AUTO CREDIT QUOTATION ACCURACY
and Truth-in-Lending

by

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TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

The Federal Truth-in-Lending Act was passed in 1968 amid protests that accurate disclosure of credit terms, such as Finance Charge and Annual Percentage Rate, would be impossible to disclose. It was also alleged that such disclosure would result in a decline in the credit industry. Yet, since 1969 the credit industry has continued to grow.

Although creditors have been required by law to disclose credit in standardized terms on credit contracts and in oral statements, it is questioned whether the law is effective.

This study will examine whether consumers who ask creditors about auto financing, with and without credit life insurance, receive accurate Annual Percentage Rate and Finance Charge quotations.

History of Modern Consumer Credit

Consumer credit, although in existence since Biblical times, has flourished in the 20th century, particularly since World War II. With mass production has come mass financing (Morse, 1966, p. 5) enabling consumers to have goods when they want them. Installment credit has grown from $2 billion in 1945 to its current size of $178 billion (FRB, 1976, p. A46).

The full development of credit, as it is used today, is a post World War II phenomenon (Morse, 1966, p. 5). Although credit diminished during World War II, it increased 2 and 1/2 times in the 5 years following the War. In 1940, the finance companies held the major share of the outstanding credit. However, by 1950 the finance companies had lost their position to the banks, which have continued to dominate in the credit market, now holding 48% of the current credit outstanding (FRB, 1976, p. A46).

Automobile credit is approximately 33% of the outstanding consumer credit and dominates the credit market. Automobile dealers, however, have not been major creditors; they extend less than 1% of auto credit. The credit unions' share is approximately 19%, while the finance companies hold 22% of the auto paper. Banks are predominant, with almost

60% of the auto loans (FRB, 1976, p. A46). Automobile credit thus provides a significant frame for the study of disclosure of credit terms which assist the consumer in shopping for credit.

Various attempts were made during the early part of the 20th century to make credit more understandable. In the 1910 Russell Sage Foundation study of the credit industry interest rates approaching 300% were revealed. As a result of these findings a uniform small loan act was drafted providing for an interest ceiling of 3½% per month or 42% per year and for a licensed loan industry (Douglas, 1968, p. 102). The rate was applied to the unpaid balance and no other charges such as insurance were permitted. The small loan act was later enacted in many states, however the practice of charging usurious rates continued.

Credit unions were also being chartered at the same time as the regulation of the small loan industry was starting. Credit union membership was limited to those persons who share a common economic, political or social bond. The common charge for credit by the credit unions was 1% per month on the unpaid balance or 12% per year (Morse, 1966, p. 20). Credit unions, like finance companies, quoted the monthly rate in order to appear competitive with deceptively low rates being quoted by banks.

Also about this time Morris-Plan banks were developing to meet the needs of consumers for short-term loans. "The Morris-plan banks discounted consumer loans at the legal interest rate while requiring the borrower to establish a separate savings account on which no interest was paid" (Douglas, 1968, p. 103). This plan allowed consumers to borrow money for durable items which previously had been too costly to purchase on credit at rates which were deceptively low because they did not reflect the loss of interest on savings.

Paul Douglas, while serving in 1934 on the code authority of the National Recovery Administration recognized abuses in the consumer finance industry. He cited two major weaknesses: (1) The interest charge was based on original amount owed and not on the declining balance, resulting in an annual rate approximately double what was quoted. (2) The interest rates were quoted in monthly rather than yearly terms, again minimizing the impact of the annual rate (Douglas, 1968, p. 95).

Douglas suggested that rates be quoted on an annual basis and that interest be charged on the declining balance. The suggestion was met with such chilling silence that later it was suggested he resign his position with the code authority (Douglas, 1968, p. 96). Federal regulation of credit disclosure was not suggested again until after Douglas was elected to the U. S. Senate and had the opportunity to implement his earlier proposal of credit disclosure. In 1960 he introduced the Consumer Credit Labeling Act which would have required the disclosure of the simple annual rate based on the unpaid balance and disclosure of the total finance charge in dollars and cents.

The state of Massachusetts passed the first truth-in-lending statute in the nation in 1966. Passage of the statute prompted passage of the federal Truth-in-Lending Act the following year. Massachusetts, by example, had shown that truth-in-lending was possible and would not result in the collapse of the credit industry. Discussion of the Massachusetts act is limited due to the relatively minor contribution it made to the method of rate computations, since it utilized the constant ratio formula in computation of the annual percentage rate rather than the actuarial method.

The remainder of the introduction will familiarize the reader with the terms and events important to the study of automobile credit. The "Dislcosure of Credit Terms" section deals with Truth-in-Lending and its effects on auto credit. The section would be incomplete without a discussion of the Department of Defense Directive which established the first national truth-in-lending standard and proved the feasibility of calculating the annual percentage rate by the actuarial method. The disclosure section of the introduction also includes a discussion of closed-end and open-end credit to round out treatment of the subject matter.

Credit life insurance has become an accepted component of credit sales. Due to the increased penetration achieved by creditors, it is worthy of consideration. Discussion includes the historical background of credit life, current laws, regulations and proposals for improvement of credit life disclosures.

The introduction concludes with a review of previous credit quotation accuracy studies.

Disclosure of Credit Terms

On March 15, 1962, President John F. Kennedy in his historic message to Congress, "Protecting the Consumer Interest," enumerated the rights of consumers. These rights are: the right to safety, the right to chose, the right to be heard, and the right to be informed. "The right to be informed is the right to be given all facts necessary to make an informed choice" (H.R. Doc., No. 364). Truth-in-lending, although introduced before these rights were enumerated, conformed to the premise that consumers need accurate and meaningful information to make informed credit choices.

Critical questions for implementing the right to be informed are: (1) What terms should be disclosed? (2) How should they be disclosed to be meaningful and useful?

Truth-in-Lending

Senator Douglas, in his introductory statement at the hearings on the Consumer Credit Labeling Bill, said: " . . . the purpose of this bill is to require that the American consumer be given the truth, the whole truth, and nothing but truth, about the interest rates and finance charges he is asked to pay when he borrows money or buys an article on the installment plan" (Senate, 1960, p. 1). The Consumer Credit Labeling Act would require disclosure of the finance charge in dollars and cents and the percentage that the finance charge bears to the total amount to be expressed as a simple annual rate. It was re-introduced in 1961 as the Truth-in-Lending Act and again in '63, '65, and '67 sessions of Congress. Through the eight years of debate these basic provisions remained essentially unchanged (for a comparison see Senate, 1967, pp. 55-56).

Truth-in-Lending proponents argued that knowledge of credit terms is essential to making an informed choice. Over and over again during testimony for T-in-L examples were cited of debtors who were ignorant about the terms of their contracts and who have tried without success to learn about the terms. Consumers were told the amount of the monthly payments and the number of payments but rarely anything else. Charges for interest and insurance were hidden within the contract so consumers often never knew what they were paying for the privilege of credit (Douglas, 1972, p. 524-525).

Critics of T-in-L claimed consumers did not want to know the cost of credit or the rate they were paying for credit. Throughout the hearings, though, witnesses stated that had they known the true cost of credit they would have shopped for a better credit deal. One such example described in the hearings was of a man who purchased a TV set for $123.80. The only information he received with the TV was a statement that payments were $17.50 per month. A coupon book containing 24 coupons was the only indication the consumer received that payments would continue for 24 months. The ultimate cost of the TV was $420 at an annual rate of 229%. What is even more tragic is that the consumer either had to make the payments or lose his job (Senate, 1963, p. 25-34). A similar case involved a bus driver who borrowed $1,000 from a small loan company at the supposed rate of 4.5%. The actual rate turned out to be 29.5% or 6½ times the claimed rate (AFL-CIO, 1965, p. 5). The proliferation of rate quotations and other charges demanded standarization of the terms.

To demonstrate that knowledge of the dollar and cents cost of credit and the annual percentage rate was essential to make an informed and confident credit choice, Morse of Kansas State University designed a quiz involving four pairs of credit situations and four stages of information. He quizzed the Senators at the Hearings on the best credit plan, revealing components of the credit equation one step at a time. First, they were told only the monthly payments and amount of downpayment. The next step revealed the number of payments for each plan. A third step indicated the dollar finance charge, and finally the fourth step revealed the Annual Percentage Rate. At each stage of the quiz Senators had to select a credit plan based on the information given. As more information became available, the Senators found it easier to compare plans and to select the plan best suited to their needs. Without information on the total finance charge and annual percentage rate it was rather difficult to make an intelligent choice between plans. The Senators tended to guess at which option was the best realizing many factors affected the option they selected, including knowledge of the APR (Senate, 1961, pp. 306-322). The quiz demonstrated so well that disclosure of the finance charge and APR to be necessary for consumer to make informed credit choices that it was reported in a national syndicated newspaper article by the celebrated financial writer, J. A. Livingston (Senate, 1961, p. 1085).

Critics of T-in-L had argued that disclosure of an annual rate would confuse and frighten people. A representative for the National Foundation for Consumer Credit reasoned disclosure of a simple annual rate higher than six or eight percent would be labeled "usurious, unreasonable, a high rater or crooked even with the help of the law" (Senate, 1960, p. 466). The opposition held to positions such as that of Cheyney: "consumers may know full well in dollars and cents or in simplest direct percentages of the debt owed as differentiated from percent per annum" (Senate, 1960, p. 465). Consumers often learned after making a loan committment that 6% from one creditor was not equal to 6% from another creditor, nor did it mean the same as the 3% or 4% rate being paid on savings accounts (Senate, 1960, p. 469). Hoskins and Coles (1961) studied credit charges for automobiles. Over two-thirds of the families admittedly did not know the simple or annual interest they were paying to finance the purchase of their autos. Of those who thought they knew, many claimed they were paying 5 to 6 percent when in reality they were paying 12 to 32.5 percent (Senate, 1961, p. 364, Reprinted from Journal of Home Economics).

