OKLAHOMA RESIDENTIAL REAL ESTATE BROKERAGE: AN INVESTIGATION OF THE IMPACT OF THE NEW BROKER RELATIONSHIP ACT

by

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Abstract

Law of agency violations in real estate brokerage firms across the nation have been a persistent concern for decades. The purpose of this study is to provide insight to the issues of agent representation and to illustrate the effectiveness of the Oklahoma Broker Relationship Act, which became effective November 1, 2000, gauged by the number of agency complaints filed with the Oklahoma Real Estate Commission. The results indicate that there was an increase in all the variables studied, including an increase in agency complaints. The Oklahoma City Metropolitan Statistical Area does not follow Geltner, Kluger, and Miller's model of establishing the broker's level of effort and the seller's optimal price.

Dedication

This research paper is dedicated to my husband, George. Thank you for your support.

Acknowledgments

I would like to express my sincere gratitude to my advisor, Dr. Anthony Pizur, for his expert guidance and support throughout this research program. I extend thanks to my committee members, Dr. Samuel Natale and Dr. Daniel A. Wren. In addition, I wish to thank Dave Palkovich for his assistance in understanding Statistics as it related to my project.

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CHAPTER 1. INTRODUCTION

United States real estate brokerage began in the nineteenth century with the westward expansion and population of the western states (Burke, 1992). Syndicates started to purchase large tracts of land from the government and sent their agents to the sites to divide and resell the land tracts as smaller parcels. In addition, some individuals formed land development companies whose members included homesteaders, speculators, and investors from the eastern states and foreign countries. Others served as land locators for settlers moving west. Because the maximum holdings allotted to each homesteader by the homestead laws were often too small for efficient farming, early land brokers also had a market in resale of relinquished and abandoned properties (Burke, 1992). No licensing regulations existed at that time and no body of common law existed as precedent to govern its practice (Gaudio, 1987). Real estate transactions were often secured only by a handshake and the personal reputation of the parties (Burke, 1992). As the industry developed, the real estate broker became more specialized.

The phenomena of a real estate broker as a specialist originated in the later portion of the nineteenth century. Prior to this time brokers had operated as intermediaries and had no fiduciary duties of a true agent (Galaty, Allaway, & Kyle, 2003). Therefore, brokers offered no loyalty to either party. The first state licensure laws came after World War I (Burke, 1992). Since then real estate brokers have steadily become more common, creating for themselves a livelihood in the practice of putting

buyers and seller in contact with each other. Services have expanded to include property management, inspection, and investment counseling (Burke, 1992). The demands on licensed real estate professionals continue to develop with advances in technology, changes in economics, political and social factors as well as new government regulations (Galaty et al., 2003). Unlike other businesses, the law of agency failed to integrate completely in the real estate industry without problems.

Introduction to the Problem

Agency relationship issues have plagued the real estate industry for some time. In an article by past executive vice president of the National Association of Realtors (NAR), William D. North (1973) discusses the issue as an "Identity Crisis Realtors Style." He argues, "It's often hard to tell which party the broker represents, and both buyer and seller are apt to visualize the broker as 'their' broker." One primary reason for new interest in agency relationship is the abandonment of mandatory seller subagency in the Multiple Listing Services (MLS) (R. B. Brown, Grohman, & Valcarcel, 1995). John Reilly (1994), a law professor, lecturer, and licensed real estate instructor discusses several other reasons for renewed interest in agency relationships. For example, increased interest in the questions of whom the agent represents include the increase of complexity of buying a home, consumers desire for representation, the use of more than one broker in a single transaction, the increase of the variety and quality of services agents offer, and increased litigation against real estate brokers. Agency relationships in Oklahoma have become a major issue in the residential real estate brokerage industry.

In the past, Oklahoma brokers offered three models of agency: the seller agency model, the buyer agency model, and the dual agency model. Seller agency refers to the traditional model and is synonymous with the term listing agent (Galaty et al., 2003; Oklahoma Real Estate Commission, 2005). The seller agency model allows an agent to act on behalf of the seller and treats prospective buyers as customers. The fiduciary responsibility of the listing agent continues to the subagent or selling agent. Both the listing and selling agent owe fiduciary duties to the seller. In this model, the seller becomes liable for the actions of the listing agent and the subagent. The term buyer agency reflects that the agent is an agent for the buyer and is working exclusively in the best interest of the buyer. The buyer broker owes fiduciary responsibility to the buyer. In this model, the buyer is the client, and the seller is the customer. Some real estate brokerages set office policy dictating specialization in representing just one of the parties in a transaction. In dual agency, an agent acts in behalf of both buyer and seller. In this case, the firm attempts to act as a seller's agent for seller, and as a buyer's agent for buyers (Isakson & Spencer, 2000). In contrast, a facilitator or transaction broker approach represents neither the buyer nor the seller. The facilitator concept allows brokers to act as dealmakers and charge commissions without owing clients any fiduciary duties (R. B. Brown et al., 1995). Without prior understanding and acknowledgment, parties easily become confused about whom the agent represents, what the agent's duties are, and what liabilities transfer to the principal.

Background of the Study

Residential real estate markets and the role broker's play in these markets have seen significant changes in recent years. Before these events, the residential broker's role appeared clear-cut with definite lines of responsibility and authority resulting in black and white conclusions and judgments (Hinkel, 2000). That is, a broker represented the seller's interest in the marketing of residential property. However, changes in the marketplace have clouded the role of brokers, blurring the lines of responsibility. The origination of these changes vary; some of the changes stem from new public policies and others from industry demands (Elder, Zumpano, & Baryla, 2000). For instance, the passage of mandatory agency disclosure statues at the state level and the related increase in consumer awareness of brokerage services and responsibilities have encouraged the creation of new brokerage contracts that attempt to abolish the common law of agency as well as limit broker liability (Isakson & Spencer, 2000). A few of the new brokerage contracts include designated agency, disclosed dual agency, and non-agency facilitator forms (Elder et al., 2000). The remolding of the broker's role continues as markets change and economic forces affect supply and demand.

Statement of the Problem

One outcome of the 1983 Federal Trade Commission report showed that 72% of all potential homebuyers believed that the real estate practitioner working with them was working for them. In a 1999 NAR survey only 38% of buyers indicated that they signed an agency disclosure at their first meeting with a real estate agent with whom they worked. It appears that not all parties in a transaction understand whom the agent

represents and what services agents offer. These reports signify that buyers and sellers are confused about agency and a broker's role in a transaction. As a result, principals are likely to file complaints with the Oklahoma Real Estate Commission (OREC).

The conflict of interest between the seller and broker in the real estate industry has been the focus of academic literature for some time. A potential conflict of interest exists concerning the level of selling effort the broker puts forth to sell the property, which may vary depending on the seller's reservation price for the property. The lower the asking price, the lower the effort required on the part of the broker to sell the property (Geltner, Kluger, & Miller, 1991).

Purpose of the Study

This study analyzes how the residential real estate market responded to changes from the Oklahoma Broker Relationships Act that took effect November 1, 2000. The focus is to determine if the regulation made a significant difference in the level of effort brokers extend in the selling residential real estate in the Oklahoma City Metropolitan Statistical Area (OKCMSA).

Rationale

Residential real estate brokerages have tremendous effects on the United States economy, the economy of the State of Oklahoma, and on each individual seeking permanent housing. Real estate serves as a driver for national, state, and individual growth. It is the largest asset class in the world—the value of housing in the United States alone is $17 trillion (Davis & Heathcote, 2005). Real estate appreciation offers an excellent source of wealth for most families.

The purchase of a primary residence may be one of the most important decisions for an individual or couple. For many, it could prove to be the largest investment they make in their lives. According to recent surveys, about 70% of American families own their own homes (Garrett, 2006). Most people wanting to invest in real estate may spend between two and five years saving for a down payment. Therefore, understanding the responsibility and liability of agency could make a vast difference on real estate decision-making.

When a seller signs a listing agreement, he purchases a bundle of services from the broker. Conflict of interest may occur with any single part of the bundle of services. These services usually include a search effort striving to secure a ready, willing, and able buyer. In addition, advice about establishing a market sales price as well as subsequent counseling should an offer be presented, is likely to influence the sellers marketing decisions. Because the broker is most likely to provide accurate market information and trends, his service may be influential and have substantial affect on the outcome to the seller.

Research Questions

It is the intent of the study to determine if the Oklahoma Broker Relationships Act of November 1, 2000 affected the level of selling effort of brokers in the OKCMSA. In doing so, historical data research will be completed. The research questions for this study: Was there a significant change in the broker's level of effort after the Oklahoma Broker Relationships Act of November 1, 2000?

Significance of the Study

Since the publication of Yinger's (1981) classic study, academic research on the residential brokerage industry expanded. For licensed professionals, it is necessary that they stay abreast of the trends of their profession. Managers and real estate industry leaders must incorporate agency disclosure as part of their everyday business. The image of the real estate profession may suffer a negative impact due to what may be viewed as unethical businesses practice. Therefore, the potential significance of this study is to help reduce liability for the real estate brokerage firms, and improve the community image of the real estate profession as a whole. The findings of the study could lead to greater professionalism and improve the quality of service rendered to the community.

Definitions of Terms

For the purpose of this research, the following terms are defined for clarification:

Agency. – "the legal relationship between a principal and his agent arising from a contract in which the principal engages the agent to perform certain acts on the principal's behalf. Under the law of agency, agents must be loyal to their employers" (Friedman, Harris, & Diskin, 2005, p. 141).

Agency disclosure. – "a written explanation, to be signed by a prospective buyer or seller, explaining to the client the role that the broker plays in the transaction" (Friedman et al., 2005, p. 142).

Agent. – "a licensed real estate broker or salesperson" (Friedman et al., 2005, p. 142); one who undertakes to transact some business or to manage some affair for another,

with the authority of the latter, also called the principal (Clarkson, Miller, Jentz, & Cross, 1998; Friedman et al., 2005).

Board of realtors®. – "a local group of real estate licensees who are members of the state and National Association of Realtors®" (Friedman et al., 2005, p. 174).

Broker. – "a state-licensed agent who, for a fee, acts for property owners in real estate transactions, within the scope of state law" (Friedman et al., 2005, p. 178).

Brokerage. – "the business of being a broker" (Friedman et al., 2005, p. 178).

Buyer's broker. – "an agent hired by a prospective purchaser to find an acceptable property for purchase; the broker then represents the buyer and negotiates with the seller in the purchaser's best interest" (Friedman et al., 2005, p. 185).

Buyer's market. – "a situation where buyers have a wide choice of properties and may negotiate lower prices; buyer's market is often caused by overbuilding, local population decreases, or economic slump" (Friedman et al., 2005, p. 185).

Broker relationship act (Act). – "became effective November 1, 2000 and describes the relationships a broker can enter into with the client or customer" (Oklahoma Real Estate Form Committee, 2006, p. 15).

Client. – "the one who engages a broker, lawyer, accountant, or appraiser" (Friedman et al., 2005, p. 197).

Commission split. – "the arrangement of sharing commissions earned between a sales agent and sponsoring broker, or between the selling broker and listing broker" (Friedman et al., 2005, p. 202). See cooperation broker.

Conflict of interest. – "a situation in which a person is faced with a possible decision in an official or fiduciary capacity from which he stands to benefit personally because of another relationship" (Friedman et al., 2005, p. 209).

CO-OP. – "an arrangement between two real estate agents that generally results in splitting the commission between them" (Friedman et al., 2005, p. 215).

Cooperating broker. – "one who agrees to share the commission with another broker, also known as co-broker" (Friedman et al., 2005, p. 216).

Customer. – "the third party for whom some level of service is provided" (Galaty et al., 2003, p. 503).

Dual agency. – "the situation in which an agent represents more than one party to a transaction" (Friedman et al., 2005).

Due care. – "the stand of conduct required of an ordinary, prudent, and reasonable person" (Friedman et al., 2005, p. 243).

Due diligence. – "making a reasonable effort to perform under a contract; making a reasonable effort to provide accurate, complete information" (Friedman et al., 2005, p. 243).

Duty to disclose. – "the legal requirement of a seller, broker, or agent to tell a prospective buyer or other interested party about a negative condition" (Friedman et al., 2005, p. 245).

Exclusive right to sell listing. – "employment contract giving the broker the right to collect commission if the property is sold by anyone, including the owner, during the term of the agreement" (Friedman et al., 2005, p. 264).

Fiduciary. – "one who acts, in a legal role, in the best interests of others" (Friedman et al., 2005, p. 273).

For sale by owner (FSBO). – "a property for sale that is not listed by a real estate professional" (Real Estate Buyer's Agent Council, 2006).

Implied agency. – "occurs when the words and actions of the parties indicate that there is an agency relationship" (Friedman et al., 2005, p. 312).

License. – "a right granted by a state to an individual to operate as a real estate broker or salesperson" (Friedman et al., 2005, p. 343).

Licensee. – "one who holds a real estate license; a licensed salesperson or broker" (Friedman et al., 2005, p. 343); "any person who performs any act, acts or transactions set out in the divination of a broker and licensed under the Oklahoma Real Estate License Code" (Oklahoma Real Estate Commission, 2005, p. 2).

Listing. – "a written engagement contract between a principal and an agent, authorizing the agent to perform services for the principal involving the principal's property" (Friedman et al., 2005, p. 347).

Listing broker (Agent). – "the licensed real estate broker (agent) who secures a listing of the property" (Friedman et al., 2005, p. 348).

National association of realtors (NAR). – "NAR strives to be the collective force influencing and shaping the real estate industry. It seeks to be the leading advocate of the right to own, use, and transfer real property; the acknowledged leader in developing standards for efficient, effective, and ethical real estate business practices; and valued by

highly skilled real estate professionals as crucial to their success" (National Assocation of Realtors®, 2006).

Offer. – "expressed written intent of buyer, to enter into a contract on specified terms, made in a way that would lead a reasonable person, the seller, to understand that acceptance of such offer will result in a binding contract" (Oklahoma Real Estate Form Committee, 2006, p. 18).

Oklahoma real estate commission. – "a government agency whose purpose is to safeguard the public interest and provide quality services by: assisting and providing resources, encouraging and requiring high standards of knowledge and ethical practices of licensees, investigating and sanctioning licensed activities, and through the prosecution of any unlicensed person who violates the Oklahoma Real Estate License Code and Rules" (Oklahoma Real Estate Commission, 2005, p. 20).

Party. – "a person who is a seller, buyer, landlord, or tenant or a person who is involved in an option or exchange" (Oklahoma Real Estate Commission, 2005, p. 10).

Real estate broker. – "means a sole proprietor, corporation, managing corporate broker of a corporation, association, managing broker member or manager of an association, partnership, or managing partners of a partnership" (Oklahoma Real Estate Commission, 2005, p. 2).

Seller's market. – "is when economic conditions that favor sellers, reflecting rising prices and market activity. Potential causes include population influx, lower interest rates, and lack of building activity" (Friedman et al., 2005, p. 471).

Selling broker (Agent). – "the licensed real estate broker (agent) that brings forth the buyer; may be referred to as the selling agent" (Friedman et al., 2005, p. 471).

Statute of frauds. – "a state law that provides that certain contracts must be in writing in order to be enforceable" (Friedman et al., 2005, p. 485).

Transaction. – "means any or all of the steps that may occur by or between parties when a party seeks to buy, sell, lease, rent, option or exchange real estate and at least one party enters into a broker relationship. Such steps may include, without limitation, soliciting, advertising, engaging a broker to list a property, showing or viewing a property, making offers or counter offers, entering into agreements and closing such agreements" (Oklahoma Real Estate Commission, 2005, p. 10).

Transaction brokerage. – "an arrangement in which a broker conducts a sale without representing either the buyer or the seller" (Friedman et al., 2005, p. 510).

Transaction licensee. – "a licensed broker or salesperson who provides communication or document preparation services or performs acts described under the definition of "broker" or "salesperson" for which a license is required, without being an agent or advocate of the consumer" (Martin, 2006).

Undisclosed agency. – "a relationship between an agent and a client in which the client is unaware that the agent represents the other party; often there is an implied agency relationship with the client, even though the agent is legally bound to represent the opposite party to the transaction" (Friedman et al., 2005, p. 514).

Written broker agreement. – "a broker may enter into a written brokerage agreement to provide services as either a single-party broker or a transaction broker. If a

broker does not enter into a written brokerage agreement with a party, the broker shall perform services only as a transaction broker" (Oklahoma Real Estate Commission, 2005, p. 10).

Assumptions and Limitations

This dissertation topic was selected to fill a gap of principal-agent research. The scope of this study will be limited to OKCMSA residential real estate brokerages and does not address other aspects of agency law, nor of real estate transactions, such as property inspections, property disclosures, mortgage financing, title search and insurance, or the settlement processes. Furthermore, the study is limited to public data available for a time from January 1, 1995 to December 31, 2005. This timeframe allows approximately five years before and after the law change. Because the reporting institution, such as the MLS, compile data for industry trends and have established themselves as experts in this field, the data gathered is accepted as valid reliable information.

Organization of the Remainder of the Study

This proposal is presented in the first three chapters with the understanding that after proper approval, a dissertation will be presented in a five-chapter report. The first chapter contains an introduction to the study comprising of an introduction to the problem, statement of the problem, a background of the problem, purpose of the study, nature of the study, research question(s), definitions of key terms, assumptions and limitations, and the significance of the study. Chapter 2 reviews the current body of literature on agency relationships. Chapter 3 describes the research methodology selected

to investigate the principal-agency problem. With the approval to proceed with this proposal, Chapters 4 and 5 will be added. In Chapter 4, the data collected using the methodology and instrumentation described in Chapter 3 will be presented and analyzed. In Chapter 5, the conclusions and contributions of the research study based on the data presented in Chapter 4 will be summarized and the implications and recommendations for future research will be discussed.

CHAPTER 2. LITERATURE REVIEW

Introduction

Real estate brokerage firms exist to supply information to sellers and buyers. The brokers play a central role in real estate markets both as agents providing principals information about current market conditions and as intermediaries matching sellers with buyers to affect trades. Therefore, it is important to understand what legal responsibilities a real estate agent has to the client and other parties in the transaction. Although there has been substantial research examining optimal search and pricing behavior under traditional brokerage arrangement, market outcomes under conditions of undisclosed subagency and buyer representation have not been fully explored (Bajtelsmit & Worzala, 1997). The law of agency governs real estate brokers.

Background

The relationship of agency is one of the oldest and most common codified modes of social interaction. Typically, an agency relationship arises between two or more parties when one, designated as the agent, acts for, on behalf of, or as representative for the other, designated the principal in a particular domain of decision problems (Ross, 1973). Illustrations of agency are universal. Essentially all contractual arrangements, as between the employer and employee or the state and the governed, contain important elements of agency. In addition, without explicitly studying the agency relationship, much of the economic literature on problems of moral hazard is concerned with problems

raised by agency (Arrow, 1971). Recently, legislation actions work to resolve some of the issues of agency.

A 1988 study by the NAR found that a large majority of home buyers and sellers employ the services of an agent in a transaction (National Assocation of Realtors®, 1988). Clarity on representation is important in any real estate transaction because real estate agents typically assume a position of trust. Buyers may confide their most private financial details, needs, and bargaining strategies to an agent they believe represents them (Harney, 2006). In spite of this fact, it is well known in the real estate industry that home buyers often mistakenly believe that the cooperating broker is their representative in the process of price negotiation (Bajtelsmit & Worzala, 1997). Wolf and Jennings (1991) report that 50% of all lawsuits instituted against real estate agents involve some aspect of agency disclosure. A Federal Trade Commission (1983) study found that 74% of homebuyers believed the cooperating broker to be their representative. In 1984, the Hawaii Real Estate Commission survey reported 90% of their sample believed the agent they worked with was representing them (Bajtelsmit & Worzala, 1997). The latest NAR buyers and brokers survey research found that just 30% of all buyers last year received disclosures about representation from their realty agents at their first substantive meeting (Harney, 2006). Almost half of all first-time buyers in the same national poll say they either never received an agency disclosure anytime during the sales transaction, or could not recall whether they did or did not (Harney, 2006). Regardless of these facts, the laws in most states hold that the cooperating broker is the subagent of the listing broker. As

the subagent of the listing broker, the cooperating broker has a fiduciary obligation to the seller in the real estate transaction and does not owe a duty to the buyer.

In the past few years, a majority of states, including Oklahoma, have passed or proposed legislation to restructure real estate brokerage relationships (Pancak, Miceli, & Sirmans, 1997). These efforts indicate that current agency laws governing the relationship between real estate brokers and their clients have not met the needs of the parties. Much of the uncertainly in agency relationships stems from an inherent conflict between the traditional roles of the residential broker as an information provider and an advocate (Miceli, Pancak, & Sirmans, 2000).

Theoretical Management Framework

The principles of scientific management theory developed by Frederick Taylor (1911) in the late 1890s and early 1900s provide the theoretical framework for this research. In his seminal work of 1919, Taylor's theory focuses on the systematic process which could be adopted and tailored to the needs of any organization, institution, or home (Holt, 1993). Quantitative research is the systematic scientific investigation of quantitative properties and phenomena and their relationships. For this study, agency relationships will be analyzed by quantitative techniques. The evaluation research will yield important and useful information for decision-making and field practices. True comparison of the before and after effect of the phenomena can only be performed by identifying specific incidents from the target population prior to the initiation of the November 2000 law and compare the results to incidents that occurred after the law was enacted. Due to the limitations, sampling will include agency issues reported to

Oklahoma Real Estate Commission only. A quantitative approach will be used to construct the framework for this study.

In the early 1900s, Taylor (1911) developed scientific management as a new management system. His ideas were tailored for management and the worker in the industrial environment. As time progressed and education level expanded, these principles were applied in other areas. Taylor contended that the principles of scientific management could be effective in various environments for improving productivity and human development as long as the concepts were properly implemented (Merrill, 1960). Taylor (1911) claims one weakness of the then current management system was that it left employees responsible for educating and developing themselves to complete their job responsibilities. With the new scientific management system, managers would assume some of the responsibility of developing the science by properly selecting, training, and educating their workers to perform the task. Thus, he argues that under the scientific management system, managers would assume the responsibility of developing a science for the task as well as select, train and educate the worker to perform the task. Compensation to the employee according to his or her skill level ensured that the task would be completed according to the developed science. Finally, to monitor tasks to ensure that they are distributed according to education and training levels (Taylor, 1911). After years of various experiments to determine optimal work methods, Taylor proposed four principles of scientific management:

1. The development of true science by management – replace rule-of-thumb work methods with methods based on a scientific study of the tasks.

2. The scientific selection, training, teaching, and development of the workers – scientifically select, train, and develop each worker rather than passively leaving them to train themselves.
3. Bring the scientific developed methods and the scientific selected worker together - cooperation with the men to ensure the work is completed in accordance with the principles of the science that have been developed.
4. Deliberate division of the work – management should examine the equal division of work and responsibility between the worker and management.

