

**Residential Land Market Dynamics,  
Absentee Lot Owners and  
Densification Policies for Texas Colonias**

Peter M. Ward

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in collaboration with  
Robert Stevenson and Angela Stuesse

**Lincoln Institute of Land Policy  
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### **Abstract**

This publication analyzes the development of low-income homestead subdivisions in Texas and the southern United States. Called *colonias*, some 1500 partially serviced subdivisions offer homestead opportunities to over 400,000 residents in Texas alone. Housing comprises a mixture of self build, trailers and manufactured homes for very low income households—those earning \$10-25,000 per year—and who do not have access to housing ownership through the formal sector.

Analysis in some 20 settlements demonstrates that the land market is not working efficiently, but is constrained by a variety of factors including inappropriate legislative intervention. Specifically between 15 and 30 percent of lots are owned by absentee lot owners, and questionnaire analysis comparing residents with absentee owners shows that the latter are not likely to occupy their lots once basic services come on line. The study contains a series of policy recommendations designed to improve land market performance, densification and lot occupancy.

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# **Residential Land Market Dynamics, Absentee Lot Owners and Densification Policies for Texas Colonias**

## **Executive Summary**

### **Introduction**

Colonias are un-serviced or poorly serviced low-income housing settlements in which lots have been sold by developers often through a mechanism known as Contract for Deed. Residents place trailers on those lots or develop their homes through self-build. Although buried in the peri-urban (rural) areas beyond cities, colonia residents commute daily to nearby urban areas for work. In Texas alone there are an estimated 1600 colonias housing an estimated 400,000 people mostly in the Texas-Mexico border region. Colonias are not, however, strictly a border phenomenon. They have existed throughout the American Southwest for fifty years and can now be found in states as distant from the region as Minnesota, Oregon, and Georgia, as well as in a variety of areas throughout Texas, including the outlying areas of the non-border cities of Dallas, Houston, San Antonio and Austin.

Previous land market research conducted by the Principal Investigator<sup>1</sup> has revealed that, while most Texas colonias are virtually sold out, it is not unusual to find 40-50 percent of lots unoccupied, and almost all sizeable colonias will have 15-25 percent of lots vacant. This creates very low densities and multiplex problems for the effective provision of physical and social infrastructure; for the cost recovery of capital investment programs; and for creating a critical mass of population capable of sustaining micro-enterprises, public services, and community mutual aid/self-help.

Public policy over the last decade has had mixed success. It has sharply reduced new colonia formation in the border; mobilized substantial resources for water and drainage services; regulated developers and settlement development through Model Sub-Division Rules and made mandatory servicing before colonia plats are approved; and provided for greater consumer protection in land and property transactions. Latterly, too, it there has been much improved coordination between agencies, as well as some empowerment for counties to take a more proactive role in facilitating colonia improvement. However, all too often the approach adopted has been driven by top-down health and environmental

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<sup>1</sup> Peter M. Ward, 1999. *Colonias and Public Policy in Texas and Mexico: Urbanization by Stealth*, University of Texas Press.

pathology concerns, instead of seeing colonias as rational responses to the lack of affordable housing with considerable latent social capital opportunities and self-help willingness of the residents themselves. Moreover, many of these initiatives are exclusive to border or near-border counties, and there is an urgent need that all or some of them apply Texas-wide. Finally, much remains to be done, and important questions need to be answered. For example, although we have come to know more about colonia residents in recent years, virtually nothing is known about the absentee lot owners: who they are, what they want, and why they don't occupy their lots. This research project addresses these very questions. Specifically, the main objectives of the study are:

- To test and refine a methodology that enable identification of the names and current addresses of absentee owners, and how they might best be traced.
- Through interview and survey to develop a database about absentee owners and begin to identify who they are, where they live, and what they want.
- To collect baseline data from existing colonia residents about land acquisition costs and land price changes over time (i.e. market performance and dysfunction).
- To deepen our understanding of colonia land and housing markets in Texas and their proliferation outside the border region.
- To identify a variety of policy instruments that will enhance lot occupancy and free-up market processes in ways that will facilitate population densification in existing colonias, and support physical dwelling consolidation and upgrading.
- To offer guidelines and input for legislative policy development relating to colonia densification and land market performance to 77<sup>th</sup> Texas Legislative Session in Spring 2001.

