The Effect of Mortgage Broker Compensation Disclosures on Consumers and Competition: A Controlled Experiment

Federal Trade Commission
Bureau of Economics Staff Report

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The authors are economists in the Bureau of Economics, Federal Trade Commission. The views expressed in this report are those of the authors and do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

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EXECUTIVE SUMMARY

This study of over 500 recent mortgage customers in an experimental setting finds that the mortgage broker compensation disclosure proposed by the Department of Housing and Urban Development (HUD) is likely to confuse consumers, cause a significant proportion to choose loans that are more expensive than the available alternatives, and create a substantial consumer bias against broker loans, even when the broker loans cost the same or less than direct lender loans. Similar adverse effects were found for two alternative versions of the disclosure.

If consumers notice and read the compensation disclosure, the resulting consumer confusion and mistaken loan choices will lead a significant proportion of borrowers to pay more for their loans than they would otherwise. The bias against mortgage brokers will put brokers at a competitive disadvantage relative to direct lenders and possibly lead to less competition and higher costs for all mortgage customers.

Other components of HUD's RESPA reform proposal are far more beneficial. These policies focus on clearer disclosure of mortgage costs, a clarification of the role of mortgage originators, and the encouragement and facilitation of borrower comparison shopping across originators. Implementation of these policies, along with appropriate refinements to ensure that consumers easily understand the disclosures, would provide benefits to consumers without the adverse effects that are likely to arise from the compensation disclosure.

Background

HUD proposed broker compensation disclosures as part of its July 2002 RESPA reform proposal (HUD 2002a, 49134). Mortgage brokers would be required to disclose, in the Good Faith Estimate (GFE) provided to borrowers, any compensation received from the lender in connection with the origination of the loan. A major part of the compensation is any yield spread premium (YSP) paid by the lender for a loan originated at an above-par interest rate. The YSP reflects the additional value to the lender of a loan originated at the higher interest rate. The proposed disclosure was motivated by a concern that brokers were placing borrowers in above-par loans without their knowledge, and keeping the YSPs rather than passing them through to consumers in the form of reduced settlement costs. Direct lenders would not be required to make the same disclosure, even though they may be charging the same interest rate and settlement costs and earning the same compensation as a broker.

FTC staff submitted a public comment that generally supported the RESPA reform proposal, including efforts to make the GFE more understandable and easier to use, increase the certainty of settlement cost estimates, and allow the packaging of settlement services (FTC 2002). FTC staff raised concerns, however, that the compensation disclosure could confuse borrowers, draw attention toward broker compensation rather than the cost of the loan, and lead to worse rather than better mortgage choices. FTC staff also noted that the asymmetry of the disclosure policy—which would require the disclosure for brokers but not direct lenders—could put brokers at a disadvantage, harm competition, and result in higher mortgage costs for all borrowers.

Methodology

The staff of the FTC's Bureau of Economics conducted a study to assess the effect of compensation disclosures on consumer understanding of loan costs and consumer choice of loans. The study examined the effect of the disclosures within a controlled experiment. Approximately 500 recent mortgage customers were shown cost information about two hypothetical mortgage loans and asked a series of questions.

Respondents were randomly assigned to one of five "disclosure groups." Each group consisted of either 103 or 104 respondents. A YSP disclosure was included in the cost information shown to three of the groups (YSP disclosure groups) but excluded from the information shown to the two other groups (control groups). Comparison of the results in the YSP disclosure groups and the control groups provides an estimate of the effect of the disclosure.

Three versions of the YSP disclosure were tested: one based on the disclosure published by HUD as part of its RESPA reform proposal in July 2002 (the "original HUD proposal"), one prepared after discussions with HUD staff in January 2003 concerning YSP disclosures (the "revised prototype"), and one that used the revised prototype format but with alternative YSP disclosure language drafted by FTC staff ("FTC YSP language"). The same control group was used for the latter two disclosures because the test forms for the two groups were identical with the exception of the differences in the YSP disclosure language.

The test disclosure form used for the original HUD proposal version was based on the form in the HUD proposal but was not a complete replica. The test form replicated the YSP, origination cost, and total settlement cost disclosures, as well as the overall style and format of the HUD form, but abstracted from some of the unrelated detail and settlement cost itemization. Similarly, the test forms for the revised prototype and FTC versions abstracted from some of the detail that would be included in a full GFE form.

The use of abstracted forms increased the likelihood that respondents would see and read the YSP disclosure. If more detailed, full GFEs were used, some respondents may not have read all of the information in the form, including the YSP disclosure. This would have made it more difficult to identify the effect of the disclosure. Thus, the study results should be interpreted as an estimate of the effect of YSP disclosures on consumers who notice and read the disclosure.

Two questions were at the core of the test. In one, respondents were asked to identify which of the two loans would cost them less and, in the other, respondents were asked which loan they would choose if they were shopping for a mortgage. The questions were asked twice, each with a different loan cost scenario.

In presenting the cost information, one of the loans was considered to be a "broker" loan and the other a "direct lender" loan, although the loans were not identified as such to respondents. For disclosure groups in which the cost information included a YSP disclosure, a YSP was disclosed for the broker loan but not the direct lender loan, following the asymmetric disclosure policy in HUD's proposed rule. The tests were conducted twice with each respondent—once with the broker loan less expensive than the lender loan and once with both loans costing the same. The order of the two tests was rotated across respondents, as was the order of the loans in each test, to counterbalance any order effects.

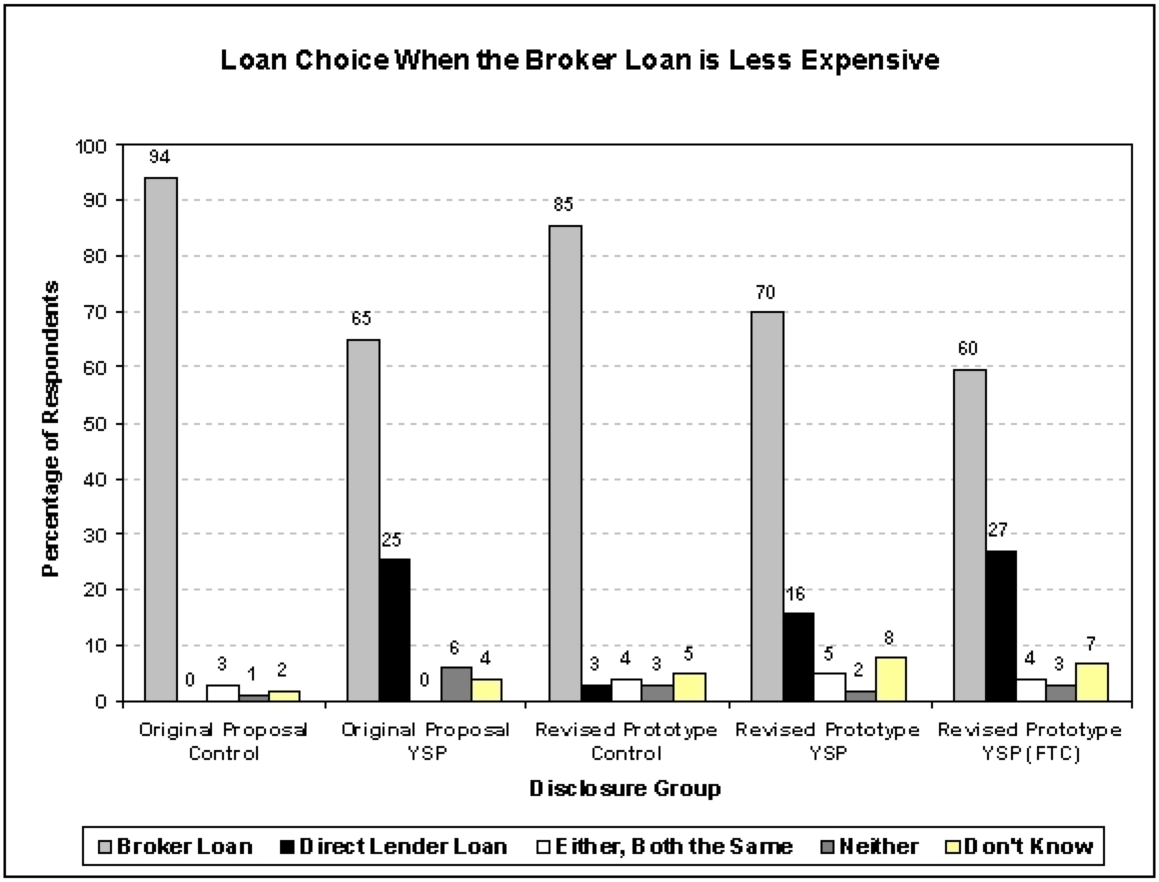
Results

The compensation disclosures had a significant adverse impact on the respondents' perception of loan costs and on respondents' choice of loans. The disclosures caused a significant proportion of respondents to choose more expensive loans by mistake and caused a substantial bias against broker loans even when the broker loans cost the same or less than direct lender loans.

Tests with the broker loan less expensive than the direct lender loan

- *Cost comparison*. All three versions of the compensation disclosure caused a statistically significant decrease in the proportion of respondents correctly identifying the less expensive loan when one loan cost less than the other.
  - Approximately 90 percent of the respondents in the two control groups correctly identified the less expensive loan.
  - In contrast, only 71 percent (original HUD proposal), 72 percent (revised prototype), and 63 percent (FTC language version) of the respondents in the three YSP disclosure groups correctly identified the less expensive loan. This represented decreases of 19 to 28 percentage points compared to the corresponding control groups, and an average decrease of 21.6 percentage points across the three groups. The differences between the three YSP disclosure groups were not statistically significant.
- *Loan choice*. All three versions of the compensation disclosure also caused a statistically significant decrease in the proportion of respondents choosing the less expensive loan when asked which loan they would choose if they were shopping for a mortgage. These results are illustrated in Figure ES.1.

Figure ES.1



- 85 and 94 percent of the respondents in the two control groups chose the loan that was less expensive. Zero and 3 percent of the respondents choose the loan that was more expensive. The difference between the original HUD proposal and revised prototype control groups in the percentage of respondents choosing the less expensive loan (94 versus 85 percent, respectively) was statistically significant.

- In contrast, only 65 percent (original HUD proposal), 70 percent (revised prototype), and 60 percent (FTC language version) of the respondents in the three YSP disclosure groups chose the loan that was less expensive. This represented decreases of 16 to 29 percentage points compared to the corresponding control groups, and an average decrease of 23.5 percentage points across the three groups. The differences between the three YSP disclosure groups were not statistically significant. Sixteen to 27 percent of the respondents in the three YSP disclosure groups chose the loan that was more expensive. This represented increases of 13 to 25 percentage points compared to the control groups. The difference between the revised prototype and FTC language versions (16 versus 27 percent, respectively) was statistically significant.

Tests with both loans costing the same

- *Cost comparison*. All three versions of the compensation disclosure caused a statistically significant decrease in the proportion of respondents correctly recognizing that both loans cost the same when they were shown two loans with identical costs. The YSP disclosures led to a substantial bias against the "broker" loan that disclosed a YSP even though the loan cost the same as a "direct lender" loan that did not disclose a YSP.

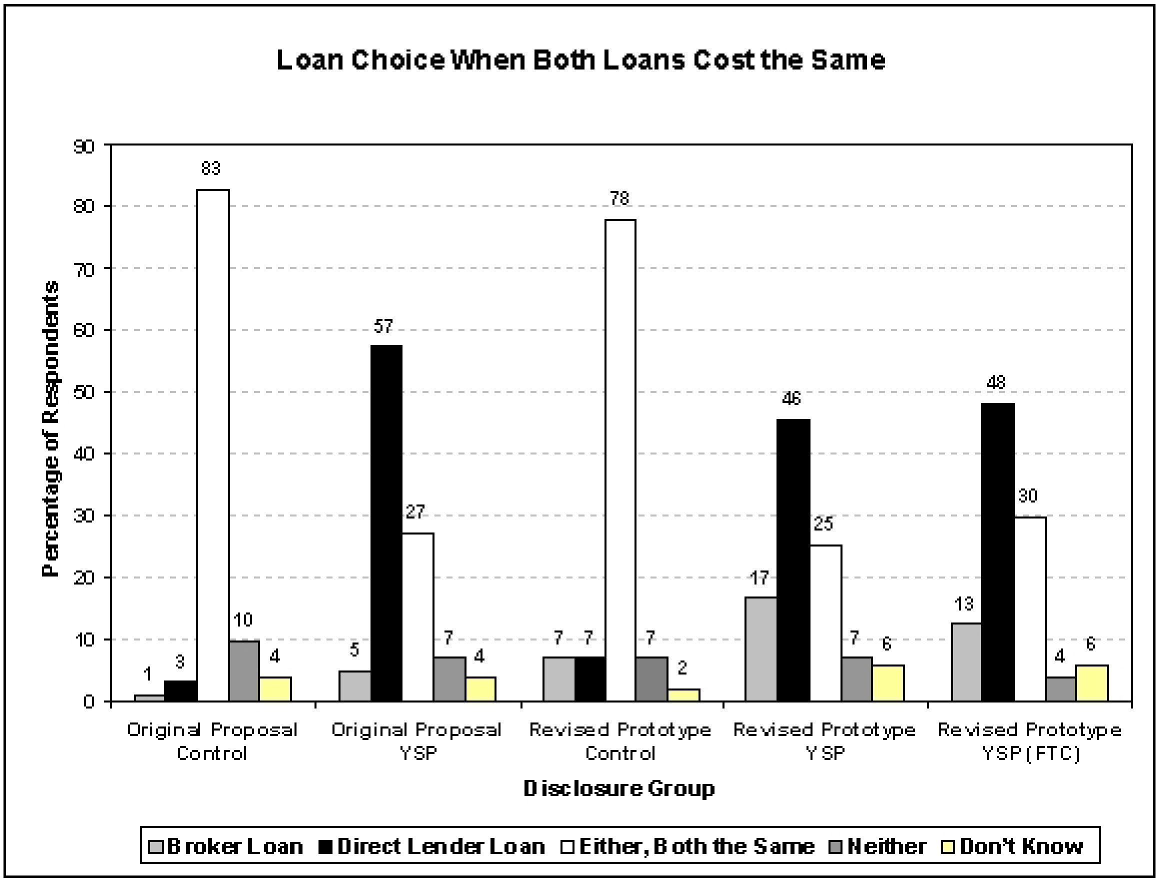
    - 95 and 99 percent of the respondents in the two control groups correctly recognized that both loans cost the same. The difference between the two control groups was not statistically significant.

    - In contrast, only 49 percent (original HUD proposal), 53 percent (revised prototype), and 57 percent (FTC language version) of the respondents in the three YSP disclosure groups recognized that both loans cost the same. This represented decreases of 38 to 51 percentage points compared to the corresponding control groups, and an average decrease of 43.5 percentage points across the three groups. The differences between the three YSP disclosure groups were not statistically significant.

    - 41 to 50 percent of the respondents in the three YSP disclosure groups mistakenly believed that one loan was less expensive than the other. Approximately 75 to 90 percent of these respondents believed that the direct lender loan (that did not disclose a YSP) was less expensive than the broker loan (that did disclose a YSP). The degree of bias was significantly lower, although still substantial, in the revised prototype than in the original HUD proposal.

- *Loan choice*. All three versions of the compensation disclosure also caused a substantial and statistically significant bias against the broker loan when respondents were shown two loans with identical costs and asked which loan they would choose if they were shopping for a mortgage. These results are illustrated in Figure ES.2.

Figure ES.2



- 78 and 83 percent of the respondents in the two control groups did not choose a specific loan but said they would choose "either loan, both cost the same." Respondents who chose one of the two loans were split fairly evenly between the two. In one control group, 1 percent chose the broker loan and 3 percent the direct lender loan; in the other control group, 7 percent chose the broker loan and 7 percent the lender loan. The difference in the distribution of responses between the two control groups was not statistically significant.

- In contrast, only 25 to 30 percent of the respondents in the three YSP disclosure groups said they would choose “either loan.” Approximately 60 percent of the respondents in each group chose one of the two loans, and approximately 75 to 90 percent of these respondents chose the direct lender loan. The difference between the percentage of respondents choosing direct lender and broker loans was highest in the original proposal group (52 percentage points) and lowest, although still substantial, in the revised prototype (29 percentage points). This difference was statistically significant.

