

A SUCCESSFUL CONSUMER EDUCATION MODEL OF INFORMAL LEARNING
DESIGNED FOR TODAY'S CHANGING ECONOMIC CLIMATE

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ABSTRACT

Informal consumer education programs have been important in reaching the vast segments of our society who do not have access to formal or traditional programs. Through these programs, consumers have obtained information that has contributed to their perceptions of more control over their lives.

In the current economic climate of block grant funding and decreasing budgets, there is a need for new models of informal education. One new model, SOS (Sharing Our Selves) Learning Networks, has proven to be a model that overcomes some of the shortcomings of other models and one that is adapted to today's economic climate. A survey of participants in the Learning Networks indicates that they feel they have more control over their lives.

Five presidents of the United States have endorsed the four basic rights of consumers initiated by the late President John F. Kennedy. President Ford added a fifth right, the Right to Consumer Education. In introducing the fifth right, President Ford stated: "The time has now come to recognize a fifth right -- one without which consumers cannot gain the full benefit of the other four. This is the right of Consumer Education" [1, p. 2].

BASIC PURPOSE OF
CONSUMER EDUCATION

The underlying purpose of consumer education is to provide to all people the information, the mechanisms and the confidence that will give them a sense of intelligent command over their consumer decisions, and that will help awaken that all-important sense of control over their individual and collective destinies. Put very succinctly, the essential goal of consumer education is to increase among people a positive measure of control over their own lives. Interestingly, we are now charged with fulfilling this mandate at a time when most individuals are being abruptly instructed in the art of creatively responding to today's changing economic climate. In a period when many people are facing economic hard times, consumer education is increasingly imperative. Yet when institutional monies are tight, and many

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of our usual channels of consumer education are being cut, what is the solution? This paper addresses these concerns by examining traditional channels of informal consumer education, pointing out their shortcomings, and then presenting an innovative, field-tested model of community learning that offers a bright hope for the future of informal consumer education.

Institutional Sources of Informal Consumer Education

There have been numerous efforts over the years to provide consumer education through informal programs. However, three institutional organizations stand out in such efforts.

Cooperative Extension Service. The first large scale effort of organized informal education began in the United States with the passage of the Smith-Lever Act, which established the Cooperative Extension Service, CES. The initial act and its eleven amendments, as well as eight additional acts, have expanded the scope of Cooperative Extension to the point that almost everyone of the 3,150 counties in the United States has an organized informal education program [4, p. 3]. These programs, which frequently involve consumer education, reach millions of people each year in large part through the efforts of volunteer groups such as the 287,000 members of the National Extension Homemakers Council [5, p. 11].

The major function of the Cooperative Extension Service was, and still is, to "help people help themselves," through instruction and practical demonstration based on research findings coming from Land Grant Universities. Despite the large numbers of individuals receiving education through Cooperative Extension, vast segments of the population are not being reached. One of the priorities listed in Extension in the 80's is that "further ways must be found to reach more people with educational programs through the Cooperative Extension Service" [4, p. 7].

Office of Consumer Education. Beginning in 1976, the Office of Consumer Education, under the U.S. Office of Education, provided limited funding for many informal and formal consumer programs. Through the budget of this federal office, funding was available for unique and innovative proposals during the first six years of its operation. Thousands of individuals participated in various educational programs designed to lead to better decision making and greater acquisition of control over one's life, which again, is the basic purpose of all consumer education.

Community Education. Through Community Education programs, consumer education is often one of many educational topics addressed. In each state, one professional educator acts as a coordinator; individual community education programs are administered through local school systems, and there can be much variation as to offerings.

Education Block Grant Program

Under the current administration, Consumer Education and Community Education program funding was folded into the education block grant program, (Education Consolidation and Improvement Act of 1981). President Reagan envisioned returning "power to the people," in order that states would have a freer hand in allocating their share of the monies [9, p. 4].

Thirty categorical programs were included in the education block grant program. Recipient groups of the different categorical programs have been generally opposed to block grants because they tended to distrust the ability of state and local groups to fairly allocate funds, and because they feared that many state and local governments would find it difficult to raise the funds that would be needed to take up the slack resulting from drastic federal budget cuts.

Results of a survey of 2,500 school districts by the American Association of School Administrators indicated that only 4.3 % of the school districts are funding consumer education programs with block grant monies. Through this survey, it was found that "As a result of local control of federal funds for education it is clear that the block grant program has created curtailment of consumer education programs" [2, p. 1]. In 1981, the National Community Education Association Executive Director stressed the importance of organizing a grass roots effort to insure funding for community education, noting that the competition for each of the dollars would be very tough [8, p. 3].

Need for Innovative Informal Educational Model

The current economic situation has, even for Cooperative Extension, meant that expansion of programs has been curtailed, and some state Cooperative Extension Services have had to operate on reduced budgets. This made it increasingly necessary to develop a new model for reaching more people with low-cost, informal educational programs.

An effective model of informal education would ideally be people-controlled, cost-free, and a total community venture. In People Power [6, p. 1] published by the Office of Consumer Affairs, it was stressed that "individuals working together can make a difference..." that "Americans possess immeasurable quantities of creativity, energy and generosity of human spirit, and those qualities are easily tapped when basic rights are threatened or fundamental needs are not being met" [6, p. 1]. The emphasis of People Power was on creatively tapping those qualities and channeling them toward a common goal. This publication brought to attention unique programs at the

community level, describing types of projects that could be considered in devising ways to cope with inflation and to bring essential services to people.

During 1979 and 1980 two of the authors of this article conducted an indepth analysis of educational programs that fell under the category of community education [7, pp. 67-68]. It was found that even though the programs were strong in many respects, there were common weaknesses across the ones reviewed. Conceivably, some of these shortcomings could be magnified today with less funding coming to community education under block grants. The weaknesses of these programs included:

- (1) The potential for co-sponsorship among various community groups and agencies was poorly realized.
- (2) There appeared to be a relatively low level of direct clientele involvement in the initial and ongoing operation of the community education programs.
- (3) The cost to the participant of a non-credit course of short duration was often sufficiently high (e.g., \$30) to prohibit or discourage participation by certain segments of the population.
- (4) The programs often appeared to be built around a newly created and costly administrative superstructure with substantial overhead.
- (5) Community education programs heavily funded by foundations or government grants sometimes cease to exist when funding is terminated.
- (6) The scope of activities falling under the banner of community education was generally somewhat limited.

The SOS Learning Networks Model

A model was developed that addressed weaknesses of community education programs/models that had been reviewed. The alternative model was the basis for a unique program, SOS (Sharing Our Selves) Learning Networks. This program has been evaluated and results have indicated that it is a successful holistic model of non-formal education, including consumer education, and a model ideally adapted to today's changing economic climate. The Learning Networks employ and extend one of the underlying principles of Extension home economics and 4-H programs, namely, "sensitively, creatively, and extensively tapping the vast talents of community volunteers" [8, p. 7]. These SOS Learning Network programs have reached out and actively involved large numbers of individuals who have had no prior connection with Cooperative Extension. They have also shared Extension-bred expertise and drawn on the wealth of often unrecognized abilities existing among the general population. They have, as suggested in People Power, drawn on those quantities of creativity, energy and generosity of human spirit in order to meet identified community needs.

The SOS Learning Networks model overcomes all the limitations of community education programs previously pinpointed: [7, p. 68].

- (1) The program is designed to strongly encourage multiple co-sponsorship and involvement by a variety of community groups and agencies.
- (2) Initial and ongoing clientele involvement is maximized by extensive volunteer participation. This is accomplished in part by relying on a representative and well-balanced local steering committee and in part by seeking out capable, non-paid, volunteer teachers.
- (3) The cost to participants is usually free. However, in some Learning Networks, a registration fee of \$5.00 may be charged to sign up for one or more sessions.
- (4) The administrative vehicle for the implementation of the model is the Cooperative Extension Service -- a well established nationwide public agency specializing in informal community education.
- (5) The pattern of funding for the Cooperative Extension Service has been well established for over 60 years and is projected to remain relatively secure. Once the program is shown to be highly beneficial, it will be integrated into Extension's ongoing programs rather than meet an untimely death due to the termination of temporary funding.
- (6) The scope of SOS Learning Networks activity exceeds that of traditional community education programs. For instance, it encourages public forums and debates on issues facing the community such as maintaining a downtown neighborhood. The model is also designed to put individuals with similar concerns in touch with each other to work together toward a common goal, e.g., the establishment of a day care center.

Description of the Program

The SOS Learning Networks operate on the premise that all individuals in a community have skills, knowledge, talents, or expertise that they can share with others. The uniqueness of the program is that the Learning Networks also provide a way for matching the talents of these individuals to the information and learning experiences that other individuals desire.

When individuals are introduced to the Learning Networks concept, they are asked to list three things they would like to study and learn more about. With this information, names, addresses, and telephone numbers are collected. They are also asked to list one or more subjects about which they know enough to share with others. Through this and other methods of assessing needs, learning-exchange possibilities are determined and accumulated.

Learning networks can be built around almost any subject of interest in the community. They can

also serve as forums for discussing issues and concerns in the community. They may facilitate activities toward cooperatives, day-care centers, programs for the elderly, etc.

Learning networks encourage multiple co-sponsorship and involvement of different community groups and agencies. Local community education programs, the Extension Homemakers Association, service groups in the community, community agencies, including libraries, YMCA/YWCA's, are logical groups/associations to be involved. In meetings with the Kentucky Department of Education's Unit Director for Community Education, he stated, "it only makes good sense for CES and Community Education to cooperate in any mutually beneficial ways possible, particularly when this enables us to bring a stronger program to the public which we serve [7, p. 72]."

METHODS

The survey was conducted by telephone for the following reasons: because of reading levels of various participants, it was decided that the response rate would be greater through a telephone survey than from a written questionnaire and because personal interview costs were prohibitive due to the geographical distribution of participants.

The statewide population of SOSLN participants at the time of the study was approximately 7,000. From registration forms, a stratified (by sex) random sample of 127 was drawn. A final sample of 101 was used. Of the 26 not included, nine participants could not be reached after ten attempts (during the day and at night); six participants had no phone or their numbers were unlisted; four individuals did not participate after other individuals registered for them; three participants' phones had been disconnected and new listings were not available; three participants had moved; and one individual hung up during the telephone interview.

