AFFORDABLE HOUSING BARRIERS IN GEORGIA ACCORDING TO LOCAL HOMEBUILDER ASSOCIATION MEMBERS

by

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(Under the Direction of ANNE SWEANEY)

ABSTRACT

Factors relating to the lack of affordable housing in the state of Georgia are explored through the attendance of local Homebuilder Association meetings across the state of Georgia. Local Homebuilder Association members' rankings were compiled from a survey to aggregate the builders' opinions about the state's zoning regulations, building codes, and impact fees. The results showed there was no association between builder type and the perceived presence of an affordable housing barrier in the community. This was seen through the bivariate analysis. With the lack of affordable land zoning regulation the only statistically significant variable was if the association member purchased lots for home construction seen through the binomial logit regression. The findings show that there are variables that affect affordable housing in the state of Georgia that have not been examined to this point through research.

INDEX WORDS: Affordable Housing, Zoning, Building Codes, Impact Fees, Housing and Demographics Research Center (HDRC)

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CHAPTER 1

INTRODUCTION

"People struggle to be able to afford housing that they believe and hope will meet their needs not only for shelter and security, but for identity," (Stone, 1996, p.16). For the past 35 years several national commissions have been concerned with affordable housing including: Advisory Commission on Intergovernmental Relations 1966, National Commission on Urban Problems 1968, Advisory Commission on Regulatory Barriers to Affordable Housing 1991, and the Millennial Housing Commission 2002 (May, 2005). Though these studies have come to conclusions about the different barriers to affordable housing, the ways in which different regulations act as barriers to various aspects of housing are not understood completely (May, 2005).

In 1949 the federal government created the 1949 Housing Act (National Association of Home Builders, 2004). This stated that the national housing goal was to provide "… a decent home and suitable living environment for every American family," (U.S. Department of Housing and Urban Development, 2004). The way to accomplish this goal was to consolidate past lending programs of the Farmers Home Administration (Meeks, 2001). The Housing and Urban Development Act was created in 1965 (1965 Act), which helped consolidate many federal housing agencies into the new Department of Housing and Urban Development with much more authority from Congress (U.S. Department of Housing and Urban Development, 2004). By the 1970's, providing housing for low-income families was not on the priority list for the government at the federal level. Before 1960, the only state to have a housing agency was New

York; it was not until 1975 most states had some sort of housing agency. Most of these housing agencies chose to provide financing for multi-family units to fulfill the affordable housing need (Meeks, 2001).

The 1980's saw an increase in the understanding of the need for affordable housing. Due to interest rates rising because of inflation, most of the acts established at the federal level dealt with financing single-family homes (Schill, 2005). Currently the Department of Housing and Urban Development (HUD) spends almost 70% of its operating budget on the housing voucher program (U.S. Housing and Urban Development, 2004). This number will keep increasing as the prices of homes continue to sell at a record breaking pace.

From 1990 to 2002, the median sales price of new homes rose by 52%; this outpaced the Consumer Price Index by a huge margin (National Association of Homebuilders, 2004). Despite the 1990's economic boom, the supply of housing fell 30,000 units below demand while housing overcrowding increased by one-third in the same decade (Nelson, 2003). Overcrowding is defined as more than one person per room (Workforce Housing in Georgia, 2001). With this housing supply lagging, essential workers cannot afford to live in the communities where they work (Nelson, 2003). In 2003, 1.39 million new privately owned homes were completed with a sales median price of $195,000 (U.S. Housing and Urban Development, 2004). According to Jeffery Lubell, a HUD consultant, if certain policy changes were made to reduce regulatory barriers that lead to a five percent reduction in the market price of only five percent of the homes, the total savings for the nation in one year would be $675 million dollars. This does not include the savings for multifamily developments, manufactured homes, or new subsidized housing developments (Schill, 2005).

Multiple surveys have shown Americans increasingly are concerned with the availability of affordable housing, but housing is nowhere to be found on state and local policy agendas (Anthony, 2003). Policymakers tend to think of creating affordable housing by spending money through housing subsidies. However, there are a number of ways to create affordable housing in communities by spending little or no money according to the Fannie Mae Foundation (Nelson, 2003).

In 2003, the Fannie Mae Foundation published a "top ten" list of ways state and local governments could increase the affordable housing supply while staying fiscally responsible. These methods include: relaxed floor-size minimums, accessory dwelling units (allowing for affordable rentals), development agreements (large master-planned communities allow for affordable housing easier than smaller subdivisions), "proportional" impact fees and waivers, affordable housing trust funds (some are used to provide zero-interest loans or finance the gap for new construction), multi-family zoning increases single-family housing values rather than depreciating single-family values, exclusionary housing requirements (eliminating the not-in-my-backyard attitude), streamline permitting (given to homebuilders who build affordable housing), housing enterprise zones (allowing new homeowners in certain areas different levels of tax abatement over a certain number of years), and leveraging the low-income housing tax credit (increasing the number of years tax credit properties are affordable housing) (Nelson, 2003).

When community decision makers eliminate the barriers to affordable housing, the whole community benefits from the availability of affordable housing, which can create an incentive to support the growth of the labor force needed to attract new employers. The new funds brought into a community will create economic development momentum that has a multiplier effect over time (O'Neill, Riall, & Scruggs, 2001). When the government officials at the state and local

levels address the concerns of builders about these different barriers, the community will receive the benefits.

Purpose, Objectives and Hypotheses of the Study

The purpose of this study is to analyze responses from homebuilders and building industry members of Georgia what they perceive as barriers to building affordable workforce housing. This study will use a survey to ask the members of the local chapters of homebuilders' associations questions about these barriers. The barriers to be included in the survey were drawn from past research and theory that have shown to cause unnecessary increases in home prices. This study will be focused on the three main barriers of zoning, building codes, and impact fees which were identified in a pilot study. The same basic survey will be given as the pilot study with a couple added questions about growth in the community. After descriptive statistics are obtained, this empirical research will focus on the three main barriers: zoning and land use, building codes, and impact fees. The survey will consist first of questions specifically for builders who built homes in the past year. The second part of the survey, which is for all building industry members including bankers, suppliers, and local officials, will consist of questions that ask about neighborhood characteristics that have caused price increases for homes.

To date, no studies have been found that provide the builder's perspective on the different regulations implemented by the community leaders that increase the prices of homes. Those costs that lead to less affordable housing include: single-family zoning, limiting the number of building permits per quarter, impact fees, etc (National Association of Home Builders, 2006). This study will contribute to the growing body of research related to the regulatory barriers of affordable housing by aggregating the voices of builders and industry members from across the state of Georgia. The decision makers can benefit from this study by being aware of the

problems facing home builders. Policy makers can use the findings of this study to implement statewide codes and regulations that would help builders build in certain areas that they currently avoid due to regulations.

The hypotheses to be tested in the study are as follows:

H_{A1} : Builders of affordable housing and non-builders as well as builders of different types of housing perceive the types of zoning barriers differently when controlling for different variables.

H_{A2} : Builders of affordable housing and non-builders as well as builders of different types of housing perceive the types of building code barriers differently when controlling for different variables.

H_{A3} : Builders of affordable housing and non-builders as well as builders of different types of housing perceive the types of impact fee barriers differently when controlling for different variables.

According to the U.S. Census Bureau, the 2003 estimated median family income (MFI) in Georgia for a one-earner family was about $33,000 and for a two-earner family was about $65,000. The estimated median household income for that same year in Georgia was approximately $43,500. The definition of "workforce housing" used in this survey is housing that is affordable to a household with an annual income of $26,400-$65,000. The lower bound, $26,400, corresponds to 80% of the one-earner MFI. This income range translates to a home sales price of approximately $80,000-$195,000 (Workforce Housing in Georgia, 2001).

Commonly Used Terms

Definitions and descriptions of the U.S. Department of Housing and Urban Development (HUD) terminology frequently used in this study are given: These terms include:

- Affordable housing: HUD's definition of affordability is for a household to pay no more than 30% of its annual income on housing. Households that pay more than 30% of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation, and medical care.
- Workforce housing: The target group of workers whose housing has become more expensive and has not kept up with wages. These households make 80%, 100%, or 120% of the area median income, receive no public assistance, generally include at least one full-time worker whose earnings are too low for them to afford market price for homes in the communities in which they work, and whose earnings are too high for them to qualify for significant federal housing subsidies (National Association of Home Builders, 2006).
- Low-income: An individual's income that does not exceed 80% of the HUD-adjusted Median Family Income (HAMFI).
- Low-Income Housing: Housing units that, by reason of rental levels or amount of other charges, are available to families or individuals whose incomes do not exceed the maximum income limits established for continued occupancy in federally assisted low-rent public housing.
- Regulatory Barrier: Something negative, a rule that rational lawmakers should seek to repeal or eliminate (Schill, 2005).

This thesis is organized as follows: a) the literature review examines the regulatory barriers faced by builders on the local level in communities; b) the two main theories used to underpin the empirical model are discussed; c) an explanation of the survey that has been created for home builders associations across the state of Georgia; d) the empirical model used for the data

evaluation is explained and conducted; e) the explanation of the results from the models run; and f) the implications of the research and suggestions for future research.

CHAPTER 2

REVIEW OF LITERATURE

In Georgia, there are 8.1 million people residing in slightly more than 3 million households. Between 1997 and 2007, there was a projected increased need of homes of 27%, which would be a demand for over one-half million housing units in Georgia in this ten-year span (Workforce Housing in Georgia, 2001). One way to define a housing affordability crisis is by how expensive housing is relative to its fundamental costs of production (Glaeser & Gyourko, 2003).

Government land-use regulation as it applies to new construction has spawned much empirical research on zoning regulations in terms of density, development fees, greenbelts, growth controls, and other factors that delay the new supply of homes in response to demand (Somerville & Mayer, 2003). In 1991 HUD created a report called *"Not in My Backyard": Removing Barriers to Affordable Housing* (U.S. Housing and Urban Development, 2004). This literature documents what has caused the housing crisis across the United States, while giving specific examples on how to solve the problem. Thirteen years later HUD completed a follow up study called *"Why Not in Our Community?": Removing Barriers to Affordable Housing* (HUD, 2004). According to this study, all of the barriers to affordable housing still exist, and many have worsened. "Developers base construction decisions on different location factors when considering residential and various types of nonresidential construction," (Burby, May, Malizia, & Levine, 2000).

