

WHAT EXPLAINS VARIATION IN TITLE CHARGES?

a study of five large markets



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Disclaimer

The contents of this report are the views of the authors and do not necessarily reflect the views or policies of the U.S. Department of Housing and Urban Development or the U.S. Government.

Abstract

Title charges include title insurance premiums and often charges for closing or settling a loan. Title insurance premiums vary considerably across metropolitan areas, from an average of \$700 in Des Moines, Iowa, to \$2,190 in New York City. Housing market institutions and regulations explain some, but not all, of this variation. The other charges vary as well. This report attempts to explain the remaining variation in title costs within five housing markets. Local regulations and house prices are substantially associated with costs. Characteristics of the home purchase that make title search more challenging are modestly associated with costs in some markets, but not in others. Significant remaining variation between the fees charged by individual settlement agents suggests consumers would benefit from shopping for title insurance.

Foreword



In the current economic environment, much consideration is given to how to improve households' access to credit to purchase and refinance homes. While credit scores and house values play critical roles, it is also important to consider the costs of the mortgage loan transaction. HUD has sponsored a line of research looking into settlement costs incurred in connection with mortgage loans to better understand how prices can be decreased by encouraging competition and consumer shopping. I am pleased to share this report, which looks specifically at the title-related charges. Title charges include title insurance premiums and endorsements, title search, and charges for performing the real estate settlement and are a main component of the costs associated with closing a loan.

In 2007, the GAO issued a report on the title insurance market, which found that the industry's marketing and pricing raised questions "about the extent of price competition in the title insurance industry and the ability of consumers to affect market prices." This quantitative research addresses the issue of competition by examining how much of the variation in title charges between and within five different housing markets can be explained by differences in state laws, cost-related characteristics of the transaction, and non-cost related factors relating to the household, housing unit, or neighborhood, and how much remains unexplained. The study found that more than half of the variation in total title charges remains unexplained. This unexplained variation may reflect market segmentation or relationships between real estate agents and settlement agents. Both of these possibilities suggest that prices are higher than they need to be. Furthermore, the finding of substantial differences in title charges between settlement agents within a market suggests that consumers would benefit by shopping for title insurance and related services.

While this study examines title charges using settlement statements from 2001, its findings have significance today. The study creates a baseline for evaluating the effectiveness of the revised Good Faith Estimate and HUD-1 settlement statement, which were implemented in 2010 to improve competition by encouraging lenders to shop for settlement services and to enhance the ability of consumers to shop for loans and settlement service providers. It also provides quantitative research to support efforts by state and federal regulators to make the title services market more competitive.

We hope that this study will join HUD's other research on closing costs to contribute toward increasing competition among settlement service providers and further encouraging consumers to shop for not just their loans but also the settlement services so that they obtain the best prices possible.

A handwritten signature in black ink, appearing to read "Raphael W. Bostic".

Raphael W. Bostic, Ph.D.
Assistant Secretary for Policy
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Analysis of title charges across the five metropolitan areas suggests that the amounts paid by consumers vary substantially, both between and within housing markets. Price of housing units, age of housing units, and foreclosure risk are found to be associated with title charges, though the association differs across markets and varies by components of title charges. In most of the markets, title charges for comparable properties vary substantially across title companies. Evidence consistent with price discrimination against minorities and less-educated homebuyers exists in some of the metropolitan areas. After controlling for various characteristics of homebuyers, housing units, neighborhoods, and the identities of the top title companies, more than one-half of the variation in total title charges remains unexplained.

I. Introduction

Title insurance and settlement costs represent a substantial proportion of real estate closing costs paid by consumers and add significantly to the cost of purchasing a home. This study uses data on mortgages in counties covering five major metropolitan real estate markets to estimate the extent of variation in title charges faced by consumers and the factors associated with those charges. The analyses address the following research questions:

- How much do title charges vary?
- What factors are associated with variation in total title charges and components of title charges?
- How much variation in these charges remains unexplained after controlling for a series of factors commonly thought to influence title charges?

These analyses contribute to the literature on title insurance, and real estate markets more generally, by assessing how factors hypothesized to influence title charges are associated with those charges across a variety of actors and markets. In addition to comparing results across five different regulatory and institutional environments (Cook County, Illinois; Philadelphia County, Pennsylvania; Broward County, Florida; Maricopa County, Arizona; and Sacramento County, California),¹ this study answers these research questions from the perspectives of various parties: consumers, regulators, settlement agents, underwriters, and attorneys.

¹ These markets or metropolitan areas will be referred to by their common names in the report: Philadelphia and Sacramento Counties will be referred to as “Philadelphia” and “Sacramento,” and Broward, Cook, and Maricopa Counties will be referred to as “Broward County,” “Cook County,” and “Maricopa County.”

The rest of the report is organized as follows. Section II provides essential background on the title industry, a review of the existing literature on the determinants of title insurance charges, and an explanation of the major title charges considered in this report. Section III starts by describing the data sources used in the analyses, the conceptual framework used to identify the explanatory variables, and the specific methods used in this report. Section IV addresses the first research question by presenting a descriptive treatment of variation in title charges, and an explanation of how this variation motivates the analyses in the rest of the study. Section V tackles the second research question by presenting results from models of the relationship between various components of title charges and house, neighborhood, and consumer characteristics. The components of title charges are classified by the recipient of the fee (underwriters, settlement agents, or attorneys) as well as by whether it is regulated or substantially influenced by local institutions (premiums and endorsements, or attorney fees). Section VI summarizes and discusses the amount of variation in title charges left unexplained by the factors that are controlled for in Section V. Section VII presents policy implications from the perspective of consumers and regulators, summarizes the findings of the research, and discusses possible future research. Different terms are often used interchangeably to refer to the title industry. The terminology used in this report is discussed in text box 1. The method of deriving these charges and fees from the HUD-1 forms is discussed in more detail in Section II.

Box 1. Title Charges Considered in This Report

- Total title charges. All charges paid by either the buyer or the seller and associated with title insurance or services.
- Title insurance premium. The premiums paid for title insurance to cover both some portion of the title search costs and the payment of claims. Different search costs are incorporated into the title insurance premium in different markets.
- Endorsements. Additional premiums paid for additional insurance coverage.
- Net service fees. All monies received by the settlement agent, including their retained portion of the title insurance premium and endorsements, and any other fees charged for title services and recorded on the HUD-1 (such as abstracting, examination, or document preparation fees).
- Underwriter fees. The portion of the title insurance premiums and endorsements that are passed on to the title insurance underwriter—the party that bears the risk of title insurance claims.
- Attorney fees. All fees paid to attorneys performing services other than those performed by settlement agents.

This report follows the nomenclature of the HUD-1 that was in use in 2001 and will therefore refer to **charges** when discussing monies paid by buyers or sellers to settlement agents, underwriters, or attorneys. It will refer to **fees** when discussing individual components of the total title charge paid to specific parties (for example, *attorney fees*). Finally, the report will use the term **costs** to refer to the costs incurred by settlement agents, underwriters, or attorneys in providing title insurance or services to the consumer.

II. Literature & Definitions

Overview of the Literature on Title Charges, the Title Industry, and Regulations

Title charges are an important component of real estate transaction costs. Title charges include the costs of performing a title search, preparing a title insurance binder, attorney or other settlement agent fees, the cost of the insurance against title defects covering the lender and (often) the owner, and other fees related to processing the title insurance policy. Establishing that a seller has legitimate ownership of his or her property is essential to the smooth operation of real estate transactions, given the large share of household wealth tied up in property (GAO, 2007); however, the process of searching the sometimes-byzantine chain of titles to a property can be time consuming. The specialization and experience that settlement agents offer are an attractive alternative to homebuyers searching court records themselves (Baker et al., 2002). For these reasons, despite the controversies associated with it, the title insurance industry remains central to the American real estate market.

Title insurance also merits attention because it represents a substantial cost to consumers. Woodward (2008) finds that nationally, title charges averaged \$1,200 per loan for FHA-insured loans in 2001. The GAO's (2007) study of the industry identified a wide range of premiums, the major component of title charges, from an average of \$700

in Des Moines, Iowa, to an average of \$2,190 in New York City. Title charges are also an important component of the wider array of closing costs. A widely cited, regularly conducted survey of closing costs by bankrate.com consistently concludes that the substantial variations in title insurance charges across real estate markets account for much of the observed variation in closing costs (Lewis, 2010).

Title insurance is a controversial industry. Many researchers argue that title charges are held substantially above cost by industry practice, state regulation, and the infrequency with which consumers shop around (Woodward and Hall, 2010). One of the most prominent criticisms of the title insurance industry is that costs are kept high by reverse competition, kickbacks, or inappropriate referrals. Because consumers are generally unaware of many of the technical details involved in closing a real estate transaction, real estate service providers (such as settlement agents, lenders, and real estate agents) often compete for each other's referrals and business. Although consumers may technically be free to challenge referrals or seek out their own settlement agents or title insurers, in practice they rarely do so. Settlement agents may engage in reverse competition on several fronts, seeking out initial referrals from real estate agents as well as profitable partnerships with title insurance underwriters. Title insurance companies also compete for settlement agents by negotiating more generous premium retention rates.

Critics allege that in competing for the business of real estate agents and underwriters, settlement agents have less incentive to satisfy what they perceive to be a captive customer (Dumm, Macpherson, and Sirmans, 2007; GAO, 2007; Kay, 2007; Lehmann, 2005; Owen, 1977; White, 1984). Even more sympathetic analyses highlight reverse competition as a genuine problem that is inherent in the market and requires a solution (Roussel and Rosenberg, 1981). Although Roussel and Rosenberg (1981) suggest that self-regulation through rating bureaus offers such a solution, others contend that the problem can be addressed only by affirmative rate regulation by the state (Leslie and Bethel, 1983). Reverse competition is ultimately a problem because of the potential it introduces for a conflict of interest on the part of lenders, settlement agents, and realtors. Most agree that reverse competition is inherent in the incentive structure facing settlement agents, but more egregious cases of fraud and sham business affiliates have also emerged, leading to prosecutions (Kay,

2007; Lehmann, 2005). The Real Estate Settlement Procedures Act (RESPA), enacted in 1974, is intended to limit reverse competition by prohibiting kickbacks and referral fees, and by outlining requirements for acceptable affiliated business arrangements between settlement agents and other parties in the settlement process. Reverse competition is still possible, however, through the negotiation of the premium retained by the settlement agent.

Another common critique is that most title charges go toward expenses (and profit) rather than covering claims. Birnbaum (2005) notes that, between 1995 and 2004, title insurers paid only 4.6 percent of premiums to resolve claims, as compared with around 80 percent of premiums going toward claim settlements by property and casualty insurers. The title insurance industry points out that the low share of the premiums that go to resolve claims is attributable to the unique structure of title insurance in which the insurance is covering future discovery of complications that are missed in the title search. As a result, detailed title searches largely replace standard actuarial analyses, and costs incurred during search are intended to prevent claims (Miller, 2006; Rosenberg and Roussel, 1981). If less time were spent on searching, payments to resolve problems would be higher. Miller (2006) emphasizes that many studies alleging that premiums are excessive relative to payments for claim resolutions focus on short time periods, although claims in the title insurance industry are strongly contingent on foreclosure rates and, therefore, the business cycle. Garcia (2009) reviews the performance of the title insurance industry in the wake of the housing bust and notes that claims are considerably higher than they were during the boom, at the same time that a weak housing market is cutting into the collection of new premiums. Disagreements on the appropriateness of the low share of premiums going to resolve claims revolve around differences of opinion on the role of title insurance. Although critics compare title insurance to other insurance arrangements, others note that the function of the title insurer is to investigate title chains to prevent claims, and then cover the remaining, inevitable risk. Jaffee (2006: 94) attempts to clarify this confusion by pointing out that “title insurance is really a service product,” referring to the service of the title search itself, “and the insurance policy is a form of a product guarantee.”

In addition to the charges of market failure outlined previously, many characteristics of the title insurance industry are considered to be

anachronistic. Woolley (2006) has suggested that the entire industry is rendered unnecessary by the advent of digital housing records, and that it continues to exist only as a result of regulatory protection. Eaton (2009) has argued that Pennsylvania’s rating bureau is essentially a cartel that keeps title insurance prices higher than they are in other states by restricting competition. Between 1972 and 1984 many states authorized voluntary associations, known as rating bureaus, to collect and analyze industry data and file premium rates with the states on behalf of their members. In 1985 an FTC complaint alleging that these rating bureaus violated antitrust laws resulted in their disbanding. The rating bureau in Pennsylvania was reconstituted 4 years later according to new court requirements, and it continues to operate today (Lipshutz, 1994). Although Eaton (2009) cites these rating bureaus as the major obstacle in Pennsylvania to lower rates through competition, they have been defended in the past as a bulwark against kickbacks (Roussel and Rosenberg, 1981). Aside from the question of rating bureaus, which are less common than they have been in the past, the GAO (2007) has found substantial concentration among title insurance underwriters nationwide. Birnbaum (2005) documented unusually high profit rates by title insurers, and the GAO (2007) observed consistently high returns on equity for the industry since as far back as 1992.

In addition to regulatory and organizational controversies, Woodward (2008) finds differences nationally in title charges paid by minorities and less-educated homebuyers. Homebuyers purchasing houses in tracts with a high share of minorities or a low share of college graduates tend to pay higher title charges than those in more predominantly White and college-educated neighborhoods (holding other factors constant). She concludes that, “given the absence of any reason race or education should relate to the cost of establishing or resolving title for a property, this appears to be straightforward price discrimination, again suggesting a less-than-competitive market” (Woodward, 2008: 89). These concerns about price discrimination are especially important to consider, given the country’s history of racial discrimination in housing markets.

Consumers lack important information.

A primary reason for reverse competition in the title insurance industry is that consumers face severe information asymmetry problems during the settlement of a real estate transaction (Dumm et al., 2007; Kay, 2007; Stango and Zinman, 2011;

Woodward and Hall, 2010). Uninformed customers are profitable enough to settlement agents that Woodward and Hall (2010) raise concerns about settlement agents expending resources to actively seek out less informed customers, in addition to the more traditional complaints that the interests of uninformed customers will be ignored in pursuit of kickbacks. Lacko and Pappalardo (2010) contend (with evidence from a randomized experiment with 800 mortgage borrowers) that part of the problem is the complexity of current mortgage disclosures. They advocate mandating a simple, one-page mortgage disclosure form that is easier for homebuyers to understand.² Murray (2007) argues that information is so essential to share with consumers in this market that attorneys are guilty of malpractice if they fail to insist that their client purchase owner's coverage. In many ways, the opacity of the settlement process is self-reinforcing. The existence of reverse competition, by precluding a market in which homebuyers can easily shop for title insurance and other settlement services, keeps buyers uninformed about alternatives. Woodward's (2008) finding that less-educated neighborhoods tend to pay higher title charges is especially notable in the context of information asymmetry; less-educated homebuyers may be paying more because they are especially prone to confusion about settlement costs and title insurance.

Regulation of title insurance. The title insurance industry is primarily regulated at the state level, and regulations often focus on premium rates. Of all 50 states and Washington, D.C., 10 have no provision for premium regulation, including Illinois (a state studied in this report) and Washington, D.C., which Woodward (2008) has identified as a title insurance market exhibiting large variation in premiums. In addition, 21 states have file-and-use provisions, in which title insurance companies can set their own rates but must register them with a state regulator who often has some authority to review and reject filed rates. Of the states in this study, Arizona and California are file-and-use states. Pennsylvania is 1 of 16 prior-approval states, which are different from file-and-use states in that rates must be approved by the state before settlement agents can use them. Another 4 states "promulgate," or set rates for settlement agents, including Florida, which is the fifth market covered in this study, and Iowa, which runs a state title insurance monopoly (Eaton and Eaton, 2007). Table 1 identifies the procedures for

² This disclosure was experimentally tested against the mandated Good Faith Estimate disclosures and was found to be clearer to consumers.

regulating title insurance premiums in all 50 states and Washington, D.C.

States also impose monoline restrictions on title insurers, preventing them from using their capital to pay claims for multiple types of insurance. Jaffee (2006) defends monoline restrictions by emphasizing the safety of title insurance. Because title companies only insure against past events and the search process significantly minimizes the risk of claims being filed, the benefits of diversification for title insurance are minimal. Indeed, diversifying into riskier insurance lines that are potentially correlated with title insurance claims (such as mortgage insurance) could create more risk and raise the cost of title insurance. Many states also require a minimum title search length. Because investment in a complete search is generally not optimal, Baker and his coauthors (2002) empirically determine optimal search lengths for each state using information on foreclosure risk, turnover, and so forth. They conclude that actual state regulations on search length largely conform to estimated optimal search times. Regulations to prevent or prosecute fraudulent transactions such as equity theft (a type of fraud some settlement agents have perpetrated) and identity theft (fraud in which settlement agents and many other parties are the victims) are also common across states (Bagwell, 2009). In addition to these regulations of the practices and prices of settlement agents themselves, a variety of licensing, auditing, and capitalization regulations structure who can participate in the title insurance industry (Kay, 2007).

One might attribute observed cross-state differences in title charges to variation in regulatory mechanisms and local customs; however, Woodward's analysis also showed large variations in title charges within states. For example, in the District of Columbia, total title charges varied from \$1,200 to \$2,300 for loans of about the same value—despite the relatively small size of the District and the lack of county divisions.

