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Consumers' Insurance Literacy

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Abstract: Research seeking to understand financial literacy and to enhance it through training or education is receiving greater attention and emphasis from policymakers. Unfortunately, relatively little of this research has focused on insurance products and consumers. This policy brief reviews what is known about consumer knowledge, understanding and capability in insurance markets, focusing on two surveys of consumers' understanding of insurance policies, terms, and concepts. Insurance disclosures and policy language are discussed in light of this evidence, and suggestions for future insurance literacy research and education are provided.

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Consumers' Insurance Literacy

Introduction

Insufficient consumer knowledge is widely regarded to limit the competitive functioning of insurance markets and is a major reason for government regulation of these markets. To protect consumers from seller manipulation or misrepresentation, insurers are subject to unfair trade practices laws which prohibit unfair or deceptive behaviors. Additionally, insurers are often subject to specific market conduct regulations limiting products, contracts, marketing practices, and producer (agent) actions. However, government regulations alone cannot assure that consumers make sound purchase decisions. An educated and informed consuming public is an essential component of market regulation, and the best way to ensure that inferior or dishonest sellers are not successful. A more informed and capable consuming population may also allow regulations to be relaxed and market efficiencies improved.

Governments and educators around the world are increasingly recognizing the importance of consumer financial literacy. Research seeking to understand financial literacy and to enhance it through training or education is receiving greater attention and emphasis from policymakers (Lusardi, 2006; OECD, 2008; Kozup and Hogarth, 2008).[1] Unfortunately, relatively little of this research has focused on insurance products and consumers. A recent review of studies of financial literacy and financial

[1] For example, the OECD has established a program to assist policymakers and providers of financial education to raise awareness about the importance of financial education and to provide guidance in designing and implementing effective financial literacy programs.

education found that only 16 of the 52 studies (30.8 percent) considered insurance or risk management topics (Huston 2010).

This policy brief reviews what is known about consumers' understanding of insurance and consumers' decision-making capability in insurance markets, and summarizes the results of recent insurance literacy surveys of U.S. consumers. Areas for needed improvement of consumers' insurance literacy are discussed in light of existing evidence, and suggestions for future insurance literacy research and education are provided.

What We Know About Insurance Literacy

Studies of Insurance Choices

There is not a large body of research on consumers' insurance literacy, but the existing research suggests that consumers' knowledge and decision skills may be lacking. The most extensive literature related to this topic examines whether consumer decisions conform to the predictions of the traditional "rational" economics model. This psychology and economics literature began with a focus more generally on decision-making under risk, and identifies a vast array of differences between consumers' decisions and the predictions or assumptions of the rational model (Rabin, 1998; DellaVigna, 2009). The evidence shows that consumers do not have a good feel for probabilities, do not treat losses and gains symmetrically, and tend to overestimate emotionally-laden loss events while underestimating low-probability loss events.

Empirical and experimental studies that focus specifically on consumers' insurance decisions find several features that are not consistent with economic theories of the benefits and uses of insurance. These include a tendency to prefer insurance for small financial risks and to shun it for potentially catastrophic risks, despite the greater risk-pooling benefits from insuring catastrophic risks (Kunreuther et al., 1978; Slovic et al., 1977). Another tendency is to prefer low deductibles and to choose deductibles inconsistently across insurance purchases (Sydnor, 2010; Barseghyan et al., 2011), seemingly ignoring the price and risk trade-offs associated with different deductibles. Yet another is the tendency to incorporate non-financial considerations into insurance purchase decisions (Johnson et al., 1993). These behaviors may indicate that consumers have a poor understanding of the role and benefits of insurance.

Alternatively, some observers argue that the divergence of consumer behaviors from theory may reflect a shortcoming of the theory (Cutler and Zeckhauser, 2004). For example, consumers may derive benefits from insurance, such as managing negative emotions, that are not accounted for in economic theories (Schwarcz, 2010a). Another strain of research suggests that consumers may be rational decision makers, but face cognitive limits that inhibit decision-making in complex environments such as insurance. Consistent with this notion, Gennaioli and Shleifer (2010) develop a theoretical model that can account for many insurance decision anomalies by incorporating selective and limited recall into an otherwise rational model of consumer decision making. Switching costs or other market imperfections may also distort insurance decisions. Schlesinger and Schulenberg (1993) and D'Arcy and Doherty (1990) find that consumers switch insurance providers much less frequently than would be predicted in perfectly competitive markets. The studies do not examine whether this is due to cognitive costs, information imperfections, or other costs of switching.