This yearlong Policy Research Project was conducted by the PI in conjunction with a group of graduate students at the Lyndon B. Johnson School of Public Affairs at UT-Austin during 1999-2000. We are grateful to the Lincoln Institute of Land Policy (Cambridge, Mass.), and to the North American Development Bank for their grant support. However, neither body is responsible for the views expressed in this Report and for the research conclusions and policy suggestions made. Nor should it be assumed that they necessarily share these conclusions, which remain the responsibility of the PI alone.

The survey data findings presented in this report are drawn from the following databases that were compiled and analyzed by the research group: 1) Data for 1365 colonias (Texas Water Development Board database); 2) 2212 tax records for 18 colonias; 3) Detailed lot-by lot surveys for 21 individual colonias across 10 counties; 4) A total of 151 absentee lot owners mail interview returns relating to lots owned in 19 colonias; and 5) 261 face-to-face interviews with residents in 14 of those colonias.

The remainder of this Executive Summary identifies the principal findings of the research project.

### **Colonias: Terminology and Distribution**

- Colonias and colonia-type developments are not just a border phenomenon, but exist widely throughout the rest of Texas, and elsewhere in the Southern USA. The following principal variations are likely: internal ethnic composition (more Anglo and African American households as one moves further from the border); levels of infrastructure provision and local public awareness; developer practices; and in the degree of compliance with sub-division and house construction codes and regulations, etc. This study includes colonia settlements both from the border as well as from interior counties such as Hays, Bastrop, Travis and Coryell.
- That being the case, the term “colonia” is problematic since it is Spanish for neighborhood and therefore has little meaning for non Hispanic (and particularly for non Mexican-origin) populations who form a significant proportion as one moves further away from the border. Moreover, because of the way in which the term is understood and constructed in Texas, the word colonia carries negative and stereotypical connotations, such that the adoption of more neutral terminology is desirable in the future. Continued use of the term colonia will only serve to reinforce the idea and thinking that this is uniquely a border phenomenon, which it patently is not.
- Colonias are not homogeneous, but vary markedly in size, layout, mode of development, housing types and mixes, lot dimensions, soil and vegetation characteristics, lot occupancy rates, level of servicing, development prospects, land market turnover, ethnic composition, income levels and relative poverty, social organization and leadership, etc. There is no “typical” colonia, but rather a range of modalities, and these often vary greatly between different counties. In some counties such as Hidalgo, Starr, and Zavala, the norm is for a large number of small and very small colonias (less than 50 lots, often with small lot sizes); whereas in El Paso, Valverde, San Patricio and Webb counties, for example, colonias tend to be much larger, with large lot sizes. Not surprisingly, colonia lot occupancy rates are higher in small colonia developments, and are often completely built through (i.e. 100 percent occupancy).

### **Densities and Absentee Lot Occupancy Rates:**

- Absentee lot ownership is a widespread phenomenon usually comprising between 15-30 percent of all lots in any given colonia, and sometimes considerably higher.

Often these vacant lots were purchased many years ago (mostly during the 1980s), and have never been occupied. Texas Water Development Board (TWDB) mid-1990s data for 1381 colonias suggest an overall non-occupancy rate of 30 percent of lots. Our survey data (1999) suggest that a more accurate figure is between 15-25 percent depending upon the colonia.

- Lot occupancy rates tend to be higher: 1) in smaller colonias; 2) in colonias with smaller lot sizes; 3) in “interior” long-established colonia type sub-divisions; and 4) in the more completely serviced sub-divisions. Other things being equal, the older the settlement the higher the occupancy rate.
- Densities are low: because of vacant lot ownership, larger lot sizes, and the scarcity of lot sharing and multiple-occupancy. Average residential densities in Texas colonias are 10-12 persons per residential acre, which is several times lower than normal densities in counterpart Mexican colonias. Depending upon the extent to which the colonia is built through in Texas, one would have to reduce overall densities by a further 15-30 percent to take account of vacant lots.
- Vacant lots constitute a very large total land acreage, albeit one that is highly scattered within colonias. Calculating from the TWDB colonias’ database of some 147,095 individual lots, and applying weights to these data with material gathered from our survey research, we were able to obtain accurate estimates of actual lot occupancy rates, median lot sizes, and average household size for specific counties. Our results show an estimated 26,500 vacant lots just in the TWDB colonias’ database alone. In reality it will be somewhat higher if further “interior” counties are to be included.
- Our calculations of the total residential area covered by colonias included in the TWDB database is 40,522 acres (63.3 square miles). Assuming a 20 percent lot non-occupancy rate, this provides an estimated 7,281 acres of unoccupied lots (11.38 square miles). All data are residential lot areas, and do not take account of streets and other open spaces. Nor does the calculation include colonias not included in that database. The reality is probably considerably higher.
- At current average household sizes, and assuming a median lot size of 12,000 square feet, a further 100,000 people could be accommodated within existing colonia settlements, simply by utilizing lots that are vacant. If legislation is adopted that would allow lot sharing and some modest sub-division of larger lots, then this number could double. Thus, in numbers and lot acreage alone, the issue of absentee lot holding is an important one for policy makers to address. At the very least this population densification in existing colonias should be planned for.



