

A COMPETENCY-BASED MODEL FOR CONSUMER EDUCATION

Discussant: Fred E. Waddell, Ph.D.

Dr. Mayer has made an important contribution to the field of consumer education with his conceptualization of a competency-based model for consumer education (CBCE). I hope that this discussion of his paper will lead to further clarification and refinements of his promising CBCE.

First, as much attention has been given lately to competency-based education, it is important to understand just what is meant by a "competency." The California Adult Competency Survey (CACS) drew a highly significant distinction between a "competency" and a "functional competency" (California, 1979). They define a competency as "an attribute (e.g., skill, item of knowledge, attitude) of an individual that has the potential of meeting one or more needs of that person." However, a functional competency is "one which actually serves a need of a person with particular characteristics (gender, age, ethnic group, etc.) in a particular set of circumstances. This is a crucial distinction with important implications for "competency-based consumer education." Thus, functional competency-based education would be one where both instructor and learner together decide upon which particular competencies, from a long list of possible competencies, are important to meet the needs and wants of that learner within a particular set of circumstances. This crucial distinction in the concept of a "functional competency" is consistent with and has numerous advantages for Dr. Mayer's CBCE model. For example, it would help ensure that any subsequent pursuit of a competency is needed and wanted by that learner, and thus generate a greater sense of commitment to the attainment of a given competency.

Next, we should examine just what competency-based education is. Theoretically, when the concept was initially described years ago, it was conceived of only as an "outcome"--the attainment of certain competencies. Dr. Mayer rather regards it as a "process" or "delivery system."

Particularly significant in Dr. Mayer's model is his comment that at the end of instruction, the learner has acquired the ability to do something. "It is the specification of the behaviors to be acquired.... Tasks are stated at the action or application level, rather than lower levels demanding only the possession and/or comprehension of information." A very important aspect of his CBCE model is the use of criterion-referenced tests of the mastery of a given competency relative to a certain performance level, rather than a norm-referenced test of a given competency relative to the performance level of other students. Much of the current research on effectiveness of consumer education and consumer competency (including some of the studies he cites in his review of literature) have inappropriately been based upon such norm-referenced tests of knowledge or comprehension rather than upon application.

However, missing from his model and important to any complete "delivery system" is just how the consumer behavior is to be acquired. He states, "...actual classroom operation and interaction with students is very similar to what instructors are normally accustomed to in individualized instruction. Students are administered a pre-test and if already competent, he/she proceeds to the next performance objective and its pre-test." On the other hand, he states that subcompetencies are not measurable in most cases in a school setting, which is inconsistent with this prior statement. This latter statement is quite true--particularly as his objective is to produce and measure behavioral change and the application of consumer skills. These objectives will likely not be accomplished in the "similar classroom operation and interaction" which he indicates. To produce any behavioral change (which occurs far more slowly than does the mere assimilation of information) actual classroom operation and interaction will have to be considerably different than the usual information assimilation method of lecture and discussion which typifies consumer courses today. The latter approach has been documented as ineffective when measured by less stringent norm-referenced tests of knowledge and comprehension, let alone by criterion-referenced tests of behavior and skills.

Further, Dr. Mayer states that two tenets of competency-based education is that learning is constant; time and methodology are variables. Neglected in this description is the "intensity" of the learning experience, which is a major determinant of both the time and extent of learning.

Finally, and most importantly, substituting the concept of functional competency for competency is of considerable value in implementing his model. Dr. Mayer himself indicates that the implementation of his CBCE model is likely to be formidable as he says, "consumer educators can easily become alarmed and intimidated by the seemingly complexity of CBCE...Yes, criterion-referenced testing and student record management will be somewhat different and may be more demanding in terms of time...." He also points out obstacles of teacher acceptance and the need to develop materials and procedures. There are additional obstacles not mentioned such as frequent initial student resistance to unfamiliar methods and institutional impediments in terms of policies and procedures which could make implementation of his CBCE difficult.

However, the most formidable obstacle--which he implicitly recognizes--is that implementation of his CBCE delivery system would be very time consuming. While potentially much more successful, it is inconceivable, given his delivery system, that a student would have the time to master more than two or three specific task skills in a single course of instruction, particularly if learning is

defined in terms of behavioral change. This isn't necessarily negative, for the mastery of two or three such behavioral skills is probably two or three more than students currently master, given the current ineffectiveness of consumer education. However, in view of the fact that a student will only have time to attain at most two or three new consumer behaviors or skills, a use of the "functional competency" goal as defined by the CACS would be of considerable value to ensure that learners attain those competencies most needed and wanted.

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CONSUMER ISSUES IN HOUSING AND FUTURE DIRECTIONS
FOR CONSUMER EDUCATION

Michael L. Walden, North Carolina State University¹

Abstract

This paper examines four housing issues of current concern to consumers: the high cost of housing, the high cost of homeownership, the fairness of new home mortgage designs, and the conversion of rental units to condominiums. It is argued that inflation has been the major factor creating these situations, and hence their resolution depends on policies addressed to a reduction in general inflation.

Introduction

An issue of increasing concern to consumers in the decade of the 70's and in the first year of the 80's is the question of an adequate supply of housing at affordable cost. In actuality, this issue is composed of four sub-issues: (1) the high cost of houses, (2) the high cost of owning a house (in particular, the high cost of a home mortgage), (3) the fairness of new home mortgage designs to consumers, and (4) the adequacy of the supply of rental units, and in specific, the rate of conversion of rental units to owner-occupied units. Because of these concerns, many consumers have perceived their goal of homeownership and/or their goal of decent housing shelter as illusory. The purposes of this paper are to analyze these issues, specify the underlying problems creating them, and to draw implications both for consumers' choices and for consumer educators in the 1980's.

Housing Issues

The High Cost of Houses²

It is evident to any observer of the housing market that the price of houses has risen substantially over the past decade. Controlling for changes in the quality and quantity characteristics of new homes, the estimated sales price of new homes rose 133 percent between 1970 and 1979 (U.S. Bureau of the Census, 1980). When general inflation in the economy is accounted for, the estimated sales price of new homes of constant characteristics still rose 31.8 percent between 1970 and 1979. This means that the real (inflation-adjusted) price of new homes has become

more expensive relative to the prices of other goods and services. Furthermore, the increases in real house prices have outpaced the increases in real median family income (Miller, 1980).

Why has this sharp increase in the price of houses occurred? Theoretically, price increases for any good or service can be explained by two factors: first, increases in the general price level (general inflation) in the economy and second, changes in the demand and supply conditions of the product's market leading to excess demand.