RESULTS

During the planning stages of the SOS Learning Network, it was hypothesized that such a model/program would contribute to participants gaining knowledge that would enable them to make better decisions and through this knowledge have more control over their lives. Of the 101 surveys used, more than 40% of the respondents felt that they had more control over their lives as a direct result of their involvement in SOSLN programs, and none felt they had less control.

Table 1. SOSLN Participants' Perception of Change in Control over Life as a Result of Involvement in SOSLN Program (N=101).

Response	Percent
More control	42%
Same control	16%
Less control	0%
No effect	38%
Don't know	3%
Refused	1%
	100%

Participants were asked to rate overall control over their lives, including such factors as employment status. 10% indicated that they presently had less control than they had five years earlier. This figure is surprisingly low when one considers the general economic condition of Kentucky and the country in the Spring of 1982. At the time that the SOSLN survey was conducted, the Institute for Social Research reported that the "overall confidence in government economic policies to reduce inflation and unemployment" declined in the final quarter of 1982 and stood at its lowest level since President Reagan entered office.

Table 2. SOSLN Participants' Perception of Control over Life Today versus Five Years Ago (N=96).

Response	Percent
More	77%
Same	11%
Less	10%
Don't know	1%
Refused	1%
	100%

Twice each year, the Kentucky Survey Research Center polls citizens of Kentucky on a variety of issues/topics. In 1980, questions were submitted to the 666 individuals polled. When questioned about control over their lives, 26% responded that they had less control than they had five years earlier.

Table 3. Respondents' Perception of Control over Life Today versus Five Years Ago (N=636).

Response	Percent
More	45%
Same	27%
Less	26%
Don't know	1%
Refused	1%
	100%

Even more important was the fact that 77% (see Table 2) of the SOSLN participants stated that they had greater control over their lives than they had five years earlier. One possible interpretation is that SOSLN participants were not typical of the general Kentucky population. However, the demographic data did not indicate any real differences between the two groups. The real difference could be attributed to being involved in the SOSLN program or to chance.

SOS Learning Networks: Additional Indicators of Success

Enabling people to gain more control over their lives was only one of the goals of the SOSLN program. A second goal was to determine if a cost-free program run almost completely by volunteers could grow and sustain itself. The answer is still not known; however, during the past four years, the number of SOS Learning Networks has risen from one to twenty in Kentucky, and there are two programs outside Kentucky. In Kentucky alone over the past four years, more than 25,000 participants have been involved in over 1,500 courses, with many courses involving three to six consecutive sessions. The courses vary from crafts to strategies for getting legislation passed, from understanding and selecting life insurance to understanding taxes for the elderly, from family gardening to getting drunk drivers off the road. The program is also important in bringing individuals with similar concerns together to work toward a common goal, e.g., to establish a food cooperative.

Because volunteers teach the courses, participants have saved a minimum of \$375,000 since the inception of SOSLN. This figure is calculated using the very conservative figure of \$15 a course, a price less than that of similar community education programs. When administrative savings, the value of donated full-page newspaper ads publicizing course offerings, and savings from donated space for meeting places are considered, the total savings to taxpayers exceeds \$750,000.

CONCLUSION

Even with the lack of federal focus on consumer and community education, the massive cutbacks in funding, and the deficiencies of the education block grants, there yet remains the challenge and opportunity for consumer educators to develop new models such as SOS Learning Networks, which help to shift control back to the people at the local level. As we have outlined, an SOS Learning Network holds many actual and potential benefits for people in general and the consumer movement in particular. Through Learning Networks and similar efforts, a powerful constituency for consumer education can be developed from the grass roots up.

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NEW AND EMERGING TOPICS AND TECHNIQUES FOR THE
CONSUMER ECONOMICS/PERSONAL FINANCE CURRICULUM

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ABSTRACT

The constantly-changing nature of the consumer economics/personal finance curriculum is influenced by economic, legislative, and technological trends. Most secondary school teachers attempt to integrate some contemporary topics not included in textbooks. The need to continually update the content and instructional resources for consumer economics/personal finance requires a combined effort of teachers, publishers, and industry.

"The economic fact of scarcity increasingly demands that individuals become wise managers of their financial resources. In addition, the many changes taking place in financial institutions and related investment markets challenge those who wish to maximize the benefits which they can receive." [3]

Consumer economics/personal finance is a rapidly changing area. Economic conditions, legislative changes, and technological development strongly influence the content of these courses.

Volatile interest rates, record unemployment, and the uncertainty of inflation have had a major impact on personal financial decision making. These economic facts of life have created a very dynamic financial environment. Consumers can no longer be certain of fixed-rate mortgages or unlimited "free" checking.

Deregulation in the financial services industry has changed where many people do their banking. Financial supermarkets now allow one-stop shopping for credit, savings, investments, insurance, and real estate. Legislative tax reform has also influenced the types of financial vehicles receiving the attention of individuals.

The "electronic marketplace" is the third major area influencing consumer economic/personal finance courses. Personal computers, cable television, and electronic fund transfer have increased the nature and availability of financial services. This technology will be the basis for many additional subjects, most of which have not yet been created.

While textbooks provide an excellent foundation for teaching, economic, legislative, and technological developments create a need to integrate newly evolved topics. The production process of publishers is always many months, and even years, behind when it comes to the inclusion of relevant, contemporary topics. As observed by Herrmann in his secondary school consumer education textbook analysis, "Textbook writers are essentially organizers and packagers of existing material. They typically do not have time to conceptualize broad new areas..." [1]. This implies a strong need to

identify and integrate evolving topics necessary to consumer economics/personal finance students.

RESEARCH OBJECTIVES

The constantly changing nature of the consumer economics/personal finance curriculum was the basis for this research effort. Specifically, this study attempted to determine:

- (1) the curriculum patterns of consumer economics/personal finance courses in secondary schools including organization, department responsibility, grade level of students, and requirements.
- (2) the teaching emphasis of new and emerging topics for consumer economics/personal finance courses.
- (3) the frequency of use of instructional techniques by secondary school consumer economics/personal finance teachers.
- (4) the frequency of use of instructional resources by secondary school consumer economics/personal finance teachers.
- (5) recommendations regarding the implementation of new and emerging topics for consumer economics/personal finance instruction.

METHODOLOGY

The procedures of the study consisted of the following steps: (1) an identification and validation of new and emerging topics for consumer economics/personal finance; (2) preparation of the survey instrument; and (3) sample selection and administration of the instrument.

Topic Identification/Validation

The consumer economics/personal finance topics for this study were based on a review of news and personal business periodicals for the period of October, 1981 through March, 1983 (See Appendix A). Topics identified as "new and emerging" were those which had the least coverage in consumer economics/personal finance textbooks. The list developed was divided into four categories: consumer rights and responsibilities, financial planning, financial services, and financial decisions.

A jury of textbook authors (Appendix B) was asked to judge the topics which had the least textbook coverage. The finalized list was the basis for the survey instrument.

Instrument Development

A preliminary questionnaire was developed to measure the research objectives of the study. This instrument was reviewed by the education staff and members of the materials advisory board of the

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American Council of Life Insurance. Based on the suggestions of these individuals, several revisions were made to improve the clarity, format, and content of the survey instrument.

Sample Selection/Instrument Administration

The group selected for this study consisted of teachers on the mailing list of the American Council of Life Insurance. The questionnaire, along with a cover letter, was sent to 6,100 individuals representing all 50 states. A total of 1,712 questionnaires were returned; of these, 1,460 represented secondary school consumer economics/personal finance teachers. Non-usable questionnaires were the result of people who do not teach these courses or teach at the junior high school or post-secondary school levels. The following results represent respondents from 49 states.

FINDINGS

For the purpose of analysis and developing recommendations, frequency distributions and mean scores were computed. These represented curriculum patterns, teaching emphasis, and instructional technique/resource material use of secondary school consumer economics/personal finance teachers.

Curriculum Patterns

Consumer economics/personal finance is taught most frequently as a separate course (Table 1). At the same time, a comparable number of schools integrate these concepts into several courses.

TABLE 1. Curriculum Patterns for Consumer Economics/Personal Finance in Secondary Schools.

A. <u>Course Organization</u>	Number	%
Separate Course	656	45.8
Integrated in several courses	574	40.0
Other, or both of above	201	14.2
B. <u>Department Responsibility</u>		
Business Education	389	27.5
Social Studies	202	14.3
Home Economics	169	11.9
Other (Math, Voc. Educ.)	115	8.1
Several (two or more depts.)	541	38.2
C. <u>Grade Level of Students</u>		
Mainly 9th grade	51	3.6
Mainly 10th grade	119	8.5
Both 9th and 10th	88	6.3
Mainly 11th grade	75	5.3
Mainly 12th grade	259	18.4
Both 11th and 12th	563	40.1
Other (9-12; 10-12)	250	17.8
D. <u>Course Requirements</u>		
State-required course	462	33.3
School-required course	154	11.1
Elective	721	52.0
Other (county required, state recommended)	50	3.6

Most schools have two or more disciplines teaching in the consumer economic/personal finance area. Most frequently involved are the business education, social studies, and home economics

departments. Other departments involved are English, math, and vocational education.

The most frequent target audience for consumer economics/personal finance instruction is a combination of eleventh and twelfth grade students. While most schools offer instruction as an elective, others are influenced by state and local curriculum requirements. With over 30 states having a consumer economics/personal finance curriculum guideline, these courses are a common component of most secondary school programs.

Topic Emphasis of New and Emerging Content

Of the 40 topics identified as new and emerging for consumer economics/personal finance, those related to the economy currently receive the most emphasis (Table 2). These include current economic conditions, basic economic concepts, tax laws, and energy conservation which all ranked in the top 15 topics regarding teaching emphasis. The next major area of emphasis involved financial services such as service contracts, replacement cost insurance, tax preparation services, group automobile insurance, credit collection, electronic banking, adjustable life insurance, and NOW accounts.

A third major area of content emphasis includes social issues related to consumer economics/personal finance. This involves such topics as credit rights, citizen action, product liability, and privacy.

Several topics, currently receiving low instructional emphasis, will continue to be influenced by changing economic, social and technological conditions. Emerging topics for consumer economics/personal finance may include solar energy, health maintenance organizations, career retraining, home information services, and electronic shopping.

Frequency of Use of Instructional Techniques and Resources

The most frequently used teaching strategies are those with a tradition of success. These include lectures, tests, discussions, and individual assignments (Table 3). Resources developed by teachers provide the main foundation for instruction (Table 4). These are combined with published materials such as textbooks, periodicals, visual aids, and government and business publications.

