as the desirability of existing programs and newly proposed policies.

1. Freedom

Economic freedoms are those of the marketplace—the freedom of consumers to decide how they wish to allocate their spending among various goods and services, the freedom of workers to choose to change their job, to join a union, and to go on strike, the freedom to establish a business and to decide what to produce and when to change the pattern of production, the freedom of savers and investors to decide how much to save and where to invest their savings.

Economists are concerned about the freedom of individuals and groups, especially insofar as particular actions open up or restrict freedom in the market place and affect the other goals of economic efficiency, equity, stability, growth, and security. Some argue that more governmental regulation limits the freedom of people to make individual choices. At the same time, however, such policies may free other people to take greater advantage of the opportunities provided in a market economy. In short, it is essential to define the kinds of freedom under discussion and whose behavior is most likely to be affected.

2. Economic Efficiency

There are several dimensions to efficiency. The first is technical efficiency which concerns using the least amount of resource inputs to obtain a given output, or obtaining the largest output with a given amount of resource input. This does not necessarily indicate the most appropriate choice, however, because it fails to consider the different costs of various inputs or the different benefits of various outputs. Economic efficiency goes beyond technical efficiency and considers the total costs and total benefits of various decisions. Economic efficiency means getting the most out of available resources. Actions should be undertaken if the benefits exceed the costs; they should not be undertaken if the costs exceed the benefits. The concept of economic efficiency is central in economics, and it should receive heavy emphasis in both individual and social decision-making.

3. Equity

Equity is an elusive concept. There is little agreement on what is equitable; people differ in their conception of what represents equity or fairness. In evaluating economic performance, the concept serves as a reminder to investigate who or what kinds of people are made better or worse off as a result, for example, of a change in prices or the implementation of a new government program. Though two actions might appear to be equally efficient from an economic standpoint, one might, for example, benefit the rich and another the poor, one might benefit consumers and another producers, and so on. Many people would not be indifferent as to the results, since they harbor some concept of what is more or less equitable. Ultimately, the concept of equity manifests itself in the distribution of income and wealth. A more neutral way of dealing with this concept is simply to talk about the income distribution effects of economic actions: Who gains and who loses?

4. Full Employment

Full employment means that all of an economy's resources are fully utilized. In practice, an unemployment rate which reflects normal frictional unemployment has come to be viewed as the operational measure of full employment, with continuing debate as to what rate in the 3-5 percent range is indicative of full employment. The goal of full employment recognizes the heavy costs in lost output that accompany higher rates of unemployment, as well as the costs to individuals through economic hardship.

5. Price Stability

Price stability—the absence of inflation—is also a goal. While reasonable price stability might involve an upward creep of prices (perhaps 2 percent per year) substantial rates of increase often require individuals and businesses to make costly adjustments to offset the effects of rising prices.

6. Security

The goal of economic security concerns the desire of people for protection against economic risks, such as unemployment, destitution in old age, business failures, bank failures, and precipitous price declines for one's product. The desire for security has led to a variety of public programs and policies including unemployment compensation, social security, federal bank deposit insurance, farm price supports, and FHA-guaranteed housing loans. Economic security also results from private efforts, such as saving and insurance purchases, as well as from the growth of the economy which provides the mass of the people with more material wealth. Nations also engage in the quest for economic security by seeking through international agreements to assure themselves of access to key resources (e.g., the Soviet-American grain agreement) or of adequate prices for their exports (e.g., international tin agreement).

7. Growth

"What effect will this policy or program have on economic growth?" is a frequently asked question. Though this criterion is most frequently discussed in thinking about a nation's economic growth, individuals and firms also take account of how their actions and those of others will affect their own future economic well-being, as reflected in higher incomes and increased profits. Growth is a long-run goal, to be thought of in years and decades. Whereas growth has typically been viewed as producing a broad range of benefits, attention has recently been called to the various costs that accompany economic growth. Consequently, growth is a less universally accepted goal today than it was a decade ago.

8. Other Goals

At times there are other goals important in the consideration of specific problems or questions. This listing simply reminds readers that they should consider other possible goals that fit the issue.

