

**Understanding Large Land Holders on the Urban Fringe:
A Supply-Side Perspective**

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1. Introduction

Globalization, decentralization and technological innovation continue to have a profound impact on cities. Cities exist in a competitive marketplace and must promote economic growth. As a major focus of the literature on urban development, such “economic logic” suggests that cities should conceive of themselves as efficiency-maximizing entities and hold a unitary interest in enhancing economic productivity (Savitch and Kantor, 2002). Under this economic logic, cities are quickly growing, in terms of both population and geographic area. Spatial expansion has put pressures on land at the fringe of these developed areas. How the supply of this fringe land is managed and operated as a transition between urban and undeveloped areas is important for both types of areas.

Because landownership is often distributed among many interests, the management of fringe lands depends on the collective decisions of various agents. These decisions, in turn, depend on the characteristics, behaviors, interests, and intentions of the landowners. [How landowners make decisions of whether and how to supply fringe land for development is important because urban growth will be determined by the extent to which these fringe lands are successfully incorporated into the urban fabric.](#) If landowners actively engage, urban areas can continue to grow and urbanize. But growth brings with it changes in lifestyle that have benefits as well as costs. Fearing the costs associated with growth, owners might opt for the status quo, and this can establish competing motives for land disposition.

In this chapter we examine these issues by analyzing the perspective of fringe landowners in order to better understand their impact on land supply. We use data collected in a 2002-2003 telephone survey sponsored by the Lincoln Institute of Land Policy and the Joint Center for Housing Studies at Harvard University of owners of undeveloped fringe land in Sacramento, California; Charlotte, North Carolina; Portland, Oregon; and Austin, Texas. The survey sought information on the characteristics,

behaviors, interests, and intentions of these fringe landowners, and especially their decisions related to land use and the subdivision, development, sale, and transfer of their parcels. For details on the criteria for region selection, sampling methodology, and survey implementation, see Molinsky (2006).

Molinsky's study (2006) evaluated landowners of fringe lands of 5 acres or larger. Our study is a more focused analysis, examining only the large fringe landowner—defined, for the purposes of this study, as owners holding 15 acres or more—because decisions about larger parcels have a greater impact on both economic performance and quality of life; the behavior of large landowners directly affects the stability and health of the land market. [Our working sample finally includes 837 respondents.](#) An interesting question is whether the class of large fringe landowners differs in important ways from the group of smaller owners along the urban fringe.

The survey also allows us to assess the extent to which large fringe landowner views differ across geography. The four metropolitan areas in the survey have distinct and differentiated histories and prevailing cultures. The analysis therefore can speak to whether and how history and culture affect land supply decisions.

2. Survey Results

The data provide a clear picture about who owns fringe lands, how these owners are currently using their land, and how they participate in the land market. The following sections describe the owners' characteristics, the characteristics of the land, and the owners' behaviors, as well as regional differences among the four Metropolitan Statistical Areas (MSAs).

2.1 Owners Characteristics

In all four regions, the vast majority of large landowners possessed their land through individual ownership or family ownership (see Table 1.1). Significantly smaller numbers of owners in Portland and Sacramento possessed their land through partnerships

or family-held corporations. Other types of ownership were rare. This pattern confirms the notion that, at least in our study regions, the supply of land for future housing market and urban growth is in the hands of many large landholders, who will make decisions about when to sell, subdivide, and develop their fringe land. It also raises the possibility that large fringe land disposition will be more complex because individuals and families are more likely to have multiple motives than corporate landowners, who are typically expected to consider only economic benefits and capital gains. We explore these individual multiple motivations in more detail in ensuing sections.

<<Insert Table 1.1 here>>

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Table 1.2 reports the demographic characteristics of large fringe landowners. The average age of surveyed landowners was 61, and respondents were mostly male and white—the large fringe landowners represented a less diverse pool than the general population. According to the 2006 census, the percentage of whites in the central cities of Austin, Charlotte, Portland, and Sacramento was only 59.1, 54.7, 78.1, and 50.5 percent, respectively.

The large fringe landowners in the survey were well educated, and college-degree attainment among this group exceeded prevailing metropolitan area levels. For example, 56 percent of landowners in the Austin area reported holding a bachelor's degree or higher, whereas the 2006 census reported a 42.9 percent rate for the greater Austin area. Smaller disparities were observed in the other metropolitan areas.

Interestingly, only 19.7 percent of the large fringe landowner respondents reported agriculture—farming, ranching, or forestry—as their primary profession. However, variations across these four regions are significant, with low percentages in Austin and Charlotte (12.2 and 9.9 percent, respectively) and relatively high percentages in Portland and Sacramento (27.5 and 32.6 percent, respectively). The higher rates in Portland and Sacramento may be due to particular local features. The stringent

growth-control regulations in Portland may allow agricultural uses to persist more there, and Sacramento has historically had a strong agricultural presence because of its suitable soil and weather. Across the board, few large fringe landowners considered themselves real estate development or investment professionals.

Although most large fringe landowners reported high incomes (greater than \$50,000), nearly one quarter reported incomes below \$50,000 (see table 1.3). This might suggest that income is an important consideration for at least a significant minority of the survey respondents. We note significant regional variation here, with a low percentage in Sacramento (16.7 percent) and a high rate in Portland (29.4 percent) and Charlotte (32.8 percent). We see similar disparities with respect to net worth: Sacramento large fringe landowners were much less likely than those in other cities to have a net worth less than \$1 million. Overall, Austin and Charlotte had very similar wealth distributions at all levels.

<<Insert Table 1.3 here>>

For all these large fringe landowners, land was a significant component of their wealth. Overall, nearly 60 percent of their total worth consisted of the fringe landholding. Moreover, as in Molinsky's study (2006), we see that owners involved in agriculture had the highest percentage of their wealth in land.

2.2 Land Characteristics

2.2.1 Parcel sizes

The lower bound for consideration in this study was 15 acres, but the typical respondent owned much more land (see table 1.4). The mean and median holdings were 70.3 and 37.0 acres, respectively. Interestingly, we find a significant relationship between parcel acreage and owners' age and retirement status, suggesting that older and retired landowners tend to have larger parcels. The sample-wide averages mask variation across the four MSAs. Landholdings in Austin and Sacramento were much larger than those in Charlotte and Portland. Also, we observe a negative correlation between parcel size and

perceived intensity of development pressure. This might reflect the fact that larger parcels can, if developed, lead to considerable changes in land use. Thus, developers pursue them most aggressively.