RECOMMENDATIONS

Based on the statistical results and comments of respondents, the following recommendations are offered:

1. An effort to stay current is vital for consumer economics/personal finance instructional effectiveness. Awareness of changing content should be a major goal of teachers.
2. Users and suppliers of resource materials need to develop improved communication regarding the availability of current, accurate, and inexpensive teaching aids.

TABLE 2. Teaching Emphasis of New and Emerging Topics for Consumer Economics/Personal Finance

Topic	Mean*
<u>Major Coverage</u>	
Current economic conditions	2.350
Basic economic concepts	2.343
Service contracts	2.140
Replacement cost insurance	2.129
Credit rights of women & minorities	2.100
Income tax preparation services	2.078
Citizen action	2.061
Product liability	2.053
Credit collection procedures	2.000
Group automobile insurance	1.998
Two-income families	1.961
Tax law changes	1.919
Privacy rights	1.908
Electronic banking	1.899
Energy conservation	1.866
Adjustable life insurance	1.873
NOW/Super NOW accounts	1.853
Cash discounts	1.850
<u>Average Coverage</u>	
Universal life insurance	1.831
Individual retirement accounts	1.816
Creative mortgages	1.799
Bankruptcy laws	1.799
Credit scoring systems	1.794
Money market funds	1.791
Variable-rate loans	1.750
Decreased government regulation	1.742
Flat-rate income tax	1.735
Interstate, branch banking	1.698
Financial planners, advisors	1.689
Private pension plans	1.630
Tax-exempt, tax-deferred investments	1.618
New types of employee-benefit plans	1.613
<u>Low Coverage</u>	
Revision of Consumer Price Index	1.582
Solar energy	1.578
Health Maintenance Organizations (HMO)	1.538
IRS audit procedure	1.522
Advertising by professionals	1.522
Treasury bills	1.518
Buying clubs	1.507
Shared-housing arrangements	1.493
Electronic shopping at home	1.493
Legal clinics	1.468
Truncation (non-return of cancelled cks.)	1.461
Career change/retraining	1.423
Investment information newsletters	1.392
Cancer insurance	1.386
Cable t.v. financial info. service	1.329
All-purpose financial service acct.	1.322
Discount brokers	1.284
Zero-coupon bonds	1.192

 (*higher mean indicates greater teaching emphasis of the topic)

TABLE 3. Frequency of use of Instructional Techniques by Secondary School Consumer Economics/Personal Finance Teachers

Rank	Instructional Technique	Mean*
1.	Class presentations	2.760
2.	Chapter tests	2.659
3.	Unit exams	2.619
4.	Large group discussion	2.609
5.	Supervised study (in-class work)	2.345
6.	Weekly quizzes	2.282
7.	Case problems	2.243
8.	Math skill development	2.143
9.	Small group activities	2.083
10.	Individualized instruction	2.045
11.	Out-of-class assignments, projects	2.040
12.	Library research (by students)	2.006
13.	Games, simulations	1.943
14.	Written reports, research papers	1.970
15.	Oral reports	1.885
16.	Role-playing situations	1.766
17.	Field trips	1.583
18.	Computer-aided instruction	1.325
19.	Team teaching	1.263

 (*higher mean indicates more frequent use)

TABLE 4. Frequency of use of Instructional Resources by Secondary School Consumer Economics/Personal Finance Teachers

Rank	Instructional Resource	Mean*
1.	Teacher-prepared tests/quizzes	2.782
2.	Teacher-prepared handouts	2.659
3.	Textbook	2.536
4.	Magazine, newspaper articles	2.438
5.	Filmstrips	2.259
6.	Films, video tapes	2.206
7.	Government publications	2.189
8.	Industry-sponsored materials	2.122
9.	Transparencies	2.061
10.	Guest speakers	1.998
11.	Student workbooks	1.981
12.	Learning activity packages	1.942
13.	Audio-tape presentations	1.849
14.	Slide presentations	1.560
15.	Publisher-prepared tapes	1.503
16.	Computer programs	1.218

 (*higher mean indicates more frequent use)

3. Increased emphasis is needed regarding the development and use of practical learning experiences. Case problems, simulations, and surveys should receive greater use by consumer economics/personal finance teachers.
4. A growing need exists for consumer economics/personal finance software. As microcomputer use increases, more teachers will integrate the use of this instructional technique. Appropriate topics for consumer economics/personal finance programs include family budgeting, credit cost computations, home financing costs, and investment alternatives.
5. A need exists to develop instructional aids for students with special situations including those with learning disabilities, weak English skills, and low reading ability.
6. Increased interaction between educators and industry is encouraged. Practical knowledge experience can result from field trips, guest speakers, and audio-visual presentations. In addition, the development of resources needs to be a cooperative effort of business and education.

The overall effectiveness of consumer economics/personal finance education can only be the result of an on-going teacher effort. The obligation to prepare individuals for their roles as consumers, workers, and citizens is fundamental to our education system. An awareness of recent financial, economic, legislative, and technological developments combined with basic decision-making skills will create a learning environment which will be of value to students for years.

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APPENDIX A

Selected News and Personal Business Periodicals

Changing Times
Consumer Reports
Everybody's Money
Money
U.S. News and World Report
The Wall Street Journal

APPENDIX B

Topic Validation Jury

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THE DEREGULATION OF THE FINANCIAL SERVICES INDUSTRY:
IMPLICATIONS FOR CONSUMERS

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ABSTRACT

This paper discusses the deregulation of the financial services industry with particular attention to the impacts on consumers. Regulation of the price and quantity of financial services resulted in restricted geographic competition, the substitution of nonprice for price competition, and cross subsidies between consumers. Deregulation will result in a more efficient allocation of financial services resources and no increase in loan interest rates.

INTRODUCTION

Deregulation of the financial services industry, broadly defined to include banks, savings and loan associations, credit unions, stock brokerage houses and insurance agencies, has been occurring for the past six years and will likely continue. It appears that deregulation is heading to the point where any financial institution can offer any product or service at any price anywhere. This would result in an uninhibited competitive market.

The purpose of this paper is to examine the past, present, and future of regulation and deregulation in the financial services industry, taking special account of the implications for consumer welfare and consumer education.

THE PAST: REGULATION

Before deregulation can be addressed, regulation must be defined and examined. Regulation refers to the control of price or quantity, (or some combination of them) of a product or service. Generally regulation is enforced by a governmental body, but regulation by non-governmental bodies can also occur (such as the regulation of oil by the oil cartel OPEC).

Regulation of the financial services industry has been varied and extensive. Quantity restrictions were in the form of who could offer what services and products, and where those services and products could be offered. For example, banks and savings and loan associations (S&L's) could offer savings accounts and certificates but not stocks and corporate bonds. Stock brokerage houses could offer stocks and bonds but were prohibited from offering banking services. Restrictions on interstate banking and, in many states, on branch banking limited areas of geographic competition in which firms could participate.

Price regulations were also imposed on the financial services industry. The primary price regulation was interest rate ceilings imposed on investments offered by banks and S&L's. However, rate ceilings were selectively applied, being absent for large time deposits (e.g., \$100,000). The rate ceilings were backed up by portfolio restrictions which limited the investments and returns that banks and S&L's could make. A more subtle form of price regulation has been federal deposit insurance required for federally chartered banks and S&L's. Since the insurance rates are not dependent on the amount of risk taken in the institution's portfolio, federal deposit insurance has imposed a subsidy to risk-taking and a cost to risk-avoidance by federally chartered institutions.

These regulations implied market results clearly different from those which would follow from a deregulated, competitive industry. Obviously, quantity restrictions, in the form of who could offer what services and products and where, limited the range of services and products available to consumers and the geographic distribution of those services and products. Furthermore, the cost of financial services and products was likely higher as regulation inhibited competition and protected less efficient producers [4,8].

Price restrictions induced the process of disintermediation; that is, the out-flow of significant amounts of bank and S&L funds during periods when market interest rates rose substantially above interest rate ceilings. This reduced the ability of those institutions to make loans during periods of high nominal market interest rates. Portfolio restrictions inhibited the ability of institutions to alter their assets to changing economic conditions and consequently increased default risk [2,5].

Perhaps the most interesting, yet less obvious effects of regulation concerned the resulting cross-subsidies. Free checking, branches, and commercial gifts, for example, were used to attract depositors to banks and S&L's in lieu of offering market interest rates. This meant that those depositors who possessed a relative preference for interest returns subsidized those depositors who had a relative preference for free checking, gifts, and branches. Furthermore, as mentioned earlier, federal deposit insurance subsidized those banks and S&L institutions and depositors who were risk-seeking at the expense of those bank and S&L institutions and depositors who were risk averse.

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Deregulation of the financial services industry thus entails a removal of quantity and price controls, thereby allowing quantity and price of financial services to be determined by supply and demand forces. Deregulation of the financial services industry has been moving in this direction for the past five years.

The impetus for deregulation came from the persistence of high and volatile market interest rates beginning in the late 1970's. Previous to that time, when market interest rates did rise above interest ceilings imposed on banks and S&L's, it was for a relatively short period of time (e.g., 1956-57, 1959-60, 1966, 1967-70, 1973-75). Hence disintermediation was not persistent. However, in 1977 market interest rates rose above interest rate ceilings and never fell below them.² This threatened banks and S&L's with permanent disintermediation and financial insolvency.

Therefore, beginning in 1979 federal regulators began authorizing a series of new savings accounts and certificates at banks and S&L's which carried a return tied in some way to market interest rates. Minimum deposit amounts were gradually lowered to widen the market of customers for the new accounts. Interest payments were authorized for checking accounts, but at the same time, more explicit charges were placed on financial services. Correspondingly, portfolio restrictions on banks and S&L's were relaxed. The legislative authorization for these changes was given in the Depository Institutions Deregulation Act of 1980, which called for elimination of interest rate ceilings by 1986. The deregulation has proceeded ahead of schedule; by 1984 virtually all interest rate ceilings had been eliminated. In addition, some banks started discount brokerage service.

