

evidence that the price system works. Let us leave aside for the moment that there were other factors at work as well, including a legislatively mandated more efficient automobile fleet, greater availability of public transportation and incentives for car pooling, and assume that all of the savings are attributable to price. Gas prices have increased roughly 42¢ over the last year meaning that we are spending \$40.6 billion more to consume gasoline than we would have. Assuming that all of the 600,000 barrels a day less we are consuming now than we did last year is the direct result of price, the cost per barrel saved is an astounding \$185 per barrel or six times the world price. Hardly a bargain and certainly not an efficient system of conservation.

Reliance on costly, capital consuming, environmentally unsound, inflationary, centralized technologies is the second major characteristic of the wrong path. These technological fixes range from the absurd--for example, a solar power satellite, a solar collector the size of Manhattan floating around outer space--to the extraordinarily dangerous and wasteful--for example, the crash effort to create a synthetic fuels industry.

A crash synthetic fuels program will be enormously costly and inflationary. The cost of building a synthetic fuel plant capable of supplying one-tenth of one percent of our energy needs is estimated to be more than \$2 billion. As a recent Rand Corporation study notes, cost overruns will probably lead to final costs two to four times the original estimates.

That is just construction costs. The cost for the main inputs--coal and oil shale--are subject to the same price trends that oil is. It is not at all difficult to envision coal bidding wars between a synthetic fuel industry protected by price supports, government loans and the like, and the utilities protected by the automatic fuel adjustment clause. The only loser will be the consumer. Furthermore, high priced synthetic fuels will act as a magnet, pulling up the price of OPEC and U.S. oil.

A crash synfuel program will be economically disruptive. First, the massive capital requirements of a synthetic fuels industry will crowd out many important investments and dry up credit for those lacking clout in capital markets, most notably small businesses and prospective homeowners. Second, the channeling of so much capital into one of the least job intensive activities in the economy will have profound impacts on unemployment. And third, a massive commitment to synthetic fuels will be a drag on economic growth as the increased price of energy reduces aggregate demand and as synthetic fuel prices add to the costs of production in many manufacturing industries.

A crash synthetic fuels program creates and exacerbates intractable environmental hazards.

To name but a few:

- A rapid acceleration in the build-up of CO<sub>2</sub> in the atmosphere which will have the consequences of changing climatic zones, thus threatening world food supplies.
- Exposing workers to known dangers including the increased threat of lung, skin, and bladder cancer as well as accidental exposure to toxic and often fatal agents.
- And carcinogenic contamination of local water supplies through waste products.

A crash synthetic fuels program will be socially disruptive. Even the most diehard synthetic fuel boosters have to shudder at the prospect of a huge carcinogen-spewing synthetic fuel plant in their backyard. Farmers will have to compete with government-backed synfuel companies for already scarce water supplies and wonder what will become of their livelihoods.

For this reason the Administration and Congress have proposed an Energy Mobilization Board to expedite energy projects, to waive laws and to "cut through red tape." Well, in this instance one person's red tape is another's due process. Federal laws that force communities to unwillingly bear the burdens of a centrally administered energy policy are inimical to the basic precepts of democracy.

Finally, a crash synthetic fuels program is unrealistic and will not ameliorate our energy problems. Achieving substantial synthetic fuel production by 1990, the President's goal, is not just a matter of building plants. The development of a synthetic fuel industry is dependent on a myriad of other events simultaneously occurring, including the doubling of coal production, significant expansion of the transportation system, technical and technological breakthroughs, and creation of a work force skilled in these technologies. It is little wonder that, when pressed, oil company experts admit that by 1990 "we probably won't have much more than a drop in the bucket."

That is the wrong path--the bankrupt inflationary path we are being pushed down by our leaders and by our energy industry. But there are alternatives.

If the United States were to make a serious commitment to conservation, it might well consume 30 to 40 percent less energy than it now does, and still enjoy the same or an even higher standard of living. The possible energy savings would be the equivalent of the elimination of all imported oil --and then some, with virtually no penalty for the way Americans live--save that billions of dollars would be spared, save that the environment will be less strained, the air less polluted, and the dollar under less pressure. These are not the words of starry-eyed dreamers; these are the words of the Harvard Business School. And these words

point to the sanity and the sense of the path we are not taking.

Advocates of the wrong path preach a simplistic gospel of conservation through pain and through sacrifice. It is a pessimistic gospel of desperation and panic that has no imagination and has no hope. Their approach to a food shortage would be to stop eating and to an oxygen shortage to stop breathing.

Fortunately, there is a far more rational approach to coping with scarcities of vital resources: It is to answer such questions as how do we drive farther on a gallon of gas; how do we keep our houses warmer on a therm of natural gas; how do we make factories that produce more on a ton of coal and how do we change the basis for society's energy needs so that we may maintain our standards of living on less energy. Europeans do not consume less energy per capita than we do because of energy prices that are twice ours; they do so because they are using energy more efficiently and more productively.

Widespread conservation of this sort has not, and will not, occur in the United States through the price system because of the paradox of high energy prices. As energy prices increase conservation becomes more attractive, but also more impossible because consumers cannot accumulate the necessary up-front cash to invest in weatherization because they are spending it to pay their higher energy bills.

Canada, with a population one-tenth the size of the United States, is investing \$1.4 billion to encourage homeowners to weatherize their homes. President Carter, on the other hand, has \$88 billion for synthetic fuels and only 1/40 that amount for residential conservation. This, despite the fact that the President simultaneously acknowledged that "improving the energy efficiency of buildings is the cheapest means of reducing oil imports with an average cost of savings less than \$10 per barrel." Where is the sense in paying Exxon or OPEC \$30 for a barrel of oil when we can spend \$10 and not need the barrel in the first place?

In the transportation sector, untapped conservation opportunities exist on an enormous scale. Advocates of the high energy price path point to a nine percent drop in gasoline consumption last year as a victory for the price system. But it is really a failure when you consider that if the average fuel efficiency of our cars was increased by only one mile per gallon we could have cut consumption by the same nine percent, and if every car met the fuel efficiency standards for 1980 we would be saving three times that amount, and if we all drove cars achieving 25 miles per gallon, we would save six times that amount. If this were the case, we would be talking about gas gluts and not gas shortages.

But, of course, the auto industry, through its lobbying and advertising, is doing its darnedest

to keep gas guzzlers on the road. And the oil industry has been none too quick to heartily advocate fuel efficiencies that would dry up a substantial portion of the gasoline market.

In addition to increasing the fuel efficiency of our automobiles, we, as a society, can change our needs for motor transportation. We can build more mass transit so that fewer workers depend on their cars to earn their livings. We can reverse the trend toward large centralized manufacturing plants so that goods would not have to be transported over such long distances; and we can stop the haphazard growth of our cities so that we do not put people between the rock and the hard place of choosing between unaffordable housing and unaffordable transportation.

If the foregoing seems fanciful or unobtainable, it is only because our leaders refuse to think in these humane terms. The fact is these ideas are not wishful dreams--they are already being put into action where contrary forces have not overwhelmed them. Just ask the hundreds of Canadians in icy Toronto who each morning report to work at a twenty-story office building that has no conventional heating plant. Or ask Exxon. The energy conservation measures they have implemented requiring little or no capital investment, have allowed them to cut their energy consumption by 21 percent.

As the Harvard Business School discovered, we have nothing to lose from a national commitment to conservation besides our debilitating dependence on foreign oil, a dirtier environment, rampant inflation, and a weakened dollar.

A major national commitment to conservation is an important step down the right path. An equally important step is a commitment to solar and renewable energy sources. Such a commitment is a commitment not to repeat the energy policy mistakes that have created today's crisis. The sun, the wind, and the water cannot be embargoed by foreign cartels and, with a little luck, the utilities will not be able to meter them either. Whereas virtually all the side effects of our dependence on fossil fuels are malign--dirtier air and water, hazardous work places, and the like--renewable resources are benign and have positive side effects such as job creation.

Time does not permit a comprehensive presentation of the host of solar technologies or the multitude of effective policies to bring us down the solar path. Instead I would like to discuss two myths about solar energy that unfortunately have some currency today and that those opposed to the solar path are constantly raising.

The first is that solar energy is a 21st century solution awaiting substantial technological breakthrough. The Administration, in its Domestic Policy Review of solar, one of the most comprehensive studies of the subject, the Harvard Business School, the Council on Environmental Quality and others have all concluded that solar

and renewable energy sources could contribute 20-30 percent of the nation's energy needs by the year 2000. By way of comparison, coal currently meets 20 percent of our energy needs and natural gas and nuclear energy combined account for less than 30 percent. Passive solar construction and solar heating are all ideas and technologies that have existed for years. The challenges to widespread use of renewable resources are institutional, not technological.

The second myth is that solar energy is not economical. Four points need to be made in response to this myth:

1) Passive solar energy, hydroelectric power, solar water heating and some solar space heating are cost effective today by any definition.

2) Some solar technologies would be cost-effective if they were in mass production. This is particularly true for photovoltaics--solar electricity--which could compete quite effectively given the same support other emerging technologies facing high initial costs, such as computers, transistors, and integrated circuits, have received from the government.

3) The Batelle Research Institute estimates that all fuels besides solar have received over \$200 billion this century in subsidies while solar has received little more than \$1 billion.

4) Many definitions of cost effectiveness understate the true cost effectiveness of solar by not including such factors as the fact that the money saved through a solar investment is tax free, the fact that energy prices are rising and the fact that other fuels have considerable cost to society.

Together conservation and renewable resources can meet more than half our energy needs by the year 2000 if we only have the determination to make a strong commitment to take bold steps down the path we are not now taking.

So the question becomes: Why if the perils of one path are so clear and the safety of the other path is so obvious are we hell bent in the perilous path; why do we persist in this path when every possible indicator--inflation rising past 18 percent, recession, declining productivity, high unemployment, a weak dollar, 20 percent interest rates and deeper poverty--all point to the fundamental bankruptcy of this policy?

The answers to these questions are as painful as they are obvious: our leaders have betrayed us and the economic interests that stand to gain from our marching down the wrong path have achieved unprecedented and unparalleled economic and political power.