Theories of Affordable Housing

The two main theories that apply to building affordable housing are the theories of supply vs. demand and community characteristics. These could theoretically explain the reasons homebuilders in Georgia choose not to build affordable housing in certain communities.

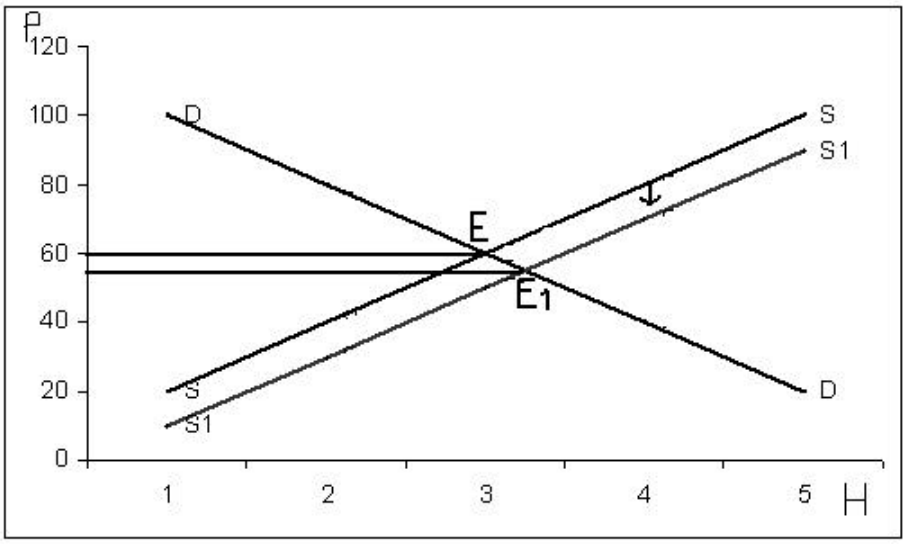
Theory of the Firm

Builders are the same as any other business and need to make a profit. The exception would be not-for-profit agencies or associations. The not-for-profit organizations which choose to build affordable housing in this state do face many of the same regulatory barriers as the for profit builders, but there are certain things like tax deductions that would allow for lower home prices. Also, not-for-profit builders sometimes have the advantage of less expensive/free labor and donations to keep costs down. This study will focus on those builders who build for profit. Fees and regulations implemented by community leaders will hurt the for-profit builders more in the pocket by delays and timing problems, which is costing builder's money. The basic economic theory of the firm helps guide the study to explain affordable housing in Georgia.

The basic theory of the firm deals with two main areas. The first is maximizing net revenues. To maximize profits the firm should create the conditions for minimum costs at any fixed level of output and determine the optimal level of output. The second part of the theory is analyzing a shift in the equilibrium positions (Cyert, 1992). The theory states a price increase of inputs will cause a decrease in supply or output of products while shifting the supply curve to the left (Penrose, 1995). The quantity demanded by consumers will then decrease (see Figure 1). Assumptions of the theory of the firm are: competitors' prices are always identical with the firm's prices, and each firm expects competitors not to follow its behavior. Two major criticisms of the theory are: a) the theory uses aggregation as a tactic by simplifying total market supply

and demand curves, and b) there is no attention or interest paid to the actual process by which individual firms reach decision (Cyert, 1992).

Figure 1. Supply and Demand Graph of Affordable Housing



The theory of the firm theoretical model that explains the affordable housing sector is as follows. The equilibrium point for housing in a community is E where S (supply) and D (demand) cross. The price for housing is shown at 50 at equilibrium. When regulatory barriers are introduced in a community, supply curve shifts to S prime. Builders choose to build less housing. The new equilibrium point is E prime and price increases to 50 with less homes built. On the y-axis the number of homes is about 2.25 then it shifts to 1.75. Even a small increase in the cost of housing can shift the cost of housing upward. Even a small increase in housing can make the difference in affordable and non-affordable housing. Introducing these barriers causes a drop in the quantity of housing and an increase in the price of housing (Penrose, 1995). The

theory of the firm can explain the individual barriers to affordable housing, but the theory cannot explain the relationship of the barriers to the homebuilders. Lancaster's theory can also be used to investigate the relationship between affordable housing and regulatory barriers.

Lancaster's Characteristics Theory

As noted earlier builders want to make a profit. There is money to make in building affordable housing because there is a demand that outweighs the demand for higher end housing. If some of the barriers were taken away, it would be profitable for builders to build affordable housing (Foster, 1964). In many parts of Georgia, homebuilders will not build in their communities because of the many barriers faced. It would be more profitable for builders to build in their communities if they could (Workforce Housing in Georgia, 2001). Lancaster's theory goes beyond the theory of the firm in explaining consumer choice by quantifying choice and behaviors. Lancaster's theory can also explain how builders reach certain decisions through the process of product inputs and the collection of characteristics that are in the output. If it is not profitable enough for builders to put time and effort into building in certain places without the removal of certain barriers, builders would rather spend their time working in communities where they would be profitable (Cyert, 1992).

For example, Lancaster (1966) said that "a meal possesses nutritional characteristics but it also possesses aesthetic characteristics, and different meals will possess these characteristics in different relative proportions," (Lancaster, 1966, p.135). This would convert to housing for a builder because all homes have certain characteristics, but only a couple builders are willing to take on the additional characteristics being barriers to build affordable housing. The utility for the builders would be certain characteristics of the community that would allow or would not

allow for affordable housing. Builders choose to build in the communities that have less regulatory barriers (Smith, Kenneth & Fallis, 1988).

There are many barriers that lead to affordable housing issues in communities. For this study three of the barriers will be included: building codes, impact fees, and zoning. The following is the literature review about the three barriers.

Building Codes

In the United States, there are currently two types of national building codes. The code which builders are required to follow depends on the region in which they choose to build. In addition to national building codes, state and local governments can choose to add to the building codes and regulations (Listokin & Hattis, 2005). The first nationwide objection to building codes came in 1969 with the U.S. National Commission on Urban Problems. The Commission's most important findings were that many communities would add more requirements to the latest version of model codes as outlined by the Federal Housing Administration's Minimum Property Standards. These codes would then add 13% to the price of a newly constructed house (U.S. National Commission on Urban Problems, 1969). The Commission also stated the strict new-construction building codes were not relevant for housing renovations costing more money than needed to long-time homeowners (Metz, 1997).

Most recent research on building codes focuses on trying to justify a new building code before its creation. This has been accomplished through a benefit/cost analysis. Validating a new building code is hard with special interest groups supporting different regulations. While a building code benefit/cost analysis puts a price on individual lives, there are many ways to interpret different findings. A study conducted by the National Bureau of Standards showed the cost to save one life through the ground fault circuit interrupter (GFCI) building code on all

outlets was between $2.5 million and $4 million (McConnaughey, 1978). This means by increasing the cost of the stock of housing in the country by this much would decrease the amount of affordable housing in certain areas. The McConnaughey study just looked at the one GFCI building code.

Hammitt, Belsky, Levy, and Graham (1999) proposed a model for code officials to conduct a risk-tradeoff approach for pre-existing and future building codes vs. health effects on homeowners. They added to the literature by including an "income effect" and "stock effect" in the model. The income effect covers how much a household's annual disposable income would change as a result of a code. The stock effect would encompass the choice of a homeowner to not purchase a newly built home because of the price and stay in an older less structurally sound home without the newer building codes.

When analyzing the model in the paper, there are many dependent variables measured before arriving at the final model. Quality-adjusted life years are used to measure human health. This deviates from prior research because unlike statistical lives saved, the quality-adjusted life years include effects on mortality and morbidity. For example, the authors estimate the value of a home with variables such as number of rooms and square footage of the house (Hammitt, Belsky, Levy, & Graham, 1999).

For the model used in the Hammitt, Belsky, Levy, and Graham paper to be used in a real world application, it would be difficult unless a builder was developing a subdivision where many homes are alike. The researchers chose to run the model estimating mortality from energy use, exposure to lead, and mortality from fire. The findings suggest the income effect is larger for lower-income households and males. This is logical because lower-income households are spending a larger percentage of their income on the building codes. The stock effect was shown

more readily with the exposure to lead to do the effect on cognitive impairment and development (Hammitt, Belsky, Levy, & Graham, 1999). One of the major criticisms of the study is that researchers did not apply the risk-tradeoff approach to a real-world case with code officials before they chose to implement a building code.

Research conducted to analyze the extra cost of local building codes was done with Federal Housing Administration (FHA) data published quarterly for single-family homes sold in 1966 and 1967. The FHA publishes data about the market price of the land as well as the price of the home so the researchers were able to take the difference to get a price for just the home. After running step-wise regressions with the data the results showed local building codes did not add more than two percent to the price of a home between these two years (Muth & Wetzler, 1976).

Another problem with building codes is that they are enforced locally, and different cities have different levels of strictness in enforcing building codes. In a paper by Burby, May, Malizia, and Levine (2000), their empirical research used a data set of 155 central cities throughout the US with different levels of building code enforcement (strict, creative, facilitative, and accommodative). They concluded that those central cities with a more business-friendly philosophy while not compromising public safety when it comes to building codes, attract more development, meanwhile, strict enforcement of regulations causes a decline in the amount of construction activity. This change can be a five to ten percent increase in price. The localization of building codes causes the problem of new codes being used in developments of new residential areas of the country. Oster and Quigley (1977) showed the diffusion of innovation of building codes over time with 143 jurisdictions from 1960 to 1970. The factors that played the largest role in the enforcement of new building codes were the educational level of the building chief, the extent of unionization of the builders, and the size of the building firms in

each area. With this idea of localization comes the problem that local codes reflect local concerns for health and safety. For example, in some parts of the country a concern that has been spreading is with requiring domestic sprinkler systems for single family housing (Review of National Building Codes, 2006)

Impact Fees

With the housing boom in many US cities, local governments cannot keep up with the need for new schools, police stations, fire stations and other public services that are needed to support new households. A new trend in local fiscal policies is the use of impact fees, which have important effects on real estate markets (Gyourko, 1991). Impact fees are charged to builders usually per home built or new subdivision built for the public services. Impact fees are also used to create the new infrastructure for homes including water lines, roads, and parks (Been, 2005). Due to this growth, new construction must pay upfront for community services to reach the houses.