In theory, Taylor's scientific management appears seamless. However, it does possess drawbacks. While scientific management principles improved productivity and had a substantial impact on industry practices, they also increased the monotony of work. The core job dimensions of skill variety, task identity, task significance, autonomy, and feedback were missing from the original theory (Stoner, Freeman, & Gilbert, 1995). Another issue raise by many employees was the use of stopwatches to complete time study tests. Complaints that "Taylorism" was dehumanizing lead to an investigation by the United States Congress (Wren, 1994).

Taylor's ideas of scientific management transfer to the real estate industry. Because the real estate industry is a system that involves management, laws, rules and regulations, and licensed real estate professionals, many of the practices can be traced back to Taylor's theory. As in any professional industry, education and training effort remain paramount. Real estate professionals must be trained and schooled in the current application of laws and regulations (Gray, Lutz, & Bowles, 1999). For example, one of

the duties of a real estate agent is to bring together the buyer and seller to a "meeting of the minds." In completing this task, real estate agents must be properly educated and trained on the process and understand the laws that govern real estate activities (Cusic & Mettling, 1996; McAdams, Cyr, & Sobeck, 2004). When evidence shows that the real estate agent lacks the knowledge to complete the sale, or perform adequately, the managing broker should take on the responsibility to correct the problem. This intervention, based on scientific management, would be for the sole purpose of protecting the interest of the public and the real estate firm, thereby minimizing liability risks. Evidence of the lack of training appears in sheer numbers of complaints and lawsuits filed against real estate professionals (Deshaies, 2000).

Incompetence among agents is not a new dilemma. Zweep (2000) argues that the majority of the conflict in a principal agent dispute arise from an agent's incompetence or lack of communication. Training in the form of required class time for the purpose of updating professionals on new laws, rules and regulations is required counting toward required continuing education. However, the training does not appear to be enough to eliminate the risk. The recent proliferation of real estate agency relationship created the possibility for confusion regarding an agent's loyalties and duties. This confusion, in turn, led to litigation. Two notable examples are the cases of Dismuke v. Edina Realty, Inc. ("Dismuke v. Edina Realty, Inc." June 17, 1993), and Bokusky V. Edina Realty, Inc. ("Bokusky v. Edina Realty, Inc." August 6, 1993), both of which are Minnesota class action lawsuits. At issue in the Dismuke case was the question of if Edina Realty, the fourth largest real estate broker in the United States, had adequately informed sellers for

whom it was a listing agent of its legal status in transactions where Edina also represented the buyers. Bokusky, which was joined by both buyers and sellers, involved the same basic question. Although Edina's disclosure forms satisfied Minnesota's statutory requirements, in both cases the court ruled that Edina did not satisfy the more stringent common-law requirements of undivided loyalty and complete disclosure. These two cases are prime examples of the confusion in dual agency. The parties eventually settled for $5.9 million in Dismuke and for $12.3 million in Bokusky (Curran & Schrag, 2000).

Taylor also contended that if the principles of scientific management were properly implemented, they would change the mental attitudes of employees, increase knowledge, skills, production, and profit. Because management faces the complexity of making decisions everyday that could improve or hinder the company's growth, for this study, continuing education, and licensure laws requires a clear understanding of the principles of scientific management. Consequently, managers and real estate professional are incorporating applied management and decision sciences as they connect buyers and sellers during the real estate process. Black, Carn, Diaz, and Rabianski (1996) point out that management and decision science can be used to present regulations as a problem in qualifying risks and constraints. These regulations apply to real estate agents as an attempt to produce real estate agents that are more competent. In turn, training in regulation and policy protect the welfare of consumers as they embark on the complexity of purchasing real estate and administering disciplinary action against license law

violators. Analyzing the number of complaints filed can determine the effectiveness of the Act.

Theoretical Framework

This theoretical framework will be based on past conflict of interest literature concerning principal-agent problems. Geltner, Kluger, and Miller (1991) provide a theoretical construct regarding conflict of interest between the brokers level of effort in marketing residential real estate and the sellers reserve price. Although several extensive theories are discussed, this study focuses on Geltner's equation 4a. This theoretical construct will be referred to as Geltner's model. Their numerical analysis indicates that with plausible parameter values, conflict of interest problems regarding broker effort level are minor or nonexistent near the end of the listing contract, but potentially important near the beginning of the listing contract. In a contrast, the conflict of interest regarding reservation price is more severe near the end of the listing contract and is exacerbated by the use of finite duration contract, and more so the shorter the listing contract. To maintain continuity, the same percentages, real return, and opportunity cost of selling agents time will remain the same as those used by Geltner. Geltner's theory will be used to test the studies variables. It states:

$$h/x = c/(P*b - d*V) \qquad (1)$$

where:

h = is the hazard incurred by the broker. This is the broker's time and money expended, but the property does not sell.

x = is the level of selling effort the broker makes to sell the property.

c = is the cost associated with selling a property.

P = is the price that the seller willing to accept for his property.

b = is the commission paid to the broker when the property sells. In harmony with the norm in the OKCMSA, a 7% commission will be used in the analysis, b = .07.

d = is a discount factor of the listing agreement. That is, the value of the listing agreement as it declines over time.

V = is the actual value of the listing agreement.

Multiple Listing Service

As the number of real estate brokers grew, so did the desire to share information about property available for sale. Early real estate brokers realized that until they sold something, no one would pay for their attempts. Thus, until a seller listed his property with a broker and the broker successfully sold the property, the seller was unable to compensate the broker. Therefore, agents began sharing listing information in any means available. This exchange eventually grew into what is known as the Multiple Listing Service (MLS) (Garton-Good, 2001).

The MLS offers brokers in a given locale the opportunity to pool their listings in order to maximize the exposure of properties for sale (R. B. Brown et al., 1995). It allows the listing broker to control the listing, yet share the information with other real estate professionals in effort to find a willing buyer (Garton-Good, 2001). Brokers who are members of the MLS submit listings with data sheets describing the property. The MLS also provides a gauge of the current market. Brokers are required to notify the

service of sales of listed properties and the price obtained. Through the increased market exposure to member brokers, the MLS is intended to produce quicker sales at higher sales prices for vendors (R. B. Brown et al., 1995).

Not only does the MLS provide property information, it also implies agency relationships and commissions. One important detail of the MLS, the offer to co-broker, establishes a mindset of agency. Until recently, the MLS rules required members to make an offer of subagency to the non-listing brokers when submitting a listing (R. B. Brown et al., 1995). Procurement of a ready, willing, and able buyer constituted substantial performance and therefore, acceptance of the listing broker's offer. The selling broker received consideration from the listing broker in the form of a share of the listing broker's commission. The selling agent, therefore, usually became a subagent of the listing broker who, in turn, was the agent of the seller. The traditional agency/subagency relationship came into focus with the advent of the MLS (R. B. Brown et al., 1995).

Training and Education Requirement

In order to become a sales associate in the State of Oklahoma, a person must be of good moral character, 18 years of age, and successful completion of 90 clock hours of basic real estate instruction in a Commission approved course. Upon passing the state examination, a sales associate must work under the sponsorship of a real estate broker. A sales associate cannot enter into contractual agreements with a customer or client in his or her own name, but must enter into such agreement for and in the name of their sponsoring broker (Oklahoma Real Estate Commission, 2005). The broker will be

responsible for activities of their associates. In order for an applicant to apply for a broker license, the applicant must be of good moral character, possess two (2) years of active experience, or its equivalent, within the past five (5) years, and submit evidence of successful completion of 90 clock hours of advanced real estate instruction in a course that is approved by the Commission (Oklahoma Real Estate Commission, 2005).

Continuing education courses are required for sales associates and brokers who desire to renew their licenses on an active status. Provisional sales associates have a separate and unique post-license requirement and they are not required to complete continuing education. Upon being issued a real estate license, a sales associate or broker is required to complete 21 clock hours every three (3) years. Licensees with an expiration date of May 31, 2005 and prior are required to take, each license term, 9 clock hours consisting of required subjects and 12 clock hours consisting of elective subjects. Licensees with an expiration date of June 30, 2005 and thereafter are required to take, each license term, 12 required clock hours consisting of 4 (four) core subjects as determined by the Commission (Oklahoma Real Estate Commission, 2005). The four core subjects are listed as follows:

1. Professional Conduct
2. Fair Housing
3. Broker Relationships Act
4. Hot Topic (which consists of a variety of issues ranging from Code and Rule updates to major industry concerns)

Law of Agency

In residential real estate, agency describes the relationship between a real estate licensee and principal; it is governed by two kinds of law, common law and statutory law. The early settlers who came to America from Europe brought with them the laws of their native land including the laws concerning land ownership. Except for Louisiana, Texas, and portions of the Southwest, where the civil laws of France and Spain have substantial influence, most modern real property law is the product of English feudal law, which developed into what is know as the common law (Hinkel, 2000). Therefore, common law is the rules of a society established by tradition and court decisions. Statutory law, or the laws, rules, and regulations enacted by legislatures, and other governing bodies, may differ because of differences in local history and conditions. Therefore, statutory law varies from state to state. State laws establish the duties, responsibilities, and acceptable activities for agents in their relationships with clients, customers, and the public govern agency (Galaty et al., 2003). Furthermore, agency is a legal relationship that creates liabilities to the principal.

Creation of Agency

The law of agency defines the rights and duties of the principal and the agent. In real estate transactions, contract law and real estate licensing laws, in addition to the laws of agency, interpret the relationship between licensees and their clients (Galaty et al., 2003). The fundamentals of agency law have remained largely unchanged for hundreds of years. However, the application of the law has changed dramatically, particularly in residential transactions. As states enact legislation that defines and governs the broker-

client relationship, brokers are reevaluating their services. They must determine whether they will represent the seller, the buyer, or both in a transaction. The law of agency is a common-law concept. In some states, it has been widely replaced by state statute (Galaty et al., 2003).

An agency relationship may be created in two ways; it can be made through expressed agency, or implied agency. Expressed agency is formed when the principal and agent enters into a contract, or any other agreement, in which the parties formally express his or her intention to establish an agency and state its terms and conditions (Galaty et al., 2003). It can be oral or written. The signing of a listing agreement by a seller authorizing a broker to find a buyer for his property is expressed agency. On the other hand, implied agency occurs when the actions of the parties indicate that they have mutually consented to an agency (Reilly, 1994). Even though the parties may not have consciously planned to create an agency relationship, they can create one unintentionally, inadvertently, or accidentally by his or her actions. When a person or principal delegates authority to act on behalf of another, implied agency is formed (Galaty et al., 2003). An implied agency with a buyer can result if the words and conduct of the salesperson do not dispel this assumption.

Fiduciary Responsibilities

A real estate broker who becomes an agent of a seller or buyer is deemed a fiduciary. As a fiduciary, a real estate broker is held by law to owe specific duties to the principal in addition to duties set forth in a listing agreement, buyer representation agreement, or other contract of employment (Galaty et al., 2003). Under the common

law of agency, an agent owes the principal six duties: loyalty, confidentiality, obedience, disclosure, reasonable care and diligence, and accounting (Tolle & Benbrook, 2006). Subagents of the broker also owe the same fiduciary duties to the principal even though they may have little or no contact to the principal (D. J. Brown & Lord, 1999). These duties are inherent in all agency relationships and enforced by all courts of law in the United States (R. B. Brown et al., 1995; Tolle & Benbrook, 2006).

Loyalty. One fundamental fiduciary duty to a principal is loyalty. The duty of loyalty requires that the agent place the principal's interests above those of all others, including the agent's own self-interest (Galaty et al., 2003). As a seller agent, the agent must do everything possible to gain an advantage for the seller. On the other hand, a buyer's agent must do everything possible to gain an advantage for the buyer (Tolle & Benbrook, 2006).

Confidentiality. Confidentially about the principal's personal affairs is a key element of loyalty. An agent is obligated to safeguard the principal's lawful confidences and secrets (R. B. Brown et al., 1995). As such, a broker must keep confidential any information that may weaken a principal's bargaining position (Tolle & Benbrook, 2006). For example, an agent representing a seller should not reveal such things as the principal's willingness to accept less than the listing price, or his anxiousness to sell unless the principal has authorized the disclosure (Galaty et al., 2003; Tolle & Benbrook, 2006).

Obedience. An agent is obligated to obey all lawful instructions of the principal that conform to the purpose of the agency relationship (Tolle & Benbrook, 2006).

However, an agent is not bound to obey instructions that are unlawful or unethical. For example, an agent should not follow unlawful instruction to market a property to minorities or to misrepresent the condition of a property (Tolle & Benbrook, 2006).

Disclosure. Duty of disclosure is the agent's duty to keep the principal informed of all facts, or information that pertains to the scope of the agency (Tolle & Benbrook, 2006). The agent is obligated to discover facts that a reasonable person would feel are important in choosing a course of action, regardless of whether those facts are favorable or unfavorable to the principal's position. Duty of disclosure also includes relevant information or material facts that the agent knows or should have known (Galaty et al., 2003). The agent may be held liable for damages for failing to disclose. An agent representing a seller has a duty to disclose to the seller: all offers; the identity of prospective purchasers, including any relationship the agent has to them; the purchaser's ability to complete the sale or offer a higher price; any interest the agent has in the buyer, such as the broker's agreement to manage the property after it is purchased; the buyer's intention to resell the property for a profit; and the agent's best judgment of the fair market value of the property (Galaty et al., 2003).

Reasonable care and diligence. An agent must exercise a reasonable degree of care while transacting the business entrusted to him or her by the principal. The principal expects the agent's skill and expertise in real estate matters to be superior to that of the average person (Galaty et al., 2003). Therefore, the agent should know all pertinent facts to the principal's affairs, for example, physical characteristics of the property and the type of financing available. However, brokers are not expected to perform services normally

provided by engineers, lawyers, accountants, or other professionals. In such cases, the broker should acknowledge that and suggest that the principal seek assistance from a reliable outside source (Tolle & Benbrook, 2006).

Accounting. The agent must report the status of all funds or property that belongs to the principal. Most state licensing laws require the broker to provide copies of all documents to all parties that pertain to a transaction as well as keeping copies on file for a specified period. Earnest money must be deposited in a special trust or escrow account within a statutory period. Commingling such monies with the broker's personal or general business funds is strictly forbidden. Conversion is the practice of using those commingled funds as the broker's own money (Galaty et al., 2003). It is also illegal.

Types of Agency

Traditional or Seller Agency Model

The traditional real estate brokerage practice consists of a broker undertaking representation of a seller of real property. Within this approach, agency law governs a broker's relationship with the seller/client, and the tort law governs the broker's relationship with the buyer/customer (Isakson & Spencer, 2000). The seller's representative, also known as the listing agent, lists the seller's property through an "Exclusive Right to Sell" contract and places the property available for sale. With the listing contract signed, the broker registers the seller's property with the local MLS making the listing information available to other brokers. Therefore, the seller will not only benefit from the salesmanship of the listing agents office, but also from other brokers participating in the MLS (R. B. Brown et al., 1995). By placing the property

with a broker and gaining access to the MLS, the seller obtains a wider span of possible prospects than through personal advertising or by placing a For Sale By Owner (FSBO) sign in the yard. The agency relationship between the broker and the seller is easy to identify, because it is expressly created through the execution of a listing agreement.

The signed listing agreement forms an agency relationship and sets the scope of the agency. That is, the broker agrees to seek a sale of the property at a price and terms acceptable to the seller. In exchange, the seller promises to pay the broker in the event of a sale, generally in the form of a percentage of the sale price. Through the MLS, agents from other brokerages are able to show and sale the house splitting the commission with the listing broker. Should an agent from another office sell the home, he becomes a subagent to the seller. Therefore, the listing broker and selling broker owe fiduciary duties to the seller (Curran & Schrag, 2000). A broker who breaches the fiduciary duty of loyalty forfeits his commission. Unless bad faith is determined, a broker who breaches duties other than the duty of loyalty is liable only for the actual damages the broker causes. This damage may be less than the broker's commission (R. B. Brown et al., 1995).

Subagency. Subagency arises when a cooperating sales associate from another brokerage, who is not representing the buyer as a buyer's representative or operating in a nonagency relationship shows property to a buyer. In this case, the subagent works with the buyer as a customer, but owes fiduciary duties to the listing broker and the seller. A subagent owes the same fiduciary duties to the agent's principal as the agent. This arrangement may be created through the offer of cooperation and compensation made in

an MLS. In addition, the listing broker is liable for the conduct of all the subagents and their salespersons (Galaty et al., 2003). Although a subagent cannot assist the buyer in any way that would be detrimental to the seller, a buyer-customer can expect to be treated honestly by the subagent. In short, the listing and co-brokering agents represent the seller; the buyer does not have representation (New Hampshire Business Review, 2005).

Selling agency duties and liability. Agency representation involves the duties owed to a client by an agent. These duties impose on the agent an obligation to act exclusively for the benefit of the client in all matters connected with the agency. A seller's agent represents the seller exclusively and must act in the best interest of the seller (Zietz & Newsome, 2001). The duties owed to the seller include the fiduciary duties as well as the duty to obtain the highest price for the seller's property within the time span specified by the seller (Zietz & Newsome, 2001). Under the common law of agency, the brokerage owes the seller the common law fiduciary duties as described above. Because salesperson's license is issued to the firm, all agents of the brokerage firm are subagents of the seller. Therefore, all agents of the brokerage owe the same common law duties of good faith and loyalty to the seller.

Despite its benefits, subagency may not be the best move for every seller. Although subagency increased the number of agents working on the seller's behalf, it also increases the seller's exposure to potential liability caused by the subagents (Reilly, 1994). Through subagency, the sellers assume the legal liability for the unauthorized actions and representations of subagents who are not under the control of their listing agent (Isakson & Spencer, 2000). With subagency, sellers are bound by and responsible

for the conduct and representations for authorizes subagents, most of whom they have never met and over whom they have no control (Gray et al., 1999; Reilly, 1994).

Traditional real estate model compensation. As a matter of law, the commission rate for the sale of residential real estate is negotiable between the principal and the broker (Friedman et al., 2005). A typical scenario is that the listing agent negotiates a sales commission with the seller and gets the seller's permission to enlist the cooperation of other agents, also known as a subagent or co-brokers, who are members of the MLS, and to share the commission with the associated agent. Because the co-broker is a subagent to the seller, the co-broker owes the same duties to the seller as the listing agent. The amount of commission shared with the co-broker is usually 50% of the total commission but is at the discretion of the listing agent. The commission amount paid to the cooperating broker working with the buyer is published through the MLS (Zietz & Newsome, 2001). Therefore, both the listing and selling broker represent the seller, and they are both paid by the seller. The buyer does not have representation in the traditional agency model transaction.

Seller agency model downfall. The traditional model of real estate agency has several weaknesses. First, buyers are often confused about their relationship with residential real estate agents. As the Federal Trade Commission reported in 1983, 72% of the buyers believed that the selling agent was representing them and not the seller in the transaction. One result from this report is the creation of agency disclosures. Second, some buyers reject the idea of subagency to the seller and want client representation. Buyers want to have a knowledgeable skilled professional looking after their best

interest. Third, with transfer of liability in agency and subagency, some sellers do not want to assume the legal liability for the unauthorized actions and representations of subagents who are not under the control of their listing agent (Isakson & Spencer, 2000).

There are three problem areas in the relationship between broker and the seller. The problems are self-dealing, "vest-pocket listing," and double-dealing (Federal Trade Commission, 1983). Each is considered at failure to act entirely in the principal's behalf in negotiations relating to the sale of a property. Self-dealing occurs when the broker fails to inform the principal that the asking price is less that fair market value. Therefore, the broker is able to purchase the property for himself, often by a third party. In vest-pocket listings, the broker withholds a property from the MLS while the principal believes that it has been listing in the MLS. The broker may withhold the listing for a variety of reasons. For example, assuming the property is listed below market value, the broker may be able to sale the property easily without the use of the MLS, allowing him to collect the entire commission. The seller may never receive a fair appraisal of the property's true worth. Finally, in double-dealing, the broker engages in conduct that compromises the interests of the seller. For example, the broker may share unauthorized information about the seller's reserve price with the buyer, resulting in the seller receiving lower offers.

Regardless of the principal represented, seller or buyer, a single party broker who breaches the fiduciary duty of loyalty forfeits his commission. "An agent is entitled to no compensation for conduct which is disobedient or which is a breach of his duty of loyalty" (R. B. Brown et al., 1995). Unless bad faith is shown, a broker who breaches

duties other than the duty of loyalty is liable only for the damages the broker causes. These damages may be less than the broker's commission (R. B. Brown et al., 1995). In addition, with the agent/subagent relationship the listing broker becomes liable for the actions of the selling broker (R. B. Brown et al., 1995) resulting in a relationship that may not be compatible.

The most common problem in the traditional real estate agency relationship occurs when the selling broker acts as the subagent of the listing broker. As a subagent of the listing broker, the selling broker works for the seller, not the buyer. However, in typical transactions, the selling broker deals mostly with the buyer, showing properties and discussing things that the buyer may assume the broker will not reveal to a seller (R. B. Brown et al., 1995). The selling broker usually has limited contact with the seller, if any. Because of the selling agent's subagency to the listing broker, the selling agent is legally obligated to work for the seller's best interests, which would require the disclosure of any pertinent information discussed with the buyer. Thus, buyers price limits, contingencies, and willingness must be transferred to the seller, giving the seller a negotiating advantage. The actual legal relationship between the parties is the opposite of what the buyer believes (R. B. Brown et al., 1995). Therefore, the problem of applying traditional agency principles to the typical real estate transaction is that the buyers are left negotiating with brokers who have little or no duty to protect their interests (Bryant & Epley, 1992).

Because of the presumption of subagency, the use of the MLS leaves the buyer unrepresented. Since the selling broker is not often the listing broker, the selling broker

tends to have much more contact with the buyer than with the seller. Arguably, therefore, the MLS adds to the buyer's misconception that the broker with whom the buyer is dealing works for the buyers (R. B. Brown et al., 1995).

The trend of representing buyers began primarily on the west coast in the mid-1980 when states enacted the first agency disclosure laws making the practice viable. However, many practitioners accustomed to the traditional approach view the emerging trend of buyers' brokers as a new trick of fraud. The practitioners point to the risks of liability for undisclosed dual agency arising from the use of buyers brokerage as a means of increasing income by earning commissions from both sides of a transactions (R. B. Brown et al., 1995). In addition, the practice of buyer brokering can lead to undisclosed dual agency when the buyer is interested in one of the broker's own listing. As stated earlier, most MLS rules require selling broker subagency to the listing broker in an in-house sale (R. B. Brown et al., 1995).