In 1976, voters had had enough of eight years of the Nixon-Ford energy path and so elected a president and a congress committed to the other course. Jimmy Carter told campaign audience after campaign audience, "I am opposed to the decontrol of oil." The Democratic platform had the notion of two paths and rejected the Republican one in favor of the humane path,

conservation, solar and renewables, and increased competition in the energy industry.

But the record of the Administration and Congress has been sorry indeed: there has been no change in the direction of U.S. energy policy. If anything, we are headed down the wrong path faster and with more determination now than we were four years ago.

The anti-decontrol President has decontrolled oil and the anti-decontrol Congress has acquiesced. The President who stated that solar energy deserves a massive federal commitment, that conservation is "our cheapest and cleanest energy source" and that the poor "must not shoulder the burdens of higher energy prices" has committed enormous resources to synthetic fuels, eviscerating the cornerstone of his own solar/conservation policy, the solar and conservation banks, and has sought to balance the budget by reducing low-income energy assistance.

And if four years ago the major oil companies feared the Carter anti-big oil, pro-competition, pro-consumer protection hardline they are laughing now as it is obvious the President and Congress are all bark and no bite.

What are we to make of an Administration that publically condemns Mobil for a poultry \$45 million in overcharges and then turns around and awards Mobil a \$154 million jet fuel contract? What are we to make of an administration that refuses to prosecute the major oil companies involved in the international Uranium cartel?

What are we to make of an administration that decides that out of the 498,249 lawyers in this country only one--an oil company lawyer--is qualified to be General Counsel of the Department of Energy? The revolving door between the oil industry and the Department swings so fast that the Department has become little more than a rung on the career ladder at Exxon.

And what are we to make of an administration that has ignored the directives of the recently passed Outer Continental Shelf Act and continues to give away public resources at bargain basement prices through a non-competitive bidding system?

At the same time that the administration's energy policy has turned its back on the American consumer, the major oil companies combine their enormous profits with their control over the lifeblood of the industrial world's economy to achieve unprecedented political and economic power.

If you are wondering where all that money you pay for a gallon of gas has been going and are slightly skeptical of nickels of profit turning into dimes of energy investments you need look no further than campaign contributions, media propaganda, and giant acquisitions.

When we buy energy we are financing the major oil

industry campaign contributions--by far the largest of any industry. One out of every \$8 a winning candidate receives comes from the energy industry. In some cases the results verge on the absurd; John Tower received a third of a million dollars from the oil industry and was joined by five other senators who each received more than \$100,000.

The results are predictable. When a strengthening amendment to the windfall profits tax was defeated by the Senate, those voting for the consumer had received on average a meager \$4,000 from the oil industry while those voting against the consumer had received more than nine times that amount.

When we buy energy we are financing the major oil company propaganda machine that churns out everything from full page ads, pseudo op-ed pieces, and television fables to classroom materials and comic books that preach the virtues of high profits and the wisdom of their path.

Oil company involvement in the media goes even further than the advertisements we see and hear. Oil company executives sit on the boards of several of the 25 largest newspapers in the country, and more than a third of these publications have directors who also sit on energy company boards. Energy executives are on the boards of two of the three major networks. ARCO has taken this idea a step further and so purchased the London Observer. The successful exploitation of the first amendment by the major oil companies to protect the false and misleading statements they make in these forums is one of the sorriest uses to which one of our most important constitutional guarantees has been put.

When we buy energy we are financing the major oil companies' control over our energy future. The major oil companies use their enormous wealth to buy up competing forms of energy. Three of the top four and seven of the top ten non-captive coal producers are controlled by oil companies. They account for more than 20 percent of all U.S. production and an even larger share of reserves--our future supply of coal. These companies stand to make enormous windfalls if we follow the wrong path. They will be the beneficiaries and not the American public, of the creation of a synthetic fuel industry.

Two companies, Gulf and Kerr-McGee, control 38 percent of the nation's uranium reserves. In all, oil companies control 53 percent of the nation's uranium milling capacity and 47 percent of reserves.

When we buy energy we are financing an economy-wide buying spree by the major oil companies. Today the major oil companies do not simply dominate other sectors of the economy, they dwarf them. By way of comparison: Exxon, Mobil and Texaco alone have more sales and assets than the collective sales and assets of the second largest 500 manufacturing firms in the United States.

Mobil's purchase of Montgomery Ward Department Store and Gulf's consideration of Ringling Brothers, Barnum and Bailey Circus have received wide public exposure and are virtually cliches. But these actions belie the ability and intent of the major oil companies to use their billions to buy out the economy. Herman Schmidt, vice-chairman of Mobil, in commenting on their acquisition of Montgomery Ward, stated that "It would have been lovely to acquire an IBM, but this will do very well." This potential for conglomeration and monopolization of the economy is not hypothetical. It is real and it is happening.

The solutions are obvious but difficult. If we do not hold our political leaders accountable, and if we do not change our tolerance for unchecked corporate power and influence in our economy and in our democracy we will be forfeiting our energy future.

If we do not, we, like Robert Frost, will find that "way leads on to way," and that by choosing the wrong path we as a society will fail, and that will make all the difference.

## NEW DIRECTIONS FOR FEDERAL CONSUMER SERVICES

David F. Peterson<sup>1</sup>  
General Services Administration

Six years ago at the American Council on Consumer Interests annual meeting in Cleveland, I had the opportunity to speak about a fledgling government information program -- designed to fulfill the unheard of task of coordinating the development and distribution of Federal consumer publications. In April, 1974, the Consumer Information Center was only three years old and our programs were unknown to many consumer educators. Since that time many millions of publications have gone out to consumers from our Pueblo, Colorado distribution center. This is due, in large part, to the efforts of ACCI members and their students, who are now active users of the Consumer Information Catalog. During this fiscal year alone Pueblo will fill consumer requests for more than 27 million publications. The Center is very grateful for your support in the past, and that's why I am particularly pleased to bring you this panel on three government-wide consumer programs within the General Services Administration that reflect changes in Federal consumer service since 1974.

Mary Arsenoff, who directs the Consumer Information Center's agency liaison program, will bring you up-to-date on the Center's programs and services for the educational community.

Don Knenlein, Coordinator of the Federal Information Center program, will give an overview of GSA's nationwide network to provide in-person or toll-free telephone information about Federal programs and activities.

Martha Girard, the "managing editor" of the Federal government's daily newspaper, the Federal Register, will highlight the various changes in the Register such as format, design, and writing style, and the new reader devices and finding aids developed to simplify using the Register.

These programs have all grown substantially over the past few years, primarily in the scope of service they offer you as professionals in consumer education and in the amount of service they provide to American consumers. They also reflect the government-wide emphasis on consumer participation in government. They are representative of new efforts to encourage consumer awareness and involvement in the day-to-day activities of Federal agencies.

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<sup>1</sup>Director of Consumer Affairs

## THE CONSUMER INFORMATION CENTER IN 1980

Mary M. Arsenoff<sup>1</sup>  
General Services Administration

### Abstract

The paper describes the Consumer Information Center's expanded services to educators and to the public. It focuses on four major areas where substantial recent growth has taken place. These areas include increased distribution of Federal consumer publications; expanded media programs; new research efforts; and improved publication development.

In preparation for today's panel I went back and re-read the speech that David F. Peterson, Director of Consumer Affairs for the General Services Administration, gave to the American Council on Consumer Interests in Cleveland in 1974, outlining the background and then current activities of the Consumer Information Center. A great deal has changed at the Center since that time and I'd like to focus briefly on four specific areas that may be of interest to you as consumer education professionals.

These areas are:

1. The overall growth in requests for Federal consumer publications;
2. The increased use of consumer-oriented news releases and on-air scripts by the media;
3. The increased use of research to identify new subjects for consumer publications and to evaluate and improve existing booklets; and
4. The expanded subject areas now covered by publications listed in the Catalog.

Before covering each of these points, let me give a brief overview of the Center.

The Consumer Information Center was established in 1970 by an Executive Order and placed administratively in the General Services Administration. Working under the policy guidance of the President's Special Assistant for Consumer Affairs, the Center has two basic missions. The first is to encourage Federal departments and agencies to develop practical, timely, readable consumer publications; to avoid duplication of effort; and to assure the availability of information on vital consumer subjects. To achieve this, the Center offers a wide range of services to Federal agencies, including pre-publication research and editorial assistance. These services are offered through the Center's network of "personal service representatives", also called Federal agency liaisons. Twelve of the Center's 19 full-time staff members serve as agency

liaisons, responsible for knowing the consumer programs of one or more Federal agencies and for advocating those agencies' publications for listing in the Consumer Information Catalog. The free, quarterly Catalog is the primary vehicle for accomplishing our second objective to raise public awareness of the existence and value of Federal consumer publications and to provide a fast, efficient distribution system.

The Catalog lists more than 200 Federal publications on a wide variety of subjects, including credit, housing, energy, health, automobiles, food, education and employment. This year 21 million Catalogs will be distributed in direct response to consumer requests and through Congressional offices, public libraries, Federal Information Centers, state and local consumer organizations, credit unions, and classrooms from elementary through post-graduate levels. More than half of the publications are free and orders are generally filled within 4 working days upon receipt by the Government Printing Office distribution facility in Pueblo, Colorado.

In addition to the Catalog, the Center promotes widespread awareness of consumer information through twice-weekly news releases to consumer writers and Action-line columnists and through monthly scripts sent to 5000 TV and radio reporters. The scripts capsule basic, useful points from a publication or highlight a current consumer issue so that consumers can be better informed without actually sending for a publication.

The Center makes a special effort to reach Spanish-speaking consumers through an annual list of Federal consumer publications in Spanish, and through news releases, scripts, and pre-recorded Spanish-language consumer features to the Spanish media.

Now back to the four areas of change.

1. There has been tremendous overall growth in the number of publications requested by consumers. In FY 1972, our first year of operation, we filled requests for 2 million publications. In fiscal year 1974 we were proud to report to you that we filled consumer orders for approximately 6 million publications. That figure has grown to a projected 27 million for this fiscal year. Consumer educators are aware that this increased demand is a reflection of greater consumer need as well as greater interest, interest often sparked by a local consumer/community education program. Consumer information and education professionals

have a lot of work to do to keep up with this demand.