Truth-in-Lending requires all rates to be quoted as an Annual Percentage Rate figured on the outstanding unpaid balance. During the hearings critics of the bill, such as the American Bankers Association and National Foundation for Consumer Credit, argued disclosure of an annual percentage rate was too complicated. However, during the early 1960's, banks were figuring interest on a daily basis on savings accounts and select banks had developed tables for figuring the APR (Senate, 1961, p. 328). Credit unions had used a simple rate for years. Mechanisms for calculating the APR existed. The Federal Reserve Board needed only to designate the method to be utilized, it was argued (Senate, 1961, p. 341).

In 1967, the U. S. Treasury Department presented evidence to the Senate committee that the annual percentage rate could be calculated with accuracy. Tables developed by the Department allowed for calculation of the actuarial rate regardless of the irregularity of payments (Senate, 1967, p. 91). Sec. Barr of the Treasury Department demonstrated to the committee that there is no credit transaction for which an APR cannot be calculated with relative simplicity by the tables (Senate, 1967,

p. 99). Opponents of T-in-L could no longer argue convincingly that annual rate disclosure would be so complex as to be impossible.

A second, less volatile, issue debated during the hearings was the effect of disclosing the finance charge in dollars and cents. Opposition to disclosure of the finance charge was based on the fact that merchants would hide the finance charge within the selling price of the merchandise. Dr. Robert Johnson of the University of Michigan testified that "dealers in automobiles and other consumer durables . . . could easily drive the finance charge into the cash price of the product" (Senate, 1961, p. 253). Even if this were to happen, consumers would have the option of shopping for the lowest cash price then shopping for the lowest finance charge.

A third concern inherent in the discussion of the finance charge was what should be included in the finance charge. Proponents of T-in-L argued for inclusion of all charges "incident to the extension of credit." The finance charge would include interest, the time price differential and any other fees required by the creditor. The question of whether credit life insurance was "incident to the extension of credit" or an additional service was debated. A more detailed discussion of credit life insurance follows in a later section of this report.

Truth-in-Lending, implemented through Regulation Z issued by the Federal Reserve Bank, became effective July 1, 1969. Significant provisions which are of special interest to this study are: (1) disclosure of the total finance charge in dollars and cents, (2) disclosure of the Annual Percentage Rate, and (3) inclusion of credit life insurance in finance charge, if required by the creditor.

Of major significance to passage of T-in-L was the Department of Defense Directive effective in 1966 because it provided the first published government tables of annual percentage rate values. A discussion of T-in-L would be incomplete without reference to the Directive. Following this discussion, the two types of credit recognized by T-in-L are defined and discussed.

Department of Defense Directive, Disclosure Provisions

The Department of Defense published a directive September 29, 1965, intended to assist the serviceman in financial matters and to curb the abusive credit practices found near military establishments. The original directive was never implemented, but replaced by the directive of May 2, 1966 which became effective immediately. "The strength of this directive . . . lay in Section VI, Parts B and C, which stated that the Armed Forces would not provide assistance to creditors in the location of delinquent debtors unless the creditor met the full disclosure requirements and abided by the standards of fairness as set forth in the directive" (Lamb, 1974, p. 9).

Department of Defense Directive 1344.7 succeeded in establishing a national T-in-L standard. It included tables developed by the U. S. Treasury Department for computing the APR. Issuance of the Directive aided passage of T-in-L in 1968. A comparison of the DoD Directive and T-in-L made by Cynthia Lamb in 1974 showed the Directive to be superior to T-in-L, yet the Directive was amended after passage of Truth-in-Lending to incorporate its standards and provisions for disclosure.

The Directive required disclosure of credit terms to the military consumer. "It established the feasibility of disclosing the APR, recognized and proved the actuarial method" (Lamb, 1974, p. 70). Disclosure of a single Annual Percentage Rate calculated by the actuarial method was first required by the Directive. T-in-L uses the same method, but allows the use of multiple rates.

Secondly, the Directive "clarified the term 'finance charge,' by distinguishing between an ancillary or extra charge, and charges which directly benefited the creditor" (Lamb, 1974, p. 71). In addition to charges which benefited the seller, all charges which would not have been made if it were a cash purchase were to be included in the finance charge. Included in the finance charge was all credit life insurance charges, a provision lost with the passage of T-in-L.

Truth-in-Lending also eliminated the approach embodied in the DoD directive of recognizing consumer credit, as such, and by not differentiating between sale and loan credit. "The historic distinction between sales and loan credit persisted in T-in-L in spite of the advances made in the DoD directive. As a result, T-in-L requires three separate sections to accomodate this distinction" (Lamb, 1974, p. 50).

In summary, the DoD directive set a high national standard for truth-in-lending through disclosure of a single Annual Percentage Rate, clarification of finance charge, recognition of consumer credit as such, and inclusion of credit life insurance charges in the finance charge. Truth-in-Lending as passed by the Congress became effective in 1969 and was amended into the DoD Directive in 1969 (Lamb, 1974, p. 71).

Closed vs. Open-end Credit

Throughout the introduction, reference has been made to consumer credit, but without reference to any type of credit. T-in-L properly distinguished between "open-end credit" and "credit other than open-end." This study will be limited to an examination of the latter, to closed-end credit. However, for purposes of definition the following discussion of open-end and closed-end credit is included.

Open-end credit refers to accounts commonly known as revolving charge accounts. The finance charge is assessed on the outstanding unpaid balance and the Annual Percentage Rate is equivalent to the periodic percentage rate multiplied by the number of periods, ususally 12 for monthly periods.

Open-end credit, as defined by Truth-in-Lending:

> . . . means consumer credit extended on an account pursuant to a plan under which (1) the creditor may permit the customer to make purchases or obtain loans, from time to time, directly from the creditor or indirectly by use of a credit card, check, or other device, as the plan may provide; (2) the customer has the privilege of paying the balance in full or in installments; and (3) a finance charge may be computed by the creditor from time to time on an outstanding unpaid balance . . . the term includes consumer credit extended on an account by use of a credit card whether or not a finance charge may be imposed. (12 CFR 226.2 (x))

In addition to open-end credit, T-in-L also designates credit other than open-end. However, T-in-L further differentiates closed-end credit as (1) a credit sale--"any sale with respect to which consumer credit is extended or arranged by the seller" (12 CFR 226.2 (t)); and (2) loans and other nonsale credit--"a loan or an extension of credit which is not a credit sale" (12 CFR 226.8 (d)).

In the study, both types of closed-end credit are exemplified. Closed-end credit is, generally, credit for a specific amount and term. The debt is amortized through regular installments. In most instances the finance charge is precomputed, that is, computed at the beginning and added to the principal amount to determine the monthly payment amount.

Disclosures required under T-in-L regulations vary for sales credit and non-sale credit. Sale credit requires disclosure of cash price, total downpayment, unpaid balance, total prepaid finance charge and required deposit balance, amount financed, finance charge, and deferred payment price in addition to the terms common to both classifications (12 CFR 226.8 (c)). Disclosures required for nonsale credit are: amount financed, total prepaid finance charge and required deposit balance, and finance charge (12 CFR 226.8 (d)). Disclosures common to both classifications are: number, amount, and due dates of payments, total of payments, finance charge, finance charge expressed as an Annual Percentage Rate, and date finance charge begins to accrue.

Credit Life Insurance

Insurance for the stated purpose of paying off a loan in the event of death of the debtor seemed preposterous in 1917. However, it has since become an accepted part of consumer credit. Credit life insurance is usually decreasing term insurance equivalent to the amount of the loan, outstanding at any time during the life of the loan. The purpose is to protect the borrower's family against an unpaid debt should the borrower die.

Credit life insurance is unique in that the premium rate is unaffected by the age of insured or amount of insurance (Hubbard, 1973, p. 84). The premium rate is determined by: (1) the mortality cost, (2) insurer's administration expense and profit, and (3) creditor compensation. Credit life insurance premiums are usually quoted at cents per hundred dollars per year and the premium rate applies to all debtors from any one creditor (Hubbard, 1973, p. 27). In Kansas, the typical rate was $1 per $100 per year from 1955 until 1974 when premium rates became regulated by the Insurance Commission by authority of the Uniform Consumer Credit Code (KSA, 16a-4-203).

Credit life insurance is characterized by (1) coverage automatically equal to the loan outstanding, (2) insurance without evidence of insurability, (3) inclusion of premium with loan payments, and (4) those characteristics mentioned earlier.

"Typical loans covered by credit insurance are unsecured personal loans for general purposes and commodities purchased on time payments, such as automobiles, furniture, vacations, mobile homes, appliances, or home improvements" (Hubbard, 1973, p. 1). Banks, credit unions, and finance companies are the important lending institutions in this area.

With the development of Morris Plan banks in 1917, Mr. Morris searched for a way to relieve the burden of debt which would fall to the cosigner should the borrower die. He incorporated the Morris Plan Insurance Society after being refused by the major insurance companies because mortality rates were unknown. "Rates were based on individual ages. With the slogan, 'No man's debts should live after him,' the society has flourished to become one of industry's mainstays" (Kedzie, 1957, pp. 17-18).