Conclusions

The findings of this study indicate that broker compensation disclosures are likely to harm rather than help consumers and competition in the mortgage market.

- The disclosures are likely to lead a significant proportion of borrowers to choose more expensive loans by mistake.
- The disclosures are likely to cause a substantial bias against broker loans that may reduce competition and increase the cost of all mortgages.
- All three versions of the compensation disclosure tested in the study resulted in significant consumer confusion about loan costs and a substantial bias against broker loans. This included versions that moved the disclosure to a second page of the cost information.

The mistaken loan choices induced by the compensation disclosures could impose significant costs on consumers, both individually and as a whole. If the disclosure requirement has an impact similar to the magnitude found in one of the hypothetical loan cost scenarios examined in the study, the disclosures would lead mortgage customers to incur additional costs of hundreds of millions of dollars per year. Because we did not test actual loan scenarios and because more consumers in our controlled experiment are likely to have noticed and read the disclosure than would occur in the actual market, this figure cannot be viewed as an estimate of the actual costs that the disclosure will impose. Nevertheless, it illustrates that the costs could be quite high. Whatever the size of the costs, the contemplated disclosure does not appear to be beneficial to consumers.

The findings also indicate that the asymmetry of the disclosure policy—which would require the disclosure for brokers but not direct lenders—creates a substantial consumer bias against broker loans, even when the loans cost the same as a competing direct lender loan. This bias is likely to disadvantage brokers relative to direct lenders and possibly lead to less competition and higher costs for all mortgage borrowers.

A more beneficial policy would focus on clear disclosure of mortgage costs, a clarification of the role of mortgage originators, and the encouragement and facilitation of borrower comparison shopping across originators. These policies are included in other components of HUD's RESPA reform proposal. Implementation of these policies, along with appropriate refinements to ensure that the disclosures are easily understood by consumers, would provide benefits to consumers without the adverse effects that are likely to arise from the compensation disclosure.

The study findings also illustrate the importance of consumer research in the development of information policy for consumer markets. Seemingly useful disclosures designed with good intent can produce unintended consequences that are counterproductive to the desired policy goals. Consumer research can help policymakers assess the effect that proposed disclosures are likely to have on consumers and competition.

HUD's RESPA reform proposal pursues the important goals of increasing competition and lowering costs to consumers in the mortgage loan market. Many of the components of the proposal promote these ends and are likely to benefit consumers, particularly the removal of restraints on packaging and improving the understandability of the GFE. This study finds, however, that broker compensation disclosures are likely to act against these goals and result in more confusion, less competition, and higher costs for consumers.

1

INTRODUCTION

As part of its efforts to reform the regulations that implement the Real Estate Settlement Procedures Act (RESPA), the Department of Housing and Urban Development (HUD) recently proposed revisions to the Good Faith Estimate (GFE) disclosure form. One of the proposed requirements that has generated considerable controversy is the mortgage broker compensation disclosure. According to the proposal, mortgage brokers would be required to disclose any compensation they receive from lenders in connection with the origination of a mortgage loan. Loans originated by direct lenders would not be subject to such a requirement.

The proposal is motivated by a concern that mortgage brokers are placing borrowers in high interest rate loans in order to increase their compensation. HUD believes that brokers may be able to charge relatively high rates because many consumers believe incorrectly that the broker is shopping on their behalf and providing the best deal available (HUD 2002a, 49141).[1] The compensation disclosure is intended to help consumers more readily recognize the cost of the loan, more effectively shop for low-cost loans, and better negotiate for reduced origination charges.

Although the compensation disclosures are intended to benefit consumers, care must be taken in formulating any consumer information policy. Seemingly useful disclosures designed with good intent can produce unintended consequences that harm rather than help consumers. Consumer research that examines the understandability and likely effect of the disclosures is essential to formulating policies that achieve the desired goals.

This study presents the results of an experiment that examines the effect of broker compensation disclosures on consumers and competition in the mortgage loan market. The study finds that the disclosures are likely to have significant adverse effects. Although the compensation disclosures are intended to help consumers understand the cost of mortgage loans, increase price competition, and lower costs to consumers, the disclosures instead are likely to confuse consumers, lead a significant proportion of consumers to misunderstand loan costs and mistakenly choose more expensive loans, reduce competition for mortgage originations, and possibly increase costs for all mortgage customers.

1.1 HUD's RESPA Reform Proposal

In July 2002, HUD announced a proposed rule that would amend the regulations that implement RESPA (HUD 2002a, 49134). The amendments seek to simplify and improve the

[1] Complete references are presented in the *Reference* section that follows the last chapter of the report.

process of obtaining a home mortgage and reduce settlement costs for consumers. The major components of the proposal include a complete revision of the GFE disclosure of settlement costs provided to consumers, the institution of measures to increase the certainty of the cost estimates, and the removal of regulatory barriers that discourage the packaging of settlement services. All of these measures seek to benefit consumers and make settlement costs more understandable, comparison shopping easier, and cost increases at closing less likely. The measures also are likely to encourage competition and increase efficiencies in the market.

The proposed revision of the GFE seeks to simplify and improve the information provided to consumers. Settlement costs would be summarized in several major categories rather than itemized in dozens of individual costs and fees as in the previous form. The revision also would add new information intended to improve consumer understanding of settlement costs and the tradeoff between interest rates and points. One component of the proposal is a requirement that mortgage brokers disclose any compensation they receive from the lender in connection with the origination of the loan.

1.2 Yield Spread Premiums

The amount that a lender will pay to purchase a loan originated by a broker depends on the interest rate of the loan and the "par rate" set by the lender. The par rate is defined as the interest rate at which the lender will purchase the loan for a price equal to the face value of the loan. A lender will pay a broker $100,000, for example, to purchase a $100,000 loan originated at the par rate. Lenders will pay a premium above face value for a loan originated with an above-par interest rate. The premium is called the "yield spread premium" (YSP).[2] The YSP often represents a major part of the compensation earned by brokers in connection with the origination of a loan.

Lenders are willing to pay a premium for a loan originated at an above-par interest rate because the resulting higher monthly loan payments will provide a higher rate of return. The par rate is set by the lender as a function of the lender's cost of capital and other expenses and the expected performance of the loan. The par rate and YSP may vary across different lenders. The par rate for a relatively efficient lender, for example, may be lower than for a relatively inefficient lender.

A direct lender that originates its own loans also will earn a premium from a loan originated at an above-par rate. If the loan is held in the lender's portfolio, the lender will receive

[2] Similarly, lenders will pay less than face value for a loan originated with a below-par interest rate. The difference would be made up by the payment of "discount points" by the borrower.

the higher rate of return provided by the higher monthly payments, which, as noted above, is the basis for the payment of YSPs to brokers. If instead the lender sells the loan to the secondary market, the lender will receive a price premium that reflects the higher rate of return.

There is little public information on the prevalence or size of YSPs due to the proprietary nature of lender files (HUD 2002b, 16). A HUD analysis of FHA loans, however, indicates that, in general, loans originated one-quarter of a percentage point above the par interest rate were priced 1 percent above the face value of the loan, and loans originated three-quarters of a percentage point above the par rate were priced 2.5 percent above face value. These prices would result in YSPs of $1,000 and $2,500, respectively, on a $100,000 loan (HUD 2002b, 17).

The YSP can be viewed as part of the markup over the wholesale price of the loan.[3] Just as any retailer purchases merchandise at a wholesale price, marks it up, and sells it at a higher retail price, mortgage brokers mark up the price of a loan to cover the origination costs and earn a profit.

A YSP received from the lender is part of the compensation that a broker receives for originating the loan. The broker also may receive other compensation from the lender for the performance of various services, and compensation directly from the borrower in the form of borrower-paid origination charges. Congressional testimony by Olson (2002) indicates that 45 percent of broker income comes from YSPs and 55 percent from origination charges paid directly by the borrower.

The YSP paid by the lender for an above-par loan may be used to reduce the up-front origination charges that otherwise would paid by the borrower.[4] Accepting a higher rate in exchange for lower settlement costs is particularly attractive to cash-constrained borrowers who want to minimize up-front closing costs.[5] The tradeoff also may be attractive to borrowers who believe they may hold the loan for only a few years, because they foresee either moving to another house or refinancing at a lower rate. The tradeoff also may provide tax benefits by turning nondeductible closing costs into deductible interest payments.

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[3] HUD notes that the YSP equals "the wholesale price of the loan minus the loan amount" (HUD 2002b, 15).

[4] This is the reverse of the borrower paying additional up-front costs (discount points) to buy down the interest rate. Thus, YSPs are sometimes described as "negative points."

[5] Borrowers also may finance origination charges and other settlement costs but this option is not available to borrowers already at the maximum loan-to-value ratio.

The tradeoff between a higher interest rate and lower up-front costs is common in today's mortgage market where many loans are offered with minimal or no origination charges and sometimes no closing costs. The prevalence of such loans indicates the popularity of this option with borrowers.

1.3 Proposed Broker Compensation Disclosure

One of the major changes proposed by HUD is a requirement that any compensation paid by a lender to a broker in connection with the origination of a mortgage loan be credited fully to the borrower and disclosed in the GFE.[6] The proposal is motivated by a concern that mortgage brokers are placing borrowers in above-par loans and using the YSPs to increase their compensation rather than reduce the up-front charges paid by the borrowers.[7] When this occurs, borrowers pay higher interest rates without receiving a compensating benefit of lower up-front costs.

HUD argues that brokers are able to charge above-par rates because many consumers believe incorrectly that the broker is shopping on their behalf and providing them with the best deal available (HUD 2002a, 49141). These consumers may not comparison shop with other loan originators to evaluate the cost of the loan and may be unaware that a less expensive par-rate loan may be available. The proposed compensation disclosure is intended to help consumers more readily recognize the cost of the loan, more effectively shop for low-cost loans, and better negotiate for reduced origination charges.

The proposed compensation disclosure describes the YSP and any other lender-paid compensation as a "lender payment to borrower for higher interest rate." The disclosure appears

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[6] HUD notes that:

> [The proposed rule] would first fundamentally change the way in which mortgage broker compensation is reported by requiring, in all loans originated by mortgage brokers, that any payments from a lender based on a borrower's transaction, other than the payment for the par value of the loan, including payments based upon an above par interest rate on the loan (payments commonly denominated "yield spread premiums"), be reported on the Good Faith Estimate (and the HUD-1/1A Settlement Statement) as a lender payment to the borrower (footnote omitted) (HUD 2002a, 49135).

[7] These same concerns have been raised by some consumer groups and other observers. See, for example, Rheingold (2002, 2003), Jackson (2002) and Jackson and Berry (2002). For contrary views, see Olson (2002) and Woodward (2002).

in a section of the GFE labeled "interest rate dependent payment."[8] A disclosure of the "gross origination charge," defined as the total compensation received by the broker from both lender and borrower payments, also would be added. The origination charges payable by the borrower would be disclosed as the "net origination charge."[9] The proposed origination charge and YSP section of the GFE is reproduced below in Figure 1.1. The entire proposed GFE is presented in Appendix A.

Figure 1.1 Origination charge disclosures in the original proposal

A. Origination Charges (HUD-1 800 Series)*	$ 4,000.00
See Attachment A-1 listing origination charge subtotals for the lender and the broker.	
B. Interest Rate Dependent Payment (200, 900)* **	
Until you lock in your interest rate these payments may change.	
(1) (+) Borrower Payment to Lender for Lower Interest Rate:	$_______
(2) (-) Lender Payment to Borrower for Higher Interest Rate:	– $ 2,500.00
NET LOAN ORIGINATION CHARGE DUE FROM BORROWER (Sum of A and B):	$1,500.00

Only originators meeting the HUD definition of "mortgage broker" would be required to disclose YSPs and other compensation not paid by the borrower. HUD defines a mortgage broker as an originator who "table funds" or acts as an intermediary in a mortgage loan (HUD 2000a, 49134, footnote 2). The definition is narrower than the common usage of the term "mortgage broker." Mortgage brokers that are the "real source of funds" for a loan, such as correspondent brokers using warehouse lines of credit, are not considered to be brokers under the definition.

HUD cites estimates from LaMalfa (2001), who found that HUD-defined brokers accounted for 31 percent of total mortgage originations in 2000 (HUD 2002b, 10). This implies

[8] Any discount points paid by the borrower also would be listed in this section as a "borrower payment to lender for lower interest rate."

[9] Thus, adding the net origination charges paid by the borrower and the YSP and other compensation paid by the lender yields the gross origination charge, or total broker compensation. Any discount points paid by the borrower to the lender would be subtracted when calculating broker compensation because these would be credited to the lender.

that compensation disclosures would be required in about one-third of all mortgage originations but not required in the other two-thirds.[10]

1.4 Concerns about the Proposed Compensation Disclosure

FTC staff submitted a public comment that generally supported HUD's RESPA reform proposal, including efforts to make the GFE more understandable and easier to use, increase the certainty of settlement cost estimates, and allow the packaging of settlement services (FTC 2002). FTC staff raised several concerns, however, about the potential benefits and costs of the proposed compensation disclosure, and recommended consumer testing to ensure that the disclosure and other changes to the GFE could be easily understood and used by consumers.[11]

FTC staff noted that the potential benefit of the proposed compensation disclosure is not readily apparent. Seller compensation is rarely disclosed in consumer markets. This is not surprising because consumers generally base their purchase decisions on the prices they themselves must pay—not on seller compensation. Consumers comparison-shop on these prices to find the best deal. Retailers do not disclose their markup over wholesale price but simply disclose the price consumers must pay.

Shopping should not be different in the market for mortgage loans. We would expect mortgage shoppers to focus on the costs they must pay for the loan—the interest rate, monthly payments, and up-front costs—not how much the broker is earning on the transaction. Comparison shopping on these costs will allow consumers to find the least expensive loan that fits their needs.[12]

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[10] The LaMalfa (2001) figures cited by HUD also estimate that 38 percent of originations in 2000 were by retail lenders and 31 percent by correspondent lenders with warehouse lines of credit (HUD 2002b, 10). Although the latter may be considered "brokers" in the popular usage of the term, both types of originators are referred to as "direct lenders" in this report to distinguish them from HUD-defined brokers.

[11] The FTC staff comment also made other suggestions, including that HOEPA loans not be excluded from the packaging proposal, that the GFE disclose multiple payment amounts for loans that have more than one fixed payment amount, and that additional measures be undertaken to enhance the reliability of cost estimates.

[12] Consumers, particularly those who intend to hold the mortgage for the full term, also may find it useful to comparison shop on the annual percentage rate (APR). The APR states the total credit cost of the loan, including interest and other finance charges, as a yearly rate, taking into account the timing of the payments over the life of the loan.

The compensation disclosure is intended to benefit consumers by making high cost loans more transparent, thereby leading consumers to negotiate for lower origination charges. The underlying idea is that when consumers see how much a mortgage broker is earning they will be inclined to bargain for a greater share of the markup. This is possible, but more direct measures might better assist consumers to avoid high cost loans. A loan with a YSP will have a higher interest rate than a par rate loan. Consumers can readily observe the interest rate and compare it to competing loan offers. This is particularly true in the prime loan market where interest rates are widely advertised, listed in newspaper charts and Internet sites, and often obtainable by telephone or fax from competing originators. Clear disclosure of the interest rate and other loan costs is likely to assist consumers better than disclosure of broker compensation.

Additional disclosures might be useful to encourage comparison shopping. For example, a disclosure informing consumers that the originator is not necessarily shopping on their behalf, and may not be providing the lowest cost loan, might be sufficient to correct any borrower misperceptions about the role of mortgage originators. Such a disclosure could act to induce greater consumer scrutiny of loan costs and more comparison shopping across originators. HUD's proposed revisions to the GFE include such a disclosure.

Finally, any benefits of the compensation disclosure would be limited by the stipulation that they are required only for HUD-defined brokers, which means that the disclosure would appear in only about a third of mortgage originations. Thus, even if the disclosure helped consumers, the benefits would arise in only a minority of mortgage transactions. Consumers would still need to comparison shop on interest rates, monthly payments, and up-front costs in most originations.