Research done by Landis (2001) concluded the average amount of impact fees charged for a new single-family home in a subdivision in 1999 was $19,552. This form of passing the cost of new services off to the new homeowners acts as a tax to the new residents in the community (Been, 2005). This is an added cost that could be spread through the whole community rather than simply to the new residents. In an analysis done to compare a cost-sharing scheme of all the residents in the community, it was only the new residents that received the large burden of the taxes. The analysis showed how a switch in the two affects land values in a negative way after the implementation of the new tax for new residents (Brueckner, 1997).

Up until the 1920's local governments funded public services through property taxation or "special assessment" taxes on real property (Been, 1991). After the 1920's communities chose

to impose the costs of growth to the builders, which gets passed on to the new residents. Impact fees raise property tax payments on homes because the home is now valued at a higher price. If a new homeowner can get the same house in a jurisdiction with lower taxes, they are unwilling to purchase the home with impact fees. This cost then gets pushed back to the builder (Been, 2005). Singell and Lillydahl (1990) found that most city planners view the buyers as having the burden of extra fees, but it is the housing market that ultimately determines who pays the fees with fluctuations in demand and supply. They found that an increase of $1182 in fees increased the price of new homes by $3800 and the price of existing homes by $7000. Other research done to find out where the impact fees cost go showed half of the fees are either passed on to the buyer or covered by the developer where the other half of the fees are always a burden on the developer (Watkins, 1999).

Delaney and Smith (1989) looked at the price of new single-family houses in Pinellas County, Florida from 1971-1982. The impact fees were started in 1974, which were $1150 for each new home built. Using a hedonic price model they found that builders passed all of the fees to the buyer and the prices of homes in the county for the first six years were above the surrounding counties but they became competitive after the initial six years.

A recent study focused on the effect impact fees had on Dade County, Florida with the comparison of new and existing single-family homes and undeveloped residential land. The results showed impact fees increase the prices of new and existing homes by the same amount; the increase in the price of the housing equals the present value of property tax savings, and undeveloped land values decline (Ihlanfeldt & Shaughnessy, 2004). Burge and Ihlanfeldt (2006 a) added to the literature by using a panel data set of Florida's counties collected by each county planning and building office. After running fixed effects models, random trend models, and

lagged dependent variable models for different sized homes and location within suburban area of the homes, the researchers were able to conclude impact fees for services other than sewer and water "…increased the construction of small homes within inner suburban areas and of medium and large homes within all suburban areas," (Burge & Inhalfeldt, 2006 a, p. 305).

To determine if impact fees slow residential development, research was conducted with a sample of all municipalities in DuPage County, Illinois from 1977 to 1992. The study included multi-family and single-family housing because all municipalities included impact fees for both types of housing. After running a fixed-effects model the researchers found that impact fees reduced rates of residential development by more than 25% in the county (Skidmore & Peddle, 1998). By adding to the research Turnbull (2004) found impact fees lead to a higher tax margin for local governments in the short run but reduce the pace of single-family housing development in the long run while urban growth boundaries lead to "greater dynamic efficiency." Burge and Inhalfeldt (2006 b) conducted research on the effect impact fees have on multifamily housing construction. Using panel data from 33 Florida counties from 1996 to 2003, they were able to conclude construction of multifamily communities does not change when water and/or sewer impact fees are implemented, but the implementation of other impact fees causes a decrease in the new development of multifamily housing.

On the other hand, impact fees can be used to enhance efficiency through decreasing returns to scale in public goods, production and congestion (Turnbull, 1988). Turnbull (1988) chose to materialize vacant land or green space and congestion cost externality changes when different policies are implemented like impact fees and urban growth boundaries. The findings showed there must be a perfect balance to enhance efficiency when allowing the different policies. Impact fees can produce a positive effect for existing homeowners by benefiting from

an increase in wealth due to their homes being worth more, but the result of impact fees also increases property taxes (Anderson, 2005).

In 1990, the state of Georgia adopted the Georgia Development Impact Fee Act (1990), which was a negotiation between local governments and the building industry. The act made a distinction between system improvements for which impact fees can be charged and project improvements for which impact fees cannot be charged. The act does not apply to water authorities who just have to get the approval of the county governing authority to charge impact fees. The act also explained how to calculate the impact fees and required an annual report on any impact fees implemented by the local governments (Hicks, 2005). The 2007 session of the Georgia General Assembly has been debating a bill about changing the impact fee legislation to promote a statewide impact fee ceiling.

Zoning and Land Use

Zoning has been used for most of the 20th century as a way to regulate residential and commercial building by local community officials (Schill, 2005). A rationale for general zoning would be to promote the "general welfare" by separating incompatible land use (Rolleston, 1987). According to Schill (2005) the U.S. Supreme Court made a ruling in 1926 that "zoning was a constitutional exercise of police power…[which] would prevent nuisances," (p. 6). Nuisances could be defined as people considering it unpleasant to live near people with lower incomes and with tastes and preferences 'inferior' to their own (Bailey, 1959). The Supreme Court ruling is quoted as "merely a right thing in the wrong place- like a pig in the parlor instead of the barnyard," (Schill, 2005, p. 7). Zoning originally was used to separate industrial areas from residential areas (Mark & Goldberg, 1986). Over time local municipalities chose to make finer distinctions within each type of use. For example, zoning has been used to separate single-

family housing from multi-family housing. If zoning and land use regulations are enforced they are likely to increase the cost of housing (Schill, 2005).

A factor that makes zoning attractive is the desire to reduce negative externalities (Schill, 2005). Externality zoning can be defined "as zoning which is in response to the phenomenon that one person's use of land may have external effects positive or negative on the uses of neighboring land," (Ohls, Weisberg, & White, 1974, pg. 429). Most of the previous research done on residential property values uses cross sectional data. One of the earliest studies done by Grether and Mieszkowski (1980) focused on presumed negative impacts of many nonresidential land uses on neighboring single-family residences. The conclusion was there was no consistent relationship between prices of homes and the existence of nonresidential land (Grether & Mieszkowski, 1980). A study conducted in North Carolina showed that an area zoned as single-family residential produced important property attributes for which consumers are willing to pay a premium (Jud, 1980).

Grether and Mieszowski (1986) built onto the research by using files of the British Columbia Assessment Authority for 24 years with detailed information on over 6500 lots covering two neighborhoods. One neighborhood was middle to upper class and the other was lower-middle class. Only the lots that were sold were used for the analysis. They had three different zoning recommendations: a) how the lot was zoned (residential, commercial, etc.), b) how the block was zoned in which the lot was located, c) and how the adjacent blocks to the lot was zoned. They chose to do a hedonic price index for the lots. The conclusion was there was no consistent effect over time of the zoning on house prices (Grether & Mieszkowski, 1986).

Ohls, Weisberg, and White (1974) took a more theoretical approach with externality zoning by showing an area of commercial use surrounded by residential use land. With their

theory they assumed people would cluster at the inner part of the loop surrounding the commercial area due to transportation costs, but if externalities extended to a certain point into the residential zone then people would build at the edge of that externality. By zoning the area within the residential zone with the externality differently, there is more area allowed within the residential zone without a negative externality. The conclusion was with optimal zoning of the area, depending on the demand elasticities aggregate land values can be reduced (Ohls, Weisberg, & White, 1974). Two other studies with externalities reached the same conclusion that externalities exist and zoning can either create or prevent them (Plosser, 1972, & Stull, 1975).

Paul Thorsnes (2000) completed a study on internalizing neighborhood externalities. Developers of subdivisions might have some constraints on how to divide up their land and how large to make their lots, but there is often much discretion given to the developer as to what to do with land regarding to amenities in the neighborhood. This paper incorporated two factors that make zoning appealing to city officials: externalities and lot size. The paper ran hedonic price models and the results concluded that consumers are willing to pay for the amenities in larger developments when allowed by local government creating incentives for affordable housing instead of larger lot sizes and no amenities to allow for fewer homes in the development (Thorsnes, 2000).

The factor minimum lot size requirements also known as "…large-lot zoning has become a tool for smaller governments to exclude low-income residents…because of the sustainable property tax base," (Quigley & Rosenthal, 2005). Empirical research, which has been done on this factor, includes a study done with an infinite supply of land one part agriculture and the other housing. When minimum lot size requirements are introduced, land prices increase while accelerating the pace at which land converts to metropolitan areas (Moss, 1977). Pasha (1996)

completed a study that analyzed the residential zoning in a semi-closed city with two income groups: a) the rich who live in the suburbs, and b) the poor who live in the city. Using comparative statistics the study concluded minimum lot size requirements reduces the land values in the central city and increases the metropolitan area which could be a major factor contributing to urban sprawl in the U.S. (Pasha, 1996).

Another way to describe the factor minimum lot size is fiscal zoning (Quigley & Rosenthal, 2005). Fiscal zoning is defined as policy-makers having an objective like economic efficiency (McMillen & McDonald, 1993). "For example assume that a suburban community desires local public services of a high quality but also desires a low property tax rate. Such a community might zone vacant land in large lots… because it believes that owners of expensive homes will pay more property taxes than the cost of providing public services," (Ohls, Weisberg, & White, 1974, pg. 429). Ohls, Weisberg, and White (1974) tried to use a priori theory to predict the effects of fiscal zoning. The model could predict the difference of land prices between entire urban markets and specific municipalities, and that fiscal zoning can reduce municipality land values below what it would be without the zoning.

Pogodzinski (1991) completed a review of the research done on the effects of fiscal, as well as exclusionary, zoning. Most previous research has attempted to identify the determinants of zoning many of them being political choices, but no paper has accomplished an empirical model that includes this idea. Most of the models have been hedonic price equations built from different income-taste classes of consumers (Pogodzinski, 1991).

Exclusionary zoning is another factor that is "the desire to exclude or restrict a member of some racial, ethnic, or social class from occupying a jurisdiction," (Pogodzinski, 1991). Multifamily housing producers have to deal with exclusionary zoning regulations that do not

allow for the density needed to make housing affordable, and if builders do choose to build multifamily housing then they might not be sold at an affordable price due to market demand and land costs (Dawkins & Nelson, 2002). Many states have fought local municipality exclusionary zoning through the courts, but builders have been allowed to have areas rezoned when developments include a minimum of 20% affordable housing (Quigley & Rosenthal, 2005). California and Connecticut have established remedies for builders with tax breaks and other incentives for creating a development that is 80% affordable housing ("State-Sponsored Growth Management," 1995).