<<Insert Table 1.4 here>>

2.2.2 Current land use

Nearly all the land in the survey (81.7 percent) was devoted to agricultural use, and agricultural use was the most common use found on at least some portion of these large fringe land parcels (see table 1.5). Moreover, where a single land use prevailed (when at least 90 percent of the land was devoted to a single use), that use was most often agricultural. Charlotte lagged a bit in this regard, but even there agricultural use far outstripped secondary uses. In all four MSAs, residential and open space uses were distant second considerations. In addition, 28.7 percent of landowners reported that their land was used for recreation in addition to other uses; a significantly higher percentage of Austin large fringe landowners reported this use compared with landowners in the other areas.¹

<<Insert Table 1.5 here>>

2.2.3 Conditions at the time of land acquisition

Because conditions and circumstances can change considerably over time, the survey sought to distinguish current uses and motives from uses and motives at the time of acquisition. To that end, the survey asked landowners a series of questions about when, how, and for what intended purposes they acquired their fringe land.

The responses suggest that this additional focus was warranted, as the large fringe landowners on average owned their parcels for over 20 years (see table 1.6). Austin large fringe landowners were newer than those in other MSAs, but even these owners can be considered long-term holders of their properties using objective standards. Figure 1.1

¹ Since recreational use frequently overlaps with other uses, the survey simply asked whether the land was used for recreation and did not ask for the percentage of land in recreational use.

illustrates the distribution of parcels by year of acquisition for the four regions.² The sample includes a mix of longtime landowners and recent owners. Overall, 44 percent of these large fringe lands were acquired before 1980. Landowners who acquired their land in the 1980s and 1990s account for 52.4 percent. Only 3.6 percent of landowners acquired their land after 2000. An important side note: the long-term landowners tended to amass their holdings through multiple transactions.

<<Insert Table 1.6 here>>

<<Insert Figure 1.1 here>>

Purchase and inheritance were the dominant means of acquisition for large fringe landowners. Together, these methods explain how more than 90 percent of the survey respondents gained their parcels. Proportions across the four MSAs are similar with the exception of Charlotte, where significantly more landowners inherited their land (41.1 percent) or received their land as a gift (3.7 percent). We find a consistently significant correlation between parcel size and inheritance of land in all regions—inheritors tend to have larger parcels than buyers.

Among purchasers, responses indicate multiple important criteria in deciding to buy. Overall, the three most important features influencing owners' decisions were suitability for agriculture or ranching, price or terms of sale, and suitability for family. Nearby amenities and services, such as scenery, open space, and schools, were also cited as important features. Other features, such as proximity to municipal services or family and friends, tended to be less important to a landowner's purchase decision. These patterns were consistent across all regions with only minor exceptions.

Perhaps not surprisingly given current motivations and uses, at the time of acquisition a solid majority (75.4 percent) of landowners intended to use their undeveloped fringe land for agriculture, with or without other uses (see table 1.7). Many

² For land acquired through multiple transactions (purchase, inheritance, gift, etc.), we used the year of the first transaction as the year of acquisition. We also excluded those who answered "don't know/refused" in these series of questions from our calculation.

landowners intended to accommodate other uses as well: residential, recreational, and open space uses were commonly intended additional uses. Because large parcels can more easily be partitioned into multiple uses, landowners frequently had several intended uses when they first acquired their land.³

<<Insert Table 1.7 here>>

About 27.8 percent of respondents reported an interest at the time they acquired the property in taking steps to transition at least some of their land to more public uses through either subdivision or development. Roughly similar percentages of landowners intended to subdivide and develop their land, though owners in Sacramento were more likely to develop their land in the future than subdivide their parcels. Most large fringe landowners had long-term horizons, reflected in their expectation of holding their properties for 10 years or longer. This strongly suggests that the large fringe landowners in our sample are not speculators hoping for a quick return by flipping properties. Rather, they appear to be more complex agents seeking more than simple returns.

A comparison of current uses with intended uses at the time of acquisition reveals that the percentage of parcels with any agricultural use has remained very stable over time. The percentage of parcels with some undeveloped land did not change too much either, except in Portland, where this percentage almost doubled (from 18.1 to 34.2 percent) compared with landowners' original intentions. Perhaps this is due to Portland's rigorous land use regulations and various growth-control policies. Interestingly, the percentage of parcels with any nonfarm residential use declined in Austin, Charlotte, and Portland, whereas it remained stable in Sacramento. The percentage of parcels with current commercial or industrial uses was significantly and consistently smaller than the percentage of landowners who originally intended to use their land for commercial or industrial purposes. This is consistent with the view that fringe landowners either overestimated the pace of urban growth in their regions or underestimated the power of

³ Questions about intended uses at acquisition were asked as "yes or no" questions in the survey, allowing multiple intentions to be captured.

planning and land use controls. The percentage of parcels with any recreational use (either public or private) also slightly increased in all four regions.

2.3 Owner Behaviors

2.3.1 Previous participation in the land market

Landowners were asked directly if they had ever entered the land market through the sale or donation of an adjacent parcel (see table 1.8). Only a small portion of them had done so: the figures ranged from 12.1 percent in Portland to 23.3 percent in Charlotte, with an average of 16.2 percent across all four regions. These landowners were more likely to own larger properties or to have owned their property for a relatively long time. In terms of the timing of sales and transfers, significant regional differences existed. Portland had the earliest mean and median year of sale or transfer (both at 1982), whereas Austin landowners reported significantly more recent transactions, with a mean year of 1992 and median year of 1996. This is consistent with the fact that land pressures due to rapid growth have become acute in Austin relatively recently compared with the other MSAs.

<<Insert Table 1.8 here>>

Among those who had sold or transferred adjacent land, the most common reason for the transaction was to transfer land to children or other family members; the need for money, a strong offer, and assisting a neighbor or friend were secondary motives. Significantly, none mentioned using the sale or transfer to protect adjacent land from development. There were also slight variations across regions. The need for money led significantly more landowners in Austin to sell or transfer their land, whereas a significantly higher percentage of landowners in Charlotte were motivated by a desire to transfer land to children or other family members. For Charlotte large fringe landowners, reasons such as assisting a neighbor or friend and receiving a good offer were also significantly more common than in other regions, whereas the need for money was significantly less common.