In addition to raising questions about the benefits of the proposed compensation disclosure, FTC staff also raised concerns that the disclosure could confuse consumers and lead some to focus primarily on the broker's compensation rather than the cost of the loan. Such confusion could distort consumer perception of loan costs and lead some to choose mistakenly loans that were more expensive than available alternatives.[13]

The concern about consumer confusion is heightened by the asymmetric nature of the disclosures. A broker and a direct lender may be offering the same loan, at the same interest rate, with the same closing costs, and earning the same compensation, but only the broker would be required to disclose the YSP and include it in the gross origination charge. The figures disclosed in broker and lender GFEs will be different even though the bottom line costs to the consumer are the same. If the disclosures lead consumers to focus on the gross origination charge or YSP

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[13] HUD recognizes the possibility that some consumers might be confused by the disclosure and discussed this issue in its Economic Analysis (HUD 2000b, 32-33).

rather than the net origination charge, the broker loan may appear more expensive than the identical direct lender loan. The disclosures also may make a broker loan look more expensive even when it costs less than a direct lender loan.

Compensation disclosures also could have adverse effects on market efficiency and competition. A consumer focus on originator compensation rather than consumer costs might distort consumer choice away from the lowest cost providers, leading to less efficient, rather than more efficient outcomes. Relatively low-cost mortgage lenders that can provide low interest rate loans may be able to pay more to mortgage brokers who find them customers than would relatively high cost mortgage lenders. A consumer focus on compensation would reward the less efficient, higher cost lenders and lead to less efficiency in the market, which ultimately could result in higher prices for consumers.

The asymmetric nature of the disclosures may aggravate any anticompetitive effects. A consumer focus on originator compensation may create an unwarranted bias against broker loans because only brokers would be required to make the disclosures. Such a bias would make it more difficult for brokers to compete with direct lenders and possibly lead to a reduced level of competition in the market. If brokers are relatively low-cost mortgage originators, as some observers suggest (see Olson, 2002), and as the tremendous growth in the broker share of the market may indicate, then any competitive disadvantage imposed on brokers could result in higher mortgage costs for all consumers.[14]

1.5 Example of the Asymmetric Disclosure and Possible Consumer Confusion

The asymmetric disclosure requirement and the possible consumer confusion are illustrated in the following example. Figure 1.2 illustrates the origination charge disclosures that would be required under the proposed GFE for a broker making a hypothetical loan. Figure 1.3 illustrates the disclosures that would be required for a direct lender making the *same* loan.[15]

Although the two loans may have the same interest rate (not shown in the figures), the same origination charges due at settlement ($1,500 for each loan), and the same compensation earned by both the broker and direct lender, only the broker would be required to disclose the amount of compensation and include this amount in the disclosed gross origination charge. The

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[14] Figures in Olson (2002) and cited by HUD (2002b) indicate that the share of mortgages originated by brokers grew from practically zero in 1980 to 20 percent in 1987 and 65 percent in 2001. These figures include all brokers, not just those fitting the HUD broker definition.

[15] Only the origination charge section of the GFEs are shown. The format replicates the format published in the proposed rule (HUD 2002a).

asymmetry results in the disclosure of a larger gross origination charge for the broker than for the direct lender ($4,000 versus $1,500) and a disclosure in the broker loan of a "lender payment to borrower for higher interest rate" ($2,500) that is kept by the broker.

Figure 1.2 Proposed origination charge disclosures for a hypothetical loan offered by a broker

A. Origination Charges (HUD-1 800 Series)* — $ 4,000.00

See Attachment A-1 listing origination charge subtotals for the lender and the broker.

B. Interest Rate Dependent Payment (200, 900)***

Until you lock in your interest rate these payments may change.

(1) (+) Borrower Payment to Lender for Lower Interest Rate: $______

(2) (-) Lender Payment to Borrower for Higher Interest Rate: - $ 2,500.00

NET LOAN ORIGINATION CHARGE DUE FROM BORROWER (Sum of A and B): $1,500.00

Figure 1.3 Proposed origination charge disclosures for the same loan offered by a direct lender

A. Origination Charges (HUD-1 800 Series)* — $ 1,500.00

See Attachment A-1 listing origination charge subtotals for the lender and the broker.

B. Interest Rate Dependent Payment (200, 900)***

Until you lock in your interest rate these payments may change.

(1) (+) Borrower Payment to Lender for Lower Interest Rate: $______

(2) (-) Lender Payment to Borrower for Higher Interest Rate: $______

NET LOAN ORIGINATION CHARGE DUE FROM BORROWER (Sum of A and B): $1,500.00

The example illustrates the concerns raised about the compensation disclosure. Borrowers examining the two loans to determine which loan costs less need only examine the net origination charge, which is the charge payable by the borrower ($1,500 for both loans). Borrowers do not need to know the broker's compensation to evaluate the costs or to choose the less expensive loan. If borrowers focus instead on the gross origination charge or YSP disclosure, they may mistakenly believe that the broker loan is more expensive because it discloses a larger gross charge and a YSP that is kept by the broker. Any similar compensation earned by the direct lender is not disclosed. This would place the broker at a competitive disadvantage relative to the direct lender and could adversely affect the level of competition in the marketplace.

Consumers would be equally well off with either loan in the above example because the net charge to the borrower is the same in both loans. But the possible confusion caused by the asymmetric disclosures could harm consumers if the broker loan were less expensive. Figure 1.4 illustrates the disclosures for a different hypothetical loan offered by a broker. In this loan, the YSP is larger than in the previous example ($3,000 rather than $2,500), making the net origination charge lower ($1,000 rather than $1,500). If consumers compare the broker loan in Figure 1.4 to the direct lender loan in Figure 1.3 and focus on the gross origination charge and YSP disclosures, they may mistakenly conclude that the direct lender loan is less expensive because they see a much larger gross charge and YSP in the broker loan. If this confusion leads consumers to choose the direct lender rather than broker loan, they would pay $500 more in up-front settlement charges. The compensation disclosures would increase rather than decrease the settlement costs paid by these consumers.

Figure 1.4 Proposed origination charge disclosures for a different hypothetical loan offered by a broker

A. Origination Charges (HUD-1 800 Series)* $ 4,000.00

See Attachment A-1 listing origination charge subtotals for the lender and the broker.

B. Interest Rate Dependent Payment (200, 900)***

Until you lock in your interest rate these payments may change.

(1) (+) Borrower Payment to Lender for Lower Interest Rate: $______

(2) (-) Lender Payment to Borrower for Higher Interest Rate: – $ 3,000.00

NET LOAN ORIGINATION CHARGE DUE FROM BORROWER (Sum of A and B): $1,000.00

1.6 Research Objectives

This study examines the effect of broker compensation disclosures on consumer understanding of loan costs and consumer loan choices. More specifically, the study examines the impact of the disclosures on consumers' ability to identify the less expensive of two mortgage loans, consumers' choice of loans, and competition among mortgage originators. The study also examines whether the effect of the disclosures varies with different formats and language, and the extent to which consumers understand the disclosures.

2

METHODOLOGY

This study uses a controlled experiment to examine the effect of YSP disclosures on consumers and competition in the mortgage market. Over 500 recent mortgage customers were shown cost information about two hypothetical mortgage loans and asked a series of questions. Two questions were at the core of the test. In one, respondents were asked to identify which of the two loans would cost them less and, in the other, which loan they would choose if they were shopping for a mortgage. The findings yield conclusions about the likely effect of YSP disclosures on consumers' ability to identify the less expensive of two mortgage loans, consumers' choice of loans, and competition among mortgage originators. The study also examines whether the effect of the disclosures varies with different formats and language and the extent to which consumers understand the disclosures.

2.1 Experimental Setting and Test Questions

The study is based on one-on-one, in-person interviews of recent mortgage customers conducted by a consumer research firm.[16] Respondents were qualified for the sample if they had taken out a mortgage in the previous three years or were currently shopping for a mortgage. The interviews were conducted in February and March 2003 in interview facilities located in shopping malls. The malls were located in diverse geographic regions of the continental United States.

Respondents first were asked a "warm up" question about how many lenders or brokers they had contacted when shopping for their last mortgage and whether they previously had done business with the company from which they obtained their mortgage.[17] Respondents who had not taken out a mortgage in the previous three years but were currently shopping for one were asked how many lenders or brokers they had contacted so far.

Respondents then were asked the first of the two key questions of the study—the cost comparison question. Respondents were given cost disclosure forms for two hypothetical mortgage loans. Each loan was identified with only a single letter—"Loan G" and "Loan R" in

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[16] The consumer research firm was U.S. Research Company of Rutherford, New Jersey.

[17] The questionnaire is presented in Appendix C. Different versions of the questionnaire were used to rotate the order of some questions and to test different variations of the YSP disclosure. These variations are described in detail later in this chapter.

one of the tests and "Loan V" and "Loan M" in the other.[18] Interviewers asked respondents to look at the information and tell them which of the two loans would cost less. Respondents were given as much time as they needed to examine the information and were given the explicit option of saying that both loans cost the same. The text of the question read:

> Now I'm going to show you some information about the cost of two different mortgage loans. I'm going to ask you to look at the information and tell me which of the two loans would cost you less. *(Place the first set of loan cards on the table in front of the respondent.)* The information on the cards does not include some costs such as homeowners insurance and property taxes. Assume that any costs not listed are the same for both loans. Please look at this information, and when you are ready, tell me, based on the information shown on the cards about the loan terms and settlement costs, which loan would cost you less. Would "Loan G" cost you less, would "Loan R" cost you less, or would both loans cost you the same? (Question 3)

Respondents were asked an open-ended follow-up question that probed the reasons for their response. Interviewers probed for additional reasons until unproductive and recorded the verbatim responses. Next, respondents were asked to rate how certain they were of their response. A five point scale ranging from "very certain" to "very uncertain" was provided for the response categories.

Respondents then were asked the second key question of the study—the loan choice question:

> If you were shopping for a mortgage loan and had to choose between one of these two loans, which loan would you choose, "Loan G" or "Loan R?" (Question 6)

As before, respondents were asked an open-ended follow-up question that probed the reasons for their response. Interviewers again probed for additional reasons until unproductive.

The experiment then was repeated with a different set of loans. The format and language of the disclosure form was the same as in the first test but the cost figures were different. Respondents were asked the same series of questions as before—the cost comparison question, the loan choice question, the two open-ended follow-up questions, and the certainty rating question. The order of the two tests was rotated across respondents, as was the order of the loans in each test, to counterbalance any order effects.

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[18] Letter designations from the beginning of the alphabet, such as "A" and "B," were not used in order to avoid bias that might result if respondents associated the letters with grades.

After the completion of the second test, interviewers pointed to the YSP disclosure in the form for the "broker" loan, read the disclosure, and asked respondents what it meant to them.[19] Interviewers probed for additional detail until unproductive and recorded the verbatim responses.

To complete the interview, respondents were asked two questions about their prior mortgage experience. Respondents who had a mortgage transaction in the previous three years were asked how much time had passed since their most recent transaction. All respondents were asked how many mortgages they had obtained.

The interview responses were coded and compiled into a data set by the consumer research company that conducted the interviews. The data were analyzed by FTC staff.

2.2 Disclosure Groups

The sample was divided into five "disclosure groups" to which respondents were randomly assigned. Each group consisted of either 103 or 104 respondents. The loan costs were identical across the groups but the format, language, and, in some respects, content of the disclosure forms differed. The disclosure groups are listed and described in Table 2.1.

The key difference in the content of the disclosure forms was that a YSP disclosure was included in the information presented to some groups but excluded from the information presented to others. The YSP disclosure groups served as treatment groups and the non-YSP groups as control groups. Comparison of the test results between control and treatment groups provides an estimate of the effect of the YSP disclosures.

The other key difference in the disclosure forms shown to the different groups was the format of the form and the language of the YSP disclosure. Three versions of the YSP disclosure were tested: one based on the disclosure published by HUD as part of its RESPA reform proposal in July 2002 (the "original HUD proposal"), one prepared after discussions with HUD staff in January 2003 concerning YSP disclosures (the "revised prototype"), and one that used the revised prototype format but with alternative YSP disclosure language drafted by FTC staff ("FTC YSP language").

The disclosure forms for the revised prototype and FTC YSP language versions both used a substantially different format than the original HUD proposal version. The location of the YSP disclosure, for example, was changed in both, moving from the first page to the second page of the form. The revised prototype and FTC YSP language versions differed from each other in the

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[19] As discussed in Section 2.4, below, one loan in each pair was considered a "broker loan" and one a "direct lender loan."

Table 2.1 Disclosure Groups

Disclosure group	Description
Treatment groups	
Original proposal	GFE format and YSP disclosure originally set forth in the proposed rule published in the *Federal Register* in July 2002.
Revised prototype	GFE format and YSP disclosure prepared after discussions with HUD staff in January 2003.
FTC YSP language	The revised prototype format but with substituted YSP disclosure language drafted by FTC staff.
Control groups	
Original proposal (YSP disclosure omitted)	Same as the original proposal form used in the treatment group but with the YSP disclosure omitted
Revised prototype (YSP disclosure omitted)	Same as the revised prototype form used in the treatment group but with the YSP disclosure omitted

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

language used to describe the YSP. By employing three substantially different versions of the forms, the study provides a test of the effect of variations in the format, language, and location of the YSP disclosure.

Separate control groups were used for the original proposal and the revised prototype. The disclosure forms in each control group were identical to the forms in the corresponding treatment group with one exception—the YSP disclosure was omitted from the control version. A separate control group was not needed for the treatment group using YSP language drafted by FTC staff. This form was otherwise identical to the revised prototype, allowing both treatment groups to use the same control. Thus, the study design includes a total of five disclosure groups—three treatments and two controls.

2.3 Test Disclosure Forms

The test disclosure form used for the original HUD proposal group was based on the form in the HUD proposal but was not a complete replica. The test form replicated the YSP, origination cost, and total settlement cost disclosures, as well as the overall style and format of the HUD form, but abstracted from some of the unrelated detail and settlement cost itemization, such as the HUD-1 series numbers and the explanations of tolerances for changes to the cost estimates. Similarly, the test forms for the revised prototype and FTC language groups abstracted from some of the detail that would be included in a full GFE form. All of the test forms used in the study are presented in Appendix D.

The use of test forms that abstracted from some of the unrelated detail in the full GFE enabled respondents to compare the cost of the two loans in less time than would have been required if the complete forms had been used. This increased the likelihood that respondents would see and read the YSP disclosure. If the more detailed, full GFEs were used, some respondents may not have read all of the information in the form, including the YSP disclosure. This would have made it more difficult to identify the effect of the disclosure. Thus, the study results should be interpreted as an estimate of the effect of YSP disclosures on consumers who notice and read the disclosure. The disclosure may be less influential in actual shopping situations if a smaller proportion of consumers read the disclosure.

All versions of the test forms included information on various loan terms and settlement costs. Loan terms included the loan amount, interest rate, loan term (number of years), and monthly payment. Settlement costs included the origination charge, title services and title insurance charge, government taxes and fees, and appraisal fee. A total settlement cost figure summed the individual charges. In some versions, the sum of settlement costs other than origination charges also was disclosed.

A YSP disclosure was added to the settlement costs section of the forms in the three YSP treatment groups. Also, the YSP amount was added to the origination charge to obtain a "gross" charge, which was disclosed as the "origination charge" (in the original proposal) or "service charge" (in the revised prototype). A "net" or "adjusted" origination charge, which subtracted the YSP from the gross charge, also was disclosed. This followed the treatment of origination charges in the HUD proposal.

The revised prototype and FTC language versions of the test forms differed significantly from the original proposal forms in format, style, and language. One of the more significant differences was that the test forms for the original proposal used a one page format but the forms for the revised prototype and FTC language versions used a two page format. In the two latter versions, the YSP disclosure and settlement cost itemization were moved to the second page of the form, and a summary of the settlement costs was added to the first page.

The revised prototype and FTC language versions also differed from the original HUD proposal version in the language used for the YSP. In the revised prototype version, the YSP and discount points were referred to as a "charge or credit for the specific interest rate chosen." The YSP was described as follows: "For a higher interest rate loan—the payment by the lender on your behalf that reduces the up-front charge you pay."[20] The gross origination charge was disclosed as "our service charge" and the net origination charge as "your adjusted origination charges." In the FTC version the YSP was described as: "Rebate—applicable if borrower is paying a higher interest rate to reduce up-front costs."

