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ABSTRACT

Sixteen award-winning teacher-developed programs, projects, courses, and materials in economics education are presented. The projects are designed for use in primary, intermediate, junior high, and senior high schools and are organized into four chapters. Chapter I suggests ways to teach economic concepts in grades K-3. Projects include an auction conducted by students, a classroom toystore in which items are purchased with play money, a field trip based on the story, "The Little Red Hen," and a year-long third grade project for teaching basic economic ideas through communication. Chapter II, for grades 4-6, focuses on establishing a classroom "city," an economic study centered around energy, a study of industry, and a study of the economic history of the Brandywine River in Delaware. Chapter III offers projects for junior high school students through incorporation of the instructional television series "Trade-offs," an interdisciplinary program in social studies and mathematics, a "disco survey" of the economic impact of American teenagers in the marketplace, and formation of a business in a classroom of physically handicapped students. Chapter IV, projects for high school students, includes marriage and childrearing simulations to help students learn how to design rational goals for living, a joint educational effort by bankers and educators, a mock corporation formed by students, and an inquiry approach to the Great Depression. For each project the grade level, project background, time allotment, objectives, activities, and evaluation are provided. (KC)

ECONOMIC EDUCATION EXPERIENCES OF ENTERPRISING TEACHERS

Edited by Andrew T. Nappi and Anthony F. Suglia

A report developed by the Joint Council on Economic Education From the 1978-79 entries in The International Paper Company Foundation Awards Program for the Teaching of Economics

VOLUME 17

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Contents

Foreword

The need for economic education—the need for a much better comprehension of basic economics and how the American economy functions—is almost universally acknowledged. The vast majority of Americans, including educators ranging from classroom teachers to top school administrators, leaders from the business and financial sector, spokesmen from organized labor, representatives from government, and officials of interest groups, all have voiced agreement on the need for economic literacy, and during these times, the voices have been increasing both in number and volume.

At least two important questions immediately emerge as one discusses the need for economic education. The first of these, the "why" question, seems to be answered rather consistently, with such expressions as responsible citizenship and effective decision-making indicated as intended outcomes.

The second question, "What is economic education?" seems far more difficult to resolve. To some it may be defined as efforts to develop among our young people the ability to understand and analyze economic problems and issues facing themselves and society, and as individuals and members of society, to make reasoned judgments and rational decisions.

It may be, however, that the most significant question relates to what happens in the classroom in the name of economic education. In the space and time permitted, it would be most difficult to provide answers which are both precise and satisfactory. A more appropriate response would be to recommend reading *Economic Education Experiences of Enterprising Teachers*, Volume 17. A few brief examples may serve to provide illustrations of the highly creative and imaginative approaches developed by outstanding teachers:

- Formation of productive enterprises in the classroom, including the formation of corporations as legal entities on all four levels of the Awards competition. Students organize (i.e., elect officers, members of board of directors, etc.), raise capital through the sale of stock and borrowing, manufacture products, conduct market research, determine prices, and incur profits and losses.
- Effective utilization by all grades of community resources with focus on the study of the local economy, e.g., polyester industry of North Carolina, fishing in Massachusetts, export-import in the state of Washington.
- Infusion and integration of economics into the existing curriculum of such subjects as language arts, science, math, and social studies. It is not unusual to find "teams" of teachers, each of whom is responsible for a specific subject, working in cooperation to develop a coordinated program in economics.

While Volume 17 was being planned, an important decision was made in keeping with our efforts to continuously improve and stimulate interest in all aspects of the National Awards Program. For the first time, award-winning

projects submitted by college and university professors will not be included in this volume but will be presented in a new publication designed to expand involvement and interest in the National Awards Program by those in higher education.

The Joint Council on Economic Education is pleased to extend its appreciation and recognition to the outstanding individuals who serve as judges for the National Awards Program. The task of reading through each project and determining awards recipients is an extremely difficult responsibility, and we extend our gratitude to George L. Fersh, Regional Representative, Joint Council on Economic Education; Myron L. Joseph, professor of economics, Graduate School of Industrial Management, Carnegie-Mellon University (on leave); Laurence E. Leamer, director of the Center for Economic Education and Public Policy, State University of New York at Binghamton; Delmas F. Miller, visiting professor of education, West Virginia University; Edward C. Prehn, social studies consultant and economic education editor, New York City Council on Economic Education; Rodney Tillman, professor, School of Education, George Washington University; Henry Villard, professor emeritus and former chairman, Economics Department, The City University of New York; Philmore Wass, former chairman, Department of Foundations and Curriculum, School of Education, University of Connecticut. We expect that their attention will make up for the fact that this volume has been exempted from the customary review by the Publications Committee of the Joint Council.

Several individuals on the Joint Council staff have been of considerable assistance in assuring the success of the National Awards Program. We are pleased to acknowledge the excellent support provided by Michael A. MacDowell, president of the Joint Council, as well as the efforts of John DeVita, research associate, and Barbara DeVita, secretary, in the Affiliated Councils Division. We also take this occasion to extend our appreciation to Edward Prehn for his special assistance.

We also commend Andrew T. Nappi, director of research, development, and community service at St. Cloud State University, for his editorial work in making this publication possible. Aided by his dedication to the Awards Program, we are always assured that we are publishing an exemplary product.

Finally, we offer our special thanks and appreciation to the International Paper Company Foundation through its vice president and director of education programs, Sandra L. Kuntz, for its support of the National Awards Program. We are gratified by their commitment and interest in economic education and the National Awards Program.

Anthony F. Suglia
Director, Affiliated Councils Division
Coordinator, National Awards Program
for the Teaching of Economics

Editor's Introduction

It never ceases to amaze me how teachers who have received recognition through the Awards Program continue to develop innovative and imaginative approaches to the study of economics. There appears to be an unlimited supply of creative and dedicated teachers committed to the goal of improving student understanding of basic economics. Over the years, the award-winning teachers have demonstrated their ability to incorporate key economic concepts, principles, and practices into their curricula. As I reviewed the projects that have appeared in this annual publication, I was impressed with the variety of instructional methods, resource materials, and learning activities employed by teachers to enhance economic understanding.

The quality of the 1978–79 entries, too, is gratifyingly high. Indeed, there is little doubt the teaching experiences summarized in this year's competition will help to stimulate continuous improvements in economic education. We can certainly anticipate that next year's program will provide many examples of how teachers add new dimensions to the teaching-learning process.

It is hoped that the example of the teacher efforts published here will encourage other teachers, not presently involved in the economic education movement, to formalize and submit descriptions of their classroom experiences. It must be remembered that the reports published in this book are condensed versions of the original projects and that some of the material cannot be presented or even summarized easily. Readers of Volume 17 will find brief descriptions of the winning entries which capture the essence of the teaching experiences. I am confident that teachers who are contemplating submitting an entry to the Awards Program, and those who have submitted projects but failed to win, will gain from a generalized description of the winning entries. The characteristics of a prize-winner are summarized below:

1. The project contains a succinct statement of the goals or learning objectives. It is important to state the specific cognitive and affective outcomes that the teaching experience is directed toward. It is not necessary to prepare a long list of objectives. Rather, the objectives should be clearly articulated and related to the instructional program. How can a reader judge a project unless the important economic facts, skills, and generalizations are defined?

2. The learning experience is related to economic understanding. The judges want to know how each unit, lesson, method, or activity included in the project will help to develop economic concepts and generalizations. That does not mean that math, writing, reading, or other communication skills are not important, but simply that awards must go to those who focus on the teaching and learning of economics.

3. A well-organized and clear description of the steps, procedures, and sequence of activities is presented. In this section of the report, the emphasis should be on the materials, the time schedule, initiation procedures, assignments given, activities or strategies used, and culminating experiences. The

length of time required to teach the materials should be stated. Motivational techniques must be spelled out and instructional activities described in detail. How did the teacher get the pupils interested in ideas to be taught? How was the lesson, unit, course, or subject initiated? The reader should be told at the very beginning whether the project describes a year-long or a semester-long course, a five-week unit, a special study lasting two weeks, a single lesson, or whatever. If it is less than a full course, the author should show how the project fitted into the course or curriculum being taught and how it was related to material that preceded or followed it.

4. The instructional environment and class situation are clearly described in the winning entries. The judges want to know what ages, ability levels, or special characteristics apply. If the project was developed for a particular socioeconomic or ethnic group, the judges need to be informed.

5. A step-by-step account of teaching techniques is given. It must be remembered that the basic purpose of the Awards Program is to help other teachers. These projects can serve others only if the author gives the details of the methods employed. It is not enough simply to say that a resource speaker was used—the reader should be given to understand exactly how the speaker presented economic ideas, what follow-up activities were conducted, how this activity fitted into the total project, how it was evaluated, and so on. Where appropriate, sample lesson plans should be included, along with such items as assignment sheets, instruction sheets that might have been prepared for the students, and the like. A complete description of the human and material resources used should be included in the report.

6. The project shows originality. It should be more than a rehash of someone else's work. At the least it should give an entirely new "twist" to an idea developed in a previous year. Ideas that captured awards in years past tend to become "old hat." This does not mean that they are not good, but simply that the awards must go to those who develop fresh approaches to teaching economics.

7. Photographs or samples of student work are included. Photographs of bulletin board arrangements, table displays, murals, and other items that cannot be shipped are welcome. It is not necessary to submit large posters or bulky objects if a photograph will suffice. Neither is it necessary to send in everything the students have done. A few examples—one or two typical term papers, for instance—will do.

8. The culmination of the unit project is explained. Good teaching units have three basic parts: (1) initiatory and motivational activities, (2) developmental activities, and (3) culminating activities. The first helps to get the pupils interested in the unit, project, or lesson; the second develops the ideas, concepts, skills, understanding and attitudes listed in the goals; and the third brings the experience to a close by summarizing and applying what was taught. Plays, assembly programs, displays, field trips, the making of films or filmstrips, simulations, and many other activities can be used as the culmination of a unit.

9. Evaluation techniques are always given. These generally include tests of

all types (short-answer, essay, and performance examinations), but can also include less formal activities, such as self-evaluations by individuals, groups, or the class; written or oral evaluations by outsiders; and observations of pupil behavior. Samples of testing instruments should be submitted with the reports, along with the results.

10. Finally, attention to the requirements set forth in the Awards Program application form, an orderly arrangement of the material, and simple neatness are appreciated.

The educator whose submission has all ten characteristics outlined above will have a good chance of winning. It should be noted, however, that the competition is keen, and that each year it becomes more difficult to win than in the year before. Prospective entrants would be well advised to seek the comments and criticisms of others before submitting their projects. In particular, the teacher whose formal preparation in economics is minimal should consult an economist regarding the accuracy and appropriateness of the economics contained in the report. Many projects that represent an enormous expenditure of time and effort, and that contain superb ideas and materials for teaching, fail to capture an award simply because they contain little or no economics or because the economic content is inaccurate.

Prior to writing the application, it might be well for the contestant to review the outline below. Almost any logical and descriptive outline for writing the narrative section of the teaching project will do. The important thing is to have an outline in mind and to write the narrative from it.

Preparing the Application

1. *Introduction.* This section of the narrative is intended to introduce the judges to what is to follow. It sets the stage, so to speak, for the rest of the project description. The introduction should be brief and should contain information about the overall purpose of the project.

2. *Background information.* This part of the report may be used to give the reviewers an understanding of the following points: Purpose and philosophy of the curriculum; school location and physical facilities; background and capability of students; brief history of the project and other information that may inform the judges of the applicant's readiness to teach the project.

3. *Overall goals and specific objectives.* Whereas the overall goals of the project can be given in a rather generalized statement written in narrative style, the instructional objectives should be *very* specific and are usually presented in list form. The overall goals may be thought of as long-range results. It is like saying that once the specific objectives have been achieved, the overall results or goals will be met.

4. *Program description.* Basically, the kinds of things reviewers will want to learn from this section of the narrative are (a) what is to be done, (b) how it is to be done, and (c) who will do it. The procedures should be explained fully and in great detail. It can be a serious mistake to assume that the judges will

understand the details of what, to the applicant, is a well-understood economic concept or instructional technique. The teacher should assume the judges know nothing whatever about what is being presented in the project. The sequence of steps of the procedure should be presented in logical order. However, lengthy digressions, no matter how interesting to the writer, are to be avoided at all times. Clarity implies conciseness.

5. *Program evaluation.* It is helpful to show the reviewers objective evidence of what was accomplished in the teaching experience. Therefore, a section on evaluation should be incorporated into the application. Some systematic method of providing objective evidence of the extent to which the instructional aims were achieved must be used and it must be described in the narrative. Specifically, what methods or techniques did the teacher use to evaluate students' economic understanding?

The editor hopes that this brief summary of what constitutes a good project will be useful to educators. He deeply appreciates the work of those teachers (nonwinners as well as winners) who are contributing so much to the elimination of economic ignorance in our society. It is hoped that more and more teachers will enter the Awards Program in the future, sharing their knowledge and experience with others for the good that this can do as well as for the possibility of financial rewards.

The editor acknowledges with sincere thanks the cooperation of the teachers whose ideas appear in this volume. They have been most patient and understanding in permitting us to use their material and in agreeing to our many editorial revisions.

Andrew T. Nappi
St. Cloud State University

TO OUR READERS

The reports published in this book are condensed versions of the original projects. In fact, some of the materials teachers submitted cannot be presented in print form or even summarized easily. The complete reports can be obtained from

National Depository for Economic
Education Awards
Milner Library 184
Illinois State University
Normal, IL 61761

CHAPTER ONE

I Hear Twenty-Five, Who'll Bid Thirty?—The Economics of Auctions

A Second-Grade Economics Unit

Betty Muench
Fulbright Elementary School, Little Rock, Arkansas

Introduction and Organization

In February the P.T.A. of Fulbright Primary School in Little Rock decided to have a silent auction as a way of raising funds for our new schol. Our school opened in August with the carpenters and painters still working on the cafeteria and library. There was no playground. Funds were needed to provide playground equipment for the children.

My interest in auctions was stimulated as I watched the P.T.A. plan their auction. This seemed like an excellent way to teach economics to my second-grade children. Most of the children planned to be at the auction because the second-grade classes were scheduled to present the P.T.A. program.

My general goals were to help the children acquire an understanding of some basic economic principles that affect their daily lives and to develop the children's ability to think analytically about economic problems. Through group discussions as well as by drawing pictures, making posters and charts, designing and displaying bulletin boards, writing stories, role-playing, and taking a pre- and post-test, the children demonstrated an understanding of the following generalizations:

- There are not enough productive resources to satisfy the wants of the people—The Problem of Scarcity.
- It takes people, tools, raw materials, and management to produce the goods and services which satisfy our wants and needs—Productive Resources.
- Decisions concerning what to produce, how to produce, and for whom to produce are made in the marketplace—The Market Economy of the United States.

- People go out of their households to sell their productive resources to business and return with family income paid to them by business for their productive goods and services; they then go to the marketplace as consumers to buy goods and services to satisfy the needs and wants of their families—Circular Flow.
- There are not enough resources to produce all of the goods and services people want. Society attempts to extend these resources through specialization and technology—Resource Extenders.
- The need for trade develops as people become more interdependent through increased specialization of all productive resources—Interdependence and Trade.
- The core of most economic issues in a market economy is the need to make intelligent choices among competing alternatives—Economic Analysis.
- Economic institutions are organized ways of gettings things done more smoothly—Institutions.

Plan of Study

During some of my past graduate studies, I learned about Hilda Taba's Instructional Model, a consciously planned program with specific steps designed to teach children to think effectively. In the initial planning for this economics unit of study I kept these specific steps (cognitive tasks) in mind. Taba's steps are: (1) concept formation; (2) interpretation of data; and (3) application.

I chose to correlate the unit with Taba's Instructional Model. I believe that children may be taught to think on higher levels if they have a consciously planned program which allows them to proceed through specific steps in the thinking process. All children do not learn in the same manner. It was, therefore, necessary to use a wide variety of learning activities in the hope of reaching each child in the way he/she learned best. We made charts, posters, bulletin boards, and booklets so that concepts would be before us and we could easily review what we had learned. We read books, newspapers, and brochures. We saw films and filmstrips. We had resource people come into the classroom. Each activity enhanced the unit of study in a special way.

Launching the Study

Our unit of study began in March after the P.T.A.'s auction. Before that time the children had become familiar with economic terms such as "consumers," "wants," "needs," "goods," "services," "durable and nondurable goods," and "capital resources." I used four basic references to develop the economic concepts in the unit of study. These were: *Economic Education for Arkansas Elementary Schools; A Framework for Teaching Economics: Basic Concepts, Part I; Part II, Strategies for Teaching Economics;* and *Economy Size*. In addition, our social studies book, *ONE PLUS ONE: Learning About Commu-*

nities, reinforces many of the topics including interdependence, technology, government services, taxes, and government. (A complete citation of these and all other resources used during this unit of study is listed in the full report.)

The children kept a notebook of the economic terms and definitions they were learning. Poems were written by the students and added to the booklet to reinforce the concepts. The film *The Owl Who Gave a Hoot* taught the children the importance of being wise consumers. The children discussed the concepts covered in this film and wrote creative stories to demonstrate their economic understanding.

Scarcity had been discussed with the children since the first day of school when we talked about the reasons for taking care of our books and not wasting supplies such as crayons and paper. Classroom discussions helped the pupils understand that scarcity is caused by unlimited wants in a world of limited resources.

Since resources are scarce we have to make decisions as to how they will be used. The poem *The Forester* helped the children see the importance of making choices. This poem led to the making of a booklet which described the way productive resources are used in the economy.

The children were weaving wall hangings at this time, so a bulletin board was made to show the factors of production being used to complete this project. As individual posters were completed they were displayed on the bulletin board. News of our weaving project was reported in the *Fulbright Flyer*, the school newspaper.

The children were then introduced to the study of the American economy. Community resource people were invited to the classroom to discuss economic topics such as private ownership, consumer choice, profit, competition, government intervention in the market, and a stable government by law. Bulletin boards and posters were made to reinforce these ideas.

Two books, *The Toothpaste Millionaire* and *The First Blue Jeans*, were read to the children. These books were about people who went into business and the problems they encountered. The stories provided an excellent review of productive resources, production, competition, customer satisfaction, profit, and other economic concepts. Next, the children discussed the recent Three Mile Island incident. They wanted to know the cost of correcting the situation. One of the children asked Markham Howe, from the Arkansas Power and Light Company, if consumers, government, or the owners of Three Mile Island should pay for the near disaster. Mr. Howe told the children that in the long run the consumers always pay the costs in the form of higher prices or higher taxes.

The scarcity of oil and natural gas has made it necessary for Arkansas Power and Light Company to look for new sources of energy. They are now relying very heavily on nuclear energy, with one plant in operation and another plant to be completed sometime in August. After the children had learned about scarcity and how it effects businesses they were ready to learn how people have attempted to extend resources through specialization and technology.

I stimulated interest in our study by preparing a bulletin board with the caption "Earn Your Income for the Auction." I put this up a day or two before I told the children about our plans. When they asked questions about the bulletin board I told them I would answer their questions on Friday. Their excitement was very high by Friday as they eagerly awaited the ending of lunch recess. They were even more excited after I told them about the auction that we were going to have in our classroom.

When our auction was just two weeks away I sent letters home to the parents. I wanted the parents to know more about our auction, how the children were earning their "money" (points), and how many points each child had earned as of that date. I also asked them to take their children to an auction if possible so our classroom auction in May could be more meaningful.

Many parents supported the study by taking their children to auctions. The children learned auction terminology and that it takes just a nod of the head or a raised finger to remain in the bidding. They wrote reports and shared what they had learned with the rest of the class.

The P.T.A. gave our class all of the cards which showed what people had bid for each item. We used the cards to study supply and demand. The children could easily see that there were 150 items auctioned that night which represented the supply. We made a graph entitled "Consumers at the Market Tell Producers What to Produce or Sell."

We found that there was a lot of planning which had to be done before the auction if we were going to do things properly. Our planning involved the following steps: read auction ads; make a sign-up sheet so that people attending the auction could register; and make numbers to give the children who were able to attend the auction.

The children also had some banking matters which needed to be taken care of before the auction. Matt's mother volunteered to help the children check to see that their savings account balances matched the total on our chart. When the children transferred their money from a savings to a checking account they had to recount their money to make certain that they had the correct amount. It was not unusual to see groups of children sitting on the floor as they worked together to solve some of the math problems.

Friday, May 4, finally arrived. This was the day for the auction, and the children could hardly contain their excitement. In the morning we let the children discuss the purpose of auctions and their function in our society. The children understood that the auctioneer is in business to earn a profit. Profit is what remains after the costs of production have been deducted from the revenue derived from the sale of goods and services.

When Dalton Dailey, our auctioneer, arrived in our classroom, he found forty-four anxious second-grade children seated and ready to being the auction. He was very impressed with our red sign announcing the auction and the fact that the children were already registered and had their numbers with which to bid.

Before the auction began, Mr. Dailey answered a few of the children's questions. They wanted to know what the requirements were to be an

auctioneer, how he had received his training, and what it meant to be licensed. They learned that Mr. Dailey had received training by working with another auctioneer and that he had been an auctioneer for twenty-nine years. Mr. Dailey told the children there were two requirements for being an auctioneer—you have to learn how to determine the value of things and you must purchase a license.

The auction was an excellent way for the children to learn that money is only as good as its ability to purchase goods and services. The children had worked for twenty-four days to earn their "money" for the auction with Mr. Dailey. The children who did not get to purchase something were left with "money" which had no immediate value.

Our auction received excellent news coverage. Carolyn Long of Channel 4 covered the auction, and we were on the 6:00 news that same evening. Judy Glover, from the Arkansas *Democrat*, stayed for the entire auction, interviewed some of the children, and then wrote an article. The news of our auction was also printed in the West Little Rock *News*, the *Staff Memo*, and the *Fulbright Flyer*.

Our auction was a tremendous success. The children had learned a lot and were well prepared for Mr. Dailey. The children, visitors, parents, and teachers all had fun. After the auction some of the children talked with our visitors about their experiences while other children played with their toys.

Culminating Activity

Our culminating activity for this unit of study was to allow the children to conduct their own auction. One of the students was chosen to be auctioneer. A poster was made, captioned "Intelligent Buyers Get More Value for Their Money." We discussed the need for planning what the children were going to buy and listed the following ideas: shopping to compare prices, knowing when and where to buy, carefully reading the guarantee or warranty, not letting people pressure you into buying something you do not want, and being aware of different types of advertising. Some of these rules did not apply to auctions but would help the children become intelligent consumers. At the auction the children could look over the merchandise to see what they needed. They could also be aware that the auctioneer wants to get the price for each item as high as possible.

A few of the children who did not have many points (money) became rather frustrated when the bidding would go quickly past the amount they had. They were good sports about it, though!

We read the book *How to Turn Lemons into Money* to review the economic concepts we had studied. After we read the book, Erick said, "Now I see how you turn lemons into money. You sell them." My happiest moments as a teacher are when a child says, "Now I see."

Teaching economics helps me as a teacher. I learn something new every time we do a project. I also want to see my students involved with what they are learning up to the very last minute of school. When I asked the children to tell

me what they had learned in economics this year, Matt said, "I could write on this forever!"

Evaluation

Formal evaluation of the children's progress was done by administering the *Primary Test of Economic Understanding* (PTEU) published by the Joint Council on Economic Education. This test was administered on a pre- and post-course basis. The test was read to the children and they recorded their answers on a separate answer sheet. The results revealed that the pupils increased their knowledge of basic economic concepts.

Informal evaluation was used throughout the study to test the progress the children were making in their understanding of economic concepts. This was done through observation, written assignments, and discussion. Listening to the children using economic concepts in their everyday vocabulary provided evidence of their gain in economic understanding.

I could see how utilizing Taba's Instructional Model had enhanced the learning process. Taba believes that in order to learn to think, the child must *do* the thinking, instead of absorbing the products of thought processes performed either by the book or by the teacher. Throughout this unit of study the children were involved in their own decisions daily. Taba also states that "cognitive skills are seen as products of a dynamic interaction between the individual and the stimulation he receives, rather than as a result of passive absorption of the information." During the auction, dynamic interaction between the children and the auctioneers was taking place.

Communication Is Big Business

A Third-Grade Economics Study

Maureen Glynn and Joelyn Walk
Course Elementary School, Akron, Ohio

Introduction and Goals

At the beginning of the school year we discussed the possibility of teaching basic economic ideas through the study of communication. As the project

began to take shape, we developed learning activities designed to achieve the following objectives:

- To stimulate the students' interest in economics;
- To help children understand that they make economic decisions every day;
- To demonstrate how the market economy allocates scarce productive resources;
- To show children that because money income and productive resources are scarce, they must decide how to choose goods and services they want from among many alternatives;
- To develop an understanding of the economic importance of communication;
- To build a background of economic understanding to use as a springboard for further study based on everyday experiences of sixth graders;
- To recognize that specialization and division of labor increases efficiency and leads to interdependence.