Whether or not they had sold or transferred land previously, a large percentage of landowners had received offers from interested buyers (see table 1.9). In the year preceding the survey, 39.4 percent of landowners were approached with an offer to purchase some of or all their property; the percentages in Charlotte and Sacramento were significantly higher than in Austin and Portland. A slightly smaller percentage of landowners stated that they had received offers from people wishing to develop their land; the percentages in Charlotte and Sacramento once again were significantly higher than in Austin and Portland.

<<Insert Table 1.9 here>>

2.3.2 Current participation in land market

Landowners who plan to sell or transfer their land will be directly involved in the parcelization of fringe land and the change in land supply. At the time of the survey, 27.2 percent of these large fringe landholders were considering selling or giving away some of or all their property; there was no significant difference across the four regions (see table 1.10). When asked to rate the various factors affecting their current land sale and transfer considerations, over half the landowners in each region ranked receiving a good offer as “very important.” Owners gave less importance to other factors, such as money pressures, bequest motives, nonfinancial family or life-cycle issues, tax advantages, and better alternative investments. Across regions, this ranking was strikingly stable even though landowners reported significant regional differences in their previous sales or transactions.

<<Insert Table 1.10 here>>

The importance of receiving a good offer increased tremendously. “Receiving a good offer” was mentioned as an important reason by only 14.0 percent⁴ of landowners who previously sold or transferred their land, compared with 53.9 percent of those who are currently considering selling or transferring their land. Perhaps this is due to the

⁴ See table 1.8

increased recognition that emerged during the 1990s and early 2000s, as residential house prices skyrocketed, real estate wealth is an important vehicle for building household wealth. The importance of the need for money as a factor in considering a sale also increased, from 13.2 percent to 21.5 percent, whereas the importance of transferring land to children or other family members declined. Three other factors—nonfinancial family or life-cycle issues, tax advantages, and better alternative investments—also significantly increased in their importance, moving from having only very minor influence (around 2 percent of landowners rated them as “very important”) on previous land sales and transfers to playing a relatively important role (around 16 percent of landowners rated them as “very important”) in current land sale and transfer considerations. The desire to assist a neighbor or friend, which was “very important” to 9.6 percent of landowners in their previous land sales and transfers, was rated the same way by only 3.9 percent of landowners in their current land sales and transfers considerations. These broad trends suggest that investment objectives and financial pressures have become more salient for this subset of large fringe landowners, whereas some familial and personal motives have declined somewhat in importance. The attention to taxes and investments also suggests an increased sophistication among large fringe landowners over time.

We noted earlier the issue of multiple motives and the complexity of the large fringe landowner population. This is clearly highlighted when one looks at landowners who were not currently considering land sales or transfers. This group, which made up nearly three-quarters of the survey sample, ranked these factors differently. In all four regions, these landowners tended to place more value on transferring land to children or other family members and less value on receiving a good offer, the need for money, and the existence of better investment opportunities elsewhere compared with those who were actually considering land sales and transfers. Nearly 50 percent of this subgroup of large fringe landowners reported the bequest motive as most important, far and away the largest consideration.

Another striking finding is that 62 percent of the large fringe landowners (across both subgroups) reported that they would take into account the bidders' intended land uses when making their land sale decisions. This percentage, which remained relatively stable across all four regions, demonstrates a clear role for quality-of-life and community considerations. Most current large fringe landowners appear to be sensitive to prior development patterns and do not want to be seen as contributing to negative development trends, if they are perceived to exist. This result emphasizes the point that large fringe landowners are more complex than typical corporate landowners; fringe development and urban expansion will therefore be more nuanced than one might initially expect.

2.3.3 Future plans for land and decision criteria

In order to analyze landowners' future plans, those conducting the survey asked landowners about the likelihood of taking certain actions within the next five years. Most landowners (65.2 percent) reported that they wanted to retain their property in its current use (see table 1.11). Interestingly, this number is quite consistent with the percentage of landowners who agreed that, given the choice, they would keep their land in its current use indefinitely (73.7 percent). If transfer of the property was contemplated, there was an equal inclination toward selling the property and giving the property to a family member. Cross-regional comparisons reveal a great deal of similarity. However, Sacramento landowners were significantly more likely to sell some of or all their property, develop the land themselves, or subdivide their property compared with landowners in the other three regions. It is interesting that large fringe landowners in Portland and Sacramento, the two western—and newer—cities in the sample, were less likely to commit to restricting land to current uses in perpetuity. Perhaps there is a western sensibility that shapes owner perspectives and attitudes.

<<Insert Table 1.11 here>>

The complexity and multiple motives of large fringe landowners are also evidenced by their responses when asked to rate the importance of various factors in their

decisions and future plans regarding the property (see table 1.12). Overall, planning and policy factors, such as zoning and subdivision regulations, taxes, and environmental regulations, rated as the three most important factors. As might be expected, all the relevant taxes were important, but property taxes ranked slightly ahead of the others. Despite the key role of planning and policy, economic and quality-of-life considerations rated highly as well. Factors such as neighbors' land decisions; development pressures in the area; expected return on agriculture; and transportation, sewer, and water access all had similar importance; roughly 20 percent of landowners rated them as “very important.” These results were quite consistent across regions, except that significantly more landowners were concerned about land regulations in Portland than in other regions. This is no doubt because land use regulations in Portland are more stringently imposed through growth-control policies.

<<Insert Table 1.12 here>>

In terms of making decisions, respondents showed some variation in their sophistication and use of tools to help them become more informed. Only 42 percent of large fringe landowners reported performing regular land investment analysis, and only 30 percent had ever sought advice or assistance in analyzing land investments. In total, 52.2 percent either performed their own land investment analysis or sought some external advice regarding decisions about the future disposition of their parcels.