Insights into how to best interpret the evidence from studies of consumer behaviors in markets may be gained from studies that directly survey consumers to determine their knowledge and understanding of insurance products and services. One such study by Cude (2005) finds that many consumers do not understand insurance disclosures, and admit that they do not read them. A survey by the National Association of Insurance Commissioners (NAIC, 2010a) found that only one-third of those surveyed believed they have a good understanding of their insurance policies.

Other research suggests that many consumers may not be effective insurance shoppers. Many consumers have a poor understanding of price and quality variations across insurers (Cummins et. al 1974). Survey and focus group evidence show that word-of-mouth and informal sources are the dominant information-gathering strategies for insurance consumers (Schwarcz, 2010b; Tennyson, 2010b). However, one study found that consumers who prefer informal sources of information such as family and friends have significantly lower knowledge of insurance than others (Tennyson, 2010b). Respondents whose preferred source of insurance information is an expert not directly affiliated with the insurance industry exhibited the highest knowledge in the study sample.

Tests of Insurance Literacy

More direct measurement of consumers' insurance knowledge may be obtained by administering knowledge surveys, and this is a common practice in financial literacy research (Huston, 2010). One area of insurance literacy that has been studied extensively in this way is the health insurance literacy of older Americans. Most recently, McCormack et al. (2009) develop a test instrument to examine senior citizens' awareness of health insurance terminology and their proficiency in using the Medicare program.[2] The test includes ten true/false questions regarding general health insurance

[2] Earlier studies include McCormack et al. (2002), Hibbard et al. (1998), and McCall et al. (1986), and Cafferata (1984). McCall et al. (1998) surveyed seniors' about their knowledge of long-term care insurance.

terms such as “formulary” and “generic drugs.” The test also includes 17 proficiency exercise items, which included questions about an Explanation of Benefits (EOB) notice, and questions about the Medicaid program. The mean overall score on the test was just over 70%, suggesting a moderate level of health insurance literacy among this population. On individual questions, correct response rates varied widely (from 41 percent to 95 percent). Correct-response rates were generally lower for questions that required respondents to interpret and apply numerical information. Correct-response rates were also lower for questions that addressed issues less familiar to respondents from their everyday life. The authors interpret this latter finding to suggest that experience with the health care system may increase health insurance literacy.

Two other recent surveys have attempted to assess insurance literacy more generally, using samples of adults of all ages. The National Association of Insurance Commissioners (NAIC, 2010a) administered a ten question quiz which was asked of 1,011 survey respondents nationwide.[3] Bristow and Tennyson (2001) administered a similar ten question quiz to 368 survey respondents from a single state. The results of these assessments are discussed below.

<u>NAIC Assessment</u>

The NAIC questions and correct responses, along with the percentage of consumers who answered correctly and the percentage who responded that they did not know, are displayed in Table 1. The quiz focuses primarily on insurance policy language and insurance contract features, in order to determine how capable consumers may be in choosing and using insurance policies. Looking across questions, the table shows that the correct response rate on individual questions ranges from 13.8 percent to 76.2

[3] I am grateful to Terri Vaughan and to the NAIC for making the detailed survey results available for this study.

percent of consumers. There is also great variation in the fraction of consumers who stated that they did not know the correct answer to a question. This ranges from 4.6 percent to 38.7 percent. In general, questions with low correct-response percentages also receive higher don't-know-response percentages but this is not universally the case.