Our overall goal for the project was to make the students aware of the importance of economics in their lives. We wanted to show them where and how communication is used in the economy. Flannel boards, films, games, and filmstrips were used to teach economic concepts such as opportunity cost, inflation, demand, supply, specialization, and interdependence.

Learning Activities

We began our study by acting out the play *Gudbrand on the Hillside*. This play is based on an old Norwegian tale about a farmer who wanted to trade, or sell his cow for the best deal he could make. Unable to sell the cow, the farmer had to make many decisions on the way home. He traded the cow for a horse, that horse for a pig, the pig for a goat, the goat for a sheep, the sheep for a goose, the goose for a rooster, and finally, the rooster for food. The children rewrote the story and played a game to illustrate how in modern societies people have a wide variety of wants for goods and services.

We read the story *The Five Chinese Brothers* and used a filmstrip entitled *What's Your Specialty?* to introduce the pupils to the concepts of specialization, comparative advantage, and division of labor. The children discussed the goods and services which they would specialize in producing, given their particular skills and endowment of resources. We concluded this part of the unit with the realization that specialization is the basis of both domestic and international trade. Next, we discussed the history of communication, how people communicate, communication around the world, and how communication affects the economy.

Now we felt that we needed additional information before studying economics and communication in more depth. We sent a letter home to parents asking them how much money they spent on different forms of communication. A large chart was prepared to show the results of the survey. The children were

surprised to discover the number of telephones, radios, television sets, and stereos found among the households in the study. This activity led to a discussion about the number of books, records, tapes, newspapers, and magazines that were purchased in their homes during the year. Some of the pupils conducted research to learn more about communication during colonial times. The children found it difficult to believe that in early days peddlers traveling from town to town were the sole carriers of the news. They just could not comprehend a time when there were no radios and televisions. Through role-playing, it became clear to the students that life in the colonies did not offer people as many choices for goods and services as today. Students really had trouble understanding what life would be like without modern communication.

We went a step further in discussing what it cost the community (taxpayers) to provide textbooks used in the elementary and secondary schools. We found out that more than $200,000 was spent by the school district to purchase new reading books for the forty-five elementary schools. It was now obvious to the pupils that a decision to use tax revenue to purchase school supplies means giving up the possibility of purchasing something else. Thus, the opportunity cost—what could have been purchased with the money instead—is the real cost of purchasing the new reading books. The children were amazed at the number of choices and trade-offs involved in making decisions. A representative from the school district's textbook adoption committee was invited to the classroom to explain how textbooks are selected. The students were surprised to learn how much money it would cost their parents or guardians to pay for all their school supplies if the school did not provide the materials. We took the opportunity to explain how the school district's budget is determined and financed. Most of the youngsters recognized the difficulty the community faced in deciding what goods and services to provide among the many available alternatives.

Now the class played the game "I'm Spouting Off Because Communication Is a 'Whale' of a Big Business." The idea was to use a magnet to catch a cardboard fish with an economic concept on it. The game helped reinforce the pupils' understanding of many of the economic ideas previously studied such as scarcity, production, resources, money, income, and specialization.

In our discussions, we tried to relate the study of economics and communication to the past, present, and future. The children were very interested in the one-room schoolhouse and were quick to observe its lack of facilities. They did not think that they would like to be in a school where everyone, no matter what grade level, was in the same room. They liked it even less when told that there were no textbooks and that they would have to write their work on slates. The children made booklets, collages, and charts, drew illustrations, and cut out pictures to show changes in communication and economic life made since the early days. Essays, reports, tapes, murals, dioramas, and models were means by which we shared facts.

In learning about the U.S. Postal System and its relationship to communication, a great deal of discussion centered around the cost of providing this

service. A few children remembered reading about the pony express, but few of them could recall the penny postcard. We talked about the rising costs of mail delivery today as compared to years ago. This discussion led to a study of rising energy costs and gasoline shortages. The pupils came to understand that mail delivery was going to cost more because of higher gasoline prices. This situation made the children think more about communication and transportation. The problem of scarce oil and energy shortages was discussed again later in the unit when the children read in the newspaper that the price of diesel fuel was rising and truckers were marching on Washington to demonstrate the importance of the problem.

Concluding Comment

"Communication Is Big Business" was a year-long, continuous project about people and their attempt to satisfy economic wants. It was an interesting story about consumers, producers, and entrepreneurs who developed new forms of communication to meet their changing needs. The participation and role-playing of the children during our study allowed us to witness people making economic progress. We did not anticipate the tremendous amount of "overtime" we would have to spend in preparing to teach economic ideas, but it was well worth the effort! We definitely feel that our students learned a great deal about economics and communication.

The World of Marielle

An Economics Unit for Kindergarten Students

Dorothy J. Yohe
Fern Hill Elementary School, West Chester, Pennsylvan

Introduction

The project was designed to help kindergarten children understand the basic economic problem of scarcity and how households choose which of their many wants for consumer goods and services they will satisfy. My main objective was to integrate economic concepts and principles into the existing curriculum, in which reading, math, spelling, and science received major emphasis. I used a

variety of teaching approaches for developing the concepts and their applications.

The following specific objectives were incorporated into the project:

- To help children understand that because income of a household is limited and its wants for goods and services are unlimited, it must choose which goods and services will be consumed;
- To provide pupils with first-hand experiences in production and consumption dimensions of economic activity;
- To demonstrate the importance of finding new and more efficient ways of using existing resources (specialization and division of labor);
- To involve students in activities designed to develop their critical thinking skills and abilities;
- To help children understand the meaning of opportunity cost and trade-offs.

Overview

There may not be anything more distressing to a parent than having a small child run free through a toy store. But allowing twenty-five kids to roam through a toy shop might be worse. It sounds like a perfect headache-making situation. But I've found a way to make it an educational experience. I run a toy store in the back of the classroom. Operating much the same as a real retail outlet, the store is designed to fit into an economic education program for the children.

Many children, if given the chance to wander through a toy store, could manage to accumulate whole armfuls of playthings. Much to their parents' horror, they often seem to want everything in sight. And few at kindergarten age have any regard for the price. Economic education for small children may allay at least some of parents' fears.

We set up the "Merry Christmas to All Shoppe" to help the children learn about economics and the operation of the marketplace. The children are able to purchase toys at the shop, using play money obtained from a "kinder bank." They can buy only what they can afford, and must wait in checkout lines like customers in real stores. Prices are the main difference between the classroom shop and a real store. None of the toys, no matter how large and extravagant, is priced higher than $3.50. That makes the store seem a bit unrealistic. But the money system is designed to be proportionate to costs.

When the store is ready to open for business in the morning or afternoon, the children must get money from the kinder bank. The largest withdrawl allowed is $3.50. With the $3.50 in hand, the students are allowed to shop in the store in small groups. They may pick out their own purchases. Some buy one item, spending all their money. Others, however, are more conservative with their funds. They buy smaller items, and leave with change.

The store is staffed with students. Before the shop opens for business each day, children are chosen for jobs in the shop. There are usually two cashiers, a

banker, and two salespeople. For some added realism, we hired a night watchperson to open the shop for business.

"S is for sales," I told the group recently. I was adding another letter to the economic alphabet. Each job or career is identified by its respective letter of the alphabet. That is more exciting than just learning the alphabet.

When I mention "salesperson" the children know what is next. Cries of "Can I be it?" punctuate the air even before I have a chance to describe the job in detail. I usually try to describe each career and job by demonstration.

"You'd better listen," I answered to the excited questions. "If you don't, you won't know how to do it."

After everyone has a chance to shop for his or her favorite toy, the children sit down and draw pictures of their purchases. Unlike real purchases, the students can't play with their toys, which must remain in like-new condition for another phase of the shop's lesson. Shortly before Christmas, a truck will arrive at the school. To the tune of "The March of the Wooden Soldiers," the students will carry the toys from the shop to the front door of the school. The toys will be taken away and donated to needy children.

I developed the toy store idea for two reasons. First, it was an alternative to standard kindergarten curriculum. I designed the program to show children at first-hand how the economic system works. Second, the children learn how to share. Instead of bringing a Christmas gift to school for the teacher, each student's parents were asked to send a toy to class. They were told the gifts would be donated to the Salvation Army.

The toys disappear before Christmas. And the "Merry Christmas to All Shoppe" disappears, too. But economic education does not disappear. By spring, we will have established a children's shopping mall. Each step in the process, all the way to the shopping mall level, will be more sophisticated.

The project serves three purposes. It helps the students learn about economics. It also helps needy children. And finally, it's much more exciting than a Christmas present.

Learning Activities

A few of the learning activities and economic concepts developed in the unit are described below:

Interdependence. A secretary works for a boss who is a sugar broker. The success of the broker's business depends on a sugar refinery with its secretaries, engineers, workers, truck drivers, and laborers. In order for the broker and the refinery to make money they need a buyer. All of them need the U.S. Postal Service to deliver their correspondence and paper companies to supply them with stationery, bought through an office supply store.

Specialization. Each week, two parents surprise the students by visiting the class and "claiming" an economic alphabet letter. Then the parent explains what he or she does for a living.

An attorney has claimed the letters "L" for lawyer and "A" for attorney. An administrator at Denney-Reyburn Company claimed "M" for manager.

And Wednesday Janet Wallace claimed the letter "S" for secretary.

Mrs. Wallace, mother of kindergartner Kristen, explained to the children that she works for D. W. Montgomery Company, a West Chester sugar broker. She told the class that the principal client for Montgomery is Pepsi-Cola, a name they all recognized.

After Mrs. Wallace had recounted what a typical day is like for a secretary, members of the class were selected to play the parts of boss and secretary for the broker, the buyer, and the refinery. Other children took parts as truck drivers and loading-dock workers.

I put a great deal of preparation into the introduction of a new letter. The classroom is set up with brown-wrapped boxes marked "sugar" in one corner with the label "Sugar refinery" above it. There are labels for sugar broker, boss, secretary and, for each child to wear home, a sign with an "S" on one side and "I am a secretary" on the other. I make the signs so that the children will remember what they learned in class, but also because I hope the publicity will encourage parents to volunteer to make presentations to the class.

I also make sure the children do not get stuck in one kind of role. I had a picture of a male secretary and explained that more and more men are becoming secretaries and that many women are bosses.

Once the children have seen the entire economic alphabet—last year all 26 letters were used—I introduce "Econ," the economic spider. With the spider I again weave the importance of interdependence in everyday services. Econ weaves a yarn ball that is passed to each child, who names a profession and then must associate that profession with the one the child before him or her named. So a truck driver may use the services of a dentist who cleans his teeth. The dentist may use a machine shop to repair her instruments, and so on.

Concluding Comment

These children are in my class for five hours each day. That's a big chunk. I should be able to teach them something and motivate them to learn more. I should also be able to motivate myself, because if I'm not interested how can I expect them to be.

Little Red Hen—Champion Producer

A Kindergarten Economics Unit

Mary M. Wehmeyer
Jeffersontown Elementary School, Jeffersontown, Kentucky

Introduction and Goals

Last summer, I told a university professor of my plan to teach economic concepts to my kindergarten classes that fall. He looked askance at me, raised his eyebrows, and questioned my judgment. This really served as a catalyst! School began in August (1978), and from the very first week, my kindergartners participated in a study of basic economic concepts. This resulted in the most challenging, rewarding, and entertaining year I have ever experienced.

My kindergarten classes consist of twenty-five four and five-year-olds in the morning session and twenty-five more in the afternoon session. The children are from lower-middle and middle class environments. Because of the many very young children with limited experiences in my classes, I thought it was important to introduce economic generalizations and concepts very slowly, and to limit the number of concepts we would cover. I also hoped to involve the parents in our activities, and motivate them to continue exposing and explaining economic principles to their children in their everyday experiences together.

The following specific goals were developed in the unit:

- To recognize that people have a variety of wants for goods and services;
- To understand that the process of satisfying people's wants for goods and services is the main purpose of economic activity;
- To examine the different kinds of productive resources;
- To demonstrate the basic economic problem of scarcity and the need to make choices in deciding how to allocate limited money incomes among alternative uses;
- To understand that opportunity cost refers to what must be given up when decisions are made to use scarce productive resources to produce particular goods and services.

Learning Activities

This unit is based on *The Little Red Hen*, by Paul Goldone, a favorite story of many young children and a marvelous study of industry and perseverence. The

story motivates interest in kindergarten children in a very elementary study of the farm, the farmer as a producer, and the production of one crop (wheat) and its final use by the customer.

The unit was originally written with suggestions for many readiness activities that would help develop, or interrelate with, the economic concepts being introduced. We learn by doing, and these activities were integrated into every facet of our session and included art, music, phonics, math, left-to-right progression, picture reading, sequencing, and social development. To keep the interest level of the children high, the unit should probably not take more than six to eight days.

I read *The Little Red Hen* to the children and asked them questions about the characters. The first day of the unit, we reviewed the story of *The Little Red Hen*. The following questions were used to stimulate discussion: Was it a real or make-believe story? Who plants wheat? Where is the best place to grow wheat? What is a farm? Next, I showed the children large pictures of several kinds of productive resources such as water, oil, timber, machines, tools, and people who use their physical and mental capacities. The children listed the resources that a farmer would need to produce crops. They drew pictures of the resources being used and the farmer at work.

Working in groups, the pupils examined samples of wheat stalks and kernels, and studied pictures, slides, and films about wheat farming. These activities led to a discussion of how seeds are planted to grow wheat. We planted wheat seeds in large jars, watered the soil every day, and watched the seeds sprout and begin to grow. The children learned that before goods and services can be consumed, they must be produced. Natural resources are the gifts of nature and they include land, water, oil and mineral deposits, the fertility of the soil, and climates suitable for growing crops like wheat.

The children sang the song "On the Farm" and acted out the words. At this point we made a mural showing what we had learned and established a learning center in the classroom containing resource materials on farming. The children pretended they were farmers looking out over a large wheat field. We examined a hoe, rake, sickle, and other kinds of capital goods and discovered how each is used in a specialized way to produce wheat and other crops. The children were surprised to find out how much money it costs to purchase farm machines and tools like tractors. The pupils changed the lyrics to the song "The Farmer in the Dell" and played a game to express their feelings:

"The farmer in the dell, the farmer in the dell,
Hi, ho the derry-o, the farmer in the dell.

The farmer needs some capital, the farmer needs some capital,
The farmer needs some capital, to make his farm crops grow.

The farmer bought a tractor, the farmer bought a tractor,
Hi, ho the derry-o, the farmer bought a tractor."

To help the children understand the basic economic problem of scarcity, I

developed a game similar to "musical chairs." The activity was played according to the following directions:

> Chairs are placed in one long row in alternating directions. There is one less chair than the number of children participating in the game. Taped to the back of each chair is a picture of a fruit or vegetable. Children march around the chairs until the music stops. Then each player sits down on the nearest chair. Children of this age will try very hard to get the chair with their favorite fruit or vegetable. The child left with no chair retires from the game. Now another chair is removed. By the time the game ends, each child has experienced physically and mentally the frustration of not having all the wants satisfied.

At this point, I took the children on a field trip to the Smithfield Mill in Smithfield, Kentucky. The trip to the mill was very successful. It is a very old mill that has been in one family since the late 1800's. The miller took only six children at a time up two flights of very old wooden steps to see three floors of fascinating wheels, pulleys, and machinery in operation. From the large barrel of wheat kernels at the beginning to the final sacking of the flour, the children watched spellbound. When we reached the shipping department, we looked at the rows of bags of cornmeal and flour and discussed with the miller how much money we could spend. We decided to buy flour to bake a cake.

Around the first week of March, I decided to turn the classroom into a mini-economy complete with a bank, retail store, and the Kinderburger Drive-In Restaurant—the most popular business of all! Inside the restaurant there were two hot plates on which the chef concocted delicious clay burgers, fish sandwiches, and french fries. Two customers could sit inside the restaurant at a table complete with silver, tableware, flowers, napkins, and a menu. Outside the restaurant, there was a constant line at the drive-in window for service. Customers drove up—on two tricycles and a Big Wheel—to place their orders. This limited the number of customers. However, the workers inside felt and exhibited normal frustrations in trying to service such a popular, busy operation. I talked to the children about being polite to their customers, trying to give the best service possible, and keeping the table inside cleared and neatly reset for the next customers.

The correct prices had to be charged for each item, and the customer went to the Liberty Money Machine for the correct amount of money. The children were encouraged to buy only two items at a time, in order to simplify the handling of the money and speed up the service.

Each day, one child acted as banker and every five to ten minutes visited the retail store and the drive-in to collect the bank deposits from the cash registers. The banker replaced the coins in the correct places in the Liberty Money Machine.

The successful operation of the "pretend" business made us believe that we were ready to open a real business. Because of our experience in cooking and

baking throughout the year, we decided to open a bakery. Of course, we named it the "Little Red Hen Bakery," and decided to specialize in orange nut bread.

In discussing the capital needed to open our bakery, we found a wooden structure (that had served many other purposes in our room) which would be perfect for our building. We had an oven that would bake four small loaves at a time. The main thing we lacked was money to invest in the resources (flour, sugar, eggs, milk, nuts, etc.) necessary to produce our product.

After careful planning we found that it would cost us about 70 cents to buy the ingredients for each loaf of bread. So we priced our nut bread at $1.00 per loaf, and hoped to make a profit of 30 cents on each loaf we sold. We learned the necessity of having money left over after our expenses, and projected using this profit for something very special at the end of the school year.

Evaluation

The best method I have found for evaluating kindergarten children is by direct observation of their various activities, by questions and answers in small groups, by individual discussions, and by listening to the children's conversations with each other as they work in learning centers, at snack time, and on the playground.

The enthusiasm of the children during the activities in our economic study was overwhelming. I was gratified to see the tremendous growth in economic understanding. The study of economics helped the children gain new experiences and convinced them that school is a happy place to be. The positive comments of parents during the year helped me evaluate the progress we were making in our study. A father told me, "Josh and I had a very interesting discussion last night. I was really astounded at his understanding of basic economic concepts."

APPENDIX TO CHAPTER ONE

Good Ideas in Brief: Primary Level

BERNA JO GAYLER of *Clarabelle Decker School, Las Vegas, Nevada,* taught her third-grade students economics by using games and simulations and writing a story about "Danny Dollar," a make-believe character. The activities were designed to help students understand the concept of money income and to reinforce the idea that family income is determined by the "quality" (or type) of service provided by its members and by the number of members working in the family. The children were interested in following the daily events that occurred

in Danny's life and learned to become critical observers of economic issues. A film, *Why We Have Special Jobs*, launched a study of how the market value of the household's labor services is determined. Filmstrips, surveys, creative writing, and charts were used also. The children learned about the role of price in a market economy, the process of consumption, and how resources are used to produce goods and services that satisfy people's wants. Pictures and posters were used to illustrate the types of money, including currency (cash) and demand deposits (checking accounts) in banks. The project helped children discover that the bulk of the nation's money supply, demand deposits, is created by the banking system. Stories, essays, and written reports were used to develop a variety of knowledge and skills. Evaluation results indicated that the children increased their understanding of basic concepts and practices.

JEAN ANTHONY of the *Echols Elementary School, Fort Smith, Arkansas*, has developed a number of activities and learning experiences to teach some economic concepts to five-year-olds. The class was organized into a single household and the project became known as the "Old Woman Who Lived in a Shoe." The children learned that some of their economic wants are individual in nature whereas others, such as a family home, are collective. Pictures and charts were used to illustrate the variety of individual and collective goods and services consumed by members of the household. A film, *Economics, It's Elementary*, led to a discussion of consumers, productive resources, and scarcity. Murals, stories, and poems were used to help children understand that the basic problem of scarcity confronts all families, no matter the size or where they live. The pupils each write a story to illustrate how families make choices in deciding how to allocate their limited money income among alternative uses. The class discussed how families are different and how they share many of the same basic wants for goods and services. *Where Do I Belong*, a book by M. Jean Craig, was used to explain the concept of opportunity cost and show how families must continuously make choices about how to use the money income available to them. Children took turns reading to the class their own stories about the choices they must make as young consumers. This was followed by an activity in which the students wrote a play entitled *A Parade of Specialists* to illustrate the importance of division and specialization of labor. Various jobs were examined as the children learned how productive tasks are divided among workers so as to take advantage of the gains from specialization. All parts of the curriculum were used to teach basic economic concepts. The results of post-tests administered to the pupils indicated a significant increase in economic learning.

KATHY M. TONELLI of *Central Elementary School, Crystal Lake, Illinois*, taught her second-graders economics by creating "Central City." A minisociety was set up in the classroom and involved the children in producing and selling their own goods and services. The unit was organized around five economic topics: earning and saving money income, starting a new business, forming a partnership, competition, and advertising and selling goods and

services. A large poster labeled "William the Worm's Working Wheel" was used to show the circular flow of finished goods and services, productive resources, and money payments. Newspaper articles, field trips, and films were used to illustrate both production and consumption dimensions of peoples' wants. The costs of operating a new business venture were examined, as the children learned about starting a successful business in today's economic climate. The game "Saving and Spending" helped to point out that productive resources constitute the input to production while goods and services produced constitute the output. The children prepared posters to show the several kinds of productive resources, including land (natural), labor (human), and capital resources. Before setting up their own businesses in the classroom, the pupils took a field trip to a local bank. The children came to understand how the banking system increases the money supply by making loans to individuals, businesses, and the government. They also discovered how prices and outputs are determined and how the price mechanism allocates resources and distributes income. Weekly evaluation was conducted to assess the students' performance. In addition, a nine-item evaluation questionnaire was administered to parents at the completion of the program.

RHODA MEAD of the *Margaret M. Sibley School for Educational Research and Demonstration, Plattsburgh, New York*, developed a variety of techniques and resource materials to teach economic concepts. The project came to be known as "Kidsville" and the classroom was transformed into a community where children acted out their roles as consumers, producers, workers, and citizens. All areas of the curriculum were integrated with the economics unit. Problem-solving exercises were employed throughout the project to help children learn how to grapple with economic and social issues and questions. In setting up their individual businesses, the pupils discovered that supply and demand determine the price of what is bought and sold in the market. The students were shown how to measure linear square footage in calculating the costs of operating a business. One set of major economic issues developed in the unit concerned the purchase of property (land) to locate the businesses. This discussion led to questions about the distribution of income and wealth in the United States. Before the project started, the children talked to adults, read books and newspaper articles, and conducted research to obtain information on a variety of businesses and occupations. The economic concepts developed in the unit were continuously reinforced in weekly spelling drills and vocabulary lessons. Children learned how to make change and tell time, figure gross and net profit, estimate the market value of a product or service, and calculate interest on a bank loan or deposit. Field trips to a local newspaper plant, fast-food restaurant, dairy, and bank were planned. On their own, the children visited the police station and talked to a manager of a new small business. Doctors, dentists, and other professional persons were queried about their businesses too. Stories, films, flip charts, and role-playing activities were liberally used.

PATRICIA A. ROEDER of *Rose Warren Elementary School, Las Vegas, Nevada*, taught economic ideas to her second-grade pupils in a unit on energy. A publication entitled *Common Cents* was used to show children how all people are economically interdependent. The program incorporated a variety of techniques—puppets, actors and actresses, animation, music, and film—to capture the children's interest and to develop basic economic concepts and principles. A bulletin board labeled "America the Beautiful—Now Is the Time" was constructed to help the youngsters see that economics is a real part of their everyday lives. Games and simulations were used to explain the process of consumption and show the wide variety of wants people have in modern societies. The children discussed why people use money to facilitate exchange and to purchase goods and services they need from others. This led to a discussion of specialization and the division of labor. The pupils drew pictures of people using energy and discussed ways to conserve energy resources at home and school. Role-playing was used to help children understand how households provide their labor, savings, and property to businesses which use them to produce consumer goods and services which are then sold to households. The pupils earned play money (income) for doing jobs in the classroom (erasing boards, emptying wastebaskets, etc.). They used their income to buy goods and services (free time, use of games and high-interest activities, etc.). Other concepts taught during the project were opportunity cost, government, scarcity, market system, economic incentives, and supply and demand. The children came out of this experience with increased knowledge of the economics of the energy problem in the United States.