2.3.4 General participation in land market

Across regions, there were remarkable similarities in the percentages of landowners who owned other land in their respective metropolitan areas, and in their propensity to buy or sell other properties (see table 1.13). Roughly 41 percent of landowners in each region owned other land in their MSA at the time of the survey. Unfortunately, the survey did not capture whether this other land was located at the fringe or in a suburban or urbanized area. Landowners in land-intensive professions such as farming, ranching, and real estate investment and development were significantly more

likely to possess other land in their MSA than those who were retired or engaged in non-land-intensive professions. The median acreage of owners' other land was much larger in Sacramento than in other regions; Sacramento landowners were more likely to be large landowners in other contexts. More generally, though, these alternate parcels were smaller than the large parcels on the fringe that were the focus of the survey. Our large landholders on balance engage the market on a larger scale through only a single land channel.

<<Insert Table 1.13 here>>

Overall, the reasons most frequently mentioned for owning other land were recreational or residential use, income-generating agriculture or other rural land uses, and investment purpose. However, the importance of these reasons varied significantly across the four regions. For example, Austin landowners were significantly more likely to possess other land for recreational or residential purposes compared with landowners from other regions, and Portland and Sacramento landowners were more likely to value income-generating agriculture or other rural land uses. In addition, although the percentage of landowners who possessed other land for investment purposes was quite similar across all four regions, prospective holding times were not. Landowners in Austin, Charlotte, and Sacramento were more likely to sell the other land within five years; Portland landowners were more likely to keep the other land for a longer period of time. Few large fringe landowners (4.6 percent) reported that they possessed other land in order to protect land or other natural resources—a finding consistent with earlier observation.

Overall, the large fringe landowners were only occasional participants in land markets via other properties. Over 85 percent of respondents reported that they either never or relatively rarely bought or sold other land, and only 10 percent reported engagement at frequencies higher than once every five years. Less than 18 percent of large fringe landowners were seeking to buy other properties, and only 34 percent of those who owned other properties were seeking to sell them. Few differences were seen

across regions.

2.3.5 Owners perceptions of growth

Given the ongoing debate about urban expansion and sprawl, a final set of survey questions focused on perceptions of local development and the potential effects on issues such as land values, property taxes, options for land, open space and scenery, and quality of life (see table 1.14). The responses make clear that landowners viewed these lands as being at the urban fringe. A majority of respondents reported living in a rural-suburban mix; the lone exception was in Austin, where 90.6% of respondents described their area as rural or mostly rural. In addition, sizable numbers of respondents living in what they characterized as a rural area reported seeing evidence of increasing suburban infringement—in the form of infrastructure and housing—into their area. The large fringe landowners also noted that their land was being priced at levels above typical farmland valuations, which suggests that the market views these parcels as a blend of the rural and the urban.

<<Insert Table 1.14 here>>

Perhaps most interesting are the attitudes toward development that were observed among these large fringe landowners. There was a clear ambivalence toward development. These owners recognized that development would increase land values, and by extension wealth, and generally believed that development would not weaken community linkages and cohesion. At the same time, the owners also worried that development would degrade the natural scenery and environmental quality, diminish the viability of agricultural lifestyles, and increase property taxes.

On balance, there does not appear to be a clear consensus about development among large fringe landowners who have seen some development in their area.⁵ About

⁵ Landowners who had seen signs of development consisted of two groups: landowners who described their area currently as rural or mostly rural *and* have seen signs of development, and landowners who described their area currently as mostly suburban.

44 percent of respondents who had seen development believed that the development would degrade the quality of life in the region. Only in Portland, where policies have been adopted to limit such development, did this proportion exceed 50 percent. Large fringe landowners seemed to mirror the conflicted view of the general population regarding development on the fringe. This suggests that future development on the fringe will continue to occur in fits and starts as individual large landowners make their own, somewhat idiosyncratic, decisions about whether and how to develop their lands.

3. Comparison of Large Holders with Other Fringe Holders

An important question is whether large fringe landowners differ from their smaller counterparts, a question that can be assessed by comparing the findings here with those in Molinsky's study (2006), which evaluated owners of fringe lands of 5 acres or larger in the same four MSAs. We see that large fringe landowners had very similar characteristics to the smaller fringe landholders in terms of age, gender, race, education, income, and wealth. However, we do observe some significant differences. Large fringe landowners were more likely than owners of smaller parcels to have received their land through inheritance and less likely to have purchased it directly. Among those that purchased their land, large owners cited suitability for agriculture or ranching as a motivation significantly more frequently than did smaller owners. Consequently, it is not surprising that large fringe lands are more likely to be used for agricultural purposes and less likely to be used for nonfarm residential or open space purposes than smaller parcels on the fringe. In addition, significantly more large owners reported that they regularly analyze land investments or seek advice or assistance in analyzing land investments. We also find that a significantly higher percentage of large landowners owned other land in the metro area. These statistics suggest that large owners are more likely to make decisions regarding their land in light of business considerations than owners of smaller plots.

In terms of participation in land markets, large fringe landowners were

significantly more likely to have received previous offers to purchase or develop. However, this greater pressure did not translate into a greater willingness on the part of large landowners to engage the local land market. Compared with smaller owners, only a slightly larger percentage of large owners were currently interested in selling or transferring their property. Perhaps this finding is related to similarities in the initial motivations owners had for acquiring the land: similar percentages of large and small landowners initially intended to subdivide, develop, or hold and then sell their land. As for their future plans, a slightly smaller percentage of large owners planned to hold the property in its current use, and the same percentage wished to purchase surrounding land. Slightly more planned to sell some of or all their property, and slightly more wanted to give property to a family member.

When asked about the various factors that influence their decisions on how to manage their land, large landowners reported that they were slightly less concerned about their neighbors' land decisions. This may be because, given their greater propensity to have an operating business, they place greater weight on individual profit motives than on less concrete social benefits and costs. Large fringe landowners also reported that they were more concerned about the expected return on agriculture and environmental regulatory restrictions—which is consistent with this possible explanation and the observed land use differences. However, survey responses suggest that large landowners are not monolithic, as they were also less likely than smaller owners to be concerned about taxes and were comparably likely to want to pass their land on to children or other family members.

4. Conclusions

In this chapter we study the characteristics, behaviors, interests, and intentions of these large fringe landowners, especially their decisions regarding land use, subdivision, development, sale, and transfer. Overall, the survey indicates that large fringe landowners

are not monolithic, but rather are a complex group. They are driven by multiple motivations in deciding whether and how to supply their lands for urban development and continued growth. Business profits, investment returns, planning rules, quality-of-life considerations, and bequest motives all play important roles. These results suggest that development at the fringe will not happen smoothly, but rather will occur in fits and starts depending on which large fringe landowners control which parcels.