In 1928, National City Bank offered the first credit life insurance policy on a group basis. "By 1930, although only three companies wrote consumer credit life insurance, business in force totaled $73 million. This rapid rise can be attributed to the increased use of installment credit, especially automobile purchases, which become prominent after World War I" (Kedzie, 1957, pp. 19-20). The Credit Union National Association was organized in 1934 with a request to write its own insurance made at the first board meeting. Consequently, the CUNA Mutual Insurance Society began operation in August, 1935.

Consumer credit insurance grew only slightly until after World War II then experienced a tremendous surge. From 1945 to 1955 consumer credit life insurance increased 4,000% while regular group life insurance experienced a 500% increase for a comparable period (Kedzie, 1957, p. 26). In this same period consumer credit, specifically automobile credit, experienced exceptional growth. In 1917, there were only 1,000 policies and less than $500,000 of credit life insurance in force. In 1975 there were a reported 79.7 million policies and $112 billion of credit life insurance in force. The average size life insurance policy has increased from $200 in 1920 to $1,410 in 1975 (American Council of Life Insurance, 1976, pp. 32 & 22).

There are few studies of credit life insurance. Charles Hubbard of Ohio University edited in 1973 a major study of the subject. A more recent study was completed by Thomas Durkin in 1975.

In the survey completed by Hubbard, ". . . about 92 percent of the respondents who had purchased credit life insurance previously said they would buy the insurance again in future credit transactions. Among the respondents, the desire to protect the family was the most important reason for wanting the coverage. Next in importance was insurance equal to debt and loan cost coverage. Those who would choose not to buy insurance (8%) said they had enough insurance, and premium rates were too high. The same reasons were given by those who had never purchased credit life insurance" (Hubbard, 1973, pp. 82-83).

These results are similar to those of two studies done in the 1950's. A 1952 study sponsored by the Consumer Credit Insurance Association in Colorado came to these same basic conclusions. Ninety-one percent of the respondents would want credit life insurance if borrowing money or making a time purchase. The reasons given for desiring coverage were "provides protection for family, coverage equal to amount of debt, and insurance is economical . . . the 5.3 percent of respondents who said they would not want credit insurance gave the following reasons: (1) have sufficient insurance, (2) premium rates are too high . . ." (Hubbard, 1973, p. 62). The second question asked on the survey was would you recommend credit life insurance to a friend. Three-fourths of the respondents would recommend credit insurance.

The conclusion of the 1957 Nebraska study was "there was a strong demand for credit insurance in Nebraska, especially among consumers who previously had bought it before" (Hubbard, 1973, p. 63).

In the study completed by Durkin of Pennsylvania State University, surveying borrowers from loan companies in Texas, two possible hypotheses were set forth: (1) there was a suspiciously high rate of voluntary acceptance of credit insurance, or (2) borrowers might find the insurance to be useful and desirable. Three questions on the survey dealt specifically with credit insurance.

"If you were to borrow money to buy an item, would you want the loan insured so it would be paid off if you died?" (Durkin, 1975, p. 85). Ninety-three percent of the respondents would want insurance as opposed to 5.3% who responded no. Additionally, 95% of the respondents felt credit insurance was a good idea. Most respondents (88%) would also recommend to a friend their taking out credit insurance (Durkin, 1975, p. 86).

It is evident from the reported studies that consumers find credit life insurance desirable. Because credit life insurance has become an integral part of the credit sale and enjoys a high penetration rate, it has been studied in detail. As a result of these studies, recommendations have been made to change the disclosure requirements. Before discussing these recommended changes, current laws and regulations will be reviewed.

The Kansas Uniform Consumer Credit Code defines credit life insurance as:

> . . . insurance, other than insurance on property, by which the satisfaction of debt in whole or in part is a benefit provided, but does not include (a) insurance provided in relation to a credit transaction in which a payment is scheduled more than ten (10) years after the extension of credit . . . (KSA, 16a-4-103).

Credit Life insurance then applies to short term consumer loans and pays off the debt in the event of death of the debtor.

The Kansas UCCC allows a creditor to "contract for and receive a charge for insurance in addition to other charges. However, the creditor need not make a separate charge for insurance provided or required by him" (KSA, 16a-4-104 (1)).

If the creditor makes a separate charge for insurance, then the premium may be financed by the creditor. However, if the insurance is a condition for extension of the loan, then the premium is included in the finance charge. The UCCC requires inclusion of credit life insurance premiums in the finance charge unless:

> . . . the insurance coverage is not a factor in the approval by the creditor of the extension of credit, and this fact is clearly disclosed in writing to the consumer, and if, in order to obtain the insurance in connection with the extension of credit, the consumer gives specific affirmative written indication of his desire to do so after written disclosure to him of the cost thereof (K.S.A. 16a-2-502 (2)(b)).

The UCCC further regulates the premium rates and charges made by creditors. A creditor is prohibited from charging an amount for the premium in excess of the premium charged by the insurer (KSA 16a-4-107 (1)). The UCCC gives the Insurance Commissioner the authority to establish reasonable rates (KSA 16a-4-203 (2)). According to the Insurance Department's Rules and Regulations, the rates are ruled reasonable if a 50% loss ratio is maintained. Secondly, premiums may not exceed the maximum rates established by the insurance commissioner. The maximum rates for credit life insurance are: $.75 per one hundred dollars per annum for decreasing term life insurance, one and two-thirds of the appropriate single life rate for joint life insurance, and $1.38 per one hundred dollars per annum for level term insurance (Ks. Reg. 40-5-107(2)).

Suggestions have been made to change credit life insurance disclosures and premium rates. These changes are proposed to make credit life insurance more equitable and to give consumers adequate information when purchasing credit life insurance.

The National Commission on Consumer Finance, a commission mandated by Congress with the passage of T-in-L, made recommendations to improve the effectiveness of disclosure features of T-in-L and to expand the Act to include disclosures of credit life insurance as an annual percentage rate. Disclosure of the insurance premium in dollars and cents and as an annual percentage rate was felt by the Commission as a means to encourage a competitive credit life market. In addition the disclosure would be in the same form as currently required for finance charge disclosures (National Commission on Consumer Finance, 1972, p. 89).

The Commission further suggested that credit life insurance charges should not subsidize the financing of loans nor should financing subsidize credit life premiums. The two operations should stand alone (NCCF, 1972, p. 86).

Another concern of NCCF was that of premium rate levels, rate structures, and reverse competition. Due to the manner in which commissions on credit life sales are paid, high premium rates are encouraged since higher rates mean higher commissions. "Because the creditors interests tend to be in higher credit insurance rates rather than the lowest obtainable rates, and because the economic factors are such that debtors cannot or will not shop for credit insurance, there is considerable justification for government regulation of rates" (NCCF, 1972, p. 86). "The Commission recommends that states immediately review their own charges for credit insurance and lower rates where they are excessive" (NCCF, 1972, p. 89).

The Federal Reserve Board has also recommended disclosure of credit life insurance be amended. In its 1976 annual report to Congress on T-in-L, the Board recommended:

> that the Act (T-in-L) be amended to require that, in order for credit insurance to be classified as voluntary and excluded from the finance charge, the creditor must grant an

absolute right of insurance cancellation for a reasonable time after its purchase (Federal Reserve System, AppC).

With penetration rates approaching 100 percent it was questioned whether some credit life insurance purchases are voluntary.

It is evident credit life insurance is an integral part of credit. With this prominence, recommendations for changing the current disclosure provisions have come. It will only be a matter of time before changes are made.

Credit Quotation Accuracy Studies

Each semester since 1959 students have interviewed creditors for dollar cost and annual percentage rate information. Summaries of the interviews were published by Morse and Courter in 1963 using 1962 data, and by Redeker in 1964 using 1963 data and comparing these data with 1959-1962 data, thus providing data for a four year period prior to T-in-L.

Both studies utilized data collected by students enrolled in the course, Family Finance. A hypothetical credit problem was presented to creditors who were asked: (1) the monthly payment, (2) the total credit cost in dollars, and (3) the credit cost as a simple annual rate on the money in use for the hypothetical loan. Students presented the problem to a bank, finance company, car dealer and credit union, if available.

Information received from the creditors was computed and tabulated for accuracy. Morse and Courter allowed a tolerance of $1.50 in accepting dollar cost quotations as correct and reported 84% of the banks, 78% of the used car dealers, 84% of the finance companies and 77% of the credit unions were within the tolerance limit. Secondly, Morse and Courter used the constant ratio formula for approximating the annual percentage rate. Quotations were considered correct if they were within three percentage points of the computed rate. With this allowance Morse and Courter reported quotations from 26% of the banks, 17% of the credit unions annual percentage rate as acceptable.

In addition to verifying the quotations by creditors Morse and Courter attempted to confirm the students' perception of the accuracy of the creditor's quotations. Before the results were discussed with the students, they were asked whether they thought the information they received was truthful. The percent of students who believed quotations to be accurate, by institutions, was 83% for banks, 58% for used car dealers, 59% for finance companies, and 80% for credit unions. Student reasons for believing as they did fell into three categories: those based on faith, those based on judgments or reason, and those based on recalculations. A student was declared "discernible" if the student believed a correct quotation to be correct, or an incorrect quotation to be in error. Approximately one-third (38%) of the students were discernible. Their ability to detect errors varied both with their prejudice and with correctness of dealer quotation (Morse and Courter, 1963, p. 123). For example, they were least discerning of banks because their faith in banks was not warranted. On the other hand, their skepticism of finance companies was warranted, so they were discerning of them.

Redeker (1964) utilized the same procedures in reporting on creditors' accuracy and students' ability to discern. The problem posed to creditors was financing a $350 used car over a 12 month period. Creditors were expected to state the amount of monthly payment, total dollar cost of credit, and the nominal or simple annual rate. Median monthly payments were ranked by institution with finance companies the highest, followed by used car dealers, banks and credit unions.