Urban growth boundaries are another zoning factor that communities use to control residential areas. The urban growth boundary is a legal boundary separating urban land from rural land. Community officials use the dimension of timing to promote continuous and accessible development, which makes it different from traditional land-use regulations. The boundary promotes public services and preservation of open space. Portland, Oregon was one of the first cities to strictly enforce an urban growth boundary in 1979 (Phillips & Goodstein, 2000). Oregon created the Land Conservation and Development Commission in 1973, which was responsible to coordinate and approve all growth plans from the state level to the special district level within a city for the entire state of Oregon (Knapp, 1985). The Land Conservation and Development Commission's goals started as merely reactive to purchases of farmland for subdivision use. The Land Conservation and Development Commission also adopted a rule that requires local jurisdictions to plan for and achieve a 20% reduction in vehicle miles traveled per capita over the next 20 years as of 1994 (Abbott, 1997).

In 1979 Portland's comprehensive plan was approved by the Land Conservation and Development Commission including a central body to govern local growth called Metro (Phillips

& Goodstein, 2000). Metro in 1994 adopted the "Region 2040" which plans for an increase of one million more residents in Portland's four core counties. The focus of the Region 2040 growth concept was new jobs and housing in downtown Portland. Also the plan identifies rural areas that will remain permanently outside of the urban growth boundary (Abbott, 1997).

The urban growth boundary is not an idea central to the West and Midwest. The first urban growth boundary was drawn around Lexington, Kentucky in 1958 (Ding, Knapp, & Hopkins 1999). As of 1999 over 100 United States cities and counties chose to manage their growth with an urban growth boundary, and three states mandated a master plan for urban growth Oregon, Tennessee, and Washington (Jun, 2004). In recent years greater Atlanta has widely debated the need for an urban growth boundary for the main purpose of traffic control (Cox, 2001). The main goal in creating the urban growth boundary is to promote a city that residents live, work, and play without the need of an automobile. With this concept of a thriving downtown area comes theoretical problems for workforce housing that have been argued empirically.

Gerrit Knapp (1985) produced a starting point for empirical literature on urban growth boundaries in 1985. Knapp's paper is the only paper that includes an analysis with the intermediate growth boundary. This is important because this boundary will have a more immediate effect on land and housing prices in the fringes of the urban growth boundary. So this paper looked at the prices in three different zones of Portland, Oregon: inside the urban growth boundary, inside the intermediate growth boundary, and outside both of the boundaries.

Knapp (1985) chose to do a cross section analysis on the effects of the urban growth boundaries on vacant single-family land values in Portland, Oregon. The regression that was run was a hedonic price estimation with the independent variables being different characteristics of

the vacant single-family lots. Included in these characteristics is market price per acre of the home-site, a compilation of eleven extraneous variables (for example: acres, income, and race), a dummy variable for each urban and non-urban, and a dummy variable indicating if the lot was located inside the urban growth boundary. The dependent variable used was the selling price of every vacant single-family lot sold in the year 1980 in two different counties Washington and Clackamas. These counties had a significant number of vacant lots inside and outside of the urban growth boundary. (The sample size was 455 lots). The data collection occurred four years after the urban growth boundary was drawn.

From the hedonic price index results, Knapp (1985) chose to run an ordinary-least-squares regression on the land inside and outside of the urban growth boundary, as well as the land inside and outside of the intermediate growth boundary (lots lying in areas of future urban development). The results from Washington County show urban land is valued more than non-urban land, and non-urban land values are higher inside the urban growth boundary than outside the urban growth boundary. There was not a significant sample of urban land outside the urban growth boundary in Washington County, so no measurements can be taken about the higher price of urban land inside the urban growth boundary. These results agreed with the results from the intermediate growth boundary. The results from Clackamas County were mixed with the Washington County results. The non-urban land values were higher inside of the urban growth boundary but not the intermediate growth boundary. The urban land values could not be concluded as higher inside both of the boundaries because a lacking in the sample.

In explaining these mixed results, Knapp (1985) looks at the differences in how the two counties choose to administer public services to vacant lots. There are more widespread public services offered in Washington County compared to Clackamas County. Also Clackamas County

still had not decided how to enforce current zoning requirements between the urban growth boundary and the intermediate growth boundary. With the data the conclusion that was produced was the effects of the urban growth boundary on urban land could not be measured, and only the intermediate growth boundary has a positive effect on the price of urban land. The non-urban land price inside the urban growth boundary increases when compared to the land outside the boundary because the land inside the boundary will be eventually zoned for urban uses where the land outside the boundary is not going to be zoned for a specific purpose (Knapp, 1985).

Phillips and Goodstein (2000) added onto Knapp's literature in 2000 through introducing the theory that pulls housing prices in opposite directions: greater density and higher land prices. Their paper also took into consideration the concept of a "bull market." This happens with the initial increase in housing prices with the passing of legislation, but the prices do not level off because of a psychological factor. This factor is homeowners purchasing homes just because they believe the prices will rise rapidly over a short period of time, and they do not want to be priced out of the market. They chose to compare Portland's housing prices to the housing prices in 37 other major cities that include: Honolulu, Chicago, San Francisco, Phoenix, Denver, Atlanta, and Hartford, CT. (There was not a complete list of the cities included in the paper.) The database used to predict the changes was the National Association of Home Builders Opportunity Index in 1991, 1993, and 1996. The main question the researchers wanted to find out is if Metro (Portland's governing body) was correct in concluding Portland's housing market is just catching up with the rest of the countries housing boom. As of 1991 Portland's housing prices were below the national average but by 1994 they were well above the average.

Using ordinary-least-squares, the equation was estimated twice using the speculation variable and not using the speculation variable. When including the speculation variable the

results show significance at the one percent confidence level of more of the variables the unemployment rate and the Wharton index. When Phillips and Goodstein (2000) used these results to predict prices for the thirty-seven major cities around the US, Portland's housing prices came out at $20,000 under the average price, but the $20,000 was not statistically significant at any level. The authors concluded the urban growth boundary around Portland only allowed the housing market to realign itself with the equilibrium set by other western cities of a similar size even though the boundary might have only increased the price of housing less than $10,000 through the weak results. These results are in conjunction with what Metro concluded prior to this study (Phillips & Goodstein, 2000).

It is of interest to note that Anthony Downs (2002) recently wrote a debated paper about the housing prices in Portland building off of the theories outlined in the previous papers. He looked at two different data sets to give descriptive statistics (one over a longer period of time) to set up the regression analysis. *The Real Estate Outlook: Market Trends and Insights* published by the National Association of Realtors shows quarterly median prices for 139 metropolitan areas from 1990 to 2000. Of those 139 areas 86 were used in the sample because these were the only areas that had other variables that were collected that could cause a change in housing prices. The second source of data is the price index created by Freddie Mac, which gives the sale price of the same house occurring at different times. The index also shows quarterly indices of home prices for 36 metropolitan areas from 1975 to 2000.

The National Association of Realtors data shows Portland ranked second in percentage appreciation points from 1990 to 2000. This has accounted for the rapid increase in prices between 1990 and 1994; then Portland drops in ranking due to the end of the California recession and the Midwest economy strengthening and prices escalating in those parts of the country.

Portland had the fastest rising home prices between 1990 and 1994 but they were not the highest. San Francisco held the number one spot from 1990 through 2000 in highest home prices. Portland would be comparable to Denver according to this study and Denver's housing prices accelerated from 1999 to 2000 and Portland's seem to level off at this time.

The Freddie Mac study used began before the urban growth boundary was around Portland in 1979. These data show that in the 1980's Portland's housing prices did not increase faster than the 36 other metropolitan areas measured ranking ninth on the list. From 1990 to 2000 Portland is ranked first with the acceleration of prices at the beginning of the decade. The researchers who used the data set show how it draws the same conclusions as the National Real Estate Association data set job growth and the lack of land added to the inside of the boundary do to the 1992 Metro decision.

For the regression analysis, Downs (2002) chose 25 independent variables that would have an effect on the housing prices like central city population and the percentage increase of jobs in certain periods. The regression analyses conducted for five different time periods due to the data collection methods: 1990 to 2000, 1990 to 1994, 1990 to 1996, 1994 to 2000, and 1996 to 2000. A second round of regression analyses were run with the variables from the previous "best" regressions with a dummy variable included for the presence of an urban growth boundary. The limitation with this is that Portland is the only city with a strong urban growth boundary, so this variable would also pick up any characteristics that are unique to Portland that would cause housing prices to rise. When these regressions were run the adjusted r-squared was higher showing a better fit for three of the period: 1990 to 1994, 1990-1996, and 1990-2000. All of these periods include the time from 1990-1994 when Portland's housing prices were rising the fastest in the nation.

Anthony Downs (2002) offered three reasons why the urban growth boundary did affect housing prices in Portland. After 1990, the region started to feel the limitations of the limited supply of land. The second reason is during the first decade the urban growth boundary was around Portland, there was not a surge in the job market. Then in the early 1990's there was rapid job growth creating a demand for housing that leveled off in the mid 1990's. The third reason correlated with the second is wages and salaries increased at a rapid pace during the early 1990's then slowed in the later part of the decade. The main conclusion from this paper is that urban growth boundaries alone do not cause housing prices to rise. The boundary coupled with other factors creating a demand for housing in the region will push housing prices upward (Downs, 2002).

. The use of all of these zoning techniques are currently in use in the state of Georgia or have been debated to control high growth areas in the state. By identifying the studies on each type of zoning, current and future implications can be identified and corrected to address the issue of affordable housing in the state. Politicians should be critical in some areas of the state when changing zoning to reduce housing costs. Even a couple subsidized housing units in an area that is rezoned could have a large impact on housing prices (Glaeser & Gyourko, 2003).

Many of these barriers are interdependent and can be seen as a joint problem as seen in Geoffrey Turnbull's (2004) about urban growth boundaries and impact fees, as well as, John Anderson's (2005) paper titled "Taxes and Fees as Forms of Land Use Regulation." These three barriers reviewed were identified to be the most significant barriers for the homebuilders across the state of Georgia. By identifying the problems that lead to the barriers the state of Georgia can begin to address them as the state of North Carolina did with a study of the state compiled by Housing and Urban Development's field office in Greensboro, NC (Stowell & Shelburne, 2004).