Buyer Broker Model

A real estate agent hired by a prospective buyer to represent them in a real estate transaction is known as a buyer broker, or buyer's agent. Buyer agency exists when the broker represents the buyer exclusively in a real estate transaction (Reilly, 1994). The buyer broker model became popular, as more buyers desired representation. As more buyers hired agents as a representative, the industry flooded with myths about the relationship (Reilly, 1994). The myths include:

1. Buyer agency is illegal.
2. Buyer agency is prohibited by the MLS rules.

3. Buyer agency does not permit the seller to pay the commission; nor does it allow the listing broker to split commission with the buyer's agent.
4. Lenders do not recognize buyer agency.
5. Buyer agency increases the risk of procuring-cause disputes.
6. Buyer agency is too complicated for the average buyer or seller to understand.

A buyer agency can be created by express agreement or by an implication. However, Oklahoma law requires the buyer agency agreement to be in writing and that agency should be determined at the first initial contact, but not later that the writing of a contract to purchase (Reilly, 1994). The broker should clarify the types of services offered to the buyer client. For example, the buyer's agent may offer an investment analysis, review buyer qualification for financing as well as showing properties and writing a contract (Oklahoma Real Estate Commission, 2005).

Buyer broker duties and liability. Under both state licensing law and common law, the exclusive buyer's broker is held to a higher standard of skill and care in dealing with the buyer than is a subagent of the seller who works with the buyer on a customer basis. Buyers' brokers have an affirmative duty to their clients to investigate and completely disclose all facts that bear on the buyers' decisions to buy. On the other hand, the buyer's broker has a duty to be honest with the seller, but owes no duty to advice and counsel the seller. The buyer's agent works in the buyer's best interest throughout the transaction and owes fiduciary duties to the buyer. Therefore, the buyer's agent has the same duties and responsibilities to the buyer that the seller's agent and subagent has to the seller in the traditional agency.

Buyer broker model compensation. In the buyer broker model, the buyer can pay the licensee directly through a negotiated fee, or the buyer's representative may be paid by the seller or by a commission split with the listing broker (New Hampshire Business Review, 2005). However, according to a 1999 NAR Survey, only 15% of homebuyers reward their own agents directly (Delcoure & Miller, 2002). In addition, the buyers' brokers may ask the buyer to sign an exclusive agency contract and ask for a retainer with an hourly rate, usually in the rate of $60. to $100. per hour (R. B. Brown et al., 1995).

Buyer agency downfall. As buyer agency become more common in the industry, several issues rose highlighting its weaknesses. For example, when buyer brokering began in the industry, some brokers refused to allow buyer brokers to show their listing. Alternatively, if they did allow the buyer broker to show their listings, the listing broker would make other demands from the buyer's agent such as requiring them to pick up keys at the office, or hand delivery documents person to person who were not expected in a subagency showing. Another issue is that some buyers do not want to be obligated to one agent. They seek the flexibility of dealing with several brokers and avoiding commitments and loyalties to any one of them. Therefore, they are able to work with several brokers to cross-check information about property values, seller motivation, and current market trends (Reilly, 1994). Another problem with buyer agency is the precarious position it places the agent should the buyer not be completely honest and accurate about the information given to the agent. An agent may implement an action based upon the buyer's information, only to find out later that the buyer misinformed the agent. For example, after qualifying a buyer an agent may indicate to the listing agent

that the buyer is a ready, willing, and able buyer, only to find out after the house has been removed from the market that the buyer, in fact, does not qualify. In addition, although a written agency disclosure may be required, the actions of the agent may imply a loyalty to another party. A problem also exists if the buyer wants to purchase a property already listed by the broker, perhaps through another salesperson in the office. If the broker has listed the buyer, then in theory all salespeople associated with that broker also represent the buyer and must act in the buyer's best interest. To avoid dual agency conflicts, the buyer listing agreement may contain a withdrawal provision in which the buyer's listing agreement becomes inapplicable to any transaction in which such a conflict arises (Reilly, 1994). The possibility of implied agency and undisclosed dual agency are inheriting problems with buyer agency.

Disclosed Dual Agency Model

Disclosed dual agency is a relationship in which the brokerage firm represents both the buyer and the seller in the same real estate transaction (New Hampshire Business Review, 2005). One agent may serve as an agent for two parties who have opposing interests providing both parties approve the dual relationship in writing with the disclosure of all pertinent facts (Bryant & Epley, 1992). Should the agent fail to disclose all pertinent fats, the agency would become an undisclosed dual agency and has breached the normal fiduciary commitment, which may have negative consequences for the agent (Bryant & Epley, 1992).

Disclosed dual agency model duties and liability. The dual agent has a duty of neutrality. Disclosed dual agency relationships do not carry with them the traditional

fiduciary duties to the clients. Instead, dual agents owe limited fiduciary duties. Because of the potential for conflicts of interest in a dual agency relationship, it is vital that all parties give their informed consent (New Hampshire Business Review, 2005). While most agency relationships are created by express contract, it is important to remember that this is not the only way an agency relationship can be formed. This is of particular concern in residential real estate transactions where the broker may deal with both the buyer and the seller. In Oklahoma, the consent must be in writing. Dual agency is legal in most states (Bryant & Epley, 1992).

Disclosed dual agency compensation. The undisclosed dual agency bars the broker's right to a commission. In addition to the broker's loss of commission, the principal may rescind the contract even though the principal cannot prove actual damages or that the agent committed an intentional fraud (Bryant & Epley, 1992). Without the knowledge and consent of both parties to dual agency, that agent cannot collect a commission from either party and the contract is voidable.

Disclosed dual agency model downfall. The most obvious method of creating an agency relationship is by an express contract. For example, when a seller signs a listing agreement an agency relationship is formed. However, what is less obvious occurs when agency is created by the conduct of the parties rather than by an express contract. Without an upfront disclosure, a prospective buyer falsely assumes that the agent he or she is working with represents them. In PMH Properties vs. Nichols, the court noted that the relation which the law calls agency does not depend upon the intent of the parties to create it, nor their belief that they have done so (Bryant & Epley, 1992).

Other conditions also weaken the disclosed dual agency model. First, an agent may create undisclosed dual agency by conduct. Undisclosed dual agency may be formed, even without intent. Divided loyalty creates a problem for the disclosed dual agent. In some situations dual agency leaves the broker with conflicting responsibilities that are difficult, if not impossible, to perform (Bryant & Epley, 1992). It can be argued that one agent cannot serve clients with opposing interest.

Broker Relationships Act of November 1, 2000

According to Lisa Yates, director of governmental affairs for the Oklahoma Association of Realtors© (OAR), the purpose of the Act was to put into statutory law what was left unclear and unaddressed by the Common Law of Agency. That is, to clarify what the role of the broker is in any real estate transaction (Evans, 2000a). The Broker Relationships Act sponsored by the OAR and endorsed by OREC, outlines the types of relationships Oklahoma brokers can have with the public. Under this law, the broker is presumed to be a transaction broker by default (Evans, 2000a). When assisting one party to a transaction, a broker may have one of the following relationships (Oklahoma Real Estate Commission, 2005):

1. as a transaction broker without a written brokerage agreement
2. as a transaction broker through a written brokerage agreement
3. as a single party broker through a written brokerage agreement

When assisting both parties in a transaction, a broker may enter into the following relationships:

1. as a transaction broker for both parties

2. as a single party broker for one party and as a transaction broker for the other party

In addition, the new law sets forth the duties of brokers and their salespersons. The law raises considerable conflict as it eliminates the age-old agency relationship between brokers and consumers. Oklahoma is the only state that has wiped out agency in the real estate industry (Evans, 2006).

According to the new law, a broker can have only two types of relationships with consumers. A broker can assist a party in a transaction as a single party broker or a transaction broker (Oklahoma Real Estate Form Committee, 2006). Furthermore, under Title 59, O.S., Section 858-355, the real estate broker only determines the relationship with any party or parties to any transaction. Therefore, associated broker associates, sales associates, or provisional sales associates can only engage in the type of relationships approved by the broker that their license is issued (Oklahoma Real Estate Commission, 2005).

Compensation under the Brokers Relationships Act

According to the Oklahoma Real Estate License Code and Rules, the payment or promise of payment or compensation by a party to a broker does not determine what relationship, if any, has be been established between the parties (Oklahoma Real Estate Commission, 2005). If a broker who is a single party broker for a buyer receives a fee or compensation based on a selling price of a transaction, does not constitute a breach of duty or obligation to the buyer as long as the there is full disclosure in writing through the written brokerage agreement.

Single Party Broker Model

Single Party Duties and Liability

To be a single party broker means that the broker has entered into a written brokerage agreement with a party in a transaction to provide services for the benefit of that party. The single party broker duties include (Oklahoma Real Estate Commission, 2005):

1. To treat all parties with honesty and exercise reasonable skill and care
2. To be available to:
    a. receive all written offers and counteroffers
    b. reduce offers or counteroffers to a written form upon request of any party to a transaction
    c. present timely all written offers and counteroffers
3. To inform, in writing, the party for whom the broker is providing services when an offer is made that the party will be expected to pay certain closing costs, brokerage service costs, and approximate amount of those costs
4. To keep the party that the single party broker is performing services informed regarding the transaction
5. To account timely for all money and property received by the broker
6. To keep confidential information received from a party confidential as required by Section 858-357:
    a. That a party is willing to pay more or accept less than what is being offered

b. That a party is willing to agree to financing terms that are different from those offered

c. The motivating factors of the party purchasing, selling, leasing, optioning, or exchanging the property

7. To perform all brokerage activities for the benefit of the party for whom the single party broker is performing services unless prohibited by law
8. To disclose information pertaining to the property as required by the Residential Property Condition Disclosure Act
9. To obey the specific directions of the party that the single party broker is performing services that are not contrary to applicable statutes and rules or contrary to the terms of a contract between the parties to the transaction
10. To comply with all requirements of the Oklahoma Real Estate License Code and all applicable statues and rules

Single Party Model Compensation

A single party broker is allowed to charge a separate fee or other compensation for each duty or other services provide during a transaction. However, if the single party broker intends to provide fewer services that those required to complete a transaction, written disclosure should be provided to the party for whom the broker is providing services. The disclosure shall include a description of the steps in the transaction that the broker will not perform, and state that the broker assisting the other party in the transaction is not required to provide assistance with these steps in any manner (Oklahoma Real Estate Commission, 2005).

Single Party Model Downfall

The Oklahoma Relationships Act leaves many questions in its wake. First, there are some questions to the difference between single party brokerage and agency. The fact that real estate licensees will not be allowed to call themselves agents does not remove the comfort zone of licensees acting as agents according to the original Common Law of Agency (Evans, 2006). Due to the liability transfer in the single party brokerage, some real estate educators believe that this form of brokerage will die.

Transaction Broker Model

Transaction Broker Duties and Liability

Transaction Brokerage (TB) creates a relationship between a real estate licensee and the public where the licensee acts as an independent contractor in order to accomplish the sale or purchase of real property. It is used when a "neutral" party is required. For example, the default neutral position may work best for those that do not have an agency relationship with either the buyer or the seller, or for those individuals or offices that had an agency relationship with both sides, and having sold their listing to a client, need to be neutral (Frascona, 1999). The transaction broker constructs a transaction by bringing a willing buyer and a willing seller together and assists with closing details. Thus, the TB assists buyers, sellers, or both during the transaction without representing the interests of either party (Lindeman, 2004). Therefore, the TB does not owe fiduciary duties to any party. However, the TB must abide by the law as well as professional and ethical standards such as NAR Code of Ethics (National

Association of Realtors®, 2007). By the use of no agency, TB eliminates the downfalls of dual agency and subagency.

According to the Oklahoma statute § 858-351 a "transaction broker" (TB) is defined as a broker who provides services by assisting a party in a transaction without being an advocate for the benefit of that party (Olazabal, 2003). A transaction broker may provide market information and data which may indicate value and may make a suggestion regarding value, but is not to be a supporter for either party (Oklahoma Real Estate Commission, 2005). The Pennsylvania real estate statue § 455.201 defines a "transaction licensee" as one "who provides . . . services . . . without being an agent or advocate of the consumer" (Martin, 2006). Mandatory duties and responsibilities of the transaction broker under the Oklahoma Brokers Relationships Act include (Oklahoma Real Estate Commission, 2005):

1. To treat all parties with honesty and exercise reasonable skill and care
2. To be available to:
    a. receive all written offers and counteroffers
    b. reduce offers or counteroffers to a written form upon request of any party to the transaction
    c. present written offers and counteroffers timely
3. To inform in writing the party for whom the broker is providing services when an offer is made that the party will be expected to pay certain closing costs, brokerage service costs and approximate amounts of those costs
4. To account for all money and property received by the broker

5. To keep confidential information received from a party confidential as required by Section 858-357
    a. That a party is willing to pay more or accept less than what is being offered
    b. That a party is willing to agree to financing terms that are different from those offered
    c. The motivating factors of the party purchasing, selling, leasing, optioning, or exchanging the property
6. To disclose information pertaining to the property as required by the residential Property Condition Disclosure Act
7. To comply with all requirements of the Oklahoma Real Estate License Code and all applicable statutes and rules

In short, the TB can provide comparables, take listing, show and sell listings, assist buyers with showing properties, write contracts and counter offers, assist with lenders, and take documents to closing. Just like agents, TB's should never suggest price. Price is determined by buyers and sellers (Frascona, 1999).

Transaction Broker Model Compensation

A transaction broker is not required or prohibited from charging a separate fee or other compensation for each duty or other service provided during a transaction. However, if the transaction broker intends to perform fewer services than those required to complete a transaction, written disclosure should be provided to the party that broker is providing services. The disclosure should include the description of the steps in the

transaction that the broker will not perform, and state that a broker assisting the other party in the transaction is not required to provide assistance with these steps in any manner (Oklahoma Real Estate Commission, 2005).

Transaction Broker Model Downfall

The transaction broker model eliminates some of the weaknesses of the other relationships; however, it brings with it several problems. Transaction brokers are not lawfully required to provide fiduciary duties. Because there are no fiduciary duties to any party, neither the buyer nor seller will receive full counsel in a transaction. This may result in a timid buyer and seller, especially if they are first time homebuyers or first time home sellers (Frascona, 1999). Joseph King, a Denver attorney who spends most of his time defending Realtors in court, states that transaction brokers are sued more than anyone else in real estate (Deshaies, 2000). This is due to agents not having a signed disclosure statement, which many agents overlook because of the proposed neutral position of the transaction broker model. Not providing a signed relationship statement is a serious problem when it comes up as a question for a witness (Deshaies, 2000). Furthermore, many agents in their desire to be helpful oftentimes assume duties that the statute does not impose. Therefore, a transaction broker may be held accountable when they expand their obligation by providing too much information (Deshaies, 2000). Finally, some experts claim that the transaction broker is a buyer's agent in disguise. That is, Realtors may purport to be transaction brokers, but act as a buyer agent (Deshaies, 2000).

Summary

The relationship between a real estate licensee and the parties involved in a real estate transaction is not a simple one. Agency is governed by two kinds of law: common law and statutory law (Hinkel, 2000). An agency relationship may be based on a formal agreement between the parties, an express agency, or it may result from the parties' behavior, an implied agency. Originally, there were three models of agency in Oklahoma: traditional seller model, buyer broker model, and dual agency model (Oklahoma Real Estate Commission, 1988). The traditional seller model establishes agency through the listing agreement. The listing agent and subagent owe fiduciary duties to the principal seller. In the buyer broker model, the buyer becomes the principal and the agent owes fiduciary duties to the buyer. In both of these models, the agent speaks, listens, and acts for the principal. Because the agent acts on behalf of the principal, the principal is bound to the agent's representations and conduct performed during the scope of the agency. The principal becomes liable for the actions, of the agent (Reilly, 1994). The creation of a dual agency has proved a dangerous practice. Real estate licensing laws permit dual agency only if the buyer and seller are informed and consent to the broker's representation of both in the same transaction (Reilly, 1994). In dual agency, the broker attempts to serve two parties with conflicting interests. Consensual dual agency is lawful; however, undisclosed dual agency is illegal. The Broker's Relationship Act eliminated agency in the State of Oklahoma.

As of November 1, 2000, Oklahoma real estate licensees are no longer known as agents. The new law establishes only two kinds of relationships that brokers may offer to

consumers. The transaction broker relationship provides a neutral position for licensees in a transaction. As a transaction broker, licensees provide services by assisting a party in a transaction without being an advocate for the benefit of that party. They can work with a party with or without a contract. The single party broker enters into a written agreement with a party to provide services for the benefit of that party. If a party does not enter a written agreement, the broker, by default, operates as a transaction broker. The new law outlines vicarious liability on the part of the consumer (Oklahoma Real Estate Commission, 2000). If the consumer engages a broker as a transaction broker, the consumer is not held vicariously liable for the acts or omissions of a real estate licensee who is providing services as a transaction broker. In contrast, the consumer may be vicariously liable for the acts or omissions by the single party broker to which he or she is under contracted representation (Evans, 2000b). The legal relationships that a licensee may enter continue to confuse the public.

CHAPTER 3. METHODOLOGY

Purchasing a home is a significant and substantial transaction that often represents the largest financial decision and commitment an individual will make. The process is further complicated because homebuyers are commonly inexperienced and are often faced with the challenging task of searching through an extensive list of potential homes (Baryla, Zumpano, & Elder, 2000). A related study by Case and Shiller (1988) finds evidence that the housing market is mainly driven by expectations and that buyers are unaware of the fundamentals of the real estate market (Baryla et al., 2000).

This study is to analyze how the residential real estate market responded to regulation changes associated with the Oklahoma Broker Relationships Act, which took effect November 1, 2000. Five variables will be discussed: number of complaints, number of transaction, sales price, days on market, and inflation rate. The purpose is to determine if the new regulation affected the level of effort brokers expend in marketing residential real estate. The design of the study is causal-comparative or ex post facto. Therefore, the variables are not manipulated.

This chapter presents the methodology that will be used in conducting this study. A fixed or quantitative methodology will be applied through gathering and analyzing descriptive variables associated to the real estate industry. Accordingly, this section examines the research design, population sample, setting, instrumentation, data collection

procedure, data analysis techniques, validity and reliability issues, and ethical considerations.

Research Design

The quantitative, ex post facto design provides the basic framework for the study. With the ex post facto design, there is no control over the variables in the sense of being able to manipulate them (Cooper & Schindler, 2003). Using historical data, the study will report what has happened to the variables. The methodological approach selected considered several aspects of the research rationale. First, the approach must be feasible within the constraints of available time and resources. Next, the approach must be able to provide descriptive trends and explanation of the relationship among variables. Third, the design must have the ability to compare average scores of specific and narrowed variables. Fourth, it should satisfy the need to discover the association among different variables. With these elements in mind, the quantitative design best suits this study.

The fixed or quantitative research design is also known as positivistic, natural, science based, hypothetico-deductive, or simply scientific (Robson, 2002). By design, the quantitative design provides highly pre-specified strategy prior to the main phase of data collection. It involves the collection of quantitative data and the use of statistical analysis. One advantage of the fixed research design is that it is theory-driven. That is, the theory specifies, in advance, the variables to be included in the study. It advocates having an exact procedure. Quantitative research design is essentially evaluative, not generative (McCullough, 2003). Quantitative research results are statistically reliable. That is, it determines if one idea, concept, product, package, is better than the

alternatives. In addition, the results are transferable to the population. To wit, the proportion of respondents answering a certain way are similar to the proportion of the total population that would have answered that way if they all had been asked (Cooper & Schindler, 2003). Finally, quantitative research straightforward design provides a clear direction, avoiding many of the ethical issues that arise in a qualitative approach. Advantages of this design interlace with the objectives of this study. The research design also embodies several disadvantages.

The primary disadvantage of quantitative research is that variables are only measured if they are known prior to the beginning of the survey. There is no room for change. Addressing issues after the research has begun may present difficulty in an effort to provide clear unambiguous results. To overcome the weaknesses, effort will be made to implement careful consideration for every aspect of the study. Two weaknesses of a causal-comparative research design are the lack of randomization and inability to manipulate an independent variable. In this study, the consumer filing a compliant against an agent draws the sample from the populations, avoiding subjective selection bias. The raw data collected is historical data. Therefore, the events have already happened and the variables cannot be manipulated.

The data used in this study derive from databases compiled by the U.S. Census Bureau, National Association of Realtors (NAR), Oklahoma Real Estate Commission (OREC), Oklahoma City Metropolitan Association of Realtors (OMAR), and the Oklahoma Multiple Listing Service (MLS). The quantitative approach appears to be the best approach for the study because of the examination of numeric data across OKCMSA

and selected variables. After exploration of multiple research designs, the ex post facto quantitative approach is considered best using existing data (Singleton & Strait, 2005). The ex post facto design is viewed the best design for the purpose of this study because of the historical nature of the data that will be collected from the various institutions. The decision to conduct a quantitative design instead of a qualitative design was due to the designs ability to analyze large amounts of numeric data.

Sample

Because the study is based on public records from historical data, there is no need to engage in advertisements for recruitment of participants, recruit participants, or prepare survey instruments for data collection. There will be no advertisements for recruitment of participants. There will be no interaction with the population sample. Therefore, the possibility of coercion, undue influence, or illegal, unethical activities, which might skew study results, is reduced. Since the information is public records, there is no confidentiality of research data to maintain.

The study population comprises of all licensed active real estate agents in the State of Oklahoma who have sold at least one residential property and are members of the local, state, and national associations. When a real estate agent becomes a Realtor, he or she automatically becomes a member of the OMAR, OAR, NAR, and the local MLS reporting body. Other states are excluded from the study because they have not implemented the requirements of the Act, nor are they members of the local and state associations.

The sample size will be sorted by the specified year within the scope of this study. The sampling frame will emerge in a two steps process. The study is limited to active licensed real estate agents in the OKCMSA from January 1, 1995 to December 31, 2005. Real estate agents outside the OKCMSA are not included because they do not practice within the Oklahoma City Association of Realtors MLS system. The sampling frame provides a basis of control and narrows the focus to the local MLS system. Narrowing the focus provides a manageable amount of data without sacrificing integrity.

Setting

This quantitative study is based on existing data from public information sources or institution. Therefore, there will be no direct contact with participants. The data collected from OREC files and MLS will be collected at the respective offices. If the data is available in a form that is easily photocopied, copies will be made and the data entered into a spreadsheet in an office environment. The data collected from the U.S. Census, OAR, NAR will be downloaded from the World Wide Web in a typical office-working environment.

Study Variables

A variable is a characteristic or attribute of an individual or an organization that can be measured or observed and that varies among individual or organizations studied (Creswell, 2002). A distinction is made between independent variables and dependent variables. The dependent variable is an attribute or characteristic that is influenced by the independent variable. Independent variable is an attribute or characteristic that influences or affects an outcome or dependent variable. In other words, an independent variable is

presumed to potentially affect a dependent one (Zikmund, 2000). For this study, all variable data collect will begin January 1, 1995 to December 31, 2005 and are restricted to the OKCMSA. This study has one dependent variable noted at Y_1, and five independent variables noted as X_1, X_2, X_3, X_4, and X_5.