The method of rate quotation was classified as add-on, add-on discount, or simple interest rate (approximating annual percentage rate) (Redeker, 1964, p. 23). "The add-on method of quotation was used almost exclusively by used car dealers, by approximately half of the banks, and by many of the consumer finance companies. The simple annual rate quotation was used by consumer finance companies and almost exclusively by the credit unions" (Redeker, 1964, p. 29).

Verification of dollar cost quotations was performed by multiplying the payment amount by 12 and subtracting the $350 to obtain a computed dollar cost. An allowance of ± $1.50 was established between the computed and quoted cost to be accepted as correct. Banks (95%), and credit unions (92%) were the most accurate, followed by finance companies (70%) and car dealers (55%) (Redeker, 1964, p. 30).

The constant ratio formula was used to compute the annual rate to be compared with the creditor's quoted rate for accuracy. A tolerance of ± 3 percentage points was allowed and the rates quoted by 69% of credit unions, 51% of banks, 41% of finance companies and 13% of used car dealers were within these wide tolerance limits.

Further, Redeker compared these results to the previous year's study and with data collected annually since 1959. "Dollar costs were quoted more accurately than rates for all years" (Redeker, 1964, p. 53). However, the "accuracy of rate quotations did vary considerably by dealer; but, like dollar costs, did not vary significantly by years" (Redeker, 1964, p. 70).

Analyzed in addition to rate quotations were student opinions which varied by dealer. Again most faith was put in banks and credit unions and least faith in finance companies and used car dealers. More students in 1964, used computations as a means of discriminating whether an answer was correct than did in the Morse and Courter report (Redeker, 1964, p. 71). However, students were more skeptical of creditors than in the previous study, and were discerning in approximately 58% of the cases.

These are the only studies reporting data collected each semester by family finance students at Kansas State University. They document the quality of credit quotations available prior to T-in-L. Since 1964, state and federal laws have changed significantly. The purpose of this study is to document the quality of credit quotations available to students under Truth-in-Lending laws.

OBJECTIVES

The major objective of this study is to determine whether consumers when making inquiry about auto loans with and without insurance receive accurate Annual Percentage Rate and Finance Charge quotations. The specific objectives are:

1. to verify Annual Percentage Rate and Finance Charge quotations received by consumers,
2. to verify credit life insurance quotations,
3. to analyze the distribution of quotations and their accuracy by type of creditor,
4. to observe the variation in quotation methods used by creditors, and
5. to reconstruct how credit life insurance premiums may be computed under Kansas law.

PROCEDURES

Collection of Data

The methods employed in this study are similar to those used in the 1962 and 1963 studies (Morse & Courter, 1963, and Redeker, 1964).

The data for this study were collected by students at Kansas State University enrolled in the course Family Finance over four semesters. The students were instructed to contact a bank, used car dealer, finance company, and credit union and to pose the following credit problem:

> Your family is buying a new car. After the trade-in allowance the family needs $3000 to complete the purchase. They would like to pay this off in 24 monthly payments. What terms are available if the borrower DOES NOT want credit life and disability insurance? What terms are available if the borrower desires credit life insurance, but not disability insurance? (Exhibit 1)

The credit problem was varied each semester to account for creditors who were regularly asked for information by students. The problem as stated was used in the fall of 1975 (F75) and again in the spring of 1977 (S77). For the spring of 1976 (S76), the problem was stated as a $3000, 36 month loan, and in the fall of 1976 (F76) it was a $2400, 24 month loan.

The creditors were asked to complete a form exhibited on the following page. The problem was stated across the top. The form was similar to a credit contract: (1) cash proceeds, (2) other charges--itemized, (3) amount financed (1 + 2), (4) finance charge, (5) total of payments (3 + 4), (6) amount of each payment, and (7) Annual Percentage Rate. The form was divided into two sections: one for terms of a loan without credit life insurance, and the other for terms of a loan with credit life but not disability insurance.

The students interviewed creditors in their home towns during the Thanksgiving or Spring break of each semester. Each student interviewed at least three different credit institutions, usually a bank, finance company, and car dealer. Credit unions were not available to all students, so some interviewed two of the same type of institutions, such as, two banks or finance companies.

Exhibit 1

Credit Problem   Student______________ Date________

Your family is buying a new car. After the trade-in allowance the family needs $3000 to complete the purchase. They would like to pay this off in 24 monthly payments.

What terms are available if the borrower DOES NOT want credit life and disability insurance?

1. Cash Proceeds $__________
2. Other charges, itemized
   __________ $__________
   __________ $__________
3. Amount Financed (1 + 2) $__________
4. FINANCE CHARGE $__________
5. Total of Payments (3+4) $__________
   (amount of each payment $__________)

ANNUAL PERCENTAGE RATE__________%

What terms are available if the borrower desires credit life insurance, but NOT disability insurance?

1. Cash Proceeds $__________
2. Other charges, itemized
   __________ $__________
   __________ $__________
3. Amount Financed (1 + 2) $__________
4. FINANCE CHARGE $__________
5. Total of Payments (3+4) $__________
   (amount of each payment $__________)

ANNUAL PERCENTAGE RATE__________%

Name of Firm:

Location:

Descriptive literature will be appreciated.

COMMENTS: (on back)

Treatment of Data

The information from the interview form was transferred by the students upon return to class to a code sheet exactly as they received it from the creditors. The code sheet consisted of insitution code, the identification number, insurance code, cash proceeds, credit life insurance premium (if any), total of other charges (if any), amount financed, finance charge, total of payments, regular monthly payment, odd payment (if any), and Annual Percentage Rate for each creditor interviewed. There were usually two quotations from each bank, finance company, and car dealer: one with credit life, and another without credit life insurance. Only one quotation, with credit life insurance, was received from credit unions since their policy is to provide credit life insurance with their loans at no additional charge.

The code sheets as completed by the students were checked against the completed interview form received for possible error in copying the responses. A sample code sheet is Exhibit 2.

The data were subjected to several error tests for accuracy and completeness. These tests were applied sequentially, so the refining process resulted in only those quotations which were suitable for analysis.

Quotations classified as having gross errors, the first error identified, were those which had an incorrect amount financed, incorrect number of monthly payments, or incorrect insurance code. Verification of the total of payments was made by multiplying the monthly payment by the number of months and comparing it with the creditors quotations of total of payments, and considered verified if the difference was one dollar or less. An error range of two dollars was permitted to allow for minor mathematical or transposition errors. Those cases which did not meet the standards for accuracy were immediately rejected and not used again except for analysis of credit life insurance premiums. This was the second error test.

Calculation of the finance charge was made by subtracting the amount financed from the total of payments. Verified finance charge quotations were those within $1.00 of the figured finance charge. Again the $2.00 error range was established to allow for minor mathematical errors. This was the third error test.

THE FOLLOWING PAGES ARE BADLY SPECKLED DUE TO BEING POOR QUALITY PHOTOCOPIES.

THIS IS AS RECEIVED FROM CUSTOMER.

ILLEGIBLE DOCUMENT

THE FOLLOWING DOCUMENT(S) IS OF POOR LEGIBILITY IN THE ORIGINAL

THIS IS THE BEST COPY AVAILABLE

Exhibit 2

Name____________________

Please fill in the information from your creditor interviews in the squares provided below. Use a separate line for each of the 7 cases (2 from each of the 4 institutions, except the credit union which has just one). Information as to how each set of boxes should be coded can be found below under letters corresponding to the letters under the boxes. Decimal points have been provided for you in the coding boxes.

A	B	C	D	E*	F*	G	H	I	J	K*	L
			.	.	.	.	.	.	.	.	.
			.	.	.	.	.	.	.	.	.
			.	.	.	.	.	.	.	.	.
			.	.	.	.	.	.	.	.	.
			.	.	.	.	.	.	.	.	.
			.	.	.	.	.	.	.	.	.
			.	.	.	.	.	.	.	.	.

A. Type of institution

1 = bank
2 = finance company
3 = car dealer
4 = credit union

B. Your ID number --- ignore

You have been assigned a 2-digit ID number. Fill in both boxes, i.e. ID number 5 would be coded:

|0|5|

C. Insurance

1 = without insurance
2 = with insurance

D. Cash proceeds

Fill in the amount quoted, i.e. $3,000 would be coded

|3|0|0|0|.|0|0|

E. Credit life insurance

Fill in the cost of credit life insurance. If none, leave blank.

F. Other charges

Fill in the sum total of such charges as investigation fees, filing fees, and taxes. If none, leave blank.

G. Amount financed

Fill in the figure the creditor quoted you.

H. Finance charge

Fill in the figure the creditor quoted you.

I. Total of payments

Fill in the figure the creditor quoted you.

J. Monthly payment

Fill in the amount of the regular monthly payment. In the case of an odd payment, this figure would be the amount of the payment which would be made most often, and the odd payment will be listed under K.

K. Odd payment

Fill in only if 24 equal payments were not made. If no odd payment, leave blank.

L. Annual percentage rate

Fill in the rate the creditor quoted you.

*May be left blank, depending on the creditor's practices. All other items should be filled in.

Note: Fill in each section with the figures the creditor gave you, even though you may know they are wrong.

Annual Percentage Rate verification was the final step in the refining process to eliminate erroneous data. The computer was programed to calculate the APR on the assumption that all payments were equal. A quotation was verified if the quoted APR was within .125 percentage points of the figured APR. The range of .25 percentage points conforms to the Regulation Z standard which requires the Annual Percentage Rate be disclosed with an accuracy at least to the nearest quarter of one percent (12 CFR 226.5 (b)(1)). The verified quotations were those accepted for analysis.