CHAPTER 3

METHODS

Introduction

The purpose of this study is to examine what the barriers to affordable housing are in the state of Georgia according to the key players in the housing industry. The focus is on the builder's responses, but by incorporating the other industry members, the research will have more power in showing government officials how housing affordability can be accomplished at the local level. Many national organizations have contributed to the literature on the issue of affordable housing with few changes occurring. Instead of aggregating responses from across the country, it is easier to pinpoint specific barriers for a certain area. The state of Georgia's builders who participate in their local Homebuilders Association Chapters show specific barriers that should be addressed to make progress in the affordable housing industry. To measure this, a survey was developed and given to the members of the local chapters of Homebuilders Associations across the state of Georgia.

This chapter outlines the development of the survey given to area Homebuilder Associations, the data used, and the data analyses procedures. Descriptive statistics provide an aggregate of how the builder variable which is the main focus of this study is broken down into each of the other variables. Also the descriptive statistics provide a clear understanding according to the variables of the members represented in the different Homebuilder Associations across the state of Georgia.

Development of the Instrument

The original idea for this survey was the result of a meeting of the Housing and Demographics Research Center (HDRC) Board of Advisors at the University of Georgia. The HDRC Board of Advisors includes members from across the housing industry. See Appendix A for a complete list of members. The HDRC Advisory Board that represents the entire housing industry suggested that personnel from the HDRC collect data on the barriers to affordable housing that builders face across the state of Georgia. The end goal is for the board to make policy recommendations to elected officials at the state and local levels.

During spring of 2005, members of the HDRC held a meeting of builders across the state of Georgia via the phone asking what the main barriers for affordable housing are in the communities in which they work. The outcome of this focus group is the second page of the survey that lists all of the barriers, what contributes to the barriers, and blanks for other builders to include their own barriers. The survey was pilot tested for readability and clarity at the annual meeting of the Georgia Homebuilders Associations the summer of 2005 in Charleston, S.C. Corrections were made and the instrument, which is being used, for data collection is found in the Appendix B. For this study the only changes made were the two questions: 1) asking if the members perceive their community as high growth and 2) if the member perceives their community as better than five years ago.

Data

Data for this study were collected by the researcher attending the local chapters of Homebuilders Associations across the state of Georgia. The University of Georgia Institutional Review Board approved the use of these data in project number 2006-10288-0 (Appendix C). After contacting the chapters to be placed on their meeting agendas, the meetings were attended.

After explaining to the various Homebuilder Associations about the project and its importance in removing the barriers to affordable housing, each person in attendance was asked to complete the survey.

The data collection began in February 2006 and was completed in January 2007. Members of the Homebuilders Associations were surveyed at one of their board meetings. Since the board members hold leadership roles in the building industry, surveying these members was more of a sample survey rather than a complete survey of the whole association. This is good for the study by having those prominent members of the associations opinions included in the study allow for more experienced members responses. The different Homebuilders Association surveyed include: the Homebuilders Association of Albany and Southwest Georgia, Athens Area Homebuilders Association, Greater Atlanta Homebuilders Association, Homebuilders Association of Dalton, Homebuilders Association of Middle Georgia, Homebuilders Association of South Georgia, and the Annual Georgia Homebuilder Association meeting. Also the survey was given to G-STAND the organization for not-for-profit home builders in Georgia to allow for a better sample of not-for-profit builders in the study.

These data consist of categorical breakdowns of the individuals in each Homebuilder Association. For example, the survey asked if the respondent filling out the survey was a builder (refer to survey). If they were a builder, they were then asked if they build new homes, remodel existing homes, or both. The respondents were also asked a series of questions about the type of housing they build or rehabilitate including single-family homes, condominiums, and or apartments. The survey also asked if the respondent develops subdivisions and if the respondents business was a nonprofit company. If the individual was not a homebuilder, they were asked

what their affiliation is with the housing industry. Some of the possible affiliated professions included: appraisers, architects, utility providers, and glass subcontractors.

After the affiliation questions, all individuals, whether builders or not, were asked to complete the remaining part of the survey using a five-point Likert scale, in their opinion, what the most important barriers to workforce housing in their communities, one being the greatest problem that leads to the barrier through five being the least pressing problem. The industry members also had the option to place an "NA" next to any barriers that they felt did not apply to their community. Each barrier perceived through the literature and focus group was listed: zoning and land use, subdivision requirements, inspections and codes, permitting, impact fees, other costs, infrastructure, general opposition. Under each major barrier, the variables that would contribute to that barrier were listed. Each member was asked to rank these.

Sample

This study includes all of the usable surveys collected from the Homebuilder Association meetings attended. The survey was also distributed to additional industry representatives while attending other housing workshops. The sample of associations surveyed was a convenience sample. For example if a member of the team was meeting with the association for a different reason, they would bring the survey along to allow for collection at smaller associations. The goal was to survey participants from all regions of the state, but for logistical and communication reasons other associations were substituted in for their cooperation. Both large and small associations were surveyed. Some associations preferred that the survey be given at the board meeting rather than to the full membership at a monthly association meeting. Figure 2 shows the counties in the state where the association members build or are part of the communities that have already been surveyed.

Figure 2. Counties represented through the HDRC survey.

Hypotheses

Binomial logistic regressions will be conducted to test the following hypotheses:

H_{A1} : Different types of builders perceive the zoning barrier problems differently when controlling for different variables.

H_{A2} : Different types of builders perceive the building code barrier problems differently when controlling for different variables.

H_{A3} : Different types of builders perceive the impact fee barrier problems differently when controlling for different variables.

Variables

In order to explore the different affordable housing barriers each barrier was identified through the pilot study at the annual meeting of the Home Builders Association of Georgia in 2005 in Charleston, S.C.: 1) Zoning and Land Use; 2) Building Codes; 3) Impact Fees, will be broken down into the problems that cause each barrier. Zoning and land use were considered together because government officials choose land use options through zoning and rezoning their community. Affordable housing can be zoned out of communities when city officials choose high priced subdivision homes instead of mixed income housing areas (Harvard Law Review Association, 1995). Each of the three barriers listed has individual variables used to influence the barrier. The variable zoning and land use was influenced by the four variables: a community having a lack of affordable land or lots, inflexible time use plans, too much time required to rezone, minimum lot size requirements, and exclusionary zoning. Building codes as a barrier was influenced by the three variables: inconsistent interpretation of local codes causing time delays, inconsistent enforcement of local codes by inspectors, and high cost of inspection fees. The

affordable housing barrier of impact fees was influenced by the three variables: high cost of impact fees, high usage fees for water and sewer taps, and non-negotiable impact fees.

Since affordable housing is the main focus of the paper, the control variables are as follows: builders are broken down into non-builders/other types of industry members, affordable housing builders (those who build single-family housing or condominiums in the price range of $90,000-$99,999 or apartments in the $300-$599 price range, and non-affordable housing builder (those builders who build single-family housing or condominiums in a price range above $90,000-$99,999 or apartments in the $300-$599 price range). The three types of building structures are also controlled for if a respondent is a builder of single-family housing, condominiums, or apartments. The other variables controlled for are if respondents are developers of subdivisions, purchasers of lots for development, if the builders work for a not-for-profit organization, if the individuals perceive a their community as having better living conditions compared to five years ago, and if they describe their community as high growth (shown in Table 1).

Data Analysis Procedure

The descriptive analysis includes the types of builders and industry member surveyed at the different meetings. The type means if they were a builder/developer or they rehabilitate/remodel housing the type of housing they build or rehab including single family, condominiums, and or apartments and if they are not-for-profit builders.

Binomial logistic regression models are used to test the hypotheses. The statistical analysis was preformed using SAS. The dependent variables were each of the three barriers: zoning/land, inspections/codes, and impact fees. Because each of the dependent variables in the

Table 1

Measurement of Variables: Study Variable Names, Definitions, and Original Coding

Variable Name	Original Coding and Description
Dependent Variables	
Zoning	0 = Lack of Affordable Land is the number one zoning problem 1 = Inflexible land use plan is the number one zoning problem 2 = Time required to rezone is the number one zoning problem 3 = Minimum lot size requirements is the number one zoning problem 4 = Exclusionary zoning is the number one zoning problem
Building Codes	0 = Inconsistent interpretation of local codes is the number one building code problem 1 = Inconsistent enforcement of local codes is the number one building code problem 2 = High inspection fees are the number one building code problem
Impact Fees	0 = High impact fees are the number one impact fee problem 1 = High usage fees (water and sewer taps) are the number one impact fee problem 2 = The fact impact fees are non-negotiable are the number one impact fee problem
Independent Variables	
Builder	0 = Non-builder - do not build/develop or rehab/remodel (Industry member) 1 = Affordable homebuilder who builds single-family housing or condominiums in the price range of $90,000-$99,999 and/or apartments in the price range of $300-$599 2 = Non-affordable homebuilder who builds single-family housing or condominiums in a price range > $90,000-$99,999 and/or apartments in the price range > $300-$599
Single-Family	0 = not a builder of single-family housing 1 = a builder of single-family housing

Table 1 (continued)
Measurement of Variables: Study Variable Names, Definitions, and Coding

Variable Name	Coding and Description
Independent Variables	
Condominiums	0 = not a builder of condominiums 1 = a builder of condominiums
Apartments	0 = not a builder of apartments 1 = a builder of apartments
Subdivisions	0 = does not develop subdivisions 1 = a developer of subdivisions
Lots	0 = does not purchase lots for home construction 1 = does purchase lots for home construction
Not for profit	0= does not work for a not-for-profit company 1= does work for a not-for-profit company
High Growth	0 = does not describe their community as high growth 1 = describes their community as high growth
Living Conditions	0 = does not describe their community's living conditions as better than five years ago 1 = describes their community's living conditions as better than five years ago

end had only two possible options to be ranked as the number one problem that causes the barrier, the binomial logistic regression model appropriately analyzes the data. The independent variables are: whether or not the respondents are builders of affordable housing (the $90,000-$99,999 price range for single-family homes and condominiums, as well as, the $300-$599 price range for apartments), whether or not they are builders of different types of housing (single-family, condominiums, and apartments), if they build subdivisions, if they purchase lots for home construction, and if they perceive their community as a high growth area.

Under Section II of the survey, each industry member's answers were recoded to reflect the most prevalent requirement that contributes to each barrier. The response under each barrier was coded zero through four or two depending on the number of available responses under the category. Using regression analysis, the building industry members, view was assessed and was identified as the most important contribution under each barrier.