Dependent Variable

The dependent variable, Y_1 equals the number of complaints (#CB), shall be defined as the number of agency relationship complaints filed with the Oklahoma OREC against licensed agents in the OKCMSA in the years 1995 to 2005, excepting 2000 when the Act became law. Because it is likely that the data needed will most likely be yearly numbers, not monthly, the year 2000 is omitted from the study. However, should the data be available by month then all data starting January 1, 1995 to December 31, 2005 will be used.

Independent Variables

There are five independent variables:

X_1 equals the number of closed transactions (CT).

X_2 equals the average/median sales price (SP). The average/median sales price for residential single-family properties in the OKCMSA.

X_3 equals the average days on market (DOM). It is defined as the average number of days that residential single-family properties stay on the market before going under contract, or expiration. On the market means that the residential single-family property is listed and is an active listing in the MLS system. In harmony with the other

independent variables, the data collected will be for the OKCMSA covering years 1995 to 2005.

X_4 is the annual inflation rate (IR). This is an approximation for the discount factor, d, in the model.

X_5 equals the dummy variable (DUM). The dummy variable takes the values 0 or 1 to indicate the absence or presence of some categorical effect that may be expected to shift the outcome (Zikmund, 2000). In this study, the dummy co-efficient will explain the amount of change Before and After the Act, zero being Before the Act, and one being After the Act. It will indirectly measure the change in complaints as it relates to the Act. Equation 4a can be rewritten as:

$$x = h/(c/P*b - d*V) \qquad (2)$$

Therefore, the level of the broker's effort is a function of the hazard, selling costs, acceptance price, agent's commission, and discounted value of the contract. In the regression, X_2 measures acceptance price. X_3 can be a proxy for the hazard and provides clues to the ultimate discounted value, i.e. the longer the property stays on the market, the higher the expectation that the contract will be discounted by inflation and the likelihood that the agent's relationship will be terminated prior to sale. This variable also contains information about the cost to sell the property, i.e. the longer the average days on the market, the higher the costs to sell. X_4 helps to quantify the discount factor. The agent's commission is assumed fixed at 7%. To complete the analysis, the number of closed transaction and the impact of the Act are included.

Instrumentation / Measures

The data collection instrument will be an accountant's columnar spreadsheet that will be filled out by hand, as the needed information is found. The top headings for the collection of data from the independent variables will be Total Sales, Median SP, DOM, Inflation Rate, and DUM with each year listing down the left side. This information will also be reduced to numerical form by year if it is not in that form originally. However, if the information is available to copy or if it is available in a soft-copy form, the data will be collected in the easiest method possible to avoid human error to maximize use of time wisely. Should the information be available through the Internet, the data will be downloaded from the Internet into statistical software, Statistical Package for the Social Sciences (SPSS). All data will eventually be typed or downloaded into SPSS for analysis.

All data collected will encompass a 10-year period from January 1, 1995 to December 31, 1999 and January 1 2001 to December 31, 2005. The U.S. Office of Management and Budget define the OKCMSA as Oklahoma City and surrounding areas, this includes the following counties: Canadian County, Cleveland County, Grady County, Lincoln County, Logan County, McClain County, and Oklahoma County. Physical inspection of OREC records will determine the number of complaints filed on qualified individuals from the sampling frame. Therefore, the number of complaints data will come from reading and collecting data directly from OREC complaint file. OREC procedures will be followed. That is, all files will remain on the premises when examined. A statement will be signed and left in the file acknowledging that the file was

inspected indicating the date, who inspected the file, and the purpose for gaining access to the case. This information will be collected on a hand written spreadsheet, which will later be typed into statistical software. Real estate transaction statistics such as the number of transactions, average selling price, median selling price, and average days on market will be collected for the OKCMSA from the Oklahoma City MLS. This data will be gathered from the MLS and placed in a hand written spreadsheet that will later be typed into statistical software. It should be noted that OAR and NAR report some statistic information. However, because of the focus of the sampling frame, the local MLS statistics are considered more reliable. OKCMSA economic statistics such as median family income will be downloaded from the U.S. Census Bureau from their website http://www.census.gov

Data Collection

This study will be based on existing data. The data are available as public information. The quantitative data on selected variables will be collected from reliable institutions such as the U.S. Census Bureau, NAR, OAR, OMAR, and the local MLS. The U.S. Census Bureau information will be taken from the OKCMSA, which is limited to the household population and excludes the population living in institutions, college dormitories, and other group quarter. The NAR database reports by metropolitan statistical areas (MSA) and defined by the US Office of Management and Budget as of 2004. They include the central city and surrounding areas. Data maintained by the Association or its MLS may not reflect all real estate activity in the market.

Intervention / Procedures

The methods used for this study vary depending on the source of information needed. The data used in this study will be gathered from databases compiled by the U.S. Census Bureau, NAR, OREC, OMAR, and the local MLS. Information gathered from the U.S. Census Bureau, NAR, and OAR will be downloaded into SPSS software from the Internet. Data gathered from OREC will be gathered through the physical inspection of the complaints filed. The data from OREC and the MLS will be handwritten on an accounting column spreadsheet and transferred into SPSS. However, should this information be presented in a form that would eliminated the need for handwritten spreadsheets, such as photocopies or soft-copy, then these measures will be used.

After combining data, a visual scan of data will be performed to look for excessive missing data and inconsistency in data reporting. The combining of information into statistical software should bring to light any discrepancies. All data collected will be input into SPSS statistical software for analysis. Continued effort will be given to collect all the data necessary for the study by following up the responsible individuals for accurate information. However, should some values not be available, SPSS will be asked to substitute a value for each missing score, such as a group mean value for a variable data score. George and Mallory (2005) indicate that up to 15% of the missing data can be substituted with mean scores without altering the overall statistical findings.

Data Analysis

Data analysis will begin with the creation of data files for the collected data in a SPSS spreadsheet. First, a visual scan of data will be made to look for excessive missing data and inconsistency in data reporting. The hypotheses will be tested as follows:

Hypothesis 1: There is no difference between the number of complaints filed from 1995 to 1999 and the number of complaints filed from 2001 to 2005 in terms of agency representation against licensed real estate agents in the OKCMSA (μ of #CB = μ of #CA).

1. IV: number of agency complaints
2. DV: agency representation
3. Participants: licensed real estate agents
4. Research site: the OKCMSA
5. Form and language: Null indicating no difference

The hypotheses will be tested and the result reported in Chapter 5.

Validity and Reliability

Given the nature of this research design, the use of existing data does not lend itself to the traditional validity and reliability test. The extent to which data collection method or methods accurately measure what they were intended to measure provides validity to a study (Saunders, Lewis, & Thornhill, 2003). Singleton and Straits (2005) have stated, "Without recourse to the usual checks on validity, knowing how the data were collected is often the only way to determine the authenticity and accuracy of available data" (p. 362). In other words, a description of the procedure used in collecting

existing data is important. In the case of this study, reliability is build upon the information gathered through surveys conducted by the U.S. Census, OREC, and the OMAR MLS. Each institution is a well-known organization in the real estate industry. The U.S. Census conducts ongoing surveys about various industries, such as the Housing and Household Economic Statistics Division. OREC reports yearly to state auditors, inspectors, and the governor through its Annual Report. The OMAR and local MLS publish reports in the local paper, to OAR, and to NAR regarding real estate activity in the OKCMSA. Another issue of importance in research data is reliable. That is, the degree to which data collection method or methods will yield consistent findings by other researchers. Since the data that will be collected for this study is readily available through reputable institutions, any future research analyst will find the same information analyzed in this study.

Ethical Considerations

Because of the statistical nature of quantitative research, and the collection of data from public sources, there is limited risk involved with this study. Complaint files including the agents name and office involved in the complaint are a public record. However, the collection of complaints or licensing law violations is gathered as a group statistic, not individually. Therefore, personal names and supporting office information involved in a complaint record will not be collected. Thus, by collecting group statistics, the study should avoid any ethical issues that might arise by an agent involved in a case. Data will be stored electronically indefinitely on a SPSS software spreadsheet. Access to data will be restricted by password security.

CHAPTER 4. DATA COLLECTION AND ANALYSIS

This chapter discusses the data processing and analysis procedures used in summary format. The purpose of this study was to analyze how the Oklahoma residential real estate market responded to the Oklahoma Broker Relationship Act, which took effect November 1, 2000; it will be referenced at the Act from this point forward. The focus and research question was to determine if the regulation made a significant difference in the level of effort brokers extended in selling residential real estate in the OKCMSA. The early works of Frederick W. Taylor and the more recent authors Geltner, Kluger, and Miller established the theoretical framework. A quantitative approach was determined to be the best research design with the sample size limited to active licensed Realtors in the OKCMSA.

Broker relationships have been a source of confusion and frustration for some time. In the past, sellers appear to be on the winning side regardless of the other elements of the sale. In a traditional transaction both the selling and listing agents represented the seller and owed the seller fiduciary duties. However, along with the fiduciary obligation, the seller also received liability for the action of the selling agent, a person he may have never met. On the other hand, the buyer many times thinks that the selling agent is working in their behalf. Therefore, in the course of doing business, the buyer is willing to share confidential information that may affect negotiations. In considering the selling

agent position in the transaction, she may have purposefully built a rapport with a customer hoping not to lose a sale. In doing so, she may have established an unconscious loyalty to the buyer. Even though on paper the selling agent represents the seller, her actions and conversations with the buyer may insinuate differently. Agency relationships continue to be an issue.

Dual agency relationships have also caused concerns for all parties. In 1993, Edina Realty, Inc., a Minnesota-based real estate broker, lost two class action lawsuits brought by former clients. At issue in these cases, which together cost Edina more than $18.2 million, was the question of if Edina had adequately informed its clients of the nature of their agency relationships with the firm (Curran & Schrag, 2000). One result from this confusion in Oklahoma was the implementation of the new Broker Relationship Act.

At the beginning of data collection, Microsoft Excel spreadsheets were used to create the computer data files for the collected data. The quantitative data were then transferred to a statistical software package, SPSS, for analysis. Data was collected from different sources. The dependent variable, the number of agency relationship complaints filed with OREC in the OKCMSA from 1995 to 2005 (Y_1), was collected with copies of the summary page of each complaint file photocopied, and later entered into Excel. Because OREC monitors the whole state of Oklahoma, it was necessary to create a city and county list to determine if the complaint was in one of the OKCMSA counties (See Appendix A for a list of cities and counties). For the purpose of this study, if there were more than one location listed on the complaint, the first city was used with the respective

county for that city. In addition, the legend used to categorize complaints by OREC was adopted and aided in the coding of the raw data (See Appendix B for listing of complaint coding). The independent variables collected from the Oklahoma City Metropolitan Association of Realtors MLS[1] include the number of closed transactions (X_1), average sales price (X_2), and average days on market (X_3). The Oklahoma City Metropolitan Association of Realtors, Inc. disclosure statement can be seen in Appendix C. The information used in this study is based on information from the Oklahoma City Metropolitan Association of Realtors, alternatively from the Oklahoma City Metropolitan Association of Realtors MLS, for the period 1995 to 2005. The independent variable annual inflation rate (X_4) was collected through the U.S. Department of Labor, Bureau of Labor Statistics using the Internet. All data copies that were not used were immediately shredded.

After the data was collected and entered into Excel, a visual scan was made looking for excessive missing data and/or inconsistency in data reporting. There was only one compliant, number C-1995-98, that could not be located. After searching for several weeks with the aid of one OREC personnel, it became obvious that the file had been misplaced permanently. It was determined that the missing entry would not influence the results of the research; therefore, the complaint was entered chronologically with the other complaints for that year, but there is no data for calculations. Tests were

[1] This representation is based in whole or in part on data supplied by the Oklahoma City Metropolitan Association of Realtors, Inc., or its Multiple Listing Service 1995 through 2005. Neither the Association nor its MLS guarantees or is in any way responsible for its accuracy. Data maintained by the Association or its MLS may not reflect all real estate activity in the market.

run with a 95% confidence level. The following presents the tests and analysis with discussion.

Summary of Statistics

Frequency tests are probably the most commonly used procedure in statistics application. They are used to display the distribution of values for a variable. In addition, frequencies provide a good way to explore data to check for errors in data entry or coding. They were run in this study to learn how many of each category is present, how the scores are distributed, and to determine the variables mean and standard deviation as well as to check for data entry or coding errors. The summaries of each independent variable can be seen in Table 1 and Table 2. In each section Before and After the new law N = 60. The average number of closed transactions Before the Act was 1014.53 and After 1471.48, respectively. The highest number of closed transaction Before the Act is 1637 with a standard deviation ±203.793 transaction. The highest number of closed transactions After the Act was 2193 with a standard deviation of ±315.775. The sales price maximum Before the Act was $110,039 with a standard deviation of ±$7719.133. The sales price maximum After the Act was $145,294 with a standard deviation of ±$11272.325. Days on the market Before and After highest value were 73.79, and 73.78, respectively. Days on market standard deviation Before and After were ±6.042 and ±5.817 respectively. Finally, the highest inflation rate Before and After were 163.6 and 178.365, respectively. The inflation rate standard deviation Before and After were ±4.6295 and ±6.4338, respectively. Variable number of closed transactions, average sales price, and annual inflation rate increased After the Act.

Table 1 Summary Statistics for Independent Variables: Before the Broker Relationship Act of 2000

		Closed Transactions	Sales Price	Days On Market	Inflation Rate
N	Valid	60	60	60	60
	Missing	0	0	0	0
Mean		1014.530	90790.320	73.780	156.1020
Median		1015.500	90851.000	73.500	157.0000
Std. Deviation		203.793	7719.133	6.042	4.6295
Skewness		.368	.066	.112	-0.3190
Std. Error of Skewness		.309	.309	.309	.3090
Minimum		594	73218	62	146.7000
Maximum		1637	110039	86	163.6000

Table 2 Summary Statistics for the Independent Variables: After the Broker Relationship Act of 2000

		Closed Transactions	Sale Price	Days On Market	Inflation Rate
N	Valid	60	60	60	60
	Missing	0	0	0	0
Mean		1471.480	120138.850	72.080	178.3650
Median		1493.500	117938.500	70.500	177.4500
Std. Deviation		315.775	11272.325	5.817	6.4338
Skewness		0.050	0.416	0.474	0.5570
Std. Error of Skewness		0.309	0.309	0.309	0.3090
Minimum		743	102246	62	169.3000
Maximum		2193	145294	87	192.5000

For continuous data, like the variables used for this study, the histogram was used to indicate frequencies of a range of values. A histogram is a frequency distribution graph plotting values of observations on the horizontal axis, and the frequency with which each value occurs in the data set on the vertical (Field, 2006). It is easy to perceive each variable distribution and how it relates to the normal distributed bell-shaped curve. The histogram in Figure 1 depicts the number of closed transactions Before the Act. Figure 2 depicts the number of closed transactions After the Act. The next two figures, Figure 3 and Figure 4, show the average sales price Before and After the Act. The Before histograms conforms to the normal distribution curve, while the After histograms follows a very slight positive left skewed curve. Figure 5 and Figure 6 portray the variable average days on the market Before and After the Act. Finally, Figure 7 and Figure 8 represent the annual inflation rate Before and After the Act.

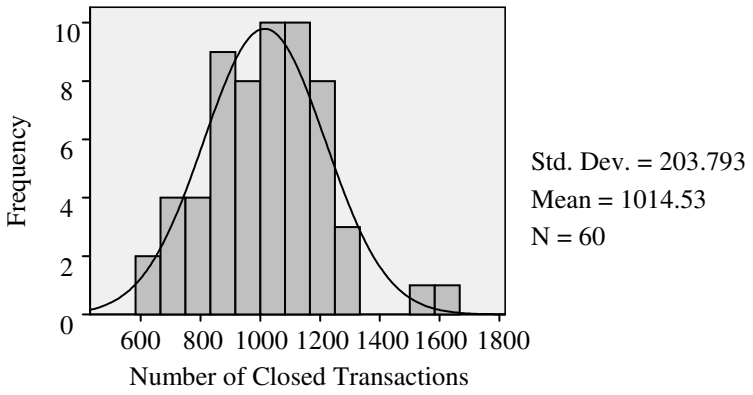

Figure 1. Summary of statistics for the number of Closed Transactions before the Broker Relationship Act per calendar year from 1995 to 2005 (N = 60).

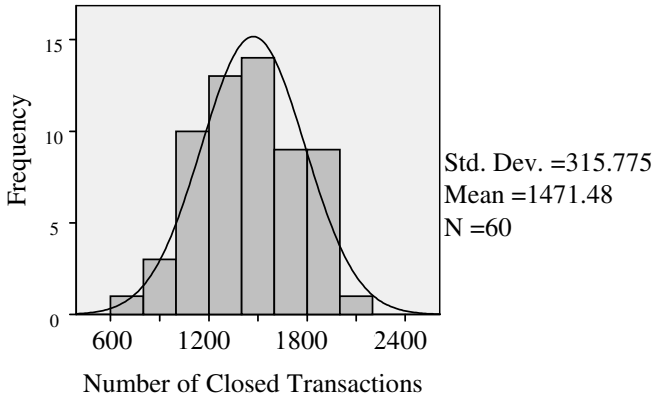

Figure 2. Summary of statistics for the number of Closed Transactions after the Broker Relationship Act per calendar year from 1995 to 2005 (N = 60).

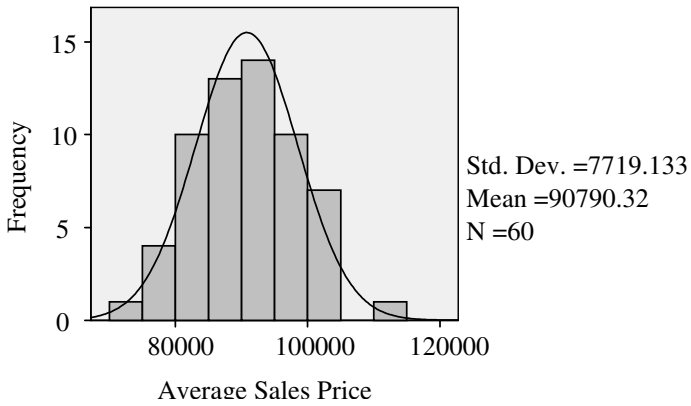

Figure 3. Summary of statistics for the average Sales Price before the Broker Relationship Act per calendar year from 1995 to 2005 (N = 60).

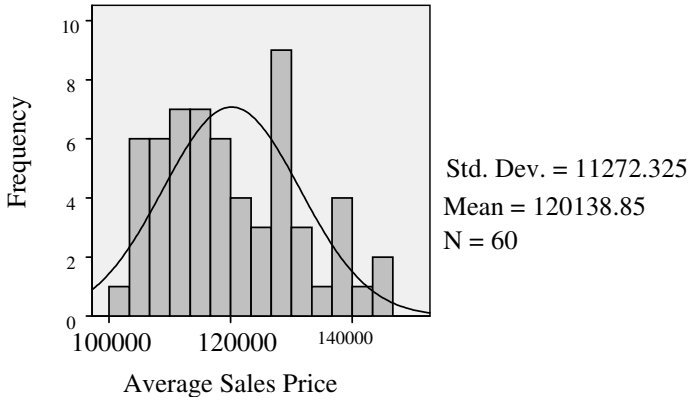

Figure 4. Summary of statistics for the average Sales Price after the Broker Relationship Act per calendar year from 1995 to 2005 (N = 60).

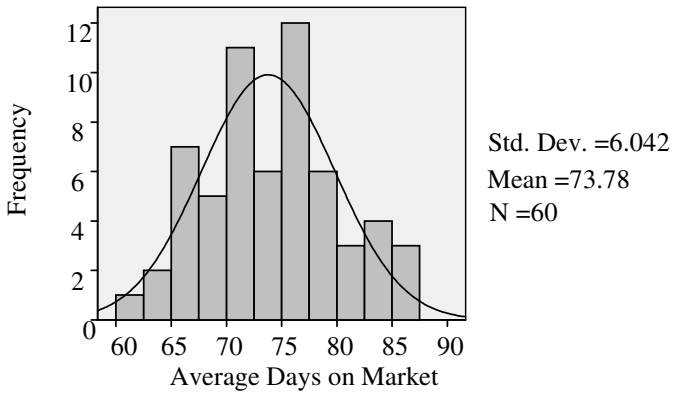

Figure 5. Summary of statistics for the average Days on Market before the Broker Relationship Act per calendar year from 1995 to 2005 (N = 60).

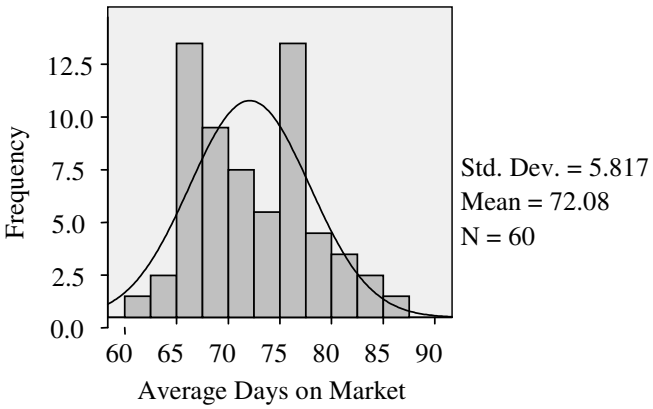

Figure 6. Summary of statistics for the average Days on Market after the Broker Relationship Act per calendar year from 1995 to 2005 (N = 60).

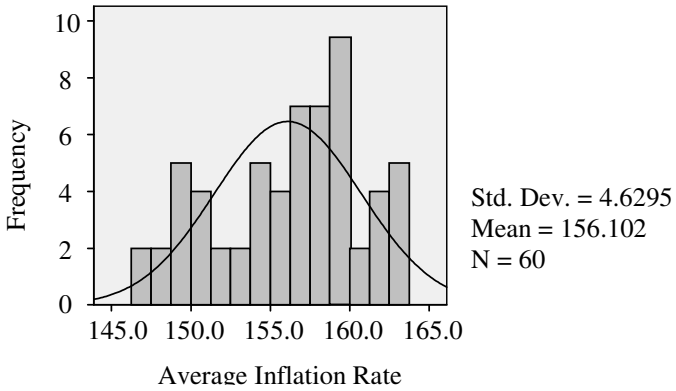

Figure 7. Summary of statistics for the annual Inflation Rate before the Broker Relationship Act per calendar year from 1995 to 2005 (N = 60).

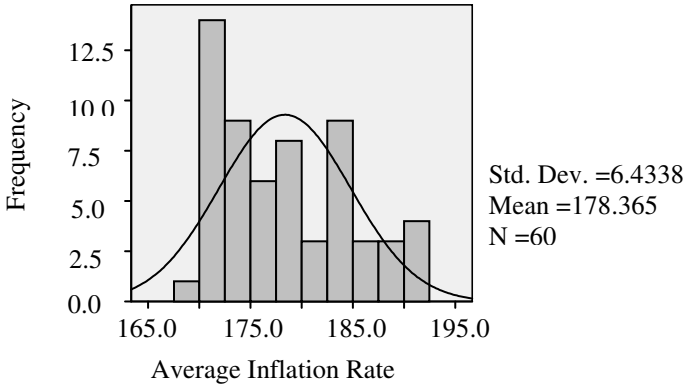

Figure 8. Summary of statistics for the annual Inflation Rate after the Broker Relationship Act per calendar year from 1995 to 2005 (N = 60).