Simultaneous with the changes in the service and offerings of banks and S&L's, other segments of the financial services industry have also changed. The first major innovation was money market funds offered by brokerage houses and other financial syndicates. These funds carried relatively low minimum deposits, carried unlimited deposit and withdrawal ability, had limited checking privileges, and paid current market interest rates. Today, many brokerage houses offer all of the traditional banking services, including regular checking accounts and insured deposits (secured by private insurance). In addition, financial services have been merged with the convenience of consumer retailing with the purchase by Sears of Coldwell Bank and Dean-Witter.

²The increase in market interest rates in the late 1970's was due to the increase in inflationary expectations. The increase in inflationary expectations resulted from a monetary policy which produced rapid growth in the money supply [see 9].

Deregulation of the financial services industry will likely continue. Limitations on interstate banking will be removed. Changes will be made in federal deposit insurance to reflect the portfolio risk of the financial institution, or federal insurance will be replaced by private insurance. The remaining legal walls between banks, S&L's, brokerage houses, and other financial intermediaries will be dismantled. Furthermore, with the emergence of low cost rapid communication and data storage systems, physical contact between consumers and financial services firms will become less necessary.

This is not to say that all financial service firms will become alike. Firms in the industry will still be motivated to segment the market and specialize in particular services. Market segmentation will likely occur by income level of the customer and by type of investment.

Deregulation of the financial services industry presents many implications for consumers. By unconstraining the types of services offered and where those services are offered, deregulation should reduce the average cost to consumers of accessing a wider range of financial services and, in particular, of accessing a greater number of investment opportunities available at market interest rates. Furthermore, services and products that consumers demand will be made available.

However, the environment of deregulation and competition will mean that financial services will be priced at their marginal cost to the firm, that is, firms will have an incentive to charge customers for services used. Cross subsidies will also end, but higher interest rates on deposits will be substituted for branches and non-price competition. Economists argue that such a pricing scheme is preferable because it promotes an efficient use of resources. However, it should be noted that those consumers who, on net, benefited from the cross subsidy schemes under regulation will suffer losses in the new world of fee for service pricing.

Consumers will likely observe a smaller number of independent financial services firms under deregulation. Regulation has restricted those financial services firms which have been most efficient and has inhibited them from expanding. Deregulation will allow those firms to expand and absorb the markets of less efficient firms. Since increased efficiency reduces costs, such a trend should prove beneficial for consumers in the form of lower costs for financial services.

Two controversial points about deregulation concern its impact on loan interest rates and on the solvency of financial intermediaries. One concern is that the elimination of relatively cheap money to banks and S&L's, in particular from interest rate controlled passbook savings accounts, will mean increases in consumer loan

interest rates. This fear is most commonly expressed about mortgage interest rates, and the conclusion is that rising mortgage interest rates will result in a declining housing market. Supporters of this thesis point to the coincidental increase in mortgage interest rates with the start and progress of deregulation. The second concern is that deregulation, by exposing banks and S&L's to the competition of the market, will increase bank and S&L failures and promote bank panics reminiscent of the 1930's.

However, economic theory and empirical evidence suggest that these concerns are without foundation. The hypothesis that mortgage interest rates will rise following deregulation ignores the fact that financial institutions are profit maximizers who will strive to earn a market rate of return on their investments. Therefore, mortgage interest rates are priced to yield a market return comparable to alternative investments. The empirical evidence seems to support this conclusion. Mayer and Nathan [6] found no statistical relationship between deposit interest rates and mortgage interest rates for S&L's. Instead, Gilbert [3] found that mortgage interest rates track much more closely to the yield on long-term Treasury bonds. Furthermore, macroeconomic theory suggests that changes in mortgage interest rates are related to current and past changes in money growth and changes in real credit market forces, such as current and past changes in the federal debt/GNP ratio. The results of regressing quarterly changes in the average effective mortgage interest rate (on new houses sold) on quarterly changes in money growth and the federal debt/GNP ratio suggest that these factors can substantially account for the variation in mortgage interest rates (Table 1).

The concern about deregulation causing increased solvency problems for banks and S&L's also appears to be ill-founded. Both Benston [1] and Mingo [7] found no statistical evidence of a relationship between interest rates paid on bank demand deposits and measures of bank risk. In fact, the regulated environment created substantial risk for S&L's (in particular) during times of disintermediation. In the new deregulated environment, financial institutions will protect themselves using a combination of deposit insurance, creative financing, and hedging in the financial futures market.

IMPLICATIONS OF DEREGULATION FOR CONSUMER EDUCATORS

The trend toward deregulation in the financial services industry, as well as deregulation in the transportation, communications, and energy markets, has significant implications for what consumer educators should emphasize in their programs. Perhaps foremost, since deregulation implies expanding and constantly changing options, greater competition, but also more fees for service and explicit costs, a premium will be placed on educating consumers in how to make economic decisions rather than in describing those

TABLE 1. The Relationship Between Changes in Mortgage Interest Rates and Changes in Money Growth and Changes in Federal Debt/GNP Ratio, I, 1964 - III, 1983.

Variable	Estimate ¹	t-ratio
Constant	0.879	5.071***
$\dot{M}(0)$	-0.005	-0.868
$\dot{M}(-1)$	-0.007	-0.826
$\dot{M}(-2)$	-0.003	-0.315
$\dot{M}(-3)$	0.012	1.094
$\dot{M}(-4)$	0.025	2.135**
$\dot{M}(-5)$	0.040	3.141***
$\dot{M}(-6)$	0.051	3.780***
$\dot{M}(-7)$	0.061	4.447***
$\dot{M}(-8)$	0.071	5.027***
$\dot{M}(-9)$	0.074	5.259***
$\dot{M}(-10)$	0.085	6.340***
$\dot{M}(-11)$	0.083	6.160***
$\dot{M}(-12)$	0.079	5.532***
$\dot{M}(-13)$	0.062	4.515***
$\dot{M}(-14)$	0.037	3.075***
$\dot{M}(-15)$	0.015	1.994*
DEBT(0)	-0.007	-2.823***
DEBT(-1)	-0.004	-1.357
DEBT(-2)	-0.006	-2.135**
DEBT(-3)	-0.002	-0.691
DEBT(-4)	0.005	1.594
DEBT(-5)	0.007	2.570**

$R^2 = .779$

¹ Corrected for first-order autocorrelation.
 $\dot{M}(i)$ = percentage change in unseasonally adjusted M1 between quarter i and previous quarter.
 DEBT (i) = percentage change in publicly held federal debt/GNP ratio between quarter i and previous quarter

Dependent variable: percentage change in average effective mortgage interest rate on new houses sold.

*** significant at the .01 level

** significant at the .05 level

* significant at the .10 level

decisions and the institutions in which they take place. That is, consumer educators should place emphasis on educating consumers about models which can be used to evaluate decisions and the information needed to implement those models.

In the case of financial market decisions in the new deregulated environment, this education should include the following aspects:

1. The investment decision is a multi-faceted decision. The consumer should consider not only rate of return, but also minimum required deposit, riskiness of the investment (both in terms of default risk--the risk of losing the principal--and rate risk--the risk that the investor will not earn a market rate of return), liquidity, and tax considerations. Each consumer will apply a different personal weight of importance to these factors, hence given the same choices, different consumers can arrive at different optimal decisions.

2. Risk preference is a major consideration in investment decisions. At a minimum the consumer should consider default risk and rate risk. Procedures for assessing and measuring risk should be presented.
3. A major tradeoff exists between risk and rate of return. The choice of a risk-return combination will be affected by the consumer's preferences.
4. Investment decisions obviously involve costs and returns over time, hence the time value of money must be considered in making investment decisions.
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Finally, in the new environment of deregulation and competition, consumers should be taught an appreciation for the complexity and dynamics of economic markets. Competition implies that firms and entrepreneurs will be constantly acquiring and assessing new information and developing new products and options in an effort to improve, at least in the short run, their competitive position. This means that competitive markets will rarely stand still. New products and options will constantly be appearing for the consumer to evaluate. Furthermore, failures are a natural result of competition. Mistakes in judgment will be made, forecasts will be inaccurate, and firms will fail and investments will be lost. However, since it is prohibitively costly to gather and assess all information necessary to make a decision, consumer investment decisions (and all other decisions) will always be made with some element of risk and uncertainty.

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INTEREST RATE DISCLOSURES UNDER DEREGULATION

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ABSTRACT

Deregulation of financial institutions has stimulated not only rate competition but a confusing array of savings instruments. There is growing awareness of the need for standardization of terminology so consumers can shop more intelligently and effectively in the bank marketplace. When cents per \$100 per day was proposed as a solution, critics expressed the opinion that such an unconventional rate form would be difficult to interpret and would not add significantly to consumer understanding of the savings market. This research reports the results from 20 states² of over 2,000 responses to alternate rate forms. It measures whether the cents per \$100 per day form of disclosure, as recommended in the Universal Standard for Interest Rate Disclosure, enables consumers to make interest calculations and compare interest rates with greater accuracy and certainty than conventional percentage rates. The results show conclusively that consumers can interpret and apply correctly rates expressed in the unconventional cents per \$100 per day form.

Deregulation of interest rates has had a significant impact on consumers. It has brought them relief from having their choices limited to artificially depressed and regulated rates. It has given consumers access to non-regulated rates reflecting money market conditions. Yet with the deregulation of rates has come a myriad of rates and rate forms resulting in much confusion.

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²The author is grateful to the faculty and their student participants for these data. They are listed in order of states: Dr. Mohamed Abdel-Ghany, U of AL; Dr. Mary Dee Dickerson and Prof. Carol Robasciotti, San Diego State U, CA; Prof. Mary L. Carksy, U of CN; Dr. Carole J. Makela, CO State U; Dr. Hayden Green, Oak Park High School, IL; Prof. Ellen Samuelson, Bethel Col., KS; Prof. Ann Hoyt, KS State U; Prof. Renee Schreckengost, Hood Col., MD; Dr. Edward J. Metzzen, U of MO; Prof. Sheran Cramer, U of NE - Omaha; Prof. Tammy Hinkle, U of NE - Lincoln; Dr. E. M. Dolan, U of NH; Dr. Daniel McGowan, Hobart Col., NY; Dr. Loren Geistfeld, OH State U; Prof. Arlene Holyoak, OR State U; Sandy Gresham, Georgetown, SC; Prof. Cynthia Sencindiver, U of TN; Jean Coupe, Richardson, TX; Prof. Jean M. Lown, UT State U; Dr. Robert Mayer, U of UT; Dr. E. Thomas Garmen, VPI, VA; Dr. Nancy Miller, U of WI.