Insurance questions presented a challenge. The Kansas Insurance Commissioners office has established \$.75 per hundred per annum as the maximum rate for single decreasing term credit life insurance. To determine the premium rate charged by creditors the insurance premium was divided by the total of payments per hundred dollars by the term of the loan in years. The rates were then classified as less than \$.75, equal to \$.75 or greater than \$.75 by institution. The classifications used for the frequency distribution of rates was made to conform to the data.

Since many of the rates in terms of the proceeds appeared to be higher than permitted by law, the quotations were further scrutinized for reasonableness. Many creditors increased the amount financed by the insurance premium allowing them to finance the premium. Furthermore, they seemed to be insuring that financing which required an additional premium which in turn was insured. This compounding is presented in greater detail in the Discussion section. All quotations were accepted as given for purposes of analysis.

Finance charge quotations were listed from low to high by institution and by insurance classifications--without and with. The median, first quartile, and third quartile were computed for each list. Annual Percentage Rate quotations and credit life insurance quotations were handled in the same manner.

Special accomodations had to be made for those institutions which chose to start with a different amount for cash proceeds than requested in the problem. This was usually done by the institution to accomodate their tables. All those which quoted amounts other than the stated cash proceeds were listed by institution and insurance classification. Also separately listed were those institutions quoting even monthly payments, usually in dollars only and no cents. Those institutions which chose to vary the cash proceeds were compared to those which stated even monthly payments to test the hypothesis that the odd proceeds permitted even monthly payments.

Another quotation method often used by creditors was to base the calculation of the finance charge on an add-on rate. To detect such usage, the add-on rate was computed for each quotation. A creditor was assumed to be using the add-on rate if the calculated rate was within .01 of even possible charges such as 6.00, 6.25, 6.50, 6.75 or 7.00. The .02 range allowed for rounding errors.

Credit union conditions of 1% per month on the unpaid balance and inclusion of credit life insurance at no additional charge were used as a standard for comparison of loan cost quotations. These conditions were used as the base (base = 100) to which all other quotations were indexed. The index was computed by dividing each finance charge quotation by the base and multiplying by 100. The median finance charge quotations for with and without-insurance were indexed. In addition the insurance premium was added to the with-insurance finance charge for a comparison of all out-of-pocket costs to the consumer.

The results of the data obtained for each semester are discussed and summarized in the following section. A summation of the number of institutions interviewed and number of quotations is presented. A discussion of the accuracy of the quotations by type of error and by institution follows. The results are then presented by area, credit life insurance, finance charge, annual percentage rate, quotation method and cost index. In most instances the fall of 1975 results are discussed and the remaining semesters are summarized due to the similarity of the data for each area.

RESULTS

Each semester since 1959 Family Finance students have interviewed creditors within the state of Kansas. Since the fall of 1975 they have interviewed 869 creditors. The results of these interviews are presented by semester in Tables 1 through 12.

Over Thanksgiving break during the fall of 1975, 223 credit institutions were interviewed by 63 Family Finance students. They obtained

388 quotations. The problem which the students presented to the creditors was a $3,000, 24 month loan on a new car, with and without credit life insurance.

Over spring break during the spring of 1976, 313 credit institutions were interviewed by 92 students. They obtained 582 quotations. The problem which the students presented to the creditors was a $3000, 36 month loan on a new car with and without credit life insurance.

Over Thanksgiving break during the fall of 1976, 124 institutions were interviewed by 33 students. They obtained 224 quotations. The problem which the students presented to the creditors was a $2400, 24 month loan on a new car with and without credit life insurance.

During the spring break of 1977, 209 institutions were interviewed by 67 students. They obtained 395 quotations. The problem which the students presented to the creditors was a $3000, 24 month loan on a new car with and without credit life insurance.

The results will be discussed in terms of their overall accuracy, credit life insurance premium rates and premiums, finance charge quotations, annual percentage rate quotations, quotation methods and relative cost index.

Accuracy

Error tests were performed on the data to eliminate those quotations which were the result of poor communication, that is the gross errors and the small errors where the total of payments was inconsistent with the conditions of the loan. This eliminated 17% of the quotations. Next, those quotations which did not meet the $1.00 finance charge error test were eliminated in addition to those which could not meet the .125 percentage point error test for the correct annual percentage rate, leaving 75% which met the very strict criteria for accuracy. The distribution of these errors is presented in Table 1.

Gross errors, the largest number of errors (11%), were apparently due to creditor carelessness. A creditor might fail to include the credit life insurance premium on an insured loan, or not add the other charges to cash proceeds for the correct amount financed. Another source of error was in the incorrect total of payments (6%). Errors greater than ± $1.00 between the computed and quoted total of payments were rejected.

Table 1. Distribution of quotations by type of error for each semester.

Quotations	Fall 1975	Spring 1976	Fall 1976	Spring 1977	All
Initial number	388	582	224	395	1589
less:					
gross error	31	50	22	73	176
error in total of payments a/	7	24	13	36	90
error in finance charge a/	4	11	8	7	30
error in Annual Percentage Rate b/	23	27	17	26	93
Correct quotations	323	470	164	243	1200

a/ Error if difference more than $1.00 between quoted and computed amounts.

b/ Error if difference more than .125 percentage points between quoted and computed amounts.

Occasionally, creditors would quote payments for a 36 month loan when the problem stated a 24 month loan.

Prior to calculating the finance charge accuracy a total of 266 quotations were rejected--the sum of gross errors and total of payments incorrect. The remaining 1323 quotations were verified for finance charge accuracy within one dollar of the computed finance charge. The finance charge was quoted accurately in 97% of the remaining quotations.

Again those quotations which were in error were rejected before verification of the annual percentage rate. A total of 1293 quotations were checked for APR accuracy. Annual percentage rate accuracy was 92% for all institutions. A tolerance of $\pm$ .125 percentage points was allowed in accepting quotations as correct.

Presented in Table 2 are the errors by type of institution for each semester. The finance charge was quoted most accurately by all institutions. Banks and car dealers were most accurate with 98% followed by finance companies and credit unions both 96%. Banks were the most accurate with 96% stating correct APR quotations followed by finance companies with 94%, credit unions with 90% and car dealers 87%. The gross error was most likely to be the largest source of error for most institutions except banks. Finance companies for three out of four semesters had the largest number of gross errors.

Credit life insurance

Credit life insurance premium rates were determined for each quotation and are classified in Table 3. The credit life quotations were approximately half the total quotations received from the banks, finance companies and car dealers; credit unions made no explicit charge for credit life insurance. The majority of the insitutions assessed premiums at the rate of $.75 per hundred dollars per annum based on the total of payments. (The total of payments includes the assessment for credit life insurance as differentiated from the loan proceeds. This is explained in greater detail in the Discussion section.) This is the maximum rate for single decreasing term life insurance. Overall, banks charged this rate in 74% of the quotations while finance companies and car dealers used it in 50% and 59%, respectively, of their quotations. Finance companies were the only institution to utilize the high rate of $1.25 per

Table 2. *Distribution of errors* by type of error and institution.

Institution	Initial number	Type of error: Gross error	Total of payments incorrect	Finance charge incorrect	APR incorrect	Number correct for analysis
			Fall, 1975			
All	388	31	7	4	23	323
Banks	116	11	1	0	1	103
Finance Cos.	107	9	0	1	2	95
Car Dealers	113	11	3	2	14	83
Credit Unions	52	0	3	1	6	42
			Spring, 1976			
All	582	50	24	11	27	470
Banks	201	5	9	2	5	180
Finance Cos.	167	30	5	6	7	119
Car Dealers	165	12	8	2	13	130
Credit Unions	49	3	2	1	2	41
			Fall, 1976			
All	224	22	13	8	17	164
Banks	70	2	3	1	0	64
Finance Cos.	66	12	4	3	4	43
Car Dealers	65	6	4	2	11	42
Credit Unions	23	2	2	2	2	15
			Spring, 1977			
All	395	73	46	7	26	243
Banks	140	14	18	3	10	95
Finance Cos.	95	41	7	2	3	42
Car Dealers	112	9	12	1	10	80
Credit Unions	48	9	9	1	3	26
			All			
All	1589	176	90	30	93	1200
Banks	527	32	31	6	16	442
Finance Cos.	435	92	16	12	16	299
Car Dealers	455	38	27	7	48	335
Credit Unions	172	14	16	5	13	124

Table 3. Distribution of credit life insurance quotations by rate charged by institution for each semester.

Institution and rate a/	Fall, 1975		Spring, 1976		Fall, 1976		Spring, 1977		All	
	no.	percent	no.	percent	no.	percent	no.	percent	no.	percent
Banks	55	100%	100	100%	34	100%	69	100%	258	100%
< $.75	7	12	12	12	3	9	6	9	28	11
= .75	43	78	78	78	25	74	46	66	192	74
> .75	5	9	10	10	6	17	17	25	38	15
Finance Cos.	49	100%	78	100%	32	100%	43	100%	202	100%
< .75	12	24	21	27	4	12	11	25	48	24
= .75	22	45	41	52	18	56	19	44	100	50
> .75 & < 1.25	3	6	6	8	4	12	5	12	18	9
= 1.25	10	20	10	13	4	12	8	19	32	15
> 1.25	2	4	0	0	2	7	0	0	4	2
Car Dealers	59	100%	84	100%	31	100%	58	100%	232	100%
< .75	21	36	15	18	9	29	16	27	61	26
= .75	29	49	57	68	18	58	33	57	137	59
> .75	9	15	12	14	4	13	9	16	34	15
Credit Unions b/	42	100%	41	100%	14	100%	26	100%	123	100%
none	42	100	41	100	14	100	26	100	123	100

a/ Rate is per hundred dollars per annum of total of payments.

b/ Credit unions make no additional charge for credit life insurance.