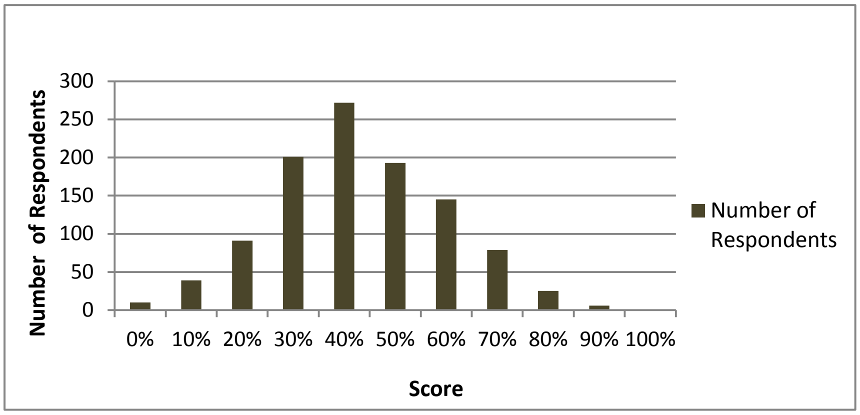
Table 1: NAIC Insurance IQ Test

Question	Question [correct answer]	Correct Answer	Do Not Know
Q1	Does your credit score affect how much you will pay for auto insurance? [yes]	46.1%	18.3%
Q2	Is auto insurance currently legally required in all fifty states? [no]	19.4%	19.6%
Q3	Can you only make changes to your group health insurance coverage during the open enrollment period provided by your employer? [no]	30.8%	16.4%
Q4*	If your auto policy states that your liability coverages are 100/300/100, what coverage does the last figure represent? [maximum property damage payment]	13.8%	38.7%
Q5*	At what age do most people become eligible for Medicare? [65]	59.5%	4.9%
Q6*	If you leave your job, either voluntarily or through termination, and decide to continue your health insurance benefits under COBRA, what will you pay? [the full cost of coverage]	54.0%	19.8%
Q7*	If personal items get stolen from your car, what kind of insurance covers the losses? [homeowners/renters]	36.6%	7.4%
Q8*	What is an umbrella policy? [additional coverage over and above your primary insurance policies]	35.0%	22.1%
Q9*	What type of financial coverage does short-term disability insurance provide? [a percent of your income]	59.1%	18.9%
Q10	Do you need to be related to someone to be a beneficiary on their insurance policy? [no]	76.2%	4.6%

* These questions are multiple choice; respondents chose their answer from a list of four possible answers.

Overall, the median score on the NAIC quiz was 4 out of 10 (40 percent) and the mean score was 4.29, (42.9 percent). Nonetheless, there was substantial variation in performance across consumers, with scores ranging from 0 (0 percent) to 9 (90 percent). The distribution of quiz scores is displayed in Figure 1.

Figure 1: NAIC Scores



Turning to an examination of the individual questions, consumers appear to be more knowledgeable about life and health insurance than about auto and property insurance. Questions 3, 5, 6, 9 and 10 ask about aspects of health insurance or life insurance coverage and the average score on those five questions is 62.2 percent. In contrast, Questions 1, 2, 4, 7 and 8 ask about aspects of automobile or related property insurance and the average score on those five questions is only 30.2 percent.

Looked at in another way, consumers tend to know less about specific features of coverage than about factors that affect insurance eligibility or pricing. For example, Question 4 (the terminology 100/300/100 for auto liability coverage), Question 7 (which policy would cover the loss of personal items stolen from your car), and Question 3 (when you may change your group health insurance coverage) are among the questions that receive the lowest correct response rates. In contrast, the two questions regarding insurance eligibility, Question 5 (age of Medicare eligibility) and Question 10 (who can be named a policy beneficiary) received the highest correct response rates and the lowest don't-know response rates (4.9 percent and 4.6 percent, respectively). Respondents also tended to be reasonably familiar with factors that affect premiums, such as credit scores in auto insurance (Question 1 – 46.1 percent correct) and COBRA coverage in health insurance (Question 6 – 54.0 percent correct), although don't-know response rates were also relatively high for these questions (18.3 percent and 19.8 percent, respectively).