MARIAN EVANS, SCARLETT MEYER, MOLLIE NIEHOFF, and SUZANNE SHAMROCK of the *Merwin Elementary School, Cincinnati, Ohio*, taught economics to their students by starting a business. "Kids Corner" provides an opportunity to children in grades one through six to discover how a business operates within the framework of the American economic system. The project offers four separate units designed to involve students in a "real" business experience. Learning experiences include establishing a corporation, obtaining investment capital, manufacturing a product, developing marketing and advertising plans, and operating a business. The pupils were provided with many opportunities to make decisions and solve problems both independently and collectively. Filmstrips, flannel boards, games, and written reports were used to develop basic economic principles. Working with six grade levels and with students of differing abilities, the project instilled an attitude of cooperation among the children and teachers. The children developed their own advertisements and announcements to sell their products. A variety of ads taken from local newspapers, magazines, and posters was used to generate a marketing and advertising strategy designed to best promote the store. After doing a market survey among their mothers, the students (age 6) decided to sell live plants as well as manufacture jewelry, wall hangings, and tissue paper flowers. The students also studied consumer-producer roles, the difference

between goods and services, specialization of labor, and dependence on one another. Eleven-and twelve-year-olds invested money for the whole operation by purchasing shares in the corporation. Another group of students (ages 7 and 8) took care of packaging and advertising. Other students (ages 9 and 11) designed floor plans for the store after studying how much space would be available and what types of products were to be displayed. Evaluation results indicated that the children increased their knowledge of basic economics.

HARRIETT B. WILSON of the *Belmont Hill Elementary School, Smyrna, Georgia*, created an economics unit entitled "Your Money—Choose Wisely" for her kindergarten class. Learning activities were developed around the children's curiosity about money and its use as a medium exchange. The classroom was divided into five learning centers, each containing filmstrips, reference materials, games, and other resource aids to help the pupils learn about money, banking, and the economy. The movie *Money and Its Uses* was shown to explain productive resources, money payments, and the circular flow of finished goods and services. A brainstorming session was used to develop the understanding that the use of money is a much more efficient way of exchanging goods and services than barter. As the project unfolded, the students learned that money also serves as a unit of account and that it can be stored or saved for future use. *The Little Red Hen* was used to review the economic concepts discussed in the brainstorming session. In one activity, the children were asked to draw pictures of people's wants for goods and services. The purpose of this activity was to demonstrate the variety and number of items (goods and services) that people would like to buy. A game about wild animals helped the students to understand that because a person's income is usually insufficient to buy all the goods and services wanted, it is necessary to make choices. The children became familiar with economic concepts such as scarcity and opportunity cost and terms such as "consumer" and "producer." As the concepts were studied, the pupils made posters, wrote stories, did research, and presented reports to the class. The children were actively involved in making economic decisions using the problem-solving technique. As a culminating activity, the pupils participated in a flea market which summarized the understanding of economic concepts they had gained from the unit.

MARY MARGARET GROSSMAN of the *William H. Taft Elementary School, Euclid, Ohio*, developed a well-organized unit in economics for second-grade students. "From Airplanes to Unicycles" was created to help pupils learn about the economics of energy and transportation. Numerous films, filmstrips, books, and role-playing exercises were used to teach economic concepts such as scarcity, consumption, capital, trade, competition, and taxes. The class drew pictures, prepared murals, and conducted research on the importance of transportation to the local, state, and national economy. This activity led to a discussion of various power sources such as fossil fuels and nuclear, solar, geothermal, wind, and tidal energy. A filmstrip, *The Economics of the Energy Problem*, sparked a discussion about the current energy problem and how the

market economy of the United States allocates scarce productive resources. From this discussion the pupils came to realize the importance of evaluating alternative approaches to the energy problem in terms of the various economic goals of our society. In one activity, the students drew pictures showing the forms of transportation and energy resources they believed would be used in the future. As the project developed, the class studied different industries that were dependent upon the various forms of transportation. The children came to realize how important Lake Erie and the Cuyahoga River were to the economic growth and development of the area. The students were directly involved in the planning of learning activities. As a culminating activity a transportation fair was held to reinforce the economic understanding developed in the project.

CHAPTER TWO

Getting Down to Business: Economic Development in Polyester

An Economics Unit for Fifth-Graders

Billie M. Bryan and Mary Ellen Ellis
R. Homer Andrews Elementary School, Burlington, North Carolina

Introduction

Like many communities, Burlington-Alamance County has economic problems. Over the years, economic growth in this county has been closely related to the textile industry. The industry has been declining since late 1974, and this development has affected the growth of other industries in the area. For instance, a major firm engaged in the manufacture of electronic equipment experienced a dramatic reduction in its work force. In addition, several textile companies closed their plants, resulting in the loss of more than 1,500 jobs in the county.

Our main goal in teaching this unit was to help students understand the issues involved in economic growth for Burlington-Alamance County. The need to expand the economic base of the county was obvious. Local newspapers carried front-page stories almost daily, calling for the active, yet selective, recruitment of new, diversified business and industry. The unit gave a fresh new twist to basic economic concepts by making Burlington-Alamance County come alive in the classroom. The scope of the project was broadened when the class visited the governor of North Carolina in October 1978. Governor James B. Hunt praised the students for their interest in the economic growth and development of the state. Following this meeting, the pupils brought newspaper articles to class and watched the nightly news on television with regularity when economic issues and problems were discussed.

A strong base of support for the project existed in the school and broadened to the entire community and the state. On January 24, 1979, Mayor Durham named the students "Honorary Ambassadors" to the city in recognition of their involvement in economic development and commented that

". . . this type of study calls attention to the importance of our growth and development, a foundation necessary for prosperity."

The following specific objectives were developed in the unit:

- To involve students in the study of the local, regional, and national economy;
- To establish a classroom community, "Polyester," and to involve students in activities designed to develop their critical-thinking skills;
- To help students understand their roles as citizens, producers, and consumers;
- To demonstrate how business operates within the framework of the American economic system;
- To provide students with first-hand experiences in operating a business.

Overview

This project was founded on the belief that the elementary school should help students make decisions and solve problems both independently and collectively. In this unit, economic concepts were incorporated into all parts of the curriculum. Films, resource persons from the community, field trips, and the *Trade-Offs* television series were used to develop economic understanding.

The students began the unit by choosing a name for their imaginary city. The classroom became "Polyester," a city complete with schools, churches, recreation areas, government agencies, and a variety of businesses and industries. Polyester's form of government was modeled after the city of Burlington. Students running for the City Council made speeches and displayed campaign posters. Political candidates made badges for their supporters to wear and appointed campaign managers.

Our project actually began as part of a social studies unit on the Great Depression. As the unit evolved, the students studied the history of social insurance and public assistance programs. The success of this activity was far beyond our expectations. The pupils came to realize that social security benefits are paid to retired workers and their dependents, to disabled workers and their dependents, and to survivors of workers who have died. At this point, one student designed the social security card for the citizens of Polyester.

Next, a unit on local, state, and federal taxes was introduced to the students. We studied the sources of tax revenue and the services provided by tax dollars at each level of government. The children simulated the real world by paying state and federal taxes on money wages they earned doing jobs in our classroom businesses and industries. During this phase of the project, city and county government officials published a list of real and personal property that was taxable and included such items as television sets and skateboards. The tax collector sent each citizen of Polyester a property tax statement indicating the amount to be paid. Determining the tax rate was one of the most difficult tasks faced by the City Council and the county commissioners. This activity was to

show students how tax revenue is used to provide public services for everyone in the community to share.

After a few weeks of planning, we decided it was time to establish our businesses. Two empty cardboard refrigerator boxes were set up in the classroom and represented abandoned buildings once used by businesses in Burlington that were no longer in operation. Many of the business failures had occurred during the recession of 1974–75 and the years since. We decided to concentrate our efforts on recruiting new businesses and industries and creating jobs and income. The City Council hired an economic developer to promote business expansion in Polyester. Now the children were ready to establish their own classroom bank. Changing Times National Bank provided loans and investment capital for new businesses. We studied about money, banking, and the economy; toured a local bank; and actually took out a loan to gain experience and increase our knowledge of basic economic concepts and principles. The classroom bank handled checking accounts, savings accounts, loans, and charge cards for its customers.

Polyester wanted a textile industry that would produce pot holders, string jewelry, and autograph pillows. Several students developed a proposal for starting the business. Next we talked about the amount of capital needed to renovate one of the abandoned buildings in the classroom, to purchase raw materials and tools, and to pay wages until finished goods could be sold. We also discussed the kinds of goods and services that could be produced in the least costly way. The children worked on a plan for a survey that would establish the market price of each good produced in the textile industry. Some children investigated how additional capital could be raised by selling shares of stock. A representative from a local management consulting firm came to the classroom to explain the meaning of fixed and variable costs, profit, inventory, and assets. All this began to complicate life a little, but we had added things gradually enough so that the children were able to understand each new phase of our world-within-a-world. Once the textile industry had gotten its "feet" off the ground, the pieces fell into place.

The second industry to locate in one of Polyester's abandoned buildings was the Wood-Peckery. This company produced napkin holders, trivets, key holders, oven pulls, and keychains. To raise enough capital to operate the business, the owners decided to sell shares of stock. Students who wanted to work for the Wood-Peckery filled out a job application and went to the company's personnel office for an interview. Employees were paid according to a fixed hourly wage rate, were allowed a fifteen-minute break each workday, and received medical care (free Band-Aids).

At this point, some children were interested in opening a new business in the industrial park being planned in Polyester. The students simulated purchasing a tract of land in the classroom and building a facility to produce finished goods made from recycled materials. A resource person from the community talked with the children about the kinds of products that might be produced from recycled paper, glass, and cans. Several entrepreneurs borrowed money from the Changing Times National Bank to start new businesses in the industrial park.

Learning Activities

Throughout the project the children were introduced to fundamental economic ideas and generalizations through a variety of teaching strategies. A few of the learning activities are described below:

Scarcity and opportunity cost. This activity was to show students how goods and services are produced, to explain the process of consumption, to demonstrate the basic problem of scarcity, and to help them understand the relationships between opportunity costs and trade-offs. We asked the pupils to make a list of the things they would like to have. Pictures from magazines were employed, as well as several games and simulations, to make students aware of scarcity in terms of individual or family wants, limited family income, and family choice-making. Our discussion focused on the many wants of consuming units for goods and services and the concept of limited money income. The children began to see that people's wants for goods and services were never-ending and that a person's income is usually insufficient to buy all the goods and services wanted. The children became involved in applying these concepts to the study of the energy problem.

Economic systems. This part of the project introduced children to important concepts related to the way people and societies organize economic life. The major types of economic systems were examined in relation to the basic economic problem and the different mechanisms used to allocate scarce productive resources. The story *Aladdin's Lamp* was read to the class to stimulate discussion about the four basic questions that every society faces in dealing with the scarcity problem. Films, field trips, creative writing exercises, and filmstrips such as *Economic Systems* were employed to make students aware of the institutions, laws, activities, controlling values, and human motivations that collectively govern economic decision making. The children discussed the role of economic incentives in motivating producers in a market system to maximize their profits.

Demand and supply. The children discussed supply and demand in the market system and how the two factors interact with one another to determine the price of what is bought and sold. The discussion also focused on the role of government in modifying supply and demand decisions with regulations and controls. This led to a study of the factors that influence what and how much will be produced, how it will be produced and how it will be shared or used. The pupils worked in groups to learn how prices and outputs are determined in different types of economic systems.

Concluding Comment

The benefits of this project cannot be measured solely in terms of economic understanding. The students gained, self-confidence, improved their communications skills, and increased their ability and willingness to learn. It seems fair to say that this teaching unit gave the students first-hand experiences in dealing with the economic system. I believe the most significant outcome was the

learning of the basic economic concepts and principles which will serve as useful analytical tools to help children become responsible citizens.

Bundles of Energy: A Dream or an Answer?

A Fourth-Grade Economics Project

Barbara McKeever
Fairview Elementary School, Fort Smith, Arkansas

Introduction

With the energy crisis uppermost in so many people's lives and thoughts, it seemed to be a natural choice when my fourth-grade students wanted to do an economic study centered around energy. The dual fuel system for automobiles (using alcohol as an alternate fuel), invented by Stanley Barber of Fort Smith and used to power his 8-cylinder 1974 Pontiac and 4-cylinder 1975 Dodge Colt, caught our attention.

There were two reasons for the children's enthusiasm for this invention. The first was that Mr. Barber lives within a block of our school, and most of the children in the class were either acquainted with him, had seen the cars, or had heard their parents discuss the cars. (There has been quite a bit of local and national publicity about the dual fuel system, by which either alcohol or gasoline can be used by merely flipping a switch.) Another reason for the children's interest was that Stanley Barber is my brother, and I've been involved with the system from the time he first began working on the concept. He had brought one of the cars to my class the previous year and had really captured the attention of all the children in the school. I felt this was a golden opportunity for the children to become closely involved in a timely economic experience.

At this point, the system for the car is fully developed, and Stanley is looking at different products to be used in the manufacture of alcohol. Cellulose (from paper goods) is an excellent product from which to manufacture alcohol. The tremendous quantity of paper used in the schools in America,

and considered a waste product now, becomes a great "resource," if you will, for the production of alcohol.

We began our study with the idea of saving scrap paper from our classwork and planned to see how many pounds or "Bundles of Energy" we could save during the school year and how much alcohol could be manufactured from that many pounds of paper. This information in turn would help us calculate the number of pounds of paper that could be accumulated throughout the country through the school systems and ultimately turned into alcohol—an alternate fuel source desperately needed by America.

We spent eighteen weeks of concentrated study on this unit. However, we began saving our paper and engaged in some activities from the very first day of school on August 31. Little did we realize that our interest in the dual fuel system would take us into a study of several alternate sources of energy.

The *Test of Elementary Economics*, published by the Joint Council On Economic Education, was administered to the students as a pre- and post-test in an effort to measure economic understanding. Teacher-made tests and learning activities were used to evaluate students' knowledge of economic concepts. Some specific objectives of the project were as follows:

1. To explore the subject of energy with emphasis on alternate fuels and their impact on the economy;
2. To examine the potential use of alcohol as fuel;
3. To help the children discover their role in energy conservation;
4. To develop the students' ability to make judgments about energy-related policies and to understand the events that affect the goals of economic growth, stability, security, freedom, and justice;
5. To provide a learning situation that would actively involve the children in a timely and interesting topic and help them gain a thorough understanding of basic economic concepts.

Learning Activities

We set the stage for our study on the first day of school by discussing the purpose of saving all the paper we use in our room throughout the year and what we could be doing with it. The children were shown the "energy box," and we discussed how to store the paper in the box for maximum storage capacity. I was afraid that their past habit of wadding paper up and throwing it away would be hard to overcome, but the children were actually better about this than I had predicted.

Our subject did not need a lot of introduction or development. The children were very much aware of the energy crisis in general and the scarcity of gasoline in particular. They understood the effect the energy problem was having on our economy as well as on their own lives. The problem became more apparent throughout the year with the Iranian revolution in February

and March. The scarcity of gasoline as well as its high cost had been felt by each child in some way.

Charles McDonald, of the local gas utility, was our first guest speaker. He presented a slide program that traced the history of fossil fuels and the role of the sun in creating energy. He showed the children several slides giving examples of uses of energy, which in turn led the children to see why we have a scarcity of petroleum today. He was able to demonstrate to the children with his slides why we need to be concerned with finding ways to replace fossil fuels. He also explained to them ways of conserving our present sources and how modern appliances are being built to be more energy efficient.

I began to introduce economics into our unit with the very basic concept of making choices and examining our criteria in order to make wise choices. The children were asked to draw pictures of four things they would most like to have. Then they were asked which of the four they would pick if given only one choice. This led to quite a lively discussion; several children had similar wants but decided on different final choices and explained and defended their choices. A bulletin board featuring their drawings and entitled "What I Want—What I Chose" resulted from this activity.

I managed to find several opportunities for them to make choices, once about an arithmetic assignment, once about the class schedule, and most important, on how to spend the money we got from our paper sale. "Look at your criteria!" became a familiar phrase as we began to examine alternate fuels.

Feeling that the groundwork had been laid by this time, I invited my brother to visit the class and bring the car. The children were able to view the car's engine, and Stanley gave them a simplified explanation of what had been done to the car to enable it to use either gasoline or alcohol as its fuel source. The children saw the potential importance of alcohol in the future, and they were allowed to ride in the car within the neighborhood. John compared this experience with being able to ride in Mr. Ford's first car.

We returned to the room and spent the rest of the morning talking about the advantages of alcohol as a source for fuel for automobiles. This turned into quite a discussion as the children asked many questions. In particular they wanted to know if alcohol could be used to power other things such as boats, planes, trains, etc. The children discovered that it would be feasible in recreational boating, with the advantage that there would be no explosive fumes as with gasoline.

My students started to learn some basic economic concepts during the very first day of school. They were excited and motivated to learn more about the economics of energy, and they realized how and why learning takes place; they had fun while applying their efforts. A few of the learning activities developed in this project are described below.

Specialization. We followed a schedule of viewing filmstrips on various aspects of economics twice a week. After seeing an episode from the *Trade-offs* television series about production, and a filmstrip on specialization, we had our first "bundling session." We tied up all the paper in the energy box into five-

pound bundles. We started with no plan or system. (This was deliberate on my part in an effort to help the children see the advantages of organization and preplanning.) It did not take the children long to notice that we were not getting things done very efficiently.

In order to improve our production of "Bundles of Energy," we formulated a plan using information and ideas we had gained from *Trade-offs*, from filmstrips we had viewed, and from a field trip during which we had seen production on an assembly line. We developed our own assembly line by dividing the room into adjoining work areas. Each area was assigned a certain bundling activity, i.e., sorting, stacking, weighing bundles into five-pound units, tying bundles, and storing. Children were then assigned to each area, and the production of bundles continued. There was less confusion and noise, and the work was done more quickly, with neater bundles resulting.

Interdependence. Up to this point, the students had shown very little understanding of the interdependence of people and nations in the oil crisis. I wanted the students to understand that people become more interdependent as they increase the specialization of all productive resources and how this interdependence creates a need for trade.

We discussed comparative advantage and how some nations possess more of the world's natural resources than others. Using our social studies text, we listed the oil-producing countries and the countries that must import oil.

The entire class was asked to look for articles about energy in general, alternate fuels, or anything they felt was pertinent to our study. They brought the articles to class where they were read aloud and discussed. Then the scrapbook committee collected them and placed them in the scrapbook. The scrapbook was divided and organized into areas including articles about alternate fuels, scarcity, and price increases, from which it became obvious that as goods (the supplies) become scarce (or demand rises), prices begin to increase. And, of course, there was a predominance of articles about alcohol and Mr. Barber. This became a valuable source in our research and was frequently referred to in our work on the reports on alternate fuels. These news articles, as much as any one thing, pointed out to the children the degree to which we depend on foreign sources for 60 percent of the oil we use, and oil accounts for the largest percentage of energy that we consume.

Circular flow. We had arrived at the juncture in our study where I thought that the children needed to understand the impact that the manufacture of alternate fuels would have on the circular flow of goods and services and money. First, we tried to build a background by creating an understanding of the circular flow as it relates to the present production of oil. I had the students list many groups of people who are currently involved in the production, distribution, and sale of oil and oil products. We discussed how these people left their households to sell their services to the oil industry in order to earn income. They in turn go to the market as consumers to buy finished products or capital goods.

Then we discussed how the oil companies and other businesses engaged in the production or marketing of oil go to the market to sell what they have

produced. It was pointed out that they first had to go to the resource market to buy or hire the productive resources (land, labor, and capital tools) to produce the oil and oil products that consumers want to buy.

Resource extenders. I opened a discussion of resource extenders by asking this question: "Why are methods of production much different today than they were in the early stages of development in this country?" Some of the more alert students were quick to answer that inventions, discoveries, and big pieces of machinery made the difference. I explained that *technology* is an important resource extender. It not only deals with tools and machines in production but with people who know how to invent and organize to make productive resources go farther.

We took a field trip to the Gerber baby food plant to observe the forklift in action which had been adapted by Mr. Barber to use alcohol as its fuel. We talked with the driver of the forklift and other plant officials about their industry and the forklift's performance in comparison to forklifts powered by other fuels. We were given materials, including a letter from the manager of the plant, listing the advantages and their opinion of the results of the alcohol-powered forklift.

Market economy. By this time in our study the children had begun to ask such questions as: "If we have all this scarcity of energy, why isn't more being done?" "Why isn't the government doing more?" "Why do people just talk about it?" This was a crucial time for me as their teacher, because I was not sure that I could make the concept of a market economy come alive for fourth-graders.

Fortunately for us, a news story appeared in the daily papers in Arkansas about this time. Arkansas' senior senator, Dale Bumpers, had just introduced a bill in the United States Senate to allow a $500 income tax deduction to those who convert their cars to use alcohol. The children wrote letters to Senator Bumpers, explaining their interest in the bill and praising him for doing something in this area of energy. They also wrote letters to President Carter, encouraging him to do all he could to insure the passage of Senator Bumpers' bill.

Making a choice. As our scrapbook grew so did the variety of articles on alternate sources of fuel. We made a trip to our media center. With the aid of our media consultant, the children researched and wrote reports on such alternate sources of power as nuclear energy, shale oil, solar energy, coal, geothermal energy, and alcohol. There was not much material about alcohol. Mr. Barber again came to our rescue as he turned his research files over to us, and I was able to pull many items from this source that the children could use and understand in doing their research on production.

In writing their reports, the children were asked to look for criteria that could be used in deciding which sources would be best in meeting our energy needs. They were to find advantages and disadvantages, whether economic or not, that could be looked at in deciding how important a role each alternate source would have in helping ease the energy crisis.

The children gave their reports with great enthusiasm, each one trying to

outdo the others. We discussed the reports thoroughly, evaluating each alternative carefully. One report stressed that we could go into nationwide production of alcohol on fairly short notice because the process for alcohol production is known. This would give us time to further develop some of the other alternate sources. Alcohol is a renewable resource, and could be used to power cars without danger to the atmosphere.

Money capital. The further we got into our study the more impatient the children became to see alcohol cars a reality. Realizing by this time that it would take a tremendous amount of money to develop alcohol as a fuel, we made a trip to the City National Bank, where we were taken on a tour. We were able to meet with a bank officer who talked to us about loans for capital investments. In our discussions with the loan officer, we became acquainted with other sources of capital with which to begin a business.

We chose City National Bank because Shelby's father worked there. A bank official had also visited our room and brought us material such as checks, deposit slips, bank statements, and savings books to use in our bank transactions. The children had filled out job applications for various jobs in the room. They were receiving salaries for these jobs in the form of macaroni shells for currency. The sixth grade was operating a bank, using the same currency, and invited us to become customers. We became involved in all aspects of banking, opening checking and saving accounts, taking out loans, etc. The children could use that currency and checks to buy and sell things among themselves and to bid on items that were auctioned off each Friday. The main purpose of this aspect of the activity was to familiarize the children with banking procedures as they relate to capital formation and loans for investment.

In order to understand the stock market a little better, we picked out an oil company and checked the stock market information about it daily in the newspaper. We discussed the possible cause of the stock's rise and fall in relation to current happenings in the news. The children were beginning to internalize the idea of how money could be made available for alcohol plants, and how investors could participate through the purchase of stock.

Advertising. John mentioned in class one day that the other fourth-grade class and some people he knew did not seem to be as excited about alcohol as a fuel as we were. I asked him if he had any idea why, and he replied, "They just don't know much about it, I guess." I then asked what was usually done to let people know about a new product and several were quick to respond, "Advertise!"

With this incentive, we viewed filmstrips on advertising and its importance and effect on the economy. Then we developed advertisements for alcohol-powered cars and for alcohol companies. We first collected and studied advertisements for cars and oil companies, and then created our own advertisements accordingly. Our research into alternate fuels was a big help in writing our advertisements as we were able to incorporate some of these facts into our marketing strategy. We wrote advertisements for TV, radio, newspapers, and billboards.

Since the children had been concerned about other students in Fairview

School not being excited over alcohol as a fuel, we decided to post our advertisements in the hallways and wait for student reaction. A few students became interested enough to ask questions and to show some excitement about the topic.

Then we discussed the ideas behind advertising and the impact it could have on the public. By promoting alcohol as a fuel for cars through advertising, the demand for alcohol as an alternate fuel should increase and there would be correspondingly less demand for gasoline, if the price of the two fuels were about the same. If advertising could significantly raise the demand for alcohol, it would have a tremendous impact on the fuel sector of the economy in terms of competition, supply and demand, and, it is hoped, would make the energy crisis more manageable.

Summary and Evaluation

We produced a handmade filmstrip with a taped narrative to summarize our findings. While we had a committee to produce the filmstrip, the entire class helped plan it. Making the TV shows to illustrate the books on transportation and money helped the children a great deal in organizing their thoughts and ideas for the filmstrip. We agreed that we wanted to make a presentation to explain why we felt that alcohol was a good choice as an alternate fuel from both an economic and an environmental standpoint.

We used most of the materials that had resulted from the various activities in our study to come up with ideas for the filmstrip. Mr. Barber's tape was listened to several times by the committee. The scrapbook and the reports on alternate fuels were used for references. The children enjoyed viewing the film, and I let them use it at a study center when they had extra time.

We invited our parents and several of our guest speakers to visit our room for a showing of the filmstrip as well as to see all of our paper which we had kept stacked in a corner throughout the year. We had watched it grow day by day and wanted the parents to see what 250 pounds of paper actually looked like.