2.4 Loan Cost Figures

The cost comparison and loan choice tests were conducted twice with each respondent. In one test, one of the loans was less expensive than the other. In the other test, both loans cost the same. The cost figures used in each test are listed in Table 2.2.

In the test in which one loan was less expensive, the interest rates, monthly payments, and other loan terms were the same for both loans, but one loan had lower total settlement costs because it had a lower net/adjusted origination charge. These cost specifications made one loan unambiguously less expensive than the other, avoiding any trade-off between lower rates and lower up-front costs, over which consumers may have different preferences.

One loan in each test was considered to be a "broker" loan and the other a "direct lender" loan. The loans were not identified as broker or lender loans to respondents. The only identification was a single letter, "Loan G" and "Loan R" in the test with one loan less expensive and "Loan V" and "Loan M" in the test with both loans costing the same.

In the YSP disclosure groups, a YSP was disclosed for the broker loan but not the direct lender loan, following the asymmetric disclosure policy proposed by HUD. In the test in which one loan was less expensive, the less expensive loan was treated as the broker loan. This meant that the less expensive loan disclosed a YSP but the more expensive loan did not.

In the test in which one loan was less expensive than the other, the only cost difference between the two loans was the net origination charge, which was $300 lower in the broker loan than the lender loan. This cost difference also made the total settlement charges $300 lower in broker loan.

Although the broker loan had a lower net origination charge, it disclosed a $3,100 YSP. The lender loan listed the YSP as "zero." The YSP was added to the net origination charge to obtain the gross charge, which was disclosed as the "origination charge" or "service charge." This made the disclosed gross origination charge $2,800 higher in the broker loan than in the lender loan. Thus, the broker loan disclosed lower net origination charges and total settlement

[20] Discount points were described as follows: "For a lower interest rate loan—the additional up-front charge you pay the lender."

Table 2.2 Loan Cost Figures

	Test with Broker Loan Less Expensive		Test with Both Loans Costing the Same	
	Loan G (Broker)	Loan R (Lender)	Loan V (Broker)	Loan M (Lender)
Loan Terms				
Amount borrowed	$150,000	$150,000	$125,000	$125,000
Interest rate	5.75%	5.75%	6.0%	6.0%
Loan term (years)	30	30	30	30
Monthly payment	$875	$875	$750	$750
Settlement Charges				
Origination charge / service charge	$4,300	$1,500	$3,200	$700
Yield spread premium	-$3,100	0	-$2,500	0
Net/adjusted origination charge	$1,200	$1,500	$700	$700
Title services and title insurance	$500	$500	$600	$600
Government fees and taxes	$300	$300	$200	$200
Appraisal fee	$200	$200	$100	$100
Total charges for other settlement services	$1,000	$1,000	$900	$900
Total settlement charges	$2,200	$2,500	$1,600	$1,600

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

Note: The "net/adjusted origination cost" figure was disclosed as the "origination charge" in the control groups and the separate listing of the "net/adjusted" charge was dropped.

costs than the lender loan, but a higher YSP and gross origination charge.

In the test in which both loans cost the same, all loan and settlement terms, including the net origination cost, were the same for both loans. The net origination charge was $700 in both loans. The only difference between the loans was that the broker loan disclosed a $2,500 yield spread premium and added that amount to the net origination charge to obtain a gross origination charge of $3,200, which was $2,500 higher than in the lender loan.

In the control groups, in which a YSP disclosure was not included in the loan cost information, only one origination charge figure was disclosed. This was the net amount to be paid by the consumer, which corresponds to the figure disclosed as the "net/adjusted origination charge" in the YSP disclosure groups. In the control groups, this figure was disclosed simply as the "origination charge" and the separate listing of the net charge was dropped.

The only difference between the two loans in the control groups in the test in which one loan was less expensive than the other was that the origination charge and total settlement costs were $300 lower for the broker loan than the lender loan. In the test in which both loans cost the same, all loan and settlement costs were identical.

2.5 Sample

The sample consisted of 517 consumers recruited through a mall-intercept procedure in eight shopping malls across the country. The malls were located in the metropolitan areas of Boston, Edison (New Jersey), Chicago, St. Louis, Atlanta, Orlando, Austin, and Los Angeles.

Respondents were qualified for the sample if they had engaged in a mortgage transaction within the previous three years or were currently shopping for a mortgage and were the principal or joint household decision maker on the mortgage transaction. This ensured that respondents had relatively recent mortgage shopping experience and would be at least somewhat familiar with mortgage cost information and terminology. Any type of mortgage transaction was acceptable for qualification, including purchase money loans, refinancing of existing loans, second mortgages, and home equity loans. Respondents were paid a nominal compensation of two dollars for their participation.[21]

Sampling quotas were specified in each disclosure group for respondent education level, race/ethnicity, age, and recent mortgage experience. This ensured that the samples reasonably

[21] Potential respondents were excluded if they had participated in another market research survey in the past three months or if they or anyone in their household had ever worked in a marketing research, advertising, or public relations firm, or a bank, mortgage broker, or finance company. Potential respondents also were excluded if they usually wore eyeglasses or contact lenses to read and did not have the glasses or contacts with them at the interview. A copy of the screening questionnaire is provided in Appendix B.

reflected the population of mortgage customers on several key characteristics that could impact consumer understanding of the disclosures.

The education, race/ethnicity, and age quotas were based on data from the 1996 U.S. Census Bureau Survey of Income and Program Participation (SIPP) for the percentage of households that had obtained a mortgage within the previous three years.[22] The quotas for each disclosure group were specified at (1) approximately 31 percent of respondents with no more than a high school education; (2) approximately 13 percent of respondents of African American or Hispanic race/ethnicity; and (3) approximately 29 percent of respondents age 18 to 34, 55 percent age 35 to 54, and 16 percent age 55 or older.[23]

A quota of approximately 10 percent was specified in each disclosure group for respondents who had not obtained a mortgage in the previous three years but were qualified for the study because they were currently shopping for one.[24]

The sample cannot be interpreted as a nationally representative sample of the universe of mortgage customers because it is a convenience sample chosen through a mall-intercept procedure in particular shopping malls. Care must be taken in generalizing the study results to

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[22] The figures are from wave 12 of the 1996 SIPP panel. The interviews for this wave were conducted from December 1999 through March 2000.

[23] Quotas were specified for younger and middle-age groups to ensure against a tendency of mall intercept surveys to over-sample younger shoppers. The quota for the oldest age group was set at 55 or older rather than 65 or older because the SIPP data indicated that the latter group accounted for less than 6 percent of the persons obtaining a mortgage in the previous three years. A quota for low income customers also was considered but not used because education level rather than lower incomes is more likely to be related to consumer ability to understand mortgage cost information.

[24] The 10 percent figure is a rough estimate of the size of this group relative to consumers who had obtained a mortgage in the previous three years. The estimate was based on the assumptions that the number of mortgage transactions per month in the few months following the survey would be roughly the same as the monthly average over the previous three years and that consumers shop for mortgages for up to four months. Adding four months of current shoppers to the 36 months of previous customers yields the equivalent of 40 months of transactions with the former representing 10 percent of the total. The actual figure would be higher than this estimate if the level of transactions at the time of the survey was higher than the earlier average, which is likely due to falling interest rates over this period. On the other hand, the actual figure would be lower if consumers shop for a shorter period of time, or if some current shoppers also obtained another mortgage earlier in the sample period (and thus were double counted).

all mortgage customers. This limitation is somewhat ameliorated through the use of multiple malls in geographically diverse areas of the country and the use of sampling quotas to ensure that potentially vulnerable customers are adequately represented. And although the sample cannot be treated as nationally representative, there do not appear to be any reasons to suggest that the sample presents a biased picture of mortgage customers.

3

RESULTS

The study results are presented in this section. First, the demographic characteristics and prior mortgage experience of the respondents are summarized. Next, the results of the key cost comparison and loan choice questions are presented. Last, respondents' explanation of their responses to the cost comparison and loan choice questions and their understanding of the YSP disclosures are discussed.

3.1 Sample Characteristics

Demographic characteristics. The demographic characteristics of the sample are presented in Table 3.1 for both the overall sample and each disclosure group. (All tables appear at the end of the chapter.) Twenty-nine percent of the 517 respondents in the study had no more than a high school education, closely matching the 31 percent sampling quota that was based on the SIPP.[25] Another 2 percent had attended technical or trade school. Thirty-one percent had some college, 29 percent had graduated college, and ten percent had attended some type of post-graduate school.

Twenty-nine percent of the respondents were 18 to 34 years old, 57 percent were 35 to 54, and 15 percent were 55 or older, closely matching the sampling quotas of 29, 55, and 16 percent, respectively. Seven and a half percent of respondents were less than 25 years old and four and a half percent were 65 or older.

Four and a half percent of the respondents had annual household incomes less than \$25,000, 15 percent had incomes of \$25,000 to \$39,999, 16 percent had incomes of \$40,000 to \$49,999, 25 percent had incomes of \$50,000 to \$74,999, and 31 percent had incomes of \$75,000 or more.[26] These percentages were fairly close to the income distribution of households who had obtained a mortgage in the previous three years as given in the SIPP data used for the sample quotas in other demographic characteristics. The biggest differences were that the study sample

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[25] See the discussion of the sampling quotas in Section 2.5, above.

[26] Nine percent of the respondents refused to give their income and 1 percent said they did not know. The percentages given in the text are not adjusted for the "refused" and "don't know" responses.

somewhat under-represented the lowest income group and over-represented the $40,000 to $49,000 middle income group.[27]

Six percent of the respondents were of Hispanic or Latino ethnic origin. Eighty-three percent were White, 10 percent were Black or African American, 4 percent Asian, and less than 1 percent American Indian, Native Alaskan, Native Hawaiian, or other Pacific Islander.[28] Sixteen percent of the respondents were either Black or Hispanic, which was close to the 13 percent sampling quota.

The sample was split nearly evenly between men and women. Fifty-one percent of the respondents were male and 49 percent female.

Differences in the distribution of demographic characteristics across the disclosure groups were examined using chi-square tests of independence. For each demographic variable, chi-square tests were conducted on all disclosure groups combined (Pearson chi-square) and for each YSP treatment and corresponding control group combination (Fisher exact tests). The chi-square p-values are presented in Table 3.1. Few significant differences were found across the disclosure groups. Of the 28 chi-square tests conducted, only one was significant at the 5 percent level and two others at the 10 percent level.

Multivariate analysis was used as a further check of the possible effect that any differences in demographic characteristics across disclosure groups may have on the results of the cost comparison and loan choice questions. As discussed in more detail in those sections, below, the analysis found that demographic characteristics did not have a confounding effect that distorted the treatment and control group comparisons.

Prior mortgage experience. The prior mortgage experience of the respondents is presented in Table 3.2. Almost all of the respondents had experience shopping for and obtaining a mortgage and most had done so more than once. Ninety-six percent of the respondents had

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[27] After recalculating the percentages to exclude the "refused" and "don't know" responses, 5 percent of the study sample had household incomes less than $25,000, compared to 11 percent in the SIPP data, and 18 percent of the households had incomes from $40,000 to $49,000, compared to 12 percent in the SIPP data. The differences in other income categories were less than 1 percentage point. (These figures differ from the ones presented in Table 3.1 because the latter do not exclude the "refused" and "don't know" responses.)

[28] About half the Hispanic respondents (3 percent of all respondents) either volunteered "Hispanic" to the race question or refused to give a race.

obtained a mortgage; only 4 percent had not.[29] Twenty-eight percent of the respondents had obtained one mortgage, 41 percent two or three, 16 percent four or five, and 9 percent six or more. The mean number of mortgages was 2.8 and the median was two.

Most respondents had relatively recent experience obtaining a mortgage, reflecting the qualification criteria for the study. Twenty-five percent of the respondents had taken out their most recent mortgage within the previous six months, 40 percent within the previous year, 61 percent within the previous two years, and 87 percent within the previous three years. Twelve percent of the sample had not taken out a mortgage in the previous three years, including the 4 percent who never had a mortgage.

Twenty-nine percent of the respondents were currently shopping for a mortgage. Fifty-six percent of these had obtained at least one other mortgage in the previous three years.

Approximately half of the respondents were the primary household decision maker on their mortgage. The other half were joint decision makers with other household members.

Most respondents had done at least some comparison shopping when obtaining their most recent mortgage. Seventy percent of the 451 respondents who had taken out a mortgage in the previous three years had contacted at least two lenders or mortgage brokers. Twenty-three percent contacted exactly two lenders or brokers, 28 percent contacted three, and 18 percent contacted four or more. Twenty-eight percent of these respondents contacted only one lender or broker. The mean number of contacts was 2.7 and the median was two. Thirty-two percent of the respondents had done business previously with the company they selected for their most recent mortgage. Sixty-eight percent had not.

Most of the respondents who were currently shopping for a mortgage also had done at least some comparison shopping. Of the 66 respondents who had not recently obtained a mortgage but were currently shopping for one, 86 percent had contacted at least one lender or broker and 68 percent had contacted at least two. Only 6 percent had not yet contacted any lender or broker.[30] The mean number of contacts for these respondents was 2.3 and the median was two. The difference between the mean number of contacts in this group and the mean for

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[29] Table 3.2 shows that 1.9 percent of respondents answered "don't know" when asked the number of mortgages they had obtained. Responses to other questions indicate that all but two of these respondents had obtained a mortgage sometime in the previous three years.

[30] Eight percent of the respondents said they did not know how many lenders or brokers had been contacted. These respondents are included in the base in the calculation of the percentage figures presented above.

respondents who had taken out a mortgage in the previous three years was not statistically significant.

As with the demographic characteristics, differences in the distribution of experience characteristics across disclosure groups were examined using chi-square tests of independence. For each experience variable, chi-square tests were conducted on all disclosure groups combined (Pearson chi-square) and for each YSP treatment and corresponding control group combination (Fisher exact tests). In addition, two-tailed t-tests of the differences in the means of treatment and control group combinations were conducted for the continuous variables—the number of previous mortgage transactions and the number of lenders and brokers contacted. The chi-square and t-test p-values are presented in Table 3.2.

Few significant differences were found across the disclosure groups. Of the 37 chi-square and t-tests conducted, only two were significant at the 5 percent level and two others at the 10 percent level. The multivariate analysis noted in the discussion of the demographic characteristics also was used as a further check of the possible effect that differences in prior mortgage experience across disclosure groups may have on the results of the cost comparison and loan choice questions. As with the demographic characteristics, the analysis found that experience variables did not have a confounding effect that distorted the treatment and control group comparisons. This analysis is discussed in more detail in the next two sections.

3.2 Cost Comparison Tests

The cost comparison tests find that the proportion of respondents who correctly identified the less expensive loan was significantly lower in the groups with YSP disclosures than in the control groups without YSP disclosures. These results are presented in Table 3.3.

Test with one loan less expensive than the other. In one of the cost comparison tests, one loan was less expensive than the other. As described in the Methodology section, above, the less expensive loan was considered to be a “broker” loan and the more expensive loan a “direct lender” loan. Following the asymmetric disclosure policy proposed by HUD, the “broker” loan disclosed a YSP but the “direct lender” loan did not.

Approximately 90 percent of the respondents in the two control groups correctly identified the less expensive loan. In contrast, only 63 to 72 percent of the respondents in the three YSP disclosure groups correctly identified the less expensive loan. The accuracy rate was 71 percent in the original HUD proposal group, 72 percent in the revised prototype group, and 63 percent in the FTC language group. As noted below in this section, the differences between the three YSP groups were not statistically significant.

Only 10 percent of the respondents in the control groups failed to identify the less expensive loan correctly. Three to four percent said that the more expensive loan was less expensive, 6 to 7 percent said that both loans cost the same, and 1 percent in one of the groups said that they did not know. In contrast, 28 to 38 percent of the respondents in the three YSP disclosure groups failed to identify the less expensive loan—29 percent in the original HUD proposal group, 28 percent in the revised prototype group, and 38 percent in the FTC language group. Across these three groups, 17 to 25 percent of the respondents said incorrectly that the more expensive loan was less expensive, 5 to 10 percent said the both loans cost the same, and 1 to 5 percent said they did not know which loan was less expensive.