With respect to the impact of general inflation on the price of houses, inflation, by definition, is a monetary phenomenon which occurs when the nation's money supply grows at a rate faster than the growth rate of goods and services produced in the economy (Branson, 1979). When such monetary growth occurs dollar expenditures on all goods and services, including houses, increase faster than increases in quantities of the products. This leads to a sustained bidding up in the prices of all goods and services which lasts as long as the monetary growth rate exceeds the growth rate of the economy. Crudely, it can be observed that general inflation accounts for all but 31.8 percentage points of the 133 percent increase in the price of houses between 1970 and 1979.³

The difference between the price increase in houses and the general inflation rate for any given period, termed the real price increase in houses, can be explained by excess demand in the house market. Excess demand in the recent house market is attributed to many factors. Foremost among them is the increasing rate of inflation in the economy over the past six years. Such sustained increases generate inflationary expectations among consumers. Anticipating future substantial price increases for all goods and services, including houses, consumers have increased their purchases of houses both as a hedge against a costlier house purchase later and as an investment hedge against general inflation. Given the relatively inelastic supply of houses, this anticipatory buying has served to bid up the price of houses and to perpetuate consumer's expectations.

Other factors reportedly creating excess demand for houses include changing demographics favoring

¹Assistant Professor and Extension Economist, Consumer Economics, Department of Economics and Business.

²House is used to refer to single family structures built primarily for ownership. The term housing commonly refers to all forms of shelter.

³The precise structure of effects of monetary growth on house price increases has not been established empirically, and only a few studies have made preliminary estimates (Grebler and Mittelbach, 1979; Kearl, 1978). Identifying and estimating the structure of effects of monetary growth on house price increases is a fruitful area of future research.

homebuying, increases in family income from the inclusion of earnings from working wives as permanent income, and stricter building regulations which effectively decrease the supply of houses at any given price. While changes in these factors at any point in time will influence the level of the price of houses at a point in time, one-time changes in these factors (e.g., stricter building regulations imposed in a given period) will not have an influence on sustained increases in the price of houses over a number of years.

The empirical evidence attempting to sort out the impacts of general inflationary influences and excess demand factors on house price increases is scant. What should be regarded as preliminary results suggests that increases in general inflation, increases in permanent household income, and general inflationary expectations are most significantly related to house price increases (Grebler and Mittelbach, 1979; Kearl, 1978).

The High Cost of Homeownership

Coupled with a rising cost of houses, many watchers of the housing market have perceived a complementary rising cost of homeownership, as evidenced by rising mortgage interest rates and rising operating costs. Mortgage interest rates have gone from 8.5 percent in 1970 to 14 percent in 1980, and an index of house operating costs shows a real (inflation-adjusted) increase of 24 percent over the decade (Diamond, 1980).

However, homeownership costs have risen over the 1970's only if two major factors are ignored: inflation and real price appreciation in houses. General inflation has the effect of making observed mortgage rates less burdensome. For example, if mortgage interest rates are 14 percent but the inflation rate is 12 percent, the "real" mortgage interest rate is only 2 percent. If consumers do perceive and compare the real, or inflation-adjusted, prices of goods and services, then real mortgage interest rates actually fell from 1970 (5.5 percent) to 1979 (4.1 percent) and have only recently risen above 1970 levels. Furthermore, if an index of homeownership costs is constructed which accounts for expected annual appreciation in the price of the house as a "negative cost," which accounts for the increased tax benefits of homeownership during periods of inflation, and which recognizes real mortgage interest rates, then the index shows that real homeownership costs actually fell since 1970 (Diamond, 1980). This conclusion is consistent with the observed strong demand for homeownership in the 1970's.

The Fairness of New Home Mortgages

Sweeping changes came to home mortgages in the late 1970's. Sustained unanticipated inflation made all lenders, including lenders to homebuyers, increasingly reluctant to lend for long terms at fixed interest rates, since no one was very confident about predicting future inflation rates. Instead, a set of alternative mortgage designs, most of which allowed for interest rate

changes during their term, loomed as successors to the fixed rate mortgage.

The position of financial institutions lending to homebuyers is easy to understand. Traditionally, these institutions have been in the business of borrowing "short" and lending "long." When interest rates rose (for example, due to general inflation), lending institutions earned higher rates of interest only on their new mortgages. Before the advent of money market certificates, lending institutions were not significantly squeezed when market interest rates rose because interest rates paid on most deposits (predominantly passbook savings accounts) changed only slowly by government decree. The major problem suffered in such periods was lack of loanable funds as savers went elsewhere. However, with the coming of relatively short-term money market certificates and their increasing predominance in lending institutions deposits, lending institutions now must pay higher rates of interest on a substantial part of their deposits when interest rates rise. This puts a profit squeeze on lending institutions holding a substantial proportion of old mortgages in their portfolio.

In an environment of uncertain future interest rates two options are available in the lending market for homeownership. One option is that the risk of future increases in interest rates can be built into a fixed rate mortgage. Since, under this form, the lender is accepting the full risk that future rates will rise, the lender must be compensated by receiving a higher interest rate than would be received if the borrower shared some of the risk. This option can result in very high fixed rate mortgages, as was observed in early 1980. Alternatively, the borrower can share in the risk of higher future interest rates by accepting a mortgage design which permits future interest rate increases to be passed on to the borrower. The borrower will only accept this risk by receiving a lower initial interest rate than would be present with a comparable fixed rate mortgage. Interactions between borrowers and lenders in the lending market determine equilibriums between interest rate discounts and borrower risk acceptance.

Current and proposed government regulations on alternative mortgage designs determine how the risk sharing is implemented over the mortgage's term. Concern has been expressed by some consumer groups that the regulations are too liberal with respect to allowing future interest rate changes to be passed on to the borrower. However, greater risk-sharing (more liberal interest rate increase "pass-on" provisions) results in greater compensation for the borrower in the form of larger initial interest rate discounts. By specifying the magnitude of interest rate adjustments, the government is limiting the trades (interest rate discounts for risk sharing) which are available for borrowers and lenders. As with any government regulation limiting trading possibilities (e.g., usury laws), under certain conditions alternative mortgage design guidelines may prevent trades that would benefit both parties.

The Condominium Conversion of Rental Units

The fourth major housing concern to consumers is the significant conversion of rental units to ownership status in the form of condominiums. Recent estimates put the number of converted units at 50,000 in 1977, 100,000 in 1978, and 130,000 in 1979 (Hyatt, 1979). Efforts have been made to restrict the conversions in many localities. Charges have surfaced that development owners are making "unfair" profits by making the conversions.

The underlying reason for the significant number of conversions has to do with the recent economics of the rental housing market. The simple fact is that the profitability of rental housing has fallen sharply over the 1970's. For example, while operating costs rose at an annual average of 9.1 percent from 1973-1978, rents only increased at an annual average of 5.6 percent. This obviously has squeezed the profitability of owning and operating rental units. One study estimates that the after-tax return on investment in rental units declined from 27.5 percent in 1973 to 14.8 percent in 1978 (Winger, 1979). This has created a strong incentive for rental unit owners to convert the units to ownership status by selling them.

The important question is why haven't rents kept up with operating costs? One reason may be that fear of rent controls has held rents down. Probably a more compelling reason is that inflationary expectations and the apparent reduced cost of homeownership have prompted more households than expected to buy rather than rent.⁴ This has resulted in a decreased demand for rental units and a reduction in real (inflation adjusted) rents. Perceiving that the price that could be received in today's strong home-buying market is greater than any expected future discounted price, many landlords are merely behaving economically rationally by undertaking conversion.