## **Methodological Considerations and Findings**

- Our research demonstrates that the best method of identifying current ownership of land in colonias is through county tax records. This is also the optimum primary source of addresses for tracking absentee lot owners. Our (best) estimates suggest that between 8-10 percent of tax-record addresses for absentee owners are “bad” (i.e. returned addressee not known), although we strongly suspect that the number is considerably higher—probably double that number. A small proportion of addresses are of close kinsmen, who regularly receive mail for the absentee owners.
- Tax Records also provide valuable information about market turnover, land and improvement values, etc. Discussion with tax officers can also give valuable information about market values, appraisal and assessment procedures, the existence or not of hidden tax subsidies, as well as about the opportunities for adjusting tax rates and assessments in order to increase densities.
- Our experience with mail interview surveys is that they work modestly well as a means of collecting information from absentee lot owners—giving around a 14 percent return yield of completed surveys on good addresses. The weakness of such surveys is that they may contain bias towards the following groups: households established sedentary lot owners; the more literate and better educated; retired and slightly better-off populations. Less biased, perhaps, are ‘phone surveys which will also work quite well in the US, and we found a yield ratio from lots-to-numbers-to-actual surveys of around 14 percent. Interestingly, however, there were no significant differences in the nature of responses received from mail and ‘phone interview interviews, suggesting no or minimum bias in the nature of the survey instrument used.

## **Absentee Owners: Who Are They, Where are They, What Do They Want?**

- The majority of absentee lot owners live close by. On average almost 70 percent live in as nearby city; a further 10-15 percent live elsewhere in Texas; and the remainder elsewhere in the United States. The most frequent states are California, New Mexico, Illinois/Indiana (i.e. the Chicago region). Almost 90 percent of absentee lot owners visit to check up on their vacant lots; and many do so quite regularly.
- Absentee lot holders are significantly different from resident populations. Briefly, absentee owners are more likely to be Mexican American than Mexican born, and also include a higher proportion of Anglo population. Absentees appear to be

older, and the Mexican-born absentee lot owners have been living in the US much longer than their colonia resident counterparts. While poor, they are significantly better off, and they bought their parcels earlier, generally paying a lower unitary price for the land.

- Absentee owners appear to be a stable residential population whose residential trajectory is fundamentally different from colonia residents. They are mostly owners of their current residence, and live in homes in which they are content. Less than one fifth currently rent their home, and even if the original intention was to buy into the colonia in order to live there in the medium or long term, other considerations (work, contentment with neighborhood in which they live, alternative housing options which opened up to them, etc.), effectively “hijacked” their residential trajectories and diverted them from becoming colonia residents. They are not hovering on the sidelines waiting to occupy the lots they bought.
- Very few absentee lot owners stated that they bought as a residential option: but mostly as an investment, or as an inheritance for their children. Few actively intend to ever to occupy their lot, and most would probably sell it if the price were right. Generally the respondents in our sample retain a close interest in their lots, and often have kin living nearby. Improving the colonia by providing services will have little direct influence in encouraging them to occupy their lots. Few will do so.