It became readily apparent very early in the project that we were achieving our aim of full participation by all students. With each activity we undertook, the children seemed to show a greater degree of excitement and interest. This spirit continued until the final activity was fully completed.

"Would the children become aware of the problem of scarcity in our society?" was one of the questions I pondered at the outset of the study. By the time we had completed our project I was sure that this question had been answered in the affirmative, because the children were aware of new developments which were occurring daily that affected theirs and their parents' lives.

The gain in knowledge of economics was evident in our discussions and in other evaluations.

Industry . . . The Amazing Octopus

An Economics Unit for Fifth-Graders

Nita Dean, Annie Brown, Patsy Goolsby, Lou Ray, and Diane Wake
Central Elementary School, Idabel, Oklahoma

Introduction

Industry Appreciation Week for McCurtain County, sponsored by the Idabel Chamber of Commerce, motivated the study of "Industry . . . the Amazing Octopus." This week of appreciation was set up as a "thank you" to industry for bringing economic changes to our area. The students in the county school systems participated by entering poster and essay contests sponsored by the Chamber of Commerce. This participation sparked an interest in the fifth-grade students at Central School to become more knowledgeable about the changes industry has brought to McCurtain County. We felt the study of industry should be continued by involving the students in experiences dealing with the local area and the surrounding environment, concentrating on the years 1968 through 1978.

The overall purpose of the study was to provide the children with economic experiences which would enable them to meet their responsibilities in the years ahead by making wise economic decisions, both in their private lives and as citizens in an ever-changing democratic society.

We pooled our knowledge with the expertise of community resource people to plan the study. The economic principles of the U.S. market system were developed throughout the study and integrated into the fifth-grade curriculum.

Objectives

The project was designed to achieve the following objectives:

- Help students understand they are members of a family living in a complex, changing economy in which people attempt to satisfy their wants and needs;
- Show how important an economic system is to every society and how the U.S. market system allocates scarce resources to satisfy economic wants;
- Gain an understanding of how the local economy has changed from being primarily agricultural to one based on the production of services;

- Help students understand that the production of services has developed faster than the production of goods;
- Become acquainted with the three forms of business organizations—sole proprietorship, partnership, and the corporation;
- Gain an understanding of the different ways investment capital is raised to establish and operate a business;
- Become aware of the direct and indirect effects of industry on the local economy;
- Understand how industry allocates scarce resources in the mass production of goods;
- Understand the impact of industry on the local community and how economic growth and development help raise the standard of living;
- Develop an awareness of industry's contribution to an increased demand on local public services.

Organization and Planning

In organizing an approach to teaching economics, we wanted to utilize all subjects rather than teach economics as a separate entity. Therefore, we used math, art, language, and science in developing learning activities and instructional strategies for the project. Class time was devoted to group discussions; research; writing essays, letters, and poems; and oral reports. The students were required to keep notebooks throughout the entire project. All their worksheets, charts, graphs, and maps were placed in the notebook. As much of the planning as possible was left to the pupils. A variety of teaching methods was employed to develop economic concepts, including field trips, bulletin board displays, presentations by resource people, slides, and photographs. Community resource people were very active in contributing materials for classroom use, arranging field trips to local businesses, locating guest speakers, and serving as project consultants.

Learning Activities

For this condensed report, we present a short outline of a few activities that were developed for the project:

Project Outline

1. Role of producers and consumers
   a. Use family tree activity to identify parents as producers of goods and services;
   b. Plot location of home on city map;
   c. Make posters and write essays on the economy of McCurtain County;
   d. Discuss the process of satisfying economic wants and the meaning of the terms durable and nondurable goods.

2. Scarcity and choice
   a. Prepare bulletin board display showing unlimited wants and scarce resources;
   b. Use role-playing exercise—"A Visit to Central Econoville"—to reinforce the concept of scarcity;
   c. Discuss how individuals confront the problem of scarcity;
   d. Write essays about people who make choices in deciding how to allocate their limited money income among alternative uses;
   e. Discuss the importance of an economic system to every society in allocating resources to satisfy wants.

3. Agricultural Production and Economic Growth
   a. Use resource speakers to discuss farming and agricultural production methods and the history of McCurtain County;
   b. Prepare bulletin board entitled "Then and Now," showing "old" and "new" farming methods used in the region;
   c. Make charts, maps, and graphs depicting farm income and economic growth;
   d. Prepare charts showing McCurtain County labor force projections;
   e. Conduct a tour of the Wooten Farm and Ramsey Implements to see old and new farm equipment.

4. Types of Business
   a. Develop bulletin board display showing the three kinds of businesses;
   b. Organize field trips to the McCurtain County Cooperative and to the Joplin Egg Plant to learn how different businesses use scarce resources in production;
   c. Show slide presentation on the history of the Weyerhaeuser Company and take tour of the Craig Seed Orchard;
   d. Use Weekly Reader Reference Chart to study the fastest growing jobs in the 1980s;
   e. Have students fill out a job application form and write an essay explaining why they chose that type of work and why they feel qualified to do it;
   f. Study data compiled by the Oklahoma Crop and Livestock Service showing the number of farms and of acres per farm in Oklahoma, 1969–78;
   g. Prepare booklet on the free enterprise system and discuss the meaning of sole proprietorship, partnership, and corporation.

Culminating Activity

To culminate the unit, an open house was held on the last day of school. Parents, teachers, community resource people, and other interested persons were invited to attend "Community Spotlight." Students summarized their experiences by giving a slide presentation of the economic study "Indus-

try . . . the Amazing Octopus." The children explained how industrial growth changed McCurtain County. A scrapbook with pictures, essays, charts, and poems about the project was on display, and refreshments were served.

Evaluation

The five fifth-grade classes participating in the economics unit took the *Test for Elementary Economics* developed by the Economic Education Enrichment Program, West Springfield Public Schools, West Springfield, Massachusetts (1971 edition). The pretest was administered in October 1978. The same test was given again in early May. There were forty questions on the test. The test results showed that the students increased their understanding of basic economic concepts.

In addition, the project teachers observed the students' new interest in current events. The students also showed a new interest in their community and a real desire to see continued economic growth and development.

Big Wheels on the Brandywine

A Fifth-Grade Economics Unit

Dorris Reed Morris and George P. Nickle Jr.
Warner Elementary School, Wilmington, Delaware

Introduction

Our school has a magnificent location on a bluff overlooking the Brandywine River, the original power source for the E. I. Du Pont Company as well as many other companies. As we looked at the river, an idea began to form. Why not study the economic importance of the Brandywine? After all, the river was there, the old waterwheels were there, so why not put them all to good use? As the waterwheels turned, so did the economic development of eighteenth and nineteenth century Wilmington.

Of our 160 students 80 percent come by bus from places at least twelve miles away. The remainder of the students are city residents who walk to

school. We discovered that neither group knew very much, if anything, about Wilmington or the Brandywine. Wilmington and the Brandywine therefore became our richest sources of information and inspiration for the project. Learning about them became the common denominator for us, our common bond, and a seemingly inexhaustible source of this year's economic education experiences.

Activities were many and varied. We were able to use old and new maps, build and study working models of mills and waterwheels, and talk with local historians. We walked through the city, sketched it, and learned to appreciate it. We also began to realize why there is now such a proud rebirth of interest in renovating or remodeling older sections of Wilmington. We were visited by the mayor and met other city officials, such as city council members. In short, the city and the Brandywine became extensions of our classrooms.

In addition to studying the economic history of the Brandywine, we also involved the children personally in economic decision making by creating a simulated society called "Tiny Town." Tiny Town was in operation for nearly the entire school year and its effectiveness was greatly enhanced by the use of the *Trade-Offs* economic education television series. Our study of the Brandywine River, which ran for three months, became an interesting and rewarding companion to Tiny Town. Each was an educational complement for the other.

Background

Wilmington is located along the Delaware River where the Brandywine and Christiana rivers meet, approximately twenty-seven miles south of Philadelphia. In 1739, King George II granted borough status to Wilmington, and the city began to grow. Quaker families built gristmills along the swiftly flowing Brandywine and created the tiny satellite community of Brandywine Village. As early as 1770, their mills were sending 30,000 barrels of flour to Philadelphia for export. Shipbuilding and barrel making became important businesses in the town's economy. In a very short time, milling and related industries became the basis of the entire early economy of the area. The wheels along the Brandywine were turning and the economy began turning with them. By the mid-nineteenth century, Wilmington was a vigorously growing town at the height of its mercantile-milling economy. Census data proved this point to us. From 1840 to 1900, the population of Wilmington grew from 8,459 to 76,500.

In the earlier years of the United States, the Brandywine River was one of the most important sources of industrial power. Mills producing paper, textiles, black powder, snuff, and flour were located along the Brandywine. Workers whose skills were essential to the expansion of an industrial technology flocked to the area from many different countries. The mills generated the needed profit which further advanced the town's industrialization.

As we found out more about Wilmington's past, it became more than evident to us that the necessary factors of production were right here, just waiting to keep the town "booming." Wilmington was close to the sources of coal and iron ore in Pennsylvania. Transportation was cheap and convenient.

New railroads, new canals, and increased shipping all added their impetus to the development of Wilmington in the early nineteenth century. We had natural resources, abundant transportation, and readily accessible markets.

As transportation continued to become vitally important to the development of the United States, two major industries emerged in Wilmington: shipbuilding and railroad car construction. These two industries added greatly to the town's developing economy.

The interrelationships among the early (and successful) businesses are noteworthy. Leather tanners sold to carriage and railroad car makers, foundries produced goods for local shipbuilders, etc. But, *all* were dependent for survival upon Wilmington's location, its water power, and its navigable waterways. Wilmington's early growth and importance must be credited in large part to the Brandywine River's power and the American entrepreneurship which put it to use.

Overview

A portion of our time was spent studying, researching, and visiting the nearby original E. I. du Pont Company birthplace. During this time, we focused our attention on nineteenth century life along the Brandywine.

Eleuthère Irénée du Pont emigrated from France to America in 1800. In 1802, he and his brother, Victor, began a black-powder mill along the Brandywine. By the beginning of twentieth century, E. I. du Pont de Nemours and Company had become a vast corporate enterprise. However, this was not always the case. The company employed no more than 300 people at the Hagley Yards, its only Delaware plant, during the nineteenth century. The reputation of the company induced other businesses to locate in Delaware. Our economy continued to thrive.

The original powder works is now the site of the Hagley Museum and Eleuthere Mills-Hagley Foundation (EMHF), located just a few miles up the Brandywine from our school. The Hagley Museum is part of EMHF.

EMHF is a nonprofit educational corporation. The museum uses artifacts, dioramas, working models, and publications to interpret and dramatize American industrial growth in the eighteenth and nineteenth centuries. It was through the Hagley Museum that our students received firsthand knowledge and experiences about nineteenth century life along the Brandywine. The students toured the museum and recreated a "typical day" in the life of a nineteenth century powder mill family.

The adjoining Eleuthere Mills Historical Library houses a wealth of primary source material. The library contains an extensive collection of printed material (including 7 million manuscripts) and provides a national context for understanding the economic growth along the Brandywine. From the library we were able to obtain nineteenth century census data, accounts of events along the Brandywine, and many other materials available nowhere else. The archives of the E. I. du Pont Company from 1802 to 1915 are located there, as well as extensive du Pont family papers, all available for scholarly research.

As the unit developed, the children came to understand how the explosives industry grew rapidly with our expanding nation. Black powder was used not only in war, but also in clearing land and in mining. Facilities were enlarged, production expanded, and research was begun. The need for workers grew and many immigrants joined the work force along the Brandywine.

The growth of industrialization along the Brandywine brought both benefits and hardships, as it did all over America. By keeping the focus local, and by using primary source material from Eleuthere Mills Historical Library, we gave students a real understanding of and appreciation for American industrialization.

Through invention and innovation, through experimentation and diversification, American industry expanded over the banks of local rivers, such as the Brandywine, and into the world marketplace. However, it was on the "beginnings" that we placed our emphasis.

Learning Activities

Because of its proximity to Warner Elementary School and because it was one of Delaware's most important industrial communities of the late eighteenth and nineteenth centuries, Brandywine Village was a natural choice as the site to begin the study "Big Wheels on the Brandywine."

The Brandywine is a short but very powerful river. Although it is only twelve miles long and never more than fifty yards wide, its volume of flow makes it one of the important streams of the Middle Atlantic coast. In its last five miles, the stream bed drops 124 feet, pouring 600,000 tons of water a day into the Christiana River.

In the age of water-powered industry the Brandywine River had all the things necessary for manufacturers. It was near America's first great farm belt. At its tidewater was the Christiana River, which led to the Delaware River and the Atlantic, and nearby, less than thirty miles away, was Philadelphia, a big consumer market. The Brandywine had abundant waterpower, as well as dependable transportation facilities; ready markets and raw materials were not far away.

The first great industrialists along the Brandywine were English Quakers who created a flour milling center on the tidewater at Wilmington. Many of these millers lived nearby in Brandywine Village. This community, still the site of homes and shops today, is gradually being restored by a small, farsighted group of citizens.

The students found it exciting to realize that primary source material about the Brandywine River existed, dating back to 1783. They had learned about the use of primary resource material from their social studies basic text, the *Holt Data-Bank System*. That series emphasizes the idea that historical evidence is necessary to back up inferences.

The primary source material we used was a collection of descriptive accounts about the Brandywine River, the flour mills, the initial interest of E. I. Du Pont and his purchase of the land, and a walking interview through the

powder yards, compiled in 1890. Each describes impressions and observations by the various authors. We also used many photographs from the EMHF Collection.

In addition to these materials we used Du Pont Company work and salary records from 1870 to the present, U.S. Census data dating back to 1870, and reproductions of Sears catalogues, starting in 1897. These materials all gave a realistic quality to our study, and were a source of accurate (and surprising) information to our students.

Our studies had two general goals. First, we wanted students to discover what life was like in Brandywine Village in the late eighteenth and nineteenth centuries. Second, it was important to help pupils understand why the community developed as it did, and what was being done to preserve the remaining structures and recapture the atmosphere of the early town. We hoped that the study of the economic growth, history, and restoration of an area using a familiar and nearby setting would help make the past fresh and alive for the students and give them an appreciation of what's going on there today.

Culminating Activity

We decided that for the culminating activity we would use the Hagley Museum's day-long program designed for elementary school students. In this activity the students and the museum's staff recreate a "typical day in the life of a nineteenth century powder mill child." Half of the day was spent in the Brandywine Manufacturers' Sunday School while the other half was spent working on chores or crafts for which a nineteenth century child would have been responsible. The household chores were conducted in the John Gibbons house.

We spent a beautiful day on the museum's property. We saw the wheels, the millraces and sluice gates, and the Gibbons house. Imaginations "ran wild," and we were all transported back one hundred years, to a time long gone but still remembered and enjoyed along the Brandywine. After spending so much time studying, researching, and talking about the Brandywine's effect on the economic development of Wilmington, it was gratifying to see smiles of appreciation and many nods of understanding from the students throughout the day. We were very proud when the guides told us, "This group is the best we've ever had visit us."

Good Ideas in Brief: Intermediate Level

STANLEY K. WELLS of the *Echols Elementary School, Fort Smith, Arkansas,* developed a variety of activities to teach economics to his fourth-graders. He introduced the unit by having the pupils make ceramic flower pots with macrame plant hangers. This activity led to a discussion of specialization, comparative advantage, and the division of labor. A field trip to a local furniture company launched a discussion of the process of production and the overall structure of the economy. The children observed how the sewing department depends on the cutting department to keep production flowing and how workers depend upon each other to carry out their jobs. Examples of specialization were given as the pupils learned the importance of using resources in appropriate ways. The main forms of business organization were studied; proprietorships, partnerships, and corporations were discussed. The class then organized itself into four companies to produce hanging plants; one company specialized in producing pots, another made hangers, and the third grew plants. A fourth company assembled the finished product and was responsible for marketing and sales. The students gained a variety of knowledge and skills in economics. Filmstrips, bulletin boards, charts, and resource persons were used throughout the year-long project. The learning experiences helped show the students how division and specialization of labor increases production. As a culminating activity the children decided to use part of the profit to sponsor a company picnic. In addition to learning many economic concepts, the pupils improved their skills in mathematics and oral communication.

CAROLYN A. LUCE of the *Trusty Elementary School, Fort Smith, Arkansas,* developed a fifth-grade unit in which the pupils learn economics through a comparative study of capitalism and communism. Films, games, filmstrips, and field trips were used extensively. A bulletin board entitled "Everyone's Being a Consumer" helped point out that in modern societies people have a wide variety of wants. This led to a discussion of scarcity and choice-making and the basic fact that all societies must decide which goods and services to produce, which to forgo until later, and how to allocate resources among alternative uses. The TV series *Trade-Offs* was used to reinforce many economic concepts discussed in class, such as production, savings, investment, and economic growth. *Ancient Olympic Games of Greece*, by Shirley Glubok and Alfred Tampian, sparked a discussion of economic incentives in the United States as compared with the U.S.S.R. Preparing for the school's mini-Olympics provided an opportunity to expose the children to concepts such as needs, wants, money, consumer, and producer. The concept of competition was discussed when the class studied how the United States and the U.S.S.R. make decisions about the use of resources to produce goods and services. In the course of the project, students made many decisions and soon came to realize

the need for using logical thought processes to make comparisons between different countries' economic and political systems. The children prepared reports summarizing what they had learned.

WENONAH THOMPSON of the *R. C. Andrews Elementary School, Floydada, Texas*, developed an economics unit to teach English as a second language. Games, simulations, and role-playing exercises were employed to introduce children to basic economic concepts such as scarcity, opportunity cost, consumer, and producer. The concepts were related to the story content and vocabulary words presented in *The Lopez Family*, the basic textbook used by non-English-speaking students. The pupils made posters and drew pictures to show how members of the Lopez family lived and worked. This experience enabled the students to realize the problem of scarcity and that the Lopez family must establish priorities in choosing which wants for goods and services will be satisfied. The children learned that the particular choices made will be determined by the size of the family's income, the prices of different goods or services, and the satisfaction derived from different goods and services. In the course of the activity, the students discovered that wise choice-making is necessary in order for the Lopez family to obtain the most satisfaction possible from the purchase of goods and services. The game *Get Smart* helped to reinforce the students' understanding of money, credit, and the banking system. The class made charts to show the differences among people's wants for goods and services and prepared lists showing specific items that fulfilled their basic needs. In addition to learning many economic concepts, the pupils improved their skills in oral communication.

IRENE T. ROSS of the *Memorial Park Elementary School, Euclid, Ohio*, developed a highly motivating approach for teaching economics to her fourth-grade students. She introduced the unit by locating major cities on a map of the United States and asking students to list resources, products, industries, and other economic data for each city. Next, the class was divided into groups to do research and prepare a written report on the economy of a particular city. Numerous films, filmstrips, games, and simulations were used to develop economic concepts such as opportunity cost, production, profit, and specialization. As part of their daily current events assignment, the pupils were asked to bring to school newspaper or magazine articles dealing with the use of natural resources. Role-playing exercises help students to understand how division and specialization lead to a high degree of interdependence among individuals, businesses, and regions. This activity led to a discussion of the world's energy crisis and the dependence of the United States on oil from foreign countries. The project included a study of the market system in which 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. A book, *Life on Paradise Island*, was used to help students understand the important motivating forces behind economic behavior such as profit, self-interest, and competition. Eventually the pupils decided to form

their own business, incorporate, and sell stock in the "Tiny Trinket Corporation." The company produced and sold nylon-net dish scrubbers and Easter baskets, using the assembly line technique. Field trips, stories, debates, and group discussions were used extensively in this project.

MARION FOWLER and VIOLET MILLER of the *Washington Elementary School, Little Rock, Arkansas*, developed a fourth-grade unit in which the students learn economics through the study of minority businesses. They introduced the project by discussing the reasons why a local restaurant went out of business. The children came to appreciate the factors that contribute to success or failure of many small businesses. A poster entitled "Tune in to Economics" was used to highlight economic concepts such as scarcity, capital, investment, credit, and production. Resource people from the community were invited to the classroom to help the children learn about going into business. The class took a field trip to Mr. Torrence's Florist Shop to discover at firsthand how a business operates. This activity helped show how land, labor, and capital resources are used in the nursery and greenhouse business to meet the needs of the customers and to earn a profit. As the unit evolved, the children decided they were ready to go into business on their own and began producing and selling arts and crafts. A highlight of the project was a visit to the classroom by the governor of Arkansas, William Clinton. As a culminating activity, the approximately 618 arts and crafts produced were sold to interested parents, students, and friends during the "Sale Day." The children made keepsake booklets which summarized the economic knowledge they had gained from the unit. Evaluation results indicated a significant increase in the students' understanding of economic concepts and principles.

MARLENE H. PRICE of the *Sequoyah Elementary School, Russellville, Arkansas*, developed a variety of activities to teach economics to her fourth- and fifth-grade remedial reading classes. *Economics for Decision-Making*, by George Fersh and James Calderwood, was used as a springboard to introduce students to economic concepts such as money, goods, services and terms such as "consumer" and "producer." The thirty-six students participating in the project were involved in analyzing the demand and supply of Christmas trees in the community during a three-week period. The students made a folder and a booklet in which to record information about the price of trees and how those prices determine the pattern of buying and selling in the Christmas tree market. Study guides, catalogs, pamphlets, and other resource materials were used by students to study supply and demand conditions and to determine the prices of different kinds of trees offered for sale at various shopping locations. Students conducted field trips and interviewed merchants selling both artificial and live trees. The students obtained information about costs, prices, and the quantity and quality of trees consumers were willing and able to buy at various prices. Newspaper advertisements for trees were accumulated and displayed. The number of trees sold by civic groups and nonprofit organizations was also noted. Bulletin boards showing the supply and demand for Christmas trees

were created by the students and displayed in the reading center. A highlight of the project was a visit to the classroom by Quinton Cole, a U.S. Forest Service employee and a local tree farmer. This activity helped to point out the various stages of production in tree farming and the natural, human, and capital resources used, from clearing the land to marketing and selling the trees.

JO ANN LOVETT of the *Woods Elementary School, Fort Smith, Arkansas,* has developed a sixth-grade unit in which the students learn economics through the study of the arts. She introduced the project by taking a survey of the students to determine their interests, hobbies, and leisure-time activities. The results of the questionnaire sparked a discussion of productive resources—capital, land, and labor. In one activity, the children discovered that a decision to use scarce production resources to produce particular goods and services means giving up the possibility of producing something else. The children were directly involved in planning activities and making economic decisions using a five-step, problem-solving technique. As the economic concepts were studied, the children did research to determine which businesses in Fort Smith manufactured art products. Ralph Williams, owner of a local ceramics shop, was invited to talk to the class about starting a new business. This activity was followed by a field trip to a glass factory, where the students observed specialization and division of labor and the assembly line technique of production. On a tour of Suzy's Tole Shop, the children learned how the prices of arts and crafts sold in the store are determined by the costs of production resources. The children learned that the resulting prices reflect the relative scarcity or abundance of goods and services. Field trips, resource speakers, and group discussions were used extensively in this project. As a culminating activity, the children planned and conducted an arts fair to demonstrate the economic understanding they had gained in the program. Test results showed that the students learned many economic concepts and principles.

DONNELLE A. HICKS of the *Comins New Heights Elementary School, Fort Walton Beach, Florida,* created an economics unit entitled "By Jove, I Think We've Got Free Enterprise" for intermediate grades. The project deals with three basic economic concepts: consumption, production, and income distribution. As the unit evolves, the classroom is transformed into a mini-society. The 320 students participating in the program spend about seven hours a week operating their market economy. The Loaning Rangers Bank does just about everything in the classroom that the bank downtown does. The farmers plant and work a garden at the school and sell their produce at The Emporium. The Emporium also sells school supplies and products of the Polka Dot Factory, such as cookies and small ceramics. The purpose of the program is to teach students about banking, farming, marketing, and retailing and to show them how to differentiate between a market economy and the command economies that exist elsewhere in the world. Practical tips on running banks were given to students when they paid visits to real banks. The purchase of school supplies took place daily for students who could pay with checks on the

bank. In the course of the activity, students make many decisions involving economic analysis and they learn to live with the consequences of their decisions. In addition to learning many economic concepts, the children developed their critical-thinking skills as they applied the tools of analysis to the study of problems in the mini-economy.

CHAPTER THREE

Economics: Today, Tomorrow, the Future

Paul W. Theiss
Hudson Junior High School, Hudson, Ohio

Brief Overview

"Shift," "shortage," "surplus," "market-clearing price"—all these terms became household words in my sixth-grade class at Hudson Junior High School. Normally, I incorporate economics into my social studies program, but this year I added a new dimension, the AIT series *Trade-offs*.[1]

The series provides a new strategy for teaching economics to middle school students. Easy-to-understand concepts are supported by well-presented situations involving young people of the same age group. The series may be used both to reinforce teacher-presented concepts and as a springboard for discussion after viewing. Explanations of supply and demand curves as developed in the *Trade-offs* series were especially used as the focus for classroom activities.