The differences between the treatment groups with YSP disclosures and the control groups without YSP disclosures were statistically significant at a very high level. The distribution of responses in each of the three YSP treatment groups was compared to the distribution of responses in the corresponding control group using Fisher exact chi-square tests of independence. As shown by the p-values presented in Table 3.3, the differences were highly significant in all three comparisons. In another test of significance, the proportion of respondents who correctly identified the less expensive loan in each of the three YSP treatment groups was compared to the proportion in the corresponding control group using two-tailed t-tests. These differences also were highly significant (see Table 3.3).

The differences between the three YSP disclosure groups were not statistically significant, either in chi-square tests or t-tests.[31] This indicates that none of the YSP disclosures performed significantly better than the others. Similarly, the difference between the two control groups was not statistically significant.[32]

Test with both loans costing the same. The impact of the YSP disclosures was even larger in the test in which both loans cost the same. As in the test where one loan was less expensive than the other, one loan was considered to be a “broker” loan and the other a “direct lender” loan. Also as in the other test, the “broker” loan disclosed a YSP but the “direct lender” loan did not, following the asymmetric disclosure policy proposed by HUD. Here, however, all loan and settlement costs payable by the borrower were the same in both loans.

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[31] The p-values from the Fisher exact chi-square tests of independence and the two-tailed t-tests of the difference in the proportion of correct responses equaled, respectively, 0.385 and 0.878 for the comparison between the original proposal and the revised prototype, 0.289 and 0.203 for the comparison between the original proposal and the FTC staff version, and 0.281 and 0.154 for the comparison between the revised prototype and the FTC staff version.

[32] The p-values from the Fisher exact chi-square test of independence and the two-tailed t-test of the difference in the proportion of correct responses equaled, respectively, 1.000 and 0.837.

The proportion of respondents recognizing correctly that both loans cost the same was 95 and 99 percent in the two control groups but only 49, 53, and 57 percent in the three YSP disclosure groups. Only 1 percent of the respondents in one of the control groups and 5 percent in the other incorrectly indicated that one of the two loans cost less. In the YSP disclosure groups, 41 to 50 percent incorrectly indicated that one of the loans cost less and 2 to 6 percent said that they did not know. Respondents exposed to the originally proposed version of the YSP disclosure were most likely to give incorrect responses, but as noted in more detail below, the differences between the three YSP disclosure groups were not statistically significant.

The small percentage of respondents in the control groups who gave incorrect responses were not biased for or against either loan. In one control group, 1 percent of the respondents said that the broker loan was less expensive and none said the direct lender loan was less expensive. In the other control group, 2 percent said that the broker loan was less expensive and 3 percent said the lender loan was less expensive.

In sharp contrast, respondents exposed to the YSP disclosures were much more likely to believe that the "broker" loan was more expensive than the "lender" loan. In the group shown the originally proposed version of the YSP disclosure, 45 percent of the respondents believed that the "direct lender" loan was less expensive and only 5 percent believed the "broker" loan was less expensive. This implies that 90 percent of the respondents who believed incorrectly that one loan was less expensive believed it was the direct lender loan rather than the broker loan.

The results were similar in the disclosure groups shown the other two versions of the YSP disclosure. In these groups, 30 to 34 percent of the respondents believed that the direct lender loan was less expensive and 8 to 11 percent believed it was the broker loan. This implies that 74 to 81 percent of the respondents who believed incorrectly that one loan was less expensive believed it was the direct lender loan rather than the broker loan.

As in the test in which one loan was less expensive than the other, the differences between the treatment groups with YSP disclosures and the control groups without YSP disclosures were statistically significant. The distribution of responses in each of the three YSP treatment groups was compared to the distribution of responses in the corresponding control group using Fisher exact chi-square tests of independence. Also, the proportion of respondents who correctly identified that both loans cost the same in each of the three YSP treatment groups was compared to the proportion in the corresponding control group using two-tailed t-tests. As shown by the p-values presented in Table 3.3, all of the differences were highly significant.

The differences across the three YSP disclosure groups were not statistically significant in either the chi-square tests or the t-tests, although one difference was marginally significant at about the 6 percent level.[33] The difference between the two control groups also was not statistically significant.[34] The marginally significant result was the difference between the distribution of responses in the original proposal and the revised prototype groups. This appears to be due to differences in the distribution of broker and direct lender responses among the respondents who believed incorrectly that one loan was less expensive than the other, with respondents in the original proposal group being more likely to believe that the direct lender loan rather than the broker loan was less expensive. Although none of the versions of the YSP disclosure performed significantly better than the others in terms of the proportion of respondents correctly recognizing that both loans cost the same, and respondents in all of these groups believed disproportionately that the direct lender loan was less expensive than the broker loan, the results were significantly more disproportionate in the original proposal group than in the revised prototype group.[35]

Multivariate analysis. The differences between the treatment and control groups in the proportion of respondents correctly identifying the less expensive loan (or correctly recognizing that both loans cost the same) were not attributable to differences in the demographic composition or prior mortgage experience of the groups. This was confirmed by multivariate analysis that controlled for the possible effect of these factors. The multivariate analysis was conducted with a logit model that estimated the probability that a respondent correctly identified the less expensive loan. Several alternative specifications of the model were tested. The effect of the YSP disclosure was highly significant in all of the estimates. Moreover, the effect of the disclosure was consistently larger than in the differences presented earlier that did not control for

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[33] The p-values from the Fisher exact chi-square tests of independence and the two-tailed t-tests of the difference in the proportion of correct responses equaled, respectively, 0.061 and 0.488 for the comparison between the original proposal and the revised prototype, 0.396 and 0.240 for the comparison between the original proposal and the FTC staff version, and 0.438 and 0.632 for the comparison between the revised prototype and the FTC staff version.

[34] The p-values from the Fisher exact chi-square test of independence and the two-tailed t-test of the difference in the proportion of correct responses equaled, respectively, 0.150 and 0.096. The marginally significant result in the t-test reflects the difference between the 99 percent accuracy rate in the original proposal group and the 95 percent accuracy rate in the revised prototype group.

[35] The difference in the proportion of correct responses between the original proposal and the revised prototype groups was not statistically significant (p-value equals 0.488), but the difference in the proportion of incorrect direct lender responses was significant at about the 3 percent level (p-value equals 0.031). A t-test of the difference between the two groups in the difference between the percentage of broker and lender responses also is significant (p-value equals 0.016).

the demographic and experience characteristics. This confirms that the adverse effect of the YSP disclosures on respondent cost comparisons that was found in the descriptive results was not due to confounding factors, and indicates that, if anything, the descriptive results may understate the size of the effect.

3.3 Loan Choice Tests

Following each cost comparison test, respondents were asked which of the two loans they would choose if they were shopping for a mortgage. The responses indicate that YSP disclosures have a significant effect on loan choice, leading a significant proportion of respondents to choose the more expensive loan when the cost of the two loans differ, and leading respondents to disproportionately choose the direct lender loan when both loans cost the same. The results of the loan choice tests are presented in Table 3.4.

Test with one loan less expensive than the other. Respondent loan choice closely mirrored the cost comparison results in the test in which one loan was less expensive than the other. Respondents in the YSP disclosure groups were less likely to choose the less expensive loan than were respondents in the control groups. In the two control groups, 85 percent (revised prototype) to 94 percent (original proposal) of the respondents chose the less expensive loan. In contrast, only 60 percent (FTC staff version), 65 percent (original proposal), and 70 percent (revised prototype) of the respondents in the three YSP disclosure groups chose the less expensive loan.

Only 3 percent of the respondents in one of the control groups (revised prototype) and none in the other (original proposal) mistakenly chose the more expensive loan. In contrast, 16 percent (revised prototype), 25 percent (original proposal), and 27 percent (FTC staff version) of the respondents in the three YSP disclosure groups chose the more expensive loan. Other respondents said either that they would choose either loan, that they would choose neither loan, or that they did not know.

As in the cost comparison tests, the statistical significance of the differences between the treatment groups with YSP disclosures and the control groups without YSP disclosures were tested with chi-square and t-tests. As shown by the p-values presented in Table 3.4, all of the differences were highly significant.[36]

[36] The differences between treatment and control groups in the proportion of respondents who chose the more expensive loan also were highly significant but are not reported in the table. The p-values for the differences between control and treatment groups were less than 0.001 for the original proposal and the FTC staff version and 0.002 for the revised prototype.

The differences between the three YSP disclosures also were examined. There were no significant differences in the proportion of respondents choosing the less expensive loan, and only one significant difference (between the original proposal and the revised prototype groups) in the distributions of the responses.[37] The latter did not reflect a significant difference in the proportion of respondents choosing the less expensive loan, but in the distributions of the other, incorrect, responses.[38] Similarly, t-tests of the difference in the proportion of respondents incorrectly choosing the more expensive loan indicate a significant difference between the revised prototype and FTC staff versions, and a marginally significant difference between the revised prototype and original HUD versions.[39]

The difference in the distributions of the two control groups was not statistically significant, but the difference in the proportion of respondents choosing the less expensive loan was significant at about the 4 percent level.[40] The latter reflected the difference between the 94 and 85 percent figures in the original proposal and the revised prototype, respectively.

Test with both loans costing the same. In the loan choice test in which one loan was less expensive than the other, a respondent choosing the more expensive loan could be considered to have made a wrong choice. In the test in which both loans cost the same, however, none of the responses can be considered right or wrong because a consumer would be equally well off with either loan. Thus, choices of the broker loan, direct lender loan, either, or neither are all equally valid.

Although all choices in this test are valid, one would expect that respondents choosing one of the two loans would choose randomly between the broker and lender loan because both

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[37] The p-values from the Fisher exact chi-square tests of independence and the two-tailed t-tests of the difference in the proportion of correct responses equaled, respectively, 0.026 and 0.460 for the comparison between the original proposal and the revised prototype, 0.216 and 0.422 for the comparison between the original proposal and the FTC staff version, and 0.341 and 0.123 for the comparison between the revised prototype and the FTC staff version.

[38] In the revised prototype group, the proportion of respondents either choosing the more expensive loan or saying that they would choose neither loan was lower than in the original proposal group, and the proportion saying that both loans cost the same or that they did not know was higher.

[39] The p-values equal 0.046 for the former comparison and 0.085 for the latter.

[40] The p-values from a Fisher exact chi-square test of independence and a two-tailed t-test of the difference in the proportion of correct responses equaled, respectively, 0.219 and 0.036.

loans cost the same and neither was identified to the respondents as a broker or lender loan. Random selection between the two loans should result in the proportions of broker and direct lender responses being approximately equal.

In the two control groups, most respondents—83 percent in the original proposal control group and 78 percent in the revised prototype control—did not choose one of the two loans but instead said that they would choose either one. These respondents presumably recognized that both loans cost the same. Only 4 percent of the respondents in the original proposal group and 14 percent in the revised prototype group chose one of the two loans. The respondents choosing one of the two loans did not exhibit a bias in favor or against either loan. In the original proposal control group, 1 percent chose the broker loan and 3 percent the direct lender loan. In the revised prototype control group, 7 percent chose the broker loan and 7 percent the direct lender loan.

The pattern of responses was very different in the three YSP disclosure groups. Over 60 percent of the respondents in each group chose one of the two loans, and those choosing a loan disproportionately chose the direct lender loan rather than the broker loan. In the original proposal group, 57 percent of the respondents chose the direct lender loan and only 5 percent chose the broker loan, a difference of 52 percentage points. In the other two YSP groups, 46 to 48 percent of the respondents chose the direct lender loan and only 13 to 17 percent chose the broker loan, differences of 29 and 36 percentage points. Of the respondents choosing one of the two loans, 92 percent of the respondents in the original proposal group chose the direct lender loan, as did 73 percent in the revised prototype group and 79 percent in the FTC staff version group.

As in the other tests presented above, the differences in the distribution of responses between each of the three YSP treatment groups and the corresponding control group were examined with chi-square tests of independence. As shown by the p-values presented in Table 3.4, all of these differences were highly significant.

Unlike in the other tests, t-tests of the differences across groups in the proportion of respondents choosing the correct loan were not done because none of the loan choices could be considered correct or incorrect. Instead, t-tests were used to test whether in each disclosure group there was a significant difference between the proportion of respondents choosing the direct lender loan and the proportion choosing the broker loan, and whether these differences varied significantly across the disclosure groups. These tests indicate that the difference between the proportions of direct lender and broker responses were highly significant in each of the three YSP disclosure groups (p-values all less than 0.001) but not significant in either of the two control groups (p-values equal 0.317 and 1.000).

The differences were significantly larger in each YSP disclosure group than in the corresponding control group (p-values all less than 0.001). The difference also was significantly larger in the originally proposed version of the YSP disclosure than in the revised prototype version (and the difference between the original proposal and FTC staff versions was marginally significant).[41] This indicates that although all versions of the YSP disclosure led to a significant bias in favor of the direct lender loan and against the broker loan, the bias is significantly larger in the originally proposed version of the disclosure than in the revised prototype.

Multivariate analysis. The differences in respondent loan choices in the treatment and control groups were not attributable to differences in the demographic composition or prior mortgage experience of the groups. As in the cost comparison tests, this was confirmed by multivariate analysis that controlled for the possible effect of these factors. The multivariate analysis was conducted with logit and multinomial logit models using several alternative specifications. The effect of the YSP disclosure was highly significant in all of the estimates. Moreover, the effect of the disclosure was typically larger than the differences presented above that did not control for the demographic and experience characteristics.

3.4 Certainty of the Cost Comparison

Respondents were asked how certain they were of their identification of the less expensive loan in the cost comparison tests. As shown in Table 3.5, the YSP disclosures significantly reduced the level of certainty in each test.

The vast majority of respondents in all of the disclosure groups said they were either "very certain" or "somewhat certain" of their response. In the two control groups without YSP disclosures, 91 to 94 percent of the respondents said they were either "very" or "somewhat certain" in the test in which one loan was less expensive than the other, as did 97 to 99 percent in the test in which both loans cost the same. Similarly, 85 to 88 percent of the respondents in the three YSP disclosure groups said they were "very" or "somewhat certain" in both tests.

Although all groups were generally certain of their response, there was a significant difference in the degree of certainty between the control and treatment groups. In the control groups, 63 to 72 percent of the respondents said they were "very certain" in the test in which one loan was less expensive and 81 to 84 percent said they were "very certain" in the test in which both loans cost the same. In contrast, only 37 to 43 percent of the YSP treatment groups said they were "very certain" in the test in which one loan was less expensive and only 40 to 48

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[41] The chi-square and t-test p-values equaled, respectively, 0.072 and 0.013 for the comparison between the original proposal and the revised prototype groups, 0.227 and 0.061 for the comparison between the original proposal and the FTC staff version, 0.761 and 0.516 for the comparison between the revised prototype and the FTC staff version, and 0.113 and 0.640 for the comparison between the two control groups.

percent in the test in which both loans cost the same. As shown by the p-values presented in Table 3.5, the differences in the distribution of responses between each YSP treatment group and the corresponding control group are statistically significant.

Although some respondents in the YSP disclosure groups were "very certain" of their response, even these respondents had a significantly lower accuracy rate in the cost comparison tests than did respondents in the control groups. In the test in which one loan was less expensive than the other, 73 percent of the "very certain" respondents in the three YSP disclosure groups identified the less expensive loan correctly, compared to 90 percent of all respondents in the two control groups.[42] Similarly, in the test in which both loans cost the same, 61 percent of the "very certain" respondents in the YSP disclosure groups recognized that both loans cost the same, compared to 97 percent of respondents in the two control groups.[43] The difference in each test is highly significant (t-test p-values less than 0.001). The results indicate that a significant proportion of even the "very certain" respondents were confused by the YSP disclosures.

3.5 Reasons for the Cost Comparison and Loan Choice Responses

Respondents were asked to explain the reason for their response after each cost comparison and loan choice question. The reasons generally reinforced the responses to the loan cost and choice questions. Most respondents who identified a particular loan as less expensive, or who said they would choose the loan if they were shopping for a mortgage, said they did so because the loan, or some feature of the loan, cost less. Different respondents cited a wide variety of loan features as costing less, including the origination charge, adjusted origination charge, service charge, settlement charge, settlement costs, unspecified charges, and (always incorrectly) the interest rate or monthly payment. Similarly, most respondents who said that both loans cost the same or that they would choose either loan if they were shopping for a mortgage said they did so because the loans, or less commonly, some feature of the loans, cost the same.