2. Another change we've seen is that because of the increased availability and range of information, the media has increased coverage of consumer issues. Center scripts and news releases have been broadened in scope, to cover not only information in publications from the Catalog but also new regulations or Federal activities that affect consumers, such as:

- a. Participation in Earth Day '80;
- b. Recent changes in personal bankruptcy laws; and
- c. How to comment on proposed Federal consumer programs.

A recent survey estimates that radio stations are using Center scripts a total of approximately 320 hours each week. Our ability to reach low-income and/or nonprint-oriented consumers through the media has grown significantly in the last few years, and we must evaluate new telecommunications technologies to determine how they can best serve consumer education.

3. The third major change is in the area of research, which has grown from analyzing consumer mail in 1974 to nationwide pre-publication topic testing and follow-up publication evaluation surveys in 1980. Pre-publication topic testing is done through national surveys twice a year. A representative sample of 2500 consumers is asked to indicate their interest in ordering new publications. A summary of the results, including demographic information, is shared with the Federal agency most qualified to develop the booklet. These results are double-checked through quarterly surveys sent out with 1500 randomly selected Pueblo orders. Comparing the results of these two surveys gives us insight into the interests of consumers in general, as well as those of known Catalog users.

Publication evaluation surveys are also mailed from Pueblo along with a consumer's order. Each survey is individually designed to measure a publication's strengths and to suggest areas for improvement. These surveys frequently ask what motivated the consumer to send for a publication and whether reading the publication prompted any specific consumer action. (Additional detailed information on the Center's research efforts is contained in the 1979 ACCI proceedings.)

4. The fourth and most significant change in the Center's program has been in the actual subjects we have worked with Federal agencies to develop publications on. There has been a gradual and subtle move to include material on the longer range social and economic consequences of an individual consumer action. The basic mission of the Center is still to provide consumers useful information to improve the quality of their lives, and consumers, by and large, are still most interested in practical, do-it-yourself information that will have an immediate effect on some marketplace transaction. But, in several areas, we've tried to expand the consumer's view of that transaction. Included with how to improve individual buying skills in a fixed marketplace are questions about how what consumers buy today will affect what is offered for sale tomorrow. Let me give you a few examples from publications listed in the Catalog.

In the health area, publications on minor health problems such as the common cold and insomnia have always been popular. We now have Talking to Your Doctor About Diagnosis and getting a second opinion on surgical treatment. These publications place the responsibility for health-related decisions more directly on the consumer and suggest that the kinds and costs of health care available in the future will be directly affected by how well the consumer assumes this responsibility. In the housing area not only do we have simple home repairs, we offer a comprehensive guide to self-help projects in housing rehabilitation and community re-vitalization. In "Money Management", along with Budgeting for the Family, we include the risks and benefits of electronic funds transfers. When describing government programs and services, we continue to list Federal Benefits for Veterans and Dependents. We now also include how consumers can resolve their own consumer problems by using the Consumer Resource Handbook, and how they can get involved in Federal efforts to save endangered species and deal with the problems of hazardous waste. For children we offer ecology and conservation activities, an explanation of our food production and marketing systems, and a guide to developing critical TV viewing skills. In all of these areas children will need information if they are going to be effective advocates for change in the future.

These publications don't begin to cover all of the subjects where consumers can take assertive, socially and

economically responsible actions; but they're a beginning, and we would welcome your suggestions for more publications of this type.

I've highlighted some of the changes our program has experienced over the last several years. We are now approaching our tenth anniversary in October, 1980, and would welcome your criticisms and suggestions as to how we can better serve consumer education needs during our second decade.

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<sup>1</sup>Agency Liaison Coordinator, Consumer Information Center



## USING THE FEDERAL REGISTER

Martha Girard<sup>1</sup>  
General Services Administration

Anyone who has to cope with the complex array of Federal programs, grants, and regulations needs to understand and use the Federal Register. A working knowledge of the Federal Register and its associated publications permits all citizens to become aware of regulations that affect them and fully participate in the process which allows the voice of the public to be heard.

The Federal Register is published daily, Monday through Friday, by the Office of the Federal Register, National Archives and Records Service, General Services Administration. It was established by Congress in 1935 to inform the public about the regulations of the government's executive branch and independent regulatory agencies. Congress passed the Federal Register Act to improve communications.

The Federal Register Act (44 USC Chapter 15) established a uniform system for handling agency regulations by providing for filing of documents with the Office of the Federal Register, placement of documents on public inspection, publication of documents in the Federal Register, and permanent codification of rules in the Code of Federal Regulations (CFR). Publication in the Federal Register has certain legal effects. It provides official notice of a document's existence and contents, establishes the accuracy of the text, indicates the regulation's date of issuance, and provides prima facie evidence in a court of law.

Since the 1960's, the functions of the Federal Register have expanded because the roles of Federal agencies have become more extensive. Both the volume of regulations issued and the number of citizens who might be directly affected by a regulation have increased dramatically. Legislation has directed Federal agencies to issue regulations to achieve certain social goals such as clean air, safety in the work place, and equal employment opportunity.

These regulations require setting of detailed standards or describe specific behavior. This type of regulation is often very long, and written in complex language, and it usually has a direct affect on the consumer or the sectors being regulated. Today's consumers must cope with not only the proliferation of Government programs, but the volume of regulations which bear on those programs and the complex jargon or bureaucratese in which the regulations are written.

This brings us to the Federal Register again - it is the starting point for the information needed by those who must deal with the Federal Government. The goal of our consumer efforts is to simplify that process. As part of GSA's consumer

program, workshops are being conducted to teach the public to use the existing system of the Federal Register to gain access to the information needed, and to participate in the rulemaking process. Workshops are given in Washington to train Government employees to write regulations in plain English and consider the needs of the audience they will affect.

Several initiatives are underway to help the public gain access to the regulatory process and participate in the proceedings. Each agency is now required to publish in the Federal Register a semi-annual agenda of regulations under consideration in a 6-month period. It is both an early warning system to the affected public and an agency management tool - agency officials will hear of problems from the public before policy is firmly set. The Regulatory Calendar, published each May and November, is a comprehensive catalog of important Federal regulations under development. It is published to ensure a better coordination of the regulatory process, to help agencies achieve the goals of regulation in the most cost effective way, and to identify inconsistent or duplicative Federal, State and local regulations.

Another publication which focuses specifically on public participation is the Consumer Programs published in draft form in December as a result of Executive Order 12160. Final programs will be published in the Federal Register on June 9, 1980. In these, the agencies identify the specific resources and procedures developed to promote and support active consumer participation.

These new consumer publications are discussed in the Federal Register workshops given in Washington. Federal Register workshops are also given at universities and to interested consumer groups. For further information contact the Office of the Federal Register, Washington, DC (202) 523-5230.

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<sup>1</sup>Director of Executive Agency and Legislative Division, Office of the Federal Register

## FEDERAL INFORMATION CENTERS

Donald R. Knenlein<sup>1</sup>  
General Services Administration

### Abstract

Federal Information Centers (FIC) are a focal point in the community for information about the Federal Government. Centers assist people who have questions about Federal services, programs, and regulations, but do not know where to turn for an answer. FIC information specialists either answer an inquirer's questions directly, or perform the necessary research to locate and put the inquirer in touch with the expert best able to help.

### History

The first pilot FIC opened in Atlanta in July 1966. The purpose of the experiment was to test the feasibility of providing the public with easy access to Federal information and assistance through an efficient data and referral source, which would work in conjunction with other major Federal information services. Currently there are 41 FICs with an additional 43 cities connected to the nearest center by toll-free telephone tieline.

In January 1980, statewide '800' service was initiated by the Miami and St. Petersburg Centers, making an FIC only a toll-free telephone call away for all Florida residents. Using Florida as a model, in May and early June 1980, the Omaha, Kansas City, and St. Louis FICs began providing toll-free telephone service to residents of Nebraska and Missouri. In addition, new FICs were established in Des Moines and Topeka and offer statewide toll-free service to residents of Iowa and Kansas. In July 1980, a new center was also established in Anchorage, Alaska.

The Federal Information Center program is moving toward providing toll-free FIC service to the entire U.S. population within the next few years. About half of the nation's population now has toll-free access to an FIC. In October 1978, President Carter signed Public Law 95-491, the Federal Information Centers Act, which authorizes a permanent network of FICs. As funds become available, we plan to open new centers in the 19 states which do not now have an FIC and institute toll-free, statewide phone service to 100% of the population.

### Operations

The FIC program is not intended to discourage the public from directly approaching a Federal agency or department. Centers operate as a part of a much larger, and diversified network of information programs devoted to providing information to the public on services available to them. While

all centers develop a capacity to respond to a significant volume of inquiries related to State, local, and private services available in the community, FICs have a particular advantage and responsibility in providing detailed information on Federal activities.

FIC operational guidelines are outlined in the GSA Handbook, Federal Information Center (FIC) Operations, ADM P 1035.8, May 30, 1979. Reference copies of this handbook are available in all FICs and in Government Depository Libraries.

FICs are located near the main public areas of Federal buildings, offering high visibility and easy access for the public. The hours of operation are generally the same as those of the major Federal agencies in the area. Nationwide the program has 163 staff members. Staffing varies center to center, but the average staff complement is four. FICs located in cities that are bilingual to a significant degree generally have staff members who speak the appropriate language. Most FICs also maintain a list of local interpreters who can assist in serving foreign speaking inquirers. Seventy percent of the \$4,294,000 budget for Fiscal Year 1980 covers salaries and associated personnel costs. Another ten percent covers communications costs, with the remainder slated for resource and reference materials, supplies, training, and travel.

The number of inquiries received by the centers has increased as the number of centers and tieline cities has grown. During Fiscal Year 1979, 38 FICs answered over seven million inquiries. During the first half of Fiscal Year 1980, FICs answered nearly 4 million inquiries. Seventy-seven percent of these inquiries were by telephone with the remainder from visitors to the centers. Letter inquiries accounted for less than one percent of the total inquiry volume. Currently the centers nationwide receive about 30,000 inquiries per working day.