Normal Q-Q Plot of Ethnocentrism Scale

The normal Q-Q plot graphically compares the distribution of a given variable to the normal distribution curve. In each graph, the straight line represents what data would look like if it were perfectly normally distributed. The actual data is represented by the circles plotted along this line. The closer the circles are to the line, the more normally distributed the data looks. From visual inspection is it evident that each variable seems to follow the normal distribution line although not entirely. The knowledge that each variable follows the normal distribution curve is a good indicator that the data is normally distributed. Knowing that the variables follow the normal distribution curve is an important factor in the assumption for subsequent tests. Figure 9 is the Q-Q Plot for the dependent variable number of agency complaints. Figure 10 is the Q-Q Plot for the independent variable number of closed transactions. Figure 11 is the Q-Q Plot for the

independent variable average sales price. Figure 12 is the Q-Q Plot for the independent variable days on the market. Figure 13 is the Q-Q Plot for the independent variable annual inflation rate. In the subsequent testing, the assumption is that each variable follows the normal distribution curve.

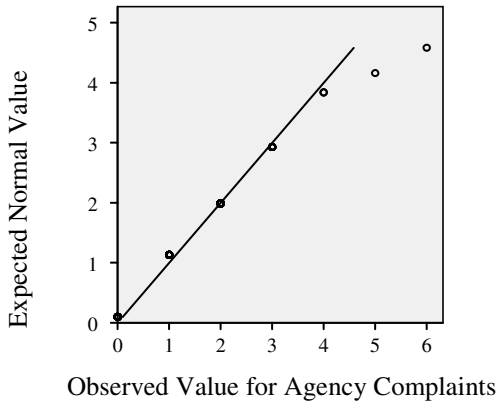

Figure 9. Q-Q Plot of ethnocentrism scale for the dependent variable number of Agency Complaints.

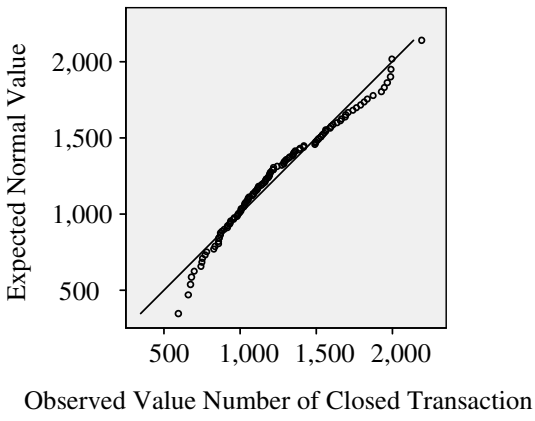

Figure 10. Q-Q Plot of ethnocentrism scale for the independent variable number of Closed Transactions.

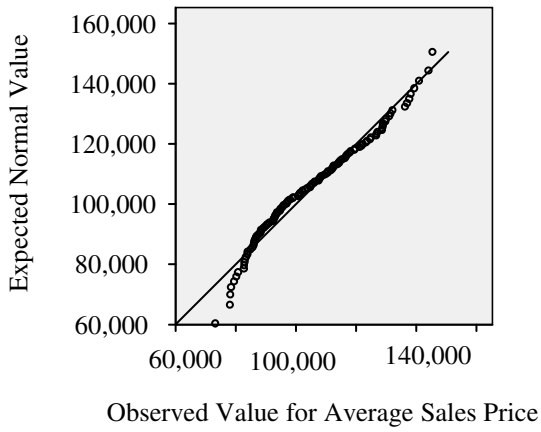

Figure 11. Q-Q Plot of ethnocentrism scale of the independent variable average Sales Price.

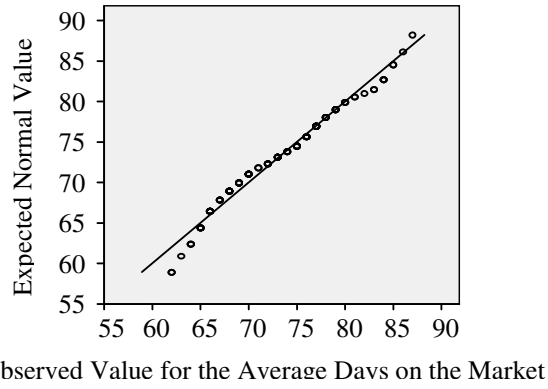

Figure 12. Q-Q Plot of ethnocentrism scale of the independent variable Days on Market.

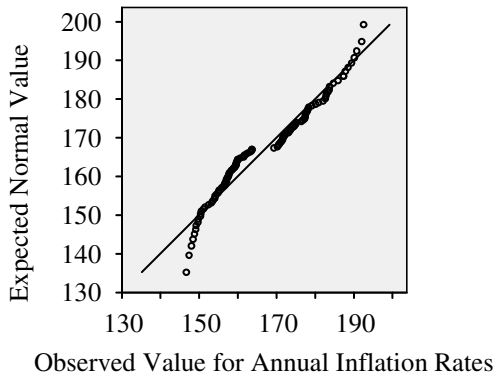

Figure 13. Q-Q Plot of ethnocentrism scale of the independent variable annual Inflation Rate.

Descriptive Statistics and Independent-Sample t-Test

An independent-sample t-test was conducted on each of the variables. There are three assumptions for the independent-samples t-test. First, that the dependent variable is normally distributed. Second, it assumes that the two groups have approximately equal variance on the dependent variable. Three, the two groups are independent of one another. Table 3 shows the grouping of Before and After descriptive statistics for each variable. Table 4 is the results of the independent-Sample t-test of each variable. In each case N = 60. This analysis indicates that 60 months Before the Act the number of agency complaints had a mean of 1.17 with a standard deviation of ±1.044; the 60 months After the Act had a mean of 1.83 with at Standard deviation of ±1.264. That is, the number of agency complaints, on average, was higher After the Act. Closed transactions Before the Act mean was 1014.530 with a standard deviation of ±203.793; After the Act, closed transactions had a mean of 1471.480 with a standard deviation of ±315.7750. Therefore,

the number of closed transactions, on average, was higher After the Act. Sales price average Before the Act was $90,790.32 with a standard deviation of ±7719.13, After the Act sales price mean was $120,138.85 with a standard deviation of ±11272.33. Similarly, the variable sales price, on average, was higher After the Act. The variable DOM Before the Act was 74 days rounded with a standard deviation of ±6.042; After the Act DOM was 72 days rounded with a standard deviation of 5.817. Days on market decreased After the Act. Finally, IR Before the Act was 156.102 with a standard deviation of ±4.6295; After the Act IR was 178.365 with a standard deviation of ±6.4338. Thus, IR After the Act increased.

Next, because the Levene's test for equality of variance for agency complaints and DOM are greater than .05 they are not significantly different Before and After the Act. However, Levene's Test indicates that closed transactions, average sales price, and annual inflation rate are significant Before and After the Act. The Levene's Test is significant when the significant value is less that .05. In this study, closed transaction tested .001, sales price tested .001, and the inflation rate tested .007.

In reading the results for the Independent-Sample t-Test, if the variable was approximately equal, results are on the top line of Table 4. If the variances were not equal, results are on the bottom line of Table 4. Therefore, agency complaints t-value is -3.149 with 118 degrees of freedom and there is a significant difference between the two groups, $p = 0.002$. Closed transaction t-value is -9.418 with 100.882 degrees of freedom and there is a significant difference between the two groups at 0.000. The average sales price t-value is -16.640 with 104.360 degrees of freedom and there is a significant

difference p = 0.000. Days on market t-value is 1.570 with 118 degrees of freedom and there is no significant difference, p = 0.119. The annual inflation rate t-value is -21.757 with 107.180 degrees of freedom and there is a significant difference with p = 0.000. This finding suggests that comparing the two groups Before and After the Act, agency complaints, closed transactions, sales price, and inflation rate have a trend toward a significant influence. The days on market p-value or significant level of .119 indicates that it is not significant.

Table 3 Group Statistics of Each Variable Before and After the Brokers Relationship Act of 2000

	Time Frame	N	Mean	Std. Deviation	Std. Error Mean
Agency Complaints	Before	60	1.170	1.0440	.1350
	After	60	1.830	1.2640	.1630
Closed Transaction	Before	60	1014.530	203.7930	26.3100
	After	60	1471.480	315.7750	40.7660
Sales Price	Before	60	90790.320	7719.1330	996.5360
	After	60	120138.850	11272.3250	1455.2510
DOM	Before	60	73.780	6.0420	.7800
	After	60	72.080	5.8170	.7510
IR	Before	60	156.102	4.6295	.5977
	After	60	178.365	6.4338	.8306

Table 4 Results of the Independent-Samples t-Test Before and After the Broker Relationship Act by Variable

		Levene's Test for Equality of Variances		t-Test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Agency Complaints	Equal variances assumed	.902	.344	-3.149	118	.002	-.667	.212	-1.086	-.247
	Equal variances not assumed			-3.149	113.927	.002	-.667	.212	-1.086	-.247
Closed Transaction	Equal variances assumed	11.961	.001	-9.418	118	.000	-456.950	48.519	-553.031	-360.869
	Equal variances not assumed			-9.418	100.882	.000	-456.950	48.519	-553.200	-360.700
Sales Price	Equal variances assumed	11.210	.001	-16.640	118	.000	-29348.533	1763.757	-32841.252	-25855.814
	Equal variances not assumed			-16.640	104.360	.000	-29348.533	1763.757	-32845.988	-25851.079
DOM	Equal variances assumed	.005	.947	1.570	118	.119	1.700	1.083	-.444	3.844
	Equal variances not assumed			1.570	117.830	.119	1.700	1.083	-.444	3.844
IR	Equal variances assumed	7.605	.007	-21.757	118	.000	-22.2633	1.0233	-24.2897	-20.2370
	Equal variances not assumed			-21.757	107.180	.000	-22.2633	1.0233	-24.2918	-20.2348

Independent Samples Test: Variable Charts

To promote understanding each variable has been charted by year. Agency complaints have also been compared to closed transactions, average sales price, and inflation rate. When looking at the charts, remember that year 2000 is the dividing point for the Before and After groups. Each graph includes a computer-generated trend line. Since, days on the market tested insignificant, it was removed from future analysis. Figure 14 graphs the number of agency complaints by year. Agency complaints have a positive vertical slope. Figure 15 graphs the number of closed transactions by year ranging from 10,810 transactions in 1995 to 14,915 transactions in 2005. The number of closed transactions by year has a positive vertical slope. Figure 16 demonstrates the average sales price for 1995 to 2005 range from $81,429 to $136,352. Figure 17 represents the annual inflation rates, which ranged from 149.0 in 1995 to 171.1 in 2005. The number of closed transactions, average median sales price, and annual inflation rate tested significant and have a positive vertical slope.

Figure 18 through Figure 23 are presented for visual clarity in comparing the dependent variable to one independent variable. A two-axis line chart was used. Number of agency complaints on the left axis and the comparing variable on the axis. Figure 18 compares the number of agency complaints to the number of closed transactions. Although they both have a positive vertical slope, the number of agency complaints dropped in years 1997, 1998, and 1999. Figure 19 compares the number of agency complaints to the average sales price by year. Figure 20 compares the number of agency complaints and the annual inflation rate. The next few figures are lines on two

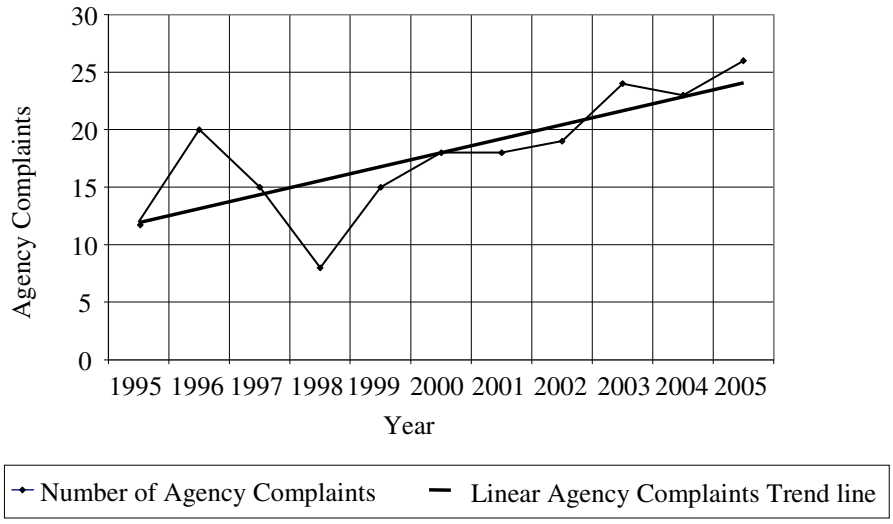

Figure 14. Number of Agency Complaints graphed by year.

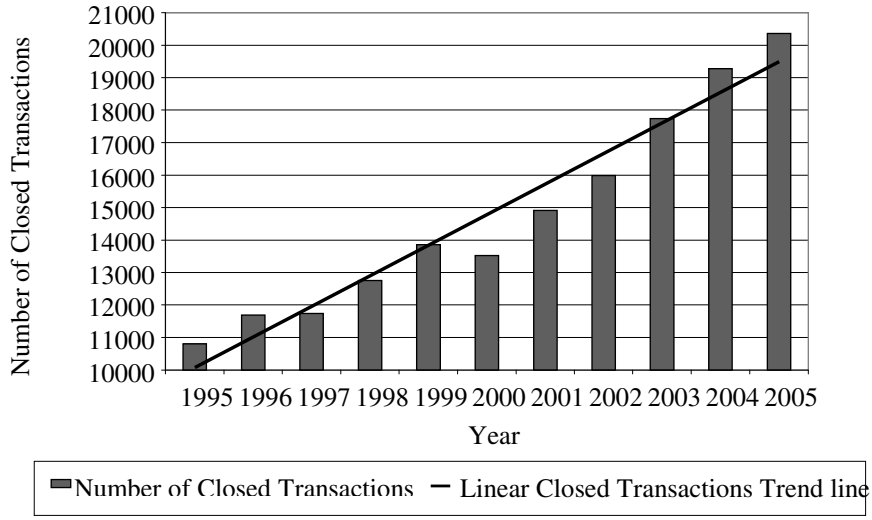

Figure 15. Number of Closed Transactions by year.

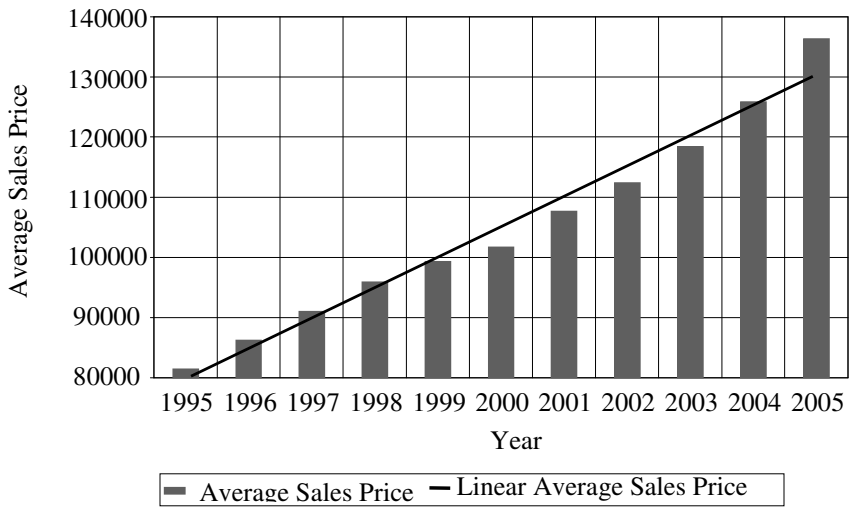

Figure 16. Average Sales Price by year.

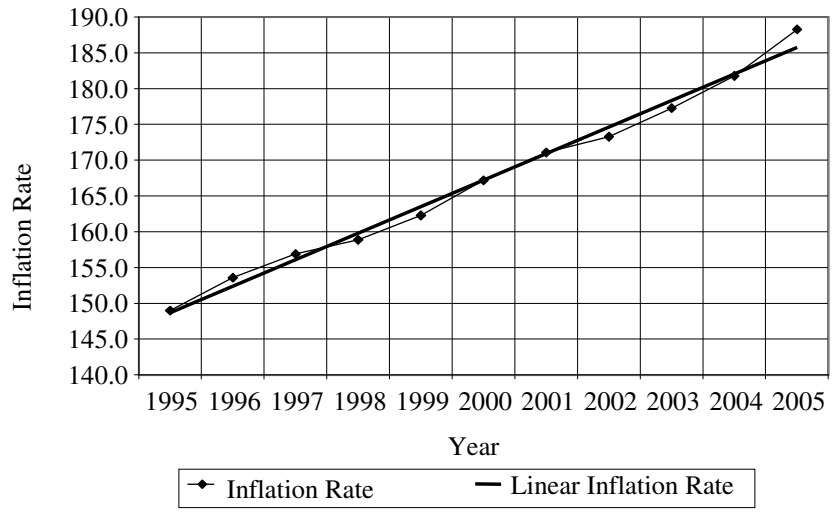

Figure 17. Annual Inflation Rates by year.

axes. Figure 21 compares the number of closed transactions on the left axis and the average sales price on the right axis. Figure 22 illustrates the comparison between the number of closed transactions on the left axis and the annual inflation rates on the right axis. Figure 23 compares the average sales price on the left axis and the annual inflation rate on the right axis. The comparisons illustrate that each variable has a positive upward slope.

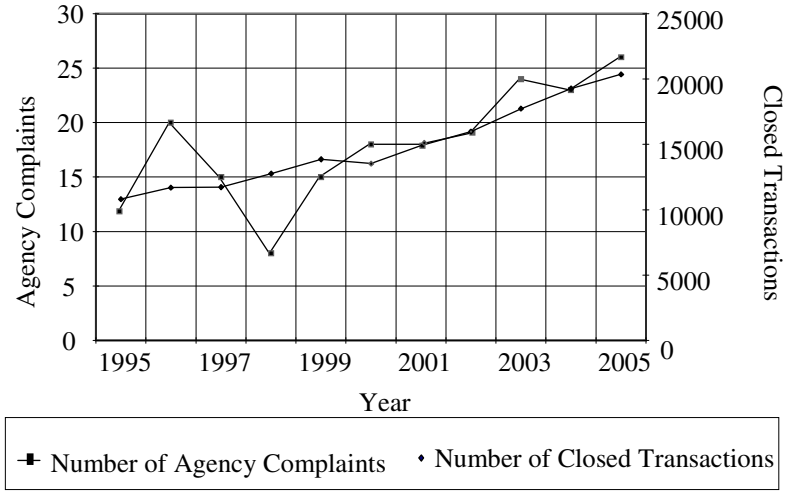

Figure 18. Comparison: Number of Agency Complaints and number of Closed Transactions by year.

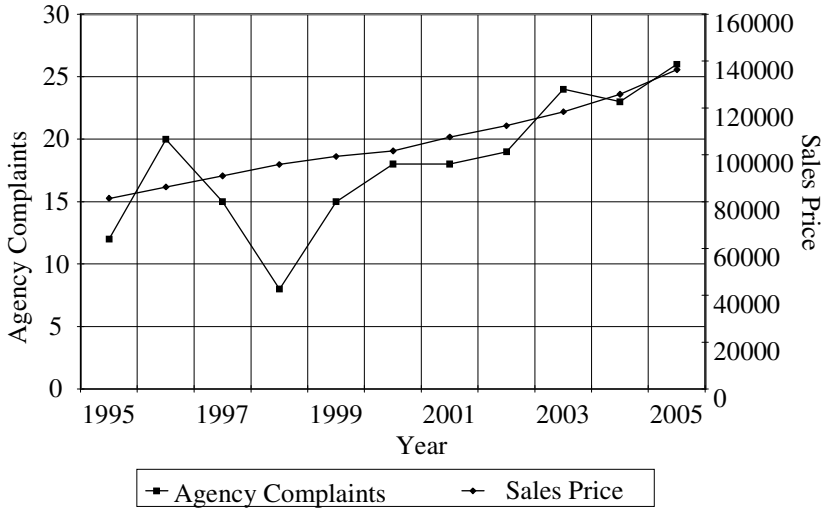

Figure 19. Comparison: Number of Agency Complaints and average Sales Price by year.

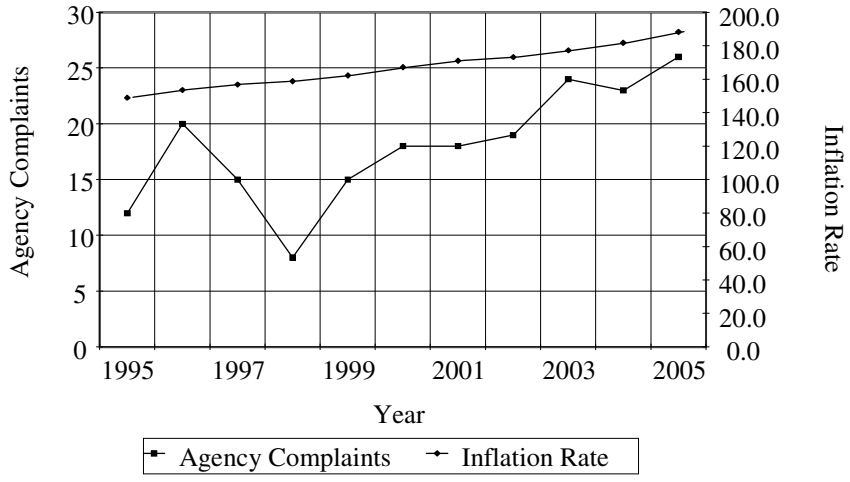

Figure 20. Comparison: Number of Agency Complaints and annual Inflation Rates by year.