CHAPTER 4

RESULTS

In this chapter, the findings of the descriptive and statistical analyses are presented. First, a descriptive analysis of the sample is provided. Then, a bivariate analysis of builder type with each barrier variable (Zoning, Building Codes, and Impact Fees) is presented recoded for the regression analyses. Next, the results of each binomial logistical regression are reported for each barrier variable, followed by an examination of the results as they relate to the hypotheses.

Descriptive Analysis of the Sample

The descriptive analysis includes the full sample of 181 surveys collected from seven local homebuilder association meetings. The study used nine variables to predict the likelihood of being the number one problem for affordable housing under three different barriers. The barriers being a) zoning, b) building codes, and c) impact fees. The problems being: a) lack of affordable land, b) inflexible land use plans, c) time required to rezone, d) minimum lot size requirements, e) exclusionary zoning, f) inconsistent interpretation of building codes, g) inconsistent enforcement of building codes, h) high inspection fees, i) high impact fees, j) high usage fees, and k) non-negotiable impact fees.

The information in Table 2 shows the similarities and differences between association members by builder categories (non-builder, affordable builder, and non-affordable builder) found through chi-square tests. Each of the builder groups is described by predictor variables in Table 2. Each variable type has subcategories where the column under builder type adds up to 100%. Among the association members surveyed, there were about an equal number of non-

Table 2
Column Percentages by Builder Type

Variables	Builder Type			Chi-Square
	Non-Builder (n=49)	Affordable Builder (n=44)	Non-Affordable Builder (n=88)	
Zoning				7.54
Lack of affordable land is number one problem	.51	.47	.63	
Inflexible land use plan is number one problem	.06	.09	.07	
Time required to rezone is number one problem	.02	.07	.06	
Minimum lot size requirements is number one problem	.14	.11	.09	
Exclusionary zoning is number one problem	.06	.11	.06	
Missing	.20	.14	.10	
Building Codes				11.54
Inconsistent interpretation is number one problem	.31	.36	.44	
Inconsistent enforcement is number one problem	.16	.16	.24	
High inspection fees is number one problem	.10	.09	.14	
Missing	.43	.39	.18	

Table 2 (continued)
Column Percentages by Builder Type

Variables	Builder Type			
	Non-Builder (n=49)	Affordable Builder (n=44)	Non-Affordable Builder (n=88)	Chi-Square
Impact Fees				12.83*
High impact fees is the number one problem	.31	.32	.35	
High usage fees is the number one problem	.16	.39	.39	
Non-negotiable fees is the number one problem	.10	.05	.05	
Missing	.43	.25	.22	
Single-Family Builder				169.45****
Yes	.00	.95	.98	
No	1.0	.02	.02	
Missing	.00	.02	.00	
Condominium Builder				13.08**
Yes	.00	.18	.17	
No	1.0	.80	.83	
Missing	.00	.02	.00	

Table 2 (continued)
Column Percentages by Builder Type

Variables	Builder Type			
	Non-Builder (n=49)	Affordable Builder (n=44)	Non-Affordable Builder (n=88)	Chi-Square
Apartment Builder				16.94***
Yes	.00	.23	.09	
No	1.0	.75	.91	
Missing	.00	.02	.00	
Develops Subdivisions				42.19****
Yes	.00	.43	.52	
No	1.0	.55	.48	
Missing	.00	.02	.00	
Purchases Lots for Home Construction				75.10****
Yes	.02	.59	.75	
No	.98	.36	.23	
Missing	.00	.05	.02	

Table 2 (continued)
Column Percentages by Builder Type

Variables	Builder Type			
	Non-Builder (n=49)	Affordable Builder (n=44)	Non-Affordable Builder (n=88)	Chi-Square
Non-Profit Company				11.21*
Yes	.02	.16	.03	
No	.98	.82	.95	
Missing	.00	.02	.01	
Describes the Community as High Growth				4.21
Yes	.27	.27	.25	
No	.33	.45	.31	
Missing	.41	.27	.44	
Describes the living conditions better than five years ago				10.61*
Yes	.20	.27	.32	
No	.41	.50	.25	
Missing	.39	.23	.43	

Note: *p<.05, **p<.01, ***p<.001, ****p<.0001

builder and affordable builders, but there were twice as many non-affordable builders (49%, 44%, and 88%, respectively) in the sample.

Of the non-builders, over half chose lack of affordable land as the number one barrier under the affordable housing problem of zoning. Forty-seven percent of affordable builders chose lack of affordable land compared to 67% the non-affordable builder selecting the same variable (See Table 2). Under the affordable housing barrier of building codes, 31% of the non-builders chose inconsistent interpretation of building codes as the number one problem, but 43% of the non-builders chose not to answer the question. Of all the affordable builders 36% chose this as the number one problem with 39% not answering the question. Non-affordable builders chose this the most with 44% answering it as the number one problem under building codes. For each of the builder categories, inconsistent enforcement of building codes was the second most chosen number one problem. With the affordable housing problem of impact fees the number one problem for non-builders was chosen as high impact fees where with the affordable builder and non-affordable builder the number one problem was chosen as high usage fees. (The non-builder category had 43% of the observations missing where as the affordable builder and non-affordable builder had 25% and 22% respectively missing).

About 95% of the affordable builders built single-family homes compared to 98% of the non-affordable builders. Of all the affordable builders 18% built condominiums, and of non-affordable builders 17% built condominiums. Twenty-three percent of the affordable builders reported building apartments and only nine percent of the non-affordable builders built apartments. Less than half of the affordable builders purchased lots for home construction in their community compared to over half of the non-affordable builds purchased lots for home

construction. Only 16% of the affordable builders worked for a not-profit company, and while three percent of the non-affordable builders worked for a not-for-profit company.

The three building types described their community as high growth all described the as high growth about one-fourth of the time (27%, 27% and 25% respectively). About 41% of the non-builders and 50% of the affordable builders described their community as not better than five years ago where 32% of the non-affordable builders described their community as better than five years ago.

The next part of the descriptive analyses uses the dummy variables described as each predictor variables group's distribution among the three builder groups. Of those members who built single-family homes, 33% were affordable builders and 67% were non-affordable builders (See Table 3). Of all members building condominiums, 35% were affordable builders and 65% were non-affordable builders. The members who built apartments were 56% affordable builders and 44% non-affordable builders. About 71% of the association members who developed subdivisions are non-affordable builders and about 29% are affordable builders.

Of the association members who purchased lots for construction, one percent were non-builders, 28% were affordable builders, and 71% were non-affordable builders showing these two builder types are not similar. Of those members working for a not-for-profit organization nine percent were non-builders 64% were affordable builders, and 27% were non-affordable builders. The members who described their community as high growth 28%, 26%, and 47% were non-builders, affordable builders, and non-affordable builders, respectively. Of the members who agreed the living conditions in the community were not better than five years ago about one-third were from each group non-builder, affordable builder, and non-affordable builder.

Table 3
Description of Builder Groups

Variable	Builder Type			Chi-Square
	Non-Builder (n=49)	Affordable Builder (n=44)	Non-Affordable Builder (n=88)	
Single-Family Builder				169.45****
Yes	0%	32.81%	67.19%	
No	94.23%	1.92%	3.85%	
Condominium Builder				13.08**
Yes	0%	34.78%	65.22%	
No	31.21%	22.29%	46.50%	
Apartment Builder				16.94***
Yes	0%	55.56%	44.44%	
No	30.25%	20.37%	49.38%	
Develop Subdivisions				42.19****
Yes	0%	29.23%	70.77%	
No	42.61%	20.87%	36.52%	
Purchases Lots				75.10****
Yes	1.08%	27.96%	70.97%	
No	57.14%	19.05%	23.73%	
Not for profit				11.21*
Yes	9.09%	63.64%	27.27%	
No	28.57%	21.43%	50.00%	
Describes community high growth				4.21
Yes	27.66%	25.53%	46.81%	
No	25.40%	31.75%	42.86%	
Conditions better than five years ago				10.61*
Yes	20.00%	24.00%	56.00%	
No	31.25%	34.38%	34.38%	

Note: *p<.05, **p<.01, ***p<.001, ****p<.0001

Bivariate Analysis

After reviewing the descriptive analyses, it was evident that the regression analysis would be more powerful after merging the barrier variable data into different categories. The new barrier variables became ZoningA, Building CodesA, and Impact FeesA for the new coding (Table 4). Due to the small sample of association members who responded with a number one choice other than lack of affordable land as the number one problem under the barrier zoning, even one association member would make a large significant difference in the results. Conducting a binomial logistical regression of the barrier ZoningA with choice one becoming lack of affordable land is the number one problem and choice two changing to lack of affordable land is not the number one problem the results of the study are more powerful due to the small sample size (see Table 4). A binomial logistical regression was also used for each of the other two barriers building codes and impact fees. For the variable Building CodesA, one was inconsistent interpretation of building codes is the number one problem and choice two became inconsistent interpretation of building codes is not the number one problem. For the variable Impact FeesA, choice one was high impact fees is the number one problem and choice two became high impact fees is not the number one problem.

Because the main purpose of the study was to find how builder type influences the affordable housing barrier problem, a new variable named multifamily was created to represent the two variables condo and apartment. This change was needed because one builder type is non-builder and by just having two variables each non-builder had to make the same choice as not building those types of housing. The variable not-for-profit was dropped due to the fact only eleven association members said their company was not-for-profit. Again, this allows for improved results in the final model.

Table 4

Measurement of Variables: Model Variable Names, Definitions, and New Coding

Variable Name	Original Coding and Description
Dependent Variables	
ZoningA	1 = Lack of Affordable Land is the number one zoning problem 0 = Lack of Affordable Landis not the number one zoning problem
Building CodesA	1 = Inconsistent interpretation of local codes is the number one building code problem 0 = Inconsistent interpretation of local codes is not the number one building code problem
Impact FeesA	1 = High impact fees are the number one impact fee problem 0 = High impact fees are not the number one impact fee problem
Independent Variables	
Builder	0 = Non-builder - do not build/develop or rehab/remodel (Industry member) 1 = Affordable homebuilder who builds single-family housing or condominiums in the price range of $90,000-$99,999 and/or apartments in the price range of $300-$599 2 = Non-affordable homebuilder who builds single-family housing or condominiums in a price range > $90,000-$99,999 and/or apartments in the price range > $300-$599
Multi-Family	1 = A builder of condominiums or apartments 0 = Not a builder of condominiums or apartments
Single-Family	0 = not a builder of single-family housing 1 = a builder of single-family housing
Subdivisions	0 = does not develop subdivisions 1 = a developer of subdivisions
Lots	0 = does not purchase lots for home construction 1 = does purchase lots for home construction

The bivariate analyses of the two variables builder type and barriers were run to determine significance before controlling for other variables that could explain the relationship.