$100 per year for joint decreasing term. It was charged by 15% of the finance companies. Car dealers were the only institution to use a rate less than the maximum in any number of quotations. Car dealers used a rate less the $.75 per $100 per year for 26% of the quotations.

There was some variance by semester in the rates used by creditors. Car dealers used a lesser rate on loans for 24 months but used the maximum rate for the 36 month loans. Finance companies used the higher rate most often, but also favored the lesser rate in at least one-fourth of the quotations for three semesters. If a rate greater than $.75 per $100 per year was calculated, it was assumed the creditor was not in violation of the legal rate, but extending insurance other than single decreasing term insurance to the consumer.

The credit life insurance premiums charged by institutions are listed in Table 4. For Fall, 1975, the median quotation from banks of $51.26 was the lowest while the highest median quotation of $55.80 was from finance companies. Credit unions do not make a separate charge for credit life insurance so no amount is given.

The remaining semesters were comparable. The amount of the loan is reflected by the amount of the credit life insurance premiums. As the amount financed and finance charge was increased so was the credit life insurance premium. This is evident in the variability of the premiums. The Q.1 values were close to the medians for banks and finance companies but differed for car dealers. Finance companies had the largest variation between median and Q.3 values. Such variations reflect practices of different institutions.

Finance Charge

Finance charge quotations are summarized in Table 5. The data presented are the median values for each semester for those with insurance and without insurance. Also presented are the first and third quartile values to indicate the distribution of the quotations. Bank quotations are relatively homogenous, that is the spread between the first and third quartiles relative to the median quotation is approximately 9%, whereas the spread for car dealers and credit unions was approximately 16% and 19%, respectively. The spread for finance companies was approximately 31%, with a low for fall of 1975 of 13% and a high for fall of 1976 of 41%.

Table 4. Credit life insurance premiums by institution.

Institution	Median	Q.1 a/	Q.3 a/
	Fall, 1975		
Banks	$51.26	$50.79	$51.27
Finance Companies	55.80	51.26	60.15
Car Dealers	51.72	24.84	57.66
Credit Unions	na b/	na	na
	Spring, 1976		
Banks	$81.82	$80.75	$81.91
Finance Companies	93.15	79.38	97.20
Car Dealers	83.42	81.82	85.03
Credit Unions	na	na	na
	Fall, 1976		
Banks	41.01	40.63	41.38
Finance Companies	45.36	41.79	55.99
Car Dealers	41.01	34.08	41.75
Credit Unions	na	na	na
	Spring, 1977		
Banks	51.26	50.68	52.19
Finance Companies	55.00	46.08	45.16
Car Dealers	51.26	45.00	52.19
Credit Unions	na	na	na

a/ Q.1 and Q.3 refer to the first and third quartiles, respectively.

b/ The na designates information requested was not applicable.

Table 5. Finance Charge quotations by institution and insurance.

Institution	Without insurance				With insurance			
	No.	Median	Q1	Q3	No.	Median	Q1	Q3
				Fall, 1975				
Banks	53	$360.00	$330.00	$360.20	50	$366.10	$335.79	$366.10
Finance Cos.	49	679.65	594.48	683.06	46	679.66	605.34	699.93
Car Dealers	39	420.00	360.00	450.00	44	423.46	377.04	457.82
Credit Un.	na	na	na	na	42	337.50	309.36	389.28
				Spring, 1976				
Banks	90	539.88	494.88	540.00	90	553.61	508.09	554.54
Finance Cos.	70	1025.15	724.64	1039.42	49	1046.53	738.58	1053.64
Car Dealers	60	607.20	540.00	630.00	70	638.16	573.76	653.67
Credit Un.	na	na	na	na	41	525.48	484.80	587.09
				Fall, 1976				
Banks	33	287.76	264.00	288.00	31	292.83	268.25	296.15
Finance Cos.	24	580.47	338.40	580.48	19	587.34	344.13	590.78
Car Dealers	19	312.00	288.00	336.00	23	317.18	292.83	338.67
Credit Un.	na	na	na	na	15	257.95	257.76	311.42
				Spring, 1977				
Banks	50	358.72	322.52	360.00	45	361.97	330.12	366.34
Finance Cos.	22	679.65	422.88	683.06	20	679.66	430.16	699.93
Car Dealers	37	390.00	360.00	420.00	43	396.60	365.40	427.09
Credit Un.	na	na	na	na	26	349.20	322.32	389.28

The finance charge for without-insurance quotations is less than for with-insurance, since the amount financed is less. The only exception is the finance companies which tend to adjust the cash proceeds so that the amount financed is the same for a loan with-insurance and without-insurance. For example, one-third (36%) of the finance companies added an amount equivalent to premiums for credit life insurance to the cash proceeds for loans without-insurance, so that the consumer pays the same finance charge. The consumer receives more credit and no insurance in one instance, and less credit but insurance in the other instance.

The dollar amount of finance charge varied from semester to semester because the conditions of the loan varied either in term length or dollar amount. Nevertheless, the rank order of finance charges varied by type of financial institution, with credit unions being the lowest, next banks, followed by car dealers and finance companies. The credit unions with-insurance quotations were lower than all other without and with-insurance quotations. This pattern prevailed for the 4 semesters.

Annual Percentage Rate

The annual percentage rate quotations are summarized in Table 6 giving the values for the median and first and third quartiles each semester. The pattern of annual percentage rates followed the rank order of the finance charges, with credit unions slightly lower than banks with or without - insurance, followed by car dealers with or without-insurance and finance companies with or without-insurance.

There was very little difference between the APR values for with and without-insurance. Even though the finance charge increased with the addition of insurance, the APR remained constant.

At the bottom of the table is summarized the median APR values for each semester and for each institution. There is very little difference in the rates over the 4 semesters. The most noticeable difference was between spring and fall of 1976 for finance companies reflecting the higher rate applicable to smaller loans under the legal maximum rate schedule of 36% / 21% / 14.45% for loans up to \$300 / \$300 to \$1000 / over \$1000, respectively.

Table 6. Annual Percentage Rate quotations by institution and insurance.

Institution	Without insurance			With insurance		
	Median	Q1	Q3	Median	Q1	Q3
			Fall, 1975			
Banks	11.12%	10.23%	11.13%	11.13%	10.23%	11.13%
Finance Cos.	20.12	18.00	20.33	20.12	18.00	20.22
Car Dealers	12.92	11.13	13.79	12.91	11.13	13.80
Credit Unions	na	na	na	11.00	9.60	12.00
			Spring, 1976			
Banks	11.08	10.20	11.08	11.08	10.20	11.08
Finance Cos.	20.02	14.55	20.17	19.89	14.31	19.98
Car Dealers	12.89	11.08	12.83	12.39	11.08	12.83
Credit Unions	na	na	na	10.20	10.00	12.00
			Fall, 1976			
Banks	11.12	10.22	11.13	11.12	10.23	11.13
Finance Cos.	21.51	13.00	21.56	21.31	13.00	21.41
Car Dealers	12.47	11.13	12.91	12.02	11.13	12.91
Credit Unions	na	na	na	10.00	10.00	12.00
			Spring, 1977			
Banks	11.08	10.00	11.13	11.00	10.00	11.13
Finance Cos.	20.12	13.00	20.33	20.12	13.00	20.26
Car Dealers	12.02	11.13	12.91	12.02	11.12	12.91
Credit Unions	na	na	na	10.80	10.00	12.00

Summary

	Without insurance				With insurance			
	F 75	S 76	F 76	S 77	F 75	S 76	F 76	S 77
Banks	11.12	11.08	11.12	11.08	11.13	11.08	11.12	11.00
Finance Cos.	20.12	20.02	21.51	20.12	20.12	19.89	21.31	20.12
Car Dealers	12.92	12.89	12.47	12.02	12.91	12.39	12.02	12.02
Credit Unions	na	na	na	na	11.00	10.20	10.80	10.80

The spread between first and third quartile values was most prominent for finance companies. For the other institutions, the spread was similar to that reported previously for the finance charge.

Quotation Methods

In an effort to determine how institutions arrived at the finance charge, the data were viewed from different perspectives. Finance companies most frequently changed the format from what the consumer requested to their own convenience. Some changed the problem, lending more or less than requested (Table 7). Others amended the problem to accommodate even dollar monthly payments (Table 8) and some did both (Table 9). Over two-thirds of the finance companies amended the cash proceeds requested and stated monthly payments in even dollars. This accommodated their tables which utilize a step rate system and provide whole dollar payment schedules.

The data were also reviewed to estimate, by inference, whether the finance charge quotations were based on an add-on rate. Usage of the add-on rate by institution is presented in Table 10. Banks and car dealers predominate in their use of an add-on rate. These institutions seemingly used an add-on rate method for at least three-fourths of their quotations, while finance companies used the add-on method for only 15% of theirs.

Cost Index

Each loan was compared to a standard finance charge equivalent to 1% per month on the unpaid balance, insured and with no additional charges. A value of 100 was assigned this loan cost and all other loan costs were expressed relative to this base value. Thus, an index value of 107, for example, would be for a loan that cost 7% more than the standardized loan. Conversely, a loan with a 93 index value would cost 7% less than the standard. The index values are presented in Table 11. The index values for with and without-insurance are a comparison of only the finance charges for loans with or without-insurance. Whereas the with-insurance finance charge plus insurance is indicative of the total out-of-pocket costs to be paid by the consumer.