Trade-Offs Among Goals

These criteria for judging the performance of the economy and the multitude of actions occurring in it are most useful when discussing policy decisions inasmuch as policy actions and proposals are presumably directed toward the achievement of some goal(s). However, many of the goals conflict and therefore difficult trade-offs have to be made. Examples are farm price supports, which promote security for farmers but may reduce efficiency and raise prices for consumers; minimum wage laws, which can be thought of as equitable (in trying to raise wages of lower-paid workers) but may increase unemployment; and wage-price controls, which may temporarily restrain inflation but at the same time reduce efficiency and freedom. Economic analysis does not make value judgments on policy questions such as these. It can help people to understand the nature of the trade-offs and thereby form their own judgments in the light of their own values. Economic analysis encourages a reasoned approach to controversial economic issues, and this is perhaps the single most important reason for wanting citizens to have increased economic understanding.

Self-Interest and Personal Values

The concept of self-interest differs from the goals listed above. Self-interest reflects the concern of individuals for their own well-being and personal values, whereas the other goals noted reflect broader social concerns. Often the achievement of social goals will come at the expense of particular individuals or groups of individuals. Those individuals or groups adversely affected are likely to oppose actions proposed to promote attainment of these broad social goals. This means that the positions people ultimately take on economic issues will reflect the result of applying the reasoned approach and their own self-interest and values. It is important for people to try to separate these factors in understanding why they ultimately decide what they do on economic issues.

APPENDIX B. Ranking Procedure Used to Develop the Hierarchy

The numeric weightings for the various concept clusters displayed in Figure 1 were derived by counting the number of times a given concept cluster appeared in the teaching activities described in the *Strategies* volume [10] or in the Kienzle and Wyatt curriculum guide [8]. The mean ($\bar{X}$) and standard deviation (σ) of the "frequency of appearance" were then calculated for both studies. "Primary" concept clusters were defined as those with frequencies equal to the mean plus one standard deviation. "Advanced" concept clusters were defined as those with frequencies equal to the mean less one standard deviation. "Intermediate" concept clusters were defined as those lying within the range of $\bar{X} \pm \sigma$. A primary concept was then assigned a numerical value of 1, intermediate concepts a 2, and advanced concepts a 3. Composite rankings were derived by summing the assigned rankings for the individual studies used ([8] and [10]). Therefore, the composite primary concept clusters had a numeric ranking of 1 or 2; intermediate concepts, 3 or 4; and advanced concept clusters, 5 or 6. See Figure 5.

Figure 5. WEIGHTING OF CONCEPT CLUSTERS FOR CONSUMER ECONOMICS

BASIC ECONOMIC CONCEPTS*	Strategies	Klenze/Wyatt	Composite
1. Economic Wants	P	P	P
2. Productive Resources			
3. Scarcity and Choices	P	P	P
4. Opportunity Costs and Trade-Offs	P	I	P
5. Marginalism and Equilibrium	I	A	I
6. Nature and Types of Economic Systems		A	A
7. Economic Incentives	P	P	P
8. Specialization, Comparative Advantage, and the Division of Labor	A	P	I
9. Voluntary Exchange	A	I	I
10. Interdependence	A	I	I
11. Government Intervention and Regulation	I		A
12. Markets, Supply and Demand	P	P	P
13. The Price Mechanism	I	P	P
14. Competition and Market Structure	I	I	I
15. "Market Failures": Information Costs, Resource Immobility, Externalities, etc.	A	A	A
16. Income Distribution and Government Redistribution	I	P	P
17. Aggregate Supply and Productive Capacity		A	A
18. Aggregate Demand: Unemployment and Inflation	A		A
19. Price Level Changes	A		A
20. Money and Monetary Policy		A	A
21. Fiscal Policy: Taxes, Expenditures and Transfers	I	I	I
22 Economic Growth		A	A
23. Savings, Investment, and Productivity	I	I	I
24. International Economics (uses concepts above)			
ECONOMIC INSTITUTIONS		I	A
MEASUREMENT CONCEPTS	I	I	I
CONCEPTS FOR EVALUATING ECONOMIC ACTIONS AND POLICIES*	P	P	P

*See [7, p. 9] and Appendix A, below

P = Primary Concept Cluster

I = Intermediate Concept Cluster

A = Advanced Concept Cluster