### **Colonia Residents: Who Are They and What Do They Want?**

- Colonia residents are quite well informed about vacant lots in their neighborhoods. However, they have a diversity of views and opinions both about their own colonia development needs as well as about absentee ownership and owners. There is widespread local concern/opinion about the issue of vacant lots, which most residents see in negative terms. Their principal concerns are to do with the unsightliness, and with the health hazards and dangers associated with overgrown and undeveloped lots.
- Colonia residents are homesteaders who have a high priority for home ownership and who generally regard their strategies of homesteading in positive terms. They are unequivocally poor, and for most of them the colonia option is the only route to home ownership. Most of them were renting accommodation immediately prior to moving into the colonia.
- Few colonia householders are self-builders in the classic sense; most opting for trailers and manufactured homes in combination. While land costs are low—

around \$10,000 in 1999 dollar equivalents, to this must be added the costs of placing or erecting a home on site. New trailers begin at around \$18,000-20,000 and can be considerably higher. “Manufactured” homes (prefabricated) are considerably more expensive. Add to this the cost of utilities and transport (the imperative of a private car/vehicle), and one can see that the basic land costs are crucial in *lowering* the housing costs of colonia homesteaders. Many colonia residents hold off occupying their lot for a couple of years in order to save to make the down-payments on a trailer or manufactured home.

- If the cost of fully serviced land is allowed to rise significantly then it will likely bring the total costs of opting to live in a colonia (land + home) close to the bottom end of the formal housing market (\$40-60,000). In effect this will make the colonia housing market unaffordable for many. Currently the principal cost reductions are in the low cost of un-serviced land.
- However, some colonia developers are undertaking to develop subdivisions with all services from the outset, although lot sizes are much smaller and are usually set at or close to the local minimum. But inevitably this means that potential accessibility is reduced for those earning less than \$20,000 year household income—the majority (three-quarters) of colonia residents represented in our surveys.

### **Land Market Performance**

- Colonia land markets are not functioning smoothly. Discounting for inflation, land values and lot prices appear to have increased only modestly between the early 1980s and 1999. Just comparing rates of return on investment, colonia land purchase fares very poorly compared with other forms of investment—long term savings accounts, CDs, stocks and shares etc. But realistically, colonia land purchase is one of the only forms of investment available to low income households—whether it is for investment or for active homesteading. Only those who bought land two decades or so ago are likely to have received a 5 percent per annum increase in the real value of their investment (i.e. twice what they paid for it in real terms). For later purchasers the rate of return varies between 1 and 2.5 percent per annum.
- Active colonia homesteaders are not benefiting from the valorization process normally associated with self-help and mutual aid housing processes. Unlike most middle and upper income groups the only significant gain for them is the use value of the homestead, and not a substantially increased value as well.

- This blockage in real land value increases and stymied land market is in large part a product of past legislation, no matter how well intentioned it may have been. Legislation and regulation inhibits successful functioning of existing colonia markets. Legislation needs to differentiate between actions designed to prevent the creation of new colonias and those that impact upon existing settlement. While legislation has worked quite successfully at preventing new colonia growth (especially in the border where it applies or is applied more rigorously), within existing colonias it is often obstructive: blocking sales, preventing sub-division of large lots and lost sharing, restricting land uses to single family residency, outlawing commercial and employment and income earning activities such as renting, workshops, stores, etc.
- That while many restrictions and laws have been promulgated, they are often only selectively enforced against developers. This “blind-eye” towards residents is probably helpful to their efforts if not to the land valorization process. But it is also open to selective and discretionary implementation which may have negative effects. Better would be to refine the legislation and to formally provide exemptions.
- Although the land market is stunted, it nevertheless continues to function, and offers entry to a considerable number of would-be home-owners. Increasingly this incoming population buys out earlier owners (called *traspasos* in Spanish), often in the past just the vacant lot, but increasingly today the lot will also have a dwelling structure. Some developers continue to sell, albeit illegally in unapproved colonias, but may employ strategies for these sales to remain “hidden.” Among the colonia residents survey we conducted, almost half had bought their lot/home since 1991, and 20 percent of them had purchased post HB 1001 (i.e. since 1996). Comparing tax records for different years also revealed considerable lot turnover. These levels of market activity are much higher than we had anticipated, and judging by its timing, is often informal (illegal), being outside of the legislative regulations set by HB1001. Given the ongoing demand, it makes even more surprising the sluggish land price increases on the supply side.
- One by-product of legislation and regulation is that it may create informality and illegality as people seek to circumvent those restrictions—by buying into unapproved colonias, for example. Also many dwellings do not conform with code requirements. Almost always, however, setback requirements are adhered to. Generally colonia residents are broadly aware of some regulatory constraints, although few have a detailed idea or much interest in knowing more about those regulations.