Table 5 shows a bivariate analysis with the original data, as well as, a bivariate analysis with the recoded data. This table shows by merging the least chosen problems for each barrier a more robust data set. For the zoning variable, overall each builder type chose lack of affordable land as the number one problem and each of the other choices secondary. This table includes the number in addition to the percent to show the impact of one member.

Binomial Logit Analyses

The binomial logit for each of the barriers included a sample of 181 association members. Four dummy variables were included in the final model in addition to builder type: if the member built single-family homes, if the member built multi-family homes, if the member developed subdivisions, and if the member purchased lots for development. This model used all the variables of interest to predict the ratios of the number one problem under each affordable housing barrier. Relative risk ratios and confidence intervals are reported in Table 6.

Surprisingly, builder type: non-builder, affordable builder, and non-affordable builder did not have any significance in reporting the number one problem for each barrier zoning, building codes, and impact fees. However, the only dummy variable that made a significant difference was if the builder type purchased lots for home construction.

Hypothesis Testing

All hypotheses were tested at the alpha=0.05 level of significance. Association members who purchased lots for home construction were 176% more likely to chose lack of affordable land as the number one zoning barrier. This was with a baseline of non-builders. However, type of builder did not significantly affect the probability of choosing lack of affordable land as the number one zoning barrier issue. Therefore, hypothesis 1_A**:** different types of builders perceive the zoning barrier problems differently when controlling for different variables, is rejected. It is

Table 5
Bivariate Analyses of Variables Builder and Barrier in Column Percentages by Builder Type

Original Coding (Corresponds with Table 1)

Variable	Total		Builder Type					
			Non-Builder		Affordable Builder		Non-Affordable Builder	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Zoning (the number one problem)								
Lack of Affordable Land	101	56	25	51	21	48	55	63
Inflexible land use plan	13	7	3	6	4	9	6	7
Time required to rezone	9	5	1	2	3	7	5	6
Minimum lot size requirements	20	11	7	14	5	11	8	9
Exclusionary zoning	13	7	3	6	5	11	5	6
Missing	25	14	10	20	6	14	9	10
Building Codes (the number one problem)								
Inconsistent interpretation of local codes	70	39	15	31	16	36	39	44
Inconsistent enforcement of local codes	36	20	8	16	7	16	21	24
High inspection fees	21	12	5	10	4	9	12	14
Missing	54	30	21	42	17	39	16	18

Table 5 (continued)
Bivariate Analyses of Variables Builder and Barrier in Column Percentages by Builder Type

Original Coding (Corresponds with Table 1)								
			Builder Type					
Variable	Total		Non-Builder		Affordable Builder		Non-Affordable Builder	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Impact Fees (the number one problem)								
High impact fees	60	33	15	31	14	32	31	35
High usage fees (water and sewer taps)	59	38	9	18	17	39	33	38
The fact impact fees are non-negotiable	11	6	5	10	2	5	4	5
Missing	51	28	21	42	11	25	19	22
New Coding (Corresponds with Table 4)								
ZoningA (the number one problem)								
Lack of Affordable Land	101	56	25	51	21	48	55	63
Not Lack of Affordable Land	80	44	24	49	23	52	33	38
Building CodesA (the number one problem)								
Inconsistent interpretation	70	39	15	31	16	36	39	44
Not Inconsistent interpretation	111	61	34	69	28	64	49	56

Table 5 (continued)
Bivariate Analyses of Variables Builder and Barrier in Column Percentages by Builder Type

New Coding (Corresponds with Table 4)								
			Builder Type					
Variable	Total		Non-Builder		Affordable Builder		Non-Affordable Builder	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Impact FeesA (the number one problem)								
High impact fees	60	33	15	31	14	32	31	35
Not High impact fees	121	67	34	69	30	68	57	65

Note: No values are significant at p<.05

Table 6
Odds Ratio Estimates of Number One Problem for Each Barrier

	Zoning			Building Codes			Impact Fees		
		95% Wald			95% Wald			95% Wald	
Variables	Point Estimates	Confidence Limits		Point Estimates	Confidence Limits		Point Estimates	Confidence Limits	
Affordable Builder	.55	.08	3.78	.98	.13	7.31	3.49	.42	29.00
Non-Affordable Builder	.85	.12	5.84	1.35	.19	9.76	3.85	.47	31.74
Single-Family	1.32	.19	9.06	1.47	.20	10.72	.38	.05	2.93
Multi-Family	.60	.27	1.35	.82	.36	1.84	.48	.19	1.19
Subdivision	.57	.27	1.20	1.69	.83	3.46	.71	.34	1.50
Lots	2.76*	1.26	6.05	.57	.26	1.25	1.21	.53	2.74

Note: *p<.01

notable to mention that at a high significance level, the odds of association members who built single-family homes chose lack of affordable land as the number one zoning barrier were 1.32 times as much as the odds of those association members who did not build single family homes.

Hypothesis 2_A: different types of builders perceive the building code barrier problems differently when controlling for different variables, is rejected. Builder type was not significantly related with the likelihood of choosing inconsistent interpretation of building codes as the number one building code barrier problem. If the association member developed subdivisions they were 69% more likely to choose inconsistent interpretation of building codes as the number one building code barrier problem with the baseline of non-builders. Also, the odds of a non-affordable builder who developed subdivisions choosing inconsistent interpretation of building codes as the number one problem was 1.35 times more when compared to the association members who were not affordable builders.

Association members who were affordable builders were 249% more likely and non-affordable builders were 285% more likely to choose high impact fees as the number one impact fee barrier. This was with a baseline of non-builders. However, type of builder did not significantly affect the probability of choosing high impact fees as the number one impact fee barrier problem. Therefore, hypothesis 3_A: different types of builders perceive the impact fee barrier problems differently when controlling for different variables, is rejected. The odds of an association member who purchased lots for home construction choosing high impact fees as the number one impact fee barrier problem were 1.21 times as much as the odds of the association members who did not purchase lots for home construction.

Because there was no relationship between builder and barrier problem in Georgia, this study shows there are other variables for future research that can lead to the affordable housing

problem in the state. Researchers need to find ways to solve the workforce housing problem through other ways of analysis. The discussion of limitations, major findings, and future research follow in the next section.

CHAPTER 5

DISCUSSION

The purpose of this study was to identify the current barriers to affordable housing through the opinions of local homebuilder association members throughout the state of Georgia. Builders across the state of Georgia have shown frustration with different barriers in accomplishing local housing goals. By surveying the builders associations for this study, local and state government officials have the opportunity to address these issues to increase economic development in slow growth areas of the state. Current researchers have explored various barriers including: zoning and land use, building codes, and impact fees that are highlighted in this study. An overview of the literature indicates that by addressing these regulatory issues community association members can achieve long-term affordable workforce housing. Research like this highlight the affordable housing problem as area issues that can be solved at the local level if there is an understanding of what true regulatory "barriers" actually exist.

Major Findings

Estimates from the binomial logit model identified one significant factor related with homebuilder association members being non-builders, affordable builders, and non-affordable builders. This discussion will focus on all three builder types in the study. In general only those members who purchased lots for home construction had a level of significance that showed the value of the variable. An interesting finding of the study is that builder type had no influence on the barrier. This was revealed after conducting the bivariate analyses.

These findings conflict with much of the previous research conducted. For example the U.S. National Commission on Urban Problems, said overall costs of building codes could add 13% to the price of a new construction house. This includes inconsistent interpretation of building codes as a problem for builders adding time and material costs in obeying all building codes correctly to pass inspections (U.S. National Commission on Urban Problems, 1969). This study has similar findings as research done on enforcement of building codes at the local level by Buby, May, Malizia, and Levine (2000) assuming that Georgia has mostly a business-friendly philosophy while not compromising public safety.

In the literature compiled about impact fees, there is an increased cost to homes in new development areas like subdivisions (Brueckner, 1997). This study's conflicting results could be explained because less than half of affordable builders developed subdivisions and only a little over half of the non-affordable builders developed subdivisions. The state of Georgia is also in the process of implementing an impact fee ceiling as well as stipulating how impact fees can be used, so future research can see how the state was able to control local government's ability to levy impact fees.

The fact that builder types of single-family homes and multi-family homes were not significant in identifying barriers shows there are other variables that are influencing this relationship. The zoning and land use literature mostly compares retail zoning, multi-family zoning, and single-family zoning. A study was done on minimum lot size requirements which focused on the larger tax base single-family homes bring to a community compared with multi-family zoning (Quigley & Rosenthal, 2005), conflicts with the findings of this study. The state of Georgia is seeing more mixed-use developments in larger metropolitan areas which could explain why zoning might not be a problem for affordable housing. Even though this study did

not have many significant results, it is a good place to begin identifying variables for future research.

Limitations

The members of the homebuilder associations were surveyed over a year, allowing local issues to come up at council meetings and during election times. Some of the problems facing the builders could have come and gone within the year before surveying them, or the problem could have occurred after the survey was given to the association, thus perhaps causing a current "hot button" issue to take precedence over more longstanding concerns. As evidence of this, the participation of some of the associations was more enthusiastic than others due to the fact they might have been in the middle of facing a barrier. For example, while speaking to builders at the Homebuilders Association of South Georgia, the local government was ready to vote on impact fees in the few months. There were many opinions in the room during the survey process.

Those associations surveyed at the beginning of the year would not have the builders thinking about voting in the past November elections. There were platforms of local politicians brought to the local chapter meetings to entice votes for the upcoming election. For example, the Athens Area Homebuilders Association had a previous member running for the mayor of Athens. This politician knew what problems the local builders were facing and as a result focused on those concerns accordingly.

The survey instrument itself also had its limitations. When the members of the associations ranked the problems under each barrier, there was an option of Not Applicable (NA) they could write next to any problem or barrier they felt was not in their community. Rather than having this open ended it would have been desirable to offer options for their response. This resulted in missing data. It was not clear to the researchers if this barrier was not prevalent in the

member's community or why they chose to leave this blank. There was an option to write in another problem under each barrier if the problem was left off the survey, so it would be hard to conclude the reason for leaving this blank was that the member felt there was another problem not addressed.