Moreover, we observe that large fringe landowners differ from owners of small parcels at the fringe. They are more likely to be business-oriented and tend to face more development pressure. However, this does not appear to translate into a greater propensity to sell or transfer their land.

Most of our findings are consistent across the fringes of Austin, Charlotte, Portland, and Sacramento. Although these four regions have different histories, geographies, economies, and policies, all are experiencing rapid population growth. We find that fringe lands in these four areas are currently mostly used for agriculture or remain undeveloped. A significant percentage of the large fringe landowners wished to keep their land in its current use and pass it on to their children or other family members in the future, whereas a significant minority of owners planned to sell, transfer, develop, or subdivide part of or all their land within five years. There are few consistent predictors regarding ownership patterns or owners' interests and decisions. Interestingly, a clear group of investors or land speculators did not emerge in any region.

However, regional differences do exist. Portland has a special planning and policy context among the four regions, because of its stringent land use regulations and rigorously applied growth-control policies. Given the suitability of its land for farming, Sacramento has a long tradition in agriculture. Charlotte has a long tradition in land legacy, and its current fringe landowners are more likely to pass their land on to their children or other family members than to sell or develop it. These historical, geographical, economic, and regulatory differences underlie some disparities in large fringe

landowners' behaviors and their general participation in the land market.

An important caveat is that there is no guarantee that landowners will behave in the future as they responded in the survey. However, we observed considerable consistency in responses to many questions across the four MSAs, which provides some confidence in the stability of observed relationships. In addition, there is always the possibility that unforeseen events, ranging from life-cycle issues to attractive offers from buyers, will change large fringe landowner future plans and behavior. Although this is a shortcoming of all survey approaches, readers should keep such limitations in mind.

Figure 1.1 Year of land acquisition

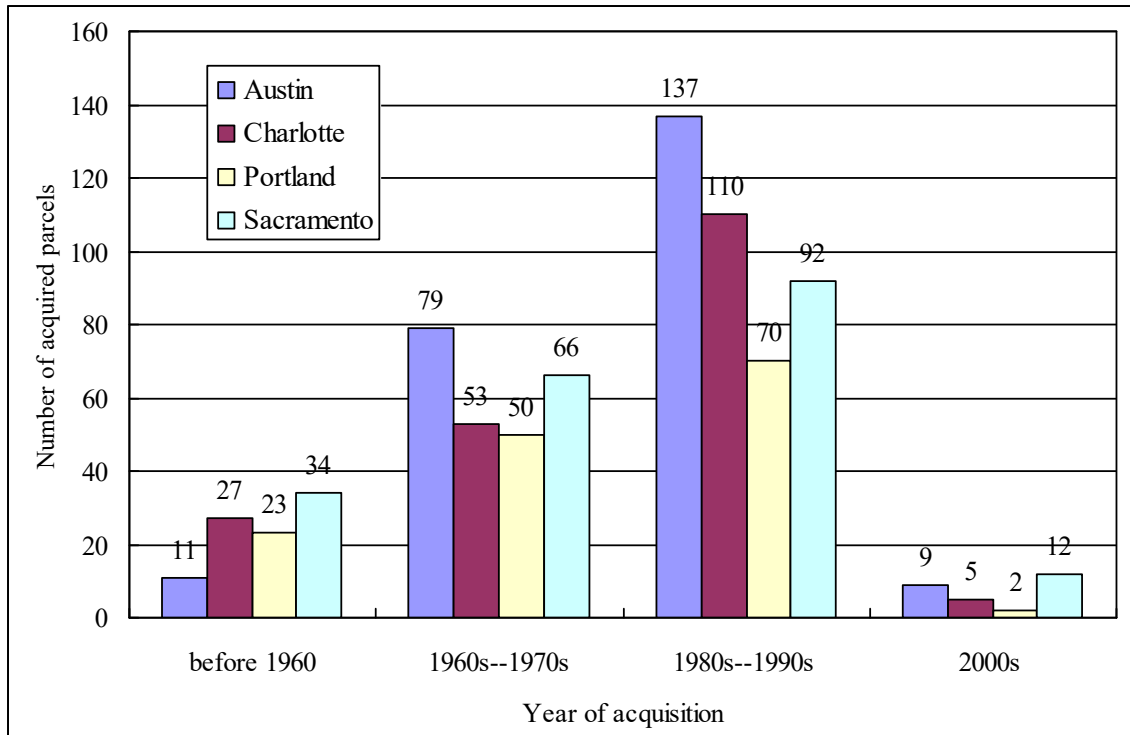


Table 1.1: Legal form of parcel ownership (percentage)

Form of ownership	Austin	Charlotte	Portland	Sacramento	Total
Individual or family	92.5	91.2	74.5	74.5	82.3
Partnership	3.1	3.7	6.0	11.5	6.0
Family-held corporation	2.7	1.9	12.1	7.3	5.4
Other corporation	0.4	1.9	4.7	5.5	2.9
All other forms	1.2	1.4	2.7	8.3	3.4
N	255	215	149	218	837

Table 1.2: Owner characteristics

	Austin	Charlotte	Portland	Sacramento	Total
Year of birth					
Median	1943	1942	1941	1942	1942
Mean	1942	1942	1941	1942	1942
Standard deviation	13	12	12.7	14.8	13.2
Minimum	1910	1916	1918	1907	1907
Maximum	1977	1972	1972	1981	1981
N	247	206	143	211	807
Gender (percentage)					
Male	60.9	58.8	51.4	56.0	57.3
Female	39.1	41.2	48.6	44.0	42.7
N	253	211	148	218	830
Race (percentage)					
White	91.67	94.2	93.71	81.9	90.15
Black	1.98	1.45	0	0	0.99
Hispanic	3.57	0	0	0	1.11
Asian/Pacific Islander	0	0	0.7	3.33	0.99
Native American	0	0.48	0	0.95	0.37
Other/don't know/refused	2.77	3.87	5.6	13.81	6.4
N	252	207	143	210	812
Education (percentage attained)					
High school or less	19.05	37.68	32.17	27.14	28.2
Some college	21.03	21.74	21.68	26.19	22.66
College graduate	31.75	23.67	27.97	30	28.57
Post-graduate	24.21	14.98	16.78	12.86	17.61
Don't know/refused	3.96	1.93	1.4	3.81	2.96
N	252	207	143	210	812
Primary profession (percentage)					
Farmer, rancher, forester	12.20	9.95	27.52	32.57	19.71
Real estate invest./devel.	5.12	4.74	4.03	6.88	5.29
Other employment	45.28	39.34	34.23	25.69	36.66
Retired	36.61	45.50	32.89	33.03	37.26
Don't know/refused	0.79	0.47	1.34	1.83	1.08
N	254	211	149	218	832

Note: Primary professions are defined as the mode of employment to which the landowners devoted more than 50 percent of their time.