- Tax appraisals of colonia land and property often seriously underestimate real market value, adding to the general depressing of this land market. Practices vary, but in few of the survey counties and colonias did appraised values closely mirror the actual values. This depletes potential local tax revenues; undermines market performance, and reduces fiscal sustainability of already resource poor counties.
- County tax assessors often will not vigorously pursue those colonia landowners who are delinquent in their property tax payments; nor do they actively pursue those absentee lot owners who can no longer be traced. While the tax debts recovered from such pursuit are limited and probably not worth activating at this stage, the total land value of those vacant lots held off the market or which are locked out of the market by virtue of their owners being untraceable, are very considerable.

**Policy Development to Reduce Absentee Lot Holding, Improve Market Performance, and to Raise Population Densities in Colonias.**

This study has demonstrated that current policy of extending services to colonias, while necessary for residents, will do nothing to reduce absentee lot holding, raise densities, or improve land market performance.

The data and findings identify four principal policy challenges. First, to reduce the number of vacant lots and extent of land that these represent. Second, to encourage rational population in-filling (densification) in existing colonias. Third, to improve the operation and functioning of colonia land markets by easing restrictions to land sales, and by appropriate deregulation that will raise the opportunities for productive use of land to the benefit of colonia residents. Fourth, to widen these policy applications to colonias throughout Texas, and not just in the border region.

The widespread extent and existence of vacant lots constitutes both a problem and a solution. Policy action to bring those vacant land into more efficient and productive use will raise access to home ownership for legitimate homesteaders, and will raise population densities in existing colonias. This will enhance the possibilities of cost recovery of service and utility installation in colonias, and insofar as it brings more people into the property tax base, it will strengthen the possibility of greater fiscal sustainability of counties in the future.

Chapter 5 of this Report focuses upon a number of areas of policy development which may take the form of incentives (carrots) or penalties (sticks). Experience suggests that generally speaking, incentives work better and are more widely acceptable.

### Policy Imperative # 1. Accessing Vacant Lots.

The tax appraisal and tax assessment procedures offer a primary mechanism for policy actions to meet these four challenges. Specifically:

- An urgent study is required to systematically identify: a) the “bad” addresses in the tax property record; b) the delinquency rates in tax payments; and c) lost tax revenues that these represent.
- County appraisers need training to more accurately appraise colonia type subdivisions and to ensure a closer correspondence of appraised to market values.
- County tax assessors should publicize and to make transparent tax delinquency rates on different residential land markets including colonias and actively pursue the repossession of lots belonging to absentee lot owners who are delinquent in their property tax payments.
- Repossessed lots can either be sold to active homesteaders and/or passed onto a Land Readjustment Trust specifically charged to develop and manage a portfolio of lots for planning and housing purposes in Texas colonias.
- Similarly, they should be charged to actively pursue repossession of those vacant lots held by absentee owners who are in default of property taxes.
- Counties or IDDAs who sell repossessed lots at auction should be expected seek to realize the fair market value at the time (or close to it), and not the debt that is owed, as is the practice in some counties.
- Use “sticks” such as special assessments that penalize vacant lot ownership.

### Policy Imperative # 2. Liberalizing and Improving Colonia Land Market Functions and Raising Population Densities.

Legislation should seek to deregulate colonia property markets by allowing for:

- The free and unrestricted sale of lots for all but colonia developers;
- Modest non-residential land use of vacant lots: commerce; renting; workshops etc;
- Allow for non-ownership residential occupancy including single residence or multi- residence where adequate water and wastewater services are present;

- Provide for formal sub-division of lots between close kinsmen and for individual titles and lot registration;
- “Regularize” de facto ownership by providing de jure title where sought, including the provision of title security to those who share lots.

**Policy Imperative # 3. Activate State Intervention and Leadership in Tackling Vacant Lot Holdings and Low Densities.**

This to be achieved through:

- Creating a Public Holding Company or Land Trust to oversee land readjustment, management and commercialization of land in colonias.
- Appropriating necessary start-up funding required to enable the Land Trust to begin to develop its portfolio;
- Charging it to work with county tax assessors in order to acquire vacant lots at fair market prices through repossession or compulsory purchase.
- In conjunction with other agencies such as TDH&CA, TNRCC, TWDB and the counties themselves, to develop measures and incentives that will enhance land readjustment, and colonia planning and utility installation that will utilize the new land resources that have been created out of vacant lots.