Respondents in the YSP disclosure groups who incorrectly identified the more expensive loan as less expensive or who incorrectly identified the more expensive loan as their loan choice if they were shopping for a mortgage followed the same pattern. These respondents most

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[42] Across the three YSP disclosure groups, 20 percent of the "very certain" respondents said that the more expensive loan was less expensive, 4 percent said that the two loans cost the same, and 3 percent said that they did not know. The results varied somewhat across the three groups but the differences were not statistically significant.

[43] Across the three YSP disclosure groups, 30 percent of the "very certain" respondents said that the direct lender loan was less expensive, 4 percent said that the broker loan was less expensive, and 4 percent said that they did not know. The results varied by only a few percentage points across the three groups.

commonly said they did so because the loan, or some feature of the loan, cost less, and different respondents cited a wide variety of loan features as costing less. This appears to indicate that the YSP disclosures distorted these respondents' perceptions of the relative loan costs rather than simply confusing respondents and resulting in random guesses.[44] Only a small proportion of these respondents cited something from the YSP disclosure itself, such as the "credit," "rebate," or "adjustment." This may suggest that the confusion and mistaken loan choices are more likely to arise from the total compensation (gross origination charge) figure rather than the YSP (lender payment to the borrower) figure, but such a conclusion would be somewhat speculative because many respondents simply made general statements, such as "loan costs less," "lower charges," or "better deal," that are not facially inconsistent with a focus on the YSP.

3.6 Understanding of the YSP Disclosure

Following the second series of cost comparison and loan choice questions, interviewers pointed to and read the YSP disclosure and asked respondents what the disclosure meant to them. Interviewers probed for additional detail until unproductive and recorded the verbatim responses. The verbatim responses were examined to assess the degree to which respondents understood the disclosure.[45]

A response was considered correct if the respondent said that the loan had lower up-front costs in exchange for a higher interest rate (and did not make any additional incorrect statement).[46] A response was considered partially correct if it mentioned either lower up-front costs or a higher interest rate, but not both.[47] Responses were considered wrong if they made any incorrect statement, even if other parts of the statement were correct. Responses were considered

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[44] A small proportion of respondents, particularly in the loan choice test in which both loans cost the same, said that they chose the loan without the YSP disclosure simply because it was "less confusing."

[45] The correctness of the responses were classified and coded by the authors. The responses were initially classified by one of the authors and then reviewed by the other. Any discrepancies in the initial classifications were reviewed jointly for a final determination.

[46] Lower up-front costs could be expressed in a variety of ways, including "lower settlement costs," "lower origination costs," "lower service charge," "get a credit," or "get a rebate."

[47] A response also was considered partially correct if it mentioned that the lower costs were related to the interest rate but did not specifically mention that the rate was higher.

ambiguous if the statement was not clearly correct or incorrect.[48] A small number of responses were classified as "felt cheated" because the response focused on the respondent's subjective (negative) reaction to the disclosure, rather than its meaning. The verbatim responses and the classifications assigned by the authors are presented in Appendix E.

Using an open-ended question to assess understanding of the disclosure is inherently inexact. Some respondents who gave an apparently correct response may be simply repeating the disclosure, paraphrasing it in slightly different words, but understanding it little. Conversely, respondents who gave only a partially correct or ambiguous response may have had a correct understanding but just did not express it fully or clearly in their answer. There also were difficulties in interpreting and classifying the responses, and the resulting classifications are somewhat rough. There often was uncertainty, for example, over whether respondents who mentioned that they would receive lower up-front costs for a higher interest rate meant that the lower costs were associated with the loan in the disclosure form or with another, alternative loan with a higher rate. Some responses indicated consumer confusion about this point, but others were often unclear.

The results of the classification are presented in Table 3.6. As implied above, the results should be interpreted as rough approximations that may be an inexact measure of consumer understanding. Nonetheless, the results indicate that 25 percent of the 310 respondents in the three YSP disclosure groups had a correct understanding of the disclosure, 20 percent had a partially correct understanding, 25 percent an incorrect understanding, 13 percent gave an ambiguous response, and 16 percent said that they did not know.

Table 3.7 examines the relationship between respondent understanding of the YSP disclosure and the number of cost comparison questions answered correctly earlier in the experiment. The table shows the proportion of respondents in each understanding category that answered zero, one, and two of the cost comparison questions correctly. For comparison purposes, the same proportions also are presented for respondents in the control groups, who were not exposed to a YSP disclosure.

As shown in Table 3.7, there were differences in accuracy rates across respondents with different levels of understanding, and respondents with a more correct understanding were more likely to have a higher accuracy rate, but the differences were not that large. Fifty-five percent of the respondents who were classified as correctly understanding the YSP disclosure answered both cost comparison questions correctly, as did 45 percent of those classified as partially understanding the disclosure, 36 percent of those who had an ambiguous or wrong

[48] Statements that were essentially irrelevant also were categorized as ambiguous.

understanding, and 43 percent of those who said they did not know.[49] In contrast to all of these results, 88 percent of the respondents in the control groups answered both cost questions correctly. These differences are illustrated graphically in Figure 3.1.[50]

Ultimately, it is difficult to measure consumer understanding of the YSP disclosures through an open-ended question asking "what does this mean." There is simply too much ambiguity in interpreting the responses and assessing what they imply about respondent understanding of the disclosure. The inexactness of this qualitative measure is illustrated by the proportions of respondents answering both cost comparison questions correctly. The difference between respondents categorized as having a correct understanding and respondents categorized as having a wrong understanding is 19 percentage points, but the difference between respondents having a correct understanding and respondents in the control groups that did not see a YSP disclosure is 33 percentage points. The correct understanding group is much closer to the wrong understanding group than it is to the control groups, suggesting that the differences in understanding are not as large as implied by the classifications and that a significant proportion of "correct" respondents are actually confused by the disclosure.

A better measure of respondent understanding of the YSP disclosures is provided by the results of the cost comparison and loan choice experiments. These results provide a clear-cut, quantitative measure of respondent use of the disclosures that can be compared across treatment and control groups to assess the impact of the disclosures.

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[49] Only 17 percent of the respondents who said that the YSP disclosure meant they were "being cheated" answered both cost comparison questions correctly, but this percentage is based on only six respondents.

[50] The differences in the distribution of the number of cost questions answered correctly is not significant across the YSP understanding groups (p-value equals 0.202) but is significant if the correct understanding group is compared to all other understanding groups combined (p-value equals 0.030). Adding the distribution of responses in the control groups makes both comparisons highly significant (p-values less than 0.001).

Table 3.1 Demographic Characteristics

Demographic characteristic (N)	Percentage of respondents, by disclosure group: Original proposal (1) YSP disclosure omitted (104)	(2) YSP disclosure included (103)	Revised prototype (3) YSP disclosure omitted (103)	(4) YSP disclosure included (103)	(5) FTC YSP disclosure substituted (104)	Total (517)
Education						
Less than high school	1.0	1.0	0.0	3.9	0.0	1.2
High school graduate	29.8	27.2	30.1	23.3	28.9	27.9
Technical / trade school	1.9	1.9	0.0	2.9	1.0	1.6
Some college	35.6	32.0	28.2	24.3	33.7	30.8
College graduate	26.0	31.1	26.2	34.0	27.9	29.0
Graduate school or more	5.8	6.8	15.5	11.7	8.7	9.7
chi2 p-values: (all groups) 0.217; (cols 1,2) 0.970; (cols 3,4) 0.086; (cols 3,5) 0.145						
Age						
18 to 24 years old	5.8	8.7	12.6	4.9	5.8	7.5
25 to 34 years old	20.2	22.3	17.5	23.3	23.1	21.3
35 to 44 years old	38.5	39.8	34.0	38.8	26.9	35.6
45 to 54 years old	24.0	16.5	22.3	16.5	26.0	21.1
55 to 64 years old	10.6	3.9	9.7	13.6	12.5	10.1
65 or more years old	1.0	8.7	3.9	2.9	5.8	4.5
chi2 p-values: (all groups) 0.115; (cols 1,2) 0.034*; (cols 3,4) 0.264; (cols 3,5) 0.359						
Gender						
Male	54.8	50.5	51.5	47.6	51.9	51.3
Female	45.2	49.5	48.5	52.4	48.1	48.7
chi2 p-values: (all groups) 0.890; (cols 1,2) 0.579; (cols 3,4) 0.676; (cols 3,5) 0.579						

(Table continued on next page.)

Table 3.1 Demographic Characteristics (continued)

	Percentage of respondents, by disclosure group					
	Original proposal		Revised prototype			
Demographic characteristic (N)	(1) YSP disclosure omitted (104)	(2) YSP disclosure included (103)	(3) YSP disclosure omitted (103)	(4) YSP disclosure included (103)	(5) FTC YSP disclosure substituted (104)	Total (517)
<u>Hispanic or Latino Origin</u>						
Yes	5.8	6.8	6.8	4.9	5.8	6.0
No	94.2	93.2	93.2	95.2	94.2	94.0
chi2 p-values: (all groups) 0.974; (cols 1,2) 0.783; (cols 3,4) 0.768; (cols 3,5) 1.000						
<u>Race</u>						
White	82.7	83.5	79.6	84.5	82.7	82.6
Black or African American	9.6	11.7	14.6	6.8	8.7	10.3
Hispanic (volunteered)	1.0	0.0	1.9	1.9	1.0	1.2
Asian	2.9	2.9	1.9	5.8	3.9	3.5
American Indian or Alaska Native	0.0	0.0	0.0	0.0	1.9	0.4
Native Hawaiian or Other Pacific Islander	1.0	0.0	1.0	0.0	0.0	0.4
No race given	2.9	1.9	1.0	1.0	1.9	1.7
chi2 p-values: (all groups) 0.632; (cols 1,2) 0.964; (cols 3,4) 0.231; (cols 3,5) 0.751						
<u>Either Black/African American or Hispanic/Latino</u>						
Yes	15.4	17.5	21.4	11.7	13.5	15.9
No	84.6	82.5	78.6	88.4	86.5	84.1
chi2 p-values: (all groups) 0.358; (cols 1,2) 0.711; (cols 3,4) 0.090; (cols 3,5) 0.834						

(Table continued on next page.)

Table 3.1 Demographic Characteristics (continued)

	Percentage of respondents, by disclosure group					
	Original proposal		Revised prototype			
Demographic characteristic (N)	(1) YSP disclosure omitted (104)	(2) YSP disclosure included (103)	(3) YSP disclosure omitted (103)	(4) YSP disclosure included (103)	(5) FTC YSP disclosure substituted (104)	Total (517)
<u>Income</u>						
Less than $25,000	8.7	2.9	4.9	2.9	2.9	4.5
$25,000 to $39,999	13.5	16.5	13.6	16.5	12.5	14.5
$40,000 to $49,999	19.2	18.5	13.6	15.5	12.5	15.9
$50,000 to $74,999	26.0	22.3	26.2	24.3	26.9	25.2
$75,000 to $99,999	14.4	17.5	17.5	19.4	17.3	17.2
$100,000 or more	4.8	14.6	17.5	11.7	18.3	13.4
Don't know / Refused	13.5	7.8	6.8	9.7	9.6	9.5
chi2 p-values: (all groups) 0.550; (cols 1,2) 0.105; (cols 3,4) 0.839; (cols 3,5) 0.846						

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

Notes: Chi-2 p-values are from tests of independence in the distribution of responses across disclosure groups. Tests on the whole table (indicated by "all groups") are Pearson chi-2 tests. Tests on treatment and control group pairs (indicated by the column numbers in parentheses) are Fisher exact tests. * indicates significant at the p<5% level, ** indicates significant at the p<1% level.

Table 3.2 Prior Mortgage Experience

	Percentage of respondents, by disclosure group					
	Original proposal		Revised prototype			
Experience characteristic (N)	(1) YSP disclosure omitted (104)	(2) YSP disclosure included (103)	(3) YSP disclosure omitted (103)	(4) YSP disclosure included (103)	(5) FTC YSP disclosure substituted (104)	Total (517)
<u>Total number of mortgage transactions</u>						
None	1.9	6.8	1.9	3.9	3.9	3.7
1	23.1	31.1	28.2	27.2	29.8	27.9
2	22.1	16.5	29.1	24.3	26.0	23.6
3	17.3	19.4	18.5	19.4	14.4	17.8
4	15.4	8.7	7.8	8.7	9.6	10.1
5	5.8	4.9	3.9	8.7	6.7	6.0
6 or more	10.6	9.7	9.7	7.8	7.7	9.1
Don't know	3.9	2.9	1.0	0.0	1.9	1.9
Mean	3.1	2.7	2.7	2.7	2.6	2.8
Median	3.0	2.0	2.0	2.0	2.0	2.0
chi2 p-values: (all groups) 0.747; (cols 1,2) 0.420; (cols 3,4) 0.779; (cols 3,5) 0.914						
t-test p-values: (cols 1,2) 0.238; (cols 3,4) 0.926; (cols 3,5) 0.796						
<u>Currently shopping for a mortgage</u>						
Yes	34.6	27.2	29.1	24.3	29.8	29.0
No	65.4	72.8	70.9	75.7	70.2	71.0
chi2 p-values: (all groups) 0.573; (cols 1,2) 0.293; (cols 3,4) 0.529; (cols 3,5) 0.435						

(Table continued on next page.)

Table 3.2 Prior Mortgage Experience (continued)

	Percentage of respondents, by disclosure group					
	Original proposal		Revised prototype			
Experience characteristic (N)	(1) YSP disclosure omitted (104)	(2) YSP disclosure included (103)	(3) YSP disclosure omitted (103)	(4) YSP disclosure included (103)	(5) FTC YSP disclosure substituted (104)	Total (517)
<u>Time since last mortgage transaction</u>						
Less than 3 months	17.3	15.5	11.7	15.5	8.7	13.7
3 months but less than 6	8.7	12.6	12.6	13.6	10.6	11.6
6 mths but less than 1 yr	14.4	11.7	12.6	11.7	22.1	14.5
1 year but less than 2 yr	23.1	25.2	29.1	13.6	14.4	21.1
2 yrs but less than 3 yrs	25.0	21.4	20.4	35.0	29.8	26.3
More than 3 years	8.7	6.8	11.7	6.8	9.6	8.7
Never had a mortgage	1.9	6.8	1.9	3.9	3.9	3.7
Don't know / refused	1.0	0.0	0.0	0.0	1.0	0.4
chi2 p-values: (all groups) 0.168; (cols 1,2) 0.613; (cols 3,4) 0.050*; (cols 3,5) 0.348						
<u>Primary household shopper and decision maker on mortgage</u>						
Respondent	51.0	51.5	46.6	47.6	50.0	49.3
Jointly with other(s)	49.0	48.5	53.4	52.4	50.0	50.7
chi2 p-values: (all groups) 0.945; (cols 1,2) 1.000; (cols 3,4) 1.000; (cols 3,5) 0.782						

(Table continued on next page.)

Table 3.2 Prior Mortgage Experience (continued)

	Percentage of respondents, by disclosure group					
	Original proposal		Revised prototype			
Experience characteristic	(1) YSP disclosure omitted	(2) YSP disclosure included	(3) YSP disclosure omitted	(4) YSP disclosure included	(5) FTC YSP disclosure substituted	Total
Number of lenders or brokers contacted when shopping for last mortgage (respondents with mortgage transaction in the previous three years)						
(N)	(92)	(89)	(89)	(92)	(89)	(451)
1	25.0	23.6	28.1	30.4	34.8	28.4
2	16.3	25.8	33.7	25.0	15.7	23.3
3	37.0	29.2	20.2	28.3	25.8	28.2
4	16.3	5.6	7.9	5.4	9.0	8.9
5	3.3	5.6	3.4	3.3	9.0	4.9
6 or more	2.2	6.7	4.5	6.5	3.4	4.7
Don't know	0.0	3.4	2.3	1.1	2.3	1.8
Mean	2.8	2.8	3.0	2.5	2.5	2.7
Median	3.0	2.0	2.0	2.0	2.0	2.0
chi2 p-values: (all groups) 0.068; (cols 1,2) 0.038*; (cols 3,4) 0.651; (cols 3,5) 0.452						
t-test p-values: (cols 1,2) 0.978; (cols 3,4) 0.452; (cols 3,5) 0.930						
Done prior business with company selected for last mortgage (respondents with mortgage transaction in the previous three years)						
(N)	(92)	(89)	(89)	(92)	(89)	(451)
Yes	38.0	24.7	34.8	30.4	31.5	31.9
No	62.0	75.3	65.2	69.6	68.5	68.1
chi2 p-values: (all groups) 0.385; (cols 1,2) 0.057; (cols 3,4) 0.634; (cols 3,5) 1.000						

(Table continued on next page.)