Table 1.3: Distribution of owners by income and net worth

	Austin	Charlotte	Portland	Sacramento	Total
Reported income(percentage)					
Less than \$10,000	2.8	1.4	1.4	0.0*	1.5
\$10,000 to \$19,999	2.4	1.9	2.8	1.0**	2.0
\$20,000 to \$29,999	4.8	3.9	5.6	2.9*	4.2
\$30,000 to \$39,999	5.6	10.1	7.0	5.2**	6.9
\$40,000 to \$49,999	8.7	15.5	12.6	7.6**	10.8
\$50,000 to \$74,999	9.9	16.9	16.1	15.2	14.2
\$75,000 to \$99,999	15.1	11.6	12.6	12.4	13.1
\$100,000 to \$124,999	6.0	4.8	8.4	7.1	6.4
\$125,000 or more	19.0	9.7	13.3	22.4*	16.5
Don't know/refused	25.8	24.2	20.3	26.2	24.5
N	252	207	143	210	812
Avg. monthly debt/income (percentage)	26.2	17.2	17.7	19.6	20.5
N	173	154	116	151	594
Reported net worth (percentage)					
Less than \$500,000	30.16	25.12	16.8*	13.3*	22.2
\$500,000 to \$999,999	21.03	23.67	26.57	19.05*	22.17
\$1,000,000 to \$4,999,999	15.08	15.94	23.08	30.48*	20.69
\$5,000,000 or more	3.97	3.86	9.09**	9.05**	6.16
Don't know/refused	29.76	31.4	24.48	28.09	28.82
N	252	207	143	210	812
Avg. land holdings/net worth (percentage)	49.4	59.6	63.6	65.4	58.9
N	184	148	125	165	622

Note: For average monthly debt as a percentage of income, debt includes mortgage, auto, personal, and farm loans as well as revolving credit card debt.

* denotes significantly different from all other regions at $p < 0.05$. ** denotes significantly different from two regions at $p < 0.05$. This notation is consistently used across all following tables in this chapter.

Table 1.4: Parcel size

	Austin	Charlotte	Portland	Sacramento	Total
Parcel Size (acres)					
Mean	99.7	42.5	45.3	80.4	70.3
Median	52.9	30.0	28.0	38.5	37.0
Maximum	1237.2	237.5	405.0	657.0	1237.2
Minimum	15.0	15.0	15.0	15.0	15.0
N	255	215	149	218	837
Mean Parcel Size by Development Pressure (acres)					
Intense pressure	99.3	38.6	29.7	47.3	61.8
Moderate pressure	105.6	47.1	42.1	73.6	70.3
Weak Pressure	95.1	42.0	51.9	88.0	73.9
N	255	215	149	218	837

Table 1.5: Land uses

	Austin	Charlotte	Portland	Sacramento	Total
Land uses by parcel (percentage)					
Any agricultural	79.6	68.8	87.9	79.4	78.3
Any open/idle use	24.7	47.9	34.2	22.0	31.7
Any commercial/industrial	3.5	4.2	7.4	5.0	4.8
Any nonfarm residential	29.8	31.2	17.4	27.1	27.2
Any other	2.7	1.9	3.4	2.3	2.5
Major land use by parcel					
Agricultural	63.9	40.0*	58.4	63.8	56.8
Undeveloped (Open/idle)	15.3	19.1*	7.4	11.0	13.7
Commercial/industrial	1.2	0.5	1.3	1.8	1.2
Uses of land captured in survey (percent)					
Agricultural	87.2	62.4*	81.4	83.8	81.7
Open/idle	8.4	28.9*	13.5	10.1	12.7
Commercial/industrial	1.1	1.2	2.9	2.7	1.8
Nonfarm residential	2.6	7.1*	1.7	3.1	3.3
Other	0.7	0.3	0.5	0.2	0.5
Recreational use	42.4*	29.8	20.1	17.4	28.7
N	255	215	149	218	837

Note: A use is considered “major” if 90 percent of the land is devoted to that use. Other land uses include utility, transportation, and institutional uses. Because recreational use frequently overlaps with other uses, the survey only asked whether the land was used for recreation and did not ask the percentage of land in recreational use.

Table 1.6: Statistics on acquisition of land and decision factors

	Austin	Charlotte	Portland	Sacramento	Total
Year of land acquisition					
Mean	1985	1981	1978	1978	1981
Median	1987	1985	1980	1981	1984
N	236	195	145	204	780
Acquisition method (percentage)					
Bought parcel	68.2	48.1*	71.8	73.7	65.2
Inherited parcel	25.5	41.1*	25.5	19.8	28.0
Received parcel as gift	2.0	3.7*	2.7	2.3	2.6
Multiple methods	4.3	7.01	0.0	4.2	4.2
N	255	214	149	217	835
Percentage reporting factor to be important for purchase decision					
Proximity to municipal services	10.9	7.8	8.4	13.8*	10.7
Commute time to job	14.9	16.5	16.8	22.5*	17.8
Amenities and services	28.7	23.3	28.0	21.9	25.6
Suitability for agriculture or ranching	37.9	28.2	43.9	58.1*	43.2
Price or terms of sale	44.3	37.9	38.3	44.4	41.9
Property taxes	14.9	14.6	14.0	11.9	13.8
Suitability for family	32.8	38.8	38.3	37.5	36.4
Proximity to family or friends	12.1	24.3	0.0*	21.3	14.7
N	174	103	107	160	544

Note: For land acquired through multiple transactions, we used the year of the first transaction as the year of acquisition. Statistics on the year of acquisition exclude those who answered “don’t know / refused.” Importance is rated on a scale of 1 to 5. Percentages indicate those who rated the factor a 5 (very important).