The primary role of the federal government in regulating title insurance has been to restrict kickbacks and reverse competition through RESPA. Although referral fees are prohibited through RESPA, retained premiums are still negotiated between title insurance underwriters and settlement agents and can be used as an incentive. In addition, RESPA requires that prices for title services stay within a 10-percent tolerance of the Good Faith Estimate of settlement charges delivered to the borrower before closing.

Table 1. Premium Regulation by State			
State	Premium Regulation	State	Premium Regulation
Alabama	File and use	Montana	File and use
Alaska	Prior approval	Nebraska	Prior approval
Arizona	File and use	Nevada	File and use
Arkansas	Exempt/no provision	New Hampshire	Prior approval
California	File and use	New Jersey	Prior approval
Colorado	File and use	New Mexico	Promulgation
Connecticut	Prior approval	New York	Prior approval
Delaware	File and use	North Carolina	File and use
Washington, D.C.	Exempt/no provision	North Dakota	Prior approval
Florida	Promulgation	Ohio	Prior approval
Georgia	Exempt/no provision	Oklahoma	Exempt/no provision
Hawaii	Exempt/no provision	Oregon	Prior approval
Idaho	File and use	Pennsylvania	Prior approval
Illinois	Exempt/no provision	Rhode Island	File and use
Indiana	Exempt/no provision	South Carolina	Prior approval
Iowa	State monopoly	South Dakota	Prior approval
Kansas	File and use	Tennessee	File and use
Kentucky	File and use	Texas	Promulgation
Louisiana	Prior approval	Utah	File and use
Maine	Prior approval	Vermont	File and use
Maryland	Prior approval	Virginia	Exempt/no provision
Massachusetts	File and use	Washington	File and use
Michigan	File and use	West Virginia	Exempt/no provision
Minnesota	File and use	Wisconsin	File and use
Mississippi	Exempt/no provision	Wyoming	Prior approval
Missouri	File and use		

Source: Eaton and Eaton (2007).

Title charges can vary widely across different consumers. Previous studies examined factors associated with variation in total closing costs (Birnbaum, 2005; GAO, 2007; Woodward, 2008). These studies consistently find considerable variation across loans. The largest component of closing costs is the lender fee, but a substantial cost (with a median value of \$1,284, according to McKernan and her coauthors [2009]) was attributable to title insurance

and related settlement services. Woodward (2008) finds that title fees rise with loan amount. This may be seen as evidence of market power exercised by title insurance underwriters and agents because the costs of examining titles and insuring their validity are unlikely to rise substantially with the size of the loan involved. Although it is the case that the amount of risk associated with title defects rises with the loan amount, payments for title claims account for so little

of the premium that the effect of loan size on premiums should be minimal. This pattern is often interpreted as price discrimination against owners of higher-valued properties. Others have pointed to only modest discounts given to customers who are refinancing and generally no discounts given to purchasers of recently sold properties as indicators of price discrimination and market power (Eaton and Eaton, 2007). James Maher, a former executive vice president of the American Land Title Association (ALTA), suggested that the organization is aware of settlement agents who do not disclose available discounts for reissuing title insurance for recently sold properties, and that ALTA considers this to be “very bad practice” (Harney, 2002).

Previous research also concludes that geography matters. Woodward (2008) shows that borrowers of similar loan amounts pay widely varying amounts for title services both across and within states. Her analysis finds that 25 percent of the title fee variation across the nation is because of the borrower’s state of residence.³ Much of this interstate variation in title fees remains unexplained, even after controlling for loan amount and demographic characteristics of the borrowers.

Definition of Title Charges

In this study, title fees received by the settlement agents, underwriters, and attorneys are derived from data on the HUD-1 forms that are filed at the time of the closing. The HUD-1 form provides an account of the charges paid by the buyer and the seller of the house. To learn more about closing costs, HUD asked the Urban Institute to sample and transcribe several thousand HUD-1 forms for FHA-insured home purchase transactions from 2001. The two resulting databases are described in the following section. This section defines the title insurance charges reviewed in this study with reference to their location on the HUD-1 form. The first section of the HUD-1, which records the name of the settlement agent, the lender, and the address of the property, is presented in figure 1.⁴ This section of the form also provides the mortgage insurance case number, which is used to match the closing data used in this report to additional FHA data.

³ For example, in 2001, North Dakota and Missouri had average title charges of less than \$800, while New Jersey and California had averages of more than \$1,900.

⁴ This version of the HUD-1 form was used at the time that the data for this study were collected. Since that time, a new HUD-1 form has been issued.

Title-related charges are itemized on the HUD-1 on lines in the 1100 series (figure 2). Line 1108 provides the title insurance premium. Most of this premium is retained by the settlement agent to cover search costs, but a portion of it is paid to the title insurance underwriter to insure against undiscovered title problems. This retention rate is negotiated between the underwriter and the agent (except in Florida). In some markets, components such as abstract or title search (line 1102) or title examination (line 1103) are itemized separately, although in others they are included in the premium. In most cases, both lenders and owners receive title insurance coverage (lines 1109 and 1110). Coverage for the second parties is usually available at a substantial discount. Attorney fees are recorded in line 1107, but they can also be recorded in additional lines that are provided on the form (1111 through 1113).

The HUD-1 form provides additional lines (1111 through 1113) for recording fees that are not noted in lines 1101 through 1110. These fees include further attorney fees or clerical fees. Endorsements are often recorded in these additional lines. Endorsements provide additional title insurance coverage for a fee and are usually added at the request of the lender. Standard endorsements include “restrictions, easements, and minerals” endorsements, which protect land; “environmental protection lien” endorsements, which insure against losses associated with state environmental claims on the property; and “planned unit development” (PUD) endorsements, which insure that the house’s development was organized in accordance with regulations.

The HUD-1 provides two columns for recording these itemized charges. The left column records charges paid by the borrower (who is the homebuyer in a purchase transaction). The right column records charges paid by the seller. The analyses in this study combine buyer and seller charges for two reasons. First, from the perspectives of the buyer and the seller, specific components of the costs of a home sale are fungible. If a seller nominally pays a share of the settlement costs, those costs will be passed on to the buyer through a higher home price. Payment arrangements determined at closing may be determined by factors such as the availability of cash on hand to pay closing costs, but it is assumed that all costs are ultimately passed on to the buyer. Second, from the perspectives of the regulator, settlement agent, underwriter, and

attorney, the source of these fees (for example, from the buyer or seller) is irrelevant.

This study focuses on five categories of title charges: total title charges, net service fees, underwriter fees, attorney fees, and premium plus endorsement. Table 2 defines each of these

categories, and notes the line number from the HUD-1 form that was used to construct the variables used in the analyses presented in section V. A more detailed treatment of the strategy used to model these charges is provided in section III. Qualitative Analysis—Understanding Title Charges in the Five Markets.

Figure 1. Buyers, Lenders, and Settlement Agents on the HUD-1 Form

A. Settlement Statement		U.S. Department of Housing and Urban Development		OMB Approval No. 2502-0265	
B. Type of Loan					
1. <input type="checkbox"/> FHA	2. <input type="checkbox"/> FmHA	3. <input type="checkbox"/> Conv. Unins.	6. File Number:	7. Loan Number:	8. Mortgage Insurance Case Number:
4. <input type="checkbox"/> VA	5. <input type="checkbox"/> Conv. Ins.				
C. Note: This form is furnished to give you a statement of actual settlement costs. Amounts paid to and by the settlement agent are shown. Items marked "(p.o.c.)" were paid outside the closing; they are shown here for informational purposes and are not included in the totals.					
D. Name & Address of Borrower:		E. Name & Address of Seller:		F. Name & Address of Lender:	
G. Property Location:			H. Settlement Agent:		
			Place of Settlement:		I. Settlement Date:

Figure 2. Title Charges on the HUD-1 Form

1100. Title Charges			
1101. Settlement or closing fee	to		
1102. Abstract or title search	to		
1103. Title examination	to		
1104. Title insurance binder	to		
1105. Document preparation	to		
1106. Notary fees	to		
1107. Attorney's fees	to		
(includes above items numbers:)			
1108. Title insurance	to		
(includes above items numbers:)			
1109. Lender's coverage	\$		
1110. Owner's coverage	\$		
1111.			
1112.			
1113.			

Table 2. Definition of Title Charge Categories		
Title Charge	Definition	HUD-1 Line
Total title charges	Total title charges are all charges paid by consumers to the settlement agent or to attorneys for title work. This is the total of all charges listed in the 1100 series of the HUD-1 form. ^a	1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113
Net service fees	Net service fees are total title charges minus both attorney fees (1107, and any additional attorney fees listed in the extra lines) and the portion of the premium and endorsements that is passed on to the insurance underwriter.	1101, 1102, 1103, 1104, 1105, 1106, 1108, 1109, 1110, 1111, 1112, 1113
Underwriter fees	Underwriter fees are the portion of the title insurance premium (line 1108) and any endorsements (variously included in line 1108 or in extra lines provided) that is passed on from the settlement agent to the underwriter. The portion is negotiated, although typical ranges for each metropolitan area are presented in table 7. Assumptions about the settlement agent retention rate used for models in this study are provided in table 4.	1108, 1111, 1112, 1113
Attorney fees	Attorney fees are any fees paid to attorneys representing clients at a closing (rather than attorneys performing settlement agent functions). These fees are traditionally listed on line 1107, but additional attorney fees are occasionally added in the extra lines provided on the HUD-1.	1107, 1111, 1112, 1113
Premium plus endorsement	Premiums are typically listed in line 1108 and are paid directly to the settlement agent. When information in line 1108 is missing, lines 1109 and 1110 (indicating the price paid for owner and lender coverage) are used instead. Standard endorsements are occasionally included in line 1108 with the premium but also appear in the extra lines provided on the HUD-1 form.	1108, 1109, 1110, 1111, 1112, 1113
<p>^a Lines 1109 and 1110, the lender and owner premiums, are used to fill in the title insurance premium if line 1108 is missing information. If line 1108 is not missing information, line 1109 and 1110 are not included so that the premium is not double counted.</p>		

**Qualitative Analysis—
Understanding Title Charges in the
Five Markets**

Qualitative interviews inform the empirical model and interpretation of the regression analyses. Table 3 provides a summary of the lessons learned from these interviews. Background on the practices and idiosyncrasies of each of the five metropolitan markets was provided by settlement agents or

underwriters from each market. Title industry representatives from ALTA supplemented the insights of these agents and underwriters with an understanding of the operation of the industry nationwide. Two academic and legal experts who have written about and testified on title insurance provided a similar, broad perspective. These experts were especially useful because they provided an independent viewpoint on the industry. The interviews were primarily intended to learn about standard practice within each metropolitan area, such as the typical endorsements provided and the typical premium retention rate, as well as an overview

Table 3. Characteristics of the Five Metropolitan Counties					
	Philadelphia County PA	Broward County FL	Maricopa County AZ	Sacramento County CA	Cook County IL
Premium determination	Rating bureau (and approved by state)	State promulgated	File and use	File and use	Market
Premium varies across firms	No, except for the few nonmembers	No	Yes	Yes	Yes
Items included in title insurance premium	Title insurance, search, abstract, closing	Title insurance, abstract	Title insurance, search, abstract	Title insurance, search, abstract	Title insurance, search, abstract
Expectation of attorney at closing	No	No	No	No	Yes
Title search separate? • Regulated? • Charges vary with house value?	No	Yes No No	No	No	No
Escrow/settlement separate? • Regulated? • Charges vary with house value?	No	Yes No No	Yes Yes Yes	Yes Yes/FILED Yes	Yes No Yes
Typical agent split (retention)	70–88%	70% (regulated)	85–92%	88–92% ^a	Approximately 80%
Endorsement issues	Added at lender request; 3 standard	Added at lender request	Added at lender request; 6 standard	Added at lender request	Added at lender request
Data source: Qualitative interviews with settlement agents and industry representatives. ^a Provided by Birnbaum (2005).					

of the regulatory environment for each market. The interviewees also provide their understanding of what factors are and are not associated with title charges.⁵

Philadelphia and Broward County are the most constrained of the five markets studied. Philadelphia cannot be strictly categorized as a regulated market. State involvement consists of

⁵ Whether by regulation or custom, in all cases the expectation is that the title insurance premium itself would vary directly with house value.

approval of premiums agreed to by a rating bureau, which sets common rates on a complete package of settlement services, from title insurance underwriting through the actual closing of the purchase. Premiums are determined by a formula and increase as the house price increases. Some smaller underwriters do not participate in the rating bureau and may charge somewhat less than the rating bureau rates. The retention rate—the share of the premium not passed on to title insurance underwriters by the settlement agent—is not set by the rating bureau, but is instead

negotiated by the individual agents with underwriters. In Philadelphia, the typical agent retention rate ranges from 70 to 88 percent.

Although Philadelphia is constrained by a rating bureau, Broward County, Florida, has the tightest title insurance regulation imposed by the state government of all the markets in this study. Similar to the rating bureau in Philadelphia, premiums in Broward County are determined by the house price. The portion of the premium retained by the settlement agent is restricted to 70 percent in Florida.⁶ The state of Florida does not regulate title search or abstracting fees.

Maricopa County and Sacramento are moderately regulated. The title insurance markets in Maricopa County and Sacramento are both lightly regulated by the state, which requires only that rates be filed with the state before using them. Title insurance fees and search fees must be filed in both of these cities, and abstracting fees must also be filed in Maricopa County. Interviewees familiar with the Maricopa County market suggest that retention rates range between 85 and 92 percent, with smaller or less-established agents in a weaker negotiating position retaining a smaller share of the premium. According to Birnbaum (2005), retention rates in California are similar, ranging between 88 and 92 percent.

Cook County is the least regulated of the five markets. The Cook County title insurance market is widely recognized as one of the least regulated markets in the country, leading one interviewee to refer to it as “the Wild West.” A unique aspect of the title market in Cook County is that attorney fees (which are not common and generally are a small expense elsewhere) represent a significant share (approximately one-third) of total title expenses. The interviewees familiar with the Cook County market suggest that these attorney fees do not go to title or settlement companies. In the analyses that follow, attorney fees are therefore subtracted from total title charges before calculating net service fees. Typical premium retention rates in Cook County are approximately 80 percent.

Factors influencing title insurance fees. The interviewees noted several determinants of the costs of settlement agents and title insurance underwriters that may be passed on to consumers in the form of higher or lower fees. Many suggested

that claims on title insurance appear more frequently during foreclosure episodes. Properties located in areas with high foreclosure rates or borrowers who pose a high risk of foreclosing might pay higher title insurance rates, either because underwriters demand a higher portion of the premium to cover the added risk or because lenders require more endorsements.

Any characteristic of a property that might increase search costs also has the potential to increase fees, particularly in a market in which settlement agents have substantial discretion in charging fees. The interviewees suggested that higher fees can be charged for older houses, because they have longer title histories. Some agents indicate that they add predetermined fees for houses older than 30 or 40 years for this reason. Properties that combine multiple prior properties raise search costs as well, because a separate search must be conducted for each title chain.

The relationship between housing stock turnover and title costs is more ambiguous. Houses with greater turnover have more complicated title chains to search, with a greater likelihood of prior mistakes or liens. Greater turnover is expected to increase search costs; however, more recent purchases ensure that title searches have been done more recently, reducing risk and search costs.

Title insurance charges can also be higher for reasons that have no direct relation to insurance or search costs at all. For example, charges can be higher if a fee is assessed for the fairly typical simultaneous issuance of owner and lender policies. In many cases, the fee to the consumer can be quite low (for example, \$25). Nevertheless, even in the tightly regulated Florida market no statutory cap exists on charges for simultaneous policies, leaving open the opportunity for settlement agents to charge higher fees. Another issue that complicates understanding of title charges is that some part of charges must compensate title companies for transactions that do not occur (one interviewee estimates that 40 percent of title searches and underwriting are for deals that fall apart).

In Philadelphia and Broward County, title premiums are calculated with a formula that has the premium increase with the house price. The interviewees provided several justifications for a relationship between house prices and title charges in states that do not require the calculation of premiums by formula. One interviewee suggested that higher premiums are charged on more expensive

⁶ In all other markets the retention rate is negotiated between settlement agents and underwriters.

houses for the simple purpose of cross-subsidizing lower income consumers. In explaining closing fees specifically (sometimes called escrow fees), another expert suggested that the higher liability associated with greater amounts of funds being handled for high-priced houses justified higher charges. Nevertheless, another settlement agent stated that title search and closing fees generally are fixed fees, not depending on house (or loan) value. Interviewees did not mention the potential for higher losses when higher loan amounts are at risk as a reason for higher premiums assessed against more expensive houses, perhaps because of the low share of premiums going to pay claims.

Typical retention rates. The previous section described the process by which agents, who retain the remainder to cover their own costs. Except

in Broward County, where a insurance underwriters receive their fees from settlement 70- to 30-percent split between agents and insurers, respectively, is mandated, this retention rate varies with each transaction. For example, smaller settlement agents occasionally lack the bargaining power of larger agents and retain smaller shares of the premium. The exact retention rate on any given transaction was not recorded on the HUD-1 in 2001 (at the time the data were collected), so a retention rate is imputed for the purposes of the regression models in this study. Interviewees provided guidance on typical retention rates in each metropolitan area. The retention rates used to construct the net service fees and the underwriter fees are presented in table 4.