## **Chapter 1. Absentee Lot Owners in Texas Colonias and the Problem of Low Densities: An Introduction**

### **Introduction**

This Policy Research Project received initial funding by the Lincoln Institute of Land Policy, and continued support from the North American Development Bank, was directed by Dr. Peter Ward (Principal Investigator) and carried out by ten graduate students through the Lyndon B. Johnson School of Public Affairs at the University of Texas (subsequently referred to in this document as the research group). The group set out in August 1999 to examine low-income residential land market dysfunction in Texas, specifically the low population densities and high lot absentee ownership in so-called colonias.

Colonias are un-serviced or poorly serviced low-income housing settlements in which developers sell lots through a mechanism known as Contract for Deed, upon which residents place trailers or develop their homes by self-build. In Texas alone there are some 1500 colonias housing an estimated 400,000 people mostly in outlying areas surrounding urban centers of the Texas-Mexico border region. Colonias are not, however, strictly a border phenomenon. They have existed throughout the American Southwest for fifty years and can now be found in states as distant from the region as Minnesota, Oregon, and Georgia, as well as in a variety of areas throughout Texas, including the outlying areas of the non-border cities of Dallas, Houston, and Austin.

Previous land market research conducted by the PI (Ward) has revealed that, while many Texas colonias are virtually sold out, it is common to find that up to 50 percent of lots are often unoccupied, creating very low densities and multiplex problems for effective provision of physical and social infrastructure, and for the cost recovery of capital investment programs. Although we have come to know more about colonias residents in recent years, virtually nothing is known about these absentee owners: who they are, what they want, and why they don't occupy their lots. This research project proposes to answer these very questions. The main objectives of the study are:

- 1) To test and refine a methodology developed and piloted in summer 1998 which identifies the names and current addresses of absentee owners and how they may be traced.
- 2) To develop, through interview and survey, a database about absentee owners and begin to identify who they are, where they live, and what they want.



- 3) To collect baseline data from existing colonia residents about land acquisition costs and land price changes over time (i.e. market performance and dysfunction).
- 4) To deepen our understanding of colonia existence and proliferation in the state of Texas outside the border region, particularly in areas “close to home” (near Austin).
- 5) To identify a variety of policy instruments that will enhance lot occupancy and free-up market processes in order to facilitate colonia consolidation and upgrading.
- 6) In 2000, to provide guidelines and input for legislation relating to colonia densification to the biennial Texas Legislature which will next meet in Spring 2001.

Ultimately, this research seeks to clarify fiscal and other regulatory policies that will enhance and plan for future densification and provide for more free-flowing land sales that will benefit a wider proportion of the low-income homesteader populations of Texas.

### **Colonias: Refining Definitions and Terminology**

#### Diverging from Traditional Definitions

The stereotypical colonia in the minds of many is an un-serviced, low-income, largely Mexican-born self-built subdivision along the American Southwest border with Mexico. In fact, the Federal Government has defined them as:

any identifiable community that: A) is in the State of Arizona, California, New Mexico, or Texas; B) is in the area of the United States within 150 miles of the border between the United States and Mexico, except that the term does not include any standard metropolitan statistical area that has a population exceeding 1,000,000; C) is determined to be a colonia on the basis of objective criteria, including lack of potable water supply, lack of adequate sewage systems, and lack of decent, safe, and sanitary housing; and D) was in existence as a colonia before November 28, 1990. 42 USCA §1479(f)(8).