Bristow-Tennyson Assessment

Like the NAIC quiz, the assessment developed by Bristow and Tennyson (2001) includes questions about all types of insurance; however, this quiz includes questions focused on insurance principles as well as on insurance contract features. For example, respondents to this quiz are asked about circumstances in which auto insurance and life insurance tend to be a better/worse value (Question 1 and Question 5, respectively), and about the main financial purpose of insurance (Question 10). Overall scores on the Bristow-Tennyson quiz ranged from a low of 0 (0 percent) to a high of 10 (100 percent), with a median score of 6 and an average score of 5.8 (58 percent). These results are somewhat better than, but comparable to, those obtained by the NAIC (Figure 1). The distribution of scores is displayed in Figure 2.

Figure 2: Bristow-Tennyson Scores

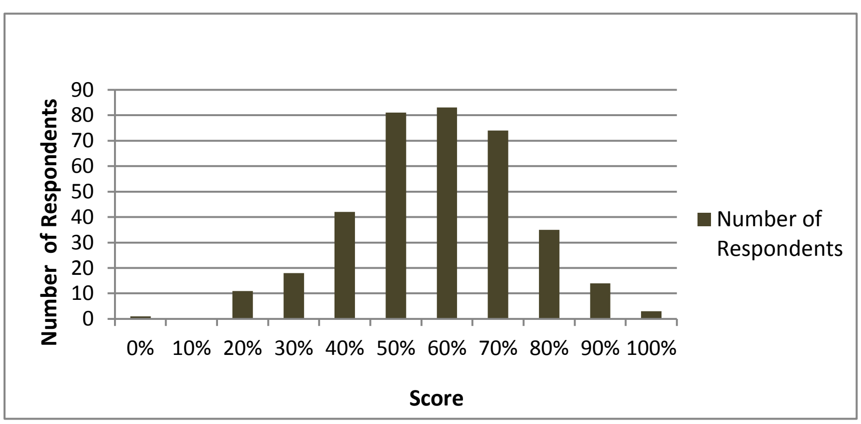


Table 2 displays the quiz questions and correct responses for each question in, along with the percentage of consumers who answered correctly and the percentage who responded that they did not know. The correct response-rates on individual questions range from 35.0 percent to 86.1 percent of consumers surveyed. The fraction of consumers who stated they did not know the correct answer ranges from 3.8 percent to 32.4 percent of the survey sample. As in the NAIC quiz, questions with low correct-response percentages also tend to receive higher don't-know-response percentages.

Table 2: Bristow-Tennyson Quiz

Question	Question [correct answer]	Correct Answer	Do Not Know
Q1	It is often a good idea to buy less insurance for an old automobile than for a new automobile. [agree]	60.8%	4.6%
Q2*	An automobile insurance policy with the limited tort option costs less because it limits the buyer's right to sue a person who injures them in an accident. [agree]	38.1%	32.4%
Q3	A larger deductible on an insurance policy is always a bad deal for the consumer because the insurer pays less of the consumer's losses. [disagree]	40.7%	7.8%
Q4	Life insurance has more value for a couple with young children than for a couple whose children are grown. [agree]	57.7%	4.3%
Q5	Buying insurance for long term nursing home care has little value because Medicare will cover most of those expenses. [disagree]	73.7%	6.5%
Q6*	Consumers are protected against insurance company bankruptcies by state funds that pay some of the claims of bankrupt insurers. [agree]	35.0%	30.8%
Q7	A homeowners' insurance policy will often pay the medical expenses of a guest who is injured on your property. [agree]	69.6%	9.7%
Q8	An annuity offers the same type of insurance protection as an investment-based or cash-value life insurance policy. [disagree]	42.2%	30.5%
Q9	Managed care in health insurance gives the insurance company more say in the treatments that a patient receives from his or her doctor. [agree]	64.5%	9.7%
Q10	The main purpose of insurance is to reduce the financial risk faced by the consumer. [agree]	86.1%	3.8%

*The surveyed state offers a limited tort option in auto insurance, and an insurance guaranty fund.

The patterns of correct response rates on individual questions contained in the Bristow-Tennyson quiz echo some of the patterns seen in the NAIC quiz. For example, the mean correct-response rate for questions on auto or property insurance (Questions 1, 2, and 7) was 42.1 percent; that for questions on life or health insurance (Questions 5, 8, and 9) was 59.5 percent. Thus, respondents appear to be more familiar with life and health insurance than with auto and property insurance, just as on the NAIC quiz.