Table 3.2 Prior Mortgage Experience (continued)

	Percentage of respondents, by disclosure group					
	Original proposal		Revised prototype			
Experience characteristic	(1) YSP disclosure omitted	(2) YSP disclosure included	(3) YSP disclosure omitted	(4) YSP disclosure included	(5) FTC YSP disclosure substituted	Total
Number of lenders or brokers contacted so far in shopping for current mortgage (respondents without a mortgage transaction in the previous three years but currently shopping)						
(N)	(12)	(14)	(14)	(11)	(15)	(66)
0	16.7	0.0	0.0	9.1	6.7	6.1
1	8.3	14.3	21.4	9.1	33.3	18.2
2	41.7	42.9	35.7	45.5	26.7	37.9
3	8.3	7.1	28.6	18.2	6.7	13.6
4	0.0	14.3	14.3	18.2	6.7	10.6
5	16.7	7.1	0.0	0.0	0.0	4.6
6	0.0	0.0	0.0	0.0	6.7	1.5
Don't know	8.3	14.3	0.0	0.0	13.3	7.6
Mean	2.2	2.5	2.4	2.3	2.0	2.3
Median	2.0	2.0	2.0	2.0	2.0	2.0

chi2 p-values: (all groups) 0.520; (cols 1,2) 0.738; (cols 3,4) 0.811; (cols 3,5) 0.491
t-test p-values: (cols 1,2) 0.607; (cols 3,4) 0.849; (cols 3,5) 0.643

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

Notes: Chi-2 p-values are from tests of independence in the distribution of responses across disclosure groups. Tests on the whole table (indicated by "all groups") are Pearson chi-2 tests. Tests on treatment and control group pairs (indicated by the column numbers in parentheses) are Fisher exact tests. T-tests are two-tailed tests of the difference in means between treatment and control group pairs (indicated by the column numbers in parentheses). * indicates significant at the p<5% level, ** indicates significant at the p<1% level.

Table 3.3 Cost Comparison Tests

	Percentage of respondents, by disclosure group				
	Original proposal		Revised prototype		
Response (N)	(1) YSP disclosure omitted (104)	(2) YSP disclosure included (103)	(3) YSP disclosure omitted (103)	(4) YSP disclosure included (103)	(5) FTC YSP disclosure substituted (104)
<u>Test with the broker loan less expensive</u>					
Broker loan	89.4%	70.9%	90.3%	71.8%	62.5%
Lender loan	2.9	23.3	3.9	16.5	25.0
Both the same	6.7	4.9	5.8	9.7	7.7
Don't know	1.0	1.0	0.0	1.9	4.8
<u>Test with both loans costing the same</u>					
Broker loan	1.0	4.9	1.9	10.7	7.7
Lender loan	0.0	44.7	2.9	30.1	33.7
Both the same	99.0	48.5	95.1	53.4	56.7
Don't know	0.0	1.9	0.0	5.8	1.9

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

Significance tests for the test with the broker loan less expensive:
chi2 p-values: <0.001 (all groups)**; <0.001** (cols.1,2); 0.002** (cols.3,4); <0.001** (cols.3,5)
t-test p-values: 0.001** (cols.1,2); 0.001** (cols.3,4); <0.001** (cols.3,5)

Significance tests for the test with both loans costing the same:
chi2 p-values: <0.001** (all groups); <0.001** (cols.1,2); <0.001** (cols.3,4); <0.001** (cols.3,5)
t-test p-values: <0.001** (cols.1,2); <0.001** (cols.3,4); <0.001** (cols.3,5)

Notes: Chi-2 p-values are from tests of independence in the distribution of responses across disclosure groups. Tests on the whole table (indicated by "all groups") are Pearson chi-2 tests. Tests on treatment and control group pairs (indicated by the column numbers in parentheses) are Fisher exact tests. T-test p-values are from two-tail tests of the difference in the proportions of respondents in control and treatment group pairs (indicated by the column numbers in parentheses) correctly identifying the less expensive loan.
* indicates significant at the p<5% level, ** indicates significant at the p<1% level.

Table 3.4 Loan Choice Tests

	Percent of respondents, by disclosure group				
	Original proposal		Revised prototype		
Response (N)	(1) YSP disclosure omitted (104)	(2) YSP disclosure included (103)	(3) YSP disclosure omitted (103)	(4) YSP disclosure included (103)	(5) FTC YSP disclosure substituted (104)
<u>Test with the broker loan less expensive</u>					
Broker loan	94.2%	65.0%	85.4%	69.9%	59.6%
Lender loan	0.0	25.2	2.9	15.5	26.9
Either, both the same	2.9	0.0	3.9	4.9	3.8
Neither	1.0	5.8	2.9	1.9	2.9
Don't know	1.9	3.9	4.9	7.8	6.7
<u>Test with both loans costing the same</u>					
Broker loan	1.0	4.9	6.8	16.5	12.5
Lender loan	2.9	57.3	6.8	45.6	48.1
Either, both the same	82.7	27.2	77.7	25.2	29.8
Neither	9.6	6.8	6.8	6.8	3.8
Don't know	3.8	3.9	1.9	5.8	5.8
Difference between direct lender and broker responses	1.9	52.4	0.0	29.1	35.6

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

Significance tests for the test with the broker loan less expensive:
chi2 p-values: <0.001 (all groups)**; <0.001** (cols.1,2); 0.014* (cols.3,4); <0.001** (cols.3,5)
t-test p-values: <0.001** (cols.1,2); 0.007** (cols.3,4); <0.001** (cols.3,5)

Significance tests for the test with both loans costing the same:
chi2 p-values: <0.001** (all groups); <0.001** (cols.1,2); <0.001** (cols.3,4); <0.001** (cols.3,5)
t-test p-values: <0.001** (cols.1,2); <0.001** (cols.3,4); <0.001** (cols.3,5)

Notes: Chi-2 p-values are from tests of independence in the distribution of responses across disclosure groups. Tests on the whole table (indicated by "all groups") are Pearson chi-2 tests. Tests on treatment and control group pairs (indicated by the column numbers in parentheses) are Fisher exact tests. For the test with the broker loan less expensive, t-test p-values are from two-tail tests of the difference in the proportions of respondents in control and treatment group pairs (indicated by the column numbers in parentheses) correctly identifying the less expensive loan. In the test with both loans costing the same, the t-tests are from two-tailed tests of the difference between control and treatment groups in the difference between direct lender and broker responses. * indicates significant at the p<5% level, ** indicates significant at the p<1% level.

Table 3.5 Certainty of Cost Comparison

	Percent of respondents, by disclosure group				
	Original proposal		Revised prototype		
Response (N)	(1) YSP disclosure omitted (104)	(2) YSP disclosure included (103)	(3) YSP disclosure omitted (103)	(4) YSP disclosure included (103)	(5) FTC YSP disclosure substituted (104)
<u>Test with the broker loan less expensive</u>					
Very certain	72.1%	42.7%	63.1%	36.9%	43.3%
Somewhat certain	22.1	43.7	28.2	49.5	43.3
Neither certain nor uncertain	2.9	5.8	3.9	6.8	6.7
Somewhat uncertain	1.0	6.8	4.9	6.8	2.9
Very uncertain	0.0	1.0	0.0	0.0	3.9
Don't know	1.9	0.0	0.0	0.0	0.0
<u>Test with both loans costing the same</u>					
Very certain	83.7	39.8	80.6	42.7	48.1
Somewhat certain	15.4	46.6	16.5	42.7	39.4
Neither certain nor uncertain	1.0	7.8	2.9	8.7	8.7
Somewhat uncertain	0.0	4.9	0.0	4.9	1.9
Very uncertain	0.0	1.0	0.0	1.0	1.0
Don't know	0.0	0.0	0.0	0.0	1.0

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

Significance tests for the test with the broker loan less expensive:
chi2 p-values: <0.001 (all groups)**; <0.001 (cols 1,2)**; 0.002 (cols 3,4)**; 0.011 (cols 3,5)*

Significance tests for the test with both loans costing the same:
chi2 p-values: <0.001 (all groups)**; <0.001 (cols 1,2)**; <0.001 (cols 3,4)**; <0.001 (cols 3,5)**

Notes: Chi-2 p-values are from tests of independence in the distribution of responses across disclosure groups. Tests on the whole table (indicated by "all groups") are Pearson chi-2 tests. Tests on treatment and control group pairs (indicated by the column numbers in parentheses) are Fisher exact tests.
* indicates significant at the p<5% level, ** indicates significant at the p<1% level.

Table 3.6 Understanding of YSP Disclosure

Respondent understanding of YSP disclosure (N)	Percentage of YSP group respondents (310)
Correct	24.5%
Partially correct	20.0
Ambiguous	12.6
Wrong	25.2
Did not know	15.8
Felt cheated	1.9

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

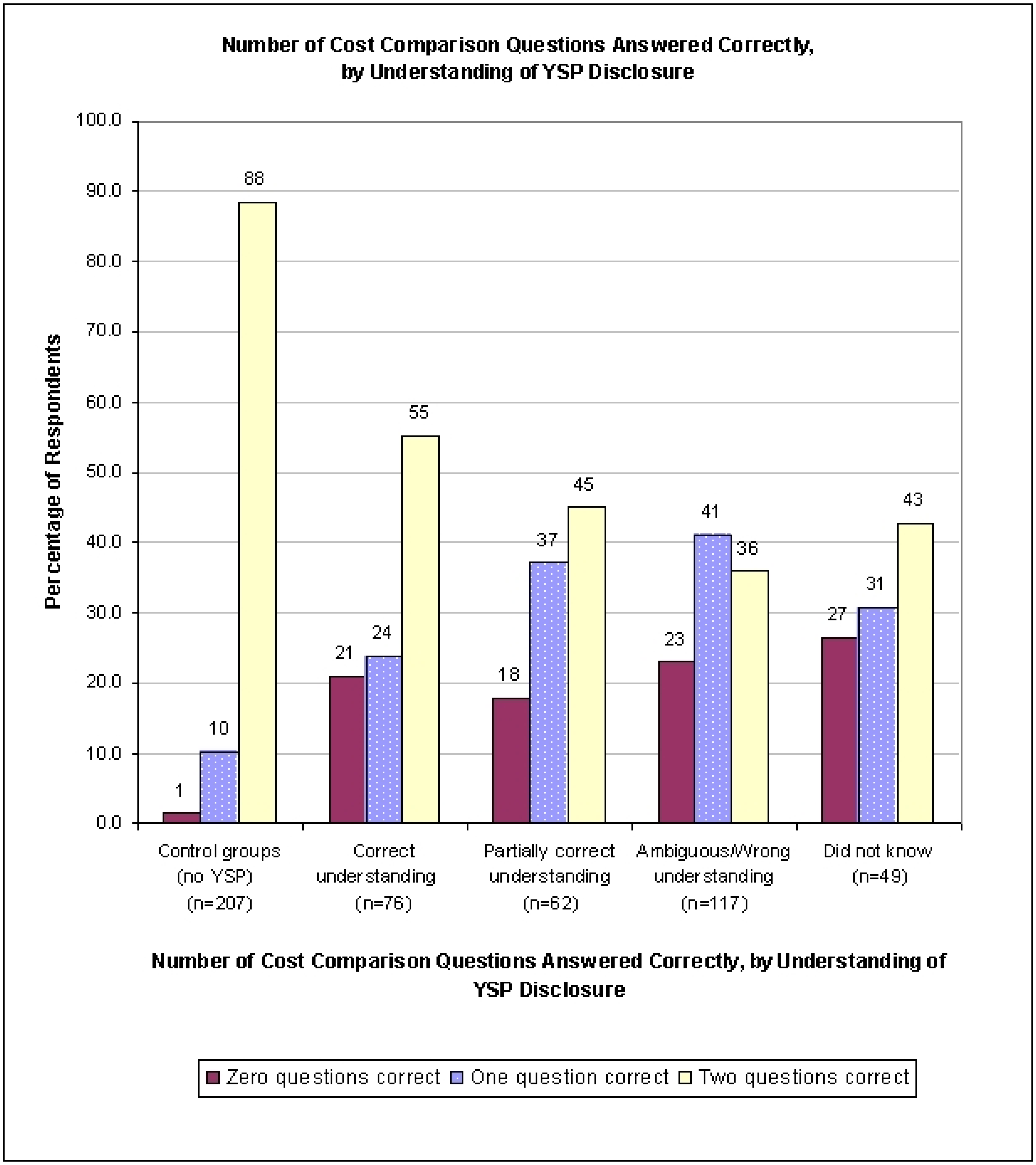
Table 3.7 Number of Cost Comparison Questions Answered Correctly, by Understanding of the YSP Disclosure

Disclosure group, Understanding of YSP disclosure	N	Percentage of respondents answering each number of cost comparison questions correctly: 0	1	2
Control groups (no YSP disclosure)	207	1.5	10.1	88.4
YSP disclosure groups	310	21.9	34.8	43.2
YSP disclosure group respondents by understanding of the YSP disclosure				
Correct	76	21.1	23.7	55.3
Partially correct	62	17.7	37.1	45.2
Ambiguous	39	18.0	46.2	35.9
Wrong	78	25.6	38.5	35.9
Did not know	49	26.5	30.6	42.9
Felt cheated	6	16.7	66.7	16.7

Source: FTC Bureau of Economics Mortgage Broker Compensation Disclosure Study.

Notes: The p-value from a Pearson chi-2 test of independence is 0.202 when only treatment group respondents are included and less than 0.001 when control group respondents also are included. The latter is significant at the p<1% level.

Figure 3.1


Number of Cost Comparison Questions Answered Correctly, by Understanding of YSP Disclosure
Percentage of Respondents
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1
10
88
21
24
55
18
37
45
23
41
36
27
31
43
Control groups (no YSP) (n=207)
Correct understanding (n=76)
Partially correct understanding (n=62)
Ambiguous/Wrong understanding (n=117)
Did not know (n=49)
Number of Cost Comparison Questions Answered Correctly, by Understanding of YSP Disclosure
Zero questions correct
One question correct
Two questions correct

4

ANALYSIS

This study finds that broker compensation disclosures are likely to have a significant adverse effect on consumers and competition in the mortgage loan market. The disclosures are intended to help consumers understand the cost of mortgage loans, increase price competition, and lower costs to consumers. Instead, the disclosures are likely to lead a significant proportion of consumers to choose more expensive loans by mistake, reduce competition for mortgage originations, and increase costs for all mortgage customers.

4.1 Impact of YSP Disclosures on Consumers

In the experiment conducted in this study, recent mortgage customers were shown cost information about two hypothetical mortgage loans and asked to identify which loan was less expensive and which loan they would choose if they were shopping for a mortgage. Adding YSP disclosures to the cost information reduced significantly the proportion of respondents correctly identifying the less expensive loan and the proportion stating they would choose that loan if they were shopping for a mortgage. Three different versions of the YSP disclosure were tested. All led to significant consumer confusion, inaccurate cost comparisons, and more expensive loan choices.

The impact of the YSP disclosures was large and statistically significant. When the original HUD proposal and revised prototype versions of the YSP disclosure were added to the cost information for the less expensive loan, the proportion of respondents correctly identifying that loan as less expensive fell by 18.5 percentage points, from roughly 90 percent of respondents to little more than 70 percent (and the effect was even larger in the FTC staff version). The proportion of respondents stating they would choose that loan if they were shopping for a mortgage also fell, by 29 percentage points with the originally-proposed version of the YSP disclosure and 15.5 percentage points with the revised prototype. The inaccurate cost comparisons and mistaken loan choices are likely to result in a significant increase in mortgage costs for many consumers.