The major activity of the class was to form its own corporation, "Mork's Out-of-This-World Pizza." The sales department conducted a market survey for their product after viewing tape 10 of *Trade-offs*, "To Buy or Not To Buy." As a result, they had a good indication of the demand for pizza long before they went into production. With an initial investment of $37.75, "Mork's" ended a two-week production period with $223 in the bank.

Introduction

The students of Hudson Junior High School represent a cross section of backgrounds and social strata. The school district encompasses a village and township of approximately 5,000 people each, of whom 85 percent are native born. The median income is about $36,000. The fifty boys and girls from my

1. Developed jointly by the Agency for Instructional Television, the Canadian Foundation for Economic Education, the Joint Council on Economic Education, and a consortium of fifty-three state and provincial agencies.

two social studies classes met for forty-five minutes, five days a week.[2] I taught a year-long project for sixth-grade social studies students. (In the Akron Schools, the sixth grade is departmentalized and functions within the junior high school setup.) The course, "Economics: Today, Tomorrow, the Future" was divided into two parts.

The first part, taught during the first semester, was devoted to teaching basic economic concepts. By exposure to many different phases of economics, including the television series *Trade-offs*, the students learned about such concepts as stages of economic development, the market, the circular flow model, scarcity, opportunity costs, and demand and supply curves. The activities of the second semester clustered about a simulated corporation, "Mork's Out-of-this-World Pizza," and the knowledge it imparted concerning the American economy, production, and consumer and business practices.

Goals

The greatest reward children can receive from participation in an activity is a good self-image of themselves, encouraging them to believe they can succeed as individuals, as well as becoming valued citizens in society. I want my students to become effective, active, educated participants in the society, especially in economic matters. This is the long-range overall goal of teaching an economics unit of this proportion.

The specific goals of my program were:

1. To develop an understanding of the American free enterprise system;
2. To develop an understanding of how other economies work;
3. To learn economic principles and concepts;
4. To learn the terminology and vocabulary associated with those principles and concepts;
5. To demonstrate by a classroom project how the circular flow of production, income, and consumption works.

Part One: Fall Semester

The project began with a discussion of a family's harvest of homegrown vegetables and the children's role in cultivating them. Out of this discussion the idea of making a vegetable soup on electric hot plates in class emerged. On another day, early in the term, the class produced grape juice, using an old-fashioned wine press. Economic principles, such as division of labor (grape gathering and pressing; vegetable harvesting and preparation of the soup), redistribution (vegetable soup distributed among those who brought in the vegetables), and reciprocity (exchange of good for good between two groups)

2. The period was extended by including a study period for the two weeks during which the class was engaged in producing and selling pizzas.

were learned. These two productive activities set the stage for a whole year's work on the functioning of the free market economy. During the first semester, classwork focused on economic life in earliest times—the hunting and gathering stage, primitive agriculture, intensive agriculture, and the industrial age.

As each new unit unfolded (Greek, Roman, and Eastern Mediterranean civilizations), the presentations were enriched by *Trade-offs*. The series of fifteen 20-minute programs makes economic concepts easier to understand by depicting situations experienced by children of the students' own age.

A three-week intensive study of the basic concepts related to the market economy was begun after the Christmas holidays. The first lesson (Point I) focused on a more precise definition and explanation of such concepts as needs, wants, choice, scarcity, opportunity costs. *Trade-offs*, Tape 1, "Choices," presented to the class a situation which brought these concepts to life. A reading assignment, *The American Economic System . . . And Your Part in It*, pp. 18–19, further established a solid background for the lesson.

Point II was developed through the use of Tape 4, "Give and Take." It brought the thoughts of the students back to the concepts of scarcity and resources. The discussion soon pointed up the fact that no one can have all he or she wants. One must make choices and decisions to satisfy one's needs and wants. The most limited resource closest to the students' experiences is that of time: time to play, time to watch television, time to do homework, and all of the other things that one wants to do in a twenty-four-hour day. In the management of time the principle of opportunity costs is the prime consideration.

Point III treated the market economy first introduced by the early-autumn introductory activities—the vegetable soup and the grape pressing. The students discussed the advantages and shortcomings of the single proprietorship, the partnership, and the corporation. The sound filmstrip, *Economics for Young Americans, Phase II*, "The Business of Competition," was used to further exemplify the importance of competition in the free enterprise system.

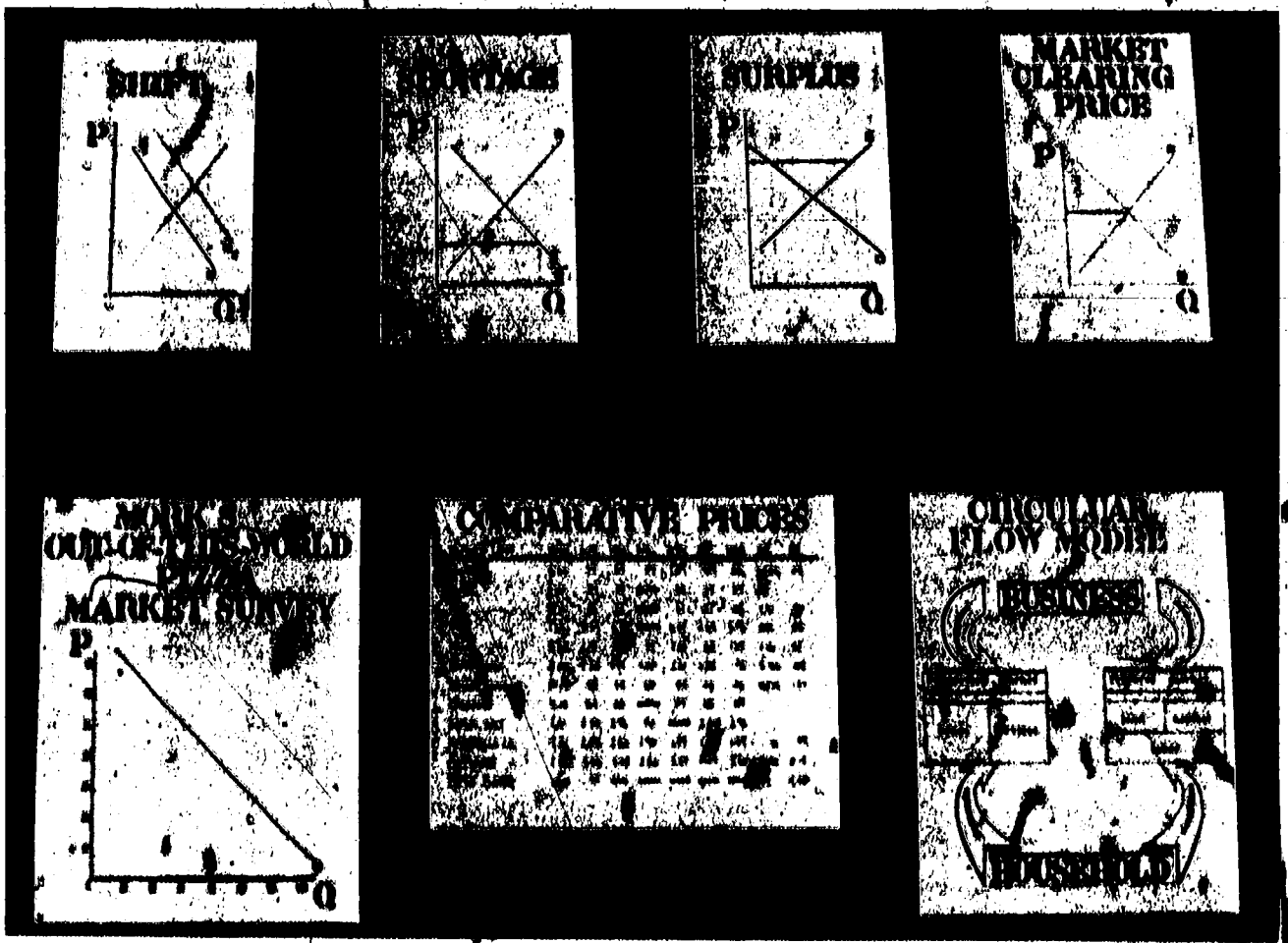
Point IV dealt with the circular flow model, the relationship between the resource and production markets. Individual copies and a transparency of the circular flow model on the overhead projector facilitated the presentation.

Point V dealt with money. The students learned that the value of money depends on its acceptability to others. It is backed by faith. *Trade-offs*, Tape 9, "Why Money?" demonstrated how people expect to become better off as a result of an exchange. (A local bank manager can be an excellent resource person for this lesson.)

Point VI dealt with demand. A story of a scarce item for breakfast at school—doughnuts—was used to illustrate the demand curve. (Demand varies inversely with price.) *Trade-offs*, Tape 10, "To Buy or Not to Buy," was a preview of what the students would be doing themselves in just a few weeks.

Point VII treated supply and the supply curve. Again, *Trade-offs*, Tape 11, "To Sell or Not to Sell?" presented a situation the class would explore when it engaged in business a little later in the term.

Point VIII discussed the market-clearing price, surplus, and shortage. The market-clearing price was shown to be at the point where the demand curve

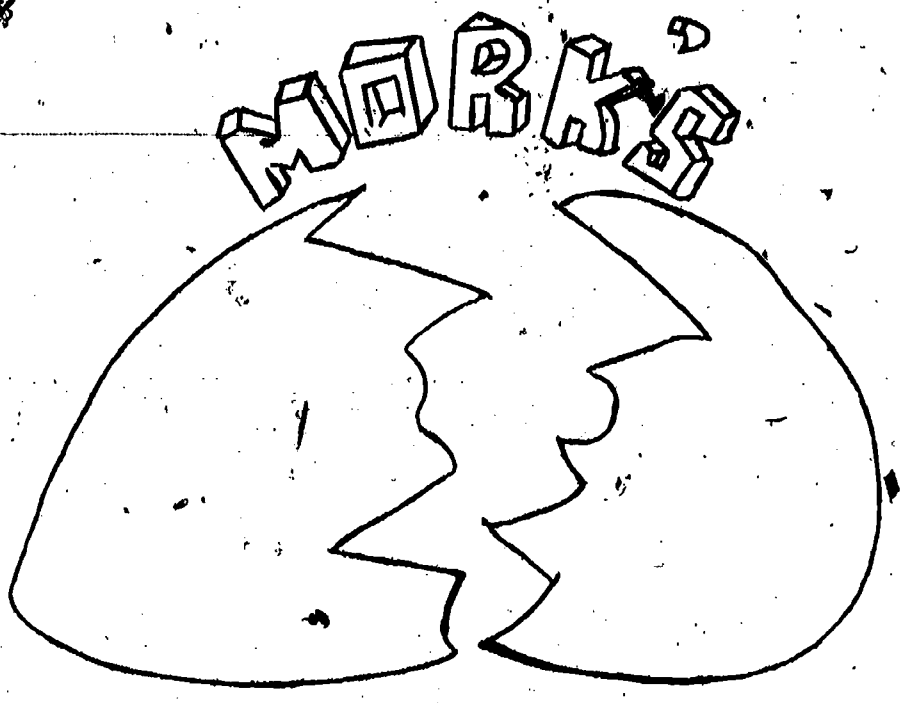


NOTE: The charts above were developed for Point VIII (see page 48). The charts below were developed for the spring-semester program described on pages 49-50

MORK'S OUT-OF-THIS-WORLD PIZZA

CERTIFICATE OF STOCK

ONE SHARE



_____

(Signature of Investor) (Date)

NOTICE: This certificate must not be copied or forged. If such actions occur, the person(s) involved shall be in trouble with Mr. T.

Stockholder must have this certificate to liquidate stock.

Date of Stock Liquidation: _____

_____

(Stockholder's Signature)

Authorizing Officer: _____

crosses the supply curve. Unemployment was explained in terms of a surplus of workers; and gasoline lines of 1979, as an example of a supply shortage. *Trade-offs*, Tape 12, "At What Price?" clarified market-clearing price, surplus, and shortage.

Point IX considered shifts—increases or decreases in supply (demand)—causing shifts in demand (supply). The shifts were illustrated by changes in the supply and price of gasoline resulting from OPEC policies.

Point X discussed the price system: changes, shifts, movements in supply and demand. It explained how the market-clearing price in one market affects other markets. For example, an increase in the price of petroleum may cause an increase in the demand for bicycles or a decrease in the supply of automobile tires. *Trade-offs*, Tape 13, "How Could That Happen?" was used to introduce this lesson.

Point XI concentrated on how technological advances improve productivity and how increased productivity causes increased prosperity. Individual prosperity decreases when productivity levels off or decreases. The questionnaire in the kit *Economics for Young Americans, Phase I*, was useful for introducing the concept of productivity. From the sound filmstrip *The Promise of Productivity* the students learned that "we work smarter, not harder" to increase productivity.

Point XII deals with concepts pertaining to profits. From the sound filmstrip *Profits at Work* (see kit mentioned in Point XI) the youngsters learned that profit is the money left after all expenses are paid. The lesson was supplemented by *The Golden Goose*, a pamphlet available for the asking from Wheelabrator-Frye Company in Hampton, New Hampshire.

Part II: Spring Semester

The high point of the second semester was the organization of a production company by means of which the students could put their knowledge of the free enterprise system into operation. A class-owned company was established in legal form as a fully staffed chartered corporation—from board of directors to a maintenance crew. Stockholders; purchasing, production, and advertising managers; personnel staff; accounting department; sales and labor force were included. The teacher's role from this point on was that of an expediter: one who guided, advised, led, suggested.

The class formed "Mork's Out-of-this-World Pizza." The members of the sales department conducted a market survey for their own product after viewing *Trade-offs*, Tape 10, "To Buy or Not to Buy." As a result, they had a good indication of demand for pizza long before they went into production. A board of directors was elected, articles of incorporation were drawn up, stock certificates were sold, and officers were chosen. Interviews were conducted for jobs, a sales staff was created, and an advertising campaign was launched. Starting with an investment of $37.35, "Mork's" ended a two-week production period with $223 in the bank.

Reports were compiled and issued to the stockholders. The profits were

put to good use: To assure that young, enterprising economists of subsequent years would receive the same quality of economic education, the stockholders voted to purchase all fifteen *Trade-offs* programs on video tape.

Liquidation of the company assets took place the last week of school. Each share of $0.25 stock had a redemption value of $1.50. The board members used half of their return for an employee picnic. The greatest reward they received, however, was that they succeeded. Today they have a good self-image of themselves and they know they can be valued citizens in society.

The production of pizzas did not disrupt the routines and learning of Hudson Junior High School. Pizzas were in production for only two weeks during the extended study period. Orders were given to any student in my social studies classes, and were picked up at the end of the school day. Besides setting up their manufacturing company and making pizzas, the students were also researching, writing papers, and discussing activities related to the fascinating "minibusiness."

Evaluation

At first glance, the formation of a student-owned and operated company may seem to be the "frosting on the cake." A closer look will reveal fifty boys and girls who, through their own hard work, have created images and a workable knowledge of important economic concepts and understandings. When they are able to talk knowingly of supply and demand, opportunity costs, market-clearing prices, circular flow models, trade-offs, free selection, and competition, the project takes on a more impressive meaning. Many adults, today's decision makers, possess less working knowledge of economics than these eleven- and twelve-year-olds.

As the economic uncertainties of the 1980s hover on the horizon, the present generation of children will be involved not only with their own immediate world but certainly with the Third World, and perhaps with the world of outer space. In order to stay ahead of the fast-paced changes taking place, junior high schools must focus on the future by building on the present, that is, by teaching basic economic concepts and understanding and imparting a thorough knowledge of the American free enterprise system. We did just that in our course in economics.

In my opinion, the economics curriculum at Hudson Junior High School is the epitome of the American free enterprise system. We accomplished this by teaching our students the fundamentals of operating a successful business. It was a self-motivating learning experience—and a perfect example of "learning by doing."

Economics: A Connecting Link

An Eighth-Grade Economics Project

Elizabeth Sheffer (social studies) and Ruth Stewart (mathematics)
Ramsey Junior High School, Fort Smith, Arkansas

Introduction

Ramsey Junior High School is located in an area of middle to upper income families in Fort Smith, Arkansas. Many of the parents are engaged in various phases of furniture manufacturing or in sales, with a considerable proportion of the fathers in executive positions. Mothers frequently supplement the family income by taking secretarial jobs. But, by and large, the occupational classification of the parents is as varied as the ability level of the students who made up our heterogeneously grouped classes.

We decided to collaborate in conducting an economics project in social studies and mathematics. In comparing our schedules we found that we both had the same group of thirty students. Our planning period also came at the same time. This afforded us an opportunity to plan and correlate our activities and evaluate our aims and objectives as our project developed.

Our major objectives were:

- To use the discovery approach in teaching the basic concepts of economics;
- To help the students acquire a vocabulary that will enable them to understand newspaper and magazine articles and television broadcasts dealing with economic matters;
- To teach economics in such a way that students will see its relevance in all areas of their lives;
- To develop an awareness that economic and mathematical concepts can be correlated through problem solving;
- To provide the students with opportunities to demonstrate their acquired knowledge in order that the teacher can evaluate strong and weak points and can correct deficiences;
- To show that economics is a connecting link in the varied activities of the students' lives.

Plan of Study

We settled on the following approach to our joint project: a set of basic economic concepts—scarcity, productive resources, the market, circular flow, economic goals, international trade, and economic analysis—would be taught in the eighth-grade social studies class, concentrating on one main concept in each phase of study. The mathematics teacher would reinforce these economic concepts for the same students by applying the ideas to mathematical problem solving and by demonstrating the links between the two subjects. A final wrap-up and evaluation would be carried out in the social studies class. The basic concepts were taught by involving the students in discussion and by a variety of other activities. A meaningful link between the students' world of dreams and their real world of decision making was forged in the mathematics class by using problem solving related to each economic concept and by reading and interpreting graphs, tables, and statistical data involving economic ideas. We "tied together" the entire economics unit with a culminating activity. Evaluation was done through pre- and post-tests and teacher-made tests at the end of each teaching unit and by observing the students in action.

Initiatory Activity

Since Ramsey Junior High School was starting its twenty-fifth year, and we teachers were members of the original faculty, we were able to link "past and present." I also provided an opportunity to show the students how economics was the "connecting link" not only between social studies and mathematics but also between the world of students' wants and their world of realities. Using construction paper, the students made a large *chain with seven links* denoting *seven major economic concepts* that join together not only two major subjects but also major aspects of their lives today and in the future. The seven links were studied in depth under the following headings:

First link: scarcity. We introduced economics through a lesson on "students' wants in a world of scarcity." The students drew up their personal list of wants. They responded with such items as mopeds, swimming pools, a mansion, and even "cures for incurable diseases." In a subsequent lesson, they learned why they could not have everything they wanted, and gained an understanding of the nature of scarcity—unlimited wants versus limited resources—and the "trade-offs" or opportunity costs required by reality. The students applied their newly acquired concepts in their mathematics class by solving problems in measurement. Worksheets on metric measure, electric meter reading, and measuring the use of natural resources were used. Cartoons on opportunity costs and the Oklahoma Gas and Electric Company pamphlet *How to Save on Your Electric Bill and Conserve Energy* provided additional student activities.

Second link: productive resources. The second link provided a variety of "discovery" activities such as picturing the steps in making a desk (Tree-Axe-Saw-Sander-Person equals Desk). Emphasis was placed on a close look at local

resources. One student reported on "Why Fort Smith is one of the leading manufacturing cities of Arkansas," and pointed out that the reasons for this industrial growth are an abundance of resources: natural gas, coal, pure water, the Arkansas River (for transportation and power generation), and the Ozark Mountains (a tourist attraction). The mathematics class studied the interpretation of graphs and tables on the use of human resources and on changes in laborpower. The students also worked with statistics on jobs, capital creation, and new and expanding industries.

Third link: market economy of the United States. A model was used formally to introduce the third link in our chain. It depicted the various roles the average citizen plays in a market economy. The new concepts taught were applied by an investigation of profit and loss, investment, and how competition makes for a healthy economy. Some of the new concepts were linked to mathematical problem solving through a study of the stock market and some facets of the economy of Fort Smith. The facts were reproduced graphically and presented in a table. The third link was evaluated by a visit to "Riverside," a modern industrial complex in Fort Smith. The visit enabled the students to view capital, productive services, job availability, specialization, and final products at first hand. All were captured for further study by snapshots taken by the students and classified and displayed on class bulletin boards.

Fourth link: circular flow. *Ramsey Dollars*, Darcy and Powell's *Manpower and Economic Education*, and *The Story of Money* (N. Y. Federal Reserve Bank) were used to study the circular flow model. Student versions of the model (some in cartoon form) were displayed on class bulletin boards. In mathematics, the students constructed, analyzed, and illustrated the concept by use of diagrams, tables, and pie graphs. For example, one graph was called "Money—Where does it come from? Where does it go?" A banker was invited to speak on the subject of money and circular flow. He was a fortunate choice as a resource person.

Fifth link: economic goals. "Wishes and Realities" introduced the class to the concept of economic goals. After discussing personal goals and why they change, we considered major economic goals—stable growth, economic security, freedom of choice, equal economic opportunity, maximum production, full employment, and stable international economic relationships. The class studied various measures that can be used to determine how well economic goals are being met, including the gross national product, consumer price index, the unemployment rate, etc. The class was also introduced to national income accounting. In their evaluation and closing activities on this link, the students discussed the President's budget and how it relates to our current major economic goals and problems.

Sixth link: international trade. In their social studies class, the students made a list of foreign-made items in their homes, discussed a multilateral corporation with a branch in Fort Smith, and listened to a speaker from a Belgian firm that had a branch in Arkansas. In their mathematics class the students solved problems involving the metric system. As the class approached the end of their study of international trade, the students wrote essays on

interdependence and trade. One student researched an ominous question: "Are Foreigners Buying America?" In the course of his argument he quoted some disturbing statistics.

Seventh link: economic analysis. We moved into the final link of the chain of study with the goal of acquiring knowledge and putting it to work for us. As we looked at our chain on the bulletin board, the final link, economic analysis, became the central theme of our discussion. Economic analysis is a step-by-step approach to economic decision making that results in intelligent decisions. The steps are: (1) define the problem; (2) state the goals; (3) consider alternatives; (4) analyze consequences; (5) select the best solution.

Since one of the most important decisions a student will make in his lifetime will be the choice of a career, the first activity in the mathematics class in Link Seven was to plan a study of careers. Committees were formed to investigate "Where Tomorrow's Jobs Will Be." Some of the students presented minireports on the fastest-growing occupations today, which included computer service technicians, market researchers, environmental health technicians, and the like. The class concluded its study with a real-world national problem. It analyzed the reasons for the long lines at gasoline pumps, which occurred early in the term.

Culminating Activity

For our culminating activity, we chose the school library to display the work we had done on our project, "Economics: A Connecting Link." A puppet show on scarcity and circular flow was presented. The students wrote the scripts, created the puppets, and made the scenery. Mobiles depicting each link hung from the light fixtures; posters appeared on the bulletin boards; and games created by the students, using Arkansas resources, were included in the activities section. Some of the teaching aids and students' papers prepared for each link were displayed on tables. Parents and teachers viewed the display when they came to a regular P.T.A. meeting being held in the library. All eighth-grade students observed the display over a two-day period.

Later, as we dismantled the display, the last thing to catch our eye was the large chain with seven links denoting the seven economic concepts which we had studied and which had been the focal point of our exhibit. Our immediate reaction was that indeed we had tied together the entire economics unit, and we hoped the students had acquired an awareness of the link between the world of wants and their world of realities.

Evaluation

In the social studies class, many types of evaluation were used—oral and written, individual and group—as well as teacher-made tests and a standardized test prepared by the Arkansas State Council on Economic Education. Class discussion, comments made by the students on field trips, and questions

posed to guest speakers indicated that the students had acquired a grasp of basic economic concepts and economic vocabulary. Posters, bulletin boards, scripts, and essays indicated that the students could transfer knowledge of basic concepts into graphic pictures and language relating to "their world." The standardized pre- and post-tests showed substantial gains. Linking economics in social studies with mathematics created more enthusiasm, a greater awareness of how economics is interwoven in various phases of their lives, and an opportunity to expand and apply student knowledge.

In the mathematics class, the students involved in the project improved their performance in some activities involving reasoning as well as in computational skills acquired in earlier grades. The students also acquired new skills useful for a meaningful life as well as a productive one. The students were exposed to problem-solving throughout the project with special emphasis on this in the seventh link: economic analysis. The students' ability to understand and use economic statistics has helped them in reading, in thinking, and in talking intelligently about economic questions.