IMPLICATIONS FOR CONSUMER CHOICE AND CONSUMER EDUCATION

Consumers will not have an easy time making housing choices in the 1980's. The above analysis has demonstrated that sustained general inflation in the economy is responsible for many of the problems which consumers perceive in the housing market: the high cost of houses, housing mortgages with adjustable interest rates, and the significant conversion of rental units to ownership status. On the other hand, it can be argued that inflation has had a dominant role in actually reducing the cost of homeownership through its impact on expected price appreciation of the house and by increasing the tax benefits of homeownership through "bracket creep."

⁴Diamond (Diamond, 1978) has shown that inflation is likely to reduce the costs of homeownership relative to the costs of renting.

Individual consumers can do nothing to reduce general inflation; this is a problem both created and solved in Washington. If general inflation continues, more of the same in the housing market will likely continue. If general inflation is significantly reduced for a sustained period of time, then many of the recent trends in the housing market should moderate or reverse. But a strong word of caution is warranted. As argued earlier, inflation has reduced the cost of homeownership and has consequently lured many into homeownership for investment purposes. A reduction in inflation which reduces the price appreciation of houses below homeowners' expectations will result in losses for owners.

Given this analysis, consumer educators have "their work cut out for them" in the 80's in educating consumers on the choices involved in the housing market. A number of directions are recommended:

1. Consumer housing education should give greater emphasis to educating consumers on the workings of the housing market. Stress should be placed on the logical reactions of consumers and producers to particular economic environments, pointing out that behavior is most efficiently changed (e.g., condominium conversions reduced) when economic incentives are changed (e.g., the profitability of rental units increased).

2. Consumer housing education, and in fact all consumer education, should give greater focus to the causes, consequences, and cures of inflation. It is time to stop blaming Arab oil producers, labor unions, retailers, and uncountable supply shocks (e.g. drought) for inflation. These alleged causes are inaccurate and lead to misguided cures. Instead, consumer educators need to do a better job of explaining the motivations for and consequences of monetary and fiscal policies of the Federal government.

3. More sophisticated consumer education on the housing tenure choice is needed which emphasizes the investment aspects of homeownership and demonstrates the projections required to determine if homeownership is a profitable investment. Independently both Johnson (Johnson, 1980) and Walden (Walden, 1980) have developed computer models of the tenure choice which include both consumption and investment aspects of homeownership. For example, given basic information about the household's income and tax status, about the house's initial value, operating costs, and mortgage terms, and incorporating an implicit rent or consumption value associated with the house, Walden's model calculates the required annual rate of appreciation necessary for the house to be a profitable investment over any given time period.

4. As long as serious inflation, or the potential for serious inflation, continues as a national problem alternative home mortgage instruments will become increasingly more common. Besides developing more extensive informational efforts on the new mortgages, consumer education should also assist consumers in analyzing the mortgage choices by addressing:

- (a) When in the business cycle is the best time to buy a house with a particular type of mortgage?
- (b) What information and techniques are available for the layman to judge the future course of interest rates?
- (c) What are the tradeoffs involved in particular mortgage designs and how can the consumer evaluate these tradeoffs?

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Michael L. Walden, "Evaluating Profits From Homeownership." Paper No. 6498, North Carolina Agricultural Research Station, July 1980.

Alan R. Winger, "Will the Numbers Ever Work?," Quarterly Review of the Federal Home Loan Bank of Cincinnati (Second Quarter 1979), 1-6.

These educational directions will obviously not guarantee homeownership and/or a decent housing shelter for consumers. Reaching these goals (assuming they will increase the general welfare of society, which may be debatable) requires a coordinated effort of macroeconomic policies.⁵ The outlined educational efforts, if pursued, should increase the efficiency of consumer choice, which perhaps is a more appropriate goal of the consumer movement and consumer education.

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⁵In an economy where substantial changes and reallocation of resources are taking place, labor mobility is hindered by homeownership. Increasing rates of homeownership may therefore slow down beneficial real locations in the economy.

THE DEVELOPMENT AND NATIONAL EVALUATION
OF THE SURVEY ON ECONOMIC ATTITUDES

William B. Walstad, University of Missouri-St. Louis¹
John C. Soper, Northern Illinois University²

Abstract

This paper analyzes the reliability and validity of the Survey on Economic Attitudes. This two-part instrument assesses: (1) attitudes towards economics as a subject or discipline, and (2) attitude sophistication on a range of economic issues. The measure can be easily administered and scored, and is suitable for use at the high school level.

Research studies on consumer or economic education programs at the high school level typically involve measuring student outcomes in the cognitive domain using a test of consumer skill or economic understanding (Stanley, Garman, Brown, 1976; Soper, 1979). Unfortunately, most assessment studies fail to also measure student attitude outcomes in the affective domain. The reasons for the lack of attitude measurement are many:

1. The problem of measuring attitudes is complex and the measures are not as well accepted among professionals as cognitive tests;
2. the necessary attitude instruments are not available; and
3. existing attitude instruments were poorly developed and report little information on instrument reliability or validity.

With growing research on economic and consumer attitudes, the need for reliable and valid attitude instruments becomes more important for evaluating programs and increasing acceptance of research results (Bloom and Ford, 1979; Lundstrom and Lamont, 1976; Ray, 1979; and Soper, 1977).

This paper details development and national norming of the two-part Survey on Economic Attitudes (SEA). The first part of the SEA measures high school student attitudes towards economics (ATE) as a subject or discipline. The second part of the SEA assesses high school student attitudes towards economic issues, or economic attitude sophistication (EAS). The design, validation, and pretesting of each part of the SEA is discussed in the first section of the paper. The second section presents the results from the national reliability and validity studies. The final section discusses the uses and limitations of the new attitude measures.

¹Assistant Professor of Economics

²Associate Professor of Economics

Instrument Development

The initial development of both parts of the SEA was conducted by a national committee on economic attitude measurement which included six economists and a marketing researcher. The purpose of the committee was to develop an instrument to measure student attitudes towards economics and economic issues which would be suitable for use with a cognitive high school economics test, The Test of Economic Literacy (Soper, 1979), as part of a national evaluation of two high school economic education programs sponsored by the Joint Council on Economic Education.³ An outline of the entire instrument development process is contained in Table 1 and a copy of the instrument is provided in Appendix 1.

Attitudes Towards Economics: SEA Part I

A review of existing ATE instruments was conducted by the committee to determine their suitability for use with high school students. The best instrument identified was previously developed by Hodgkin and Manahan (1979) for use with college students. The committee decided that this instrument, with slight language modification, could also be used at the high school level, since the reading level was easy and the instrument could be administered in a short period. The developers reported a split half reliability of .78 and a content and construct validity review by other economists. A committee pretesting of the instrument with 231 high school students in the midwest showed an improved reliability estimate of .86 (Cronbach Alpha) and a standard error of measurement of 3.00. After reviewing the instrument and preliminary results, the committee considered the slightly modified instrument suitable for national use.

Economic Attitude Sophistication on Issues: SEA Part II

A review of existing attitude instruments on economic issues uncovered no usable possibilities. Some instruments were simply too difficult to read for high school students. Other instruments had questionable measurement characteristics. For example, instruments for measuring student liberal-

³The committee was originally organized by the Joint Council, but operated on an independent basis. The committee members were W. B. Walstad (chair), J. Henry, W. Luker, J. Manahan, P. Senn, J. Soper, and R. Strom. The views expressed in this paper are those of the authors and do not necessarily reflect the views of committee members or the Joint Council.