Also consistent with the NAIC quiz, respondents did relatively less well on questions regarding specific details of insurance coverage or provisions. Question 2 (limited tort option in auto insurance) and Question 8 (managed care in health insurance) received among the lowest correct response rates, 38.1 percent and 42.2 percent respectively. These questions also received among the highest don't-know response rates (32.4 percent and 30.5 percent, respectively). One exception to this pattern is Question 7 (homeowners' insurance pays medical expenses for someone injured on your property), for which 69.6 percent of respondents knew the correct answer.

Correct-response rates tend to be higher for questions regarding general insurance principles. For example, the highest correct-response rate (86.1 percent) was for Question 10 (the main purpose of insurance is to reduce financial risk). Other questions for which respondents scored well include Question 1 (varying insurance coverage with the value of one's car) and Question 5 (the value of purchasing long term care insurance), which received correct response rates of 60.8 percent and 73.7 percent respectively. In total, Questions 1, 3, 4, 5, and 10 on the quiz might be characterized as questions about insurance principles, and the average correct-response rate on these questions was 63.8 percent. The average don't-know-response rate for this set of questions was also low, at 5.4 percent.[4]

Discussion

Taking them at face value, these assessments of consumers' insurance literacy suggest that the average consumer is not very well informed about insurance, since the mean scores on these assessments are less than 60 percent. The pattern of responses also reveals that consumers generally know more about health and life insurance than about auto and property insurance. Finally, consumers tend to be better able to answer questions regarding insurance principles and insurance terminology than they are able to answer questions regarding terms and conditions of individual policies.

This last pattern in the response data adds weight to longstanding concerns regarding the usefulness of insurance contract disclosures. Consumers who understand insurance concepts and terminology may nonetheless be relatively poor insurance shoppers if they fail to understand the terms of their insurance policy. These results suggest that revisiting the design of insurance disclosures may be a useful avenue for improving consumer insurance literacy.

These results also suggest that consumers may benefit from more specific information from insurance regulators. State regulators provide consumers with a wealth of information -- including insurance definitions, state requirements, and price comparisons across companies – via the internet and consumer brochures. Regulators may wish to focus additional consumer education efforts on specific coverage features, and comparisons of coverage features across companies.

[4] On both quizzes, a question regarding laws or regulations that varies across states received the lowest correct-response rate. I.e., Question 2 in the NAIC quiz asked if auto insurance is required in all states; Question 6 in the Bristow-Tennyson quiz asked if states provided guaranty funds to compensate consumers in cases of bankruptcy.

Consumer Literacy and Insurance Disclosures

A key objective of consumer protection regulation in insurance is to enhance the intelligibility of insurance contracts, including statements of policy terms and benefits. Mandating disclosure of pertinent information is consistent with this objective. However, if consumers have difficulty understanding or using disclosures then reliance on disclosures alone may be problematic. Findings from consumer surveys suggest that while consumers' purchase decisions may be hindered by insufficient awareness and understanding of their insurance policies, more usable disclosures or simpler contract forms may improve outcomes.

Making use of the growing knowledge of consumers' information processing from research in psychology, marketing and decision science to guide the design of insurance disclosures would be beneficial. Kirsch (2002) discusses the limitations of insurance disclosures and their regulation in light of this research literature, and issues a call for revising insurance disclosures based on empirical testing. The best approach is to design sample disclosures based on principles known from research, and then to evaluate their effectiveness through focus group and survey research.

Several recent studies in insurance have taken this approach.[5] The American Council of Life Insurers (ACLI) has sponsored research to develop simple disclosures for annuities products, using focus groups with both consumers and financial advisors to evaluate their effectiveness (Greenwald, 2007; Lanam, 2007). Consumers Union (CU) has used focus group research to evaluate the usefulness of a standardized "plan summary" included with the rate quote in health insurance (Wroblewski, 2007). Several more such studies are ongoing, some in response to requirements included in the recent

[5] See Tennyson (2010a) for further discussion of these studies.

federal health care reform bill, the Patient Protection and Affordable Care Act (PPACA) of 2010. PPACA requires the federal Department of Health and Human Services (HHS) to work with the NAIC to develop a uniform health insurance disclosure form (Abbott, et al, 2010). Consumer representatives to the NAIC are closely involved in efforts to design and test summary disclosure measures for health insurance contracts, based on research that analyzes consumer needs and preferences (Cude, 2011).