Table 4. Treatment of Premiums in the Regression Models					
	Philadelphia County PA	Broward County FL	Maricopa County AZ	Sacramento County CA	Cook County IL
Average premium plus endorsements	\$778	\$885	\$1,036	\$1,102	\$868
Retention rate used in models	85%	70%	88.5%	90%	80%
Data source: Metropolitan HUD-1 Settlement Cost Database, 2001; qualitative interviews with settlement agents and industry representatives.					

III. Data & Methods

Data

Despite concerns among some researchers that a lack of competition exists among title insurers and associated settlement companies, little rigorous analysis of the determinants of title fee variation has been conducted. Until recently, the largest impediment to understanding the determinants of variation has been the lack of high-quality data. As a response, HUD had Urban Institute staff create the National and Metropolitan HUD-1 Settlement Cost databases. This study uses data from these two databases, combined with three additional data sets.

Metropolitan HUD-1 Settlement Cost Database. The Metropolitan HUD-1 Settlement Cost Database contains 2,839 HUD-1 settlements for FHA-insured, fixed-rate 30-year mortgage loans that were closed between May 21 and June 30, 2001, in five metropolitan areas—Philadelphia, Maricopa County, Cook County (Illinois), Broward County (Florida), and Sacramento County (California). These loans are for the purchase of an owner-occupied home and do not include refinancing loans. This metropolitan database provides the primary sample for the current study. Itemized charges from these HUD-1s are used in the analyses presented in the next section.

National HUD-1 Settlement Cost Database. The National HUD-1 Settlement Cost Database is a nationally representative database of 7,600 HUD-1 settlements for FHA-insured, fixed-rate 30-year mortgage loans closed during the same period (May 21 to June 30, 2001). These national data were used by Woodward (2008) and McKernan and her coauthors (2009) to study closing costs for FHA

mortgages. Although, on their own, these data do not allow for a detailed analysis of any single metropolitan housing market, the database contains 370 cases from the five metropolitan areas investigated in this study. Because the national and the metropolitan HUD-1 databases were constructed and formatted in an identical manner, these cases have been appended to the larger metropolitan database.

FHA data set. The 2,839 settlements from the metropolitan database and the 370 additional settlements from the national database were matched by HUD to FHA data corresponding to the FHA-insured loan. These data provide more detailed demographic information on the borrower, as well as characteristics of the house itself. Two particularly useful additional pieces of information are also provided in the FHA data: the house price and the census tract. House price is measured using the FHA data measure rather than the HUD-1 measure, because the FHA measure exhibited fewer extreme values.⁷ The FHA data also include the census block group of the house, which allows for a match with tract-level data from the 2000 Census to the settlement data.

Summary File 3 (SF-3) data. The settlement records are supplemented with census block-group-level data from the Summary File 3 (SF-3) of the 2000 Census. The SF-3 data provide neighborhood characteristics for variables that are not available for individual home purchases, such as the amount of turnover in the housing stock and the average age, education, and income levels of residents of the census block group. In the metropolitan database, 52 cases are missing block-group information and, thus, could not be matched to a record in the SF-3 data; they are excluded from the analyses.

Settlement agent data from the HUD-1. To investigate variation in title charges across settlement agents, HUD extracted the following information from the HUD-1 forms in the national and metropolitan databases: the settlement agent's name; the settlement agent's address; and the name of any lawyer present at settlement. The settlement

⁷ There are 116 cases out of 3,051 cases in which price in the HUD-1 data and FHA data differ. Many of these cases are missing a digit, such as \$10,500 versus \$105,000. We use the FHA measure of price and replace it with the HUD-1 measure for two cases in which the FHA price exceeds \$300,000 and the HUD-1 price is closer to the FHA appraisal value.

agent's name and address were then used to create unique settlement agent identifiers.⁸

Outliers. Outliers in the title charge and house price data are removed. The top and bottom 1 percent of values in total title charges are trimmed in each metropolitan area for the regressions that are presented.⁹ After trimming and removing cases with missing values, the total sample included in the five metropolitan area regressions is 3,051 cases.

Empirical Model

Dependent Variables in the Regression Analysis

The empirical models are constructed to describe the relationship between title charges that homebuyers pay and the characteristics of the homebuyers, their houses, and their local communities. Each of the five title charges discussed in section II is modeled to understand the factors associated with charges:

1. Paid by consumers (total title charges).
2. Paid to distinct participants in the title industry (net service fees, underwriter fees, and attorney fees).
3. Regulated by states, localities, or rating bureaus (premiums plus endorsements).

An understanding of the factors associated with total title charges is important for consumers to know how much they can expect to pay in total, and the extent to which shopping for title insurance can help lower the costs of buying a home. The analyses in this study do not differentiate between charges that are nominally paid by the seller or the buyer. Because money is fungible, all costs are ultimately passed on to the homebuyer; anything paid by the seller is expected to raise the total price of the house.

Although all title fees except for attorney fees are received by the settlement agent, a portion of those fees is paid to the title insurance underwriter. Each of these three actors (settlement agents, underwriters,

and attorneys) is influenced by a different set of costs and therefore acts on different incentives in the market. To better understand the determination of title charges, we model these fees separately. In all but one of the metropolitan areas in this study, only a small percentage of homebuyers pay any attorney fees. For this reason, models estimating correlates of whether an attorney fee is paid at all, as well as the amount of attorney fees paid, are also produced.

Title insurance regulations generally do not distinguish between fees retained by the settlement agent and those passed on to the underwriter, nor do they normally consider miscellaneous fees or attorney fees. To understand the factors associated with variation in title charges that are of primary interest to regulators, this study includes models of premiums plus all endorsements. In regulated markets it is expected that house price will play a crucial role in the determination of these charges, although in unregulated markets the costs incurred by settlement agents and underwriters may play a more prominent role.

Explanatory Variables in the Regression Analysis

Three classes of explanatory variables and their association with title charges are measured. The first class includes measures of characteristics of the house identified by interviewees and the literature as influencing the costs of settlement agents and underwriters, and which therefore could affect fees charged to consumers. The second class of variables includes characteristics of the homebuyer, the house, and the neighborhood. These variables are *not directly related* to costs incurred by the title industry, and therefore should not be associated with higher or lower title insurance charges. The third class of variables is a set of fixed effects for the 10 largest agents operating in each metropolitan area.

Cost-related factors. Philadelphia and Broward County settlement agencies determine title insurance premiums using an explicit formula that is dependent on house price. Although the other three markets do not have a formulaic relationship between price and title charges, title agencies may charge higher premiums for more expensive properties for other reasons. The optimal time spent examining a title is most likely greater as the risk assumed by the title insurer increases. More expensive properties represent a greater risk for insurers, but one would expect a highly nonlinear relationship—a positive but diminishing relationship between house price and

⁸ Some cases are missing settlement agent information, so a dummy that indicates agent information missing is included in the regression analysis. An attempt was made to create unique attorney identifiers, but it was rare for more than one homebuyer to use the same attorney, precluding an analysis differentiating variation within and between attorneys.

⁹ Regressions that trimmed the top and bottom 0.5 and 2 percent of values were also estimated to ensure that the findings are robust to different strategies.

search effort. A quadratic function of house price is included to estimate a nonlinear relationship in a fairly flexible way.

The qualitative analysis of the five metropolitan markets concluded that title insurance claims are more likely to be paid when properties go into foreclosure. To account for this, the models include an indicator of whether a homebuyer's loan-to-value ratio exceeds the FHA recommendation of 97.5 percent as a proxy for foreclosure risk. Older properties, which are likely to have longer title chains, are also identified as increasing search costs for agents. The models include indicators for houses that are less than 5 years old and greater than 30 years old (with properties between 6 and 30 years old as the reference group) to account for these additional search costs. Housing stock turnover, which is expected to have an ambiguous relationship, is controlled for with the inclusion of a measure of the percentage of households that moved into the census block group in the past 5 years. Finally, because larger residential lots may increase search costs, the models control for the square footage of the lot.

Non-cost-related factors. We include several non-cost-related factors in the regression models to determine whether certain homebuyers pay higher charges. Interpretation of the association of these variables with title charges is delicate; although strong empirical relationships may be a sign of price discrimination, they may also suggest substantial market segmentation with certain settlement agents serving a restricted set of neighborhoods.

Minorities face a long history of housing market discrimination (Turner et al., 2002) and may also pay higher title costs. The numbers of closings for persons of specific racial or ethnic groups in our databases are too small for their separate inclusion in the models in most markets; instead, an indicator variable is included that equals one if the homeowner is a minority (Black, Hispanic, other race) and zero if the homeowner is White non-Hispanic to determine whether minorities pay higher title charges than similarly situated Whites. An indicator is also included for census block groups that are urban (as opposed to rural and suburban). Although urbanicity should not influence costs, more densely populated neighborhoods may host more title agencies and thus have lower rates because of competition.

Higher income levels for a homebuyer or for a neighborhood should not increase title costs,

after controlling for price, because the title search process remains the same between these buyers. If title agencies price discriminate, or if high-cost real estate agents partner with high-cost settlement agents, however, a relationship between income and title charges may exist. Title agencies may also operate in specific neighborhoods, on the basis of neighborhood income levels. The monthly income of the homebuyer and average household income in the census block group are included as control variables to determine whether these charges vary with income.

Less-educated homebuyers may be more susceptible to settlement agents who attempt to take advantage of them by raising costs, and they may lack the information or confidence to investigate and negotiate their closing costs, including their title charges. The models include two education variables: (1) the percentage of census block group residents who are 25 years old or older with less than a high school diploma and (2) the percentage of block group residents with a college degree. The median age of residents in a census block group is included in the models. Although age should have no effect on search costs, younger homebuyers may lack the confidence or experience to assert themselves during the settlement process. The age measure could also pick up tracts with more turnover.

Settlement agent fixed effects. In a competitive market, with no cost to consumers of obtaining information, individual settlement agents should not charge substantially different fees for title insurance services after controlling for all factors that are expected to influence title costs. In a market in which certain agents charge consistently higher or consistently lower fees than other firms, consumers could benefit from comparison shopping. To test whether settlement agents charge different fees, the models include fixed effects (that is, a series of dummy variables) for each of the 10 largest title insurance agents in each market.¹⁰ The coefficients on the fixed effects provide an estimate of the difference between each agent's charges and the charges of smaller agents or those for whom the agent is unknown. The results indicate whether a significant range of title charges exists between the largest agents after controlling for other relevant factors. Care is required in interpreting these results

¹⁰ Models with five settlement agent fixed effects are also estimated to determine the robustness of the results to the number of fixed effects specified. The results are consistent between the two specifications. Models with 10 settlement agent fixed effects are presented here to describe the range of title charges within a larger share of the market.

as a reflection of the nature of competition between title companies: In both a highly competitive market and a tightly regulated (or cartelized) market, these agent fixed effects are expected to be negligible. In a less-regulated market, however, especially one in which consumer information or shopping around is limited, substantial variation in charges would be expected across agents.

Summary statistics on the explanatory variables suggest that the five metropolitan areas differ in their demographic and economic conditions and in the characteristics of the housing stock (table 5). Homebuyers with FHA mortgages in Philadelphia are much more likely to have high loan-to-value ratios than homebuyers in any other metropolitan area, suggesting that title insurance underwriters may face greater foreclosure risk in that market or that higher leverage is more feasible for homeowners in Philadelphia because the price-to-income ratio is low. In Cook County and Philadelphia, housing units are older than in the other three cities, although housing stock turnover in Cook County and Philadelphia is more comparable to turnover elsewhere.

Approximately two-thirds of the FHA-insured homebuyers in Cook County, Philadelphia, and Broward County are minorities, as compared with fewer than one-half of buyers in Maricopa County and Sacramento. Even within the metropolitan areas considered here, a wide range exists in the degree of homebuyers in each market. In Sacramento most homebuyers with FHA-insured mortgages live in suburban areas, although in Philadelphia most homebuyers live in urban areas.

None of the five markets is dominated by a single settlement agency, but a few agencies control a nontrivial share of the market in Cook County, Maricopa County, and Sacramento. In Sacramento, four settlement agencies control nearly 60 percent of the market for title insurance on FHA mortgages. Finally, as noted previously, Cook County is the only market in which a substantial share of homebuyers uses an attorney.

Table 5. Explanatory Variable Means

	Cook County IL	Philadelphia PA	Maricopa County AZ	Sacramento CA	Broward County FL
Home price					
Price/10,000	\$13.96	\$7.15	\$10.98	\$14.17	\$11.33
Loan-to-value ratio > 97.5%	15%	80%	46%	26%	55%
Cost related					
Unit <= 5 years old	4%	3%	13%	3%	13%
Unit > 30 years old	67%	74%	21%	28%	20%
Percent of households that moved into unit since 1995	41%	37%	55%	51%	54%
Percent of households that moved into unit before 1980	26%	33%	13%	15%	12%
Lot size/100	54.10	23.75	67.22	61.41	52.97
Non-cost related					
Owner is non-White	67%	64%	49%	35%	67%
Lives in urban area	33%	83%	25%	4%	35%
House price per acre/sq. ft.	\$1,059.20	\$562.51	\$812.80	\$1,128.90	\$829.04
Effective monthly income/1,000	\$4.71	\$3.03	\$3.67	\$4.46	\$4.17
Average census block group household. income/1,000	\$56.70	\$43.89	\$52.62	\$51.72	\$50.72
Settlement agents					
Agent 1	20%	9%	13%	18%	5%
Agent 2	13%	7%	13%	17%	3%
Agent 3	10%	6%	10%	14%	3%
Agent 4	9%	5%	9%	10%	2%
Agent 5	8%	3%	7%	8%	2%
Agent 6	6%	3%	6%	8%	2%
Agent 7	3%	3%	5%	6%	2%
Agent 8	2%	3%	5%	6%	2%
Agent 9	2%	3%	4%	4%	2%
Agent 10	1%	3%	4%	3%	2%
Attorneys					
Buyer attorney only	5%	1%	2%	5%	1%
Seller attorney only	50%	5%	0%	0%	10%
No attorney	6%	93%	97%	95%	88%

Data source: Metropolitan HUD-1 Settlement Cost Database, 2001.

Empirical Approach and Specification

Descriptive statistics are used to answer the first research question: How much variation is there in title charges? Ordinary least squares regressions are used to answer the second research question: What explains variation in title charges and components of title charges? R-squared values from the regressions are used to answer the third research question: How much variation remains unexplained?

Three model specifications are estimated for each dependent variable. The first model (price only) estimates the charges paid by person i (Y_i) as a function of house price, house price squared (represented as $PRICE_i$), and the constant term, α :

$$(1) Y_i = \alpha + \beta_1 PRICE_i + u_i$$

The second model (cost related) adds all factors that are hypothesized to have an association with the costs of the settlement agency or the underwriter that could be passed on to consumers. This includes characteristics of individual homebuyers (X_i), as well as characteristics of a census block group in which multiple homebuyers in the sample may reside (Z_c). This model also introduces the 10 settlement agent fixed effects ($AGENTS_i$):

$$(2) Y_i = \alpha + \beta_1' PRICE_i + \beta_2' X_i + \beta_3' Z_c + \sigma' AGENTS_i + u_i$$

The third model (full model) includes all explanatory variables in the cost-related model, as well as the factors that are not expected to influence title costs. As with the cost-related variables, these factors include characteristics of individual homebuyers (A_i) and characteristics of the census block group (B_c).

$$(3) Y_i = \alpha + \beta_1' PRICE_i + \beta_2' X_i + \beta_3' Z_c + \beta_4' A_i + \beta_5' B_c + \sigma' AGENTS_i + u_i$$

These three models are estimated separately for each of the five title charge categories and for each of the five metropolitan areas, for a total of 75 models. Each title charge is estimated separately because the explanatory variables are expected to have a different relationship with different charges. The house price, for example, may be associated with all title charges but is hypothesized to have a much stronger association with premiums and endorsements. Model details are reported for only four of the five charge categories, because two of the categories—premiums plus endorsements and underwriter fees—move in tandem.

The relationships between the dependent variables and the explanatory variables are estimated in distinct regressions for each metropolitan area, because variation in institutions across metropolitan areas is expected to produce different patterns of association. It is likely that the relationship between home price and total title charges will be more substantial in Philadelphia than in the relatively unregulated Cook County, but it is not clear whether the effect of local housing turnover will differ substantially between the two markets. These regressions will assist in understanding the role of market-specific institutions in shaping title charges.

IV. Descriptive Results: How Much Do Title Charges Vary?

National Data

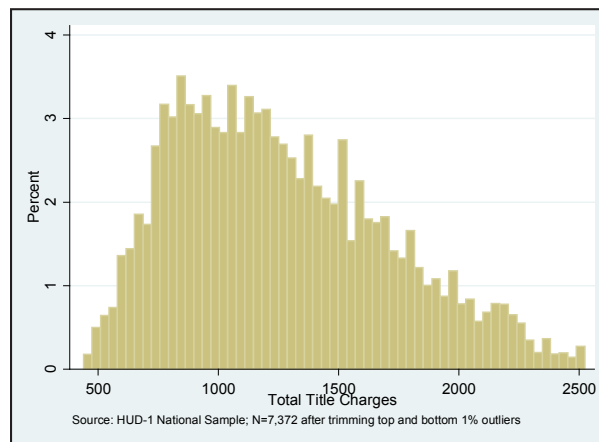
The first research question in this report is: How much variation is there in title charges? This study is motivated by previous research that sought to answer this question for homebuyers nationwide and consistently concluded that consumers faced substantial variation in title charges. Analysis of the national HUD-1 data finds that total title charges on FHA-insured loans in the United States ranged in 2001 from a minimum of less than \$500 to a maximum of nearly \$3,000 (Woodward, 2008), with a median of \$1,284 (McKernan et al., 2009). Figure 3 presents the weighted distribution of total title charges using the HUD-1 national database, and confirms these previous findings.