Along with deregulation of rates there has also been deregulation of other aspects of the financial markets. Consumers are being offered new savings options from differently structured and non-customary sources. Retail chains have entered the savings market. Banks are offering security trading services. Money market funds provide checking services, as do savings and loan associations. Subsidiaries of bank holding companies are engaged in non-banking functions, retaining or shielding identification with their parent bank or bank holding company. The advent of these changes was discussed in another paper [6].

A major consequence of deregulation from the consumer-savers' perspective is a shift from placing reliance on the savings institution itself (and its stylized, regulated format) to a more careful scrutiny of the savings instruments themselves. The need to apply the basic criteria of safety, liquidity and rate of return when evaluating savings opportunities has become even more pertinent. But because savings insured to \$100,000 is so widespread and early withdrawal penalties fairly well standardized, the major differences are the rates of return. These rates, however, are often confusing and difficult to compare directly and interpret correctly.

Deregulation has given rise to renewed demands for Truth in Savings [8, 9, 10]. It also leads to an even more important question: "Can the format for disclosing rates be standardized so different rates are directly comparable and can be used to calculate and verify amounts of interest?"

In a previous paper, the author showed why there can be as many as 7.8 million different ways of figuring interest at the same quoted rate [7]. He has proposed adoption of a single rate: a Universal Standard for Interest Rate Disclosure (USIRD). And Mrs. Virginia Knauer, as Special Assistant to the President for Consumer Affairs, submitted this single rate form, which is basic to the proposed USIRD, to the heads of the major regulatory agencies for criticism [5]. The agencies did not find the concept technically flawed, but did react differently as to its feasibility. The Comptroller of The Currency was complimentary and supportive:

"Professor Morse's proposal is technically sound and readily understandable. Quoting interest earnings per day per \$100 of initial earnings avoids the difficulties in comparing interest rate quotes." [2]

However, The Federal Deposit Insurance Corporation expressed apprehension, raising a basic question of fact as to whether this new rate form would be in the consumers' interest:

"Couching interest on deposits in terms of cents earned per \$100 of deposit per day (assuming daily compounding) is unconventional and, therefore, it would be difficult for some to interpret....I do not believe it would add significantly to consumer understanding of the savings market." [3]

A similar concern was raised by Senior Vice President Wilbur T. Billington of the Federal Reserve Bank of Kansas City:

"The first is whether the cents per \$100 concept deviates so substantially from standard terms, i.e., interest rate and annual yield, that consumers will reject the concept as being just another confusing term." [4]

The need to resolve these doubts or assertions about the merits of cents per \$100 per day form of rate disclosure is the basis for this research.

PURPOSE

The purpose of this paper is to report the results of a test designed to determine whether consumers, presented with alternative rate information, make correct choices more frequently and with greater certainty if those rates are presented in traditional terms or in the proposed USIRD format of Cents per \$100 per Day. A second part of the test concerned ability to calculate the amount of interest from information given in a traditional format and in the Cents per \$100 per Day format.

TEST DESIGN

A test instrument was designed which could be administered in less than 15 minutes to captive groups of consumers, would challenge but not embarrass the subjects, would provide the subject a "face-saving" out for giving answers about which they might feel uncertain, and would include in the test the major parameters: rate, yield, day-base and compound frequency. See Appendix A for a copy of the test as administered.

The two parts of the test represent the needs of consumers: (1) to make valid comparisons and (2) to calculate amounts of interest.

A target rate of 8% was selected, around which various possible variations and combinations were developed and then selected to compose an instrument meeting the stated criteria.

The body of facts upon which rests the validity of the test scoring are:

- * 7.75% on a 360-day basis has a $\text{¢}/\$100/\text{day}$ rate of 2.15¢ which compounded daily for 365 days yields 8.17% (and 8.06% on a 365-day basis).
- * 8% on a 365-day basis has a $\text{¢}/\$100/\text{day}$ rate of 2.19¢ which compounded daily for 365 days yields 8.33%.
- * 8% on a 360-day basis has a $\text{¢}/\$100/\text{day}$ rate of 2.22¢ which compounded daily for 365 days yields 8.45%.
- * 8.1% on a 365-day basis would generate essentially the same yield (8.45%) as 8% on a 365-day basis.
- * 8% on a 360-day basis has a monthly rate of .6759% which compounded monthly for a full 365-day year yields 8.42%.
- * 5 1/2% per year is approximately .015% per day or 1.5¢ per \$100 per day.

Comparisons Test

Rate expressions. One aspect was to determine whether consumers could discern, identify and interpret correctly different expressions of rates. The actual questions used are presented in Table 1 arranged in the order of correct responses.

One of the basic rates traditionally used is the nominal annual rate, such as the Annual Percentage Rate, used under Truth in Lending. In New York State it is called "Annual Interest Rate", but elsewhere as many as 28 different names have been identified in use [1]. The other basic rate traditionally used is frequently called the "effective annual yield" because it reflects the effects of compounding in the yield generated over a year's time. It, too, has been identified under as many as 28 different names [1].

Two questions pertained to rate expressions: one compared 7 3/4% as a nominal rate with an 8% yield which is less than the yield from 7 3/4% daily compounded (Question 1). The other compared two rate expressions which could produce the same yield but are stated differently as 8.1% and 8.0% (Question 7).

Compounding and day-base. Another aspect was to determine whether consumers could identify and interpret correctly day-base, compounding frequency, and the combinations of these.

Although there are as many as 7 different day bases in use, the two most commonly used are 360 and 365, with the 360 giving the higher yield over a full 365-day year (Question 2). And, the more frequent the compounding, the higher the yield (Question 3). But it is not unusual for the consumer to be faced with a decision such as whether the gain from a 360-day base is greater

than the loss from monthly (over daily) compounding, which it is (Question 7).

Cents per \$100 per Day. The objective of the test was to determine not only whether consumers could identify and interpret correctly the non-traditional Cents per \$100 per Day rate form of expression, but whether they would do so with greater confidence. Thus, the traditional rates used in other questions were restated in Cents per \$100 per Day (2.15¢ for 7.75%/360; 2.19¢ for 8%/365; and 2.22¢ for 8%/360) and paired (Questions 4 and 5).

Computations Test

The second part of the instrument was designed to test whether the subjects were able to calculate amounts of interest with greater accuracy and certainty if the information supplied used conventional percentage rates or the unconventional Cents per \$100 per Day rate form. A wide array of multiple choice answers relieved stress on arithmetical accuracy and focused on conceptual understanding.

Conventional Percentages. The steps required to calculate an amount of (simple) interest involves: (1) dividing the percentages by 100 to put them into decimals, (2) dividing the annual rate by the number of periods in a year (or 360 if that is the year-day-base), and (3) multiplying the principal amount on deposit for the period by the periodic rate. The problems presented were simplified by using \$100 as the principal amount, and by using short 2-day and 30-day periods, leaving the conversion of the annual rate to periodic rate as the critical problem. And even this computation problem was eased somewhat since the daily rate of 5 1/2% per annum is roughly 1.5¢ per \$100. Thus, the correct answers to Questions 9, 10 and 11 of 3¢ for 2 days and 45¢ for 30 days were simple to obtain if the subject was able to convert the traditionally quoted annual percentage rate to the common sense, but unconventional daily rate of Cents per \$100 per Day.

The steps required to estimate the amount of (simple) interest from a Cents/\$100/Day rate form are absurdly simple: multiply the daily rate by the number of days and hundreds of dollars. To complicate the problem somewhat, the principal amount was changed from \$100, so Question #11 required recognition of how to handle multiple 100s. And Question #12 required recognition of not only how to handle multiple days but of the effect of compounding. The correct answer is "More than \$6". (The exact answer would require an inexpensive financial calculator or a Morse Daily Rate Table.)

Results

The test was administered initially to a class of 102 upper class students, approximately two-thirds of whom had had college algebra or higher math. None had any advance class preparation regarding interest rate calculations and computations. The

unconventional form of expressing interest rates in Cents per \$100 per Day was new to them.

The results were so conclusive that further proof of the validity of the Cents per \$100 per Day format seemed unnecessary. Nevertheless, the credibility of the results required evidence from more than one local test.

A decision was made to broaden the base and obtain evidence from as many sources as possible at little or no cost. The availability of the test was announced widely and a personal invitation was extended to faculty members who had attended the national symposium "Consumer Science in Institutions of Higher Education" and expressed interest and willingness to share in such research studies. Invitations were also extended to others whom the author had reason to believe would cooperate. The author agreed to supply a copy of "Check Your Interest" to those taking the test (with postage paid by the recipient's institution), and to prepare a print-out and summary of the results for the teacher. The teacher agreed to administer the test with no advance instruction to the students. No other sampling design was involved nor desired because estimates of variance were unknown, and the 96% correct responses from the initial group on the critical question suggested little gain in statistical estimates from a large sample.

The strategy to obtain test results from as many subjects as possible during the winter of 1983 resulted in 2,019 usable tests from 37 groups in 20 states. The groups ranged in size from 10 to 418 and although the average size was 55, only 3 were larger than 100.

Data for each group were summarized and reported in the form of "percent correct" and "certainty score". The danger of expressing percentages for small groups is recognized, yet the responses were relatively uniform. The certainty score was arrived at by multiplying the certainty level (1 to 5) for each question by the correct (+) or incorrect (-) response, summed, and averaged. Although the highest possible score ranged from +5 to -5, the average scores from the 2,019 tests ranged from +4.2 to -3.1 for the 12 questions.

Statistical Significance.

The standard error of estimate of a sample percent varies inversely with the square root of the sample size and with the probability level, that is, $\sqrt{pq/n}$ where p = the percent correct and q = the percent incorrect. For p = 50% the standard error of estimate is the square root of (50)(50) divided by the sample size, that is, 5% if n = 102 (the initial group), 1.9% if n = 683 (the lo-math student), 1.4% if n = 1316 (the hi-math student), and 1.1% if n = 2019 (the total). And for p = 95%, the standard errors of estimate are 2.2%, .8%, .6%, and .5%, respectively. There is approximately a 19 in 20 chance that a sample percent will fall within the limits of 1.96 times the standard error above or below the population with a different percent (p). So a sample

percent outside these limits suggests the sample came from a population with a different percent (p), and would be declared significantly different at the 5% level. All questions were different with the exceptions of questions 4 and 5 which dealt with the same concept as did questions 8, 9 and 10.