Table 1.7: Intentions for property at time of acquisition

	Austin	Charlotte	Portland	Sacramento	Total
Owner intentions at acquisition (percentage)					
Agricultural	74.1	66.0	87.2	78.0	75.4
Open/idle	29.8	40.5	18.1	18.8	27.6
Rural commercial/ industrial	11.4	12.6	18.8	14.2	13.7
Urban or suburban commercial/industrial	3.9	7.9	5.4	7.3	6.1
Nonfarm residential	37.6	45.1	26.8	28.0	35.1
Recreational use	32.5	22.3	14.8	14.2	22.0
N	255	215	149	218	837
Other intentions at acquisition (percentage)					
Future subdivision	12.2	19.1	26.2	16.5	17.6
Future development	18.8	18.1	27.5	28.0	22.6
Hold land for					
10 or more years	85.9	89.3	91.9	87.2	88.2
6 to 10 years	7.5	3.7	4.7	5.5	5.5
5 years or less	4.3	2.8	2.0	6.0	3.9
Don't know	2.4	4.2	1.3	1.4	2.4
Enlarge parcel through acquisition "very important"	13.7	15.8	14.1	14.7	14.6
Lease land as farm/ranch	28.2	20.9	22.1	22.9	23.9
N	255	215	149	218	837

Note: The questionnaire allowed for multiple intended uses at the time of acquisition.

Table 1.8: Previous sales and transfers of adjacent parcels

	Austin	Charlotte	Portland	Sacramento	Total
Percentage selling or transferring adjacent parcel	13.3	23.3*	12.1	15.6	16.2
N	255	215	149	218	837
If sold, year of sale of transfer					
Mean	1992	1988	1982	1984	1987
Median	1996	1992	1982	1989	1990
N	33	43	17	28	121
Reason for sale or transfer (percentage)					
Transfer to relative	26.5	42.0*	16.7	26.5	30.9
Nonfinancial family or life-cycle issues	5.9	0.0	5.6	2.9	2.9
Assist neighbor/friend	8.8	14.0*	5.6	5.9	9.6
Received good offer	14.7	20.0*	5.6	8.8	14.0
Needed money	26.5*	6.0*	11.1	11.8	13.2
Protect land from development	0.0	0.0	0.0	0.0	0.0
Tax advantages	0.0	4.0	0.0	5.9	2.9
Better investment elsewhere	0.0	2.0	5.6	0.0	1.5
Development pressures	2.9	2.0	0.0	2.9	2.2
Other	17.6	14.0	61.1	35.3	26.5
N	34	50	18	34	136

Note: Multiple reasons for the sale or transfer were permitted. Nonfinancial issues included retirement, divorce, a new job, and the desire for a change of pace.

Table 1.9: Previous offers from interested buyers

	Austin	Charlotte	Portland	Sacramento	Total
Percentage receiving offers					
To purchase in the past year	32.2	45.6	34.2	45.4	39.4
To develop in the past year	25.9	43.7	30.9	43.1	35.8
N	255	215	149	218	837

Table 1.10: Land sales and transfers

	Austin	Charlotte	Portland	Sacramento	Total
Percentage currently interested in land sale/transfer	25.5	27.0	26.2	30.3	27.2
N	255	215	149	218	837
For those considering sale, percentage reporting factor as very important					
Good offer	55.4	53.4	59.0	50.0	53.9
Need for money	23.1	20.7	20.5	21.2	21.5
Transfer land to relatives	23.1	31.0	17.9	19.7	23.2
Nonfinancial family or life-cycle issues	10.8	19.0	10.3	16.7	14.5
Assist a neighbor or friend	6.2	3.4	0.0	4.5	3.9
Protect land from development	0.0	0.0	0.0	0.0	0.0
Tax advantages	16.9	22.4	10.3	12.1	15.8
Better investment elsewhere	12.3	22.4	12.8	19.7	17.1
Pace of development in area	0.0	0.0	0.0	0.0	0.0
N	65	58	39	66	228
For those <u>not</u> considering sale, percentage reporting factor as very important					
Good offer	17.4	16.6	21.8	26.3	20.2
Need for money	18.9	16.6	13.6	9.2	14.9
Transfer land to relatives	47.4	52.2	37.3	39.5	44.8
Nonfinancial family or life-cycle issues	7.9	8.9	10.9	3.3	7.6
Assist a neighbor or friend	4.7	6.4	3.6	5.3	5.1
Protect land from development	0.0	0.0	0.0	0.0	0.0
Tax advantages	13.7	15.9	16.4	9.9	13.8
Better investment elsewhere	7.9	10.2	7.3	11.2	9.2
Pace of development in area	0.0	0.0	0.0	0.0	0.0
N	190	157	110	152	609
Percentage of owners who would consider the land uses intended by the bidder in sale decision	65.5	65.6	59.4	55.9	62.0
N	235	209	138	202	784

Note: Importance is rated on a scale of 1 to 5. Percentages indicate those who rated the factor a 5 (very important). This survey question accepted multiple responses; therefore, the percentage for each factor may not sum to 100 percent. Landowners responding “don’t know / refused” were excluded from the count of those landowners that would consider the intended land use of the bidder in the sale decision.

Table 1.11: Future plans for land

	Austin	Charlotte	Portland	Sacramento	Total
Likely action in the next 5 years					
Retain current use	66.3	68.8	65.8	60.1	65.2
Purchase adjacent land	7.8	5.1	6.7	6.4	6.6
Sell property	15.3	18.1	18.8	24.8*	19.1
Give to relative	18.4	20.5	15.4	18.3	18.4
Develop the land and sell afterwards	1.2	1.9	3.4	7.3*	3.3
Subdivide the property	3.5	3.7	5.4	16.5*	7.3
N	255	215	149	218	837
Percentage who would retain current use indefinitely					
Yes	82.3	77.6	65.8	65.1	73.7
No	15.4	19.2	31.5	31.7	23.5
Don't know/refused	2.4	3.3	2.7	3.2	2.9
N	254	214	149	218	835

Note: Likelihood is rated on a scale of 1 to 5. Percentages indicate those who rated the factor a 5 (highly likely). This survey question accepted multiple responses because owners may have separate plans for different portions of their land.