Woodward (2008) estimates that approximately 25 percent of the variation in title charges nationally can be attributed to differences between states. Each state has a different regulatory environment and housing market institutions, which inevitably influence title charges. Table 6 presents summary statistics on total title charges from the national HUD-1 database, by state. Median charges range from \$625 in North Dakota to \$1,971 in California. The five states represented in this study are noted in the table, and they generally have higher title charges than other states.

Woodward (2008) points out that the variation among states in title charges is larger than the variation among states in lender or broker fees, suggesting that controlling for state-based

characteristics of the title insurance market is essential for explaining variation in title charges. The Metropolitan HUD-1 Database was designed to control for state-level characteristics of the title insurance market. It provides a large sample of FHA mortgages in five metropolitan areas.

Figure 3. Histogram of Total Title Charges in the United States



Source: National HUD-1 Settlement Cost Database: N = 7,372 after trimming top and bottom 1-percent outliers and weighted to be nationally representative.

Table 6. State Variation in Total Title Charges

State	25th Percentile	Median	75th Percentile	Standard Deviation	State	25th Percentile	Median	75th Percentile	Standard Deviation
CA ^a	\$1,548	\$1,971	\$2,556	\$641	PA ^a	\$908	\$1,101	\$1,267	\$236
NJ	\$1,360	\$1,856	\$2,425	\$2,156	ME	\$975	\$1,085	\$1,170	\$470
TX	\$1,471	\$1,698	\$1,879	\$364	MI	\$873	\$1,079	\$1,320	\$389
CT	\$1,497	\$1,696	\$1,894	\$1,067	MT	\$898	\$1,065	\$1,174	\$203
WA	\$1,319	\$1,594	\$2,009	\$436	OH	\$864	\$1,040	\$1,405	\$452
DC	\$1,373	\$1,589	\$1,885	\$338	LA	\$882	\$1,012	\$1,285	\$306
HI	\$1,286	\$1,565	\$1,832	\$2,399	GA	\$846	\$991	\$1,131	\$205
AZ ^a	\$1,363	\$1,557	\$1,699	\$289	TN	\$805	\$965	\$1,195	\$301
NY	\$1,129	\$1,461	\$2,307	\$966	SC	\$860	\$960	\$1,084	\$223
IL ^a	\$825	\$1,457	\$1,783	\$660	DE	\$851	\$927	\$1,027	\$202
MA	\$1,231	\$1,412	\$1,606	\$377	IA	\$780	\$904	\$1,074	\$239
RI	\$1,267	\$1,388	\$1,507	\$319	AR	\$734	\$880	\$1,029	\$284
UT	\$750	\$1,382	\$1,616	\$430	WI	\$739	\$877	\$1,017	\$236
NV	\$1,199	\$1,371	\$1,505	\$291	WV	\$725	\$839	\$1,003	\$443
OR	\$1,196	\$1,339	\$1,493	\$230	KS	\$729	\$829	\$918	\$175
MD	\$1,153	\$1,331	\$1,548	\$331	IN	\$724	\$828	\$974	\$190
MN	\$963	\$1,294	\$1,498	\$321	AL	\$732	\$825	\$958	\$210
AK	\$1,172	\$1,275	\$1,433	\$212	KY	\$682	\$799	\$958	\$218
VA	\$942	\$1,245	\$1,575	\$407	SD	\$717	\$783	\$837	\$153
FL ^a	\$1,064	\$1,231	\$1,550	\$462	MS	\$695	\$765	\$875	\$216
ID	\$1,063	\$1,203	\$1,318	\$181	MO	\$649	\$764	\$890	\$212
OK	\$1,000	\$1,161	\$1,347	\$365	NE	\$605	\$743	\$869	\$334
NH	\$1,032	\$1,159	\$1,236	\$204	WY	\$633	\$722	\$805	\$351
VT	\$965	\$1,139	\$1,271	\$252	NC	\$636	\$720	\$790	\$172
CO	\$940	\$1,138	\$1,304	\$325	ND	\$575	\$625	\$682	\$98
NM	\$946	\$1,135	\$1,315	\$261					

Data source: National HUD-1 Settlement Cost Database, 2001, N = 7,599. States are sorted by median values.

^a State analyzed in the current study using the Metropolitan HUD-1 Database for FHA mortgages, 2001.

Metropolitan-Area Data

Title charges vary widely across the five metropolitan areas. Both median and mean total title charges in Philadelphia are roughly one-half of the median and mean charges in Cook and Broward Counties. Although total title charges are highest, on

average, in Cook and Broward Counties, premiums and endorsements are the highest in Maricopa County and Sacramento (table 7).

The effect of state-level regulations on specific title fees is perhaps best illustrated by the behavior of underwriter fees and premiums and endorsements in Broward County. Although

Table 7. Summary Statistics in Title Charges (2001 dollars)

Metropolitan Area	Total Charges	Net Service Fee	Underwriter Fee	Attorney Fee ^a	Premiums & Endorsements
Median					
Philadelphia County, PA	914	793	113	450	750
Broward County, FL	1,867	1,559	261	425	869
Maricopa County, AZ	1,574	1,450	122	668	1,063
Sacramento County, CA	1,768	1,656	111	65	1,115
Cook County, IL	1,780	1,002	174	641	868
Mean					
Philadelphia County, PA	1,007	855	117	457	779
Broward County, FL	1,885	1,565	266	462	886
Maricopa County, AZ	1,555	1,433	120	668	1,041
Sacramento County, CA	1,774	1,663	110	63	1,103
Cook County, IL	1,832	1,047	174	649	868
Standard deviation					
Philadelphia County, PA	334	259	24	411	161
Broward County, FL	357	307	56	190	187
Maricopa County, AZ	228	209	18	238	160
Sacramento County, CA	258	246	17	21	166
Cook County, IL	464	227	29	352	146
Coefficient of variation					
Philadelphia County, PA	0.332	0.303	0.206	0.899	0.206
Broward County, FL	0.189	0.196	0.212	0.411	0.212
Maricopa County, AZ	0.146	0.146	0.153	0.356	0.153
Sacramento County, CA	0.146	0.148	0.150	0.330	0.150
Cook County, IL	0.253	0.217	0.168	0.542	0.168
Data source: Metropolitan HUD-1 Settlement Cost Database. Top and bottom 1-percent outliers in total title charges are trimmed.					
^a Statistics excludes zero fees for attorneys.					
Note: The coefficient of variation is the standard deviation normalized (divided by) the mean.					

premiums and endorsements in Broward are modest compared with the other four metropolitan areas (higher than Philadelphia, but lower than Maricopa County and Sacramento), underwriter fees in Broward are roughly two times the level of underwriter fees in the other four metropolitan areas. The reason for this discrepancy is that the State of Florida mandates that settlement agents pass on a much higher share of premiums and endorsements to underwriters than what is typically passed on in other

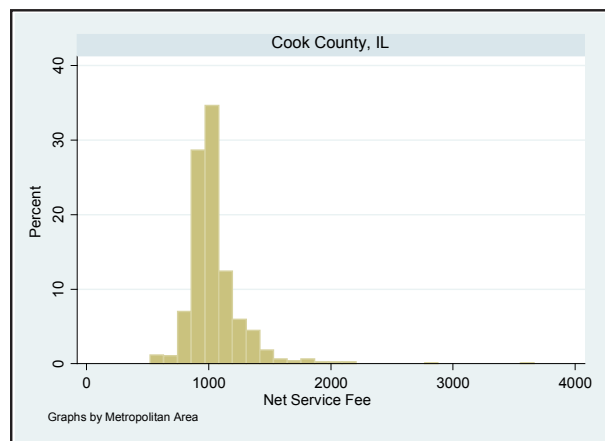
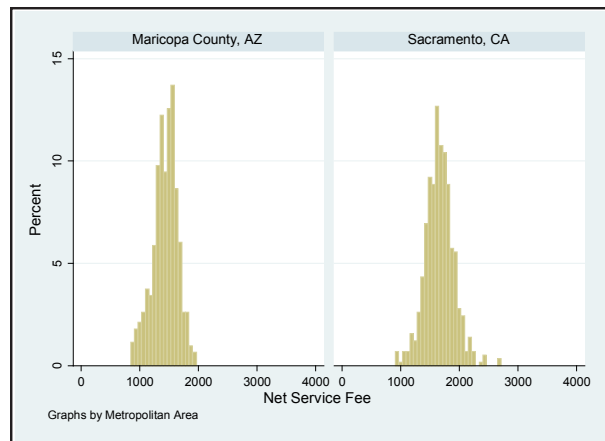
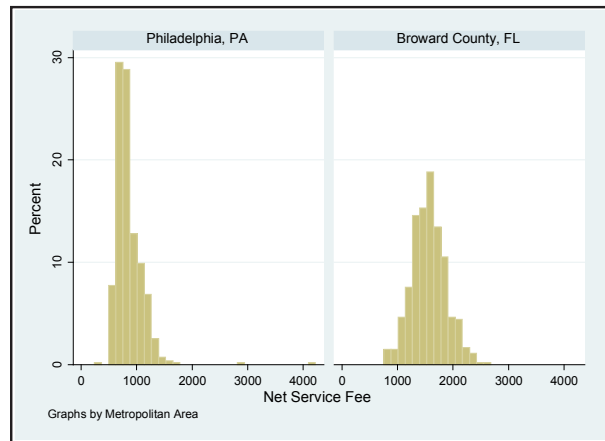
states. The regulatory context of Broward County is essential for understanding the title charges paid there and estimating the association of other variables with each title charge.

The coefficients of variation range from 0.15 to 0.30 and suggest that even after controlling for regulatory or institutional environment by focusing on specific metropolitan areas, substantial

and unexpected variation in title charges persists.¹¹ Greater variation exists within Philadelphia (0.30) and Cook County (0.25) than within any other metropolitan area considered in this study. This finding for Philadelphia is somewhat surprising. Although Eaton (2009) suggests that premiums set by the rating bureau in Pennsylvania are unnecessarily high, it has not been widely suggested that Pennsylvania experiences the wide variation in title charges that have been identified in, for example, Washington, D.C. (Woodward 2008). The greater variation in Philadelphia is partly because of greater variation in home prices than in other markets.¹²

The five metropolitan areas also differ in the distribution of net service fees. Figure 4 presents histograms of net service fees by metropolitan area. In Cook County net service fees are highly concentrated around \$1,000, while in Broward County they are more dispersed. Maricopa County and Sacramento have similar net service fee distributions. Net service fees in Philadelphia are lower than any other market.

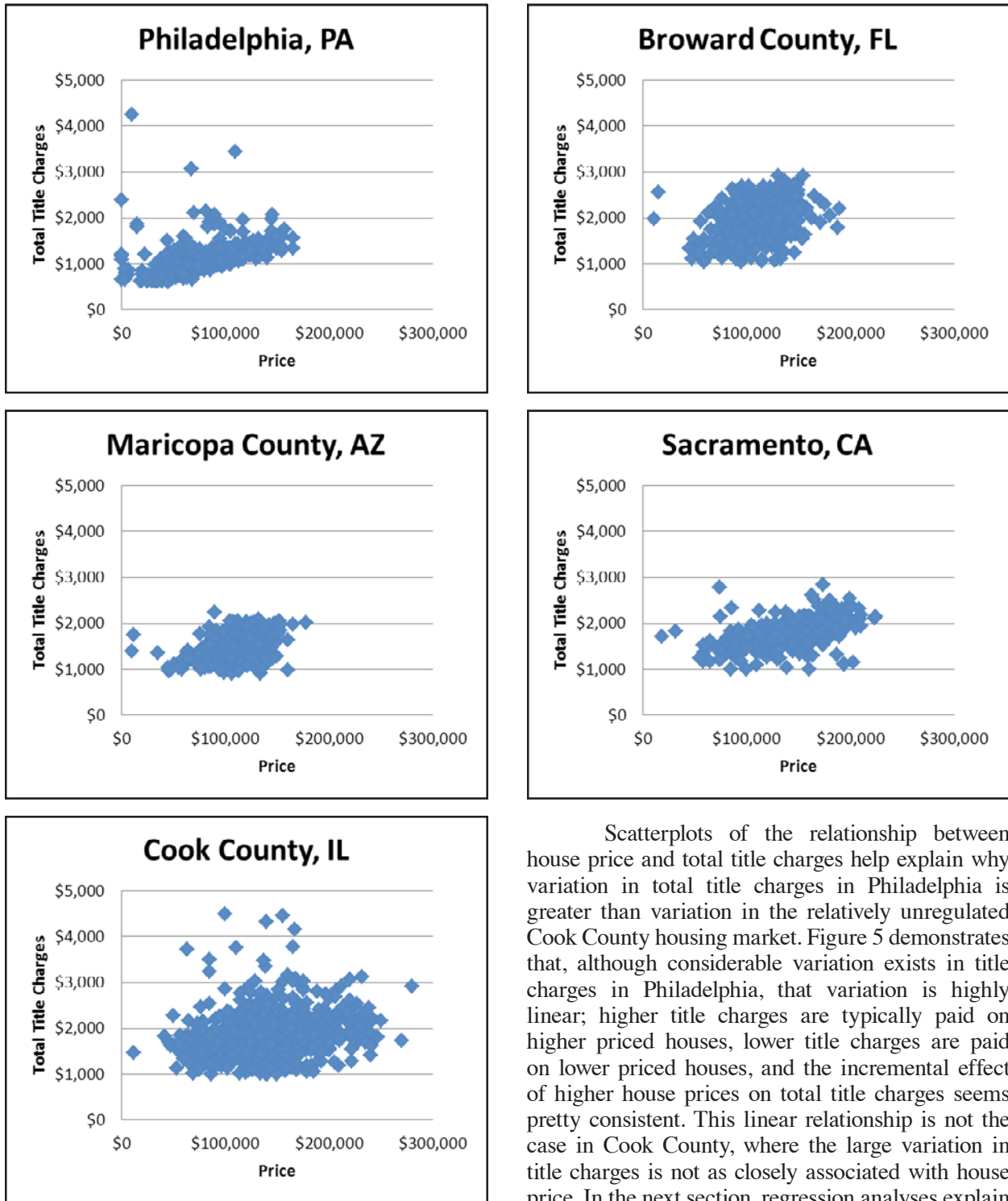
Figure 4. Histograms of Net Service Fee by Metropolitan Area



¹¹ Coefficients of variation can meaningfully be compared across metropolitan areas and title costs.

¹² The coefficient of variation of home prices is 0.407 in Philadelphia, much higher than in the other four markets: Cook County, 0.302; Sacramento, 0.234; Broward County, 0.209; Maricopa County, 0.191 (not shown in table).

Figure 5. Scatterplots of House Prices and Total Title Charges



Data Source: Metropolitan HUD-1 Settlement Cost Database.

Scatterplots of the relationship between house price and total title charges help explain why variation in total title charges in Philadelphia is greater than variation in the relatively unregulated Cook County housing market. Figure 5 demonstrates that, although considerable variation exists in title charges in Philadelphia, that variation is highly linear; higher title charges are typically paid on higher priced houses, lower title charges are paid on lower priced houses, and the incremental effect of higher house prices on total title charges seems pretty consistent. This linear relationship is not the case in Cook County, where the large variation in title charges is not as closely associated with house price. In the next section, regression analyses explain additional variation in title charges. Section VI presents the portion left unexplained by the variables that are controlled for in the regression analyses.

V. Regression Results: What Explains Variation in Title Charges and Components of Title Charges?

The second research question: What explains variation in title charges and components of title charges? is addressed using a series of regressions described in section III. Two groups of variables—cost-related factors and non-cost-related factors (both together with settlement agent effects)—are sequentially added to the models estimating their association with the five categories of title charges considered in this study. The model estimates are presented in tables A1–A15 in the appendix and are summarized in table 8, which follows.¹³

¹³ The model premiums and endorsements are not reported separately in table 8. Within any city, the premiums and endorsements are a constant multiple of the underwriter fee; because of this mathematical relationship, all findings of statistical significance for models of underwriter fees apply (exactly) to the models of premiums and endorsements.