Disco Dollars: Teenagers in the Economy

Stephen Feldstein and Diane Greene
Simon Perkins Junior High School, Akron, Ohio

Unit Overview

Eighth-grade math students at Perkins Junior High School studied the economic impact made by teenagers in the American marketplace. Among the major aspects included in the unit were: the understanding of basic economic concepts, the economies of other countries, the influence of advertising, and elements of consumerism. The buying habits of eighth-graders were the subject of a survey which produced statistical data showing how the economy is affected by their purchases. As a culminating event, the students compiled data on the products sold in the school pantry and then conducted an advertising campaign to see whether they could influence sales.

Description of School and Class

My class in general mathematics at Perkins Junior High School, Akron, Ohio, consisted of thirty-three students and had above-average mathematical ability. Perkins is located in a mixed neighborhood with a representative sampling of all groups, including the wealthy and the poor. Perkins is one of the larger junior high schools in the Akron area, with an enrollment of over 1,100 students.

Project Business

About a month before I was to begin my unit, Diane Greene, our career education coordinator, asked me if I would like to take part in a program called Project Business. This program was to bring a consultant from the business world into my classroom once a week for fifteen weeks to teach economics and the free enterprise system. As I thought about it, this seemed to fit in with my consumer unit and so I agreed.

My consultant, Michael Jordan, of the Firestone Tire and Rubber Company, and I chose Economics, The American Economy, The Market System, and Consumer Economics as our topics for the term. Each student was provided with a workbook to help his or her studies. After meeting with Mr. Jordan, I discussed Project Business with our career education coordinator. She and I decided to work together to combine my consumer unit, the current disco craze and Project Business to form an economic unit which would tie together career education, the school, and the community and motivate the students to learn economics. We met several times on weekends to set up our economic goals and objectives and to begin thinking of activities. We wrote our lesson plans, being careful to integrate the Project Business lessons in the appropriate places to complement our own goals. It was decided that Mr. Jordan would introduce concepts, and we would conduct the in-depth study.

Goals and Objectives

Our overall objective was to show the class that teenagers are a major force in our economy. We hoped that the unit would increase the students' interest in economics, teach them to be better consumers, and show them why so much advertising is aimed at the teenager and young adult.

Our specific economic objectives for the unit were to have students:

1. Learn and understand basic economic vocabulary;
2. Examine their standard of living to determine their wants and needs and how they will meet these in the future;
3. Learn about, understand, and compare other economic systems as related to our consumer unit;
4. Understand how supply and demand affect price;

5. Understand the meaning of profit and competition and how they fit into the free enterprise system;
6. Understand advertising, its purpose, its effects, and its relationship to the cost of doing business;
7. Recognize various advertising techniques and know which consumer groups are affected by each technique;
8. Discover how fads affect business, industry, and the consumer;
9. Assume the role of the advertiser and see if advertisers can change the buying habits of the consumers (their peers) at Perkins Junior High School.

Description of Project

Disco Survey. Before we got too far in our planning, we decided to insure that disco was really on the minds of the students. The survey provided a springboard for classroom investigations of supply and demand, obsolescence, pricing, advertising, and competition and of the mathematics involved in calculating how the economic factors work together. The survey questionnaire asked students to count the disco records and tapes they had bought in the past year, to name the disco movies seen, and to list the costs for disco clothes and accessories, such as nail charms and glitter bracelets. Parents were also asked to provide information. The survey was limited to junior high school students who range in age from 12 to 15.

An example of disco popularity can be seen in responses to the survey questions on attendance at four disco-related movies—*Saturday Night Fever*, *Grease*, *Car Wash*, and *Thank God It's Friday*. The 304 students surveyed reported buying a total of 1,452 tickets to the four films. Only 11 of the 304 surveyed said that they did not like disco.

I compiled the data from the survey, and my 33 math students verified the results. The 304 students surveyed spent $44,459 on *disco*: $11,918 on disco fashions, $2,904 on disco movies, and $23,637 on disco records and tapes. The total was $160,875 for the entire school—an average of $146 each—in the past year. On the basis of the survey results, we estimate that the 11,000 students in Akron junior high schools spent $1.6 million on disco items in a single year.

Among the other things that the students concluded, after research sparked by the disco survey, were:

1. Almost all money spent on disco items came from their parents.
2. More than 50 percent of the advertising on television is aimed at teenagers.
3. Suppliers can create demand for products through advertising.
4. Consumer demand for products established prices.

The survey was not in vain. Perkins students now are aware of how much money went into the pursuit of life, liberty, and boogie, and they are now a lot more critical of fad-inspired spending.

Pretest. In order to make our assessment of the unit valid, we decided to start with a pretest of a Project Business section and the unit on consumer economics that we composed. The pretest included economic vocabulary and an opinion survey on advertising. After the pretest, we distributed to the class an economic vocabulary list of thirty-one terms which they were to research and define. Each student was to keep a notebook which would eventually contain worksheets, projects, and all other materials related to the unit.

Procedures. Now it was time to begin the unit itself. Having discovered that disco was an important part of their lives, we wanted to know what else was important to them. A study of standards of living ensued. This included discussions of wants, needs, goods, services, and so on.

Mr. Jordan, our Project Business consultant, introduced supply and demand by conducting an experiment with a candy bar. He explained that he had only one bar (scarcity) and he would sell it to the highest bidder (competition). By competitive bidding, the price of the bar (which sold for 25 cents in the Perkins Pantry) increased penny by penny to 30 cents, but as the price rose, the demand became less and less. Competition continued until finally a price of 49 cents made one of the students decide that the opportunity cost was too great. Mr. Jordan conducted a similar experiment with a supply of six flashbulbs. His asking price was 25 cents each, but since there was no instant enthusiasm, he lowered the price to 20 cents, 15 cents, and finally to 5 cents, the price that cleared the market. Mr. Jordan informed the class that they had just discovered the Law of Supply and Demand as well as scarcity and competition. The next day we showed the filmstrip *Why the Price?* which reemphasized the fact that the consumer helps set the prices of goods and services.

After discussing pricing policies and profits and losses, as a final class activity and review on pricing, we looked at many factors which can, and have, influenced the cost of goods and services. The filmstrip *The Business of Competition* explained what competition is and how it can and does aid the consumer. The class was also asked to name any examples of nonprice competition on television, radio, or in print.

To culminate our study of supply and demand, pricing, profits, and competition, we took a field trip to the largest department store in Akron. The students learned about job interviews, store security measures to combat shoplifting, and advertising. They were amazed when they viewed an old videotape that showed how the store sold pet rocks. The advertising manager said that clever advertising can make people want to spend money for anything equally ridiculous that an ingenious entrepreneur can dream up. The students then really understood that several years ago business and industry realized that disco music was catching on and could have a major impact on the economy. This caused record makers, filmmakers, clothing manufacturers, etc., to begin all-out campaigns to sell disco to the American public. Now was the perfect time for my class to begin to study advertising.

As part of the minicourse, the students ran ad campaigns for candy and snacks sold at the Perkins Pantry, an afternoon snack shop. The goal was to see

if student-produced ads would have an impact on sales of eight slow-moving snacks. The winner of the ad campaign was the team of students pushing salted pumpkin seeds, which rose in sales by 6,038 percent (!) because the item had been advertised glamorously.

The students also learned the twelve most common techniques used by advertisers, and collected ads that used these techniques. They also watched designated television programs to discover the target group of advertisers. The techniques were applied, of course, to advertise the slow-moving items in Perkins Pantry, and also in making posters to promote the sale of "unsalable" items.

Evaluation of Student Work by Students and Their Parents

The students were evaluated both objectively and subjectively during the unit. They were given two major tests. The first test mainly covered economic vocabulary and concepts but included a section on Pantry sale statistics. The second test involved advertising techniques, the cost of advertising, mark-ups, net profits, sample disco survey results, and more Pantry statistics.

Another portion of the students' grades was determined by their advertising campaign. Students were given points for creativity, quality, and the resulting increase or decrease in sales. Bonus points were added for those groups which produced more than the minimum number of posters or commercials, and penalty points were deducted for not meeting deadlines.

Notebooks played an important part in determining their final grades. Each notebook was worth 150 points and consisted of twenty-three dittos which had been completed in class or for homework. Also included were the original vocabulary definitions plus additional vocabulary on advertising. There also were subjective evaluation items, such as an evaluation of the field trip to O'Neill's, the Akron department store. Other subjective evaluations dealt with teens and with the consumer movement. Parents filled out evaluation forms. Most parents were appreciative of the fact that their children were being taught practical and useful material relating to economics. The students also completed evaluation forms.

Conclusions

In looking back at our project, we found many positive outcomes. For the first time in our memory, the entire school became involved in a learning experience begun by one class. The eighth grade participated in the disco survey and the whole school enjoyed the commercials which included guest celebrities. As the term progressed our disco project was on everyone's mind and was the theme of the school talent show. We suffered some handicaps including a lack of junior high school textbooks dealing with the type of economics we were interested in pursuing.

We enjoyed working on the unit and felt that it was very successful.

Student response told us that all our evenings and weekends of extra work were really worth the time and effort involved. Students indicated that this unit was enjoyable and made them think. They were particularly impressed with their disco survey results showing how much they spent. The many factors involved in establishing prices (supply, demand, resources, operating expenses, etc.) also intrigued them. Learning the many techniques of advertising can and does have a major impact on teenagers' buying habits. This all led the class to one final conclusion, which was our original goal. As stated by one student in his final evaluation, "I didn't know that my age group had such a big effect on our economy!"

The World's Greatest Chocolate Factory

Kathy Berlin, Paula Domer, and Jean Hamed
Barrett School, Akron, Ohio

Editor's Note: The World's Greatest Chocolate Factory is an economics unit designed by three teachers of orthopedically handicapped students to prepare a group of thirteen physically disabled seventh- and eighth-graders for the world of work. The students had average and above-average intelligence but were physically handicapped as a group, since ten of the thirteen students were confined to wheelchairs. Ms. Berlin, Ms. Domer, and Ms. Hamed shared teaching responsibilities for this group of children, hereafter designated as the Red group, and for two other groups of pupils, in a team-teaching arrangement.

Background Information

Barrett Elementary School, Akron, Ohio, houses neighborhood children in grades kindergarten through sixth, and orthopedic children from all over Summit County in kindergarten through twelfth grade. Children whose physical handicaps are too severe to permit them to attend the school nearest their homes are enrolled at Barrett. The majority of our students are afflicted with some form of cerebral palsy. Other types of handicaps at Barrett are spina

bifida, muscular distrophy, cardiac disorders, severe epilepsy, and assorted disabilities resulting from childhood illness or injury.

Most of our students receive occupational and/or physical therapy. Almost three fourths of our children have speech impediments which warrant attention from a speech therapist. The Orthopedic Department has a staff of twelve teachers, six aides, two occupational therapists, and two physical therapists. We receive the services of a speech therapist on a part-time basis as well. There are 120 handicapped children currently enrolled at Barrett.

Goals and Objectives

Our overall purposes were:

1. To enable the students to make wise consumer decisions;
2. To help students develop realistic attitudes toward future employment;
3. To provide many prevocational work experiences that would enhance employability;
4. To reinforce previously taught money management skills;
5. To help students understand the principles and procedures involved in setting up a company;
6. To enable students to participate as employees of a factory;

The twenty-eight specific objectives were expressed in behavioral terms, and can be summarized as follows:
The students will:

- Demonstrate proficiency in using specific economic concepts such as opportunity cost, production, profit and loss, etc.;
- Learn the vocabulary found on employment applications, correctly fill them out, and participate in a job interview;
- Describe the mechanics of a stock market in elementary terms and "buy" and "sell" shares of stock;
- Take orders for candy and total the amount of the order, make up a list and purchase the raw materials and equipment needed for setting up a chocolate factory, make a list of jobs and personnel needed, and give a job description of each job;
- Demonstrate understanding of economic terms such as "consumer," "capital," "bank loan," "specialization," etc.;
- Make decisions concerning the running of the factory, discuss careers that are related to working in the chocolate factory (advertising, sales, accounting, production line worker), and write advertisements for it;
- Listen to commercials and identify slogans and jingles, identify good and bad advertising techniques, write a commercial and participate in videotaping it;
- Keep a time card, punching in and out as directed, sell candy and correctly

make change, graph the daily production, and keep an inventory of the items that have been made;

- Compute hourly wages, write a stock report detailing the economic status of the company, discuss the advantages and disadvantages of selling stock, using a bank loan, or using owner capital when starting a business;
- Explain the value of specialization in a factory, compute the stockholder dividend with accuracy, write checks to the stockholders;
- Compute one's own personal profit or share of the company's earnings and write a report detailing what he or she has learned from the experience of working in the "World's Greatest Chocolate Factory."

Starting the Project

We introduced the idea of forming a classroom company one morning late in February. We told the students that we wanted them to have a chance to work at a job and make some money, an opportunity that few of them had ever had before. Immediately they were interested, and the room began to buzz with ideas. After much discussion, the students decided to engage in production of chocolate candy, and planned for the equipment and materials needed. In order to help the students make sound decisions on the types of candy to be made and the necessary materials to be purchased, a field trip was arranged to a local candy store that sold all the raw ingredients and equipment. To raise the money required, the students decided to form a corporation, sell stock, and organize the departments (production, packaging, billing, advertising, clerical, and sales) with the help of Junior Achievement and Robert Mitchell, the manager of the bank's Springfield office.

A field trip to London's, a local candy factory, was arranged so that the students could view for themselves the different jobs available in a candy factory. As a follow-up, the students were asked to write descriptions of the jobs they had witnessed, and then jot down the two jobs in which they were most interested. The applicants were then interviewed for the jobs of their choice. An account was opened at the local bank in the name of "The World's Greatest Chocolate Factory."

A few of the concepts covered at this stage were starting a business, selling stock, opportunity cost, use of resources, specialization and interdependence of workers, profit and loss, and supply and demand. The students were very enthusiastic about the merits of the free enterprise system and their hands-on experience with it.

We had chosen the dates of the candy factory operation to coincide with the last seven days of school prior to the students' Spring break. On that Friday before vacation, all of our raw materials had been converted to candy. The candy had all been packaged and the inventory was completed. Most of the ordered candy had been distributed, and a waiting list for any "unclaimed boxes" assured us that we would have no trouble selling it all. Also on that Friday afternoon, we disassembled our factory. We had a company meeting

and completed procedures for selling the remaining bagged chocolates and suckers to the entire school after we returned from vacation.

The particulars of the candy sale were given in a commercial just before lunchtime. The leaflets that the typing and advertising departments had prepared were distributed to the students at the close of school. The advertising department posted advertisements that they had created in the hallways around the school. The efforts of the advertising department paid off. Our sale was a success. We managed to sell every single item we had made.

Winding Up the Project

After the Spring break, the students analyzed the statistical data we had compiled. A stockholders' report was written for distribution with the dividend checks. All students were assigned to write reports summarizing the financial workings and outcome of the company. These reports were then given to one student, who edited them and combined them into a concise front-page summary. Another student was given the task of extracting the financial highlights from the volume of statistics gathered. He sorted, computed, and typed the information, which was listed on the second page of the stockholders' report. A group of three students averaged the daily production of candy; another group produced graphs illustrating the daily production of various types of candy. These groups had learned their special skills in their mathematics class.

As we had grossed a grand total of $265.71, we allotted $16 of the profits to each company employee. The remaining profit, approximately $60, was given to the Barrett Elementary School in the name of the World's Greatest Chocolate Factory, in appreciation for the support of the staff and students who had made our business a success. We felt like philanthropists when the check was presented to the principal at an assembly on the last day of school. The class happily spent a large portion of their money at a shopping mall on the class outing. Because of their handicaps, the students do not get out to stores and restaurants as often as they would like. They thoroughly enjoyed their trip, and talked about it for weeks afterward.

Lessons Learned

The World's Greatest Chocolate Factory was a very productive learning experience in economics and the world of work for our handicapped students. When the project was first suggested, it was readily apparent to the teachers involved that our students were lacking in sufficient economic background to answer questions such as:

- What types of things can we produce in school?
- What knowledge do we have about producing any particular item?
- What product are we interested in working on?

- Should our product be consumable or nonconsumable?
- What productive resources do we have available?
- Do we have any human or natural resources available to us?
- What are our limitations? Physically? Educationally? In terms of time? In terms of space?

Therefore, we planned a minicourse in economics aimed at building the background the students needed in order to make intelligent decisions on questions that had arisen and others that were arising.

The students soon learned the meaning of "opportunity cost"—that a decision to produce one good meant given up the possibility of producing another. They saw that once they made a decision they were making a trade-off, so they carefully considered the opportunities and advantages of all alternatives that had been suggested. The assigning of students to various "departments" of the chocolate factory after personal interviews made the children aware not only of "specialization" but also of "division of labor." It also gave them valuable lessons in career education. Using the corporate form of business organization gave them useful knowledge of the business world, the stock market, profits and losses, ways of raising capital, and the services of commercial banks.

The students also received valuable lessons in consumer economics. The class was given instruction on how to write good advertisements. They listened to several taped television commercials and analyzed the different sales techniques. Soon they were creating their own slogans and jingles. Since they wrote advertising material to be posted around the school, they stressed facts, not emotional appeals.

Since the production of the chocolate candy required factory discipline, the students had their first work experience and, since they were handicapped youngsters, their first real-life experience in earning money. In the process they were introduced to such career education experiences as filling in applications for jobs and the job interview.

We teachers also learned valuable lessons. With six departments within the candy factory, and so few of our students mobile, it proved to be impossible to run the factory with fewer than two adults. The Yellow and Blue groups were often combined to free another teacher for the Red group. In addition we were able to recruit volunteers for a few hours now and then, and they proved to be a gift from heaven. An able-bodied volunteer was worth her weight in gold!

We learned by experience that we had to develop a careful inventory procedure that would work for us, and we put one trusted student in charge. We found that quality control and careful measurement of the ingredients were important. If we were to run a chocolate factory in class again, we would also extend the production period to ten days, and slightly increase our prices.

In sum, we believe we attained our overall goals and most of our limited objectives. The World's Greatest Chocolate Factory was a profitable enterprise in more ways than one!

Good Ideas in Brief: Junior High School Level

SALLY HENRY RUDIN of *Monticello Middle School, Monticello, New York*, had her students participate in a time capsule project as a motivating strategy to increase her students' level of economic understanding and to encourage them to produce more careful work. The project served as a catalyst for gathering economic information and preparing reports and graphs to be buried in the capsule. The project was carried out in the eighth-grade American history class; the economic topics and concepts related to the curriculum included the economic policies of Alexander Hamilton, taxation and other sources of government revenue, the economic effects of trade embargoes, the rise of big business, and forms of business organization. In order to raise the funds needed to carry out the project, several business activities were organized. Running the enterprises gave the students hands-on experience with such concepts as investment, capital, labor, and profit. The major content areas of the time capsule unit included the development of graphic profiles describing the students' economic lives as determined from questionnaires and surveys, reports on interviews with merchants, bankers, and other members of the community, and economic descriptions of the roles of workers and consumers. The time capsule is scheduled to be opened on June 20, 2029.

RICHARD C. NEWSTROM, a social studies teacher at *Hosterman Junior High School, New Hope, Minnesota*, has developed a unit designed to prepare junior high school students for their first employment experience. The unit, programmed to take four to six weeks, is organized as a minicourse and is one of a group which, taken together, offers the student a full year of economics. The unit, called The Economics of High School Employment, emphasized the utilization of community resources. Business managers and employers were used to help students (1) learn about the economic status of the community and the availability of jobs, (2) develop the appropriate criteria for selecting a prospective place of employment and the procedures for applying and interviewing for a job, (3) learn about the expectations and points of view of employer, supervisor, and coworkers. The unit included goals and objectives, activities, daily lesson plans, a content outline, and a test. In addition, a listing of twenty-six generalizations relating to the economics of high school employment and activities to be conducted were listed and organized in a matrix.

MARIANNE TALAFUSE of *Purdue University, West Lafayette, Indiana*, created a highly innovative approach to the teaching of basic economic concepts through the development of an economic education exhibit that was located in the Children's Museum at Indianapolis. The project was funded by a group of Central Indiana businesses, and the Indiana Council for Economic Education served as consultant. The approach of the project was to develop an

exhibit called The Decision Shop, which was designed to teach economic principles and concepts through the participation of museum visitors in fantasy simulations using an APPLE II microcomputer. The activities included in the program were developed for participants with at least a fifth-grade reading level. Three games were featured in the exhibit. In "Kingdom," a modification of another game, the player serves as the ruler of a mythical land whose wealth is measured in wheat and land. The decisions made by the participant determine whether the population will prosper or starve. Plagues, rats, and population changes are randomly programmed. In the "Sell Robots" simulation, the player is the owner of a store offering robots for sale. Prices must be set over a five-day period during which efforts are made to maximize earnings. A demand curve is constructed from the number of robots and prices that were determined each day. In "Star Trader," the player is the captain of a colony on an intergalactic starship. A map of eight stars with which the visitor can trade appears on the monitor. Each star has a supply of some of the four items—water, air, food, and fuel—required by the starship colony. The captain must keep the colony supplied with resources needed for survival. The game is structured to provide trade-offs between dealing with close stars and distant stars. For example, it takes less fuel to go to stars which are nearby, but the terms of trade may be poorer than with distant stars. Survey data on the project indicated more visitors, ages 10–15, are using the exhibit than had been predicted and that The Decision Shop is reaching that segment of the population for which it was designed.

DALE A. LAMBERT of *Sterling Junior High School, East Wanatchee, Washington,* has developed two units relating to international trade. The first unit, Analyzing the Major Ports of the Pacific Northwest, concentrates on three activities: (1) naming, locating, and classifying the ports of the Pacific Northwest; (2) describing the organization, structure, and function of a typical port facility; and (3) naming the types of goods imported and exported via Pacific Northwest ports. The second unit, The Pacific Northwest's Major Trading Partners: Canada and Japan, focuses on the importance of international trade among Canada, Japan, and the United States. Some of the economic concepts included in the multidisciplinary units are the importance of world trade, specialization and interdependence, comparative advantage, balance of trade, and the analysis of several economic systems. The two units each have a longevity of three weeks (fifteen class periods) and are self-contained. Many varied activities are used in the presentation of the units, including class discussion and debate, research and oral reports, bulletin board displays, readings and worksheets, and participation of guest speakers in the classroom.

RICHARD A. AIETA, chairman of the social studies department, *Hamilton-Wenham Regional High School, Beverly, Massachusetts,* has developed a project focusing on the study of the economics of the port of Gloucester and the impact of the 200-mile-limit law on the fishing industry centered there. Students study a nearby community and obtain information about its resources

and data in order to develop relationships between concepts taught in the classroom and the real economic world. The first phase of the experience is essentially teacher directed as students become familiar with the intent and impact of the 200-mile-limit fishing law, which went into effect in 1976, and reactions to it. Students read a specially prepared booklet, listen to taped interviews, and use news clippings and government reports to build a data base. Students then go on a field trip to Gloucester to gather firsthand and primary source information by participating in conducted tours. Organized in groups of four or five, the students interview resource people who had been previously contacted. Back in their classrooms, the students put the two phases of the program together and write an essay on "The Economics of the Fishing Industry" in which they link economic concepts they studied with their experiences in Gloucester. The unit is divided into four parts and takes thirty-one days: (1) data collection about the Gloucester economy and the 200-mile-limit law—10 days; (2) preparation for the field trip to Gloucester (tours, organization, interview techniques, etc.—5 days; (3) field trip to Gloucester—1 day; and (4) analysis of the Gloucester economy—15 days. The project emphasizes the utilization of community resources and includes taped interviews with members of government regulatory bodies, economists, bankers, biologists, fishermen, executives of fishing companies, and conservationists.

ANNA E. MAYANS, a professor of education at *Xavier University, Cincinnati, Ohio,* has developed an economics unit focusing on the specific needs of the students of Sawyer Junior High School, a predominantly black, inner-city school. The two-year program, entitled Making Choices, was completed by a committee composed of junior high school teachers under the direction of Dr. Mayans. Preliminary surveys were taken by the committee to ascertain the students' knowledge of economics; their preference ordering of specified life skills; and their home backgrounds, interests, and needs. The content of the unit was determined on the basis of the information gathered from the surveys, a previous determination of the economic concepts basic to an understanding of personal choices and decision making, and the amount of school time available (in this case one quarter to ten weeks). Four basic questions were emphasized: (1) Why do we make choices? (concepts of scarcity, opportunity costs, etc.). (2) What do we use to make choices? (money, credit, banks, etc.). (3) How can we make better choices? (consumer economics, career education). and (4) What affects our choices? (supply, demand, price, market, etc.). Practical application of the concepts presented included learning about the opportunity costs of a decision; taking field trips to a local bank and local manufacturer to learn about their functions in the economy; filling out job applications, resumes, credit and social security forms; role-playing job interviews; learning about advantages and disadvantages of paying in cash or charging credit; learning where to borrow money; and comparison shopping. Of particular use in the program were school alumni who served as resource speakers. Although the unit is not intended to provide a comprehensive understanding of economics and the U.S. economy, it does serve to provide

valuable experiences to the students in making choices and decisions in their daily lives.