TABLE 1. Procedures for Development of SEA

Procedure	Type of Analysis	ATE Results	EAS Results
1. Review previous instruments	Judgment by national committee	Reviewed and accepted Hodgkin and Manahan 14-item instrument. H & M report a .78 split half reliability estimate and a validity review by economists.	None found suitable for use
2. Select topics and write items	Judgment by national committee	Slight language changes in instrument	200 items developed and 30 items selected for further study
3. Pretest reliability study	Internal consistency	.86 Cronbach Alpha with 14 items. (N=231 high school)	14 of 30 items selected for use. .53 Cronbach Alpha (N=480)
4. Pretest validity	Construct and content validity	Instrument also accepted by national committee. Further national validity study considered unnecessary	14 items showed >70% consensus in ratings by committee and outside economists (N=13)
5. National reliability study	Internal consistency	.88 Cronbach Alpha (N=1747)	.66 Cronbach Alpha (N=1747)
6. Validity check with groups	Construct validity. t-test means between high school students, undergraduates, consumer education professors	Significant at .01 level (N=1747 high school; N=28 professors; N=77 undergraduates)	Significant at .01 level (N=1747 high school; N=28 professors; N=77 undergraduates)
7. National validity study	Construct validity. Rating by experts	Not applicable. Viewed as unnecessary	Mean consensus of 85% for scale. Item consensus ranged from 70% to 99%. (N=149) Similar results for subset of Ph.D. economists (N=71)

ism or conservatism on economic issues appeared to be of questionable validity given the problems of judging whether a response to an attitude statement represented a liberal or conservative view. Apparently, problems of interpreting polar ends of an attitude index and the diversity of economic issues made the assessment of attitudes towards economic issues more difficult to measure than attitudes towards economics as a subject.

To solve the scale interpretation problems, the committee adopted the Mann and Fusfeld (1970) attitude sophistication approach:

"Attitude sophistication means that opinions are consistent with the current state of knowledge. Although economists may differ about economic goals and the means of attaining them, there is a body of economic knowledge with which most members of the discipline agree. Applying that knowledge to a specific problem often leads to similar conclusions or opinions in spite of differing ideologies. Such opinions reflect a high degree of knowledge and rational analysis of the problem and can correctly be termed sophisticated" (p. 112).

The committee interpreted "the current state of knowledge" to be the consensus view of the economics profession on an issue. Research by Kears, et al. (1979) indicated that economists hold consensus views on a number of economic

issues. The committee objective, then, was to develop an instrument which measured the extent to which high school student views are in agreement with the consensus views of the economics profession.

To insure that the instrument included a variety of economic issues, nine broad topics were chosen for issue statements: government regulation, taxation, welfare, inflation, unemployment, incentives, power concentration, foreign trade, and economic growth. Over 200 preliminary statements were written for the nine topics. A sub-committee then selected the best 30 issue statements for a pretest EAS instrument (about three for each topic). The selection criteria for the 30 issue statements were:

1. The "economics profession" should have a "consensus position" of agreement or disagreement with the statement.
2. The statement should focus on a "live" economic issue in the above areas which is controversial and unresolved in the public mind.
3. The statement should have low cognitive content, limited economics jargon, and have a reading level suitable for use with juniors and seniors in high school.
4. Statements should meet school district approval for use with students.

To meet the first criterion, and to establish construct and content validity, the 30-item measure was rated by a group of six economists plus the whole committee. In addition, the 30-item measure was administered to about 480 eleventh and twelfth grade students in three mid-western high schools to obtain information for reliability assessment.

The selection of the final 14 items for the attitude measure involved a combined use of pretest validity and reliability information. First, to improve the construct validity of the measure, only those items with a seventy percent agreement or disagreement rating from among the outside economists and the national committee were considered for the final measure. Second, the content validity was maintained by insuring that most topics previously identified were represented by at least one or two statements and that the statements met criteria two through four.⁴ Third, the statements were judged for their individual contribution to the overall reliability of the index by examining the item-to-scale correlation. The pretest data indicated the reliability of the final 14-item instrument was .53 (Cronbach Alpha), a reasonable estimate given the difficulty of assessing attitudes towards economic

⁴No item on foreign trade met reliability or validity tests, so that topic is not represented in the instrument.

issues and limited number of items in the instrument. The final instrument appeared to have sufficient construct validity, content validity and reliability for national use.

National Reliability and Validity Studies

The initial instrument development produced two measures of potential value, but more information was needed on the reliability and validity of the ATE and EAS measures, especially for the EAS. Consequently, both instruments were used in a national reliability study among high school students and further statistical testing was undertaken to support construct validity. Also, for the EAS measure, a national construct validity survey was undertaken to check the plus (+) or minus (-) weighting for instrument items.

Reliability

The two-part Survey on Economic Attitudes, measuring both ATE and EAS, was nationally normed in May, 1979 using a sample of 1,747 students from 67 high schools. The Purdue University Measurement and Research Center selected the sample and collected the data based on necessary constraints imposed by the evaluation of two economic education programs. The sample contained a diverse group that included students from all geographic regions of the United States, different areas (urban, rural, suburban), and different sized schools. While a range of student differences in economic knowledge, attitudes, intelligence, and backgrounds are found in the sample, no claim is made that the sample is exactly representative of the student population enrolled in public high schools.

Table 2 presents the aggregate statistics for the ATE and EAS measures. The Cronbach Alpha of .88 indicates the ATE measure has good internal consistency and the standard error of measurement of 3.18 means there is only limited variation in the measurement of the true score. Also, the item-to-scale correlations (not reported) are all significant at beyond the .01 alpha level.

TABLE 2. Aggregate Statistics for SEA Norming Sample, Spring 1979.

	ATE	EAS
Mean	46.414	47.102
Standard Deviation	9.264	6.191
Cronbach Alpha	.881	.660
Standard Error of Measurement	3.177	4.027
Range	14-70	14-70
Sample N	1747	1747

The reliability estimate for the EAS measure improved markedly over the initial assessment, from .53 to .66, but the instrument is still less reliable than the ATE measure. This result was not unexpected due to the problems of assessing opinions on a variety of economic issues and the short length of the measure. However, the item-to-scale correlations are all significant (.01 level) and the reliability estimate is good in relation to many affective measures (Johnson, 1976).⁵

Validity Study With Groups

To determine whether either the ATE or EAS scale could distinguish between known groups with different attitude structures, external validity tests were conducted. The SEA was administered to a group of 28 professors who taught consumer education courses at 26 colleges and universities in the midwest. This group had expressed an interest in economics by participating in a two-week program in economics and consumer education.⁶ Most of the group also had prior college course work in economics and in their classrooms they helped students analyze consumer and economic issues. Therefore, it was expected that this group of college consumer educators would show a significantly more positive ATE and a higher degree of EAS than the national high school sample of 1,747.