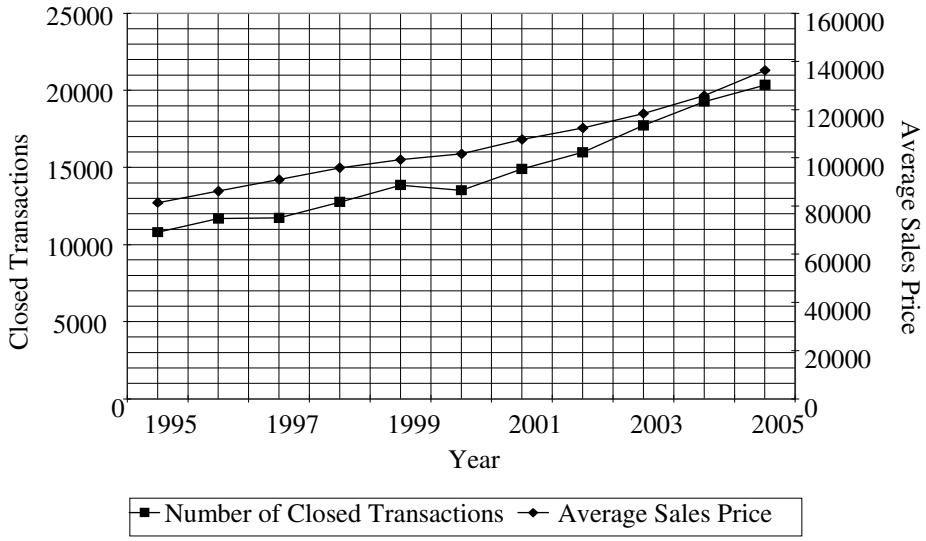

Figure 21. Comparison: Number of Closed Transactions and the average Sales Price by year.

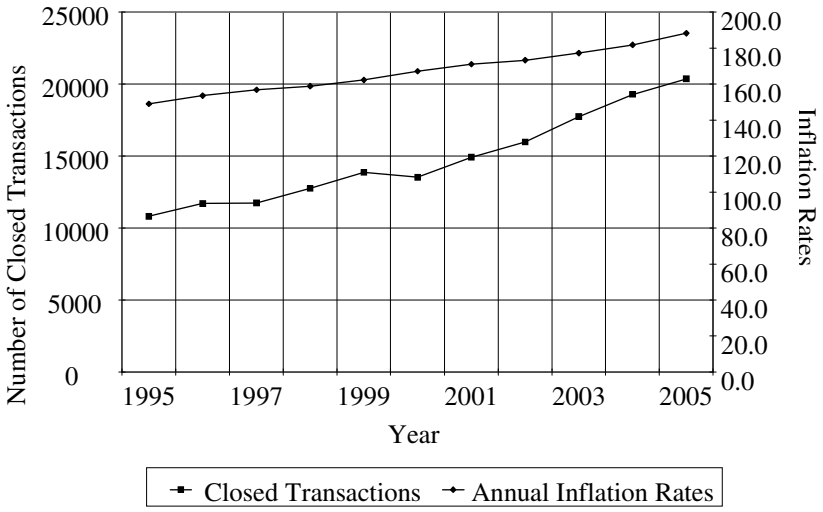

Figure 22. Comparison: Number of Closed Transactions and annual Inflation Rates by year.

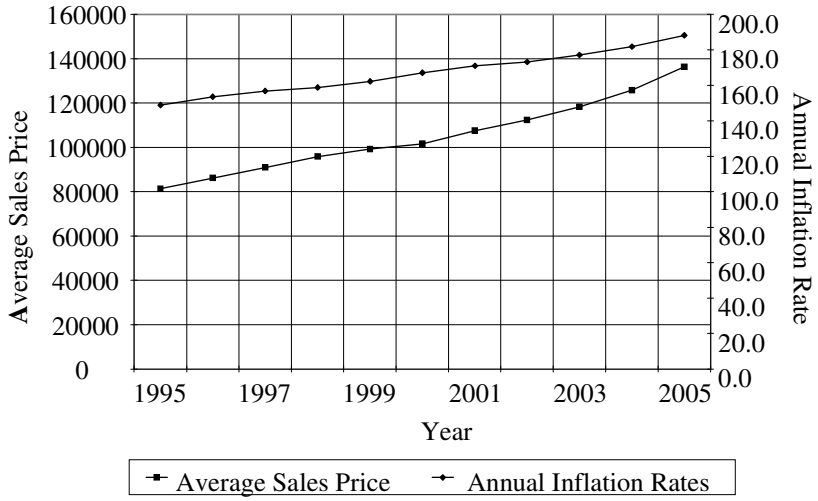

Figure 23. Comparison: Average Sales Price and annual Inflation Rate by year.

Paired-Sample t-Test and Correlation

A correlation is used to estimate the relationship between two characteristics. Because correlation analysis is best used for testing relationship between variables, it is an appropriate test for this analysis. Therefore, a second type of t-test was run call the Paired-Sample t-test. The Paired Samples t-test compares the means of two variables. Table 5 reports the results. In pair 1, pair 2 and pair 3 there is a weak correlations between the two variables at .280, .290, and .292, respectfully. However, there is a strong correlation presented in pair 4, pair 5, and pair 6. That is, between the number of closed transactions and the average sales price with a correlation of .822. Closed transactions and the annual inflations rate have a strong correlation at .776. The average sales price and annual inflation rate have the closest correlation rate at .973.

In the Paired-Samples t-test result Table 6, the paired differences illustrate the t-value, degrees of freedom, and significance is reported. In reading the significance value of the Paired Samples t-test if the significant value is less than .05, there is a significant difference. If the significance value is greater than .05, there is no significant difference. All six pairs show a statistical significance at 0.000. 0.000 is so small that the number is truncated. In addition, each pair has 119 degrees of freedom. The t-value for pair 1 is -38.868. Pair 2 has a t-value of -65.651. Pair 3 has a t-value of -148.850. Pair 4 has a t-value of -65.952. Pair 5 has a t-value of 34.595. Pair 6 has a t-value of 65.592.

Table 5 Paired Samples Correlations: All Data

		N	Correlation	Sig.
Pair 1	Agency Complaints & Closed Transaction	120	.280	.002
Pair 2	Agency Complaints & Sales Price	120	.290	.001
Pair 3	Agency Complaints & IR	120	.292	.001
Pair 4	Closed Transaction & Sales Price	120	.822	.000
Pair 5	Closed Transaction & IR	120	.776	.000
Pair 6	Sales Price & IR	120	.973	.000

Multiple Regression Analysis Before and After the Act

The general purpose of multiple regressions analysis is to learn more about the relationship between several independent variables and a dependent variable. Four components of the regression analysis need to be examined closely, The Pearson Correlation Coefficient, the Model Summary, ANOVA, and the Coefficients. The

Pearson correlation coefficient is a standardized measure of the strength of relationships between two variables. It is a parametric statistic, and it may be less useful if the underlying assumption of normality is violated (Field, 2006). Because the previous tests indicated normality, it is assumed that this will not be an issue. The Model Summary displays the r, r-squared, adjusted r-squared, and standard error of the estimate. The ANOVA tells the significance level. The final section of analysis is the table of coefficients. This is where the actual prediction equation can be found.

Pearson Product-Moment Correlation Coefficient

The Pearson correlation coefficient can take any value from -1.0 to 1.0. Where -1.0 is a perfect negative (inverse) correlation, 0.0 is no correlation, and 1.0 is a perfect positive correlation. In other words, it can take any value from -1, meaning that as one variable changes, the other changes in the opposite direction by the same amount. The closer the correlation value is to zero, the weaker is the tendency, or at zero, there is no correlation, meaning that as one variable changes the other does not change at all. A +1 reading means that as one variable changes, the other changes in the same direction by the same amount (Field, 2006). In short, the closer the correlation value is to 1, the stronger is the tendency. Cohen (1988) made some widely accepted suggestions about what constitutes a large or small effect (See Appendix D for Cohen's chart). The closer to zero the significance becomes indicates the probability of this correlation being a "fluke." Table 7 presents the multiple regression analysis Before the Act, After the Act, and together, respectively.

Table 6 Paired Samples t-Test Results: All Data

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Agency Complaints – Closed Transaction	-1241.508	349.907	31.942	-1304.757	-1178.260	-38.868	119	.000
Pair 2	Agency Complaints – Sales Price	-105463.083	17597.508	1606.425	-108643.966	-102282.201	-65.651	119	.000
Pair 3	Agency Complaints – Inflation Rate	-165.7333	12.1970	1.1134	-167.9380	-163.5286	-148.850	119	.000
Pair 4	Closed Transaction – Sales Price	-104221.575	17311.003	1580.271	-107350.670	-101092.480	-65.952	119	.000
Pair 5	Closed Transaction – Inflation Rate	1075.7750	340.6381	31.0959	1014.2021	1137.3479	34.595	119	.000
Pair 6	Sales Price – Inflation Rate	105297.3500	17585.7059	1605.3480	102118.6007	108476.0993	65.592	119	.000

A Pearson correlation coefficient was calculated for the relationship between agency complaints and closed transactions Before and After the Act and together. A weak negative correlation was found Before the Act ($r(58) = -.125$, $p > .05$). Agency complaints are not related to closed transaction Before the Act. After the Act, the Pearson correlation was calculated for the relationship between agency complaints and closed transactions. A weak positive correlation that was significant was found ($r(58) = .274$, $p < .05$) After the Act. Agency complaints are not related to closed transaction After the Act. Using all data combined, N = 120, the Pearson correlation coefficient found a weak correlation that was significant ($r(118) = .280$, $p < .05$).

Pearson correlation was calculated examining the relationship between agency complaints and sales price Before the Act. A weak correlation that was not significant was found ($r(58) = -.030$, $p > .05$). After the Act, Pearson correlation was weak correlation that was not significant ($r(58) = .187$, $p = > .05$). Together, there was a weak correlation that was significant was found ($r(118) = .290$, $p = < .05$).

A Pearson correlation coefficient was calculated for the relationship between agency complaints and days on the market. Before the Act, a weak correlation that was not significant was found ($r(58) = .030$, $p > .05$). After the Act, a weak correlation that was significant was found ($r(58) = -.219$, $p < .05$). Together, a weak correlation that was not significant was found ($r(118) = -.129$, $p > .05$).

A Pearson correlation coefficient was calculated for the relationship between agency complaints and inflation rate. Before the Act, a weak correlation that was not significant was found ($r(58) = -.045$, $p > .05$). After the Act, a weak correlation that was

not significant was found (r (58) = .188, p >.05). Together, positive moderate correlation that was significant was found (r (118) = .292, p <.05). Table 8 is the SPSS correlation table Before the Act; Table 9 is the SPSS correlation table After the Act. Table 10 is Pearson's correlation for both Before and After combined.

Table 7 Pearson's Correlation of Relationships Chart of Before the Act, After the Act, and Together

Relationship	Before the Act	Result	After the Act	Result	Together	Result
AC and CT	r(58) = -.125, p >.05	Not related	r(58) = .274, p < .05	Not related	r(118) = .280, p <.05	Not related
AC and SP	r(58) = -.030, p>.05	Not related	r(58) = .187, p = >.05	Not related	r(118) = .29, p < .05	Not related
AC and DOM	r(58) = .030, p > .05	Not related	r(58) = -.219, p < .05	Not related	r(118) = -.129, p >.05	Not related
AC and IR	(r(58) = -.045, p >.05)	Not related	(r (58) = .188, p >.05)	Not related	r(118) = .292, p <.05	

The Model Summary

The model summary indicates R-squared, also called the coefficient of determination, and tells the proportion of the variance in the dependent variable, number of agency relationship complaints, that can be explained by variation in the independent variables closed transactions, average sales price, average days on the market, and the annual inflation rate. Furthermore, r-squared is a percent. Thus, in Table 9, r-squared = 2.2% Before the Act, r-squared = 9.3% After the Act, and r-squared = 9.7% combining Before and After the variation in agency complaints can be explained by differences in the independent variables. R-squared is an accurate value for the sample drawn, but is considered an optimistic estimate for the population value (George & Mallery, 2007). On the other hand, the adjusted R-squared value indicates the loss of predictive power or

Table 8 Pearson's Correlations of Variables Before the Act

		Agency Complaints	Closed Transactions	Sales Price	Days On Market	Inflation Rate
Pearson Correlation	Agency Complaints	1.000	-.125	-.030	.051	-.045
	Closed Transactions	-.125	1.000	.619	-.453	.471
	Sales Price	-.030	.619	1.000	-.153	.858
	Days On Market	.051	-.453	-.153	1.000	-.048
	Inflation Rate	-.045	.471	.858	-.048	1.000
Sig. (1-tailed)	Agency Complaints	.	.171	.409	.348	.368
	Closed Transactions	.171	.	.000	.000	.000
	Sales Price	.409	.000	.	.122	.000
	Days On Market	.348	.000	.122	.	.357
	Inflation Rate	.368	.000	.000	.357	.
N	Agency Complaints	60	60	60	60	60
	Closed Transactions	60	60	60	60	60
	Sales Price	60	60	60	60	60
	Days On Market	60	60	60	60	60
	Inflation Rate	60	60	60	60	60

shrinkage (Field, 2006) and is not a percentage. Jenson (2007) cautions when interpreting R-squared and the adjusted R-squared stating that R-squared is a percent and the adjusted R-squared is not and should be referred to as an index value. Thus, the adjusted R-square should be referred to as an index value rather than a percentage. In this study the adjusted R-squared tells us that our model accounts for -4.9 variance in agency complaints Before the Act, 2.8 variance in agency complaints After the Act, and only 5.7 combined variance in agency complaints. The adjusted r-squared summary indicates that the model is less than desirable. A higher adjusted r-squared would

indicate a better model. A negative adjusted R-squared is rather rare. An adjusted R-squared takes into account that a variable that is completely unrelated to Y may appear to have some relationship to Y in data just by luck. The adjusted R-squared reduces the R-squared by how much fit would probably happen just by luck. As a result, a negative adjusted R-squared may be displayed in the model summary (Baker, 2007).

Table 9 Pearson's Correlations of Variables After the Act

		Agency Complaints	Closed Transactions	Sale Price	Days On Market	Inflation Rate
Pearson Correlation	Agency Complaints	1.000	.274	.187	-.219	.188
	Closed Transactions	.274	1.000	.683	-.500	.606
	Sale Price	.187	.683	1.000	-.212	.943
	Days On Market	-.219	-.500	-.212	1.000	-.097
	Inflation Rate	.188	.606	.943	-.097	1.000
Sig. (1-tailed)	Agency Complaints	.	.017	.076	.046	.076
	Closed Transactions	.017	.	.000	.000	.000
	Sale Price	.076	.000	.	.052	.000
	Days On Market	.046	.000	.052	.	.230
	Inflation Rate	.076	.000	.000	.230	.
N	Agency Complaints	60	60	60	60	60
	Closed Transactions	60	60	60	60	60
	Sale Price	60	60	60	60	60
	Days On Market	60	60	60	60	60
	Inflation Rate	60	60	60	60	60

Table 10 Pearson's Correlation of Relationships Before and After the Act Combined

		Agency Complaints	Closed Transaction	Sales Price	DOM	IR
Pearson Correlation	Agency Complaints	1.000	.280	.290	-.129	.292
	Closed Transaction	.280	1.000	.822	-.444	.776
	Sales Price	.290	.822	1.000	-.219	.973
	DOM	-.129	-.444	-.219	1.000	-.161
	IR	.292	.776	.973	-.161	1.000
Sig. (1-tailed)	Agency Complaints	.	.001	.001	.080	.001
	Closed Transaction	.001	.	.000	.000	.000
	Sales Price	.001	.000	.	.008	.000
	DOM	.080	.000	.008	.	.039
	IR	.001	.000	.000	.039	.
N	Agency Complaints	120	120	120	120	120
	Closed Transaction	120	120	120	120	120
	Sales Price	120	120	120	120	120
	DOM	120	120	120	120	120
	IR	120	120	120	120	120

The Standard error of the estimate gives the margin of error for the prediction equation. That is, using the prediction equation, 68% of the data will fall within one standard error of the estimate of the predicted value. Just over 95% will fall within two standard errors of the estimates. Thus, in this study, 95% of the time, the estimated number of agency complaints will be within 2.138 complaints of being correct Before the

Act, 2.494 complaints of being correct After the Act, and 2.334 complaints of being correct when combining all data Before and After the Act.

Table 11 Multiple Regression Model Summaries Before the Act, After the Act, and Together

Model		r	r Square	Adjusted r Square	Standard Error of the	r Square Change	F Change	df1	df2	Sig. F change
1	Before	.150[a]	.022	-.049	1.069	.022	.316	4	55	.866
	After	.306[a]	.093	.0281	1.247	.093	1.418	4	55	.240
	Together	.331[a]	.097	.057	1.167	.097	2.445	5	114	.038

a Predictors: (Constant), Closed Transactions, Sales Price, Days on the Market, Inflation Rate, Before Dummy

Analysis of Variance or ANOVA

The next section of the output is the Analysis of Variance or ANOVA source table. ANOVA is a technique for testing the hypothesis that sample means of several groups are derived from the same population. This procedure is used to comparing sample means to see if there is sufficient evidence to infer that the means of the corresponding population distributions also differ. It lists the various components of the variance, along with their relative sizes. The ANOVA is the appropriate test to run because it fits the need of the variables of the study. ANOVA has a maximum of one dependent variable, and may have two or more independent variables. In contrast, the Multivariate Analysis of Variance (MANOVA) was not deemed an appropriate test

because it may have multiple dependent variables and multiple independent variables. Table 12 is the ANOVA table for the test of the null hypothesis that the number of agency complainants instrumental to the five independent variables. The key interpretive element of interest in the ANOVA summary is the significance level on the far right. If that value is less than .05, then it is a significant linear regression. If it is larger than .05, it is not a significant linear regression. Therefore, Before the Act there was not a significant linear regression, p = .866. After the Act, there was not a significant linear regression, p = .240. However, combining the Before and After, together there is significant linear regression, p = .038.

F is a ratio of explained variance to unexplained variance. It is a measure of the ratio of the variation explained by the model and the variation explained by unsystematic factors. The calculation is the mean square regression divided by mean square residual. This is the same thing as asking if the model as a whole has statistically significant predictive capability in the regression framework. The two estimates of variability are shown in the column labeled Mean Square. Their ratio is in the column labeled F. If the null hypothesis is true, the ratios of the between-groups mean square to the within-groups mean square to be close to 1, whereas a large F-ration indicates a location effect. Large values for the F-ratio indicate that the sample means vary more than expected if the null hypothesis were true. The null hypothesis is rejected if the F ratio is large (Norusis, 2005). The F-ratio is less than 1, which indicates there is more unsystematic than systematic variance. In the decision to accept or reject the null hypothesis, it is necessary to look at the significance level and the degrees of freedom (df). Before the Act, F-ratio

= .316, df = 4, 55 with an insignificant level p = .866, rejecting the null hypothesis. After the Act, F-ratio =1.418 with 4, 55 df and no significant linear regression. With the large F-ratio and an insignificant linear level, reject the null hypothesis. Finally, looking at the Before and After combined, the F-ratio is a larger number, F = 2.445, 5, 114 df and with a significant linear regression. Based on Table 12, the analysis of variance table for the combined Before and After, the null hypothesis that states there is a difference between the number of complaints filed from 1995 to 1999 and the number of complaints filed from 2001 to 2005 in terms of agency representation against licensed real estate agents in the OKCMSA is rejected.

Table 12 ANOVA Summary Table for Multiple Regression Analysis Before the Act, After the Act, and Together

Model			Sum of Squares	df	Mean Square	F	Sig.
1	Before	Regression	1.446	4	.361	.316	.866[a]
		Residual	62.887	55	1.143		
		Total	64.333	59			
	After	Regression	8.817	4	2.204	1.418	.240[a]
		Residual	85.516	55	1.555		
		Total	94.333	59			
	Together	Regression	16.659	5	3.332	2.445	.038[a]
		Residual	155.341	114	1.363		
		Total	172.000	119			

a Predictors: (Constant), IR, DOM, Closed Transaction, Before Dum, Sales Price
b Dependent Variable: Agency Complaints

Standardized Regression Coefficients

Another output of the multiple regression tests is the Unstandardized and Standardized regression coefficients. The Unstandardized coefficients indicate the increase in the value of the dependent variable for each unit increase in the predictor variable. A well-known problem with the interpretation of unstandardized coefficients is that their values are dependent on the scale of the variable for which they were calculated, which makes it difficult to assess the relative influence of independent variables through a comparison of unstandardized coefficients. On the other hand, beta coefficients are based on data expressed in standardized, or Z-score of the variables. Thus, all variables have a mean of zero, a standard deviation of one, and are expressed in the same units of measurement. These values will vary strictly between plus and minus 1.0 and may be compared directly with beta values of other analyses (George & Mallery, 2007). A positive coefficient means that the predicted value of the dependent variable increases when the value of the independent variable increases. A negative coefficient means that the predicted value of the dependent variable decreases when the value of the independent variable increases (Norusis, 2005).

In addition to the coefficients, the table also provides a significance test for each of the independent variables in the model. This test is presented as a t statistic. The t-test tests the significance of each b coefficient. It is possible to have a regression model, which is significant overall by the F-test, but where a particular coefficient is not significant. The t-test and Sig. columns provide the t-value and 2 tailed p-value used in testing the null hypothesis that the coefficient/parameter is zero. Coefficients having p-

values less than alpha are statistically significant. The Standardized Beta coefficients give a measure of the contribution of each variable to the model. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable. The t and significant (p) values give a rough indication of the impact of each predictor variable – a big t-value and small p value suggests that a predictor variable is having a large impact on the criterion variable. For example, with an alpha at 0.05, coefficients having a p-value of 0.05 or less would be statistically significant resulting in rejecting the null hypothesis and stating that the coefficient is significantly different from 0. However, when the observed significance level is too large to reject the null hypothesis that the means are equal, two explanations are possible. The first explanation is that there is no difference between the two population means, or that there is a small difference and it is not detected. The second explanation is that there is an important difference between the two groups, but that the tests did not detect it. One reason for not rejecting the null hypothesis when it is false may be that the sample size is small and the observed result does not appear to be unusual.

Examining the beta coefficients from Before the Act in Table 13, closed transactions have a t-value = -.987 with a significance level of p = .328, accepting null hypothesis. The beta coefficients for sales price has a t-value of .609 with a p-value = .545, accepting the null hypothesis. The beta coefficient for days on the market has a t-value of -.080 with a p-value = .937, accepting the null hypothesis. The beta coefficient for inflation rate has a t-value of -.417 with a p-value = .678, accepting the null hypothesis.

Next, analyzing the beta coefficients from After the Act in Table 13 indicated the following. Closed transactions have a t-value = .968, p = .337. Sales price have a t-value = -.607, p = .547. Days on market have a t-value = -.934, p = .354. Inflation rate t-value = .741, p = .462. The large p-values suggest accepting the null hypothesis.

Finally, continue the analysis by looking at the together section of Table 13 for the combined coefficients of Before and After the Act. Closed transaction has a t-value of .599, p = .550. Sales price has a t-value = -.057, p = .955. Days on the market has a t-value of .267, p = .790. Before dummy has a t-value = -.481, p = .631. The large p-values indicate the acceptance of the null hypothesis.