The range of inquiry by subject matter is broad and diverse. About ten percent of the questions pertain to state and local government or private organizations. Questions relate to all departments and agencies of the Executive Branch, as well as the Judicial and Legislative Branches of the Federal Government. To answer inquiries, FIC staff members must have extensive knowledge and comprehension of the functions, activities, organization, inter-relationships, and overlapping jurisdictions of agencies and levels of government. FIC staff members must also be able to investigate, interpret, and analyze current events, legislation, and government regulations to anticipate and respond to the information needs of the public.

The FIC data base is entirely manual and consists

<sup>1</sup>Coordinator, Federal Information Center Program

of a wide variety of resource and reference materials. The cornerstone of this data base is a functional index of the programs and areas of responsibility of all Federal, state, and local government and private agencies. The functional subjects are listed alphabetically by key words, followed by reference to the name, address, and telephone number of the local, regional, and/or national office which has the greatest knowledge about the subject. The functional index is comprehensive enough to serve as a direct referral source in some cases, but more frequently serves as a search aid for investigating lengthier, more complex inquiries.

In addition to the functional index, the FIC uses reference publications to meet the information needs of the community. The FIC Central Office supplies each center with national reference materials, brochures, fact sheets, and news releases. Each FIC obtains useful state and local government and appropriate community and private publications. FICs subscribe to at least one major newspaper and extract information useful in anticipating and answering questions. All information, regardless of the source, is verified before it is given to an inquirer.

Both the FIC managers and the Central Office staff meet with government and private organizations which share the responsibility for providing information, advice, and assistance to the public. Through personal visits and telephone contacts, they obtain information about new resources, programs, or changes in agency organization, policy or procedures, and encourage other organizations to contact the FICs when new information is received.

The FIC brochure, available in both English and Spanish, describes the program and lists the addresses and telephone numbers of the centers nationwide. Copies may be requested from any FIC or by writing the Consumer Information Center, Pueblo, Colorado 81009.

# HOME PRODUCTION AS AN ALTERNATIVE IN AN ENERGY DEFICIENT-INFLATIONARY ECONOMY

Alma J. Owen, University of Missouri-Columbia<sup>1</sup>  
Ivan F. Beutler, University of Missouri-Columbia<sup>2</sup>

## Abstract

The purpose of this paper is to examine the economic and social functions of the family and to assess how these interact with the needs and capacities of larger societal units. Emphasis is given to family resources and demands that are likely to be affected by the current problems of inflation and energy scarcity. Attention is given specifically to modification apparent in the family's use of home produced items to facilitate efficient resource allocation.

## Introduction

The family today faces a major juncture in the manner in which it will choose to satisfy its needs and wants in order to maximize consumer satisfaction. Simplistically, there are two basic approaches the family can use to meet its goals. One is to take a market intensive approach where family members develop specialized personal skills in order to maximize money income. This income can be used to purchase a substantial amount of the goods and services necessary for the family to fulfill its social and economic functions. The second approach is to adopt a more household intensive approach where fewer members specialize in market skills and labor. In this case, more time and energy are devoted to production within the home.

This paper seeks to illuminate the differences and similarities between these two approaches which, in practice, are ends of a continuum that reflect real family economic behavior. First an outline of the home production activity model is given to provide a theoretical framework in which to view family production and consumer decision-making activities. Next, using this model, we examine trends in the modern family and likely future family developments. The last section focuses on current social and economic issues that may impact on these trends and the societal and educational resources that may meliorate the impact of these issues with respect to the family.

## The Theoretical Model<sup>3</sup>

In its simplest form, the home production activity

<sup>1</sup>Research Assistant

<sup>2</sup>Assistant Professor

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<sup>3</sup>See Beutler and Owen (1980) for a more complete version of a Home Production Activity Model.

model characterizes the family as the basic decision-making unit. Its problem is to choose among competing ends in order to maximize satisfactions (or utility), subject to the limitations of scarce resources. This model has three major components. The first, the utility function, is a convenient one dimensional summary of Maslow's hierarchy of human needs (1954, Chapter 5) which categorizes the many diverse wants and needs that individuals seek to fulfill through the pursuance of economic and social activities.

These needs are met through the output of home production activities which constitute the second component of the model. Production activities are dichotomized into two major categories: market participation and home production. Home production consists of all non-market activities as distinguished from market activities which may be delegated to another worker and separated conceptually from consumption.

The household possesses both human and material resources which serve as inputs into these production activities. Human resources are measured by the quantity of time used and the level of skill and knowledge possessed by the worker. Material capital includes real and financial assets owned by the household as well as any public or semi-private goods (parks, roads, neighborhood garden plots) to which the family has access.

Outputs from the production activities are described in terms of abstract goods or characteristics. Thus, the core of the production activity model takes the form of an input (family resources) output (characteristics) model. The inputs are employed directly in home production activities or indirectly by operating through the market to obtain money or exchange goods which may then serve as inputs into home production.

There are two potential types of characteristic output from either type of activity: 1) intrinsic characteristic output; and 2) extrinsic characteristic output. An extrinsic characteristic has properties described by Lancaster (1971) as objective and universal. They represent the physical properties of a good - size, shape, color, smell, chemical composition capacity to perform certain functions and other elements relevant in choice and decision-making. Once an extrinsic characteristic is defined and objectively measured it could have universal meaning. In contrast, an intrinsic characteristic is dependent on an individual's reaction and interpretation of them. Rather than having meaning identical to all persons, it is defined and has meaning and agreement within an intimate unit such as a subculture, a family or within an individual.

Intrinsic characteristic output from the activity of employment may be of two forms which are not necessarily mutually exclusive: 1) the utility or disutility associated with that use of human time (time utility); and 2) net human capital appreciation or depreciation. Extrinsic characteristic output from employment is money income and/or physical goods for exchange.

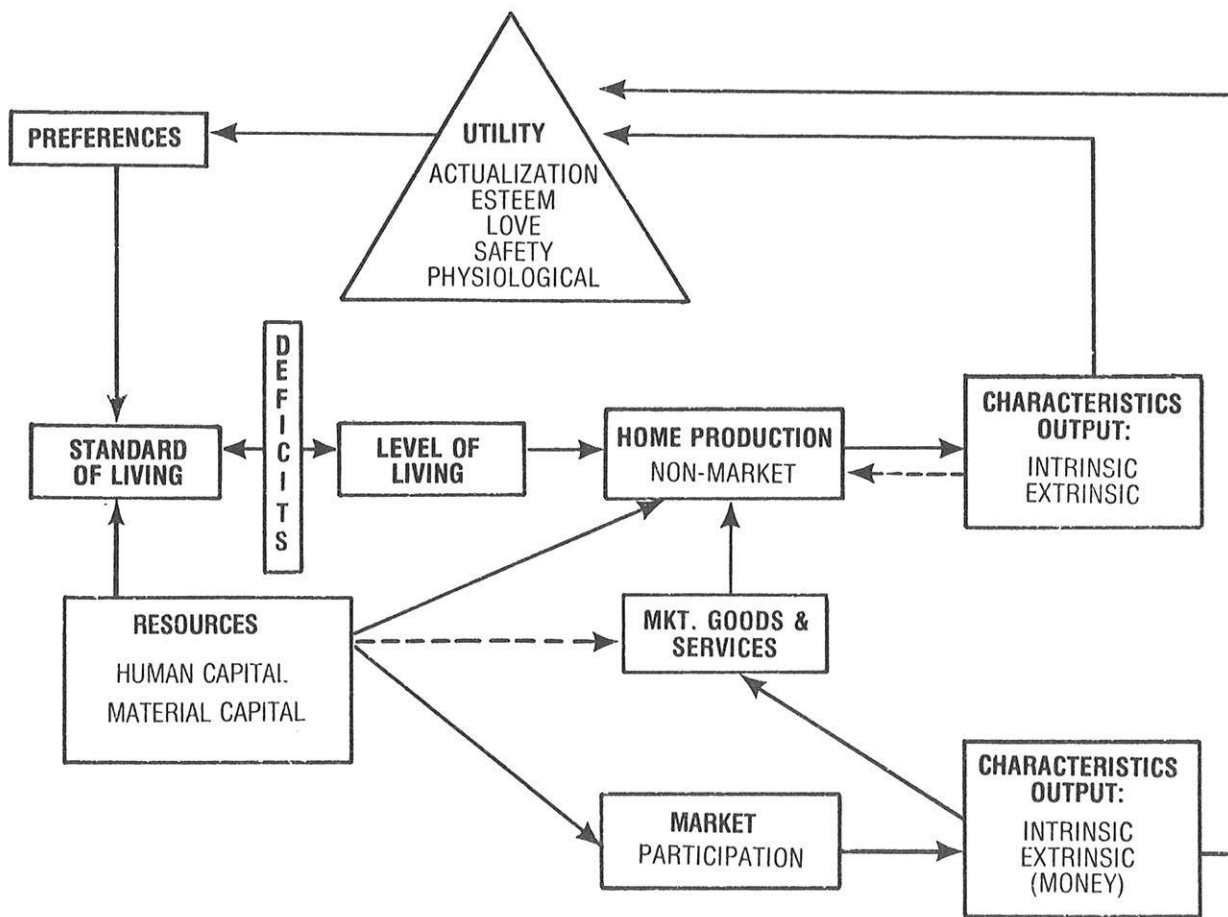
Output from home production, a non-market activity, assimilates that of labor force participation. However, intrinsic output may be expanded beyond time utility to include those characteristics which may be produced with input of market goods and human time which is non-replaceable in that a portion of the utility is derived from the significance of the relationship among those taking part in the activity as, ostensibly, producers or consumers.

The final component of the home production activity model deals with the decision of which characteristics to produce. Two fundamental aspects of reality for the family are their preferences and limited resources. Combined, these two identify the optimal combination of abstract goods or the characteristic bundle. The optimal bundle as perceived by the household is not achieved immediately;

rather the family works toward achieving it. To the household, this optimal bundle becomes the standard of living to be achieved or at least approached. Closely related to the family's standard of living is its level of living which represents the bundle of characteristics attained by the household. In the model "deficit" indicates the positive and negative differences between the characteristic dimensions of the family's standard of living and its level of living. By monitoring what it has and comparing this to an established standard, the household is represented as using a deficit approach in maximizing utility and meeting its human needs.