Table 8. Regression Summary

	Total Title Charge					Net Service Fee					Underwriter Fee					Attorney Fee					
	PA	FL	AZ	CA	IL	PA	FL	AZ	CA	IL	PA	FL	AZ	CA	IL	PA	FL	AZ	CA	IL	
Home price																					
Price	+		+	+		+		+	+	+	+	+	+	+							
Price squared			-					-			-		-	-							
Cost related																					
Loan-to-value ratio			+							+		+	+		-						
Unit <= 5 years old	-		-			-								-	-						
Unit > 30 years old	-		-		-	-		-						-							-
Percent who moved to block < 5yrs			-	-				-	-	-			-								
Property lot size/100						+		-		-	+	-		+	-						
Non-cost related																					
Owner is minority		+			+	+				+											
Owner race unknown					+					+		-				+					
Lives in urban area	-									+	+				-						
Monthly income																	+				
Percent who are 25+ < high school diploma			-					-		+											+
Percent who are 25+ >= college					+						-	-									+
Block average income					-																-
Median age				-	-				-		+				-						-
Number of significant agency effects (out of 10)	2+	3+	2+	2+				1+	2+	1+	3+	2+	3+		2+	5+	2-				1+
		4-	3-	2-	1-	2-	3-	3-	2-	1-	1-	4-	4-	1-							1-
Joint significant of 10 agency-fixed effects	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N	N	N	Y	Y

Note: This summary is based on the full model, with 10 settlement agent fixed effects. A + indicates a positive coefficient significant at the 10-percent level, although a - indicates a negative coefficient that is significant at the 10-percent level. In the Number of significant agency effects row, a 2+ and 3- indicate 5 out of 10 agency fixed effects are significant, 2 are positive, and 3 are negative. Columns labeled PA, FL, AZ, CA, and IL report results for Philadelphia County, Broward County, Maricopa County, Sacramento County, and Cook County, respectively.

Home Price

In the price-only models (appendix tables A1–A5), the price a consumer pays for his or her house has a strong association with total title charges in all metropolitan areas except Cook County.¹⁴ This relationship is likely driven by the strong association

¹⁴ The lack of a relationship in Cook County is likely driven by the importance of attorney fees—generally independent of house price—in this market, unlike in the other four markets studied. When all additional control variables are added, house price becomes insignificant in Broward County as well.

between house price and premiums; premiums are explicitly set as a function of house price in some markets. An increase in house price from \$100,000 to \$110,000¹⁵ is associated with an increase in total title charges of \$41 in Sacramento, a \$59 increase

¹⁵ The median house price in the metropolitan sample is somewhat higher than \$110,000, so the change from \$100,000 to \$110,000 is used throughout the study to discuss the marginal effect of house price. The marginal effect of price at a specific house price is necessary because the models estimate a nonlinear association between house price and title charges, which has a slightly different incremental relationship with charges as house price increases.

in Broward County, and \$63 increases in Maricopa County and in Philadelphia. House price has a positive association with several subcategories of title charges as well: it is positively associated with net service fees in all markets (except for Sacramento and Broward¹⁶ in the price-only model) and with increased underwriter fees and increased premiums plus endorsements in all five markets. Most of these associations persist as subsequent blocks of control variables are added. Consumers in most markets, from those that are stringently regulated to those with light regulation, can expect to pay higher title charges for more expensive houses. Only attorney fees have no association with house price in any of the five markets.

Cost-Related Factors

Characteristics of the household and neighborhood that are expected to be related to title costs had their clearest association with title charges in Maricopa County and were often significant in Philadelphia. Newer housing units are associated with reduced total title charges and net service fees in both Philadelphia and Maricopa County and with reduced premiums plus endorsements and underwriter fees in Maricopa County, Sacramento, and Cook County. Other cost-related factors are often significant in Maricopa County, but are not as significant across markets. For example, in Maricopa County, more recent housing stock turnover is associated with a reduction in all title charges except for attorney fees. Property lot size is associated with all title charges except attorney fees in many of the five markets, but its association with these charges is highly inconsistent; in some markets larger lots are associated with higher charges, although in others they are associated with lower charges. Although cost-related factors are regularly significant in Maricopa County and occasionally significant in Philadelphia, Sacramento, and Cook County, they are nearly never associated with title charges in Broward County.

¹⁶ The lack of an observable relationship between house price and net service fees in Broward County is unexpected, because Broward is one of two markets in this study (the other being Philadelphia) that enforces a formulaic relationship between house price and the premium. In Broward, only title insurance and abstract activities are included in the premium, leaving an average of 64 percent of net service fees unregulated (as compared with 21 percent in Philadelphia). The weaker relationship appears to result from settlement agents charging an amount for the unregulated portion that is unrelated to the price of the home.

Non-Cost-Related Factors

Of the five markets, only Cook County and Broward County show a consistent relationship between title charges and non-cost-related factors, such as demographic or educational characteristics of the household or neighborhood. Minority homebuyers pay higher total title charges than White homebuyers in Broward and Cook County, although they pay comparable charges in the other three markets. Being a minority homebuyer is associated with \$73 more in total title charges in Cook County and \$90 more in Broward County (appendix table A11). Minorities also pay higher net service fees in these metropolitan areas. These higher prices may reflect price discrimination in the title insurance market or differences in the fees charged by settlement agents operating in different neighborhoods.

Non-cost-related factors are occasionally significant in Philadelphia but nearly never significant in Maricopa County and Sacramento. When non-cost-related factors are significant, they often do not have a consistent direction of association across markets and charges. For example, properties in urban neighborhoods are associated with lower net services fees but higher underwriter fees than those in nonurban neighborhoods of Philadelphia and have no consistent association with title charges in any other market. Homebuyers moving to neighborhoods with a larger share of residents with college degrees paid \$7 and \$23 less in premiums and endorsements in Philadelphia and Broward County (appendix table A14), respectively, but \$46 more in attorney fees in Cook County (appendix table A15).

Thus, most non-cost-related factors have inconsistent and insignificant associations with title charges. The lack of consistent relationships across most of the cities suggests that there is little evidence indicating that price discrimination by the neighborhood characteristics included in the model is a problem in most of these metropolitan areas.

Settlement Agent Effects

The amount of title charges paid varies substantially among settlement agents in all five markets. Settlement agent fixed effects are jointly significant and have a substantial range of values across all title charges, although they have the most pronounced association with total title charges and net service fees and the weakest association with attorney fees. A larger share of the settlement agent

fixed effects is significant in Broward County than in any other market. For example, of the 10 largest settlement agents in Broward County, one receives an average of \$267 less in net service fees than smaller settlement agents, although another receives \$189 more than the smaller settlement agents in the sample (appendix table A12). Some caution should be taken in relying on the exact estimates, however, because the coefficients on the agent effects are imprecisely estimated. This wide variation in net service fees charged in Broward County—located in a state with tightly regulated premiums—is likely driven by variation in nonpremium title charges.

The settlement agent fixed effects are generally not significant for predicting total title charges in Cook County, where low regulation might have been expected to increase variation between agents. The insignificance of the agent fixed effects for total title charges in Cook County may be related to the fact that premiums are the smallest share of total title charges there of all five markets studied (because of the importance of attorney fees). Settlement agent fixed effects are more significant for nonattorney fees, but the lack of association between settlement agent fixed effects and attorney fees may be dominating the total title charge regressions.

Significant settlement agent fixed effects do not necessarily imply the exercise of market power. Because the variation between settlement agencies consists of charges that are both higher and lower for consumers, depending on which agency they use, the fixed effects may indicate that these settlement agents are serving fundamentally different segments within the markets. The findings also suggest significant benefits to consumers from shopping around for settlement services.

Attorney Fees and the Role of Attorneys in Cook County

The presence of an attorney at a settlement varies considerably across the five metropolitan areas. Of settlements in Cook County, 93 percent involve attorney fees, but only 7 percent in Philadelphia, 12 percent in Broward County, and nearly 0 percent of cases in Maricopa County and Sacramento County show attorney fees. Probit models to investigate the factors associated with the presence of an attorney at a settlement find few statistically significant relationships.

A regression model estimating correlates of the amount of attorney fees charged in Cook County found that few of the house or neighborhood characteristics expected to influence title costs have an association with the amount of attorney fees charged. House price, though significantly associated with other components of title charges, is not associated with attorney fees. Most demographic characteristics are not associated with attorney fees either, with the exception of education. In Cook County, attorney fees increase by \$46 when the percentage of residents in the neighborhood with a college education increases by 10 percent (appendix table A14). Only 1 or 2 of the 10 largest settlement agents are associated with larger or smaller attorney fees. This finding is also unsurprising, because consumers may choose their attorney independently.

Title charges, net of attorney fees, are higher when only one party has an attorney present, compared with cases in which both the buyer and the seller have an attorney present. The same pattern exists for net service fees (appendix table A16). These findings are based on regressions to identify the role that attorney fees play in the determination of total title charges, title charges net of attorney fees, and net title service fees in Cook County, where nearly all settlements (93 percent) involve attorney fees. These regressions include indicators for whether an attorney was paid for by the buyer, the seller, or neither. (Cases in which an attorney was paid for by both the buyer and the seller serve as the reference group.) These results seem consistent with the view that having your own attorney at closing to respond to issues raised by the other party's attorney may reduce other fees in Cook County. Total nonattorney title charges are \$48 lower when both buyer and seller attorneys are present (compared with a case in which only the seller's attorney is present); however, total title charges (including attorney fees) are \$242 higher in these cases. Therefore, if all title charges (including attorney fees) are passed on to homebuyers, the common practice of having two attorneys present in Chicago does not appear to be cost effective (after controlling for other cost- and non-cost-related factors). Although the presence of attorneys is associated with higher total title charges, they could provide benefits to the parties involved in the settlement, either in reducing some other nontitle fee or in dealing with another aspect of the transaction.

Loan Origination Fees and Itemization of Fees on the HUD-1

The large amount of unexplained variation in total title charges remaining after controlling for cost-related factors, non-cost-related factors, and settlement agent fixed effects provides motivation for exploratory analyses into the possibility that certain business practices that take advantage of vulnerable customers play a major role in determining title costs. For example, loan originators or real estate agents might alert settlement agents of homebuyers who are willing to pay higher than market rates out of ignorance of the market. In this situation, loan origination fees would be expected to be positively associated with total title charges, even after controlling for home price. Another possibility is that settlement agents may itemize multiple charges on the HUD-1 form knowing that itemization would confuse or overwhelm homebuyers, enabling them to charge a higher total title charge. This possibility would imply a positive association between the number of itemized fees on the HUD-1 and the amount of total title charges.

Both of these hypotheses are tested in a separate exploratory analysis (appendix A17). They are tested separately because the information available in the HUD-1 is not sufficient to conclusively prove the hypothesis that vulnerable homebuyers are paying higher charges as a result of these practices, particularly in the case of fee itemization as a strategy for increasing charges. Title insurers and title service providers incur costs in conducting their searches, and there is no way to ascertain from the data whether an itemized cost is an attempt to confuse consumers or the provision of an additional, valuable service that the homebuyer is willing to pay for. Both interpretations are plausible.

Two exploratory analyses are implemented. First, net service fees are regressed on the loan origination fee, a dummy variable indicating a no-cost loan¹⁷ (which would not have a loan origination fee recorded), and the number of items recorded in the 1100 series of the HUD-1.¹⁸ In this initial model, which does not control for house price, all of these variables are statistically significant. Higher loan

origination fees are associated with higher total title charges, as are more itemized fees.

In the second analysis, house price is added to these simple multivariate correlations. Adding house price to the models eliminates the previous positive association between loan origination fees and net service fees (appendix A18). A similar relation is also found in the model of total title charges. The relationship between loan origination fees and net service fees appears to occur because both depend on house price. This relationship could result because loan originators and settlement agents each charge more when the house price is higher—perhaps because of higher costs or greater willingness to pay—or because loan originators or real estate agents tell settlement agents that particular customers with higher valued homes are willing to pay more than the market rate.

The positive association between the number of items on the HUD-1 and net service fees remains positive and statistically significant after including home price in the model. This association is largest in Maricopa County, where an additional itemized fee on the HUD-1 is associated with \$113 more in net service fees. This empirical association cannot be interpreted definitively, because the HUD-1 data used in this study do not have the capacity to distinguish whether an item indicates additional value to the consumer or additional costs to the settlement agent. The \$113 increase in net service fees associated with the addition of a fee item in Maricopa County may represent pure profit, but it may also represent an additional \$113 in value to the consumer. These analyses suggest that future research using more detailed data on costs incurred by settlement agents would be valuable.

¹⁷ A dummy variable is necessary so that the coefficient on the loan origination fee can be interpreted as a marginal effect of an increase in the loan origination fee (for those who have one) on total title charges.

¹⁸ The counts of items in the 1100 series exclude attorney fee, title insurance, and endorsements.

XV. Regression Results: How Much Variation Remains Unexplained?

The final research question considered in this study is: How much variation remains unexplained? Studies of the title insurance industry consistently find that even after controlling for a variety of factors, a substantial amount of unexplained variation in title charges remains unexplained. This study is no exception. Unexplained variation is estimated as one minus the R-squared value for each of the regressions discussed in section V and presented in table 9.

More than 50 percent of the variation in total title charges is left unexplained by the models in each of the five markets. The models are most capable of accounting for variation in Philadelphia, Maricopa County, and Sacramento. Models of Broward County are not able to explain more than 25 percent of the variation in total title charges, presumably because a narrow segment of charges is regulated. Variation in particular portions of title charges is much easier to account for. More than 90 percent of the variation in premiums plus endorsements can be explained in Philadelphia as a result of the price setting by the rating bureau. Premiums plus endorsements in Broward County are also much better explained than total title charges in that market; the models account for more than 50 percent of the variation of premiums in Broward County. In contrast, no model explains more than 10 percent of the variation in attorney fees. This result does not necessarily imply that attorney fees are random. Although the regressions controlled for factors known to influence title search costs, no attempt was made to interview attorneys operating

in the five markets and model the determinants of attorney fees.

Underwriter fees yield identical unexplained variation for each model as premiums, as the underwriter fees are simply a percentage of the premium. Underwriters are not given any portion of the miscellaneous additional fees charged by settlement agents that are included in the net service fee. These net service fees, because of the addition of various miscellaneous charges, have more variation left unexplained by the models than premiums and underwriter fees but less left unexplained than total title charges.

Stark differences in unexplained variation are apparent across metropolitan areas. The Philadelphia models explain the most variation in the dependent variables, while the models of Cook County explain the least. Maricopa County, Sacramento, and Broward County all have more unexplained variation than Philadelphia but less than Cook County. Although these models assist in understanding the interaction of regulations and institutions with house, demographic, and neighborhood characteristics in determining title charges, they reaffirm the conclusion of prior research that title charges are highly variable and largely unpredictable.

Table 9. Summary of Unexplained Variation (%)						
	Model	Philadelphia County PA	Broward County FL	Maricopa County AZ	Sacramento County CA	Cook County IL
Total title charges	1	65	86	69	70	94
	2	60	76	58	58	91
	3	59	74	57	57	88
Net service fee	1	62	93	69	71	92
	2	56	85	59	59	85
	3	55	82	57	58	83
Underwriter fee	1	14	53	60	61	88
	2	13	47	53	56	79
	3	12	45	52	55	78
Attorney fee	1	99	100	100	100	99
	2	95	97	99	98	95
	3	92	95	96	97	92
Premiums plus endorsements	1	14	53	60	61	88
	2	13	47	53	56	79
	3	12	45	52	55	78

Data source: Metropolitan HUD-1 Settlement Cost Database. Unexplained variation is one minus R-square of each regression. Model one controls only for a quadratic function of home price, model two adds factors related to title costs, and model three adds demographic and other characteristics that are not expected to affect title costs. The 100-percent unexplained variation in the attorney fee models is because of rounding

XVI. Summary, Implications, and Future Research

Summary of Findings

This study examines title charges for a sample of FHA-insured closings within five metropolitan areas, defined at the county level. Previous research has shown substantial variation between states in title charges and the associated regulations and institutions. The current research takes this between state variation into account by examining the variation in charges within markets rather than across markets.

The empirical models in this study describe variation in five measures of title charges (total title charges, net service fees, underwriter fees, attorney fees, and premiums plus endorsements) in five different metropolitan areas using three classes of control variables: cost-related factors, non-cost-related factors, and settlement agent fixed effects. Cost-related characteristics of the home or neighborhood, such as house sales price and age of housing units, are generally associated with title charges in Philadelphia and Maricopa County and less consistently associated with these charges in the other three markets. Factors not related to the costs incurred by settlement agents are generally insignificant across all five metropolitan areas, although they play a modest role in explaining title charges in Cook County. Some evidence of higher title charges for minorities exists in Broward and Cook Counties, although this disparity cannot be definitively attributed to discrimination.

After controlling for various characteristics of homebuyers, houses, neighborhoods, and settlement agencies, more than one-half of the variation in total title charges remains unexplained in each metropolitan area. The unexplained proportion differs by metropolitan area, and across various components of total title charges. In four of the five markets, substantial variation exists in charges across settlement agents, with many of the 10 largest settlement agents charging fees that are significantly higher or lower than those of smaller settlement agents or with unknown agents. The variation in charges across settlement agents is most pronounced in Broward County. In Philadelphia, significant differences across agents are not observed, because of the presence of the all-inclusive premium set by the rating bureau. Substantial differences in title charges between settlement agents may indicate that settlement agents do business in fundamentally different communities, or that they work with a specific type of customer. Regardless, they also suggest that homebuyers may benefit by shopping for title insurance with more than one settlement agent.

This report also provides estimates of the extent to which consumer shopping for title insurance could reduce title charges in each of the five markets. Regression analyses suggest that in a market like Broward County, switching from a high-cost settlement agent to a low-cost settlement agent may save several hundred dollars. The potential benefits of shopping are less pronounced in other markets. These findings suggest initiatives to encourage shopping and greater competition in the title insurance market could be beneficial.