The Unstandardized coefficients B are the regression coefficients. The regression equation is:

Brokers level of effort Before the Act = -.082 (Constant) + .000 (CT) + .000 (SP)
-.010 (DOM) + .013 (IR)
+ (-.243 (BD) * 1 (before = 1))
= -0.3220

Brokers level of effort After the Act = -.082 (Constant) + .000 (CT) + .000 (SP) - .010
(DOM) +.013 (IR) + (-.243(BD) * 0
(After = 0))
= -0.0790

The broker level of effort change is insignificant, -0.0790 (After the Act) + 0.3220 (Before the Act) = +.2430

Table 13 Table of Coefficients for Agency Complaints Before the Act, After the Act, and Together

Model			Unstandardized Coefficients		Standardized Coefficients	t	p value or Sig.
			B	Std. Error	Beta		
1	Before	(Constant)	3.977	6.769		.588	.559
		Closed Transaction	-.001	.001	-.190	-.987	.328
		Sales Price	.000	.000	.180	.609	.545
		Days on the Market	-.002	.026	-.012	-.080	.937
		Inflation Rate	-.025	.060	-.110	-.417	.678
		Before Dummy					
	After	(Constant)	-4.035	8.811		-.458	.649
		Closed Transaction	.001	.001	.196	.968	.337
		Sales Price	.000	.000	-.261	-.607	.547
		Days on the Market	-.032	.034	-.147	-.934	.354
		Inflation Rate	.059	.080	.301	.741	.462
		Before Dummy					
	Together	(Constant)	-.082	5.641		-.015	.988
		Closed Transaction	.000	.001	.107	.599	.550
		Sales Price	.000	.000	-.025	-.057	.955
		Days on the Market	-.010	.021	-.051	-.479	.633
		Inflation Rate	.013	.049	.135	.267	.790
		Before Dummy	-.243	.505	-.102	-.481	.631

a Dependent Variable: Agency Complaints

Conclusion

A multiple linear regression was calculated to predict the number of agency complaints Before the Act based on the number of closed transaction, the average sales price, the average days on the market, and the annual inflation rate. An insignificant regression equation was found ($F(4, 55) = 0.316$, $p > .05$), with an r-squared of .022. The brokers level of effort Before the Act is equal to 3.977 -.001 (CT) +.000 (SP) - .002 (DOM) -.025 (IR), where CT was coded by actual count, SP and DOM was the average for each year 1995 through 2005, and IR was based on the annual percentage rate by year 1995 through 2005. The number of agency complaints decreases .001 for each closed transaction. The number of agency complaints decrease .002 for each day on the market. The number of agency complaints decrease by .025 for each inflation rate percentage. All the independent variables are not significant predictors; CT, SP, DOM, and IR cannot be used to predict agency complaints.

A multiple linear regression was calculated to predict the number of agency complaints After the Act based on the number of closed transaction, the average sales price, the average days on the market, and the annual inflation rate. An insignificant regression equation was found ($F(4, 55) = 1.418$, $p > .05$), with an r-squared of .093. The brokers level of effort After the Act is equal to -4.035 +.001 (CT) +.000 (SP) - .032 (DOM) + .059 (IR), where CT was coded by actual count, SP and DOM was the average for each year 1995 through 2005, and IR was based on the annual percentage rate by year 1995 through 2005. The number of agency complaints increase .001 for each closed transaction. The number of agency complaints decrease .032 for each day on the market.

The number of agency complaints increase by .059 for each inflation rate percentage. All the independent variables are insignificant predictors: CT, SP, DOM, and IR cannot be used to predict agency complaints.

A multiple linear regression was calculated to predict the number of agency complaints combining each variable Before and After the Act based on the number of closed transaction, the average sales price, the average days on the market, and the annual inflation rate. The combined multiple linear regressions are signified by the word "Together" in Table 11. A significant regression equation was found ($F (5, 114) = 2.445$, $p > .05$), with an r-squared of .097. The brokers level of effort Before and After the Act is equal to -.082 + .000 (CT) +.000 (SP) - .010 (DOM) + .013 (IR) -.243 (BD), where CT was coded by actual count, SP and DOM was the average for each year 1995 through 2005, IR was based on the annual percentage rate by year 1995 through 2005, and before dummy was coded before = 1, after = 0. The number of agency complaints decrease .082 for each closed transaction. The number of agency complaints decrease .010 for each day on the market. The number of agency complaints increase by .013 for each inflation rate percentage. The number of agency complaints decrease .243 for each before dummy. All the independent variables are not significant predictors; CT, SP, DOM, and IR cannot be used to predict agency complaints.

In conclusion, to enhance clarity for the reader, Table 14 summarizes the significant tests, which were run for this study.

Table 14 Summary of the test ran for this study

Number	Test	Analysis Provided
1.	Summary of Statistics and Frequency	Mean, Median, Standard Deviation, Skewness, Standard Error of Skewness, Minimum Maximum
2.	Normal Q-Q Plot of Ethnocentrism	Confirms that the data follows the normal distribution curve
3.	Descriptive Statistics and the Independent-Sample t-Test	Levene's Test, t-Test for Equality of Means
4.	Paired-Sample t-Test	Correlation and Significant
5.	Multiple Regression	Pearson Correlation Coefficient, Model Summary, ANOVA, and the Coefficients
6.	Pearson Correlation Coefficient	Significant test
7.	Model Summary	R, R-squared, Adjusted R-squared, Standard Error of the Estimate, R-square Change, F Change, Degrees of Freedom 1, Degrees of Freedom 2, Significant F Change
8.	ANOVA	Sum of Squares, Degrees of Freedom, Mean Square, F-test, Significance
9.	Coefficients	Unstandardized Coefficients (B and Standard Error), Standardized Coefficients Beta, t-Test, p-value or Significance

CHAPTER 5. RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is organized in three main sections. The first section is a brief overview of the study including a review of the research purpose, question, methods and procedures, and the significance of the study. The second section of this chapter will summarize test results, including the Geltner model, and the important findings of the research. The findings will be discussed in terms of the research problem, the conceptual framework, and research question. The third section of this chapter will present practical implications of the research, recommendations based on this study, potential study improvements, and suggestions for future research.

Brief Overview of the Study

The problem addressed in this study concerns the principal-agent conflict of interest as it relates to representation and proposed level of broker effort in residential sales in the OKCMSA. This study analyzed the market response to the Oklahoma Broker Relationship Act of November 1, 2000. The Act limited the relationships a licensed real estate person could practice. It states that a broker may enter into a written brokerage agreement to provide services as either a single-party broker or transaction broker. If the broker did not enter into a written brokerage agreement with a party, the broker would be performing services only as a transaction broker. As such, the Act eliminated the traditional agency relationships and the law of agency. Oklahoma is the only state in the union to take such a step.

Review of the Research Purpose

The driving purpose of the research was to determine the effects of the Broker Relationship Act as well as how it influenced the broker's level of effort in selling residential property in the OKCMSA. That is, to determine if there was a significant change in the broker's level of effort five years Before and five years After the Act of November 1, 2000, measured by the number of agency complaints filed with the Oklahoma Real Estate Commission. The year 2000 was omitted from the study due to limited data in a feasible format.

Review of the Research Question

The research was performed to answer the following research question: Was there a significant change in the broker's level of effort After the Oklahoma Broker Relationship Act?

Review of the Research Hypotheses

The hypotheses made and tested were:

Hypothesis 1: H_1 – There is no difference between the number of complaints filed from 1995 to 1999 and the number of complaints filed from 2001 to 2005 in terms of agency representation against licensed real estate agents in the OKCMSA (μ of #CB = μ of #CA).

Hypothesis 0: H_0 or null hypothesis – There is a significant difference between the number of complaints filed from 1995 to 1999 and the number of complaints filed from 2001 to 2005 in terms of agency representation against licensed real estate agents in the OKCMSA (μ of #CB $\neq$ μ of #CA).

Such that:

1. IV: number of agency complaints
2. DV: agency representation
3. Participants: licensed real estate agents
4. Research site: OKCMSA
5. Form and Language: Null indicating no difference

Review of the Research Methods and Procedures

A fixed quantitative research design provided the methodology framework. The quantitative, ex post facto design set the stage for this study. This method was selected because of its straightforwardness with the use of historical data. In addition, the quantitative approach lends itself to the analysis of large amounts of statistical data. It should be noted that because the data used was historical, variables were not manipulated. The theoretical framework was borrowed from the works of Fredrick W. Taylor and the 1991 presentation of Geltner, Kluger, and Miller in their article, Optimal Price and Selling Effort from the Perspectives of the Broker and Seller. Further explanation for using this methodology and its disadvantages can be found in Chapter 3. The data used in this study was derived from various reputable sources, such as the Oklahoma Real Estate Commission, Oklahoma City Metropolitan Association of Realtors, the local MLS, and the United States Department of Labor. This study included data on the active licensed Realtors in the OKCMSA as defined by the Office of Management and Budget for Oklahoma City. The MSA definition from the Office of Management and Budget for Oklahoma City include the following counties: Canadian,

Cleveland, Grady, Lincoln, Logan, McClain, and Oklahoma County. The data collected from OREC was hand written into an accountant ledger, and typed into an Excel spreadsheet. The local Association and MLS provided information by photocopy, and the data from the US Department of Labor was downloaded from their website. Once all data was entered into Excel, a visual check was completed for obvious errors, omissions, or discrepancies. All the data was transferred into a statistical software program, SPSS, for analysis. In the regression analysis, the period Before the Act entries were coded as one and entries After the Act were coded at zero. The data consists of:

(a) Y_1 = number of agency relationship complaints (AC)

(b) X_1 = number of closed transactions (CT)

(c) X_2 = median sales price (SP)

(d) X_3 = median days on market (DOM)

(e) X_4 = annual inflation rate (IR)

(f) X_5 = dummy variable 1 = before, 0 = after

A number of statistical test were run from the collect data. Many of the tests were run separating the data into the two specific periods. The first test run calculated the common statistical applications for the two periods, such as frequency, mean, median, and standard deviation. This is illustrated in table and graph form. Each variable was plotted along with the standard bell curve in each histogram. Second, the normal Q-Q Plot of Ethnocentrism Scale was run. This test was run to acknowledge that each variable followed the normal distribution curve. This was followed by the independent-Sample t-Test, the third test. For visual clarity, a comparison was graphed between the dependent

variable, number of agency relationship complaints, and each independent variable for each year of the study. Fourth, the Paired-Sample t-Test and correlation estimated the relationship between two characteristics. Fifth, a multiple regression was performed on all the data, which included the Pearson product-moment correlation coefficient, the Model Summary, ANOVA, and Coefficients. Details on each test can be found in Chapter 4. The level of significance for all tests was set at .05. All the agency complaints filed with OREC, save one, was located, and included in this study for the period from 1995 through 1999 labeled Before the Act, and 2001 through 2005 labeled After the Act.

Significance of the Study

The significance of this study is threefold. First, it increased the knowledge base of the effects of the Act and its impact on the practices of Oklahoma real estate brokerage firms, including adding more information to the body of knowledge in the real estate practice from a managerial leadership perspective. Second, this understanding should lead to establishing consistent representation practices in the industry of Oklahoma, thus improving the image of those who work in this field. The standardized practices should result in less confusion for all parties involved in a residential transaction. Third, this study will help reduce liability for the real estate brokerage firms, thereby reducing unwanted agency lawsuits. Given the findings from this research, information gathered may be generalized to other licensed professions. The relevant conclusions drawn from this analysis follow.

Summary of Results and Important Findings

Test Results

The initial tests were run to determine variables frequency and their distribution. The first set of test provided the summary of statistics and for the data, resulting in no event. The Q-Q Plots showed the form of the data. It was necessary to know if the data followed the normal distribution curve for subsequent tests, such as the Pearson product-moment correlation coefficient. In addition, the descriptive statistics provided a method to check for errors in data entry and coding. Summary statistics include common descriptive such as mean, median, and standard deviation. See Tables 1 and 2 for a thorough report on these findings. Figures 1 through Figure 8 are histograms that exhibit how closely each independent variable follows the normal distribution bell curve. In addition, Q-Q Plots in Figures 9 through Figure 13 portray each variable with the expected normal value. Each variable test indicates no event. Subsequent test were made with the assumption that each variable followed the normal distribution curve.

The next two tests were the Independent-Sample t-Test and the Paired-Sample t-Test. The result of the Levene's test from the Independent-Sample t-Test indicated that agency complaints and days on market were not significantly different Before and After the Act. On the other hand, closed transactions, average sales price, and annual inflation rate were significant Before and After the Act. The finding of the Independent-Sample t-Test suggests that comparing the two groups Before and After the Act, agency complaints, closed transactions, sales price, and inflation rate have a trend toward a significant influence. The days on market p-value indicated that it was insignificant.

This result can be seen in Figures 18 through Figure 23. The results of the Paired-Sample t-Test reveal that for N = 120 all six pairs have a statistical significance at 0.000. The test analysis indicates the mean score for AC to CT mean score M = -1241.508, with a low correlation r = .280, t-value = -38.868, for pair 1. Pair 2, AC to SP had a mean score M = -105463.083, with a low correlation r = .290, t-value of -65.651. AC to IR, pair 3 had a mean score M = -165.7333, with a low correlation r = .295, t-value of -148.850. Pair 4, CT to SP had a mean score M = -104221.575, with a significant correlation r = .822, t-value of -65.952. Pair 5, CA to IR had a mean score M = 1075.7750, a significant correlation r = .776, t-value of 34-595. Pair 6, SP to IR had a mean score M = 105297.35, a significant correlation r = .973, and a t-value of 65.592. Table 5 and Table 6 summarize that AC to CT, AC to SP, AC to IR did not have a significant correlation, while CT to SP, CT to IR, and SP to IR had a significant correlation.

The Multiple Regression includes a number of tests, which will be summarized. Table 15 reflects the Pearson product-moment correlation coefficient for the study. The common measures of the size of the effect are applied, such that ±0.1 represents a small effect, ±0.3 is a medium effect, and ±0.5 is a large effect.

Before the Act:

(a) AC to CT resulted in an weak negative insignificant correlation

(r (58) = -.125, p = .171) - medium effect

(b) AC to SP resulted in a weak positive insignificant correlation

(r (58) = -.030, p = .409) –small effect

(c) AC to DOM resulted in weak positive insignificant correlation

(r (58) = .030, p = .348) – small effect

(d) AC to IR resulted in a weak positive insignificant correlation

(r (58) = -.045, p = .368) – small effect

After the Act:

(e) AC to CT resulted in a weak positive significant correlation

(r (58) = .274, p = .017) – medium effect

(f) AC to SP resulted in a weak positive insignificant correlation

(r (58) = .187, p = .076) – medium effect

(g) AC to DOM resulted in weak negative significant correlation

(r (58) = -.219, p = .046) – medium effect

(h) AC to IR resulted in a weak positive insignificant correlation

(r (58) = .188, p = .076) – medium effect

Together:

(i) AC to CT resulted in a weak negative significant correlation

(r (58) = .28, p = .001) – medium effect

(j) AC to SP resulted in a weak positive significant correlation

(r (58) = .290, p = .001) – medium effect

(k) AC to DOM resulted in weak negative insignificant correlation

(r (58) = -.219, p = .080) – medium effect

(l) AC to IR resulted in a moderate positive significant correlation

(r (58) = .292, p = .001) – medium effect

Table 15 Summary of Pearson's Product-Moment Correlation Coefficient

Variables	Before			After			Together		
	r	Sig.	Effect	r	Sig.	Effect	r	Sig.	Effect
AC to CT	-.125	.171	Medium	.274	.017	Medium	.28	.001	Medium
AC to SP	-.030	.409	Small	.187	.076	Medium	.29	.001	Medium
AC to DOM	.030	.348	Small	-.219	.046	Medium	-.129	.080	Medium
AC to IR	-.045	.368	Small	.188	.076	Medium	.292	.001	Medium

The Model Summary established the r-squared percent and the Adjusted r-squared index value. R-squared Before the Act accounted for 2.2%. After the Act, r-squared equaled 9.3% and 9.75% combined. The Adjusted r-squared index outcome Before the Act was -4.9 index value, 2.8 index value After the Act, and combined only 5.7 index value. The direction of influence for all three groups was positive. The ANOVA summary significance Before the Act concludes there was not a significant linear regression, p = .866. After the Act, there was not a linear regression, p = .240. In contrast, Together there is a significant linear regression, p = .038. Next, analyzing the F-ratio, Before the Act the F-ratio = .316, df = 4, 55 with an insignificant level p = .866, accepting hypothesis 1, rejecting the null hypothesis. After the Act, F- ratio = 1.418 with 4, 55 df and no significant linear regression, accepting hypothesis 1, reject the null

hypothesis. Finally, together the F-ratio = 2.445, 5, 114 df and a significant linear regression. The summary for the multiple regression tests show:

Before the Act:

(a) CT - beta = -.190, t-value = -.987, p = .328

(b) SP – beta = .180, t-value = .609, p-value = .54

(c) DOM - beta = -.012, t-value = -.080, p-value = .937

(d) IR – beta = -.110, t-value = -.417, p-value = .678

After the Act:

(e) CT beta = .196, t-value = .968, P-value = .337

(f) SP beta = -.261, t-value = -.607, p-value = .547

(g) DOM beta = -.147, t-value = -.934, p-value = .354

(h) IR beta = .301, t-value = .741, p-value = .462

Together:

(i) CT beta = .107, t-value = .599, p-value = .550

(j) SP beta = -.025, t-value = -.057, p-value = .955

(k) DOM beta = -.051, t-value = -.479, p-value = .633

(l) IR beta = -.102, t-value = -.481, p-value = .631

The Multiple Regression analysis suggests that because of the insignificant values (p-values) one cannot be confident of the Before the Act variable significant value. All Before the Act relationship tested insignificant or unrelated. After the Act, the relationships between AC to CT, and AC to DOM reflect p value <.05. This significance value indicates that the probability of these correlations being a "fluke" is very low. On

the other hand, AC to SP and AC to IR reflect a p value > .05, thus, the research indicates that one cannot be confident of these correlations. Together, the tested relationships, save AC to DOM, appear to have p-value <.05. Therefore, we can be confident of these relationships are genuine. The conclusion of the Model Summary was disappointing reflecting only a 5.7 index value. A higher r-squared would be desirable. The ANOVA resulted in accepting the hypothesis and rejecting the null hypothesis. On the other hand, the summary of the multiple regressions indicated rejecting the hypothesis, accepting the null hypothesis.

Geltner, Kluger, and Miller Model

Geltner, Kluger, and Miller (1991) provide the framework that is based on past conflict of interest literature concerning principal-agent problems. Their model supplies a theoretical construct regarding conflict of interest between the broker's level of effort in marketing residential real estate and the seller's reserve price. Several extensive theories are discussed in their article, Optimal Price and selling Effort from the Perspectives of the Broker and Seller. However, this study focuses on equation 4a. Their numerical analysis indicates that with plausible parameter values, conflict of interest problems regarding the broker effort level are minor or nonexistent near the end of the listing contract, but potentially important near the beginning of the listing contract. In contrast, the conflict of interest regarding reservation price is more severe near the end of the listing contract and is exacerbated by the use of finite duration contract, and more so the shorter the listing contract. To maintain continuity, the same percentages, real return, and opportunity cost

of selling agents time will remain the same as those used by Geltner. To test the studies variables Geltner's theory states:

$$h/x = c/(P*b - d*V) \qquad (1)$$

where:

h = DOM = is the hazard incurred by the broker. This is the broker's time and money expended, but the property does not sell.

x = is the level of selling effort the broker makes to sell the property

c = is the cost associated with selling a property.

P = Average SP = is the price that the seller willing to accept for his property

b = is the commission paid to the broker when the property sells. In harmony with the norm in the OKCMSA, a 7% commission will be used in the analysis (b = .07).

d = IR = is a discount factor of the listing agreement. That is, the value of the listing agreement as it declines over time.

V = is the actual value of the listing agreement.

The level of broker's effort is related in two independent variables DOM, and time in this study. The main incentives in this model for the broker are commission and time. The higher the percent of commission paid the more effort the broker is likely to extend. Similarly, the broker is more likely to put more effort into selling a property if he thinks he is able to make a quick sale. In theory, the longer a property remains in inventory the broker's level of effort declines save of a possible final effort before the listing expires.

The numerical analysis makes several assumptions. First, since the average sales price is known from the historical data, we assume that buyers are willing to continue to pay the mean of the sales price of each year. Second, the time-period is defined in years. Third, the required real return is 35%, or approximately 20% per year. Fourth, commissions paid to brokers are fixed at 7%. Fifth, the analysis assumes that the price does not change over the life of the listing contract. Sixth, fixed cost such as rent and overhead are not considered because they are not relevant to the problem. In addition, as indicated above, days on the market will represent, the hazard incurred by the broker, but the property does not sell. The annual inflation rate will represent the discount factor of the listing agreement.

Figure 24 presents the results of Geltner's model. The OKCMSA does not appear to follow the same pattern that was found in his study. The average sales price per year continues with a positive upward slope, while the estimated broker-effort unit appears sporadic.

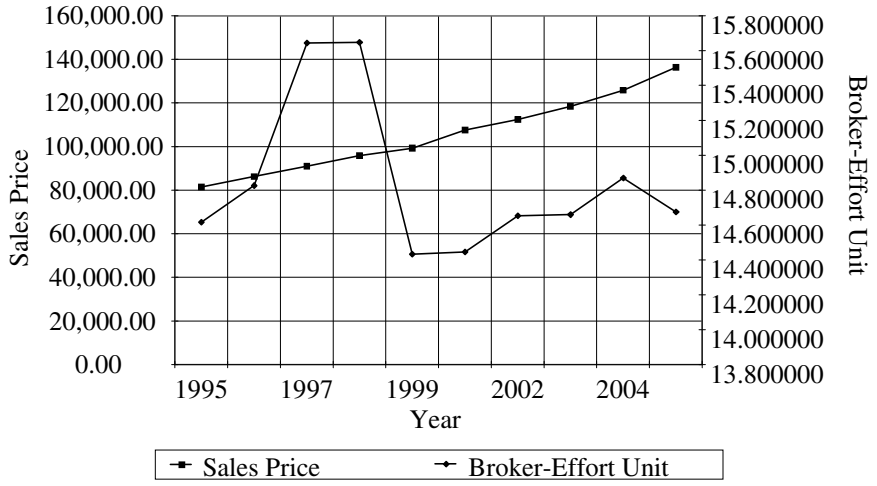

Figure 24. Comparison: Sales Price to estimate Broker-effort Unit for years 1995 through 2005.

There are several limitations to Geltner, Kluger, and Miller's model. The research indicates that the model is not a strong reliable model. Many of the models assumptions are not realistic in the industry. The model appears to be based on economic motivation, assuming that everyone consistently makes rational decisions, and that price and effort operate in a static market. Of course, these are not true. The model also implies that an unending listing agreement is a viable option. As such, concludes that a real estate agent will not work as hard on a property that has an unending listing contract over a property that does have an expiration data. In Oklahoma, in order to have an enforceable listing contract, one that can be placed in the MLS, it has to have an expiration date; there is no such thing as an indefinite listing agreement. These limitations weaken the usefulness of this model.