The ATE and EAS measures were also administered as a pretest and posttest to college students taking a course in principles of microeconomics at a midwestern university. The mean differences between high school students and pre-economics college students was expected to be insignificant while the mean difference between the high school and post-economics college students would probably be significant. In addition, it was believed the consumer education professors would hold a significantly greater degree of EAS and more positive ATE than one semester economics students.

The means and standard deviations of groups together with the t -value comparisons are given in Table 3. The mean rankings are in the expected directions and the t -values are all significant at beyond the .05 level, with the exception of the difference between high school and pre-economics college students on the ATE. Although the sample sizes for the college

⁵A test-retest reliability study with a sample of high school students (N=66) showed a one month test-retest correlation of .61 for the ATE and .69 for the EAS. The reliability of the instrument with the college sample (N=76) was .88 for the ATE and .71 for the EAS (Cronbach Alpha).

⁶The Midwest Consumer Economics Institute for College and University Consumer Teacher Educators held in St. Louis, Missouri in Summer, 1980.

students and consumer educators are relatively small, the mean ranking and significant t -value provide good construct validity evidence for the ability of the ATE and EAS to distinguish among known groups.⁷

TABLE 3. Group Differences in ATE and EAS

Group	ATE		EAS	
	\bar{X}	S.D.	\bar{X}	S.D.
A. High School (N=1747)	46.41	9.26	47.10	6.92
B. Undergraduates-Pre-economics (N=76)	45.74	6.54	48.68	5.45
C. Undergraduates-Post-economics (N=76)	49.59	8.30	50.89	6.21
D. College Consumer Education Professors (N=28)	54.93	7.83	56.75	6.52

Group Contrasts	t -values	
	ATE	EAS
AB	.86	2.44*
AC	3.25**	5.18**
AD	5.69**	7.74**
BC	3.18**	2.34**
BD	5.34**	5.85**
CD	3.03**	4.12**

*Significant at the .05 level
**Significant at the .01 level.

National Validity Study for the EAS

To provide a national assessment of the construct validity of the EAS instrument, a survey was conducted of directors of councils and centers for economic education. This sample was selected for validation purposes since most directors hold advanced degrees in economics and teach undergraduate or graduate courses in economics in over 200 colleges and universities across the nation. A complete sample of 231 directors was mailed a twenty-statement questionnaire. The respondents were asked to check the survey forms for whether they agreed with the statement, disagreed with the statement, or rated the statement as unacceptable

⁷With other college samples, these t -test results may vary, but in most cases, after a course in economics, college students would probably show a more positive attitude towards economics and a greater degree of EAS than high school students. Results, of course, may also depend somewhat on the teacher or class situation.

for a response. The questionnaire with some additional information was to be returned unsigned in a reply envelope.

The questionnaire contained a random mix of the 14 pretested items and six items which were originally rejected by the national committee and a group of economists. The expected result was that the respondents would show a clear consensus (greater than two-thirds agreement or disagreement) on the 14 best statements and no clear consensus on the six distractor items. This validity test would:

1. Reconfirm the item selection judgments of the national committee and outside economists;
2. check the discrimination ability of the respondents, or accuracy of the survey; and
3. provide additional national evidence for a consensus view of a sample of economists on selected economic issues.

Over 64 percent, or 149 respondents, returned forms, providing a credible sample for construct validity analysis. As expected, a clear consensus was expressed on 14 items with the mean agreement or disagreement of 85 percent and a range from 70 to 99 percent. The mean percent agree or disagree for the six distractor items was 43 percent and a range from 24 to 67 percent. A further analysis was conducted with the subset of responses from only council or center directors who reported holding a Ph.D. degree in economics (N=71). The subset results were almost identical to the total results, showing a scale mean of 85 percent consensus and an item range from 68 to 100 percent. The percent agree or disagree for the six distractor items ranged from 16 to 67 percent. The survey results provide support for EAS scale construct and the plus(+) or minus (-) weighting for the 14 items.

Uses of the Survey on Economic Attitudes

The SEA instrument can be administered easily in whole or part within a ten to fifteen minute time frame, making the SEA suitable for use in conjunction with a cognitive measure during a limited classroom evaluation period. Also, the SEA can be hand scored by reverse coding eight items on the ATE index and two items on the EAS index. Item scores for each part can then be summed to obtain index scores. ATE and EAS scores can range from 14 to 70 with the high school mean about 46.4 for the ATE and 47.1 for the EAS. Finally, the item statements can be easily read by high school students and the SEA title does not appear to cause a response bias among students.

The results from the national reliability and validity studies indicate the ability of the SEA instrument to detect either "attitudes towards economics as a subject," or "economic attitude sophistication" among juniors and seniors in high schools with some degree of certainty. The information on the development and technical properties of the measures also represent a distinct improvement over many ad hoc consumer

and economic attitude measures. As with any attitude measure, though, caution must be exercised in the use and interpretation of the instrument. For example, a more positive ATE may be an intended outcome for a course in economics or consumer education, but a class which holds a negative ATE should not be viewed as "bad" or "wrong." The ATE simply provides an index of class sentiment about economics which may be useful information for teachers or researchers. Similarly, the EAS measure is not a list of "right" opinions nor is it designed to force students to adopt the consensus views of economists on economic issues. The EAS measure simply assesses the degree or tendency of a student to hold opinions consistent with the current state of knowledge. A high degree of EAS may not and probably should not be an expressed outcome from a course or a program. However, exposure to economics instruction in an economics or consumer education course at the high school level may have an impact on economic knowledge, attitudes towards the subject, and opinions on economic issues. Both cognitive and affective outcomes are worth assessing as teachers and researchers explore the educational process.⁸

⁸For an example, see Walstad and Soper (1981).

Appendix 1

SURVEY ON ECONOMIC ATTITUDES

Part I: Attitudes Towards Economics

Please indicate your opinions about the following statements:

- Mark 1 if you strongly agree
 Mark 2 if you agree
 Mark 3 if you are undecided
 Mark 4 if you disagree
 Mark 5 if you strongly disagree

	\bar{X}	σ
(+) 1. I enjoy reading articles about economic topics. (R)	3.18	.99
(-) 2. I hate economics.	3.70	.99
(+) 3. Economics is easy for me to understand. (R)	3.05	1.06
(-) 4. Economics is dull.	3.25	1.13
(+) 5. I enjoy economics. (R)	3.18	.99
(-) 6. Studying economics is a waste of time.	4.16	.93
(-) 7. Economics is one of my most dreaded subjects.	3.58	1.04
(+) 8. On occasion I read an unassigned book in economics. (R)	2.23	1.12

Appendix 1 (continued)		\bar{X}	σ
(+) 9.	I would be willing to attend a lecture by an economist. (R)	3.14	1.12
(-)10.	Economics is a very difficult subject for me.	3.34	1.07
(+)11.	Economics is one of my favorite subjects.(R)	2.63	1.01
(+)12.	I use economic concepts to analyze situations.(R)	3.01	1.05
(+)13.	Economics is practical.(R)	4.07	.87
(-)14.	Economic ideas are dumb.	4.20	.89