The entire home production activity model is shown in Figure 1. The household is represented as a primary unit engaging in productive activities. Home production results in goods and services with use value and often involves input from a family member to convey its full meaning. Goods and services from employment have exchange value which is subsequently converted (through the purchase of market goods and services and home production) into goods and services with use value.

FIGURE 1. THE HOME PRODUCTION ACTIVITY MODEL



## Trends in the Family

Sociology recognizes five major functions of the family: production, consumption, reproduction and social learning of children and the providence of emotional support for its members. However, the prominence of different functions depends on the needs of the larger society in which the family resides. With industrialization and specialization of the modern economy, production of goods and services (extrinsic characteristics) for exchange have increasingly moved from the home and its near environs to factories, offices and other places of business. So that the productive function of the family, relative to the economy, is reduced to primarily production through activities that satisfy needs not met by market channels either because the market cannot produce them efficiently, as in personal hygiene, or because the production requires an interaction of individuals associated through a personal relationship unfounded in market activity, such as, the providence of emotional support (intrinsic characteristics).

Most of the functions left to the family actually underlie the production of a most important economic commodity - labor. Consumption and the providence of emotional support, in part, serve to revitalize workers for market production; the reproduction and socialization of children provide the nation a future labor force. In addition to supplying labor, the home, through combining market goods, household technology and members time, provides the ultimate vehicle for producing the satisfaction that gives meaning to all economic activity.

Currently, the market, through both business and the public sector, is increasingly taking over functions of the family. Fast food firms are locating in neighborhoods more and openly announce their competition as the family kitchen, decreasing the family's productive role in this realm. Preschoolers spend more time and take more meals with paid educators in both public and for-profit concerns. At higher levels of education, the schools are increasingly taking over the teaching of values, work habits and life skills as parents are not available or feel unsure about adequately preparing their offspring for adulthood. This standardizing of socialization and education through ever larger government and/or business concerns results in homogeneity among citizens with possible losses of variety, ethnic culture and creativity - all of which lend a richness and diversity to every-day life as well as enhancing our pool of human skills and knowledge for solving problems.

Even the providence of emotional support - a function historically assigned to the intimate, interacting, personal environment of the family and community - is available in the market through psychological care institutions. The effectiveness and especially the efficiency of this market alternative compared to the family and its near environment would make an interesting research question. To be sure, the nuclear family has only recently become the sole source of emotional

support. In earlier times, this task was diffused among extended family members and close neighbors.

The family's final function - that of consumption - is the one most often recognized as significant and increasing in today's economy. In business economics this is the function of the household sector. As stated earlier, what the family actually does is to combine market goods with the household's technology and the time of its members in order to produce satisfaction. However, the family's productive activities are increasingly focused at the final stages of consumption, thereby obfuscating its productive role. That these final stages are production is further concealed since the output has no monetary value except indirectly as it affects the provision of labor to the market. While this indirect connection is extremely important and absolutely required for a desirable future, it has largely been ignored.

## The Trend Toward Market Participation

There are five important reasons for this trend toward increased market participation. One, the outputs from the production that comprises home activities are not well identified or documented. Most household activities, even the ones now being recognized as production - food preparation, clothing care and building maintenance and repair - are most often noted by nonperformance of the task. The loss of more subtle aspects of the relationships and activities that comprise family functions, such as socialization of children towards a life that is satisfying, personalized and productive, may not be recognized until it impacts significantly on national well-being measures, far in the future from the actual productive effort. For instance, a society may not perceive a loss in creative diversity until it has a catastrophic problem for which very limited viable alternative solutions are provided. Even then, creativity losses in the citizenry may not be recognized as a contributing factor.

Another reason for specializing in market production is that more people, especially women, are achieving higher levels of education; education that emphasizes the development of skills needed for market employment over the skills involved in home production. Recent trends in home economics towards fashion merchandising, early childhood education and institutional food processing are indicative of this phenomenon. Students are being prepared with a focus on marketable skills even in this discipline which holds the family as its focal unit. Furthermore, even the more narrowly defined discipline of family-consumer economics and home management, has shifted emphasis towards skills necessary to purchase market goods and away from how to use those goods in such a manner as to maximize over-all well-being, not just monetary welfare.

The third reason for this trend away from home production stems from the relative efficiency with which the market produces consumer goods and services. Efficient market methods have increased the wage for market labor. This wage has attracted

labor to the market and away from household production. Family size has decreased and more responsibility for the care of children, the elderly and the disabled has been transferred into the government and market sectors. This shift of employable family members' time toward more market activity has resulted in some real costs. Less time is left to supervise the home production activities of unemployable members. An outstanding feature of home production is that it can involve unemployable time, that of children, the elderly, and handicapped, in meaningful economic activity. However, with less assistance from employable family members, much of this potential is lost.

Finally, the rising expectations from the prosperity of the 1950's and 60's has helped establish a material standard of living which has been difficult for families to maintain during the last decade of inflation. The use of credit has resulted in fixed financial commitments which place increasing cash flow demands on the family. In addition, there are multibillion-dollar advertising campaigns which extol, or even fabricate, the most minute attributes of market goods and services. That the characteristics to which these products give rise are best suited for meeting only the lower level human needs is not acknowledged, but the apparent need for an ever greater money income is clearly inherent in the market message and is supplemented by the national emphasis on economic growth as measured by per capita income.

#### Current Societal Issues and Home Production

Inflation and energy concerns comprise two major economic issues facing this nation's consumers today. Both are intimately related to each other and to the dichotomy of market participation and home production. As noted above, consumer credit is a component in causing inflation and economic instability. During periods of upswing in the business cycle, consumer credit contributes to inflation, as it is used to finance and expand the purchase of goods and services. During periods of economic downswing, lenders and consumers are more cautious. Furthermore, inflation intensifies financial strains and contributes to the entrance of the next family member into the labor force in order to meet fixed financial commitments and higher material standards of the society.

However, there is an opportunity cost associated with this additional market employment which is greatest for those who were formerly fully employed at home production. This opportunity cost is indirectly reflected in that the additional wage is used to purchase more convenience foods, ready made clothing, labor saving gadgetry, and away from home meals and entertainment (Strober, 1977). The opportunity cost incurred by the family may directly include loss of intrinsic characteristics associated with home production. This direct loss is comprised of important higher order intangibles such as the conveyance of feelings of love, belongingness, and of values such as integrity, cooperation and altruism which are outputs from shared activities.

Thus, consumer credit and inflation may combine to bring about a changed life style of substantial magnitude more as a result of circumstance than of purposeful choice. With this changed life style, the family becomes more dependent upon the market place to meet its needs. With this dependency, the family is, of course, more subject to market conditions and fluctuations.

A change in education, especially in consumer economics education, is needed to help students better understand the use of time and labor in the household as a money substitute with all the advantages commensurate to saving money on market purchases. This focus would provide long run benefits by expanding both the awareness and skills of the student with respect to consumer choices that result in fixed commitments to a given lifestyle. This educational focus would most certainly benefit from an interdisciplinary approach that included the traditional fields of home economics emphasizing: 1) small technology in housing and equipment (Schumacher, 1973); 2) at-home food production and preservation; 3) clothing construction and care with the focus on conservation; and 4) child and family development education that accentuates communication and problem solving skills which do not rely so heavily upon the purchase of paid personnel or duplicate market goods to relieve family conflict. Indeed a return to some form of the extended family seems likely in light of housing costs priced out of reach for many potential new owners. This would further necessitate skills in conflict resolution.

Market production of many goods and services is energy intensive compared to home production alternatives. This is particularly the case in food production and preparation (Leach, 1976). Thus, home production provides viable alternatives in the face of current energy problems. Convenience supermarket foods entail several fossil energy intensive stages of production by way of extra packaging, storage and transportation. We are already seeing the remarkable impact of the marginal price changes in the energy intensive transportation industry; surely similar results will occur elsewhere. Given sufficient skill, there may be substantial opportunities for the household to adjust food expenditures by returning to a "supplies on hand" management approach. This would decrease the amount of prepared, prepackaged foods and trips to the market by applying techniques and recipes developed for the pre-World War II kitchen (Oddo, 1974).

Energy shortages are also likely to have dramatic impacts upon family housing. Soaring utility expenses, inflated purchase prices, and prohibitive interest rates will encourage households with greater numbers to help share the burden. This may result in a reverse in history to more extended families although unrelated persons may also group to alleviate financial strain. Larger households may provide increased opportunities for the organization and productivity in the home of those less readily employable members, such as the elderly, handicapped, and children. The increased expenses associated with travel to visit relatives living at a distance, may also necessitate more

proximity in living arrangements for maintenance of family ties.

This paper provides a framework for analyzing family decision-making within the context of the home production activity model. The model provides a means whereby the continuum of alternatives available to the family can be examined within the range from market intensive to household intensive endpoints. Using this context, we investigate recent trends in family behavior. Finally, two important issues facing the family, inflation and energy availability, have been introduced to show their impact on these trends with educational implications in Home Economics, specifically Consumer and Family Economics.

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## ELECTRICITY - USE PATTERNS OF HOUSEHOLDS

Betty Ann Barnett, University of Illinois<sup>1</sup>  
Mohamed Abdel-Ghany, University of Alabama<sup>2</sup>

### Abstract

This paper reports regressions explaining residential consumption of electricity patterns based on data supplied by 76 all-electric residential households in Madison County, Alabama. The results reveal significant responsiveness with the expected sign of electricity used in terms of kilowatt-hours to the determining variables. Implications for further research were stated.

Energy policy in the United States has been elevated to the highest level of social priority. The American energy dilemma has entered into the lives of virtually every citizen. Because of this problem, ways of living are being modified through changes in purchases, changes in daily practices, and demands on the budget to meet increased energy costs.

No segment of American society is more strongly influenced by the energy problem than the family. The household accounts for approximately 20 percent of the primary energy used in the country and is a focal point of many of the other energy expenditures of the nation (Dole, 1975).

Nationwide, electricity accounts for approximately 35 percent of all household energy, second only to natural gas (Morris, 1975). Stein (1976) reported that the American consumer indicated a positive preference for electricity as a source of energy.