Implications

From the consumer perspective. Shopping for title insurance across settlement agents would be beneficial to consumers, given the wide range of significant associations between specific title agencies and various title charges in all metropolitan areas considered in this study. For example, in Sacramento, shopping around could save an average of \$326 in total title charges, while, in Broward County, a consumer could save an average of \$528 in total title charges.¹⁹ Savings in terms of net service fees are similarly large. In Sacramento, shopping around could save an average of \$312 in net service fees, and in Broward County shopping around could save an

¹⁹ Calculated based on the range of estimates of agent effects in table A11 in the appendix.

average of \$456 in net service fees.²⁰ The multivariate regressions that control for various cost-related or non-cost factors also suggest that consumers need to be aware of certain circumstances in which charges could be higher or lower. For example, consumers in Maricopa County and Philadelphia should expect a lower title charge if the house is built within the past 5 years.

It is likely that the variation in charges across agents exists, however, in part because of the relationships and referrals between real estate agents and settlement agents. These relationships may make it challenging for consumers to compare the rates of different agents. Consumers may also be constrained in shopping by the location of the house. Some of the variation between settlement agents identified in the regression models may be due to settlement agent specialization in specific neighborhoods or developments. If such specialization occurs, then observed differences between fees charged by different settlement agents may be attributable to the characteristics of the neighborhoods they serve. This could limit the feasibility of comparison shopping for title insurance, and, to the extent that there are benefits, the geographic specificity of agents could prevent consumers from taking advantage of those benefits.

From the regulator perspective. The fundamental finding of this study is that there is large variation in title insurance premiums, but only a small proportion of variation is attributable to cost-related house and neighborhood characteristics, such as the age of the unit. Regulators may consider it in the public interest to reduce this variability. The regulatory arrangements in place in the five markets investigated in this study play an important role in the determination of title charges. Although section IV demonstrated that both Cook County and Philadelphia have highly variable title charges, the regression analyses establish that a large portion of the variation in Philadelphia is explained by deliberate policies to set rates according to house price. Qualitative interviews suggest that the formula leads to cross-subsidization of low-price homes with premiums paid on high-price homes. This outcome may or may not be desirable for states, but the models presented in this study suggest that regulators have considerable leverage to control variation in title charges.

Although demographic characteristics are not generally associated with title charges, some title charges are higher for minority homebuyers, after controlling for income and neighborhood characteristics. (Total title charges are \$73 higher for minorities than Whites in Cook County and \$90 higher in Broward County.) Although minority status is usually not associated with title charges outside of Cook and Broward Counties, the differences may merit the attention of regulators.

To facilitate research and consumer shopping, HUD may consider requiring the submission of HUD-1 forms electronically. Information from this nationally representative HUD-1 form database could be accessible to consumers and agents in an aggregated or firm-level form so that they can compare closing costs.

Future Research

Future research is needed to further explore the large portion of title charges that remains unexplained. To account for this variation, researchers can begin by mapping title charges using Geographic Information Systems (GIS) software to examine neighborhood patterns and scan for other geography-related factors that might affect title charges. Regression analyses reveal large differences in the title fees charged by different settlement agents. Although the differences have traditionally been interpreted as an example of market power or imperfect information, it is possible that these differentials result from geographic segmentation in the title insurance market. GIS analysis can determine the extent to which variability is explained by the operation of distinct markets below the metropolitan-area level. It would also be informative to conduct a small number of tests in which researchers call settlement agents with homes of similar value to gauge the extent to which quoted prices by individual agents vary for properties. This exercise would provide further evidence of the extent of variation observed across agents for a single property. In addition, it would provide some insight into the ease with which a homebuyer can shop for title insurance.

²⁰ Calculated based on the range of estimates of agent effects in table A12 in the appendix.

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XVIII. Appendix

Table A1: Total Title Charges, Model 1					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	79.66*** (18.67)	87.10** (43.46)	153.0*** (29.37)	33.84* (19.25)	25.74 (21.00)
Price/\$10,000, Squared	-0.791 (1.071)	-1.355 (1.912)	-4.270*** (1.330)	0.320 (0.688)	0.0102 (0.708)
Constant	481.8*** (72.95)	1,080*** (241.6)	408.4** (159.0)	1,227*** (130.5)	1,471*** (148.7)
Observations	559	543	616	576	757
R-squared	0.347	0.142	0.313	0.301	0.056
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					
Table A2: Net Service Fees, Model 1					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	55.41*** (14.05)	56.89 (38.76)	135.0*** (27.16)	27.42 (18.50)	23.74** (10.17)
Price/\$10,000, Squared	-0.0845 (0.806)	-0.961 (1.706)	-3.680*** (1.230)	0.439 (0.661)	-0.304 (0.343)
Constant	461.4*** (54.92)	1,049*** (215.5)	411.0*** (147.0)	1,182*** (125.4)	780.4*** (72.04)
Observations	559	543	616	576	757
R-squared	0.384	0.075	0.307	0.286	0.077

Table A2: Net Service Fees, Model 1 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A3: Underwriter Fees, Model 1

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	9.495*** (0.614)	20.02*** (5.364)	14.09*** (2.216)	5.813*** (1.155)	2.981** (1.333)
Price/\$10,000, Squared	-0.115*** (0.0352)	-0.165 (0.236)	-0.396*** (0.100)	-0.0978** (0.0413)	-0.0173 (0.0450)
Constant	55.52*** (2.399)	61.20** (29.82)	14.55 (12.00)	48.65*** (7.824)	135.2*** (9.438)
Observations	559	543	616	576	757
R-squared	0.864	0.473	0.399	0.391	0.118

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001

Table A4: Attorney Fees, Model 1

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	14.75 (11.43)	10.18 (21.29)	3.973 (6.107)	0.610 (0.481)	-0.982 (17.34)
Price/\$10,000, Squared	-0.591 (0.656)	-0.230 (0.937)	-0.194 (0.277)	-0.0209 (0.0172)	0.332 (0.585)
Constant	-35.13 (44.68)	-30.07 (118.4)	-17.20 (33.06)	-3.788 (3.261)	554.9*** (122.8)
Observations	559	543	616	576	757
R-squared	0.008	0.005	0.001	0.003	0.010

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001

Table A5: Title Premium Plus Endorsements, Model 1

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	63.30***	66.74***	122.5***	58.13***	14.91**

Table A5: Title Premium Plus Endorsements, Model 1 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(4.094)	(17.88)	(19.27)	(11.55)	(6.664)
Price/\$10,000, Squared	-0.768***	-0.549	-3.445***	-0.978**	-0.0867
	(0.235)	(0.787)	(0.873)	(0.413)	(0.225)
Constant	370.1***	204.0**	126.5	486.5***	676.0***
	(16.00)	(99.41)	(104.3)	(78.24)	(47.19)
Observations	559	543	616	576	757
R-squared	0.864	0.473	0.399	0.391	0.118
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A6: Total Title Charges, Model 2

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	84.88***	73.93*	144.9***	50.24***	30.33
	(18.81)	(43.58)	(28.12)	(19.34)	(22.27)
Price/\$10,000, Squared	-1.886*	-0.564	-3.592***	-0.248	-0.140
	(1.096)	(1.924)	(1.285)	(0.668)	(0.730)
Loan to Value Ratio Exceeds 97.5%	-53.25*	20.18	30.19*	11.24	32.51
	(28.71)	(28.64)	(16.26)	(26.02)	(53.05)
Unit <=5 Years Old	-160.4**	-15.76	-60.36***	-79.45*	-102.4
	(74.69)	(46.66)	(22.22)	(47.36)	(85.41)
Unit > 30 Years Old	-98.70***	19.04	-79.70***	18.17	-50.25
	(30.80)	(35.66)	(18.41)	(19.30)	(36.83)
Pct. Of HH Moved to Block in Last 5 Yrs	127.4	100.1	-192.2***	-76.14	156.1
	(90.31)	(104.4)	(45.77)	(69.39)	(125.8)
Property Lot Size/100	1.785***	-0.0590	-0.439	0.313	-1.324**
	(0.540)	(0.564)	(0.322)	(0.353)	(0.553)
Largest Agency	7.736	148.3**	5.462	146.8***	-87.76*
	(39.95)	(66.82)	(24.71)	(39.00)	(48.96)
Second Largest Agency	-57.63	-322.0***	66.08***	76.88*	56.80
	(53.00)	(81.45)	(24.75)	(39.23)	(55.67)
Third Largest Agency	-10.37	-410.4***	-71.71***	14.84	31.76
	(49.01)	(96.43)	(26.96)	(40.50)	(60.59)
Fourth Largest Agency	98.24*	178.9**	73.46***	-52.99	24.82
	(52.74)	(89.57)	(27.74)	(42.81)	(64.20)

Table A6: Total Title Charges, Model 2 (cont'd)					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Fifth Largest Agency	-67.87 (68.08)	172.0* (93.61)	4.140 (30.48)	-109.6** (44.06)	-9.121 (65.59)
Sixth Largest Agency	-59.90 (67.49)	-94.14 (90.80)	10.62 (32.09)	-20.62 (45.24)	81.06 (72.67)
Seventh Largest Agency	-60.51 (67.96)	-190.4** (94.36)	-74.79** (35.19)	30.33 (48.12)	-158.3 (97.53)
Eighth Largest Agency	26.40 (70.18)	21.14 (97.38)	-148.4*** (35.98)	-181.4*** (48.77)	143.1 (125.3)
Ninth Largest Agency	127.0* (75.90)	-240.5** (101.9)	-45.32 (38.96)	24.97 (52.41)	50.66 (135.2)
Tenth Largest Agency	-99.42 (75.98)	70.87 (101.9)	-10.66 (37.95)	-59.99 (58.92)	109.9 (140.8)
Constant	548.1*** (96.30)	1,076*** (248.2)	562.1*** (153.2)	1,113*** (150.4)	1,479*** (179.3)
Observations	559	543	616	576	757
R-squared	0.396	0.238	0.418	0.425	0.090
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A7: Net Service Fees, Model 2					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	55.91*** (14.06)	51.33 (39.47)	128.5*** (26.02)	43.32** (18.55)	27.27*** (10.55)
Price/\$10,000, Squared	-0.747 (0.819)	-0.575 (1.742)	-3.123*** (1.188)	-0.118 (0.641)	-0.415 (0.346)
Loan to Value Ratio Exceeds 97.5%	-0.491 (21.45)	6.160 (25.94)	22.70 (15.04)	8.867 (24.96)	3.911 (25.13)
Unit <=5 Years Old	-130.9** (55.81)	-10.91 (42.26)	-50.64** (20.56)	-71.76 (45.43)	0.0655 (40.46)
Unit > 30 Years Old	-82.24*** (23.02)	0.241 (32.29)	-71.81*** (17.04)	18.76 (18.51)	20.09 (17.45)
Pct. Of HH Moved to Block in Last 5 Yrs	90.78 (67.48)	96.44 (94.56)	-184.5*** (42.35)	-71.79 (66.56)	-87.23 (59.59)
Property Lot Size/100	1.441***	0.0534	-0.400	0.270	-0.740***

Table A7: Net Service Fees, Model 2 (cont'd)					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(0.403)	(0.511)	(0.298)	(0.338)	(0.262)
Largest Agency	3.051	105.8*	12.27	142.2***	-70.18***
	(29.85)	(60.52)	(22.86)	(37.41)	(23.19)
Second Largest Agency	-81.40**	-263.4***	62.41***	74.53**	-23.16
	(39.61)	(73.77)	(22.90)	(37.63)	(26.37)
Third Largest Agency	-40.28	-306.7***	-62.92**	12.04	-21.97
	(36.62)	(87.34)	(24.94)	(38.85)	(28.70)
Fourth Largest Agency	119.0***	100.5	74.97***	-57.34	63.70**
	(39.41)	(81.13)	(25.67)	(41.07)	(30.41)
Fifth Largest Agency	-62.57	198.3**	13.19	-107.3**	-30.27
	(50.87)	(84.79)	(28.20)	(42.26)	(31.07)
Sixth Largest Agency	-53.63	-68.18	13.16	-21.73	75.00**
	(50.43)	(82.24)	(29.69)	(43.40)	(34.42)
Seventh Largest Agency	-31.86	-108.2	-60.46*	29.55	-40.46
	(50.78)	(85.47)	(32.56)	(46.16)	(46.20)
Eighth Largest Agency	-74.70	69.96	-133.6***	-172.3***	53.80
	(52.44)	(88.20)	(33.29)	(46.78)	(59.34)
Ninth Largest Agency	33.44	-196.3**	-39.38	26.72	141.0**
	(56.71)	(92.33)	(36.04)	(50.27)	(64.06)
Tenth Largest Agency	-63.73	64.12	1.024	-59.80	228.0***
	(56.77)	(92.26)	(35.11)	(56.52)	(66.71)
Constant	506.7***	1,014***	550.9***	1,074***	823.0***
	(71.96)	(224.8)	(141.7)	(144.3)	(84.92)
Observations	559	543	616	576	757
R-squared	0.438	0.153	0.412	0.415	0.150
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					
Table A8: Underwriter Fees, Model 2					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	9.445***	17.76***	13.41***	6.587***	3.340**
	(0.626)	(5.364)	(2.169)	(1.222)	(1.362)
Price/\$10,000, Squared	-0.102***	-0.0316	-0.341***	-0.117***	-0.0287
	(0.0365)	(0.237)	(0.0991)	(0.0422)	(0.0447)
Loan to Value Ratio Exceeds 97.5%	2.458**	3.701	2.142*	2.900*	0.264

Table A8: Underwriter Fees, Model 2 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(0.955)	(3.525)	(1.254)	(1.644)	(3.246)
Unit <=5 Years Old	3.209	6.359	-5.862***	-7.380**	-9.955*
	(2.484)	(5.743)	(1.714)	(2.993)	(5.225)
Unit > 30 Years Old	0.771	3.711	-4.134***	-0.240	3.032
	(1.024)	(4.388)	(1.420)	(1.220)	(2.253)
Pct. Of HH Moved to Block in Last 5 Yrs	-6.143**	-11.12	-13.35***	-3.169	5.612
	(3.003)	(12.85)	(3.530)	(4.384)	(7.696)
Property Lot Size/100	0.00355	-0.137**	-0.0178	0.0287	-0.0672**
	(0.0179)	(0.0694)	(0.0249)	(0.0223)	(0.0338)
Largest Agency	3.696***	31.60***	-0.983	4.230*	3.237
	(1.328)	(8.224)	(1.906)	(2.464)	(2.995)
Second Largest Agency	1.541	-18.86*	2.580	2.440	0.0909
	(1.763)	(10.02)	(1.909)	(2.479)	(3.406)
Third Largest Agency	3.521**	-39.38***	-3.921*	1.256	-2.405
	(1.630)	(11.87)	(2.080)	(2.559)	(3.707)
Fourth Largest Agency	3.518**	18.61*	4.123*	4.450	15.97***
	(1.754)	(11.02)	(2.140)	(2.705)	(3.927)
Fifth Largest Agency	1.819	27.04**	-3.560	-3.811	-3.171
	(2.264)	(11.52)	(2.351)	(2.784)	(4.012)
Sixth Largest Agency	2.149	0.642	2.454	1.326	14.12***
	(2.244)	(11.18)	(2.475)	(2.859)	(4.446)
Seventh Largest Agency	-2.711	-32.07***	-7.790***	0.761	0.240
	(2.260)	(11.61)	(2.715)	(3.041)	(5.966)
Eighth Largest Agency	1.418	12.25	-9.109***	-8.937***	-0.545
	(2.334)	(11.99)	(2.775)	(3.081)	(7.664)
Ninth Largest Agency	4.048	-35.82***	-1.508	-1.770	23.32***
	(2.524)	(12.55)	(3.005)	(3.312)	(8.273)
Tenth Largest Agency	0.465	31.14**	-5.777**	-0.0462	47.22***
	(2.527)	(12.54)	(2.927)	(3.723)	(8.616)
Constant	53.61***	78.48**	25.34**	40.19***	128.8***
	(3.202)	(30.55)	(11.81)	(9.504)	(10.97)
Observations	559	543	616	576	757
R-squared	0.872	0.535	0.468	0.443	0.210

Table A8: Underwriter Fees, Model 2 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A9: Attorney Fees, Model 2

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	19.52*	4.837	2.975	0.333	-0.283
	(11.69)	(22.41)	(6.314)	(0.527)	(18.36)
Price/\$10,000, Squared	-1.037	0.0429	-0.128	-0.0132	0.303
	(0.681)	(0.989)	(0.288)	(0.0182)	(0.602)
Loan to Value Ratio Exceeds 97.5%	-55.22***	10.31	5.351	-0.529	28.34
	(17.84)	(14.72)	(3.651)	(0.709)	(43.74)
Unit <=5 Years Old	-32.74	-11.21	-3.853	-0.302	-92.51
	(46.42)	(23.99)	(4.990)	(1.290)	(70.41)
Unit > 30 Years Old	-17.23	15.09	-3.756	-0.350	-73.38**
	(19.14)	(18.33)	(4.135)	(0.526)	(30.36)
Pct. Of HH Moved to Block in Last 5 Yrs	42.76	14.82	5.624	-1.185	237.7**
	(56.13)	(53.68)	(10.28)	(1.890)	(103.7)
Property Lot Size/100	0.341	0.0250	-0.0210	0.0140	-0.517
	(0.335)	(0.290)	(0.0724)	(0.00960)	(0.456)
Largest Agency	0.989	10.95	-5.823	0.303	-20.82
	(24.83)	(34.35)	(5.549)	(1.062)	(40.36)
Second Largest Agency	22.22	-39.83	1.090	-0.0845	79.87*
	(32.94)	(41.88)	(5.558)	(1.069)	(45.89)
Third Largest Agency	26.38	-64.24	-4.866	1.546	56.13
	(30.46)	(49.57)	(6.054)	(1.103)	(49.95)
Fourth Largest Agency	-24.30	59.70	-5.638	-0.101	-54.85
	(32.78)	(46.05)	(6.230)	(1.166)	(52.92)
Fifth Largest Agency	-7.118	-53.40	-5.491	1.587	24.32
	(42.31)	(48.13)	(6.843)	(1.200)	(54.07)
Sixth Largest Agency	-8.412	-26.60	-4.993	-0.216	-8.064
	(41.94)	(46.68)	(7.206)	(1.232)	(59.91)
Seventh Largest Agency	-25.94	-50.11	-6.538	0.00994	-118.1
	(42.23)	(48.51)	(7.903)	(1.311)	(80.40)
Eighth Largest Agency	99.68**	-61.08	-5.716	-0.161	89.85