Part II: Attitudes Towards Economic Issues

(-)15.	Government should control the price of gasoline.	2.53	1.29
(-)16.	Inflation is caused by greedy business and labor leaders.	2.96	1.18
(-)17.	Business makes too much profit.	3.07	1.05
(-)18.	People should not have to pay taxes.	3.84	1.07
(-)19.	Free medical care should be provided for all Americans.	3.27	1.21
(-)20.	Banks should not charge interest on loans to customers.	3.76	1.01
(-)21.	Most people who don't have jobs are too lazy to work.	3.23	1.24
(-)22.	When a business gets big, it should be controlled by government.	3.62	1.08
(-)23.	New factories are not needed.	3.84	.98
(+)24.	People should not be told how to spend their money. (R)	4.11	1.03
(-)25.	If everybody had more money, we'd all be better off.	3.61	1.08
(+)26.	Profits should not be regulated by government.(R)	3.14	1.02
(-)27.	Most unemployed people are lazy.	3.43	1.14

	\bar{X}	σ
(-) 28. When a strike occurs, government should step in and settle the dispute.	3.01	1.07

(+) Indicates the positive ATE response or sophisticated EAS response is to agree strongly.
 (-) Indicates the positive ATE response or sophisticated EAS response is to disagree strongly.
 (R) Reverse coded
 (N = 2,048 high school students)

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CONSUMER COMPLAINING AND COMMUNITY INVOLVEMENT:
THEORETICAL AND EMPIRICAL LINKAGES

Rex H. Warland, The Pennsylvania State University¹
Robert O. Herrmann, The Pennsylvania State University²

Abstract

We propose that consumers who are active in defending their rights in the marketplace are often the same people who are active in community life. Data from a recent large-scale study are presented to support this claim. Implications for both the study of complaining behavior and the consumer movement are explored.

During the last decade, much has been written about the consumer complaining behavior and consumer dissatisfaction. We have learned a great deal about the personal characteristics of consumers who complain. Although we know which consumers are the most likely to complain, we do not yet fully understand why. In studying consumer complaining we seem to be following the familiar path from description and demographics to trying to understand the process itself (Engel et al., 1973).

In this paper, we will suggest a different approach to explain why certain consumers complain while others do not. We will draw upon theoretical traditions in sociology and political science to lay the foundation for this perspective. Our thesis is that consumers who are active in defending their own rights in the marketplace are, for the most part, the same people who are active in other areas of community life. They are likely to belong to groups and to be active in community organizations, and in political life. In other words, consumers who complain are well integrated into their communities. We will examine the evidence to support this conclusion and explore the implications of this perspective to the consumer movement.

Theoretical Considerations

Our starting point is the persistent finding that consumers who are dissatisfied and complain (Mason and Himes, 1973; Liefeld et al., 1975; Warland et al., 1975), who express antibusiness sentiments (Hustad and Pessemier, 1973), or who are active in consumer organizations (Bourgeois and Barnes, 1979) have higher socioeconomic status than those who do not. Studies in other areas of inquiry have shown similar results. For example, Van Liere and Dunlap (1980) in their review of studies of environmental concern show that education has been consistently correlated with environmental concern. One of the most consistent findings in political science has been

the association between socioeconomic status and political participation (Verba and Nie, 1972). Socioeconomic status has also found to be consistently related to membership and participation in voluntary associations (Smith and Freedman, 1972).

The consistent relationship of social status to these rather disparate attitudes and behavior may be explained by Collins' (1975) theory of stratification. Collins has suggested that higher status persons are likely to be active in several areas of community life (clubs, organizations, social movements, political activity, media use, community offices, etc.). Higher status persons have more personal contacts and wider social experiences. They have a more cosmopolitan outlook and a broader perspective. They are more aware of the world around them, and they are more able to cope with the exigencies of life. Higher status persons also have better resources (education, income, social and organizational skills) which enable them to take action in areas in which they have a stake. Collins has also suggested that higher status persons are far more accustomed to giving orders than low status persons. Overall, the higher level of social involvement of higher status persons grows out of their skills and self-confidence, and their higher level of community involvement.

Other sociologists and political scientists have also suggested that the skills, knowledge, and past experiences of higher status persons are the major reasons they are so active in many areas of social, political, and economic life. Coleman (1973) has suggested that persons with higher status, experience, and know-how are the most likely to be active or become involved in those issues which are important to them. Verba and Nie (1972) have shown that those most involved in political activities are higher status persons with skills, knowledge, and interest in political matters. They have shown that higher socioeconomic status facilitates the development of political skills, awareness of political issues, and civic attitudes, and that they in turn facilitate political participation. Verba and Nie also suggest that successful participation further allows the development of skills and knowledge which further increases participation.

The perspective provided by Collins, Coleman, and Verba and Nie suggests that social status implies a set of underlying characteristics. The importance of these characteristics has, however, been overlooked in the past studies of complaining behavior. It is likely that the higher level of skills and knowledge, the more varied experiences, the self-confidence, and the wider social contacts associated with higher status are the factors which help explain their higher rate of complaining behavior. Thus the consistent finding that consumers who complain are persons with higher

¹Professor of Rural Sociology

²Professor of Agricultural Economics

status should come as no surprise. This higher level of activity is a general characteristic they share. Consumer complaining behavior may simply be part of an overall pattern of action.

For consumer educators and students of the consumer movement, the most intriguing aspect of this new perspective is the hypothesis that those who complain are likely to be well integrated into the community. Those who complain are expected to have wider social contacts and to participate in political and community organizations more than others. If this is the case, consumer complainers would often be those who are most involved in community change. More importantly, consumer complainers would have something that binds them together, i.e., a similar pattern of integration into community life or what some call social solidarity (Fireman and Gamson, 1979). As we shall see later, these common social bonds are significant for the consumer movement.

There is some empirical evidence in previous studies to support our thesis that those who complain are also active in other areas of social, economic, and political life. In our earlier study of complaining behavior, we found that those who complain belonged to more voluntary organizations and were more politically active than those who did not complain (Warland et al., 1975). However, only a few community and political actions were considered. In the present study, a much larger set of actions were included to assess more carefully the link between complaining behavior and community involvement.

The model we will test in this paper will have several variables. In addition to the usual status measures (income and education) and an index developed to measure community involvement, we also have added a measure of consumer problems and also age. Earlier studies have shown that both age and experiencing problems are consistently related to complaining behavior (Andreasen, 1977; Warland et al., 1975). They will be considered control variables in this study.

Data and Procedures

Data for the analysis were taken from a large-scale mail survey of adults in the state of Pennsylvania conducted in January, February, and March 1980. The sample was selected randomly from a statewide list of licensed drivers. The sample was apportioned by county, sex, and age. Over 73 percent of those receiving the survey returned usable forms. The 9,367 respondents used in this analysis closely resembled the 1978 population estimates for age, but women were slightly overrepresented in the sample.