4.2 Impact of YSP Disclosures on Competition

The study also finds that YSP disclosures create a substantial consumer bias against loans disclosing a YSP. The bias will place HUD-defined mortgage brokers at a competitive disadvantage because the asymmetric disclosure policy proposed by HUD would require the disclosures only for these brokers, not direct lenders or other originators.

The magnitude of the bias was quite large and highly significant. When respondents were shown two loans that had identical costs and the cost information did not include YSP disclosures, 95 to 99 percent of the respondents correctly recognized that both loans cost the same. When a YSP disclosure was included in the cost information for one of the loans, roughly 40 to 50 percent of the respondents, depending on the version tested, indicated incorrectly that one of the loans was less expensive. The overwhelming majority of these respondents—90 percent with the originally-proposed version of the YSP disclosure and 74 percent with the revised prototype—believed that the loan disclosing a YSP was more expensive. A similar bias was found when respondents were asked which loan they would choose if they were shopping for a mortgage.

The findings indicate that the asymmetric disclosure policy will cause a large proportion of consumers to view identically priced loans from brokers and lenders very differently. Consumers will view a broker loan that discloses a YSP as more expensive than a direct lender loan that does not, even when the broker loan costs the same or less than the direct lender loan.

The bias in consumer perception of loan costs arising from the asymmetric disclosure policy will give a competitive advantage to direct lenders and place brokers at a disadvantage. If the competitive disadvantage makes it more difficult for brokers to compete against direct lenders, the result may be fewer brokers in the market and less competition. The reduction in competition from brokers may lead to higher mortgage prices if brokers are the relatively more efficient, lower cost producers of mortgage originations, as some industry analysts have suggested (Olson 2002). In the short run, consumers who mistakenly choose a more expensive loan will be harmed by the YSP disclosures, but in the long run, all mortgage customers may be harmed if the competitive disadvantage imposed on the broker sector leads to higher prices throughout the market.

4.3 Projected Impact of YSP Disclosures on the Mortgage Market

How large an effect YSP disclosures may have on the mortgage market cannot be projected from the study results. The proportion of consumers mistakenly choosing more expensive loans or exhibiting unwarranted bias against broker loans is likely to depend on the proportion of consumers making such comparisons and the relative costs of the loans being compared. The YSP disclosures had a large adverse effect on consumer cost comparisons and loan choices in the cost scenarios examined in the study. The magnitude of these effects may be higher for some other cost scenarios and lower for others.

The magnitude of the effect also will depend on the impact of incorporating the disclosures into the full GFE rather than the abstracted versions used in the study. If consumers are less likely to read and use the YSP disclosure when it appears in the full GFE, a smaller proportion of consumers may be adversely affected.[51]

The impact of the YSP disclosures also may be affected if more of the loan cost figures differed between the loans being compared. The experiment simplified the comparisons by making almost all of the loan and settlement costs identical. Only the origination costs and YSPs differed between the loans. In a real shopping situation, other loan terms also may vary. The additional variation could lessen the effect of the YSP disclosures if the other differences provide additional cues as to which loan is less costly. But the additional variation could magnify the effect if more consumers focus on the large YSP difference rather than considering all of the other differences.

The impact of the disclosure also could be reduced to the extent that some brokers already are disclosing their YSPs. This effect may be limited, however, because those who are disclosing YSPs are not likely to be adding it to the origination charges paid by the consumer and disclosing the total as a gross origination charge, as in the HUD proposal. A simple line item in the disclosure forms labeled "yield spread premium" or "POC" (for "paid outside of closing") is most likely to be ignored by consumers rather than fostering consumer confusion as does the HUD-proposed disclosure.

Finally, the magnitude of the effect also will depend on the response of originators. The proportion of borrowers who are confused and make unnecessarily expensive loan choices may be reduced if brokers explain to borrowers the proper interpretation of the disclosure and how to compare the cost of the loan to other offers. The proportion may be increased, however, if direct lenders draw borrowers' attention to the disclosure and encourage misinterpretation.

Although these qualifications imply that the impact of YSP disclosures on the market cannot be estimated, the study findings suggest that effect is likely to be significant. The impact of YSP disclosures in the experimental setting was quite large and there is little reason to believe that the impact will not be significant in real shopping situations.

If the YSP disclosures have an impact similar to the magnitude found in the experimental results, the aggregate costs imposed on consumers would be substantial. When respondents were shown two loans, and one loan was less expensive than the other, the YSP disclosures increased the proportion of respondents mistakenly choosing the more expensive loan by 12.6 to 25.2 percentage points, depending on the disclosure version, with the low end of the range

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[51] Of course, if consumers do not read and use the YSP disclosure when it appears in the full GFE, the disclosure also will not provide the intended benefits.

corresponding to the revised prototype and the high end to the original HUD proposal.[52] The settlement costs for this loan were $300 more than the alternative. If between 12.6 and 25.2 percent of consumers obtaining mortgages mistakenly pay $300 more for their loan, the total impact would be approximately $400 to $800 million in additional costs paid by consumers each year.[53] These costs could be raised even higher by the adverse effect of the disclosures on competition.

There is no way of knowing whether the actual effect of the YSP disclosures would be of the magnitude found in the experimental results. The cost figures presented here cannot be viewed as an estimate of the actual costs that the disclosure will impose, but they illustrate that the costs could be quite high.

4.4 Source of the Consumer Confusion

There may be a number of reasons why the compensation disclosures cause the consumer confusion found in this study. The disclosure of compensation in a document that otherwise itemizes consumer costs may lead some borrowers to assume incorrectly that it is a charge they must pay themselves. Some borrowers also may be confused by the resulting adjustment to the disclosed origination charge and mistakenly believe that they must pay the gross amount, which is inflated to include the YSP, rather than the net amount that is payable by the borrower. Other borrowers may misinterpret the disclosure to mean that the interest rate on the loan is higher than the interest rates in other offers that do not disclose a YSP, even when the interest rate is the same. And some borrowers may be unable to understand the disclosure at all and avoid the loan because of the uncertainty about how much they must pay. All of these types of confusion were suggested by comments of study respondents.

The asymmetry of the proposed disclosure will increase the prevalence of consumer confusion by increasing the likelihood that consumers will be confronted with different disclosures for two loans that have similar costs. As found in the study, consumers view broker

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[52] The average across the three disclosure versions was 20.6 percentage points.

[53] These figures assume that the annual number of mortgage originations is equal to the 11.1 million average level that occurred during the period of 1997 through 2001 (HUD, 2002b, 8). Assuming that between 12.6 and 25.2 percent of these borrowers mistakenly chose a loan that is $300 more expensive yields total additional costs of $420 to $839 million per year. These figures would be significantly higher using origination levels that occurred during 2002 and 2003, which by 2003 reached nearly twice the earlier average due to the high level of refinances.

and direct lender loans very differently when a compensation disclosure is added to the broker loan disclosure form, even when the cost of the two loans is the same.[54]

4.5 Alternative Policy

The YSP disclosures are intended to improve consumer understanding of the cost of mortgage loans, increase price competition among mortgage originators, and lower mortgage costs to consumers. The study finds, however, that the disclosures are likely to create greater misunderstanding of loan costs, lead a significant proportion of consumers to choose more expensive loans, reduce competition among originators, and increase the costs of mortgages.

A more beneficial disclosure policy would focus on the cost of the loan rather than the compensation earned by the broker. Consumers who are considering the purchase of any type of good or service make their decisions based on the characteristics of the product and its cost, not the compensation earned by the seller. There appears to be little reason why this should be different in the market for mortgage loans. Mortgage shoppers should focus on interest rates, monthly payments, and up-front costs when they get a loan offer, compare loans, and make a decision.[55] Comparison shopping on these costs will allow consumers to find the least expensive loan that fits their needs. Clear disclosure of these costs would benefit consumers and avoid the adverse effects that are likely to arise from compensation disclosures.

Clear disclosure of mortgage costs and comparison shopping by consumers would address the problem of consumers being placed in above-par loans without their knowledge. If a mortgage originator offers a consumer a loan with an above-par interest rate, the increased cost to the consumer will appear directly as a higher interest rate on the loan and a correspondingly higher monthly payment. The consumer is affected by these cost increases, not by the originator's compensation.

Consumers can evaluate the interest rate on a loan offer by comparing it to rates offered by other originators and or listed in newspapers or on the Internet. Comparison of the interest rate and other loan costs provides a clear and familiar way for consumers to evaluate the cost of a

[54] Consumer confusion also may occur in the absence of the asymmetry. One might expect similar confusion, for example, if consumers compared two broker loans that disclosed YSPs, but one YSP was larger than the other. If borrowers focus on the compensation disclosure rather than the loan costs, and assume incorrectly that they must pay the YSP themselves, or that they must pay the entire gross origination charge, then they are likely to be confused in the same way as were the study respondents.

[55] As noted earlier, consumers also may find it useful to comparison shop on the APR, particularly if they intend to hold the loan until the full term.

loan. By comparison shopping on these costs, consumers can evaluate an offer and either be assured they are obtaining a good deal or find a better one. Disclosure of broker compensation is unnecessary and, as found in the study, may lead a significant proportion of consumers to instead choose more expensive loans.

Comparison shopping on rates, monthly payments, and up-front costs also avoids the asymmetry of the proposed YSP disclosure. Loan costs are available from both brokers and lenders and can be compared directly across the two types of originators. Under the proposed HUD policy, compensation would be disclosed only for broker loans, even though direct lenders may be earning similar or even greater compensation. The absence of the disclosure for lender loans not only reduces whatever benefit the disclosures may have for consumers but may actually mislead consumers into believing incorrectly that lender loans are always at the par rate.

Some consumers currently may not comparison shop when obtaining a mortgage and consequently may pay higher rates than those available elsewhere in the market. Helping these consumers is an important policy goal and a key rationale behind HUD's YSP proposal. But the study findings suggest that YSP disclosures are likely to harm a significant proportion of consumers. A better policy approach would be to encourage and facilitate more comparison shopping.

Comparison shopping could be encouraged if consumers were informed clearly that mortgage originators are not necessarily providing them with the lowest cost loan and that comparison shopping with other originators is the only way to ensure they are getting a good deal. Comparison shopping also could be facilitated if the disclosure forms provided greater guidance on what cost figures to compare across loans and if the forms were simpler and more easily understood. The HUD RESPA reform proposal already includes these ideas in the proposed improvements to the GFE. These proposals, along with appropriate refinements to ensure that the disclosures are easily understood by consumers, should encourage and facilitate comparison shopping. This approach would benefit consumers without creating the confusion and mistaken loan choices that are likely to arise from compensation disclosures.

One might consider including a compensation disclosure if the disclosure was qualitative and symmetrically applied to both direct lenders and mortgage brokers. The disclosure that mortgage originators are not necessarily providing the borrower with the lowest cost loan might be followed by a disclosure that states, for example: "Both mortgage brokers and direct lenders may earn greater compensation if you pay a higher interest rate or higher fees." Such a disclosure may reinforce the message that the originator is not necessarily shopping on the consumer's behalf and encourage more comparison shopping by consumers.

Additional measures to encourage comparison shopping also might be explored. These measures could be aimed at both increasing consumer awareness of the potential benefits of comparison shopping and reducing the costs of comparison shopping. Policymakers may wish to consider, for example, how to make consumers more aware of Internet-based mortgage choice calculators. Consumers can use such calculators to find the mortgage that best fits their needs based on individual factors such as expectations on how long they are likely to hold the mortgage and possible changes in their future income. The Internet also is making it easier for consumers to identify a wide range of mortgage products, including loans designed for consumers in different risk classes. More readily available information on market rates and settlement costs for a variety of loan products would better inform consumers of market prices, provide benchmarks that can be used to evaluate loan offers, and facilitate comparison shopping. Policymakers also may wish to explore whether consumers would be more likely to comparison shop if they had a better understanding of the possible benefits. If consumers better understood the degree of price dispersion in the market and the present value of paying an interest rate of, say, one half a percentage point less on a 30-year loan (which for a 6.5 versus 6.0 percent rate is equal to the equivalent of almost five and a half points if the loan is held for the full term and more than two points if the loan is held for seven years), they might be more inclined to comparison shop.

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CONCLUSIONS

This study presents the results of an experiment that examined the effects of broker compensation disclosures on consumers and competition in the mortgage loan market. Recent mortgage customers were shown cost information about two hypothetical mortgage loans and asked to identify which loan was less expensive and which loan they would choose if they were shopping for a mortgage. Broker compensation in the form of a YSP was disclosed in the cost information shown to some of the respondents but was not disclosed to others. Three versions of the YSP disclosure were tested: one based on the disclosure published by HUD as part of its RESPA reform proposal in July 2002 (the "original HUD proposal"), one prepared after discussions with HUD staff in January 2003 concerning YSP disclosures (the "revised prototype"), and one that used the revised prototype format but with alternative YSP disclosure language drafted by FTC staff ("FTC YSP language").

HUD intends that the YSP disclosures will enable consumers to recognize high cost loans and negotiate better deals. The study finds, however, that YSP disclosures reduce significantly the proportion of respondents correctly identifying the less expensive loan and the proportion stating they would choose that loan if they were shopping for a mortgage. The findings indicate that YSP disclosures, if noticed and read by consumers, are likely to lead a significant proportion of consumers to choose more expensive loans.

The mistaken loan choices induced by the compensation disclosures could impose significant costs on consumers, both individually and as a whole. If the disclosure requirement has an impact similar to the magnitude found in one of the hypothetical loan cost scenarios examined in the study, the disclosures would lead mortgage customers to incur additional costs of hundreds of millions of dollars per year. Because we did not test actual loan scenarios and because more consumers in our controlled experiment are likely to have noticed and read the disclosure than would occur in the actual market, this figure cannot be viewed as an estimate of the actual costs that the disclosure will impose. Nevertheless, it illustrates that the costs could be quite high. Whatever the size of the costs, the contemplated disclosure does not appear to be beneficial to consumers.

The study also finds that YSP disclosures will result in a significant consumer bias against broker loans, even when the broker loans cost the same or less than direct lender loans. The bias may have anticompetitive effects that reduce competition for mortgage originations and increase costs to consumers. The increased costs could affect all mortgage customers, not just those confused by the disclosures.

All three versions of the YSP disclosure tested in the study resulted in consumer confusion about loan costs and a bias against broker loans. This included versions that moved the disclosure to a second page of the cost information. The findings indicate that all three versions are likely to harm consumers and competition in the mortgage market.

A better way to help consumers obtain less expensive mortgages would be to encourage and facilitate comparison shopping on the loan costs. Rather than focusing on broker compensation, consumers should examine the interest rate, monthly payments, and up-front costs they will pay (and possibly the APR) and compare these costs across different originators.

Comparison shopping could be encouraged through disclosures that inform consumers that mortgage originators are not necessarily providing them with the lowest cost loan and that comparison shopping with other originators is the only way to ensure they are getting a good deal, by providing guidance on what loan cost figures to compare across originators, and by making the cost disclosures simpler and more easily understood. The HUD RESPA reform proposal already includes these ideas in the proposed improvements to the GFE. These proposals, along with appropriate refinements to ensure that the disclosures are easily understood by consumers, may be sufficient to encourage and facilitate comparison shopping. This approach would benefit consumers without creating the confusion and mistaken loan choices that are likely to arise from compensation disclosures.

Regardless of the policy alternatives pursued here or elsewhere, the study findings illustrate the importance of consumer research in the development of information policy for consumer markets. Seemingly useful disclosures designed with good intent can produce unintended consequences that are counterproductive to the desired policy goals. Consumer research can help policymakers assess whether proposed disclosures are understood and the effect the disclosures are likely to have on consumers and competition. Further development of the YSP or other disclosure alternatives should be pursued only after careful consumer testing.

HUD's RESPA reform proposal pursues the important goals of increasing competition and lowering costs to consumers in the mortgage loan market. Many of the components of the proposal promote these ends and are likely to benefit consumers, particularly the removal of restraints on packaging and the efforts to improve the understandability of the GFE. This study finds, however, that broker compensation disclosures are likely to act against these goals and result in more confusion, less competition, and higher costs for consumers.

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