Table 7. Quotations of cash proceeds other than requested by institution and insurance.

Institution	Without insurance		With insurance	
	number	percent	number	percent
		Fall, 1975		
Banks	19	37	1	2
Finance Companies	37	76	33	69
Car Dealers	9	19	0	0
Credit Unions	na	na	2	4
		Spring, 1976		
Banks	0	0	0	0
Finance Companies	51	72	36	73
Car Dealers	0	1	1	1
Credit Unions	na	na	0	0
		Fall, 1976		
Banks	0	0	0	0
Finance Companies	17	71	13	68
Car Dealers	0	0	0	0
Credit Unions	na	na	0	0
		Spring, 1977		
Banks	0	0	0	0
Finance Companies	17	77	14	70
Car Dealers	0	0	0	0
Credit Unions	na	na	0	0
		All		
Banks	19	8	1	1
Finance Cos.	122	74	96	72
Car Dealers	9	1	1	1
Credit Unions	na	na	2	2

Table 8. Even monthly payments quotations by institution and insurance.

Institution	Without insurance		With insurance	
	number	percent	number	percent
		Fall, 1975		
Banks	19	37	1	2
Finance Companies	37	76	33	69
Car Dealers	9	19	0	0
Credit Unions	na	na	2	4
		Spring, 1976		
Banks	0	0	0	0
Finance Companies	50	71	36	73
Car Dealers	2	3	2	3
Credit Unions	na	na	1	2
		Fall, 1976		
Banks	21	63	0	0
Finance Companies	20	83	13	68
Car Dealers	15	78	0	0
Credit Unions	na	na	0	0
		Spring, 1977		
Banks	13	26	0	0
Finance Companies	17	77	14	70
Car Dealers	8	21	0	0
Credit Unions	na	na	0	0
		All		
Banks	53	24	1	1
Finance Companies	124	75	96	72
Car Dealers	34	23	2	1
Credit Unions	na	na	3	3

Table 9. Quotations with both even monthly payments and cash proceeds other than requested by institution and insurance.

Institution	Without insurance		With insurance	
	number	percent	number	percent
		Fall, 1975		
Banks	1	2	0	0
Finance Companies	34	69	33	69
Car Dealers	0	0	0	0
Credit Unions	na	na	0	0
		Spring, 1976		
Banks	0	0	0	0
Finance Companies	50	71	36	73
Car Dealers	0	0	0	0
Credit Unions	na	na	0	0
		Fall, 1976		
Banks	0	0	0	0
Finance Companies	16	66	12	63
Car Dealers	0	0	0	0
Credit Unions	na	na	0	0
		Spring, 1977		
Banks	0	0	0	0
Finance Companies	15	68	14	70
Car Dealers	0	0	0	0
Credit Unions	na	na	0	0
		All		
Banks	1	1	0	0
Finance Companies	115	70	95	71
Car Dealers	0	0	0	0
Credit Unions	na	na	0	0

Table 10. Quotations using add-on rates to calculate the finance charge by institution and insurance.

Institution	Without insurance		With insurance	
	number	percent	number	percent
	Fall, 1975			
Banks	43	83	45	88
Finance Companies	7	14	7	15
Car Dealers	35	74	40	80
Credit Unions	na	na	3	6
	Spring, 1976			
Banks	74	82	76	84
Finance Companies	17	24	14	28
Car Dealers	51	85	61	87
Credit Unions	na	na	0	0
	Fall, 1976			
Banks	27	81	27	87
Finance Companies	5	20	3	16
Car Dealers	19	100	22	95
Credit Unions	na	na	0	0
	Spring, 1977			
Banks	29	58	29	64
Finance Companies	4	18	4	20
Car Dealers	30	81	39	90
Credit Unions	na	na	0	0
	All			
Banks	173	77	177	82
Finance Companies	33	20	28	21
Car Dealers	168	85	162	88
Credit Unions	na	na	3	2

Table 11. Median of cost indexes by institution and insurance. (100 = cost computed at 1% per month on unpaid balance and no other charges.)

Institution	Index of finance charge: Without insurance	Index of finance charge: With insurance	Index of finance charge plus insurance a/
	Fall, 1975		
Banks	92.48	94.04	107.21
Finance Companies	174.59	174.59	198.33
Car Dealers	107.89	108.78	115.16
Credit Unions	na	91.37	91.37
	Spring, 1976		
Banks	91.95	94.29	108.38
Finance Companies	174.61	179.46	210.01
Car Dealers	103.42	106.32	115.37
Credit Unions	na	84.29	84.29
	Fall, 1976		
Banks	92.39	94.02	107.19
Finance Companies	186.38	188.59	203.28
Car Dealers	104.03	101.84	115.13
Credit Unions	na	82.82	82.82
	Spring, 1977		
Banks	92.04	92.98	106.14
Finance Companies	174.58	174.58	198.33
Car Dealers	100.18	101.87	115.16
Credit Unions	na	89.70	89.70

a/ Includes all out-of-pocket costs to the consumer.

Table 12. Relative cost a/ of loans, median index b/ values.

Institution	Semester F 75	S 76	F 76	S 77	All c/
Credit Unions	91	84	82	89	86
Banks	107	108	107	106	107
Finance Companies	198	210	203	198	202
Car Dealers	115	115	115	115	115

a/ Cost is the difference between loan proceeds and total of payments.
b/ 100 = Finance charge computed at the rate of 1% per month on the unpaid balance on an insured loan.
c/ Mean of medians for the semester.

Although the standardized pattern is comparable to the commonly described rates for credit unions, it should be noted the credit union index values ranged from 82.82 to 91.37. In all cases the credit union cost was below that of the banks, followed by car dealers and finance companies. Also, the index of finance charges was less for without-insurance than with-insurance with the exception of finance companies which was previously explained.

The median out-of-pocket costs to the consumer are presented in Table 12. Credit unions are least with a relative cost of 86, 14% less than the standardized loan. Banks had an index value of 107 and car dealers a value of 115. Finance companies were double the standardized loan cost with an index value of 202.

DISCUSSION

This study summarizes the quotations received by students over a two year period. The primary objective was to evaluate the responses consumers receive when they make inquiry about an auto loan with and without credit insurance. The discussion will follow in sequence the areas presented in the results section.

Accuracy

Approximately 17% of the quotations seemed to reflect a mistaken concept of the problem. The largest error category was gross error, and finance companies had the largest number of rejections for that category. Some of the errors were attributed to creditor carelessness, such as failure to include insurance premiums on a with-insurance loan or stating payments for a 36 month loan when the problem stated a 24 month loan. Secondly, finance companies often could not adapt to the form used. The interview form was in the format approved by Regulation Z, however, it seemed unfamiliar to the finance companies. Instead of adding the credit life charges to the cash proceeds to equal amount financed, they preferred to subtract insurance premiums from amount financed to determine the cash proceeds.

Finance charge

Finance charges are more accurate now than prior to Truth-in-Lending. Morse and Courter reported credit quotations for 1962 to be approximately 80% accurate in their dollar cost quotations. Redeker for 1963 reported banks (95%) and credit unions (92%) as the most accurate, and finance companies (70%) and car dealers (55%) as least accurate. This survey for 1975-1977 reveals an accuracy of 97% (1293 of 1323 finance charge quotations). The wide variation by institution was not present in this study, with accuracy rates for banks (98.7%), car dealers (98.2%), credit unions (96.4%) and finance companies (96.3%). As the optimum level of 100% is approached, there is less latitude for divergence.

It might be argued that the accuracy rate improvement was a result of rejecting 25% of the quotations, whereas earlier studies included all quotations. This criticism, while valid, does not detract from the generalization that finance charge quotations are generally more accurate.

Secondly, stricter criteria were used in this study for accepting a quotation as accurate. This study had a tolerance limit of ± \$1.00 while Morse and Courter and Redeker allowed ± \$1.50 in accepting quotations as correct.

Annual Percentage Rates

Annual percentage rate quotations are decidedly more accurate than before Truth-in-Lending. Morse and Courter reported APR accuracy ranging from credit unions (72%) to finance companies (52%) banks (26%) and car dealers (17%). Redeker reported similar results of APR accuracy with credit unions (69%) banks (51%) finance companies (41%) and car dealers (13%) accurate. Creditors now achieve over 92% accuracy in APR quotations (1200 of 1293 quotations). Banks are most accurate (96.5%) followed by finance companies (94.9%) credit unions (90.5%) and car dealers (87.5%).

It should be noted that APR accuracy has improved even though the tolerance limits have become more restrictive. An error of ± .125 percentage points was permitted in this study. In earlier studies an error of ± 3.00 percentage points was acceptable.

This improved accuracy might be attributed to the continual education creditors have received from students over the years. Kansas State University students have interviewed creditors across the state for the past 18 years. This repeated contact with students wanting accurate, meaningful credit information has no doubt had an effect on willingness of creditors to quote accurate rates.

Credit life insurance

Credit life insurance remains a subject about which consumers know little. The UCCC requires credit life insurance be optional to the consumer in order for the creditor to make a separate charge for the premium. However, students often returned with stories of how the creditor's book did not have a table without insurance or that the creditor simply refused to give without-insurance quotations.

In attempting to reconstruct the premium, this writer learned the premium contained more components than merely multiplying the rate times the balance would imply. An interpretation of this construction follows.

Construction of credit life insurance premiums

Credit life insurance premiums were higher than expected from merely multiplying the premium rate by the loan proceeds. It appeared that there was a compounding of charges, so a formula was developed that permitted recurrent charges. The formula took into consideration that creditors are allowed to charge insurance on the total of payments which includes the cash proceeds, insurance premium and finance charge.