The dependent variable consisted of a set of nine complaining actions. The respondents were asked whether or not they had engaged in each during the last two years. The consumer complaining actions used covered a range of behaviors: contacted a manufacturer, talked to a store manager, refused to pay for goods, began legal action, contacted

the Better Business Bureau or Chamber of Commerce, stopped using a service or product, talked to family or friends about the problem, complained to a local or state agency, and contacted media. Fishbein and Ajzen (1974) have argued that behavior can be more accurately measured when the entire range of likely behaviors is taken into account. This reflects their belief that a range of behavior measures are considerably more important than a general single measure for the predicting behavior. A Consumer Complaints Index was constructed using these nine actions. The Cronbach alpha for the index was .70 and is in the acceptable range (Nunnally, 1967).

To measure involvement in the community and political affairs, a Community Involvement Index was developed, based in part on Verba and Nie (1972). The index consisted of 12 items representing a variety of methods for promoting social change: signed a petition, gave time or money to a political party or candidate, wrote to an elected official, wrote to a government agency, voted in last election, discussed public issues with friends, attended meetings about some community issue, worked with others to solve a community problem, joined an organization that takes a stand on public issues, contacted media about a local issue, participated in a public demonstration and served on a local government commission, committee, or board. The Cronbach alpha was .72 for this index.

The Consumer Problems Index consisted of 16 items. The respondents were asked to indicate if they had experienced any of these problems in the last two years. Poor quality of auto repairs, defective products, misleading advertising, poor workmanship in home improvements, and poor medical services are examples of the items used. The Cronbach alpha for this index was .74.

Results

The correlations among the four sets of measures are presented in Table 1. Statistical tests are not reported because of the large sample size (9,367). The correlations between income, education, and age and consumer complaining behavior were moderate and of similar magnitude to those reported in earlier studies. The Community Involvement Index, however, was more strongly correlated to complaining behavior than any of the social status measures ($r=.36$). The Consumer Problems Index was the variable most strongly correlated with the Consumer Complaints Index, but the correlation was only .62 suggesting that those who had problems had not necessarily complained.³

Several other correlations displayed in Table 1 are worth mentioning. There was very little relationship between income and education and the

³This finding suggests that there were a number of people who had become upset, but had not acted. See Warland et al. (1975).

TABLE 1. Correlation of Social Status, Consumer Problems, Community Involvement, and Consumer Complaints Measures (N=9,367).

	Measures					
	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆
Income (X ₁)	1.0	.38	-.27	.04	.18	.16
Education (X ₂)		1.0	-.27	.08	.25	.21
Age (X ₃)			1.0	-.12	.11	-.25
Consumer Problems Index (X ₄)				1.0	.31	.62
Community Involvement Index (X ₅)					1.0	.36
Consumer Complaints Index (X ₆)						1.0

Consumer Problems Index. Those with higher incomes and higher education were no more likely to have experienced consumer problems than those with lower incomes and educations. Income and education were correlated to the Community Involvement Index at about the same level as they were to the complaining behavior. Finally, it may be noted that the Community Involvement Index and the Consumer Problems Index are correlated at a moderate level ($r=.31$). This suggests that those who are active in the community experience or are aware of more consumer problems than those who are less active. It appears that those who are involved in the community feel more dissatisfaction with consumer products and services.

Three regression models relating social status, consumer problems, and community involvement to complaining behavior are presented in Table 2. The standardized partial regression coefficients (Beta) and the multiple correlation coefficients (R) are presented to facilitate interpretation. The first model represents the conventional demographic approach and includes only income, education, and age. Age and education are the strongest predictors, but the model only explains 8 percent of the variation in the Consumer Complaints Index. When the Consumer Problems Index was added (Model 2), the predictive power improved substantially. The multiple R^2 was .43. In Model 3, the Community Involvement Index was added. The addition of this index further improved the overall fit (46 percent of the variation explained). Moreover, the Beta coefficient for this index was the second largest in the equation. Thus, even with the other variables found in the past to be related to complaining behavior controlled, the Community Involvement Index still had a significant relationship to complaining behavior.

It may be noted that the effects of income and education were weaker (as indicated by the smaller Beta coefficients) once the Community Involvement Index was entered into the regression analysis. This is because of the relationship of these two status variables to community involvement. It is

perhaps most useful to consider these social status variables as exogenous variables which are related to intervening variables such as community involvement, rather than as variables directly related to complaining behavior. It appears that consumers with higher education who also are active in the community are the most likely to complain. In other words, social status may be a necessary but not a sufficient condition for complaining behavior.

Discussion

We have shown that those who complain are also very likely to be active in their communities. This finding has implications both for the study of complaining behavior as well as for the consumer movement.

The earlier studies which linked social status to complaining behavior raised more questions than they explained. Why did those with higher status complain? The analysis presented in the paper clearly indicates that one must look beyond the status variables to the broader context of status. It is the underlying characteristics associated with status that explain why higher status people are more likely to complain.

This perspective can be broadened further. The analyses reported here and elsewhere have found only a modest degree of association between status and complaining behavior. We believe that this is because status is not directly related to complaining behavior. Rather, it is those people with higher status who also have general interests in consumer affairs, who have consumer problems, who are active in the community, who have knowledge and skills, and who have self-confidence, who are the ones who will complain. In other words, social status must be linked to these intervening factors to more fully understand why people complain. We have recently developed and tested this hypothesis in another paper (Warland and Herrmann, 1981).

TABLE 2. Relationship of Social Status, Consumer Problems, and Community Involvement Measures to the Consumer Complaints Measure.

Attribute	Model 1 Beta ^a	Model 2 Beta	Model 3 Beta
Income	.05	.06	.03
Education	.13	.10	.06
Age	-.20	-.13	-.18
Consumer Problems Index	-	.59	.54
Community Involvement Index	-	-	.19
R	.29	.65	.68
R ²	.08	.43	.46

^aBeta ranges between -1.0 and 1.0. Thus, a Beta = 1.0 represents a perfect positive relationship between two variables even after controlling for the effects of the other variables in the equation.

The relationship between complaining behavior and community integration has important implications for recruitment for the consumer movement. Our findings suggest that those who are active complainers are involved in their communities, in voluntary organizations, and are linked to others by membership in groups in the community. This is referred to by Fireman and Gamson (1979) as evidence of social solidarity or integration into community life. Social solidarity furnishes people with a communications network, a set of common values and symbols, and a tradition of participation in group activity.

Those who have studied social movements have argued that social solidarity makes mobilization of large groups possible. People who are integrated into community life are easier to involve in social movements such as the consumer movement because of their group experience and because the groups of which they already are members often can be recruited en masse.

Complainers also have another characteristic which makes them possible recruits for consumer activities and organizations. They share interest in consumer issues and consumerism (Warland, 1977). Many have embraced the ideas of consumerism and most were aware and informed about consumer issues. This suggests that a predisposition for involvement in the consumer movement exists for consumer complainers. The consumer concerns of complainers, coupled with the findings reported in this paper that complainers are involved in community and political affairs indicates that they have both the interests and the skills essential for effective action.

Consumer complainers should, therefore, be prime candidates for involvement in the consumer movement. They are identifiable and can potentially be recruited through existing groups. It would appear that those interested in maintaining the consumer movement would be well advised to concentrate their efforts on the basis of the "solidarity" model of recruitment. They should look for recruits among those members of the community who are active in organizations promoting social change and should consider the possibility of involving existing groups in supporting the movement. This tactic can be particularly effective when it is necessary to mobilize large-scale support on short notice.