The standard error of estimate for the difference between two independent sample percents is less than the sum of their standard errors, and is expressed by the formula:

$$\sqrt{\frac{p_1q_1}{n_1} + \frac{p_2q_2}{n_2}} \quad (1)$$

If the difference in percents is greater than 1.96 the standard error, the difference between the population percents ($p_1 - p_2$) is significant at the 5% level. This procedure was used to test for differences in percents correct between the initial 102 and the total 2019 students and between those with Lo and Hi math experiences.

Comparison Questions

The two Cents/\$100/Day form of rate quotations were correctly identified (96%-97%) with high certainty (+4.0 and 4.1). These are the highest test scores in Table 1.

The advantage of daily over monthly compounding was correctly identified by 88% and with a certainty score of +3.3.

The only other positive identification merely reflected the arbitrary decision of the researcher to give a positive sign to the 8.1% quotation which was not necessarily any more correct than the 8% quotation. The positive answer reflects the appeal of the higher rate, but the lower certainty score of +1.91 reflects the "not sure" position of the respondents.

All other questions received less than chance (50/50) choices and negative certainty scores. That is, they did not recognize that the lower nominal rate could be superior to the higher yield rate; that a 360-day base was preferable to a 365-day base; and that monthly compounding of a 360-day base rate is preferable to daily compounding of that same rate on a 365-day base.

Those with college algebra or higher math tended to score a statistically significant higher percentage correct and express greater certainty with their answers, but in the opinion of this author, not sufficiently to warrant a claim that higher math need be a requirement to correctly identify and interpret rates, especially if expressed in the superior form of Cents per \$100 per Day.

Table 1. Comparison of paired interest rate quotations

No.	Question "I prefer to save where I get..."	Answer	All (n=2019)		Lo Math (n=683)		Hi Math (n=1316)	
			Percent Correct	Certainty Score	Percent Correct	Certainty Score	Percent Correct	Certainty Score
4	2.19¢ per \$100 per day	-	97.1%	4.1	96%	3.9	98%*	4.2
	2.22¢ per \$100 per day	+						
5	2.15¢ per \$100 per day	-	96.4%	4.0	95%	3.8	97%	4.1
	2.22¢ per \$100 per day	+						
3	8% compounded monthly, 365-day base	-	87.7%	3.3	84%	2.8	90%*	3.6
	8% compounded daily, 365-day base	+						
7	8.1% annual interest rate, daily compounded	+	75.3%	1.9	74%	1.8	76%*	2.0
	8.0% annual percentage rate, daily compounded	-						
1	7 3/4% interest rate 8% yield	+	44.1%	-0.7	50%	-0.3	41%*	-0.9
		-						
2	8% on a 360-day basis	+	42.5%	-0.5	35%	-1.1	47%*	-0.2
	8% on a 365-day basis	-						
6	8% compounded daily on a 365-day basis	-	14.8%	-2.9	18%	-2.5	13%*	-3.1
	8% compounded monthly on a 360-day basis	+						

*Difference between the Lo and Hi Math percents correct are significant at the 5% level.

One of the highest groups in ability to identify correctly the rate expressed in Cents per \$100 per Day were two groups of high school students, 46 of whom the instructor has classified as below average and the other 34 as above average in ability. The percent correct for the two groups was 100% and 100% on question #4, and 95% and 100%, respectively, on question #5. These results are comparable to those of two groups of graduate students in marketing.

The results of the original 102 students (not shown in Table 1) are essentially similar to those from the 2019 students. The percents correct for the seven questions listed in Table 1 are 96% vs. 97%, 96% vs. 96%, 95% vs. 88%, 74% vs. 75%, 53% vs. 44%, 43% vs. 43%, 14% vs. 15%, respectively. The only difference in percentages which approached the 5% level of significance is question 3. Thus it may be concluded that the original sample of 102 Kansas students was not biased.

Computation Questions

The amount of interest was most frequently answered correctly (86%) with the rate expressed in Cents per \$100 per Day and with the highest degree of certainty (+3.1), as in question 11. However, when the rate was presented in the traditional Annual Percentage Rate format as in questions 8, 9 and 10, less than one-third identified the

right answer. This is low if one considers that with five choices, 20% would have chosen the right answer by chance. Their uncertainty is reflected in the low negative scores.

They did equally poorly on question 12 which required not only adjusting the answer to question 11 for the 100 days, but also recognizing the effect of compounding. However, if both "\$6" and "more than \$6" are accepted as correct, the percentage increases to 61% and the certainty score is a positive 1.2. The allowance of two of five answers as correct raises the chance selection to 40%. On the other hand, some allowance should be made for this being the last of what may have been considered a long set of tricky questions.

The results of the original 102 subjects (not shown in Table 2) are comparable to those of the 2019 subjects as shown in the percent correct figures in the order listed in Table 2: 92% vs. 86%, 68% vs. 61%, 21% vs. 28%, 25% vs. 25%, 28% vs. 29% and 30% vs. 31% respectively. No differences were significant at the 5% level.

CONCLUSIONS AND RECOMMENDATIONS

Interest rates presented in the non-traditional form of Cents per \$100 per Day enabled consumers to make almost perfectly valid choices with the

Table 2. Calculation of the amount of interest

No.	Question	Correct Answer	All (n=2019)		Low Math (n=683)		Hi Math (n=1316)	
			Percent Correct	Certainty Score	Percent Correct	Certainty Score	Percent Correct	Certainty Score
11	If interest were paid at the rate of 3¢ per \$100 per day and compounded daily, how much interest would \$200 earn in 1 day? [1¢, 3¢, 4¢, 5¢, 6¢]	6¢	86.1%	3.1	81%	2.7	88%*	3.3
12	In the problem above, how much would be earned in 100 days? [Less than \$3, \$3, More than \$3 but less than \$6, \$6, More than \$6]	\$6+ >\$6	61% 28.4%	1.2 -1.2	56% 24%	0.8 -1.5	64%* 31%*	1.5 -1.1
8	You have a NOW checking account that pays interest each day at an annual rate of 5 1/2%. If you add \$100 to your account 2 days before the end of the month, when they post the amount of interest for the month, how much interest will this extra \$100 for 2 days add to the total interest? [1¢, 3¢, 5¢, 5 1/2¢, 10¢]	3¢	25.4%	-1.1	19%	-1.5	29%*	-0.9
10	And if this \$100 were withdrawn before the last two days of the month, how much interest would not be paid for those two days? [1¢, 3¢, 5¢, 5 1/2¢, 10¢]	3¢	29.5%	-0.7	26%	-1.0	31%*	-0.6
9	If this \$100 had been deposited the first of the month so that it earned interest the full 30 days, how much would it have earned? [5¢, 15¢, 30¢, 45¢, 60¢]	45¢	31.2%	-0.6	25%	-1.0	34%*	-0.4

*Difference between Lo and Hi Math percents correct are significant at the 5% level.

highest degree of certainty.

Interest rates presented in the traditional form of percentages and customary usages of various day bases and compounding methods were less useful, functionally, in enabling consumers to make choices correctly and with certainty.

These results are based on tests administered to 2,019 students in 20 states with a variety of backgrounds and experiences, but probably few had had much previous need to interpret and compare interest rates so were relatively unsophisticated in finance.

A smaller number of subjects would have produced similar conclusions, but the mass of evidence from so many states and classroom conditions should eliminate concerns that the data reflect a regional or parochial view.

It is recommended, however, that this or a similar test be administered using a target rate closer to current market rates of interest, and that populations other than classroom students be used, such as, persons in senior centers, industrial plants, extension homemakers, prisoners, military personnel, or randomly selected populations of consumers at large. Also the test might be graded to determine how the distribution in percent correct varies with student level to determine at what grade level the Cents per \$100 per Day can be introduced successfully in teaching about interest and whether teaching about interest rates need be introduced any later in the curriculum than when concepts such as cents per gallon are taught.

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POSTSCRIPT

This is the fourth in a series of papers on interest rate disclosures. The early pursuit of a truthful mode of expressing interest rates was traced in the 1978 Proceedings, "A Decade of Truth in Lending". The major achievement of Truth in Lending was proving that a simple rate could be computed and quoted. Nevertheless, many state laws and college textbooks retain vestiges of former ways of computing interest: Rule of 78's, add-ons, discounts, constant and direct ratio methods which are inconsistent with the simple actuarial APR method of Truth in Lending.

The history of Truth in Savings and the rationale for "A Model State Act" on which the 1979 New York State Act is based, is in the 1980 Proceedings. And in the 1983 Proceedings the general case for a simple daily rate for both consumer credit and consumer savings in the form of Cents per \$100 per Day is proposed as "A Universal Standard for Interest Rate Disclosures".

References cited in these papers, especially the voluminous attachments published along with testimony printed in the hearings before Congressional committees, constitute the major source of published research.

We need your help to determine which ways of expressing interest rates are most useful and correctly interpreted. We ask your cooperation. This test will in no way affect your course grade!

Please write in your student number and fill in the bubbles. Circle the better answer and also circle the number to indicate how certain you feel about your answer. Transfer your answers to the IBM card.