Defining "affordability" within the context of the survey was also problematic. In the study the affordable builder was defined as one who builds single-family homes or condominiums in the price range of $90,000-$99,999 and/or apartments renting in the price range of $300-$599. This presents a problem of finding the builders that build below these price ranges. There are many people as presented in numerous studies that cannot afford housing in even these lower price ranges. These ranges were needed to allow for some analyses with the data collected. Without combining these ranges which were circled by the builders, there would not be much power to the study. There is also am implicit understanding that affordable ranges may have relevance within some more depressed areas of the state, but not nearly as much for more suburban and urban locations.

Future Research

The weakness with this study is the limited sample size. If the same survey was administered in the future the suggestion would be to make it no longer than two pages. There were some comments from association members about how long the survey was and how it was like taking a test. Even after trying to over sample the not-for-profit homebuilders at their annual meeting in Atlanta, Georgia, the sample only consisted of 11 not-for-profit builders. The survey could have more credibility if administered through an organization like the Department of Housing and Urban Development or the National Homebuilders Association as a requirement for certain programs.

Conclusion

The results of the study show surprisingly that the only variable with much significance is if the member purchased lots for future development. There is not much research on the different barriers to affordable housing that include this variable. There is more research needed for Georgia that would show significant results about the barriers. Due to the lack of significant results there are barriers that affect the affordable housing market that were not studied. We know that these three barriers are not the major problems across the state of Georgia. So what are the barriers that affect this state?

If the barriers are more localized as suggested in the research there need to be ways to have more members' opinions acknowledged in the study to allow for more power. If the researchers chose to focus on one local area, they could attend city hall meetings, real estate meetings, bank meetings, etc. to allow for a much larger sample of the industry members in that area. By focusing on local communities and not aggregating members from across the state, more issues could be identified, and progress could be made toward workable solutions.

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APENDECIES

APPENDIX A

University of Georgia Housing and Demographics Research Center
Board of Advisors

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APPENDIX B

Barriers to Workforce Housing Survey
Home Builders Association of Georgia

The purpose of this survey is to gather opinions and experiences of builders in Georgia regarding the "Barriers to Workforce Housing." This survey is voluntary and responses will be reported only in the aggregate. Results will be incorporated into a larger fact finding document and ultimately will be used to better inform citizens and policy makers about the barriers to workforce housing in Georgia.

The definition of **"workforce housing"** used in this survey is housing that is affordable to a household with an **annual income of $26,400 - $65,000**. The lower bound, $26,400, corresponds to 80% of the one-earner MFI (see below). This income range translates to a **home sales price of approximately $80,000 - $195,000**.

According to the U.S. Census Bureau, the 2003 estimated median family income (MFI) in Georgia for a one-earner family was about $33,000 and for a two-earner family was about $65,000. The estimated median household income for that same year in Georgia was approximately $43,500.

Thank you for filling out this survey. Please ask if you have any questions.

For future correspondence, please contact us at the

***Housing and Demographics Research Center** at the **University of Georgia**:*

Tom Rodgers, Director of Housing - 706.542.4161 or rodgers@fcs.uga.edu

Karen Tinsley, Associate Director of Research - 706.542.4949 or klt@uga.edu

Mandi Colson, Graduate Assistant – mcolson@uga.edu

Section I: Background Information

1. Do you build/develop or rehabilitate/remodel housing in Georgia?

☐ YES ? ☐ Build/develop ☐ Rehab/remodel (Check all that apply)

☐ NO ? What is your affiliation to the housing industry?_____

If no, skip to Section II, page 3.

2. In what counties do you build / develop or rehab housing?

_____ _____

_____ _____

_____ _____

3. What type of housing does your company build/develop or rehab? (Check all that apply.)

☐ Single family

Sales price range: Circle all that apply

90,000-99,999 100,000-149,999

150,000-199,999 200,000-249,999

250,000-299,999 300,000+

Number per year _____

☐ Condominiums

Sales price range: Circle all that apply

90,000-99,999 100,000-149,999

150,000-199,999 200,000-249,999

250,000-299,999 300,000+

Units per year _____

☐ Apartments

Monthly rent range: Circle all that apply

300-399, 400-499, 500-599, 600-699

700-799, 800-899, 900-999, 1000-1099

1100+

Units per year _____

4. Do you develop subdivisions? ☐ YES ☐ NO

5. Do you buy lots for home construction? ☐ YES ☐ NO

If yes, what is the average cost of a lot? _____

6. Is your company not for profit? ☐ YES ☐ NO

Section II: Barriers to Workforce Housing

1. Please give us your opinion of the most important barriers to building/developing or rehabbing workforce housing by placing in rank order the potential barriers within each of the following eight categories (A – H), with **1 being the most pressing**. Please use the blank spaces next to "other" to add your own. If a sub-category does not apply to you, please indicate this with an "NA."

A. Zoning & Land

____ Lack of affordable land or lots

____ Inflexible land use plan

____ Time required to rezone

____ Minimum lot size requirements

____ Exclusionary zoning

____ Other:_____

____ Other:_____

B. Subdivision Requirements

____Set back requirements

____Curbs & Gutters

____Sidewalks

____ Other:_____

____ Other:_____

C. Inspections & Codes

____Inconsistent interpretation of local codes

____Inconsistent enforcement of local codes

____High inspection fees

____ Other:_____

____ Other:_____

D. Permitting

____Permit process time

____Permit fees are high

____ Other:_____

____ Other:_____

E. Usage & Impact Fees

____High impact fees

____High usage fees (water and sewer taps)

____Impact fees are non-negotiable

____ Other:_____

____ Other:_____

F. Other costs

____Greenspace ordinances

____Insurance

____ Construction loans & other financing

____ Other:_____

G. Infrastructure

____Lack of existing infrastructure

____Soil erosion and stabilization controls

____Septic tank regulations

____ Other:_____

____ Other:_____

H. General opposition

____ Homeowner resistance

____ Special interest groups

____ Public officials

____ Other:_____

____ Other:_____

2. **Please rate the importance of the following factors, on a scale of 1 to 5, to the development process in your community. (1 = not at all important to 5 = very important)**

	Not Important 1	2	3	4	Very Important 5	Not Sure
Population Growth	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Population Density	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Adequate Infrastructure	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Land Costs	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Regulation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Development standards	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Comprehensive planning	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

3. On a scale of 1 to 5, please rate the effectiveness of each of the following growth management techniques in controlling growth in your community. (1 = not effective to 5 = very effective).

	Not Effective 1	2	3	4	Very Effective 5	Not Sure
Adequate facilities	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Ordinances	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Building permits	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Population limits	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Exactions/Impact fees	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Urban service boundary	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Farm protection	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Zoning ordinance	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

4. How has the provision of roads and sewers kept pace with growth needs?

Much more than needed	**Slightly more than needed**	**About right**	**Less than needed**	**Far less than needed**	**No opinion/ not sure**
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

5. **Which of the following techniques does your community use to regulate the conversion of land from agriculture/open space to residential, commercial or industrial use?**

- [ ] **Agricultural Land Conversion Tax**
- [ ] **Transfer of Development Rights**
- [ ] **Land Banking**
- [ ] **Real Estate Transfer Tax**
- [ ] **Urban Development Boundaries**
- [ ] **Water/Sewer provision Staging Plan**
- [ ] **Historic Preservation Requirements**
- [ ] **Other**

6. How would you describe your community?

[ ] High Growth area **[ ] Medium Growth area**
[ ] Slow Growth area **[ ] No Growth area**

7. In your opinion, how do living conditions in the community compare to five years ago?

[ ] Better **[ ] Worse**
[ ] About the Same **[ ] Not Sure/do not know**

8. If you have built a house in the price range of 99,000-200,000 in the last year, the following questions are concerned with specific aspects of the neighborhood of that house. Here is a list of conditions.

Which, if any, does it have?

(a) Street noise or heavy street traffic?	**[ ] Yes**	**[ ] No**
(b) Streets or roads continually in need of repair, or open ditches?	**[ ] Yes**	**[ ] No**
(c) Neighborhood crime?	**[ ] Yes**	**[ ] No**
(d) Trash, litter, or junk in the streets/ roads, or on empty lots, or on properties in the neighborhood?	**[ ] Yes**	**[ ] No**
(e) Houses or building in rundown conditions?	**[ ] Yes**	**[ ] No**
(f) Industries, businesses, stores, or other non-residential activities?	**[ ] Yes**	**[ ] No**
(g) Odors, smoke, or gas?	**[ ] Yes**	**[ ] No**

9. What is the sale price of the least expensive home you built in the last year?

_____

What was the lot cost?

_____

Did you have an impact fee? if so how much?

_____

Did you have to rezone the area before starting the process?

_____

If the building process was delayed for any reason what was it and what were your time costs?

_____

_____

_____

10. What is the number one thing that the state could do to decrease the cost (including time) of building/developing workforce housing in Georgia? Please be specific.

_____

_____

_____

_____

_____

_____

_____

Thank you for taking the time to complete this survey. You've been very helpful.

APPENDIX C

University of Georgia Human Subjects Approval Form

The University of Georgia

Office of The Vice President for Research
DHHS Assurance ID No. : FWA00003901

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APPROVAL FORM

Date Proposal Received: 2005-11-09 **Project Number:** 2006-10288-0

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Title of Study: Barriers to Workforce Housing in Georgia

45 CFR 46 Category: Administrative 2
Parameters:
None;

Change(s) Required for Approval and Date Completed:
None;

Approved : 2006-01-02 Begin date : 2006-01-02 Expiration date : 2011-01-01

NOTE: Any research conducted before the approval date or after the end data collection date shown above is not covered by IRB approval, and cannot be retroactively approved.

Number Assigned by Sponsored Programs:

Funding Agency:

Form 310 Provided: No

Your human subjects study has been approved.

Please be aware that it is your responsibility to inform the IRB:
. . . of any adverse events or unanticipated risks to the subjects or others within 24 to 72 hours;
. . . of any significant changes or additions to your study and obtain approval of them before they are put into effect;
. . . that you need to extend the approval period beyond the expiration date shown above;
. . . that you have completed your data collection as approved, within the approval period shown above, so that your file may be closed.

For additional information regarding your responsibilities as an investigtor refer to the IRB Guidelines.
Use the attached Researcher Request Form for requesting renewals, changes, or closures.
Keep this original approval form for your records.

Chairperson, Institutional Review Board