The major findings in the study reveal that the Broker Relationship Act of 2000 did not reduce or minimize the number of agency complaints. Agency complaints continue to grow. The mean of agency representation complaints Before the Act was $\mu = 1.17$, while the mean of agency relationship complaints After the Act was $\mu = 1.83$. The number count of agency complaints Before the Act was 85 compared to 113 After the Act, a difference of 28 more agency complaints. Therefore, we reject hypothesis 1. Accepting the null hypothesis that states: there is a significant change between the number of AC filed from 1995 to 1999 and the number of AC filed from 2001 to 2005 in terms of agency representation against licensed real estate agents in the OKCMSA (μ of #CB $\neq \mu$ of #CA).

Conclusions

Implications of the Research Results

Contrary to the initial premise, there was a change in the number of agency complaints between 1995 through 1999 and 2001 through 2005. In fact, every variable in this study increased. The change in the number count alone indicates the shift. Therefore, we reject hypothesis 1 and accept the null hypothesis. The estimated broker-effort unit appears sporadic and unrelated to sales price when employing Geltner's model. In conclusion, the OKCMSA does not follow the same pattern that was found in Geltner's 1991 study. Another element of interest is the unknown reason that the level of broker's effort took a nosedive between the years 1998 and 1999. It has not reached its 1998 level at anytime through 2005. The average sales price per year continues with a positive upward slope, seemingly with no regard to the broker's level of effort. Reasons are inconclusive; one can only speculate why.

There is a strong possibility that there are other related variables, which affected the number of agency complaints as indicated by such a low r-squared value as seen in Table 11. An interpretation for the rise in each of the variables could be that there was a large increase in active licensed agents in the OKCMSA each year under study. It seems logical that with an increase in the number of agents working in the field that the number of agency complaints would also increase. Another possibility is that a decrease in local interest rates would spur more activity in the local market resulting in more transactions. Again, it seems only logical that a decreased in interest rates would open the housing

market to more potential buyers and sellers resulting in more activity. With such an opening in the local market, there would be more possibility of an increase of the variables in the study. Along with lowering interest rate, the possibility of an increase in new home construction would also increase activity affecting the variables in the study. Additionally, severe weather may have increased the count of the variables.

On May 3, 1999, a massive F-5[2] tornado shocked this area killing 38 with approximately 800 injured. The tornado that devastated central Oklahoma left an estimated 500-thousand cubic yards of debris (Department of Environmental Quality, 1999). The storm damaged or destroyed over 7,000 homes, 150 businesses, and public buildings including several counties in the OKCMSA (Oklahoma State Senate, 1999). Federal Emergency Management Agency (FEMA) disbursed over $1.7 million for temporary housing or minor housing repairs; federal and state grants worth $2.7 million were disbursed to individual and families for disaster-related expenses; the Oklahoma Employment Security Commission disbursed $59,579 for disaster-related unemployment; and the Small Business Administration approved low-interest loans of $54.6 million (Federal Emergency Management Agency, 1999). The May 3 tornado left many homeless, residents had no idea that four year later, a similar tornado would develop and follow virtually the same path.

[2] The "Fujita Scale" measures tornado strength. It categorizes tornado severity based on damage observed, not recorded wind speeds. A F-5 tornado is the highest (worst) rating and is capable of 261-318 mph, homes lifted off foundation and carried considerable distances, and autos thrown as far as 100 meters (Federal Emergency Management Agency, 2003b).

Ironically, on May 8, 2003, four years after May 3, 1999, another tornado rating at F-4[3] wreaked havoc in the nearly the same areas located in the OKCMSA (National Weather Service Forecast Office, 2003). Federal and state officials stated that $8.8 million was approved for disaster assistance to help those individuals and businesses affected by the severe storms and tornadoes that began on May 8, 2003 (Federal Emergency Management Agency, 2003a). From Figure 24, the sudden drop in the broker's level of effort may have been associated to the immediate housing need that resulted from the tornadoes. With such urgency in housing, brokers may have perceived that they had more work than they could handle, so the need to proved optimal service was diminished. As stated heretofore, these thoughts comprise mere speculation.

Given the findings from this study, agency relationships appear to continue to be an area of confusion. Should the trend continue, an increase in the number of agency relationship complaints is likely to persist and may result in future lawsuits. Active licensed real estate agents and brokers can protect themselves by systematically establishing sound laws, rules, and regulations, which will minimize the confusions for the public as well as the working professional. Making continuing education mandatory on a periodic basis specifically in agency relationships may help overcome this enigma. Managing brokers and owners may enhance continuing education requirement by reviewing specific steps that should be followed when addressing agency relationships. It is beneficial for every party involved in a real estate transaction to stay up to date on agency practices.

[3] A F-4 tornado has 207-260 mph, and can level well-constructed walls (Federal Emergency Management Agency, 2003b).

The results of the study could be distributed through a variety of means. PowerPoint presentations with lectures might be made at staff development meeting. Knowledge gained could also be conveyed during sales meeting with associates, posted on bulletin boards in break areas, and placed in employees and/or real estate agents interoffice mailboxes. The establishment of Internet websites could be use to publish information on a broader basis.

Recommendations Based on this Study

A review of the literature revealed that there is a problem with the practices of representation between principals and agents, and a conflict of interest concerning the broker's level of effort to sell a property. Even though agents are required to have documents signed explaining the different types of representation that may be offered, their subsequent actions may send confusing signals to the parties. Real estate agents are mandated to take a specific number of continuing education hours in an effort to retain knowledge that will assist them in performing their responsibilities. This educational initiative would lend itself to the protection of the consumers during real estate transactions, and other aspects of commerce within the industry. Mandatory continuing education is one of the many ways policy makers and leaders of the real estate industry establish laws and rules for the protection of consumers. Rules and regulations could also protect the image of the licensed professionals through a reduction of liabilities. Thus, the establishment of new agency relationship continuing education forums would not only protect the consumer, but also help to establish strong broker relationship practices in the field. Therefore, it could be implied that standardization of forms with a

standardization of policy in each brokerage firm would work in minimizing some of the conflict and confusion that surrounds the broker relationship with the public.

From this study, there are several proposed action steps. That is, in effort of make the industry more efficient and less confusing, several procedures should be addressed. It is apparent from the finding of this study that the Broker Relationship Act of 2000 did not reduce the confusion that surrounds the agency relationship issues, as was its intent. As long as one agent continues to work on both sides of one-transaction, agency relationships will continue to be problematic. Therefore, it is suggested that the state return to the common agency relationship laws that were intact before November 1, 2000. The urgency of nullifying this Act cannot be over stressed. However, the change should not be the first or only step. This alone will not correct the age-old problem. The following are suggestions to improve the ability of the industry to function effectively.

The first suggestion is to increase the level of education required to receive a real estate license. At the present, most anyone can apply for and secure a real estate license in Oklahoma. Section §858-302 of the Oklahoma Real Estate License Code and Rules indicates that any person of good moral character, 18 or older, and who has completed 90 education hours or equivalent, as determined by OREC, may apply to take the Oklahoma examination for the purpose of securing a real estate license (Oklahoma Real Estate Commission, 2005). It is proposed that an education requirement be included before issuing a real estate license. The suggested level of education is a bachelor's degree in any field. There are several advantages to this suggestion.

The advantage to including an education requirement will benefit the industry and all parties involved in a transaction. Prospective individuals who have proven themselves academically have successfully mastered the "basics" of education, such as reading, writing, speaking, and general math. Therefore, they are more likely to grasp and understand issues and controversy that surround the industry. For example, someone with a bachelor's degree is more likely to have a better understanding of the importance of proper and timely communication, legal ramification, and the issues involved in contracts. Although this requirement may eliminate some individuals from becoming involved in the real estate industry, it would provide a way to ensure that those who do receive a real estate license is well prepared to manage the challenges of the industry in an unbiased approach, thus, providing a better way to protect the public. It would also minimize the mind-set that the real estate business is a "get rich quick scheme." Finally, with the additional education requirement, the image of the real estate profession, in general, may improve and increase the respect for those who work in the industry.

One objection to the education requirement is what to do with those who currently have a real estate license, but does not hold a bachelor's degree. One possible way of handling this issue would be to make the education requirement mandatory for any new applicants and grandfather in the existing agents. This would probably be the simplest way to handle this dispute. However, if this is the case, then it should be acknowledged by those grandfathered in that immediate disciplinary actions will apply to both existing and new agents, regardless of status in light of an agency relationship complaint.

Concerning agency relationships, one option is to require each individual office to establish the office as either a listing only office or a selling only office. If every agent were associated with one or the other, then the confusion about whom the agent represents would be eliminated almost immediately. If the office was a listing office, then all the agents in that office handle only listings, no sales, and represent the seller. In like manner, if the office was a selling only office, then the agents only handle sales, no listings, and represent the buyer. The existing commission split system would stay in place. It should be noted here that this action is not meant to create an adversarial relationship between buyers and seller.

The opposition to this option might be that the agents would be losing clientele and income because they were not able to handle both sides of the transaction. Which is true to a degree, they would not be able to handle both sides of a transaction. Representing both sides of one transaction is a major problem faced today. However, it can be seen in the legal industry that losing clientele or income may not necessarily be true. Attorneys are not able to assist some potential clients due to a conflict of interest similar to those faced by real estate agents. Should an attorney be approached by someone who would represent such a situation, the attorney gently refuses explaining the reasons. There is no justification why an active real estate agent could not do the same. The way the legal industry handles the problem of agency relationships has worked well for some time now without substantial loss of clientele or income. It should be noted that the legal industry also has a higher level of education requirement. In addition, if a real estate agent were only working one side of the transaction, after a short time, the agents

would be more experienced, implement processes that could be standardized, therefore, reducing the possibility of discrimination.

The other option is almost as radical a change. That is, require the active practicing brokers secure and maintain all listings, not the associate sales agents. Active sales associates would pursue sales. Separate active brokers from managing brokers with defined duties. One office would continue to have one assigned managing broker who does not list or sell. The managing broker my be the owner, or hired manager. The important issue is that this person is in management and not involved in listing or selling. This is not a significant shift from the way listings are handled now. In a traditional office, when a new listing is attained, even though the associate agent secured the listing, it is the property of the broker. The difference is who is securing the listing. As such, the licensed practicing brokers would be responsibly for securing the new listing and would be owned by the listing office as before. However, the working associate agents would not have the close contact with the seller, and would not own a fiduciary responsibility to the seller. Instead of dividing the responsibilities between agents only as indicated above as the first option, this would involve dividing the responsibilities between the practicing brokers and associate agents in a new way. A simple changes the hierarchical chart with assigned duties would demonstrate the change. For example, one managing broker for the office as before, a body of practicing brokers whose soul purpose would be to obtain listings, and a body of practicing associates in the same office whose soul purpose would be to sell listings to qualified buyers.

One opposition would be that since the practicing brokers and the practicing associates are in the same office, then each may have access to sensitive information. However, this objection can be dissolved by having separate secure areas, and possibly separate secretaries for the each division. With a limited amount of effort, measures could be put in place to eliminate a breach.

With either of the last two suggestions, the result is that one agent could not represent two sides of a single transaction, thus, eliminating dual agency altogether. With the elimination of dual agency, sellers are going to be represented with fiduciary responsibilities intact, and the buyer will be properly represented with newfound definable fiduciary responsibilities from an agent that only represents him. Not only is this a win/win for the buyer and seller, but it is also a win/win for managing brokers and the real estate sale force. Each member of the transaction and his or her duties can be defined and outlined with clear enforceable lines of responsibility. Thereby, it would all but eliminate agency relationship lawsuits and legal action.

The next recommendation is one of discipline. Assuming the first suggestion and one of the two options above are implemented, and enough time has passed allowing for transition, then the governing body, OREC, should administer strong disciplinary action to ensure that the system does protect the public from misrepresentation. The process may vary. However, should an associate or its management condone crossing the clearly defined responsibilities established, swift immediate action should be taken to remove the agent's license.

There are several recommendations to maintain and support good real estate practices that can be recommended based on this study. OREC could put more emphasis on the content of required continuing education courses. In addition, giving additional credit for education earned from a university or community college toward a bachelor degree over continuing education, which does not require interaction or testing. Emphasizing the standardization of agency relationships would most likely reduce confusion experienced by both professional and nonprofessional. Next, leaders and managers in the licensed professions should consider tailoring the principles of scientific management to fit its organization's culture. In doing so, organizations would function more efficiently when real estate agents are better educated regarding ways by which to serve their constituents. The society would benefit from such practices. The findings of this research also have implications for managers to restore integrity in their profession, through full observance to the laws that govern their industry.

Potential Study Improvements

This study could be improved in a number of ways. Ideas for additional research that arose during this study vary. Avenues for improvement and future research include adding independent variables to the study, changing the definition of agency complaints to be only those complaints that OREC found enough evidence that the complaint justified a reprimand. Since Oklahoma was and is, to date, the only state in the United States to place this type of law into practice, the field is overflowing with possibilities for continuing study. It would be interesting to find the cause of the decrease in agency complaints in 1998. In addition, buyers and sellers are not always rational decision

makers as assumed by the Geltner. Therefore, research on the decision making process in home buying and selling may also create a clearer understanding. Each of these indicates a possible weakness in the study.

An effort could be made to find other independent variables that would account for a higher percentage of the number of agency complaints as reported by the r-square. That is, expand the number of independent variables to include variables such as the number of active licensed agent by year in the OKCMSA. This element was an oversight of this study and should be included in future research. It is reasonable to think that as the number of active licensed agents that are working in the field increased, that the number of agency complaints is likely to increase also. Other independent variable that would strengthen the study includes local interest rates, both fixed and variable. In addition, the average length of listing contracts and the percent difference between listing price and sales contract price may reflect in the broker's level of effort.

What constitutes and what is considered an agency complaint was another oversight of this study. The definition was too broad. It would have been better if the number of agency complaints were only those agency complaints that resulted in enough evidence that OREC justified an investigation. It was not until the data collection stage that the difference between agency complaints filed and justified agency complaints investigated by OREC became known. As it were, this study included all agency complaints filed, even those that were dismissed by OREC. In other words, it included agency complaints that were unfounded with no evidence to support the claim. Focusing

on those complaints in which OREC has enough evidence to justify a reprimand will strengthen the data validity and make the results more meaningful.

Future research should be conducted to investigate the problem statement on a much larger scale, thus, increasing the number of metropolitan statistical areas included in this study. Researchers who have the resources may consider expanding the population to a state level. An analysis of the state may identify areas of the state that have consistent and regular complaints with agency relationships. Should this be too broad a scope, then another more limited study might compare and contrast the OKCMSA to the Tulsa metropolitan area since these two cities are the major cities in the state of Oklahoma.

This research study has brought to light the decrease in agency complaints in 1998. The year 1988 was the only year in this study that did not reach the teens in number. The next lowest was 12 complaints in 1995 and the most was 26 in 2005. It would be interesting to determine what caused the decrease in agency complaints in this given year. This aspect could also be included in a study that expanded the number of independent variables.

One weakness of the model is that it assumes rational decisions are always made. Buyers and sellers do not just consider the economic motivation in a transaction. Buyers do not always follow a rational pattern in buying decisions. For example, a buyer may purchase a home based on one amenity, such as a large kitchen or a shop in the back yard. Sellers do not always approach the selling of their home objectively. That is, they may be just testing the market or satisfying a court order and not really have any intent on

selling their home. In addition, the real estate business is very seasonal and subjective. Weather, such as snow or rain, events, such as the state fair, and holidays, such as Christmas and New Years, play a part in the buying and selling decisions. Furthermore, economic conditions affect the real estate industry. For example, inflation rates, interest rates, and availability of bond money continue to affect the real estate industry in Oklahoma. Changes in the real estate environment render the market fickle at best.

Future Research Recommendation

Along with the study improvements, there are a number of future research recommendations. The scope of this research stopped with the construction of the level of broker effort estimation. It is equally important to test these models to prove their validity and increase the chances of application by professionals. Hence, testing the results of this research using a case study approach would be the immediate future research suggestion. In addition, collecting demographic information such as age, gender, and income may illuminate other issues that affect the broker's level of effort or possible discrimination.

This study focused on the broker's level of effort gauged by the number of agency complaints filed at the OREC, however, the commission has approximately 13 other types of complaints that are filed by consumers and agents regularly. These complaints span over the activities of an agency, for example, earnest money complaints, trust account complaints, advertising complaints, licensee dispute complaints, contractual dispute complaints, contract handling complaints, and property management complaints. More often than not, a complaint will include more than one of these possible areas.

Furthermore, a closer look at what practices in the field are most successful would be instrumental in establishing benchmarks that would allow real estate agents an opportunity to compare their field practices. Once the most successful practices were established and streamlined, these new benchmarks may minimize the gray areas of the industry. Researchers might also investigate if the surrounding states suffer from an abundance of representation complaints; determine how the complaints are processed, and how they relate to the OKCMSA.

An investigation to determine how many of the complaints were dropped due to lack of evidence, and how many were pursued would be of interest in establishing future guidelines and expected demand from governing agencies, such as OREC. What actions or penalties associated with the complaint also may heighten awareness of the problems to managers, brokers, and associates.

Efforts should be made to continue to build upon the existing conflict of interest literature. Since it is apparent from the data that Geltner, Kluger, and Miller's model does not effectively work in Oklahoma, a future study might be to create a new model that more closely fits. In harmony with their work, a new study should strive to integrate the level of selling effort, pricing and time on the market, and listing contract duration issues. The study has demonstrated that the Act did not reduce or minimize the number of complaints, so the problem must lay some where else in the broker's relationship to buyers and sellers. Therefore, future research may continue to look at the mechanism of the relationships broker engage. The new model should gain insight concerning both the magnitude of the problem and the relative severity in the effort and pricing dimensions.

In addition, one direction might be to investigate the potential for a new and innovative compensation scheme in which brokers are paid by sellers for their services. The methodology employed in this paper could be used to pursue such research.

As determined by the literature review, the limited research on the changes in agency in Oklahoma offers unlimited potential. This research represents only one small view of the Oklahoma City metropolitan statistical area. It has filled a gap in the body of knowledge and has created many opportunities for future research. Future research can be performed independently or as an extension of this research.

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APPENDIX A. CITY AND COUNTY LIST

Number	City	County	Number	City	County
1	Ada	Pontotoc	61	Mannford	Creek
2	Adair	Adair	62	Marietta	Love
3	Afton	Ottawa	63	Marlow	Stephens
4	Altus	Jackson	64	Maysville	Garvin
5	Anadarko	Caddo	65	McAlester	Pittsburg
6	Antlers	Pushmataha	66	Mead	Bryan
7	Ardmore	Carter	67	Medicine Park	Comanche
8	Atoka	Atoka	68	Miami	Ottawa
9	Bartlesville	Washington	69	Midwest City	OK
10	Bethany	OK	70	Milburn	Johnston
11	Bixby	Tulsa	71	Mineral Wells, TX	Palo Pinto
12	Blanchard	McClain	72	Muldrow	Sequoyah
13	Bristow	Creek	73	Muskogee	Muskogee
14	Broken Arrow	Tulsa	74	Mustang	Canadian
15	Broken Bow	McCurtain	75	Noble	Cleveland
16	Cape Canaveral, FL	Brevard	76	Norman	Cleveland
17	Carnegie	Caddo	77	Oklahoma City	OK
18	Chandler	Lincoln	78	Okmulgee	Okmulgee
19	Cherokee	Cherokee	79	Oologah	Rogers
20	Chickasha	Grady	80	Owasso	Tulsa
21	Choctaw	Choctaw	81	Pauls Valley	Garvin

22	Claremore	Rogers	82	Pawhuska	Osage
23	Clayton	Pushmataha	83	Pawnee	Pawnee
24	Cleveland	Pawnee	84	Piedmont	Canadian
25	Coalgate	Coal	85	Ponca City	Kay
26	Coffeyville, KS	Montgomery	86	Poteau	LeFlore
27	Coleman, TX	Coleman	87	Pryor	Mayes
28	Collinsville	Tulsa	88	Purcell	McClain
29	Cookson/Park Hill	Cherokee	89	Roland	Sequoyah
30	Cushing	Payne	90	Sallisaw	Sequoyah
31	Davis	Murray	91	Sand Springs	Tulsa
32	Del City	OK	92	Sapulpa	Creek
33	Disney	Mayes	93	Seminole	Seminole
34	Duncan	Stephens	94	Shawnee	Pottawatomie
35	Durant	Bryan	95	Stigler	Haskell
36	Edmond	OK	96	Stillwater	Payne
37	Elk City	Beckham	97	Stilwell	Adair
38	Enid	Garfield	98	Stratford	Garvin
39	Eufaula	McIntosh	99	Stroud	Lincoln
40	Fairview	Major	100	Sulphur	Murray
41	Fort Gibson	Cherokee	101	Tahlequah	Cherokee
42	Frederick	Tillman	102	Thomas	Custer
43	Gore	Sequoyah	103	Tipton	Tillman
44	Grove	Delaware	104	Tonkawa	Kay
45	Guthrie	Logan	105	Tulsa	Tulsa
46	Guymon	Texas	106	Tuttle	Grady

47	Harrah	OK	107	Vinita	Craig
48	Hinton	Caddo	108	Wagoner	Wagoner
49	Hollis	Harmon	109	Walters	Cotton
50	Hugo	Choctaw	110	Watonga	Blaine
51	Idabel	McCurtain	111	Weatherford	Custer
52	Jenks	Tulsa	112	Woodward	Woodward
53	Kerrville, TX	Kerr	113	Wynnewood	Garvin
54	Ketchum	Craig	114	Yukon	Canadian
55	Kingfisher	Kingfisher	115		
56	Kingston	Marshall	116		
57	Langley	Mayes	117		
58	Lawton	Comanche	118		
59	Lexington	Cleveland	119		
60	Luther	OK	120		

APPENDIX B. OKLAHOMA REAL ESTATE COMMISSION COMPLAINT LEGEND

a	Earnest Money
b	Trust Account Matter
c	Bad Checks
d	Misrepresentation
e	Advertising
f	Licensee Dispute
g	Contractual Dispute
h	Contract Handling
i	Loan Closing
j	Court Convictions
k	Criminal Indictments
l	Builder Liens
m	Property Management
n	Other

APPENDIX C. OKLAHOMA CITY METROPOLITAN ASSOCIATION OF REALTOR'S DISCLOSURE

This representation is based in whole or in part on data supplied by the Oklahoma City Metropolitan Association of Realtors, Inc., or its Multiple Listing Service 1995 through 2005. Neither the Association nor its MLS guarantees or is in any way responsible for its accuracy. Data maintained by the Association or its MLS may not reflect all real estate activity in the market.

APPENDIX D. COHEN'S CHART

This chart represents Cohen's suggestions about what constitutes a large or small effect.

Correlation	Negative	Positive
Small	−0.29 to −0.10	0.10 to 0.29
Medium	−0.49 to −0.30	0.30 to 0.49
Large	−1.00 to −0.50	0.50 to 1.00