Table A9: Attorney Fees, Model 2 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(43.61)	(50.06)	(8.080)	(1.328)	(103.3)
Ninth Largest Agency	89.48*	-8.431	-4.432	0.0213	-113.7
	(47.17)	(52.41)	(8.748)	(1.428)	(111.5)
Tenth Largest Agency	-36.15	-24.39	-5.904	-0.149	-165.3
	(47.22)	(52.37)	(8.522)	(1.605)	(116.1)
Constant	-12.24	-16.54	-14.13	-1.842	527.3***
	(59.85)	(127.6)	(34.39)	(4.097)	(147.8)
Observations	559	543	616	576	757
R-squared	0.054	0.028	0.012	0.025	0.049

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001

Table A10: Premium Plus Endorsements, Model 2

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	62.97***	59.20***	116.7***	65.87***	16.70**
	(4.171)	(17.88)	(18.86)	(12.22)	(6.812)
Price/\$10,000, Squared	-0.680***	-0.105	-2.968***	-1.173***	-0.143
	(0.243)	(0.789)	(0.862)	(0.422)	(0.223)
Loan to Value Ratio Exceeds 97.5%	16.38**	12.34	18.62*	29.00*	1.319
	(6.364)	(11.75)	(10.91)	(16.44)	(16.23)
Unit <=5 Years Old	21.39	21.20	-50.97***	-73.80**	-49.78*
	(16.56)	(19.14)	(14.91)	(29.93)	(26.13)
Unit > 30 Years Old	5.143	12.37	-35.94***	-2.403	15.16
	(6.829)	(14.63)	(12.35)	(12.20)	(11.27)
Pct. Of HH Moved to Block in Last 5 Yrs	-40.95**	-37.07	-116.1***	-31.69	28.06
	(20.02)	(42.83)	(30.70)	(43.84)	(38.48)
Property Lot Size/100	0.0236	-0.458**	-0.155	0.287	-0.336**
	(0.120)	(0.231)	(0.216)	(0.223)	(0.169)
Largest Agency	24.64***	105.3***	-8.551	42.30*	16.19
	(8.856)	(27.41)	(16.57)	(24.64)	(14.98)
Second Largest Agency	10.27	-62.88*	22.44	24.40	0.454
	(11.75)	(33.42)	(16.60)	(24.79)	(17.03)
Third Largest Agency	23.47**	-131.3***	-34.09*	12.56	-12.02
	(10.87)	(39.56)	(18.08)	(25.59)	(18.53)

Table A10: Premium Plus Endorsements, Model 2 (cont'd)					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Fourth Largest Agency	23.46**	62.04*	35.85*	44.50	79.85***
	(11.69)	(36.75)	(18.61)	(27.05)	(19.64)
Fifth Largest Agency	12.12	90.14**	-30.95	-38.11	-15.85
	(15.09)	(38.41)	(20.44)	(27.84)	(20.06)
Sixth Largest Agency	14.33	2.141	21.34	13.26	70.58***
	(14.96)	(37.25)	(21.53)	(28.59)	(22.23)
Seventh Largest Agency	-18.07	-106.9***	-67.74***	7.607	1.198
	(15.07)	(38.71)	(23.61)	(30.41)	(29.83)
Eighth Largest Agency	9.455	40.84	-79.21***	-89.37***	-2.724
	(15.56)	(39.95)	(24.13)	(30.81)	(38.32)
Ninth Largest Agency	26.98	-119.4***	-13.11	-17.70	116.6***
	(16.83)	(41.82)	(26.13)	(33.12)	(41.36)
Tenth Largest Agency	3.100	103.8**	-50.24**	-0.462	236.1***
	(16.84)	(41.79)	(25.46)	(37.23)	(43.08)
Constant	357.4***	261.6**	220.3**	401.9***	643.8***
	(21.35)	(101.8)	(102.7)	(95.04)	(54.84)
Observations	559	543	616	576	757
R-squared	0.872	0.535	0.468	0.443	0.210
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A11: Total Title Charges, Model 3					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	72.05***	67.99	120.0***	48.40**	31.60
	(21.80)	(44.17)	(29.86)	(19.96)	(22.83)
Price/\$10,000, Squared	-1.786	-0.279	-2.939**	-0.187	-0.138
	(1.182)	(1.940)	(1.360)	(0.689)	(0.735)
Loan to Value Ratio Exceeds 97.5%	-43.76	17.62	28.72*	13.63	34.56
	(28.71)	(28.63)	(16.32)	(26.17)	(52.57)
Unit <=5 Years Old	-164.8**	-9.888	-58.62***	-63.89	-128.2
	(74.35)	(46.83)	(22.33)	(48.23)	(84.76)
Unit > 30 Years Old	-93.10***	26.81	-66.86***	16.76	-61.63*
	(30.88)	(36.05)	(18.98)	(19.45)	(36.80)
Pct. Of HH Moved to Block in Last 5 Yrs	91.22	142.2	-228.0***	-180.1**	-157.4

Table A11: Total Title Charges, Model 3 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(102.2)	(131.1)	(53.66)	(86.83)	(149.9)
Property Lot Size/100	0.952	-0.154	-0.257	0.416	-0.835
	(0.598)	(0.626)	(0.329)	(0.365)	(0.582)
Owner is Minority	31.42	90.36***	8.644	28.17	72.92*
	(28.48)	(31.28)	(17.83)	(18.89)	(37.27)
Owner Race Unknown	2.423	-41.23	-26.79	-136.0	150.0*
	(34.41)	(56.32)	-36.66	(143.2)	(79.60)
Live in Urban Area	-104.4***	23.39	-13.49	-20.32	7.584
	(39.69)	(29.58)	(16.82)	(44.91)	(39.88)
Monthly Effective Income/\$1,000	3.491	3.292	3.979	1.946	18.23
	(10.84)	(9.356)	(5.239)	(5.073)	(11.19)
Pct. Of HH 25+ with no HS degree	0.217	-172.9	-252.0***	-179.0	294.3
	(146.5)	(233.5)	(82.20)	(125.9)	(184.5)
Pct. Of HH 25+ with college degree	210.4	-203.0	74.67	93.66	430.6*
	(160.9)	(322.4)	(111.5)	(132.4)	(242.6)
Block Avg HH In- come/\$10,000 Last Yr.	2.088	-0.0931	-0.918	-1.277	-3.569**
	(1.526)	(1.870)	(0.757)	(1.066)	(1.629)
Median age	-0.486	0.756	-1.199	-4.732*	-8.732*
	(2.585)	(2.055)	(1.686)	(2.510)	(4.536)
Largest Agency	19.95	125.8*	-4.477	143.5***	-80.12*
	(40.34)	(67.13)	(24.87)	(39.17)	(48.39)
Second Largest Agency	-55.60	-314.7***	58.56**	79.46**	74.27
	(53.15)	(81.56)	(24.97)	(39.47)	(55.07)
Third Largest Agency	14.80	-360.5***	-71.27***	14.33	52.34
	(49.51)	(100.1)	(26.99)	(40.63)	(60.20)
Fourth Largest Agency	104.1**	165.3*	66.35**	-55.77	17.32
	(52.61)	(90.73)	(27.89)	(43.00)	(63.38)
Fifth Largest Agency	-36.98	167.1*	4.779	-117.5***	-24.39
	(68.34)	(94.32)	(30.62)	(44.29)	(65.12)
Sixth Largest Agency	-40.86	-98.47	8.891	-11.53	94.97
	(67.94)	(91.36)	(32.09)	(45.58)	(71.99)
Seventh Largest Agency	-29.74	-193.4**	-72.81**	34.68	-147.6
	(68.56)	(94.81)	(35.32)	(48.24)	(96.63)
Eighth Largest Agency	44.09	21.77	-149.9***	-182.2***	150.3
	(70.42)	(97.73)	(36.00)	(49.09)	(124.4)

Table A11: Total Title Charges, Model 3 (cont'd)					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Ninth Largest Agency	165.8** (77.36)	-259.5** (101.8)	-58.55 (39.10)	27.56 (52.53)	17.81 (134.7)
Tenth Largest Agency	-102.6 (75.86)	31.51 (102.8)	-20.19 (38.07)	-71.48 (59.31)	48.02 (140.2)
Constant	607.1*** (167.4)	1,066*** (323.2)	875.6*** (193.8)	1,393*** (212.1)	1,780*** (259.9)
Observations	559	543	616	576	757
R-squared	0.414	0.257	0.433	0.434	0.125

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001

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Table A12: Net Service Fees, Model 3

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	53.35*** (16.34)	50.57 (39.89)	105.6*** (27.60)	41.67** (19.14)	25.26** (10.89)
Price/\$10,000, Squared	-0.834 (0.886)	-0.242 (1.752)	-2.505** (1.257)	-0.0524 (0.661)	-0.363 (0.351)
Loan to Value Ratio Exceeds 97.5%	3.491 (21.53)	6.283 (25.86)	22.33 (15.09)	10.77 (25.11)	3.184 (25.09)
Unit <=5 Years Old	-129.8** (55.75)	-7.192 (42.29)	-49.29** (20.65)	-57.16 (46.26)	-6.382 (40.45)
Unit > 30 Years Old	-79.15*** (23.15)	3.495 (32.56)	-60.16*** (17.55)	17.23 (18.66)	17.84 (17.57)
Pct. Of HH Moved to Block in Last 5 Yrs	63.85 (76.63)	93.55 (118.4)	-215.6*** (49.61)	-170.7** (83.30)	-133.9* (71.53)
Property Lot Size/100	0.973** (0.448)	-0.403 (0.565)	-0.250 (0.304)	0.359 (0.350)	-0.618** (0.278)
Owner is Minority	20.68 (21.36)	76.13*** (28.25)	10.21 (16.48)	27.36 (18.13)	42.51** (17.79)
Owner Race Unknown	-30.84 (25.80)	-39.07 (50.87)	-51.91 (33.89)	-127.1 (137.4)	78.93** (37.99)
Live in Urban Area	-70.07** (29.76)	13.78 (26.71)	-9.145 (15.55)	-19.40 (43.08)	19.60 (19.03)
Monthly Effective Income/\$1,000	1.436	-5.412	5.212	2.122	10.12*

Table A12: Net Service Fees, Model 3 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(8.129)	(8.449)	(4.844)	(4.867)	(5.343)
Pct. Of HH 25+ with no HS degree	39.96	-123.8	-233.1***	-165.5	2.613
	(109.9)	(210.9)	(76.00)	(120.8)	(88.08)
Pct. Of HH 25+ with college degree	108.5	-208.7	47.67	83.80	-30.99
	(120.6)	(291.2)	(103.1)	(127.0)	(115.8)
Block Avg HH Income/\$10,000 Last Yr.	0.667	-0.881	-0.816	-1.298	-0.541
	(1.145)	(1.689)	(0.700)	(1.023)	(0.777)
Median age	-0.568	-1.241	-1.064	-4.416*	-1.285
	(1.938)	(1.856)	(1.559)	(2.408)	(2.165)
Largest Agency	9.436	86.06	1.897	138.6***	-68.00***
	(30.25)	(60.63)	(22.99)	(37.58)	(23.10)
Second Largest Agency	-77.71*	-254.8***	53.46**	76.30**	-18.65
	(39.85)	(73.66)	(23.08)	(37.86)	(26.28)
Third Largest Agency	-27.51	-266.9***	-64.82***	11.26	-12.20
	(37.13)	(90.38)	(24.95)	(38.97)	(28.73)
Fourth Largest Agency	121.9***	80.08	66.86***	-60.50	62.75**
	(39.45)	(81.94)	(25.79)	(41.25)	(30.25)
Fifth Largest Agency	-44.29	189.2**	11.27	-115.1***	-34.23
	(51.24)	(85.19)	(28.31)	(42.48)	(31.08)
Sixth Largest Agency	-33.87	-70.27	10.72	-13.56	77.88**
	(50.94)	(82.51)	(29.67)	(43.72)	(34.36)
Seventh Largest Agency	-17.91	-109.2	-61.66*	33.27	-43.36
	(51.41)	(85.62)	(32.65)	(46.27)	(46.12)
Eighth Largest Agency	-52.93	68.56	-136.5***	-172.9***	60.68
	(52.80)	(88.26)	(33.28)	(47.09)	(59.38)
Ninth Largest Agency	72.78	-213.3**	-54.54	28.59	117.0*
	(58.01)	(91.97)	(36.15)	(50.39)	(64.28)
Tenth Largest Agency	-72.25	17.98	-10.30	-71.19	214.3***
	(56.88)	(92.87)	(35.20)	(56.89)	(66.91)
Constant	557.2***	1,134***	833.3***	1,340***	847.7***
	(125.5)	(291.9)	(179.2)	(203.5)	(124.0)
Observations	559	543	616	576	757
R-squared	0.452	0.179	0.429	0.424	0.170
Standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					
Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A13: Underwriter Fees, Model 3

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	9.712*** (0.711)	18.21*** (5.404)	12.37*** (2.313)	6.377*** (1.258)	3.041** (1.418)
Price/\$10,000, Squared	-0.0958** (0.0386)	-0.0244 (0.237)	-0.319*** (0.105)	-0.121*** (0.0434)	-0.0176 (0.0456)
Loan to Value Ratio Exceeds 97.5%	1.971** (0.937)	3.375 (3.503)	2.225* (1.265)	3.398** (1.650)	0.819 (3.265)
Unit <=5 Years Old	3.556 (2.427)	8.221 (5.730)	-5.884*** (1.730)	-6.340** (3.040)	-10.93** (5.265)
Unit > 30 Years Old	0.324 (1.008)	4.014 (4.411)	-3.536** (1.471)	-0.107 (1.226)	2.388 (2.286)
Pct. Of HH Moved to Block in Last 5 Yrs	-2.226 (3.336)	11.49 (16.04)	-13.52*** (4.158)	-8.282 (5.473)	3.665 (9.309)
Property Lot Size/100	0.0473** (0.0195)	-0.163** (0.0766)	-0.00543 (0.0255)	0.0441* (0.0230)	-0.0692* (0.0361)
Owner is Minority	0.675 (0.930)	5.424 (3.827)	0.425 (1.381)	0.458 (1.191)	0.184 (2.315)
Owner Race Unknown	-0.788 (1.123)	-14.65** (6.891)	-4.310 (2.840)	-9.239 (9.029)	-2.876 (4.944)
Live in Urban Area	5.751*** (1.296)	6.906* (3.619)	-0.708 (1.303)	-0.600 (2.831)	-4.267* (2.477)
Monthly Effective Income/\$1,000	0.0342 (0.354)	-0.177 (1.145)	0.117 (0.406)	-0.0842 (0.320)	0.159 (0.695)
Pct. Of HH 25+ with no HS degree	2.293 (4.782)	-4.993 (28.57)	-10.15 (6.369)	-12.91 (7.936)	18.36 (11.46)
Pct. Of HH 25+ with college degree	-10.22* (5.250)	-68.13* (39.45)	6.176 (8.641)	10.62 (8.344)	-0.305 (15.07)
Block Avg HH Income/\$10,000 Last Yr.	-0.0398 (0.0498)	0.211 (0.229)	-0.0502 (0.0587)	0.0151 (0.0672)	-0.0182 (0.101)
Median age	0.120 (0.0844)	0.454* (0.251)	0.0689 (0.131)	-0.310* (0.158)	0.172 (0.282)
Largest Agency	2.621** (1.317)	29.29*** (8.214)	-1.721 (1.927)	4.518* (2.469)	3.303 (3.006)
Second Largest Agency	0.920	-19.48* (8.214)	2.049	3.270	0.456