Question (Circle)		Certainty (Circle)				
		Not Sure			Very Sure	
Student name _____ Student number _____						
1.	a. I prefer to save where I get 7 3/4% interest rate b. I prefer to save where I get 8% yield	1	2	3	4	5
2.	a. I prefer to save where I get 8% on a 360-day basis b. I prefer to save where I get 8% on a 365-day basis	1	2	3	4	5
3.	a. I prefer to save where I get 8% compounded monthly, 365-day basis b. I prefer to save where I get 8% compounded daily, 365-day basis	1	2	3	4	5
4.	a. I prefer to save where I get 2.19¢ per \$100 per day b. I prefer to save where I get 2.22¢ per \$100 per day	1	2	3	4	5
5.	a. I prefer to save where I get 2.15¢ per \$100 per day b. I prefer to save where I get 2.19¢ per \$100 per day	1	2	3	4	5
6.	a. I prefer to save where I get 8% compounded daily on a 365-day basis b. I prefer to save where I get 3% compounded monthly on a 360-day basis	1	2	3	4	5
7.	a. I prefer to save where I get 8.1% annual interest rate, daily compounding b. I prefer to save where I get 8.0% annual percentage rate, " "	1	2	3	4	5
8.	You have a NOW checking account that pays interest each day at an annual rate of 5 1/2%. If you add \$100 to your account 2 days before the end of the month, when they post the amount of interest for the month, <u>how much interest will this extra \$100 for 2 days add to the total interest?</u> Circle: a. 1¢ b. 3¢ c. 5¢ d. 5 1/2¢ e. 10¢	1	2	3	4	5
9.	If this \$100 had been deposited the first day of the month so that it earned interest the full 30 days, how much would it have earned? Circle: a. 5¢ b. 15¢ c. 30¢ d. 45¢ e. 60¢	1	2	3	4	5
10.	And if this \$100 were withdrawn before the last two days of the month, how much interest would not be paid for those two days? Circle: a. 1¢ b. 3¢ c. 5¢ d. 5 1/2¢ e. 10¢	1	2	3	4	5
11.	If interest were paid at the rate of 3¢ per \$100 per day and compounded daily, how much interest would \$200 earn in 1 day? Circle: a. 1¢ b. 3¢ c. 4¢ d. 5¢ e. 6¢	1	2	3	4	5
12.	In the problem above, how much would be earned in 100 days? Circle: a. Less than \$3 b. \$3 c. Less than \$6 d. \$6 e. More than \$6 but more than \$3	1	2	3	4	5
Highest level math course taken:						
a. algebra b. geometry c. trig d. college algebra e. calculus						
Have you had statistics? a. yes b. no						

FINANCIAL INSTITUTION SAVERS: WHERE AND HOW MUCH DO THEY SAVE?

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ABSTRACT

Passbooks savers were more likely to be affiliated with a bank than with a savings and loan (S&L). However, consumers were more likely to use S&L's for all other types of savings accounts and to maintain higher balances in all types of savings accounts, including passbooks, at a S&L. There were demographic differences between the banks and the S&L only savers. Banks tended to attract consumers who were younger, with more education, employed in white collar occupations, and with lower household incomes.

The desire to make provision for the future, to lay by something for a 'rainy day', quickens and takes concrete form when a specific opportunity for investment or a well divided insurance scheme is presented to the family. (9, p. 255)

One of the primary ways families achieve their financial goals and reduce the risk of having inadequate resources to meet financial emergencies is through saving current income (5, p. 47).

Consumers have an increasing array of savings methods to defer current income for a 'rainy day.' Financial institutions (FI's) largely due to deregulation and non-FI competitors, are offering a much expanded array of savings accounts. Savers can still put their money in traditional passbook accounts, but FI's have expanded the types of certificates of deposits (CD's) available. For a period of time in 1982, consumers had a choice of seven different types of CD's. The main differences between them were related to the maturity date and the minimum balance required to open one. (The maturity of the certificates were seven day, three month, six month, all savers-one year, small savers -2.5 years, 3.5 years and 4 to 8 years. The minimum deposits ranged from 1 to 20,000 dollars.)

Given this expanded array of methods to save current income, it would be interesting to know which types of account savers are using and the balances they maintain in their accounts. In a review of articles on consumer saving, it appears most deal with consumers' overall saving behavior

and not the specific savings product used to accomplish their objectives. For example, there are a number of articles on why households save or do not save (1, 2, 4, 7, 8, 11). Hefferan (5, 6) has looked at household savings behavior. However, her articles focused on dollar allocations between financial and tangible assets and between various types of financial assets but not on the savings in specific types of deposit accounts.

There is also a dearth of information on whether savers prefer banks or savings loans (S&L's) for their savings accounts. One might expect if consumers follow economic precepts they would prefer S&L's. The reason being that on the older

types of savings accounts, passbook and six month certificates they enjoyed a one-quarter period interest advantage over banks. On the other hand when consumers were asked why they chose a particular FI, the predominate answer was convenient location or convenient services. (13) Given that until January 1980, outside of the New England area, banks could offer checking account but S&L's could not, banks because of their greater convenience may have been the preferred location for savings along with checking accounts. Finally, consumers may have pursued a dual institution strategy. They could have kept their highly liquid accounts at a bank, because of its service convenience, and they could maintain their less liquid, higher balance accounts at an S&L to obtain the highest return. With accounts where the two types of FI's paid the same interest rate like all saver's and individual retirement accounts (IRS's) consumers may have used criteria other than services offered or yield to chose the FI. Thus with the equal yielding accounts, given equal locational distribution in a geographic market and marketing abilities, account holders should be about equally split between banks and S&L's.

There may be differences in the types of accounts held and the balances maintained in them at the two different types of FI's. If this is the case some of the differences may be explained if the two types of FI's attract a demographically different customer. There again appears to be little research on this point. Most of the articles in scholarly journals dwell on attitudinal and not demographic differences. (3, 10, 12)

Finally how extensive is the use of savings accounts at credit unions (CU's). It is widely believed that CU depositors maintain accounts at this FI as an access to low cost loans. If this is the case it might be expected that fewer consumers will have accounts at the CU and CU depositors will have fewer types of accounts and lower account balances at CU's.

In summary this paper will discuss 1) consumer holdings of various types of savings accounts, 2) the balances in these accounts, 3) the location of these accounts, and 4) the demographic profile of bank and thrift savers.

METHODOLOGY

A study was conducted in Milwaukee, Wisconsin the first week of November 1982. Data were collected via a pre-tested mail questionnaire. A telephone street address directory was the sample frame. A random, proportionately stratified sample was used with the strata being the city and suburbs of the Milwaukee Standard Metropolitan Statistical Area (SMSA). The proportions were based on the suburbs' and city's share of the total SMSA's population.

Seven hundred and forty-eight questionnaires were mailed out and 42 percent (312) of these were returned and usable. Although there were no significant differences (.1 or less) between the male and female respondents' ages when compared to the SMSA 1980 census demographics, the respondents did have significantly (.000 level) higher incomes. This difference between the respondents and the SMSA's population means that the results do not reflect the account holding behavior of the total SMSA. However, the results may be an approximate representation of the SMSA population that holds CD's. The reason is that the short term CD's required a large minimum deposit and while the longer term CD's required a large minimum deposit and while the longer term CD's required lower balances they were an illiquid form of savings. In either case, high balance or long term CD's, there new savings accounts would generally appeal to the higher income saver. Thus the results are probably representative of CD savers but not of all savers or all consumers in the SMSA.

RESULTS

Virtually all of the respondents (99 percent) had some type of savings account. Sixty-two percent of the savers had an account at a bank, while 53 percent had accounts at savings and loans (S&L's) (Table 1). Also, a third of the respondents had accounts at credit unions and nearly a quarter had savings in a money market mutual fund.

Account Ownership and Multiple Institutions Usage

The passbook account was the most widely held savings instrument. Eighty-seven percent of the respondents had passbooks (Table 1). None of the other nine types of savings accounts considered in this study were anywhere near this widely held. Individual retirement accounts were the next most frequently used accounts; but only 24 percent of the respondents had funds placed in

TABLE 1: Incidence of Savings Account Ownership and Multiple Institution Use

	Respondents Who Have the Account (n = 308)		Percent of Respondents Who Have the Account at One or More Institutions		
	Count	Percentage	1	2	3
Passbook	269	87	55%	35	10
Individual Retirement Account	75	24	95%	5	-
Six Month Money Market Certificate	53	17	83%	17	-
Small Saver's Certificate	49	16	96%	4	-
All Saver's Certificate	34	11	97%	3	-
Four to Eight Year Certificate	15	5	93%	7	-
Three Month Money Market Certificate	8	3	100%	-	-
Repurchase Agreement	7	2	86%(6) ¹	14(1)	-
Three and half year Certificate	6	2	83%(5)	17(1)	-
Seven Day Certificate	1	.3	100%	-	-

¹Number of respondents.

IRA's. Six month and small saver's certificates were used by a little over 15 percent of the respondents. Eleven percent of the participants said they held all savers' certificates. Albeit this holding rate may be understated since this survey was conducted in early November 1982 and most of these certificates were issued in October of 1981 and matured a year later in October 1983 a month before this survey. Finally, all the other types of certificates were used by 5 percent or fewer respondents.

Interestingly, it was fairly common for respondents to have passbook accounts at more than one type of institution. Forty-five percent of the respondents reported having this account at two or three types of institutions (Table 1). This multiple institution usage was a typical for all of the other types of savings vehicles. For example, seventeen percent of the six month certificate holders had their accounts at more than one type of institution. If the low usage accounts are not considered, for all the other time deposit accounts over 90 percent of the account holders used only one institutional type for a specific account.

Place Where Accounts Were Held and Account Balances

Banks, as compared to S&L's, had a larger market share of account holders for only one type of account. Forty-two percent of the passbook accounts held by respondents were at banks (Table 2), S&L's had 35 percent, and credit unions had 23 percent of the accounts. When only considering banks and S&L's, banks held 54 percent of the accounts. For the other three frequently

⁴Other consist of IRA's at credit unions, brokerage houses, mutual funds, insurance companies and employer sponsored plans.

⁵Credit Unions account for a six percent or less share of this and the remaining types of accounts.

TABLE 2: Types of Savings Accounts and Account Balances By Type of Financial Institution

	Savings & Loan	Bank	Credit Union	Money Market Fund
A. Percentage of respondents who had any type of savings account at each type of institution (n = 308) ¹	53%	62%	34%	23%
B. Passbook Account (n = 426) ¹				
Share of all accounts	35%(46%) ²	42%(54%)	23%	
Deposit Balances ³				
\$1-499	19%	31%	45%	
500-999	15	15	11	
1000-4999	36	33	34	
5000 & over	30	21	10	
	100	100	100	
Median	\$2,781	\$1,474	\$700	
C. Individual Retirement Account (n=79)				Other ⁴
Share of all accounts	47%(70%) ²	20%(30%)	33%	
Deposit Balances ³				
\$1-999	16%	31%	11%	
1000-1999	19	13	27	
2000-3999	30	31	31	
4000 & over	35	25	31	
	100	100	100	
Median	\$2,500	\$2,200	\$2,375	
D. Six Month Money Market Certificate (n = 59)				
Share of all accounts	73%	27%	— ⁵	
Deposit Balances ³				
\$10,000-14,999	42%	44%		
\$15,000-25,999	19	37		
\$25,000 & over	39	19		
	100	100		
Median	\$19,375	\$16,666		
E. Small Savers Certificate (n = 51)		S&L	Bank	
Share of all accounts		67%	33%	
Deposit balances				
\$500-999		12%	12%	
1,000-4,999		38	41	
5,000-9,999		12	29	
10,000 and over		38	18	
		100	100	
Median		\$5,000	\$4,714	
F. All Savers Certificate (n = 35)				
Share of all accounts		59%	41%	
Deposit balances				
\$ 1-4,999		40%	43%	
5,000-9,999		20%	36	
10,000-14,999		25	7	
15,000 and over		15	14	
		100	100	
Median		\$7,500	\$6,000	

¹This number represents the total number of all passbook accounts held by the respondents. Since some respondents held this account at more than one institution, the number of accounts is greater than the number of savers listed in Part A.