Previous studies (Field, 1973; Paolucci and Hogan, 1973) have indicated the need for research in the area of energy-use patterns of the residential sector in order to determine which variables influence the use of energy.

The primary purpose of this study was to determine patterns of use of electricity by households occupying all-electric housing units. Also, it attempted to demonstrate how various social and economic characteristics of families may affect the quantity of electricity used.

### Procedure

#### Sample

Madison County, Alabama was selected for this study because of the large number of all-electric

<sup>1</sup>Family Resource Management Specialist, University of Illinois Cooperative Extension Service

<sup>2</sup>Associate Professor and Department Head, Department of Consumer Sciences

homes. Furthermore, the entire county is served by a single electric utility, Huntsville Utilities, which retails electricity generated by the Tennessee Valley Authority.

The respondents for this study were selected from the customer list of Huntsville Utilities. Prior to the selection of the respondents, a profile of the residential electricity customers was obtained for the month of September, 1978. From this information, customers were stratified into groups according to the amount of electricity used in the designated month. Nine strata were used as the base for selecting the observations in the sample. Eight strata consisted of customers divided into usage increments of 500 kilowatt-hours each. The ninth stratum consisted of customers who used over 4,000 kilowatt-hours. Using the frequency distribution of the total customers in each interval, the appropriate percentage of observations in each interval in the sample was calculated.

Microfilm slides of customers' accounts were provided by Huntsville Utilities. Participants were selected through the use of a random numbers table. Only accounts for all-electric residential customers were considered. A total of 345 names were selected, fulfilling the appropriate stratification requirements.

The 1978 Huntsville-Madison County Telephone Directory was then consulted in order to acquire phone listings for the respondents. Ninety-three of the original names were not listed in the phone directory. An attempt was made to contact each of the potential respondents to ascertain their willingness to participate in the study. One hundred, thirty-six households agreed to participate. The remaining 116 households either declined to participate or could not be reached by phone after three attempts.

#### Data

A cover letter indicating the purpose of the study was attached to a mail-out questionnaire that was mailed to the participants during the first week of December, 1978. A total of 85 questionnaires were returned. Nine of the questionnaires were incomplete.

The questionnaire consisted of three sections. The first included an appliance stock inventory. The list consisted of appliances found in most households and was designed using lists from several appliance and electrical agencies. Further questions relating to home lighting and space conditioning were also included.

<sup>3</sup>Description of the sample is reported in Barnett (1977, pp. 26-30).

In the second part of the questionnaire, respondents were asked to complete a seven-day diary. A complete appliance listing for each day of the week was included, and participants were asked to record the number of minutes each appliance was used on the particular day. Also, participants were asked to take a daily reading of their electric meter at 6:00 p.m.

The third part of the questionnaire included questions regarding household socioeconomic characteristics.

PATTERNS OF USE

Participants were asked to read their electric meters daily. The reported readings were used in determining the amount of electricity used in the seven-day period.

The number of kilowatt-hours used per appliance was calculated using the recorded time each appliance was used and the average wattage for that appliance.<sup>4</sup>

Electrical appliances were classified into groups according to their function within the household. Specific groups designated were: minor food preparation, major food preparation, food storage, laundry, entertainment, personal care, maintenance, space conditioning/environmental, lighting, and the remainder of the electricity used by the household was placed in another category which was classified as water heating (see Figure 1). The number of kilowatt-hours used per category per week was calculated.

Figure 1. Classification of Appliance Categories

- Minor Food Preparation Appliances
- Blenders
- Baby Food Warmers
- Broilers
- Can Openers
- Drip Type Coffeemakers
- Percolators
- Corn Poppers
- Crepe Makers
- Egg Cookers
- Fondues
- Food Processors
- Fry Pans
- Griddles
- Ice Cream Makers
- Juicers
- Electric Knives
- Knife Sharpeners
- Portable Mixers
- Stand Mixers
- Electric Peelers
- Slow Cookers
- Toasters
- Toaster-Ovens
- Waffle Irons
- Warmer Trays
- Woks
- Yogurt Makers

- Major Food Preparation Appliances
- Free-Standing Ranges
- Built-In Ovens
- Cooktops
- Microwave Ovens

- Food Storage Appliances
- Frostfree Refrigerators
- Frostfree Refrigerator/Freezers
- Frostfree Freezers
- Regular Refrigerators
- Regular Refrigerator/Freezers
- Regular Freezers
- Garbage Disposals
- Trash Compactors
- Dishwashers

- Laundry Appliances
- Washing Machines
- Clothes Dryers
- Irons

- Entertainment Appliances
- Black and White T.V. (tube type)
- Black and White T.V. (solid state)
- Color T.V. (tube)
- Color T.V. (solid state)
- Radios
- Stereos
- Record Players

- Personal Care Appliances
- Electric Curler Sets
- Curling Irons
- Hair Blowers
- Hair Dryers
- Lighted Mirrors
- Electric Razors
- Electric Toothbrushes

- Maintenance Appliances
- Clocks
- Electric Blankets
- Floor Scrubbers
- Floor Waxers
- Heating Pads
- Sewing Machines
- Typewriters
- Vacuum Cleaners

- Environmental Appliances
- Vaporizers
- Humidifiers
- Dehumidifiers

The respondents used an average of 504.68 kilowatt-hours of electricity for the seven-day period. The pattern of electricity consumption by appliance category is shown in Table 1.

Table 1. Weekly Electrical Consumption by Appliance Category

Category	Mean Kilowatt-hours	Percent of total
Minor Food Preparation	8.06	1.60
Major Food Preparation	48.71	9.65
Food Storage	70.87	14.04
Laundry	29.25	5.80
Entertainment	15.90	3.15
Personal Care	5.28	1.05
Maintenance	9.74	1.93
Space Conditioning/Environmental	206.62	40.94
Lighting	20.97	4.16
Other (Water Heating)	89.35	17.70
Total	504.68	100.00

<sup>4</sup>The average wattage is defined as the energy per second that the appliance uses while in operation. The average wattages of specific appliances were obtained from the following sources: (Count the Ways You Use Energy, 1978; Electric Energy Use and Costs, 1977; Energy Data for Household Appliances, 1978).

The space conditioning/environmental category was by far the largest area of residential electrical consumption with about 41 percent of the total. The collective food preparation category, which included minor and major appliances as well as all types of food storage, was next with slightly more than 25 percent of the total amount of electricity used by the households. Water heating used about 18 percent of the total electricity. Other categories in terms of descending order were laundry, lighting, entertainment, maintenance, and personal care.

#### Determinants of Residential Electricity Use

Multiple regression models were used to determine the degree to which certain factors influenced the quantity of electricity used in the home (Table 2).

The general regression model may be represented as follows:

$$Y = a + b_1x_{11} \dots + b_3x_{13} + b_4x_2 + b_5x_3 + b_6x_4 + b_7x_5 + b_8x_{61} \dots + b_{10}x_{63} \quad (1)$$

where:

Y is the weekly quantity of electricity used, a is a constant term,

$x_{11} \dots x_{13}$  is an expression for household income in the form of a dummy variable,

$x_2$  is the husband's education,

$x_3$  is the size of the household,

$x_4$  is the number of rooms in the housing unit,

$x_5$  is the appliance stock index,

$x_{61} \dots x_{63}$  represents the employment status of the wife in the form of a dummy variable, and

$b_1 \dots b_{10}$  are the regression coefficients.

#### Variables

Weekly Quantity of Electricity. The weekly quantities of electricity in terms of kilowatt-hours used by the different appliance categories as well as the total amount for all categories were treated as the dependent variables in the regression models.

Household Income. This variable was introduced as a dummy variable in the regression models. The sample was divided into three categories. Respondents who reported their annual earnings under \$15,000 composed one category. Those between \$15,000 and \$30,000 constituted the middle-income group, while those making over \$30,000 per year were grouped into a high-income category. The lowest income group was used as the omitted category in the regression model.

Previous research has indicated the positive relationship between income and the amount of energy used (Morrison and Gladhart, 1976; Newman and Day, 1976; Zuches, 1975). It was hypothesized that the sign of the coefficients of this variable would be positive.

Husband's Education. The number of years of the husband's education was introduced into the equations as a continuous variable. Due to the multicollinearity between the husband's education and the wife's education, two separate models, each including either the husband's education or the wife's education, were examined. The model including the husband's education was chosen over the other model due to its higher  $R^2$  value.

Husband's education was used in this study as a proxy for the family life style. In a study by Torres (1977), the education of the home manager was found to have no effect on the peak demand for electricity. Husband's education was expected to have no significant effect on the weekly electricity used by households.

Household Size. This variable was introduced in the regression equations as a continuous variable. Morrison and Gladhart (1976) and Hassoun (1977) indicated that larger families used more energy than smaller families. It was expected that household size would be positively associated with the quantity of electricity used in the home.

Number of Rooms. This variable was used to control for the variability regarding the size of the home. It was included in the regression models concerning lighting, space conditioning/environmental, and total electricity used in the home. It was expected that the number of rooms would be positively associated with weekly consumption of electricity.

Appliance Stock Index. The stock of household appliances has been recognized to be a determinant of residential energy consumption (Baughman and Joskow, 1975; Fisher and Kaysen, 1962; Hassoun, 1977; Newman and Day, 1976; Stein, 1976; Torres, 1977; Wilson, 1971).

In this study, the Appliance Index was devised to place appliances in direct relation to one another. The index was formulated by using the following procedure. The average wattage of the appliance requiring the greatest amount of electricity was assigned a coefficient of one. The average wattage of any other appliance was placed in proportion to the wattage of the greatest electrical user and expressed as a ratio.

Separate indices were developed for the different groups of appliances using the same procedure. The Appliance Stock Index was calculated for every household by summing up the coefficients of the appliance indices. Separate appliance stock indices for the designated appliance groups were calculated in the same manner. It was hypothesized that there would be a positive association between the appliance stock indices and the kilowatt-hours of electricity used by the households.

Employment Status of Wife. This variable was introduced in the model as a dummy variable. Three categories were used. The employed full-time and employed part-time categories were compared to the omitted category of non-employed.