JANE EVANS YEARGAN of *Woodland Junior High School, Fayetteville, Arkansas*, developed a semester course in economics based upon the film series *Trade-offs* and consumer education kits produced by Procter and Gamble Educational Services. The course was offered as an elective to seventh-grade students. The *Trade-offs* phase of the program lasted nine weeks. The remaining weeks were allocated to two consumer kits entitled *Consumer Choice* and *Consumer Advertising*. Emphasis of the course was on problem solving especially as it applies to consumer economics. Program goals included learning basic economic concepts, developing a systematic procedure for decision making, and learning about the American economic system. In addition to a wide variety of classroom activities, including pre- and post-testing, a student attitudinal survey on *Tradeoffs* was developed and administered.

VELVA RATHBUN, of *Mannford Middle School, Mannford, Oklahoma*, organized a one-month unit focusing on How a Corporation Works. Each of the four classes involved in the project organized a corporation to manufacture and sell Christmas decorations. The first class made tree ornaments; the second, door knob decorations; the third, macrame plant hangers; and the fourth, name plaques. Each class conducted a market survey to determine potential demand and, after calculating costs of production, decided on prices. Initial capital was raised through the sale of stock to the students at fifty cents per share. Students in each of the classes became employees of their respective corporations and, for their services, were paid fifty cents per week with the option of receiving one share of stock instead. Students were also paid commissions for their sales. An assembly line was organized in each class. All the corporations were organized so that the students would gain the opportunity to learn problems and responsibilities associated with such jobs as company president, bookkeeper, supervisor, and assembly line worker. At the conclusion of the unit, all left over supplies, finished unsold products, and capital investments were liquidated through an auction in the classes. After all expenses were paid, the profit was distributed among the stockholders.

CHAPTER FOUR

Consumer Economics in the High School

L. Arthur Womer Jr.
Marina High School, Huntington Beach, California

Background

I teach a full-semester course in consumer economics in Marina High School, Huntington Beach, California. The course is designed to make economics immediately useful to high school seniors who are about to enter college or the workaday world. By approaching economics from the consumer's point of view, the subject becomes an exciting experience for the students and their teacher.

During the first few weeks, the class, which typically averages between 30 and 35 students (175 were accepted into the elective course but another 200 were turned down), is introduced to key economic concepts, principles, theories, values, and terminology. Soon thereafter, each participant researches an occupation and selects a job that might possibly be obtained after graduation. The balance of the course provides a practicum in consumer economics.

Students are paired in simulated marriages through a simple computer compatibility test composed of questions about marriage, family, religion, and career goals. As soon as each couple is "married," they are automatically saddled with one "child." The long-range planning and saving of each unit must take the child into consideration in planning for expenditures on housing, basic utilities, transportation, insurance, taxes, furnishings, appliances, clothing, baby care, contributions to charity, and personal items. As part of the course, the students learn about the legal and moral obligations of marriage as well as twenty principles which have been listed as "the economics of love."

The purpose of the simulated "families" is to enable the students to learn how to design rational goals and satisfactions for living. Each participant learns how to adjust his or her economic values to many of the unexpected and unforeseen circumstances of life. The concept of "trade-offs" or opportunity costs becomes a very realistic aspect of the program as critical decisions must be made by each couple. As a result of the experience, the student begins to make wise economic decisions and develop thoughtful spending habits.

Economics is defined in human terms as the social study of how people make the best use of human resources to relieve the greatest amount of "felt uneasiness" (that is, to attain the greatest amount of satisfaction) with the least sacrifice of "Lifetime" (the months, days, and hours in one's lifetime spent coping with one's insatiable wants). The goal is to develop self-knowledge. Each student learns how to determine personal strengths and weaknesses in order to exchange the least amount of "lifetime" for the greatest relief of "felt uneasiness." Lifetime and felt uneasiness are unfamiliar terms to most high school teachers, but are useful for describing accurately the emotional and psychological aspects of our work and personal lives as individuals and as members of families and other societal groups.

My entry is divided into two parts: the Teacher's Guide (upon which this article is largely based) and detailed appendixes (which explain, illustrate, and elaborate on the content, special features, and methodology used).

Objectives

Each student will:

1. Know what money is and what affects its value (purchasing power);
2. Understand the relationship among demand, supply, and price in a market economy;
3. Know how a market economy essentially differs from other economic systems;
4. Describe his/her present and future economic goals;
5. Understand that all choices in life—not only those in the domain of economics—have a cost, i.e., the alternative *not* taken;
6. Learn various methods of planning for life's future or emergency expenditures when only limited amounts of money or other assets are available;
7. Be aware that various public and private agencies have been established to protect the consumer;
8. Understand the techniques used by businesses and governments to influence consumer demand;
9. Learn about basic items of expenditures: food, shelter, clothing, medical care, utilities, transportation;
10. Learn of the many discretionary judgments involved in determining "living" costs above the minimum;
11. Understand that economics, broadly conceived, applies to more than the "market." As an analysis of the process of making choices, it applies to all the situations in which people must make choices.

Description of the Course

Unit I, "Getting Started—The First Day in Class," is devoted to orientation and routines. The students are welcomed to "the most practical class on campus; a class where they will learn to save a minimum of $10,000 over a

lifetime of work until the age of retirement." The students are acquainted with the teacher's requirements regarding (1) *attendance* (stressing the need for both "spouses" to be present every day), (2) *notebooks* (which will be useful in later life as a source of information when the real challenges of living arise), (3) *individual research* (into topics of personal interest in our economic system and through personal shopping adventures), (4) *class participation* (with each student expected to share his/her values with others in the class), and (5) *objective and essay examinations*. (However, the objective evaluation of the notebook contributes a large part of the final grade.)

In **Unit II**, the students, individually and in groups, set up "ladders of economic goals," culminating in retirement, before they learn by experience the real economic cost of each. As students share their ideal goals with others, they will become more aware of the great variety of goals which exist among different people, new goals which they never considered on their own, and a realization that some goals are not realistic or attainable. The students then attack the *cost of each goal in "lifetime" spent in its attainment*.

In **Unit III** the students are introduced to such basic economic concepts as the economic problem (scarcity), growth, the principle of diminishing returns, economic systems with emphasis on how capitalism functions, the laws of demand and supply, price determinants, the market as a whole, and how aggregate output is determined.

In **Unit IV**, "Career/Vocation—Money Value of Life Time," the teacher begins by administering an inventory test, such as the Kuder General Interest Survey (Series E), to help students gain insights into their proper vocational or career goals. Each student then researches each of three possible occupations, including available job opportunities, amount of education/training/experience required, and beginning *gross* income. (If available, the resources of the career guidance center should also be fully used.) In this unit, the students are exposed to the basic concepts of income determination, including the notion of equilibrium and the net national income.

Unit V calls for pairing the students in simulated marriages or as single heads of households, if the sexes are not equally balanced in a particular class. The sole purpose of using simulated marriages in a course in high school economics is to permit the students to experience in the classroom the operation of the principle of opportunity cost—since no person, family, city, state, or nation can achieve *all* desired goals. The students fill out a marriage compatibility questionnaire and are paired on the basis of their religious affiliations, economic and social aspirations, leisure time activities, values, economic assets, liabilities and encumbrances either by the computer or by the teacher (if a computer is not accessible). The students learn that marriage is a *legal* contract, take part in a simulated marriage ceremony, and are now ready to role-play the economic activities and functions of a family with a semblance of reality.

Unit VI, "Fixed Expenditures," introduces the simulated families to the concept of a working budget. It treats such matters as federal and state taxes withheld, housing costs (renting vs. home ownership including property taxes,

mortgages, insurance, etc.), utilities, transportation, charities, saving, and investing. In units VI and VII, the students are introduced to the role of the government and the Federal Reserve System in setting monetary and fiscal policies and controls. The effects of these actions on interest rates and credit availability are covered, as well as the cost of credit. The Keynesian concept of the multiplier is presented when students consider their budget allocations for saving and investment.

Unit VII, "Contract Law," is best introduced by having an attorney (parent, relative, or friend of one of the students) come to class. He or she can usually clarify the topic in one class period. After the attorney's presentation, have the students write a simple contract for the sale of some personal property, perhaps a car. Have the students discuss the legality or illegality of the contracts.

Unit VIII deals with living expenditures (variable rather than fixed costs) on items such as household furnishings, appliances, food/beverages, clothing, miscellaneous household goods and services, *total* baby care, and personal needs. The students must learn to distinguish among luxuries, comforts, and necessities. Comparison shopping can be taught by a field trip to two local markets, close enough to school to be visited within a class period. Preliminary pricing should be done prior to making a final budget.

Unit IX, "Consumer Services and Protections," suggests pamphlets available from private and government consumer protection agencies, and highlights the consumer services of television networks.

Unit X, "Personal Notes and Evaluations," urges students to keep notes on their impressions after audiovisual and guest speaker presentations. The experiences involved with the simulated marriages and imaginary children and other dependents will also create a host of varied impressions. All tests and quizzes should be included along with corrected wrong answers.

Unit XI discusses "Disasters." After students have budgeted their final personal and family budgets, it is time for a simulated taste of reality. Unplanned and often unpleasant events will always occur, and each such event will require an additional exchange of "lifetime." The disasters should be written on individual pieces of paper and drawn from a hat or box. Students are asked to write on notebook paper the *precise* steps they will take in handling the disaster. (Avoid compounding the disasters!) When the pinch really comes, the students must resort to the principle of opportunity costs in seeking a solution to their problems.

Evaluation

Marriage counselors point out that young married couples, and many older ones as well, experience marital unhappiness and discord because of poor money management, that is, failure to budget sensibly and to live within their means. A consumer economics course based on simulated marriages and simulated families is an ideal way to prepare for the inevitable economic problems every marriage encounters. My consumer economics course is first

and foremost a course in economics; it is also a practicum on the economic aspects and problems of marriage and the family, which applies economic principles and concepts to the everyday challenges and frustrations of living.

Each semester, on either the second or third day before the final examination, I have the students respond to a series of questions, and their replies help me evaluate the effectiveness of the course. The responses are not graded, and the students are informed of this. I require these responses for four basic reasons:

1. To help students collect their thoughts before the final examination to enable them to see the variety of separate units as parts of a broad, coordinated course in economics;
2. To help me evaluate the teaching and learning which occurred during the class;
3. To determine that the course has been of great value to the students, as was intended;
4. To motivate me to make the course even more real and meaningful for following classes.

The academic quality of students who enroll in this course covers a broad spectrum. Each student appears to learn something which no other student learns; the class becomes a very personal experience for each student. Yet, it thrills me to discover from the responses of the students to the questions that all of them have learned some basic concepts of economics, concepts which are real, meaningful, and pertinent to them at their age and experiential levels.

On another paper, students personally evaluate the course content and my teaching methods. They make suggestions as to what specific units might be deleted, and what units might be added.

Bankers and Educators: Partners in Alternative Economic Education

John Joseph Kerrigan

Chicago Public Schools, Center for Economics and Business Studies

Introduction

During the second semester of the 1976 77 school year, a Center for Economics and Business Studies was established to develop an exciting experiment in alternative education. The center was cosponsored by the Continental Bank and the Chicago Board of Education.

The curriculum was designed to teach students economics, personal finance and planning, consumer education, and business organization while familiarizing them with Chicago's business and financial community and the career opportunities it offers. In particular, the money cycle, including money creation, the role of the commercial banking system, and the function of the Federal Reserve System, were explored in depth.

In conducting their research on Chicago and its resources, the students met key persons representing the business community, labor organizations, and government agencies. Through individual and team activities, students became familiar with the city's financial district and the uniqueness of Chicago as a cultural and educational center.

In the program that was developed, the teacher relinquished his traditional role as the center of the learning experience. Instead, individualized learning was promoted through the utilization of community resources.

Background

Working closely with the banking community, I coordinated and taught an economics course in cooperative education for the center, which relied heavily upon resources found in the community. The course was designed to provide opportunities for students to see textbook concepts in action and to preview a variety of career possibilities in banking and business.

The course included a wide spectrum of topics ranging from introductory microeconomics through small-business concepts to macroeconomics and global enterprise. Major units included basic economic concepts, the money cycle, personal financial planning, use of credit, business and bank organization, advertising, unions, and cooperative purchasing investment.

Approximately thirty-five high school juniors of both sexes, representing different racial and ethnic backgrounds, were chosen from applicants demonstrating an interest in economics and business studies. Since the program was designed to expand the academic and career horizons of students with varying levels of ability, academic record was not the sole criterion for admission. The students met every school day for approximately two-and-one-half hours after regular courses at their home schools were over.

Educational Goals and Objectives

The course was established not to prepare students for a particular job in the business or financial community, as do many existing vocational courses, but to expand and improve students' attitudes about business, labor, and industry, to encourage them to challenge stereotyped views and to introduce them to a wide range of career opportunities. Exposure to people who work in the business community and make practical, day-to-day application of skills they learned in school motivated students to more enthusiastic performance in traditional studies such as math, English, and the sciences. For their participation in this intensive program, students were awarded letter grades and credit toward graduation.

The objectives of the course were:

1. To challenge students to develop and apply basic skills while exploring new concepts;
2. To prepare students more fully for higher education and/or future employment;
3. To familiarize the students with Chicago's business and financial center and career opportunities it represents;
4. To teach students economics, personal financial planning, consumer education, and business skills;
5. To expand and improve students' attitudes toward business, labor, and industry while challenging stereotyped views;
6. To enrich the curriculum of the city's schools and facilitate increased communication with the private sector.

Organization of the Course

As an experienced high school teacher with a background in business and economics, I served as the economics instructor. The sponsoring bank provided clerical support and classroom and office space. Professionals from the business and banking communities enriched the course by bringing to it their personal perspectives and experiences. In researching Chicago and its resources, the students met key persons from the business community, government agencies, and unions; investigated, both individually and in teams, the city's financial district; and became aware of the uniqueness of Chicago as a cultural and

educational center. Depending on the agenda for the day, students met in a classroom or at a field site related to the particular unit under study.

My students had to meet the attendance and performance requirements of the Chicago public school system. They were screened on a citywide basis by guidance personnel. Enrollment was open to all but remedial students. Films, role-playing exercises, financial publications, newspapers, and printed materials furnished by participating companies were used to supplement textbooks and materials developed by the Department of Curriculum of the Chicago public schools. In addition, students were given a course syllabus and weekly activity calendars to supplement textbooks. They were required to keep a weekly log of activities that they thought added to their growth and awareness. They also noted career possibilities that stimulated their interest—an exercise that was beneficial to the teacher in evaluating the program and providing useful experiences to the students. Personal notebooks for their course work and supplementary materials received were also required by the teacher.

Grading for the course was based on written work, class participation, and effort. Attendance, class projects, and extra credit work were also considered in reaching the grade. Students who successfully completed the course received one unit of credit business and a half unit in social studies. In addition, the course satisfied the Illinois state consumer education requirement.

Sample Student Activities

Orientation. The objectives, procedures, and requirements were given to the students in the introduction and orientation to the course. As part of the orientation, the students toured Continental Bank, including the main building and check-processing facilities, and met with key personnel. The class was given a walking tour of the financial district including a visit to places of business and cultural interest. Students took a standardized test on basic economics at the beginning and end of the semester, and examinations throughout the course. Emphasis was placed on reading, writing, and communications skills such as being a good interviewer and interviewee.

Personal involvement. A simulation involving teams of oil sellers and buyers gave the participants a practical and contemporary example of a serious problem facing our economy. During each round of buying and selling, the supply and demand levels were changed. After the completion of several rounds, the effect of these changes was examined in relation to changes in the equilibrium price.

Union-management relations. In dealing with union-management relations, the class was divided into two negotiating teams representing the Widget Company and the International Brotherhood of Widget Workers. The two teams were coached by representatives from management and labor in a collective bargaining simulation. After several negotiating sessions, the parties could either agree to a contract, declare an impasse, or submit to third-party intervention. At the National Labor Relations Board, the class investigated the role of that organization under the National Labor Relations Act. Also, a

debate was conducted over whether the class should unionize; it culminated in a representation election. Careers in trade unionism were explored in a tour of Washburne Trade School.

Investments. Concepts of personal financial planning and business organization were linked when the class covered various forms of investments, particularly stocks. The students were able to borrow $10,000 from the student bank for the purpose of investing. Investment portfolios that included stocks, bonds, savings certificates, and certificates of deposit were prepared by the students. In this unit the students visited a brokerage house, the Mercantile Exchange, and the visitors' center at the Board of Trade. After examining various criteria for investing—risk, return, liquidity—the class participated in a computerized stock market game conducted by DePaul University's Center for Economic Education. In this game, students purchase and sell common stocks on the New York Stock Exchange over a specific period, starting with an initial endowment of $100,000. The five top teams receive cash awards. The investment securities industry provides resource people to assist the students. Objectives of the game reinforce concepts taught in the career center class.

Each team had a consultant in the securities industry to contact and advise it on stock purchases. Representatives from the insurance and real estate industries also discussed investments and consumer needs. In pairs, class members surveyed the mortgage rates of various financial institutions after discussing this subject with a mortgage banker.

Mechanics of finding a job. Economic decision making and its accompanying concepts were utilized to aid the students in determing possible career choices. The use of career days and career inventories also aided in this process. Through an analysis of manpower statistics, reflecting both levels of employment and wages for certain industries and careers, the class became acquainted with the present labor force situation. Wage determination was treated in terms of traditional wage theories (marginal productivity) as well as by evaluation systems utilized by industry.

A representative from Chicago United also discussed levels and types of unemployment (structural, cyclical, and seasonal) that are found in Chicago and the different programs developed to meet unemployment problems.

From films and discussions with personnel administrators, students learned to fill out employment applications and develop resumes. Mock job interviews were set up with different companies. The filmstrip series *Goofy Gets a Job* (Disney Productions) was also utilized in completing these activities. The experiences broadened the students' perspectives on careers. Although it was not a bank recruitment effort, the course prompted a number of students to seek part-time employment in the bank's work-study program.

Wage payments. To further increase student involvement in the course and awareness of business procedures, participants were paid every two weeks in "center dollars" which they could either save or invest through the student bank. The number of center dollars received was based on accomplishments during the period, the largest amount being given for a grade of "A." A number of students were chosen to serve either as bill collectors or personal bankers in

the student bank. Money was deposited into checking accounts and each month budgeted expenses related to various course projects were paid. Each student received a financial statement, and, as we have seen, each student was allowed to borrow a total of $10,000 for investment. The students then prepared investment portfolios of stocks, bonds, savings, and certificates of deposit.

Evaluation

Student evaluations indicated that they enjoyed the topics and could understand the subject matter better when they were actually able to observe the activities that they were being taught. The students commented that they knew how to manage their money better after completing the unit on personal financial planning and working with the student bank. In instances where some topics were covered in their regular high school classes, the Career Center students commented that their experiences in the course had a positive reinforcing effect. The course challenges the students to use critical thinking in their approaches to new situations. The ability to interact with different persons in their environment was developed as well, as they met a variety of people from different levels of business management. Students also indicated that, after completing the course, they were better equipped to make decisions concerning future career and consumer choices.

The growth of individual students was witnessed with each new experience. Students who had not been outstanding in more conventional classes flowered in this course. As the program progressed, students evidenced a growing sense of sophistication with regard to business and career awareness. While career aspirations were not expected to escalate dramatically, there were indications that the students' horizons had broadened.

In addition to those skills specific to the subjects of the course, another important strength was the fostering of other skills such as note taking and public speaking. Students in many cases developed confidence in class discussion and presentation and in questioning speakers. Students who had been most reluctant to participate in group oral presentations at the beginning of the semester handled themselves very well in the latter portion of the term.

The evaluators for the bank and the Board of Education were convinced that, as future employees and consumers, the students would have a direct impact on businesses and the local community. Many of the skills and much of the enthusiasm for this approach to business and economics were carried home to parents, family members, and peers; thus, the impact of the course extended beyond the students to a much wider sector of the community.

Conclusion

In sum, I found the alternative approach both challenging and rewarding. Individualized learning had replaced the traditional format, in which the

teacher is the center of the learning experience. It is my opinion, based upon the successful experiences provided through this program, that economic education can provide a meaningful vehicle for linking in-school education with outside community resources so that a more comprehensive, realistic, and coordinated program is offered the student.

Profits Inc.

Phyllis Bryant
South Hopkins High School, Nortonville, Kentucky

Faye Cardwell
North Hopkins High School, Madison, Kentucky

Background

Profits Inc. was originally a "mock" corporation formed by students of South Hopkins High School as an interesting device for learning economic concepts and as a method of promoting better economic understanding. The experience of the classroom corporation was such a success that younger brothers and sisters of the first stockholders requested that another Profits Inc. be organized. In 1978 their wish became reality.

A unique feature of Profits Inc. II was that classes in two separate schools were involved. The business organization class of North Hopkins High joined the economics class of South Hopkins High in one project.[1] The students wanted a *legal*, not mock, corporation, and they wanted to attempt to earn a profit in real dollars through various business ventures. The students began by discussing limited liability and other advantages of the corporate form. Among the disadvantages they discovered were the cost of incorporating, corporate taxes, corporate regulations, and the like, but they concluded that the best way to study the American economy was to be part of it.

The class elected a board of directors, which included prominent citizens of the community, and chose a corporate name, "Profits Inc." (which stands for *P*ublic *R*elations *O*rganization *F*or *I*ntrigued *T*eens). The name was chosen

1. The class at North Hopkins had to drop out midway because of scheduling difficulties, but the students of both schools continued to cooperate on some projects.

because the students understood the significance of profits in our economy and wanted to emphasize that there is "no stigma to making a profit."

One of our first tasks was to write the articles of incorporation. We accomplished this with the advice of an attorney. This experience gave the students a knowledge of the privileges and restrictions of the corporation, and also enabled them to absorb additional legal knowledge.

Corporate Goals

The goals of Profits Inc., according to the articles of incorporation, were to promote a better understanding of economics by its members, the schools, the community, and even the whole population of the southeastern portion of the United States. Another goal was to earn a profit. Class members earned shares in the corporation for engaging in activities that helped advance economic understanding, by participation of members of the class in group activities, and by acceptable completion of previously approved individual projects. Profits were sought because the worth of the shares to the individuals who owned them rose as the level of profits went up. Many students were stimulated to achieve because of their pride in our organization and by their desire to be recognized as leaders in our organization.

The profit incentive and the incentive to achieve were the only incentives. *No grades* were given for activities in Profits Inc. In our years of experiences as teachers, we have never seen a more motivated or more enthusiastic class. Profits Inc. members dropped in on other classes to discuss issues, called us at home, and even stopped by to discuss plans.

Activities of Profits Inc.

Exhibit at free enterprise fair. Within a month after our goals were set, the class had a splendid opportunity to promote improved economic understanding, and to do it on a large scale by setting up an exhibit at a fair held at Western Kentucky University, Bowling Green, Kentucky. Over 24,000 people attended the fair. Only two school groups had been invited; so most of our competitors were large corporations with a wealth of money, materials, and manpower. But, out of 71 exhibits, our exhibit was the one publicized in the *Bowling Green Daily News*, and featured on the front page of the newspaper! We were also interviewed on television for a later presentation on Kentucky Educational Television.

Our whole theme for the exhibit was Think Positive, America. It expressed our belief that our economic system is not perfect, but *it is the best system.* Students from both schools were prepared to answer questions relating to economics and to pass out the pamphlets entitled *That's What America's All About* and *Our Economy.*

The exhibit was an old-fashioned schoolroom with antique desks chalkboard, bulletin board, and a large flag. Three cartoon characters were the focus

of all eyes—Charlie Brown, Lucy, and Snoopy. Nostalgia evoked by the scene attracted the adults; the cartoon characters, the children. Our students were dressed in patriotic costumes of red, white, and blue and wore Uncle Sam hats. In addition to passing out information, students pinned a small lapel flag pin on visitors and said, "Think Positive, America." Photo buttons were sold at $1.50 each. Our students photographed visitors and made the pin-on buttons. The buttons showed our booth in the background and created a minor sensation with the adults as well as with youngsters. Very little profit was made at the Free Enterprise Fair but the class gained a lot of experience.