Table 1.12: Importance of various factors, taxes, and investment advice to owners in making land use decisions

	Austin	Charlotte	Portland	Sacramento	Total
Percentage who said factor was important					
Neighbors' land decisions	22.0	22.3	21.5	22.5	22.1
Development pressures	20.4	19.1	25.5	23.4	21.7
Expected return on agriculture	14.1	13.0	20.8	23.9	17.6
Zoning and subdivision regulations	22.4	30.2	45.6*	36.2	32.1
Environmental regulations	27.8	23.3	25.5	28.0	26.3
Taxes	32.9	34.0	22.1	27.1	29.7
Transportation access	18.8	21.4	18.1	17.9	19.1
Sewer and water access	20.4	25.1	18.8	17.4	20.5
Availability of optional conservation programs	10.2	12.1	7.4	6.9	9.3
N	255	215	149	218	837
Percentage who said tax was important					
Income	35.3	34.0	34.0	54.1	39.3
Capital gains	34.5	40.2	47.2	52.9	42.5
Gift and estate	38.8	47.4	41.5	55.3	45.6
Property	60.3	63.9	47.2	62.4	59.8
N	116	97	53	85	351
Land investment analysis					
Percentage who					
Regularly analyze land investments	41.2	38.1	41.6	48.6	42.4
Have ever sought advice or assistance in analyzing land investments	28.6	27.0	32.2	33.0	30.0
Have ever sought advice from an estate planner	27.1	29.3	35.6	30.3	30.0
N	255	215	149	218	837
Percentage wishing to pass land on to heirs	79.9	82.9	75.5	78.9	79.7
N	254	211	143	209	817
Percentage who believe heirs will continue current land use	64.5	60.0	56.5	59.0	60.6
N	203	175	108	166	652

Note: For the factors and taxes, respondents were asked to rate importance on a scale of 1 to 5. For the factors, the table reports the percentage of respondents who rated the factor a 5. For taxes, the table reports the percentage of respondents who rated the factor a 4 or a 5.

Table 1.13: General land market participation

	Austin	Charlotte	Portland	Sacramento	Total
Percentage owning other land in metro area	41.6	38.1	44.3	41.3	41.1
Median acres of other land	20.0	15.0	15.0	100.0	21.0
N	255	215	149	218	837
Reasons for ownership (percentage)					
Recreational or residential use	52.3*	41.9	36.8	21.3*	38.6
Income from agriculture or other rural land uses	30.2	32.3	49.1*	58.7*	42.1
To develop land	3.5	8.1	5.3	12.0	7.1
Investment	26.7	27.4	31.6	24.0	27.1
<i>Selling within 5 years</i>	<i>16.3</i>	<i>14.5</i>	<i>12.3</i>	<i>16.0</i>	<i>15.0</i>
<i>Selling in 5 years or more</i>	<i>10.5</i>	<i>12.9</i>	<i>19.3</i>	<i>8.0</i>	<i>12.1</i>
To protect land or other natural resources	3.5	6.5	8.8	1.3	4.6
N	86	62	57	75	280
Percentage currently looking to buy new parcels in area	18.0	19.1	16.1	17.9	17.9
N	255	215	149	218	837
Frequency of buying new parcel in area (percentage)					
Never buy land	62.4	65.1	55.7	55.5	60.1
Less than once per 6 years	26.3	21.4	28.9	28.0	25.9
At least once every 5 years	10.6	12.1	12.1	16.1	12.7
Don't know/refused	0.8	1.4	3.4	0.5	1.3
N	255	215	149	218	837
Percentage currently looking to sell other parcels in metro area (only owners who own other land)	36.8	35.4	25.8*	36.7	34.3
N	106	82	66	90	344
Frequency of selling other land in area (percentage)					
Never sell land	69.8	72.1	71.1	67.0	69.9
Less than once per 6 years	22.0	19.5	24.2	17.4	20.5
At least once every 5 years	6.7	8.4	4.7	14.7	8.8
Don't know/refused	1.6	0.0	0.0	0.9	0.7
N	255	215	149	218	837

Note: Area is metropolitan area. Count (N) of Reasons for Ownership excludes those who did not mention any of the five reasons listed in the table, regardless of whether the owner specified other reasons or answered "don't know / refused."

Table 1.14: Owners' perceptions of development in their area

	Austin	Charlotte	Portland	Sacramento	Total
Percentage who describe their area currently as					
Rural	39.2	12.6*	21.5	34.9	28.1
Mostly rural	51.4	60.0*	50.3	43.1	51.3
Mostly suburban	7.8*	25.1	26.8	21.1	19.1
Don't know/refused	1.6	2.3	1.3	0.9	1.6
N	255	215	149	218	837
Of those who describe their area currently as rural or mostly rural, percentage who have <u>not</u> seen signs of development in the past 5 years	6.5	2.6*	6.5	8.8	6.2
Percentage seeing land values higher than usual in farm-to-farm sales	72.3	77.6	66.4	69.4	71.8
Percentage seeing higher-value agriculture/ hobby farms /ranches replacing existing farms or ranches	57.6	50.6	57.9	51.8	54.5
Percentage seeing construction of infrastructure for suburban-style development	61.9	78.2	67.3	52.4	64.2
Percentage seeing new suburban-style development on former farmland or open space	74.9	85.9	77.6	67.6	76.1
N	231	156	107	170	664
Of Those who have seen signs of development, percentage believing that if development continued at current pace, it would be likely to increase the following in the next 5 years					
Land values	86.2	86.7	79.6	83.7	84.5
Property taxes	84.9	83.4	73.2	60.1	76.1
Options for land	42.3	45.0	33.1	43.3	41.6
Difficulty to conduct agriculture	56.5	69.2	57.0	65.0	62.1
Loss of open space and scenery	70.3	69.2	67.6	64.0	67.9
Degradation of environmental quality	61.9	56.9	58.5	45.8	55.8
Weakening sense of community	29.3	39.3	35.2	32.0	33.7
Degradation of quality of life	41.4	44.1	51.4	41.9	44.0
N	239	211	142	203	795

Note: The second "N" includes only those landowners who described their area currently as rural or mostly rural. The total number of landowners who had seen signs of development (the third "N") includes: (1) landowners who described their area currently as rural or mostly rural and have seen signs of development and (2) landowners who described their area currently as mostly suburban. Infrastructure includes new roads, sewers, and water connections.