Eichenberger (1975) found that electrical consumption is somewhat lower in households where the homemaker is employed. Her findings indicated that the employed group used 8 percent less electricity than households with nonemployed homemakers and those employed part-time used 6 percent less electricity than the nonemployed group. In the present study it was expected that the employed full-time category as well as the part-time category would use less electricity than the nonemployed category.

### Findings

The results of the multiple regression analyses of the data are presented in Table 2. The regression coefficients for the household income set of dummy variables indicated that the over \$30,000 income category significantly used more electricity than the lowest income category in the areas of entertainment, personal care, lighting, water heating, space conditioning/environmental, and in the total amount of electricity used in the home. The \$15,000 to \$30,000 income category, however, showed only a significant difference from the omitted category in the number of kilowatt-hours used in the area of space conditioning/environmental as well as in the total electricity used during the week.

The husband's education had a positive effect on the consumption of electricity in the areas of personal care and water heating.

The number of people in the household showed a significant effect on the amount of electricity used in the areas of major food preparation, total food use, laundry, entertainment, lighting, water heating, and the total quantity of electricity used by households.

The number of rooms in the housing unit had no significant effect on the electricity used in the studied categories of lighting, space conditioning, and total consumption of electricity.

The appliance stock index was found to have a significant effect on the amount of electricity used in connection with food storage, laundry, entertainment, personal care, maintenance, and total kilowatt-hours of electricity used in the home.

Households with homemakers who were employed full-time used less electricity than households with nonemployed homemakers in the areas of entertainment and maintenance. There were no differences in the amount of electricity used in the studied areas between households with homemakers who were employed part-time and households with nonemployed homemakers.

Due to the large number of independent variables in relation to the sample size, the adjusted  $R^2$ , rather than  $R^2$ , was used to indicate the proportion of variation in the dependent variable as explained by the independent variables taken together (Kerlinger and Pedhazur, 1973, pp. 282-83). The independent variables explained 69 percent of the variability in the total amount of electricity used by the households. The minor food preparation category had the smallest adjusted  $R^2$  of 17 percent, while laundry and space conditioning/environmental cate-

gories had an adjusted  $R^2$  of 56 percent each, the largest for the studied groups.

### Summary, Conclusions, and Implications

Knowledge regarding energy-use patterns of the residential sector is an important element of any coherent national energy program. This study was undertaken to determine patterns of use of electricity in all-electric homes. In addition, we sought to determine the effect of selected household characteristics on the use of electricity.

A seven-day diary covering all aspects of residential electricity usage was completed by 76 all-electric residential households in Madison County, Alabama.

An average of 504.68 kilowatt-hours of electricity per household was used during the seven-day study. About 41 percent of the total quantity of electricity was used for space conditioning. Slightly more than 25 percent was used for food preparation, and 18 percent was used for water heating. The foregoing discussion suggests that those areas should be considered as the prime target for electrical conservation measures taken by families.

The results of multiple regression analyses revealed significant responsiveness with the expected sign of total electricity used in terms of kilowatt-hours to the determining variables of household income, household size, and appliance stock. Husband's education as a proxy for the family life style, number of rooms in the housing unit, and the wife's employment status did not affect the total amount of electricity used in the home.

The quantity of electricity used in total food preparation was influenced by the size of the family. The number of kilowatt-hours used in the laundry was affected by the size of the family as well as the appliance stock. Electricity used for entertainment activities was associated positively with household income, size, and equipment stock, but negatively with the employment status of the wife. The quantity of electricity used in personal care was affected by household income, husband's education, and the equipment stock. Kilowatt-hours used in maintenance activities associated positively with appliance stock, but negatively with the employment status of the wife. Electricity used for lighting was affected by household income and husband's education. The amount of electricity used in water heating was significantly influenced by household income, size, and husband's education. Electricity used for space conditioning significantly varied in relation to household income.

The findings of this study clearly need to be validated by future research. Similar studies which monitor electricity consumption could prove valuable in determining how families utilize their energy resource. Ideally, longitudinal studies encompassing a period of a year would serve to better indicate true use patterns. This would enable researchers to detect variations in energy consumption at various times of the year under different household conditions.

Table 2. Estimated Regression Coefficients for Selected Household Characteristics and Electric Energy Consumption.

Variable	Regression Coefficient					
	Total Consumption	Minor Food Preparation	Major Food Preparation	Food Storage	Food Use	Laundry
Household Income	omitted	omitted	omitted	omitted	omitted	omitted
Under \$15,000	155.41**	.42	- 7.11	6.10	3.51	9.19
\$15,000 to \$30,000	269.11**	2.91	- .44	16.80	28.69	5.15
Over \$30,000						
Husband's Education	3.71	.20	.99	- .35	.57	.21
Size of Household	36.30*	.75	9.30**	2.28	12.89**	8.45**
Number of Rooms in Housing Unit	- 2.16	-----	-----	-----	-----	-----
Appliance Stock Index	62.63**	.17	6.34	36.89**	5.59	12.48*
Employment Status of Wife						
Employed Full-time	- 81.29*	- 1.45	4.17	8.86	7.23	3.24
Employed Part-time	38.32	- 1.27	- 6.94	3.12	- 6.74	1.04
Not Employed	omitted	omitted	omitted	omitted	omitted	omitted
Adjusted R <sup>2</sup>	.69**	.17*	.25**	.50**	.31**	.56**

Variable	Regression Coefficient					
	Entertainment	Personal Care	Maintenance	Lighting	Water Heating	Space Conditioning/ Environmental
Household Income	omitted	omitted	omitted	omitted	omitted	omitted
Under \$15,000	2.22	.66	.28	5.17	16.45	94.80**
\$15,000 to \$30,000	5.54*	2.97*	5.39	15.58**	39.59**	163.60**
Over \$30,000						
Husband's Education	- .22	.43**	.00	.59	3.08*	7.60
Size of Household	1.25*	.63	.34	2.85*	7.72**	10.41
Number of Rooms in Housing Unit	-----	-----	-----	- .30	-----	6.30
Appliance Stock Index	4.16**	1.24*	2.38*	-----	-----	-----
Employment Status of Wife						
Employed Full-time	- 3.80*	.57	- 4.00*	- 5.19	- 6.08	- 32.96
Employed Part-time	2.66	- 1.75	3.45	2.24	11.06	30.91
Not employed	omitted	omitted	omitted	omitted	omitted	omitted
Adjusted R <sup>2</sup>	.55*	.45**	.28**	.32**	.46**	.56**

\* Significant at .05 level

\*\* Significant at .01 level

Although this study was limited to all-electric housing units, implications for research considering different fuel types also exist. Variations among households with different energy resources would be meaningful in determining how specific sources affect consumption patterns.

The relation between household appliances and energy usage provides an additional avenue for research. The additions of special energy-saving features on household appliances should be evaluated by consumers in terms of comparing the higher initial costs versus lower operating costs.

Residential energy consumption is affiliated with many areas of society. The formulation of policy for private utilities, public utilities, and the retail energy market as a whole strongly relies on the specific use patterns of households.

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## A MODEL STATE TRUTH IN SAVINGS ACT

Richard L. D. Morse, Kansas State University<sup>1</sup>

### Abstract

Rights of consumers to facts needed for making informed choices and benefits of free market competition are enhanced if information needs are identified, concepts clarified, requisite terms clearly defined and their use mandated in all communications. A synthesis of these requirements as related to savings is embodied in the Model State Truth in Savings Act.

The Model State Truth in Savings Act (Morse, 1980, a) was developed to meet the need for legislation at the state level of government. It is an outgrowth of a series of initiatives begun at the national level over a decade ago and is now being considered by state legislators.

The Federal government has failed to take action in the area of Truth in Savings. Bills have been before the Congress since May 12, 1971, when they were simultaneously introduced in both houses of the 91st Congress by Senator Vance Hartke and Representative Dr. Bill Roy. Hartke and Roy introduced the bills in the 93rd Congress and, only at the insistence of Senator Hartke, hearings were held on S.1052 before the Senate Subcommittee on Consumer Credit chaired by Senator Proxmire. These hearings resulted in a significant document of research and testimony, but no action (Senate, 1973). Representative Leonor K. Sullivan, the heroine of Truth in Lending, introduced Truth in Savings the first day of the 94th Congress (H.R. 14).

When Representative Frank Annunzio assumed chairmanship of the House Committee with jurisdiction over these matters, he introduced H.R. 6128. However, he held no hearings and there has been no action at the Federal level to date.

The media was instrumental in bringing attention to the problems inherent in savings accounts. The 1971 Changing Times article, "Maybe We Need Truth in Savings,"<sup>2</sup> based largely on the 1970 master's thesis by Jackie Pinson,<sup>2</sup> had stimulated interest on the part of Senator Hartke's staff. Articles which appeared in Media and the Consumer,<sup>3</sup> National Observer,<sup>3</sup> Wichita Sun,<sup>3</sup> Washington Post,<sup>3</sup> Consumer Reports, and Baltimore Sun<sup>3</sup> had an accumulative effect in stimulating awareness of the complexities of simple savings accounts.

Larry Werner of the Louisville-Courier Journal,<sup>3</sup> with my consultation and assistance, initiated a

significant method of studying local savings institutions and reporting comparative earnings. This method has been repeated in Wichita,<sup>4</sup> New Orleans, Baltimore<sup>3</sup> and San Francisco (Hansher, 1979). Each discovered and reported wide variations in earnings from what would seem to be very similar savings plans. For example, the earnings for a hypothetical account with institutions in Louisville ranged from \$34.32 to \$67.15, and in Wichita from \$41.25 to \$67.30.

But the breakthrough for state legislation came as a result of a study made in Baltimore by Mark Reutter of The Sunday Sun.<sup>3</sup> He reported that the largest bank in Baltimore would have paid zero on a savings account. This front-page article "The Rules Banks Don't Like to Talk About"<sup>3</sup> was followed by an editorial "Truth in Savings"<sup>3</sup> calling for state legislation. The result was enactment in 1976 by the Maryland legislature of H.B. 807, "Interest Rate Information."<sup>3</sup> That same year California enacted a fairly comprehensive bill which became effective July, 1977.<sup>3</sup> Although neither state has implemented its legislation, they set a precedent for state legislation in an area considered appropriate only for federal action.