While the consumer movement traditionally has tried to involve all elements of the population, its leadership should recognize the special advantages of involving community activists who also are interested in consumerism. As recruits they promise to be particularly effective and useful since they have the kinds of resources (money, skills, education, etc.) needed in the development of any movement. If the consumer movement is to maintain itself, it is likely to do so from the "grass roots." Knowing that many who are active in their communities are also consumer complainers and often sympathetic toward the concerns of the consumer movement, should make this organizational task a bit easier.

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ENERGY CONSERVATION: MEASURES AND MOTIVATIONS OF OLDER HOMEOWNERS¹

Lynne M. White, State University College at Buffalo²

Abstract

This research examined whether or not older homeowners felt the need to conserve energy in their homes, and identified the energy conservation measures older homeowners had taken, planned to take, and did not plan to take. Of the 18 specified measures, the majority of the sample reported having taken positive action on seven of those measures within the past five years, or just prior to that time. When the existing features of the home and lifelong behaviors were considered, a majority of the sample reported having taken 16 of the 18 measures. Implications of these findings are presented for policymakers and educators.

Older homeowners (55+) represent a rapidly growing segment of the population that particularly may feel the impact of increased energy costs, primarily because of the economic changes that retirement may bring.

Behavioral and structural energy conservation measures have been suggested to combat these increasing energy costs. The appropriateness of many of these suggested measures must be examined when considering the elderly population, because of their economic conditions, health conditions, attitudes and values, and housing conditions. As a result, the "margin to conserve" energy may be limited for this population segment that seriously needs help in minimizing energy costs.

One hundred telephone interviews were completed with residents of the City of Fort Collins, Colorado, who were homeowners, age 55 and older. Owners of condominiums and mobile homes were excluded from the sample.

Nearly all (93%) of the older homeowners surveyed indicated they felt the need to conserve energy in their homes. The primary reason given was the high cost of energy, followed by a concern for diminishing energy resources in the United States. Respondents in the 65+ age group mentioned patriotism as their primary reason to conserve twice as often as respondents in the 55-64 age group. Eighty percent of the sample felt they were practicing more energy conservation in their homes than they did five years ago. A breakdown of the structural and behavioral measures taken by the older homeowners appears in Table 1.

¹Masters thesis research conducted at Colorado State University, Dr. Carole J. Makela, Advisor.

²Lecturer in Consumer Studies and Home Economics.

TABLE 1. Energy Conservation Measures Taken by Older Homeowners Prior to or Within the Past Five Years¹ (n = 100)

Conservation Measure	Percent of Sample
Adjust furnace (S) ²	82
Wear warmer clothes (B)	79
Lower thermostat at night/while away (B)	65
Keep thermostat 68° or lower (B)	63
Close off rooms (B)	63
Add/install insulation (S)	53
Use most efficient appliances (B)	50
Add/install storm windows/doors (S)	49
Add/install weatherstripping (S)	47
Add/install fireplace fan/glass doors(S) ³	46
Lower water heater setting (S)	43
Turn off lights (B)	37
Add/install caulking (S)	36
Cut back appliance usage (B)	33
Wash full laundry loads (B)	29
Use less water for bathing (B)	28
Add/install energy-saving devices (S)	6
Add/install water heater insulation (S)	0

¹Does not include existing features of the home, or results of lifelong behavior.

²(S) = structural measure, (B) = behavioral measure.

³Percentage of those with fireplaces.

Homeowners cited saving money most often as the reason for taking structural measures; while behavioral measures were most often taken because of upbringing (habit) and common sense. Older homeowners planned to take more structural measures than behavioral measures, primarily because most of the behavioral measures were already being implemented. The measures reported "not taken or planned" were few compared to the measures already taken by older homeowners. The primary reasons for not taking certain measures included a lack of information about the measure, comfort or personal preferences, and health reasons.

The survey indicated that older homeowners have already taken many steps to conserve energy in their homes, primarily to save money. Policies that provide dollar-savings (rebates, lifeline utility rates, tax credits) may meet with more success in encouraging energy conservation than policies that strictly provide education or information. Furthermore, programs that provide "service assistance", in addition to monetary assistance, are likely to benefit a segment of the population who may be willing, but physically unable to take certain conservation measures.

THE DEVELOPMENT OF A MODEL FOR AN INTERDISCIPLINARY
CONSUMER INFORMATION AND REFERRAL SERVICE

Patti C. Wooten, Whittier College¹
June Impson, Texas Woman's University²

Abstract

The purpose of this study (anticipated completion date: August 1981) is to develop a model for a consumer information and referral system to assist individuals in locating consumer information. In preparation for development of the model, previous uses of information and referral were reviewed, and a consumer information needs assessment instrument was developed and administered to 500 residents of Denton, Texas.

Background

Consumers need information to cope with the problems of everyday living. Attempts have been made by education, government, business, and industry to meet this need. However, most of these efforts have not been successful. While an abundance of consumer information exists, individuals often lack the knowledge necessary to locate and use these resources. A system is needed which will link people with information they need to resolve their consumer problems (Gee, 1974).

Needs Assessment

An instrument entitled "Consumer Information Needs Assessment" was developed to study the following factors:

1. Consumer information needs
2. Current sources of information used by consumers
3. Desirable characteristics for a Consumer Information and Referral Service (CIRS)
4. Characteristics of consumers

Each factor will be investigated according to the following variables:

Factor 1: Consumer information needs

- A. Consumer buymanship
- B. Consumer rights
- C. Family financial management

Factor 2: Current sources of information

- A. Types of information sources
- B. Level of satisfaction with sources

Factor 3: Desirable characteristics of a CIRS

- A. Sources of information
- B. Delivery system

Factor 4: Characteristics of consumers

- A. Personal characteristics
- B. Financial characteristics
- B. Family characteristics

Anticipated Results

The proposed study will result in the creation of a model for an interdisciplinary Consumer Information and Referral System (CIRS) to help individuals and families solve problems related to consumer buymanship, consumer rights, and family financial management. The model will include guidelines for procedures related to the organization, implementation, staffing, management, and evaluation of the consumer information and referral service, as well as grant applications and public relations materials to facilitate implementation of the system. Possible components of the system will include (but not be limited to) the following:

- . a consumer information and resource center
- . referral to experts in specific areas of consumerism
- . workshops on consumer topics such as credit, housing, fraud, consumer protection, and budgeting
- . special training sessions for business groups in areas of interest, such as "retirement planning"
- . consumer hotline for questions
- . consumer newsletter and/or other publications
- . practicums for students in the home economics department
- . consumer education curriculum development

This system, to be implemented at the Texas Woman's University in Denton, Texas, will utilize both civic and community resources to meet the consumer information needs of Denton residents. When implemented, the CIRS could become part of a larger, comprehensive information and referral system providing a broad range of information to Denton residents.

¹Instructor of Consumer Affairs

²Associate Professor of Home Economics Education and Consumer Sciences

References

- Gee, G.M. Urban information needs: A replication study. (ERIC Document Reproduction Service No. ED 107 285)