Additionally, states' "plain language" requirements on insurance contracts, which are intended to reduce the use of jargon and to clearly spell out contractual requirements, are being evaluated by the NAIC for improvements (NAIC, 2010b). States' plain language requirements vary a great deal: from those that mandate only general requirements for clear writing and the use of words with common and everyday meanings to those that additionally regulate sentence length, typeface and document spacing (Stempel, 2006).

Many of the latter states use a standard of "readability" for insurance contracts. "Plain language" is defined as "the simplest, most straightforward way, using only as many words as needed," while "readability" is defined as "an objective assessment of the literacy required to read and understand." (NAIC, 2010b). The most commonly used objective measure of readability is the Flesch Reading Ease Score, which is determined by applying an algebraic formula that makes use of word counts, syllables and sentence lengths in the document.[6] A lower Flesch score is meant to indicate a more difficult reading level and a higher score an easier reading level.

[6] Stempel (2006) reports the formula: Flesch score = 206.835 – 84.6(number of syllables/number of words) – 1.015(number of words/number of sentences).

The NAIC (2010b) notes that most state standards require a minimum Flesch score of 40, although several states require scores of 45 or 50. To provide benchmarks for these requirements, they note that the *Harvard Law Review* has a Flesch score in the low 30s and *Reader's Digest* has a Flesch score of 65. Critics of this approach point out that it focuses solely on structural measures and puts no weight on sentence content or language appropriateness (Stempel, 2006). For these reasons, plain language requirements – while seemingly less precise – may in practice be more useful than readability standards.

Improving Insurance Literacy Research

Improving insurance contract language and disclosures is highly dependent on knowledge of consumers' information needs and on their capacity to read and understand those contracts. The research evidence on these issues is sparse, but interest in these questions has increased substantially in recent years.

One perceived barrier to insurance literacy research is that there are no generally accepted standards for the essential elements of insurance that a "literate" consumer should know and understand, and no standardized and validated test instruments to assess consumers' knowledge of these elements. The two assessment instruments described in this brief represent first attempts to explore these elements. Nonetheless, these instruments are ad hoc and the questions and focus differ across the two. More systematic development is required to ensure that assessment instruments provide an accurate assessment of consumers' insurance literacy.

Because of the difficulties of developing reliable assessments of consumer literacy, education researchers increasingly emphasize the importance of assessing consumers' ability to navigate actual policy forms to make insurance decisions (Cude, 2011). This changes the primary focus of consumer literacy measurement to application rather than knowledge. In the insurance context, it also means that literacy assessments are tailored to the type of insurance rather than generalized for all insurance. This may be a useful insight. Different insurance products and markets are very distinct – for example, life, health, property, automobile, and disability insurance do not have the same purposes and are sold using very different contract forms, terms and concepts. A consumer may be very literate in one type of insurance but not in another. Results from the literacy assessments discussed here support that notion, since consumers' were found to be more knowledgeable about products and concepts in life and health insurance than about property and liability insurance.

A greater understanding of the causal effects of insurance training and information sources would provide useful insights into approaches to improving insurance literacy. Research designed to shed light on differences across individuals in insurance literacy is also important. Tennyson (2010b) finds that there is significant variation across individuals in both insurance knowledge and confidence in insurance decision-making. However, contrary to other studies of personal financial literacy, she found only a weak relationship between respondent educational attainment and insurance knowledge. Measures of insurance experience and interest in personal finance – including ownership of insurance, having taken a seminar or class in personal finance, and subscribing to financial publications – were stronger predictors of knowledge.

Some researchers also define consumer confidence in decision-making to be an important component of financial capability. Existing survey research has found that consumers do not feel that confident about insurance decision making (NAIC, 2010a).

Tennyson (2010b) found in addition that consumers are less confident about insurance decisions than they are about money management in general. Research into the determinants of consumers' (lack of) confidence in insurance decisions is therefore an important part of the agenda for insurance literacy research.

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