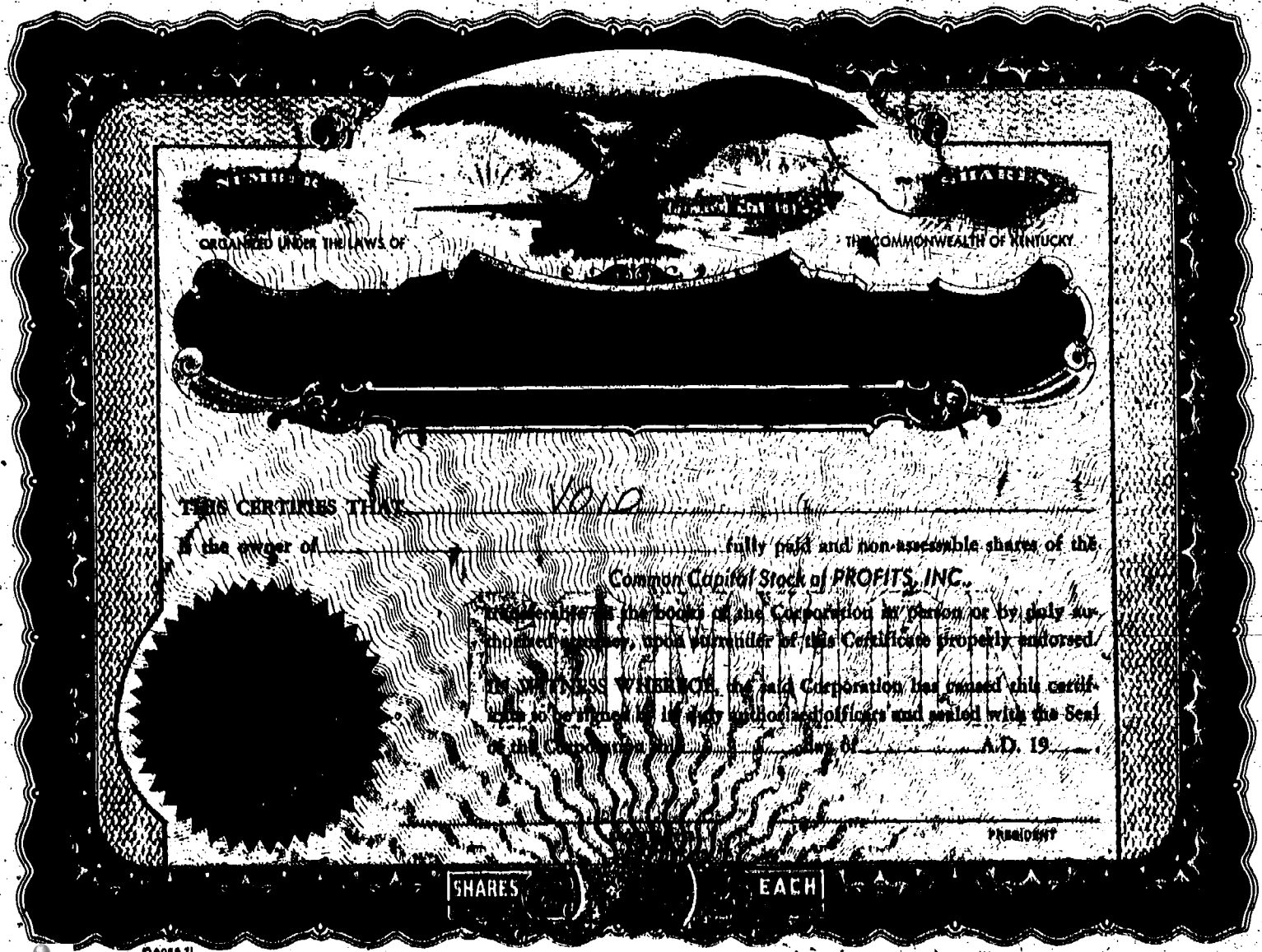
Students teaching other students. Profits Inc. members presented the film series *American Enterprise* to other classes at South Hopkins, and prepared handout materials relating to each film. Students teaching other students was an unusual sight, a novel learning experience. But, because the teaching project involved absence from scheduled classes, the class developed its best public relations tool—a script for the slide presentation. It includes the basic concepts of our economic system. We tried to make it entertaining and at the same time informative. Charlie Brown and students from North and South Hopkins were involved in the slide presentation. It is called *The Amazing Success Machine* (sound, 20 minutes).

Students on television. *The Amazing Success Machine* was featured in a thirty-minute television program on Channel 3, with a viewing area that includes a large portion of western Kentucky. Another thirty-minute program, with students discussing Profits Inc., was featured a week later. Each time our unique corporation received recognition, we were given an opportunity to discuss economic issues while explaining our goals. Each television show, newspaper article, etc., became a vehicle to promote better economic understanding.

The Amazing Success Machine was also shown at a Kiwanis Club luncheon and at in-service courses for teachers. The students were advised more than once to apply for the copyright to our slide presentation because of its professional quality.

Learning to apply knowledge. After failing to make a profit at the Free Enterprise Fair and a Fall Festival, the students discussed "marginal profit," "lack of capital," "proposed demand for our product," "equilibrium prices," etc. The seeds of knowledge and understanding planted during classroom instruction began to take root and the plants to blossom. After discussing these concepts with intense interest and enthusiasm, the students decided to try projects where no large capital outlay was involved. They decided in the future to subcontract their ventures in photography to professionals.

Almost immediately Profits Inc. contracted with Master Artists Studio to provide pictures of couples and of the queen's court at South Hopkins's homecoming celebration. The corporation received $5 for each sitting that was sold. A profit of $140 was realized on this project. The students gained a knowledge of contracts and salesmanship in this venture. The students also subcontracted with the studio for a photography sale for the homecoming game at South Hopkins and for graduation pictures. Profit Inc.'s most spectacular



STOCK CERTIFICATE - PROFITS INC.

profit-earning project was the sale of school derbies at South Hopkins Spirit Week. They made $100 in less than two hours.

Economic facts on school radio. To promote better economic understanding, "free enterprise facts" were broadcast on the school radio. One fact was given each day. At the end of a week, a prize was given to the student who correctly answered a question relating to the "free enterprise facts" announced each day.

Bulletin board. An economic tree of knowledge was attractively displayed on the bulletin board in the main hall. The roots of the tree depicted economic concepts and the leaves represented economic freedoms that resulted from our particular economic system.

Investments in stocks. The students borrowed money from the local bank and invested it in stocks bought through the New York Stock Exchange. They read the *Wall Street Journal* regularly to check the value of their shares of Eastern Airlines and Kennecott Copper.

Members of Profits were "paid" with no-par common stock, earned by involvement in the group's projects, as we have seen. Other members, in addition to the students, bought no-par preferred stock. The students sold $100 worth of shares at $1 per share.

Economic speech contest. As one of our promotions to educate students we sponsored a speech contest. The subject of the speech was, "What's the difference between our economic system and other economic systems?" Writing and gathering information for the speech was itself educational. The top three speeches were aired on a local radio station. Adults in the community expressed surprise that the students knew so much about our economy and could state it so well.

Election Day project. On Election Day, students went to the polls and handed out a booklet entitled *That's What America's All About* to make the voters aware of the advantages of our economic system. From this project another idea developed to give each sixth-grader and high school senior a booklet to increase their economic understanding. This project was carried out to the extent that funds permitted.

Evaluation

Profits Inc. used every opportunity to focus attention on the advantages of our economic system. Where but in America could students form a corporation with no beginning capital and no financial support from anyone? The students' experiences and the profits they earned made them believe in the statement: America is truly a land of opportunity.

The learning activities of Profits Inc. focused on the corporation, securities, and the stock market. The course demonstrated how the American economy is dependent upon the effectiveness of investors and entrepreneurs in organizing and developing productive and profitable economic activity. It stressed that the basic unit or cell in our free enterprise economy is the business firm. Here entrepreneurs makes their big decisions. They estimate and create

demand, plan expansions, promote overall efficiency, and establish personal relations with the public. They also decide whether the firm should be large or small, incorporated or unincorporated. The members of Profits Inc. learned all this and more—and they learned it by doing. Their experience of applying for a corporate charter, drawing up articles of incorporation, setting goals, engaging in productive enterprise, issuing and purchasing stock all involved the law. As a result, they gained a modest but valuable legal education.

Although its activities and projects were organized for the dual purposes of earning a profit and promoting the values of the American free enterprise system, Profits Inc. was created primarily for teaching purposes.

The Great Depression—Monetary and Fiscal Policy: An Inquiry Approach

Kathleen Ryan Johnston
Rufus King High School, Milwaukee, Wisconsin

Background

Most of the causes of the Great Depression of 1929 enumerated in U.S. history textbooks relate to structural weaknesses in the economy. I listen to a different drummer and believe that the depth of the Great Depression was due not to inherent weaknesses in the economic structure, but was the result of bad monetary and fiscal policy. Instead of promoting expansion in a period of low employment, low income, and low prices, the policies of the Federal Reserve System, under a gold standard that was breaking down, brought about a decline of one third in our stock of money from 1929 to 1933 while at the same time the government was promoting a balanced budget.

To test my theory in class, my students engaged in the inquiry-oriented series of four lessons which constitute the unit described in this article. My approach can be described best as guided discovery. In this approach, the

teacher presents data—readings, statistical information, audiovisual materials, and so forth—and asks a series of questions in order to challenge the students to formulate and test hypotheses (see Sequence of Learning Activities, below).

The principle objective of the unit is to teach (or reinforce) concepts of monetary and fiscal policy via an examination of the causes and effects of the Great Depression, and, in so doing, enable students to apply these concepts to present and future economic situations.

The content of the unit can be summarized in two generalizations:

1. An increase in the money supply tends to increase price, employment, and income levels at less than full employment; a decrease in the money supply will tend to decrease levels of prices, employment, and income, with their relative impact depending on the extent of labor, business, and government rigidities.
2. A federal budget deficit tends to raise general levels of prices, income, and employment, and a surplus tends to lower them.

Given generalizations 1 and 2, the students will examine economic indicators and the relationship between monetary and fiscal policy during the Great Depression to determine its significant causes.

Procedures

While testing this unit in the classroom, I developed student worksheets to provide structure and direction as well as to give students a written record of their work. This enabled me to be more flexible about offering individual help since students were not as dependent on oral instructions as they would otherwise be and each group could move at its own pace once a lesson was begun.

Because class time was short, students were asked to look over material the evening before (as directed where appropriate). However, students were not allowed to move ahead of teacher presentations, such as the Lesson 3 discussion of monetary and fiscal policy. Student folders, with worksheets and statistical data, were distributed the first day.

The class worked mainly in groups. My groups were not randomly selected or student chosen. I tried to arrange groups to maximize student involvement and interest by meshing personalities and abilities. Each group consisted of a variety of skill levels. The range was similar in each group, but the "chemistry" varied. For example, a student with limited reading ability did exceptionally well then grouped with a more able student who also was sensitive and helpful.

In terms of student deployment, I found it necessary to adjust the instructions. When groups were not moving at about the same pace, movement from pairs to small groups was difficult. To avoid their wasting time waiting for others to catch up, I had the students continue as a group.

While the amount of time needed will depend on the students and the

teacher, I used six class periods—approximately one each for Lessons 1 and 2, two to three for Lesson 3, one for Lesson 4. I could easily have spent more time. However, students who already understand monetary and fiscal policy and/or other terms and concepts involved, will require less time. Lesson 3 is pivotal as parts 1 and 8 involve a major input of information. Until students understand the material, especially part 1, the lesson cannot continue. In Lesson 2, students who did not finish in class completed the lesson as homework. At the beginning of the next class they compared their conclusions, reached a consensus, and moved ahead. We did the same with portions of Lesson 3. Lesson 4 was given to the students as homework done individually. After the papers were corrected and returned, the groups discussed their work.

Teachers and students might find a list of terms and/or concepts helpful to use during the unit, a preview, or a review. For a brief review of the economic theory involved in the unit, I suggest Milton Friedman's *A Program for Monetary Stability* (New York: Fordham University Press, 1958, pp. 1–23).

SEQUENCE OF LEARNING ACTIVITIES

Purpose	Content	Materials/ Media	Student Deployment
Lesson 1 To discover the definition of the Great Depression and to hypothesize about its causes and effects	Characteristics of the Great Depression	Filmstrip: *The Great Depression* Worksheet	Entire class
Lesson 2 To test the hypothesis about the effects of the Great Depression against new data	Effects of the Great Depression: economic and social indicators	Statistical data Worksheet	Entire class Pairs Small groups Entire class
Lesson 3 To hypothesize about the causes of the Great Depression and test the hypothesis against new data	Monetary and fiscal policy as a cause of the Great Depression	Statistical data Worksheet	Entire class Small groups Entire class
Lesson 4 To test the hypothesis about money supply against new data	Relationship of the supply of money to periods of depression/recession in U.S. history	Statistical data Worksheet	Entire class Individuals Entire class

Sequence of Learning Activities

The four lessons that constitute my unit on the Great Depression were organized as indicated in the accompanying table. The reader will note the specific content that was included, the materials and media that were utilized, and how I organized my students.

Lesson Organization

For the purposes of this report, I have included Lesson 4. Each of the lessons was organized similarly and included a statement of the major goal for the lesson; knowledge, skill, and attitudinal objectives; materials to be used; and teacher and student activities and purposes.

SOURCES OF STATISTICAL DATA FOR LESSON 4 INCLUDE:

1. Gary M. Walton and Roger Leroy Miller, *Economic Issues in American History* (New York: Harper and Row, 1978): Statistical data A through J and L.
2. U.S. Department of Commerce, *Historical Statistics of the United States—Colonial Times to 1957* (1960). Statistical data E through I and K.
3. Milton Friedman, *A Program for Monetary Stability* (1959). Statistical data M.

Evaluation

I evaluated my unit on the Great Depression by the following criteria:

1. Quality and accuracy of the worksheets and student folders.
2. Student reaction: They worked hard, were enthusiastic, cooperative in groups, inventive, and retained information.
3. Quality and accuracy of the test.
4. Amount of retention: Several students continued to apply the theories of monetary and fiscal policy to other economic situations.
5. Application of theory to question on final examination.

In sum, I judged the unit a success because it was an enjoyable learning experience for the students, and they were able to approach and comprehend a sometimes difficult concept. The ultimate evaluation, however, will be their ability to adapt the information gained in class when making their own economic choices in the future.

LESSON 4

Goal: To test the concepts about the money supply against new data.

Objectives:

- Knowledge:

To know that recessions/depressions in United States history were accompanied by fluctuations in the money supply;

To know that since World War II there has been a conscious attempt to understand and use monetary and fiscal policy to avoid depressions;

To know that since World War II there has not been a depression of the magnitude of the 1930s fall in the United States, or any other major nation in the free world.

- Skills:

To be able to interpret statistical data individually;

To be able to draw conclusions individually.

- Attitudes and values:

To gain confidence in one's ability to use statistical information and reach a conclusion;

To appreciate the application of historical information to the present and future.

Materials: Statistical data:

L. Prices and the money supply, 1820-45

M. Money stock, 1867-1958

Teacher	Purpose	Student
1. Explain to the students that one of the ways to test a concept is to apply it in a new or different situation. Ask: If students accept the relationship between money supply and recession/depression, then what would they expect statistical data to indicate during the depression of 1839-43 and the contractions of 1873-79, mid-1890s, 1907-08, 1920-21, and 1937-38.	To place the concept of money supply in historical perspective. Developing a hypothesis.	May answer they would expect the supply of money to decrease during those periods.
2. Distribute statistical data L and M. Ask students to interpret the data and determine whether it supports or refutes their hypothesis.	Identifying relevant information to test hypothesis. Testing hypothesis in new situation.	May conclude the money supply decreased during each of these periods.
3. Ask students to study the data from World War II to 1958 and draw a conclusion as to why we have not had a depression since then.	Interpretation of relevant data. Concluding.	May note that the money supply has not significantly decreased during that time (although some might note minor recessions).
4. Have class discuss their conclusions and summarize the concept of money supply.	Summarizing.	May state that the supply of money greatly affects the economic status of the U.S.

Good Ideas in Brief: High School Level

DAVID E. O'CONNOR, of the *Edwin O. Smith School*, a "university lab" school, in *Storrs, Connecticut*, organized a fourteen-day unit called The Consumer in a Transient Society. The unique feature of the instructional program was that it emphasized effective utilization of the school library-media center. Following a rather intensive examination of key economic concepts and principles, the unit was designed to permit students to apply these fundamentals to the real-life situations that confront consumers on a daily basis. Among the major topics studied were: advertising campaigns and deceptive advertising, current trends in U.S. buying habits and projections for the future, and the pros and cons of the consumer movement. Many of the activities included during the two and one-half weeks of the project were planned as "hands-on" as they entailed using the media center for research, editing, and arranging slide presentations and producing transparencies and radio commercials. Student output showed remarkable ingenuity, organization, comprehension, and originality. In addition to becoming acquainted with the various aspects of knowledge, skills, and responsible attitudes connected directly with the role of the consumer, students were exposed to group dynamics, media techniques, and research processes. The unit could be successfully utilized as a self-contained project in any number of the social studies, business, media, or vocational programs of study.

JARRELL McCRACKEN and RICHARD JORDAN, of *Manual High School, Denver, Colorado*, wrote a course entitled Simulations and Reality: An Economic Experience. Simply stated, the course was developed to improve and greatly expand the economic literacy of high school students at Manual High School and ultimately in all the Denver public high schools. Composed of nine units, the one-semester course was organized around the components of the circular flow model and emphasizes scarcity and allocation, money and monetary policy, banking, the markets, government tax policy, labor, the stock market, the consumer and the household, and international trade and economics. Eleven simulations were included to give students an initial opportunity to involve themselves actively in economics. In addition, there were twelve community question-and-answer sessions: with a labor leader and a labor economist, representatives from small and large businesses, the Federal Reserve bank, advertising firms, consumer protection agencies, a local commercial bank, an expert on world trade, the regional head of the U.S. Department of Health and Welfare, and a stockbroker. The purpose was to give students insights and opportunities to expand their thinking processes. Eighty-seven individual daily lesson plans, a pre- and post-test, a written evaluation, a midterm test and four progress tests, twenty-five handouts, a primary and supplemental text, and several additional readings were included to provide the content, data, organization, and evaluation for the one-semester course de-

signed for high school juniors and seniors. After an initial run followed by necessary revisions as dictated by that experience, the lesson plans will be made available to any school upon request at cost: Write to Richard Jordan, c/o Manual High School, 1700 East 28th Avenue, Denver, CO 80205. The materials, books, and simulations, valued at approximately $700, may be purchased from the individual publishers.

JOYCE M. WICKE, a language arts and social studies teacher at *Our Lady of Mercy Academy, Louisville, Kentucky*, has developed a unit entitled Experience Economics, which was designed to allow students to "experience" economics as they play a variety of roles in two totally different economic systems. As a result of the unit, the students draw conclusions about the potential the two systems have for working together to solve global economic problems. The unit was designed to teach basic economic terminology and to examine a number of global economic problems, with emphasis upon the major world problems of poverty and hunger. Students were assigned two individual packets which included aspects of both language arts and social studies. Each packet contained directions and assignments, with the first, entitled What is Economics?, organized to include economics terms and the operation of a market economy. The second instructional packet was called Economics in the Third World and stressed the problems of underdeveloped and emerging economies and gave considerable attention to the food crisis. The unit was programmed to last three to four weeks with 50-minute classes each day. Students also participated in two simulations, the first of which is called Consumer Choice. In it, the student becomes both a consumer and a producer in a market economy. In the second game, Bread Line, each student becomes a member of a Third World village struggling to produce enough food to feed an ever increasing population with limited resources. As a result of the unit, students not only study alternative economic systems but also *experience* them.

WALTER P. HERTZ of *Brewster Academy, Wolfeboro, New Hampshire*, has designed an economics course for seniors and postgraduate students consisting of three segments: (1) Introduction to Economics; (2) The American Economic System; and (3) World Economic Systems. The underlying philosophy of the course is to blend economic theory with the actual application of basic concepts and theories. Content material, assignments, reading materials, and organization were developed with the objective that college-bound students would be fully prepared for entry into undergraduate programs in business and economics; those electing not to continue their education would become fully acquainted with economic concepts, theory, and principles required in personal-decision making. At the outset of the course, all participants took an awareness test to permit me to assess their understanding of the economic, social, and political concepts. As part of the first phase of the course, students were given copies of the annual report of a specific corporation. After becoming familiar with the report, assignments on such questions as debt ratio, growth

product mix, profitability, and equity were determined. In Segment II each student was assigned another current earnings report for evaluation and was expected to answer independently the same questions as were assigned previously. During the course, the students formed a corporation to manufacture a product of their own choosing. Problems involving raw materials, loans, taxes, and labor had to be solved. In the final segment of the course, the corporation became multinational as economic feasibility studies of target countries were conducted. To add spice to the activity, the corporation applied for relief under Chapter IX of the Bankruptcy Act of the United States. Through their personal involvement as officers, suppliers, customers, and consultants, course participants were able to fully comprehend the inner workings of a corporation and its place in the United States and world economies.

HELEN MONTGOMERY, a social studies teacher at *Bellingham High School, Bellingham, Washington*, has developed a unit designed to help students understand the impact of taxes on their daily activities. Called, $ Taxes! Taxes! Taxes! $, the unit was organized as a response to a school mandate requiring all seniors to earn one credit in a course entitled Rights and Responsibilities. This twelve-week program was conceived as a grass-roots project organized to provide students with a practical understanding of the problems of urbanization, political structure, and political process. The unit on taxation took four weeks. Its major purpose was to involve students in the complexity of and variation in taxes levied throughout the nation at all levels of government. The primary classroom activity offers hands-on experience for students, as they are called upon to solve specific tax problems which were developed to illustrate the basic principles of taxation. The problem-solving phase of the unit is initiated with a simulation of a relatively simple tax situation; following this, students proceed to more realistic problems which are more complex but which reinforce previously learned concepts of taxation. Among the presentations and topics included in the unit are taxes as social policy; what is not taxed; how taxes can be judged; an examination of local, school, state, and federal taxes and budgets; and an analysis of taxes paid by five families. Pre- and post-tests, case studies, newspaper and magazine articles, and fiscal and tax data are among the various materials found in the unit, all of which are effectively utilized in the many stimulating activities which are integrated within the project.

LOREN J. DUNHAM, a social studies teacher at *Fairmont Senior High School, Fairmont, Minnesota*, has developed a project entitled Broilers, Beans and Bellies: A Unit on Commodity Futures Markets for High School Students. The three- to five-day unit was designed to be integrated into social studies courses in grades 9–12 and was intended to introduce students to the purposes and functions of commodity futures markets and to indicate how these markets are related to the economy as a whole. Included in the unit are a series of worksheets and handouts and a list of teacher and student reference materials.

Class activities include the analysis of several case studies on hedging and investing, a simulation on investment, and three films on commodities trading. The unit was developed in the belief that students living in the essentially agricultural economy of Minnesota should have a basic understanding of how commodity futures markets operate, how they are utilized by agricultural product producers and processors, and the role of investors in the futures market. Among the basic economic concepts which are emphasized are supply-demand analysis and price determination, the influence of the competition that is maintained on the exchanges, profits and loses, liquidity, and economic risk and reward. The unit includes knowledge, attitudinal, and behavioral objectives, an overview, and instructional procedures and strategies presented on a day-to-day basis.

JOSEPH B. GARVEY and THOMAS W. MULLANE of *West Essex High School, North Caldwell, New Jersey*, organized a program of study that was designed to prevent subject-matter duplication for twelfth-grade students who participated in both the full-year elective course in economics and the nine-week unit in economics that is presented as part of the United States History II sequence. Entitled Economics Is for Real: A Series of Independent Study Assignments, the nine-week unit was organized so that the students would spend much of their time in the school library conducting their investigations, research activities, and reporting. Following a modified case study approach, students met with their instructor on a regular basis to discuss and determine independent study contracts. Among the types of assignments which were successfully completed by the 200 participating students were chapter summaries of scholarly texts in economics, reviews and comparisons of magazine articles written by economists of various persuasions, and the analysis of contemporary issues and problems. The contract between the student and teacher was detailed as to conferences and due dates of assignments. As activities and projects were turned in, they were evaluated, graded, and returned to the student at the due date of the next assignment. Final grades for the students were determined by the average grade of the contracted assignments.

WILLIAM R. CHEMERKA of *Madison High School, Madison, New Jersey*, has developed a highly popular program entitled The Music Industry and the American Economy that is part of his introductory elective course in economics. Using rock music as the motivating theme of the unit, the students learn basic economic concepts, principles, understanding, and terminology. As one example of how the unit is presented, the "guns-butter" trade-offs problem is used to explain the principle of opportunity costs and to illustrate production possibility curves. But rather than using traditional approaches, students were asked to make choices between attending a certain concert or purchasing several albums at a special limited sale price, given the constraint of limited weekly incomes. This example is realistic to most students and when the guns-

butter problem is finally introduced, not only does it seem more relevant to students but the principle of opportunity cost has been reinforced through the utilization of a direct, personal experience of the students. Other activities included in the unit are analysis of costs of record production and how the sales dollar is distributed, supply-demand analysis of a specific record, the effects of advertising, the institution of private property and copyright laws, and business organization in the record industry. The course has become a remarkable success story in that enrollment has increased spectacularly and students of all socioeconomic, academic, and racial backgrounds have elected to participate in the program.