I drafted the Model State Act to supply answers to the growing number of requests from state legislators for assistance. They recognized the failure of the Congress to enact national legislation and failure of the Federal Reserve Board to prescribe regulations defining "unfair and deceptive acts or practices" by banks under the rule-making authority granted it under the 1975 Federal Trade Commission Improvement Act. They considered state action necessary to fill the void. The Model State Act is designed to provide the substance of Truth in Savings and yet be adaptable to state laws. The Model Act was Kansasized at the request of a state legislator and introduced in the 1979 Kansas legislature. Hearings were held, but no action taken. The most significant advancement has been in the State of New York which passed a Truth in Savings Act in response to a public outcry arising out of the discovery by a citizen who, in trying out his new pocket calculator, discovered his savings account could earn only 5.39% and not the advertised 5.47%. The bank had changed from a 360-day to a 365-day base without notifying its account holders. Although the Act uses traditional terms, the major concepts of the Model Act were incorporated in the General Regulations of the New York Banking Board, and these regulations became effective January 1, 1980.<sup>4</sup> New York now has an effective Truth in Savings Act. A section-by-section comparison of the New York regulations and the Model Act is

<sup>1</sup> Professor of Family Economics

<sup>2</sup> Reprinted in Senate, 1973.

<sup>3</sup> For full citation see House, 1979, pp. 921-6. Copies of articles are available from Department of Family Economics, Kansas State University.

<sup>4</sup> Reprinted in House, 1979.

available from this author (Morse, 1980, a). The comparison reveals limitations of the New York regulations. Yet, they represent a significant advance and reflect what can be accomplished with good leadership by a banking authority.

The Model State Truth in Savings Act addresses in a positive and corrective manner many of the deficiencies and wrongs that exist in the savings market. The Act is based on the premise that the consumer can function better if given the information needed to make informed choices and to verify the accuracy of savings account records. It is also assumed that consumers' choices and actions which are based on better quality information will be to the advantage not only of consumers, but also those savings institutions which more efficiently and effectively meet the needs of consumers.

The first portion of this paper enumerates deficiencies observed in existing savings plans which have been discovered through research and investigations. Also included are observed impediments to full and valid communication between the consumer-savers and financial institutions.

The second part of the paper focuses on the Act and its provisions for addressing in a positive and corrective manner the deficiencies enumerated. Since a copy of the full Act is available under separate cover, it is not duplicated in this presentation (Morse, 1980, b).

#### Deficiencies and Wrongs

Previous research and investigative reports indicate the following deficiencies and problem areas existing in the area of consumer savings.

1. Financial institutions make errors in computing earnings. (pp. 223-4)<sup>5</sup>
2. Savers are unable to verify the accuracy of earnings paid them. (pp. 224-5)<sup>2</sup> (pp. 963-1045)<sup>6</sup>
3. Savers do not know the terms of the contract under which they lend their money (in the form of savings accounts) to financial institutions. (pp. 963-1045)<sup>6</sup>
4. Savings institutions' personnel are not adequately informed about the institutions' methods of handling savings accounts in order to give the consumer an accurate description of the savings account. (No. 44)<sup>3</sup>
5. Financial institutions employ no fewer than 32 systems and as many as a hundred different systems for computing earnings on savings accounts. (pp. 289-402)<sup>5</sup> (pp. 963-1045)<sup>6</sup>

<sup>5</sup>Supporting statement in Senate, 1973.

<sup>6</sup>Supporting statement in House, 1979.

6. The differences in earnings between the various systems applied to active accounts result in very significant differences in earnings for the same activity pattern and the same rate. These result from account systems not disclosed to savers. (pp. 289-405)<sup>5</sup> (Nos. 1, 2, 4, 6 and 14)<sup>3</sup>
7. There is no standard rate table by which regulatory agencies measure the accuracy of tables used by financial institutions; each is free to create its own version or interpretation of what is correct. (pp. 231-2)<sup>5</sup>
8. The word "annual" is not defined. The year has been interpreted to be 360, 362, 364, 365, 366, and even 368 days, depending upon the disposition of the financial institution. (pp. 1046-1058)<sup>6</sup>
9. Institutions which compress the year into 30-day months, 90-day quarters, and 360-day years do so in the absence of any standard method for treating odd periods such as 29-day and 31-day months. Thus, one does not know how to calculate the number of days a deposit will earn (Morse, 1979). (p. 1050)<sup>6</sup>
10. Institutions which allegedly pay interest each day of a year may use a 360-day year and thereby ignore 5 days (or 6 days in leap year) without stating which days are inequitably treated and without objection by their regulatory authority (Morse, 1979). (p. 1050)<sup>6</sup>
11. Day-of-deposit to day-of-withdrawal (DD-DW) or day-in to day-out (DIDO) is not defined by the regulatory authorities, resulting in ambiguity as to which days to include and exclude in computing earnings (Morse, 1980, c).
12. Regulatory agencies do not routinely check the accuracy of earnings paid individual savings accounts. (pp. 232-233)<sup>5</sup> (p. 975)<sup>6</sup>
13. Some institutions pay on dollar balances (and not on cents), while others pay on balances of five dollars and multiples thereof, ignoring the dollars and cents within the five dollar intervals (Morse, 1980, c).
14. There is no uniformly accepted practice of carrying figures beyond the cents, nor are there procedures for rounding figures up or down or for truncating. (pp. 226 and 231)<sup>5</sup>
15. There is little or no standard terminology. There are as many as 13 different expressions of the annual percentage rate and annual percentage yield which have been identified in advertisements. (No. 107)<sup>3</sup>
16. Newspaper advertising for only 510 institutions was estimated to cost over \$40 million annually, and yet the advertisements failed to provide adequate information for the consumer to make comparative judgments on where to invest savings. (No. 106)<sup>3</sup>
17. Small advertisements have been found to be more informative than large advertisements; size of ad is not a factor in limiting information. (No. 106)<sup>3</sup>



18. The rate actually paid on savings accounts is difficult and often impossible to obtain from financial institutions. (It cannot be derived simply by dividing annual percentage rate by the number of compounding periods for a year because of ambiguity as to the meaning of annual.) (pp. 1054-1058)<sup>6</sup>

These summary statements suggest the need for change in the manner of communicating about savings accounts with consumers interested in earnings paid on their savings. Other factors may be important to the consumer in making a consumer decision, such as the office hours, convenience, personal relations with staff, loyalty, habit--none of which is addressed in this paper.

The next section of the paper discusses the Act and how it addresses the problems that have been cited.

#### The Model Act

The Act consists of 12 sections, seven of which pertain to regulation, enforcement, penalties, and applicability. For practical and political reasons the Act exempts obligations of federal, state or local government (Section 4). It concentrates administrative and regulatory functions into a single state agency, to be designated by the state (Sections 7 and 8). The state agency is given authority to write rules which both prescribe and proscribe trade practices, with the admonition that such regulations shall have the effect of standardizing and simplifying computational procedures. The rules must also meet the test of "readability and repeatability" so that the common person will be able to retrace the steps by which earnings are computed, and thereby determine whether the amount of earnings and the method of treating the earnings conform to the prescribed computational procedures. The agency's authority to proscribe will enable it to outlaw the use of language which may mislead or obscure the meaning of the required terminology. These directives are an improvement over Truth in Lending procedures. Without such controls on language used, the Federal Reserve Board and regulatory agencies governing Truth in Lending have not only permitted, but have themselves engaged in the writing of regulations which are beyond comprehension by the common person (See Proceedings of 1978 ACCI Conference for my paper, "A Decade of Truth in Lending").

The last sections of the Act (9 through 12) deal with enforcement and procedural matters, leaving to the States the option of adopting civil and/or criminal liability provisions similar to those in the Truth in Lending Act.

The substance of the Act, however, lies in the remaining five sections, particularly Sections 3, 5 and 6. But first, a word about the title, "Consumer Savings Disclosure Act" and its simpler title, "Truth in Savings Act" (Section 1). The "Truth in Savings Act" follows the patterning of the Truth in Lending Act which has as its full title the "Consumer Credit Disclosure Act" with

"Truth in Lending" as the short title. This patterning is not by accident because savings accounts are comparable to open-end credit in that neither the borrower nor the lender knows when payments will be made and balances will increase or decrease. The only difference is that the roles are reversed, with the consumer lending to the financial institution rather than borrowing. The rate imposed can be stated in advance. The revenue produced, however, is determined by the savings balances, the activity of the account, and on the method of computing the balance on which the rate is imposed. Thus, the Truth in Savings Act includes the Truth in Lending concepts of the periodic percentage rate and annual percentage rate. Since compounding is not a major element and often not permitted in lending practices, the annual percentage yield was not pertinent for Truth in Lending, but it is pertinent for Truth in Savings. These three rate concepts--periodic percentage rate, annual percentage rate, and annual percentage yield--are basic to Truth in Savings. The other essential element in figuring earnings is the method used to compute the balances eligible to earn interest. This method must be disclosed. Although the Act encourages use of the daily balance method and daily compounding, no specific method is mandated in the Act.

The Purpose of the Act (Section 2) recognizes, as does the introductory Description, the need for uniform and full disclosure of information. Information is to be made available to the consumer at three critical decision-making time periods, namely: (1) prior to opening the account, so the prospective saver can shop for and compare savings accounts; (2) when the saver becomes an account holder, so the saver will have ready access to the terms of the account and can prudently manage that account as options in the money market change; and (3) when the saver is paid earnings, so the saver can validate whether the earnings paid are in agreement with the contract terms.

The heart of the Act lies in the definition of terms and required disclosures contained in Sections 3, 5, and 6.

#### Definitions

Savers are concerned about the amount their money on deposit earns and when the earnings are payable. Words conveying this information are defined in Section 3, subsections (4) "earnings" and (5) "payable".

Two optional definitions of earnings are provided. The first excludes non-money revenue, and the other includes the money value of gifts, premiums and other non-savings related benefits. These marketing inducements are a source of much controversy, both within the industry and by the public. The optional definitions provided opportunity for public debate and for the public to resolve the issue of how to treat premiums.

The words "payable", "paid", "credited" and "post-