Table A13: Underwriter Fees, Model 3 (cont'd)					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(1.735)	(9.979)	(1.935)	(2.488)	(3.420)
Third Largest Agency	1.898	-34.88***	-4.016*	1.466	-2.114
	(1.616)	(12.24)	(2.091)	(2.561)	(3.740)
Fourth Largest Agency	2.858*	19.51*	3.417	4.852*	15.66***
	(1.717)	(11.10)	(2.161)	(2.711)	(3.937)
Fifth Largest Agency	0.485	28.13**	-3.783	-4.085	-2.551
	(2.230)	(11.54)	(2.372)	(2.792)	(4.045)
Sixth Largest Agency	1.843	-3.050	2.553	2.135	14.66***
	(2.217)	(11.18)	(2.487)	(2.873)	(4.471)
Seventh Largest Agency	-4.099*	-31.06***	-7.828***	1.386	1.280
	(2.238)	(11.60)	(2.737)	(3.041)	(6.002)
Eighth Largest Agency	0.875	9.540	-9.316***	-9.142***	-0.586
	(2.299)	(11.96)	(2.790)	(3.095)	(7.727)
Ninth Largest Agency	3.256	-39.48***	-2.332	-1.057	24.30***
	(2.525)	(12.46)	(3.030)	(3.311)	(8.366)
Tenth Largest Agency	0.687	27.94**	-6.242**	-0.128	45.24***
	(2.476)	(12.58)	(2.950)	(3.739)	(8.708)
Constant	43.26***	43.84	34.67**	55.29***	123.3***
	(5.462)	(39.55)	(15.02)	(13.37)	(16.14)
Observations	559	543	616	576	757
R-squared	0.880	0.552	0.477	0.455	0.217
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					
Table A14: Attorney Fees, Model 3					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	8.990	-0.784	2.030	0.362	3.303
	(13.58)	(22.76)	(6.692)	(0.547)	(18.91)
Price/\$10,000, Squared	-0.856	-0.0124	-0.116	-0.0135	0.242
	(0.736)	(1.000)	(0.305)	(0.0189)	(0.609)
Loan to Value Ratio Exceeds 97.5%	-49.22***	7.960	4.166	-0.532	30.56
	(17.89)	(14.76)	(3.658)	(0.718)	(43.56)
Unit <=5 Years Old	-38.59	-10.92	-3.446	-0.393	-110.9
	(46.32)	(24.14)	(5.005)	(1.323)	(70.23)
Unit > 30 Years Old	-14.28	19.30	-3.174	-0.359	-81.86***

Table A14: Attorney Fees, Model 3 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(19.23)	(18.58)	(4.254)	(0.534)	(30.50)
Pct. Of HH Moved to Block in Last 5 Yrs	29.60	37.20	1.092	-1.167	-27.21
	(63.67)	(67.56)	(12.03)	(2.382)	(124.2)
Property Lot Size/100	-0.0683	0.411	-0.00201	0.0134	-0.148
	(0.372)	(0.323)	(0.0737)	(0.0100)	(0.482)
Owner is Minority	10.06	8.809	-1.990	0.359	30.23
	(17.74)	(16.12)	(3.996)	(0.518)	(30.89)
Owner Race Unknown	34.05	12.49	29.42***	0.259	73.93
	(21.44)	(29.03)	(8.216)	(3.929)	(65.95)
Live in Urban Area	-40.11	2.707	-3.636	-0.320	-7.744
	(24.73)	(15.25)	(3.770)	(1.232)	(33.04)
Monthly Effective Income/\$1,000	2.021	8.880*	-1.351	-0.0919	7.954
	(6.754)	(4.822)	(1.174)	(0.139)	(9.276)
Pct. Of HH 25+ with no HS degree	-42.03	-44.19	-8.742	-0.612	273.3*
	(91.28)	(120.4)	(18.42)	(3.453)	(152.9)
Pct. Of HH 25+ with college degree	112.1	73.84	20.83	-0.761	461.9**
	(100.2)	(166.2)	(24.99)	(3.631)	(201.0)
Block Avg HH Income/\$10,000 Last Yr.	1.461	0.577	-0.0514	0.00526	-3.009**
	(0.951)	(0.964)	(0.170)	(0.0292)	(1.350)
Median age	-0.0371	1.542	-0.204	-0.00540	-7.619**
	(1.610)	(1.059)	(0.378)	(0.0689)	(3.759)
Largest Agency	7.898	10.42	-4.653	0.312	-15.42
	(25.13)	(34.60)	(5.574)	(1.075)	(40.10)
Second Largest Agency	21.20	-40.36	3.059	-0.102	92.46**
	(33.11)	(42.04)	(5.596)	(1.083)	(45.63)
Third Largest Agency	40.42	-58.74	-2.437	1.597	66.66
	(30.85)	(51.58)	(6.049)	(1.114)	(49.89)
Fourth Largest Agency	-20.63	65.75	-3.926	-0.129	-61.09
	(32.77)	(46.76)	(6.252)	(1.180)	(52.52)
Fifth Largest Agency	6.821	-50.24	-2.712	1.601	12.40
	(42.57)	(48.62)	(6.862)	(1.215)	(53.96)
Sixth Largest Agency	-8.836	-25.15	-4.382	-0.107	2.433
	(42.33)	(47.09)	(7.193)	(1.250)	(59.65)
Seventh Largest Agency	-7.737	-53.15	-3.327	0.0275	-105.5

Table A14: Attorney Fees, Model 3 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
	(42.71)	(48.87)	(7.916)	(1.323)	(80.07)
Eighth Largest Agency	96.14**	-56.32	-4.055	-0.187	90.18
	(43.87)	(50.37)	(8.069)	(1.347)	(103.1)
Ninth Largest Agency	89.80*	-6.772	-1.680	0.0253	-123.5
	(48.20)	(52.49)	(8.763)	(1.441)	(111.6)
Tenth Largest Agency	-31.04	-14.41	-3.649	-0.163	-211.5*
	(47.26)	(53.00)	(8.533)	(1.627)	(116.2)
Constant	6.642	-112.0	7.651	-1.720	808.5***
	(104.3)	(166.6)	(43.44)	(5.818)	(215.3)
Observations	559	543	616	576	757
R-squared	0.079	0.047	0.042	0.027	0.077
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A15: Title Premium Plus Endorsements, Model 3

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/\$10,000	64.74***	60.70***	107.6***	63.77***	15.20**
	(4.743)	(18.01)	(20.12)	(12.58)	(7.089)
Price/\$10,000, Squared	-0.638**	-0.0814	-2.771***	-1.209***	-0.0878
	(0.257)	(0.791)	(0.916)	(0.434)	(0.228)
Loan to Value Ratio Exceeds 97.5%	13.14**	11.25	19.35*	33.98**	4.097
	(6.248)	(11.68)	(11.00)	(16.50)	(16.33)
Unit <=5 Years Old	23.71	27.40	-51.16***	-63.40**	-54.66**
	(16.18)	(19.10)	(15.05)	(30.40)	(26.32)
Unit > 30 Years Old	2.160	13.38	-30.75**	-1.071	11.94
	(6.718)	(14.70)	(12.79)	(12.26)	(11.43)
Pct. Of HH Moved to Block in Last 5 Yrs	-14.84	38.29	-117.6***	-82.82	18.33
	(22.24)	(53.46)	(36.16)	(54.73)	(46.55)
Property Lot Size/100	0.315**	-0.543**	-0.0472	0.441*	-0.346*
	(0.130)	(0.255)	(0.222)	(0.230)	(0.181)
Owner is Minority	4.501	18.08	3.693	4.581	0.922
	(6.198)	(12.76)	(12.01)	(11.91)	(11.58)
Owner Race Unknown	-5.256	-48.83**	-37.48	-92.39	-14.38
	(7.488)	(22.97)	(24.70)	(90.29)	(24.72)

Table A15: Title Premium Plus Endorsements, Model 3 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Live in Urban Area	38.34*** (8.637)	23.02* (12.06)	-6.158 (11.33)	-5.998 (28.31)	-21.33* (12.38)
Monthly Effective Income/\$1,000	0.228 (2.359)	-0.589 (3.816)	1.017 (3.530)	-0.842 (3.198)	0.796 (3.477)
Pct. Of HH 25+ with no HS degree	15.29 (31.88)	-16.64 (95.23)	-88.29 (55.39)	-129.1 (79.36)	91.78 (57.31)
Pct. Of HH 25+ with college degree	-68.12* (35.00)	-227.1* (131.5)	53.71 (75.14)	106.2 (83.44)	-1.524 (75.34)
Block Avg HH In- come/\$10,000 Last Yr.	-0.265 (0.332)	0.704 (0.763)	-0.437 (0.510)	0.151 (0.672)	-0.0908 (0.506)
Median age	0.798 (0.562)	1.514* (0.838)	0.600 (1.136)	-3.103* (1.582)	0.859 (1.409)
Largest Agency	17.47** (8.779)	97.63*** (27.38)	-14.97 (16.76)	45.18* (24.69)	16.52 (15.03)
Second Largest Agency	6.132 (11.57)	-64.95* (33.26)	17.82 (16.82)	32.70 (24.88)	2.278 (17.10)
Third Largest Agency	12.65 (10.77)	-116.3*** (40.82)	-34.92* (18.19)	14.66 (25.61)	-10.57 (18.70)
Fourth Largest Agency	19.05* (11.45)	65.03* (37.00)	29.72 (18.79)	48.52* (27.11)	78.28*** (19.68)
Fifth Largest Agency	3.232 (14.87)	93.76** (38.47)	-32.90 (20.63)	-40.85 (27.92)	-12.76 (20.22)
Sixth Largest Agency	12.28 (14.78)	-10.17 (37.26)	22.20 (21.62)	21.35 (28.73)	73.29*** (22.36)
Seventh Largest Agency	-27.32* (14.92)	-103.5*** (38.67)	-68.07*** (23.80)	13.86 (30.41)	6.400 (30.01)
Eighth Largest Agency	5.837 (15.32)	31.80 (39.86)	-81.01*** (24.26)	-91.42*** (30.95)	-2.931 (38.64)
Ninth Largest Agency	21.71 (16.83)	-131.6*** (41.53)	-20.28 (26.34)	-10.57 (33.11)	121.5*** (41.83)
Tenth Largest Agency	4.582 (16.51)	93.14** (41.94)	-54.28** (25.65)	-1.281 (37.39)	226.2*** (43.54)
Constant	288.4*** (36.42)	146.1 (131.8)	301.5** (130.6)	552.9*** (133.7)	616.6*** (80.70)
Observations	559	543	616	576	757

Table A15: Title Premium Plus Endorsements, Model 3 (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
R-squared	0.880	0.552	0.477	0.455	0.217
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A16: Title Charges in Chicago with Attorney Indicators

	Total Title Charges	Non-Attorney Title Charges	Net Service Fee	Underwriter Fee	Attorney Fee
Price/\$10,000	30.12	27.80**	24.81**	2.988**	2.320
	(20.73)	(11.44)	(10.82)	(1.415)	(15.83)
Price/\$10,000, Squared	-0.286	-0.338	-0.323	-0.0150	0.0528
	(0.668)	(0.368)	(0.348)	(0.0456)	(0.510)
Loan to Value Ratio Exceeds 97.5%	11.81	1.065	0.705	0.360	10.74
	(47.96)	(26.46)	(25.02)	(3.275)	(36.63)
Unit <=5 Years Old	-79.05	-21.39	-10.54	-10.86**	-57.66
	(77.31)	(42.66)	(40.34)	(5.278)	(59.05)
Unit > 30 Years Old	-11.66	15.97	13.71	2.258	-27.63
	(33.66)	(18.57)	(17.56)	(2.298)	(25.71)
Pct. Of HH Moved to Block in Last 5 Yrs	-249.9*	-109.8	-114.8	4.980	-140.0
	(136.5)	(75.32)	(71.23)	(9.320)	(104.3)
Property Lot Size/100	-0.902*	-0.659**	-0.592**	-0.0667*	-0.243
	(0.529)	(0.292)	(0.276)	(0.0361)	(0.404)
Owner is Minority	49.17	45.19**	45.00**	0.192	3.978
	(34.03)	(18.78)	(17.76)	(2.324)	(25.99)
Owner Race Unknown	165.9**	70.99*	74.50*	-3.512	94.88*
	(72.83)	(40.18)	(38.00)	(4.972)	(55.62)
Live in Urban Area	40.99	12.68	16.93	-4.247*	28.31
	(36.42)	(20.10)	(19.00)	(2.487)	(27.82)
Monthly Effective Income/\$1,000	14.55	10.70*	10.53**	0.164	3.851
	(10.18)	(5.617)	(5.312)	(0.695)	(7.775)
Pct. Of HH 25+ with no HS degree	160.7	31.95	13.40	18.55	128.8
	(168.0)	(92.69)	(87.65)	(11.47)	(128.3)
Pct. Of HH 25+ with college degree	342.9	-26.61	-26.49	-0.120	369.5**
	(220.5)	(121.7)	(115.0)	(15.05)	(168.4)

Table A16: Title Charges in Chicago with Attorney Indicators (cont'd)

	Total Title Charges	Non-Attorney Title Charges	Net Service Fee	Underwriter Fee	Attorney Fee
Block Avg HH Income/\$10,000 Last Yr.	-2.519*	-0.665	-0.641	-0.0241	-1.854
	(1.483)	(0.818)	(0.774)	(0.101)	(1.132)
Median age	-8.950**	-1.017	-1.197	0.180	-7.934**
	(4.120)	(2.273)	(2.150)	(0.281)	(3.147)
Largest Agency	-96.85**	-67.25***	-70.27***	3.016	-29.60
	(44.01)	(24.28)	(22.96)	(3.005)	(33.61)
Second Largest Agency	53.45	-15.94	-16.48	0.532	69.39*
	(50.04)	(27.61)	(26.11)	(3.417)	(38.22)
Third Largest Agency	88.13	-29.31	-26.08	-3.227	117.4***
	(55.16)	(30.43)	(28.78)	(3.766)	(42.12)
Fourth Largest Agency	104.3*	69.26**	53.92*	15.34***	35.08
	(58.03)	(32.02)	(30.28)	(3.962)	(44.32)
Fifth Largest Agency	24.16	-36.86	-34.50	-2.357	61.01
	(59.29)	(32.71)	(30.93)	(4.048)	(45.28)
Sixth Largest Agency	128.9*	79.33**	65.40*	13.93***	49.62
	(66.02)	(36.43)	(34.45)	(4.507)	(50.42)
Seventh Largest Agency	-63.34	-50.74	-51.74	1.003	-12.60
	(88.06)	(48.59)	(45.94)	(6.012)	(67.25)
Eighth Largest Agency	244.4**	27.14	29.89	-2.749	217.3**
	(114.2)	(63.01)	(59.59)	(7.797)	(87.22)
Ninth Largest Agency	57.32	128.2*	104.5	23.72***	-70.90
	(122.9)	(67.81)	(64.13)	(8.391)	(93.87)
Tenth Largest Agency	173.7	245.9***	201.0***	44.87***	-72.15
	(127.9)	(70.57)	(66.74)	(8.733)	(97.69)
Buyer Attorney Only	-258.9***	129.1***	118.3***	10.78**	-388.0***
	(71.77)	(39.60)	(37.45)	(4.900)	(54.82)
Seller Attorney Only	-241.5***	48.04***	45.81***	2.238	-289.5***
	(33.10)	(18.26)	(17.27)	(2.259)	(25.28)
No Attorney	-796.9***	19.73	21.14	-1.409	-816.6***
	(66.84)	(36.88)	(34.87)	(4.563)	(51.05)
Constant	2,018***	932.8***	811.1***	121.7***	1,085***
	(237.5)	(131.1)	(123.9)	(16.22)	(181.4)
Observations	757	757	757	757	757
R-squared	0.282	0.204	0.185	0.223	0.356

Table A16: Title Charges in Chicago with Attorney Indicators (cont'd)					
	Total Title Charges	Non-Attorney Title Charges	Net Service Fee	Underwriter Fee	Attorney Fee
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A17: Net Service Fee with Lender Fee and Number of Items					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Loan Origination Fee	0.349*** (0.0413)	0.270*** (0.0430)	0.304*** (0.0299)	0.277*** (0.0270)	0.117*** (0.0210)
“No-cost” Loan	288.4*** (31.46)	223.2*** (51.23)	358.7*** (36.13)	394.5*** (47.02)	158.3*** (31.92)
Number of Items in 1100 Series	65.55*** (8.186)	105.1*** (10.26)	119.9*** (8.499)	70.05*** (8.640)	77.80*** (8.106)
Constant	411.3*** (37.14)	773.8*** (67.66)	779.8*** (37.64)	993.4*** (51.91)	742.0*** (30.91)
Observations	559	543	616	576	757
R-squared	0.218	0.218	0.357	0.234	0.149
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

Table A18: Net Service Fee with Lender Fee and Number of Items, Controlling for Price					
	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Loan Origination Fee	0.0143 (0.0397)	0.130*** (0.0489)	0.0411 (0.0334)	-0.0871** (0.0412)	-0.0114 (0.0316)
“No-cost” Loan	39.70 (29.97)	64.02 (57.52)	40.13 (40.38)	-142.6** (64.91)	-38.94 (48.16)
Number of Items in 1100 Series	64.96*** (6.727)	109.5*** (10.03)	113.4*** (7.552)	65.76*** (7.851)	77.30*** (7.958)
Price/\$10,000	59.19*** (13.39)	58.93* (35.29)	117.1*** (23.90)	40.06** (18.25)	22.99** (10.77)
Price/\$10,000, Square	-0.413 (0.753)	-1.233 (1.536)	-3.199*** (1.065)	0.212 (0.627)	-0.267 (0.338)
Constant	230.4*** (56.34)	395.6* (202.0)	184.4 (127.0)	888.6*** (122.8)	646.1*** (69.69)
Observations	559	543	616	576	757

Table A18: Net Service Fee with Lender Fee and Number of Items, Controlling for Price (cont'd)

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
R-squared	0.475	0.261	0.496	0.371	0.182
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Data source: Metropolitan HUD-1 Database for FHA mortgages, 2001					

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