²This percentage represents the share savings & loans (S&L's) have of only those accounts held at S&L's or banks.

³Based on a two group chi-square analysis, there were significant differences at the .05 or greater level for all but one of the two group comparisons. The differences in the IRA account balance distributions of S&L's compared to other organizations were only significant at the .14 level.

held accounts; IRA's, six month certificates, and small savers certificates; S&L's had upwards of a 70 percent market share. Only with all savers' certificates did the share approach a fifty-fifty split. Credit Unions were generally not used for savings accounts other than passbooks accounts. Just, as S&L's had the higher number of accounts they also had the highest account balances. For example, 30 percent of the S&L's passbook holders had balances of 5,000 dollars or more, while 21 percent of banks savers had balances at this level. Conversely, 31 percent of bank passbook accounts had balances of less than 500 dollars, but only 10 percent of the S&L's accounts were at this level. The situation was much the same for IRA's. Thirty-five percent of the S&L's IRA's had balances of 4,000 dollars or more, while banks had 25 percent of their depositors at this level. But, nearly a third of the bank IRA holders had balances less than 1,000 dollars as compared to 16 percent for S&L savers. This situation continues for the other major certificate accounts. Savings and loans had nearly 40 percent of their holders in the highest brackets, while banks had around 20 percent of their savers at the highest levels. Not only did CU savers tend to have only one type of account at this FI, the savers also maintained low account balances. The median CU passbook balances was 50 percent lower than the bank median and only one-quarter of the S&L's median balance.

Ownership of Various Financial Assets

Shares of common stock and United states savings bonds were held by somewhat more than 25 percent of the respondents. Money market mutual funds and employee savings plans were used by slightly less than a quarter of the survey participants. All the other financial assets listed in Table 3, common stock, mutual funds, treasury bills, other types of debt instruments, funds and speculative contracts were held by less than 10 percent of the respondents. When looking at respondents who either had savings accounts at a bank or at a S&L (respondents who had savings at both institutions were not part of the analysis) the rankings change and the percentage ownership of the most widely held financial assets changes. The two most important financial assets for bank savers were common stocks and United States savings bonds; 32 percent held each type of asset. For S&L savers the most important asset was money

TABLE 3: Incidence of Ownership of Various Financial Assets: All Respondents and by Place Respondents Had a Savings Account

Count Percentage	ALL RESPONDENTS (n=302)		BANK SAVERS (n=167) ¹		SAVINGS & LOAN SAVERS (n=72) ¹	
	Count	Percentage	Count	Percentage	Count	Percentage
Shares of Common Stock	93	(30)	32	(32)	17	(24)
United States Savings Bonds	86	(28)	33	(32)	15	(21)
Money Market Mutual Fund Shares	72	(23)	19	(19)	22	(31)
Employer Savings Plan	65	(21)	27	(27)	15	(21)
Common Stock Mutual Fund Shares	26	(8)	5	(5)	9	(12)
Corporate Bonds	12	(4)	4	(4)	5	(7)
Bond Mutual Fund Shares	8	(3)	1	(1)	4	(6)
Tax Exempt Bonds	7	(2)	1	(1)	3	(4)
Tax Exempt Mutual Fund Shares	5	(2)	1	(1)	0	(0)
United States Notes	4	(1)	2	(2)	2	(3)
Options/Futures Contracts	2	(.6)	1	(.5)	0	(0)

¹ Respondents who had savings accounts at both a bank and S&L were dropped from this analysis. Respondents who had savings accounts at either a bank or at a S&L were included in this table.

market mutual fund shares (31 percent holding). Only one-quarter of the S&L savers had common stock and one in five held savings bonds. Employer savings plans were used by over a quarter of the bank savers while 21 percent of the S&L savers used this method of saving/investment. Generally, all the other financial assets listed in Table 3 were relatively unimportant to both types of FI savers.

Demographic Comparison of Bank and S&L Savers

Given that there were differences in the account holding behavior of savings and loan and bank savers, a demographic comparison of these two groups was conducted. The comparisons in Table 4 contain those who have a savings account either at a bank or at a S&L. Respondents who had accounts at both types of FI's were deleted from the analysis. When looking at occupation, the

TABLE 4: Demographic Comparison of Bank Versus S&L Savings Account Holders¹

A. Occupation:	Male		Female	
	Bank (n=72)	S&L (n=60)	Bank (n=90)	S&L (n=63)
Blue Collar	10	17	29	38
Manager/Administrator/Clerical	37	20	18	13
Technical/Professional	—	—	26	25
Homemaker	14	25	17	11
Retired	9	11	6	5
Other/Student/Unemployed	100	100	100	100
	x ² = 22.098 significance = .000		x ² = 10.5 significance = .062	
B. Education:				
High school graduate or less	32%	47%	42%	49%
Some college	33	32	26	23
College graduate	24	8	25	19
Graduate education	11	13	7	9
	100	100	100	100
	x ² = 18.09 significance = .000		x ² = 3.52 significance = .318	
C. Age:				
18-34	43%	19%	41%	25%
35-44	22	25	19	30
45-54	8	21	10	11
55-64	13	21	11	24
65 and over	14	14	19	10
	100	100	100	100
	x ² = 39.85 significance = .000		x ² = 32.339 significance = .000	

D. Household Income:	Bank (n=102)	S&L (n=72)
Less than \$15,000	27%	17%
\$15,000-19,999	14	18
\$20,000-24,999	10	16
\$25,000-34,999	30	21
\$35,000 and over	19	28
	100	100
	x ² = 15.41 significance = .004	

¹ Respondents who had savings accounts at both a bank and S&L were deleted from this analysis. Respondents who had a savings account at either a bank or at a S&L were included in this table.

bank saver as contrasted to the S&L saver was more likely to be in white collar occupations. Men were in the technical/professional group and women in the manager/administrator/clerical group. Male S&L savers were more likely to be retired. However, this was not the case with retired women savers with banks having a higher percentage of this group.

For female savers there were no significant differences (.3 level) in the education distribution. But, there were significant differences (.000 level) for men. Generally, S&L's had a higher percentage of high school graduates than banks. Meanwhile, banks had more college graduates than S&L's. However, both FI's attracted almost equal percentages of post-graduate educated savers.

Banks generally attracted the younger male saver, while S&L's attracted the older saver. However, a close look at the age breakdown is necessary. Banks had over twice as many savers as S&L's (43 versus 19 percent) in the 18-34 year old age group. The two FI's were nearly equal in attracting 35-44 year olds. Then, S&L's had more men in the 45 to 54 and 55 to 65 groupings than banks. Finally, the two FI's had exactly the same percentage of 65 and over male respondents.

The age comparison for women is similar except for the fact that banks had more women over 65 (17 versus 10 percent).

The differences between the household incomes of the two FI savers are interesting and consistent with the previous demographic findings. Savings and loan account holders were more likely to have the lower incomes. This may be partially explained by the S&L's larger number of retired savers. Banks had more savers in the next bracket of \$15,000 to \$19,999. This may be related to banks having more depositors in the 18 to 34 age group. The next highest income group for \$20,000-24,999 was more likely to be at a S&L. This may be due to the S&L's higher share of the middle wage manager and clerical occupational group. Banks had nearly twice as many savers (40 versus 21 percent) in the next bracket, \$25,000-34,999. This may reflect bank's ability to attract the younger technical/professionally employed savers. Finally, S&L's had a slight edge in the over \$35,000 group. This may be a reflection of the S&L's older 45 to 64 year old higher wage customer.

DISCUSSION

The widespread use of the passbook account is not surprising given the length of time it has been available and its high liquidity. What is interesting is that IRA's were the second most widely held account. IRA's do have low minimum balance requirements and can be opened with as little as one dollar although most FI's encourage an initial investment of higher amounts. But the account is highly illiquid, at least it is if the saver does not want to incur a penalty for early withdrawal. Perhaps the reason for its widespread use were, 1) extensive promotion of the account by FI's, 2) consumer worries about retirement income, and 3) a general desire for tax avoidance and deferral. This study also supports the view of an economically motivated consumer. Respondents opened more accounts and had higher balances at the FI that paid the highest savings return.

When looking at financial asset holdings of bank savers there appears to be a bimodal split between risk takers and averters. Bank as compared S&L savers had a higher ownership rate of common stock. But, they also had a higher investment rate in U.S. savings bonds and lower participation in money market mutual funds. It appears that the thrift savers' primary goal was to maximize their interest income since nearly a third held money market mutual fund shares. However, they appear to be much more of a saver and less an investor since they were less likely to be owners of common stock. Perhaps some of the reason for the differences in bank and S&L depositors savings accounts, account balances, and financial assets holdings may be due to the demographic differences between the two types of FI savers.

Savings and loan customers may have more types of accounts with large balances simply because they were older and in their highest earning and thus financial and savings asset accumulation years. With nearly half of their customers in the empty nest stage of the life cycle, no children at home but still working, the S&L's have a person who is at their peak in earning power and an individual who is saving for the future.

Banks on the other hand, had nearly one-half of their savers in the durable goods acquisition stage of the life cycle. These people are at best small savers or more likely dissavers through the use of credit.

The historic one-quarter point interest differential favoring S&L's would be important to the larger balance saver. Thus, this may partially explain why the S&L had the older saver. However, as this differential is eliminated on new savings products banks may retain their current younger customers as they move from credit use to saving.

The educational and occupational characteristics of the two types of FI depositors may partially explain the differences in common stock ownership. Banks attracted the white collar, college educated worker. This person is probably more likely to hold common stock as contrasted to the blue collar worker with a lower level of education.

Finally in the studied geographic area credit unions appear to be a minor factor in the savings market. A third of the respondents had passbook accounts at CU's, but this type of account tended to be the only savings account and the balances maintained in these accounts were much lower than at the other two types of FI's.

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