Knowledge of four terms is necessary to perform the calculations for determining the insurance premium on a given loan. The four necessary components are:

1. Amount of cash proceeds of the loan.
2. Rate at which finance charge is determined.
3. Insurance premium rate. This is usually at the legal maximum of 75¢ per $100 per year for single decreasing term or $1.25 per $100 per year for joint decreasing term. This rate is applicable to the initial balance.
4. Term of the loan, in years.

The following equation can be used to determine the credit life insurance premiums on a closed-end loan with the above four terms known.

$T = C + F + I$ where:

T = total of payments

C = cash proceeds of loan

F = total finance charge on proceeds and insurance

I = total insurance premium on cash proceeds, insurance, and finance charge

Terms F and I can be calculated as follows:

$F = B + D + E + G$ where:

B = finance charge rate x C

This is the cost of financing C, the cash proceeds only. It is the cost of financing an uninsured loan.

D = finance charge rate x I_1

This is cost of financing premiums for insurance on B and C.

E = finance charge rate x I_2

This is the cost of financing premiums for insurance on D.

G = finance charge rate x I_3

This is cost of financing premiums for insurance on E.

$I = I_1 + I_2 + I_3$ where:

I_1 = premium rate x (B + C)

This is insurance on the financing of C and on C.

I_2 = premium rate x $(D + I_1)$

This is insurance on the financing of I_1 and on I_1

I_3 = premium rate x $(E + I_2)$

This is insurance on the financing of I_2 and on I_2.

The algebraic formula for T is:

$$T = C + RC[r(R^3 + 3R^2 + 1) + r^2(R + 1) + rR(R^2 + 3R + 3) + r(R + 1) + r(r + 1) + (rR + 1)(R + 1) + 1]$$

Where: R = Finance charge rate

r = Premium rate

For example:

Given:

C =	\$3000	cash proceeds
	\$6/\$100/year	finance charge rate
	\$.75/\$100/year	premium rate
	2 years	term of loan

Then:

B =	\$360	finance charge on C
I_1 =	50.40	insurance on B + C (\$5.40 + \$45.00)
D =	6.05	finance charge on I_1
I_2 =	.85	insurance on I_1 + D
E =	.10	finance charge on I_2
I_3 =	.014	insurance on I_2 + E
G =	.0012	finance charge on I_3

And:

F =	\$366.15	total finance charge
I =	51.26	total insurance premium
T =	\$3417.41	total of payments

The described formula was applied to those quotations with a \$.75/\$100/year premium rate. A tolerance limit of $\pm$ \$.02 was allowed to account for rounding differences. With this tolerance, 76% of 432 credit life insurance premiums could be duplicated using the above formula. There was some variation among semesters. For the spring of 1976, 74% of the premium quotations were duplicated. This rate improved to 75% for fall, 1976; 78% for spring, 1977; and 79% for fall, 1975. By institution, banks (79%) could most often be duplicated followed by car dealers (75%) and finance companies (73%). Due to the unique design of the program all credit life insurance quotations are listed whether the remaining information had been rejected earlier or not. Had the quotations which had gross errors or errors in the total of payments, finance charge, or annual percentage rate been rejected, a larger percentage of the credit insurance quotations could have been duplicated using the formula.

Finance Charge

The cost of a loan varied by institution and occasionally within institutions. Finance companies were consistently highest in dollar costs. With-insurance finance charges were usually greater than without-insurance finance charges. An exception was finance companies. Finance companies often amended the cash proceeds to be equal to cash proceeds plus the amount of credit life premiums for without-insurance loans. This resulted in the consumer paying a higher finance charge and receiving more credit than requested.

Annual Percentage Rate

The APR disclosed by Redeker are surprisingly similar to the median rates reprinted in this study. Although this comparison is not an objective of the study, the data are of sufficient interest to warrant inclusion. The median rates for the 1960's vs. the rates reported on this study are: for credit unions 10.3% vs. 10.8%, banks 11.0% vs. 11.08%, car dealers 18% vs. 12%, and finance companies 23.9% vs. 20%. The car dealer rates difference can be attributed to the change in lawful rates and from financing a low cost used car to a high value new car. The higher loan value also accounts for the lower finance company rate.

Quotation Methods

The passage of Truth-in-Lending established the annual percentage rate as the legal terminology for disclosure purposes. However, over 80% of the banks and car dealers seemingly continued to use an add-on method for finance charge computation. Representatives of these institutions often quoted to students the add-on rate with the annual percentage rate. Often interview forms would be received with the add-on rate penciled in below the APR. APR may be the law of the land but add-on rates continue to maintain a stronghold. However, with APR as the legal term, the proliferation of rates reported by Redeker no longer prevails.

Finance companies continue to utilize a step rate system. The UCCC establishes maximum rates of 36% on the first $300, 21% on the next $700, and 14.45% on everything over $1000. Finance companies were concerned that passage of T-in-L would force them to discontinue using the step rate. However, the system has remained in use for precomputing the finance charge. Cordley Brown of the Kansas Consumer Credit Commission when asked to state the APR for a loan over $1000 which involves all three rates stated this would need to be computed by hand. Finance companies use specially prepared tables with the finance charge precomputed and whole dollar payments. If a loan request fits the table, the APR can be quoted. Otherwise, as was expressed in this study, the amount loaned is amended to conform to the tables.

CONCLUSION

Truth-in-Lending has made an unmistakable and significant contribution to disclosure of consumer credit terms. Consumers can get meaningful responses from creditors.

Consumers, who appear diligent in their concern, can expect to receive accurate finance charge and annual percentage rate quotations. There is a wide variation in out-of-pocket costs for finance charges and credit life insurance premiums among creditors whether within an institution classification or between institutions.

Old terminology and methods persist thereby reducing clear communication between the creditor and consumer. The use of add-on rates by banks and car dealers and step rates by finance companies tend to sustain confusion. State laws nurture this confusion by legalizing one method to compute the finance charges and require another for determining the APR to be disclosed.

Credit life insurance still remains a mystery. Creditors seem to use a system of compounding the premiums which results in the premium being higher than the premium would be if on the cash proceeds alone.

Comparison of the finance charge and APR may mislead the consumer as to the true cost of an insured loan. If the insurance is included in the finance charge the relative cost of an insured loan is much greater than an uninsured loan.

Recommendations

This study should be conducted on a national level to determine more accurately the effectiveness of Truth-in-Lending. Kansas may be unique in that creditors have been repeatedly interviewed over the last 18 years and education of the creditors has undoubtedly occurred.

Secondly, credit life insurance premium assessments warrant further study. It is questionable whether the apparant practice of compounding of insurance is consistent with the fifty percent loss ratio rule. It is unnecessarily complex and presents a barrier to comparative shopping and understanding for the consumer-buyer.

Thirdly, it is recommended that credit life insurance be considered incident to the extension of credit, as in the DoD directive, and included with the finance charge in computing the annual percentage rate.

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AUTO CREDIT QUOTATION ACCURACY
AND TRUTH-IN-LENDING

by

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ABSTRACT

The accuracy of annual percentage rate quotations for auto financing has approximately doubled since passage of Truth in Lending and is approaching the expectation of the law.

Automobile credit quotations were studied prior to the passage of Truth-in-Lending. These studies were made over the period of 1959 to 1963 (Morse and Courter, 1963; Redeker, 1964). They reported that approximately 80% of the dollar finance charge, quotations were accurate within \$1.00. However, less accurate annual percentage rate quotations were less accurate with accuracy measured within $\pm$ 3.00 percentage points. Accuracy rates ranged from 69% for credit unions, 51% for banks, 41% for finance companies, and 13% for car dealers.

Truth-in-Lending was enacted in 1968. It standardized terminology and required disclosure of the finance charge and the annual percentage rate. It also exempted credit life insurance from the finance charge except when it was required.

An underlying purpose of this study is to learn whether the accuracy of quotations increased after passage of Truth-in-Lending. The specific objectives of this study were:

1) to verify annual percentage rate and finance charge quotations received by consumers,
2) to verify credit life insurance quotations,
3) to analyze the distribution of quotations and their accuracy by type of creditor,
4) to observe the variation in quotation methods used by creditors, and
5) to reconstruct how credit life insurance premiums may be computed under Kansas law.

This study analyzed 1589 auto financing quotations obtained by Kansas State University students enrolled in the Family Finance course from 1975 to 1977. The method of obtaining data was comparable to that used in the reported studies made prior to Truth-in-Lending. The hypothetical auto loan conditions were altered each semester and credit life insurance was added.

They interviewed 884 credit institutions. Of the 1589 quotations, 266 quotations were rejected for inconsistent data. Of the acceptable quotations approximately 97% of the finance charges were accurate within one dollar, and approximately 92% of the annual percentage rate quotations were accurate within $\pm$ .125 percentage points. Accuracy of the APR quotations ranged from 96% for banks, 95% for finance companies, 90% for credit unions, to 87% for car dealers. (These rates are significantly higher than those obtained prior to passage of Truth-in-Lending.

Quotation methods varied by creditors. Credit unions based quotations on the unpaid balance. Finance companies, using tables based on a 3-step rate schedule, amended the cash proceeds of the problem to accommodate their tables designed for even dollar payments. Banks and car dealers generally used the add-on method.

The cost of insurance was apparently compounded: it was assessed not only in the cash proceeds, but on the finance charge and then on the financing of that insurance assessment. Furthermore, this financing was insured, and that insurance was financed and then insured.

If a 1% on the unpaid balance, insured loan was used as a standard of 100, then relative median costs for car financing was 86 for credit unions, 107 for banks, 115 for car dealers, and 202 for finance companies.