As we begin to learn more about the nature of colonia-type settlements and their residents, this traditional definition of a colonia seems increasingly inaccurate. Many academics and legislators, therefore, are seeking out other definitions and more accurate and less “loaded” terms to describe these settlements, such as the Texas Water Development Board’s (TWDB) term “Economically Distressed Area”. In our view this term is insufficiently specific of the fundamentally residential nature of colonias, and ultimately our preferred term would be Sub-Standard Residential Subdivisions (SSRS’s), or, better still, Quasi-Formal Homestead Subdivisions. In essence, colonias are low-

income subdivisions without the orthodox infrastructure such as water, sewage, street paving, and streetlights usually found in residential areas of the United States. Although the term “colonia” is a Spanish term meaning neighborhood, colonias are not exclusively populated by Hispanic populations. In the border region the large majority (invariably over 90 percent) are Mexican and Mexican American, but as one moves away from the border and into interior states, they are much more mixed, including Anglo, Hispanic and African American populations. The relative mix varies according to the locality, but our attention is increasingly drawn to those areas that are Anglo or African American dominated. Obviously, for these groups, the Spanish term “colonia” is inappropriate.

This fact notwithstanding, in this study we have opted to continue to use the term colonias occasionally interchangeably with that of Sub-Standard Residential Subdivisions (SSRS’s for short), but we do so with some words of caution. First, it should be acknowledged that the term colonia carries cultural connotations sometimes considered derogatory, and which we were reluctant to perpetuate. Indeed, in a previous study the PI had made a systematic attempt to address these misperceptions.<sup>2</sup> While few Hispanic residents in the border region who live in colonias have a problem with the term (it is, after all, the neutral word for “neighborhood” in Spanish), non-residents and many outsiders often attach strongly stereotypical and negative images to the term. They see colonias as largely Mexican populations, often undocumented, living in un-serviced settlements and dirt poor because they lack work. Colonias are also seen as high-risk areas, foci of crime and drugs, riddled with health and environmental hazards. It is of little wonder that colonia residents themselves sometimes balk at the term. Indeed, in our surveys we tended not to use the term colonia, especially outside of the border region, but instead opted for residential subdivision.

A second reason for caution in using the term colonia is precisely because we wish to challenge the tendency to view the phenomenon as one solely located in the Hispanic dominated border region. As long as they are called colonias, the natural tendency is to view them as spatially restricted to Mexican American populations along the US-Mexico border. (Note that the above-mentioned Federal Government definition is quite explicit in this sense.) If, as we fully expect, further research demonstrates the widespread and growing nature of low-income homestead sub-divisions throughout the nation, and especially in what we would define as the south and central states, then the term will quickly become highly misleading. A move in the direction of seeking a more appropriate name was observed in the 1999 Texas legislative Session when the term

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<sup>2</sup> Peter M. Ward. 1999. *Colonias and Public Policy in Texas and Mexico: Urbanization by Stealth*. University of Texas Press.

“colonia” began to be questioned. Also, attention was drawn more widely to subdivision rules and regulations in rural areas outside of the border—perhaps anticipating the quickening development of such areas.

Despite these misgivings about continuing to use the term “colonia” we are resolved to continue with it throughout this study. As a “handle” it is succinct and easy to use, and the term is now widely adopted in the local media and in popular parlance. Moreover, part of our goal in this study is to help recast policy, and in particular we hope to influence the 77<sup>th</sup> Legislature which will be in session during Spring 2001. Legislators are very familiar with the term, and might look askance and with less interest at alternative nomenclature.

### Colonias: Moving Beyond the Border

Though it has been traditionally understood that colonias are a problem or disease of the borderlands, a number of lines of research have recently illuminated the existence of colonias throughout the state of Texas. In addition to gathering information on selected case study colonias within the Texas border region, an important objective of this research project has been to explore other colonias outside the border region. This was achieved by utilizing the Texas Water Development Board’s website to gather information on fledgling colonia developments in non-border counties such as Bee, San Patricio, Nueces, Sabine, Red River and San Augustine. The TWDB has recently identified other developing colonias outside the Houston area, including Montgomery, Harris, and Fort Bend County. Also, research available through the Texas/Mexico Borderlands Information Center<sup>3</sup> alerted us to the existence of a number of colonia developments in New Mexico (mostly adjacent to El Paso in Anthony and Dona Anna Counties).

Fairly early on in our study we were alerted to the fact that there were colonia type subdivisions near to Austin, and for that reason we sought to include a small number of non-border case study subdivisions in the following Central Texas counties: Travis, Williamson, Bastrop, Coryell, and Hays. The Coryell colonias are closely tied into the Killeen economy and urban area (itself closely tied to the Fort Hood army base), while the others relate mostly to Austin and, to a lesser extent, San Marcos. So-called “windshield” surveys were conducted in all of these settlements, and in two of them household surveys

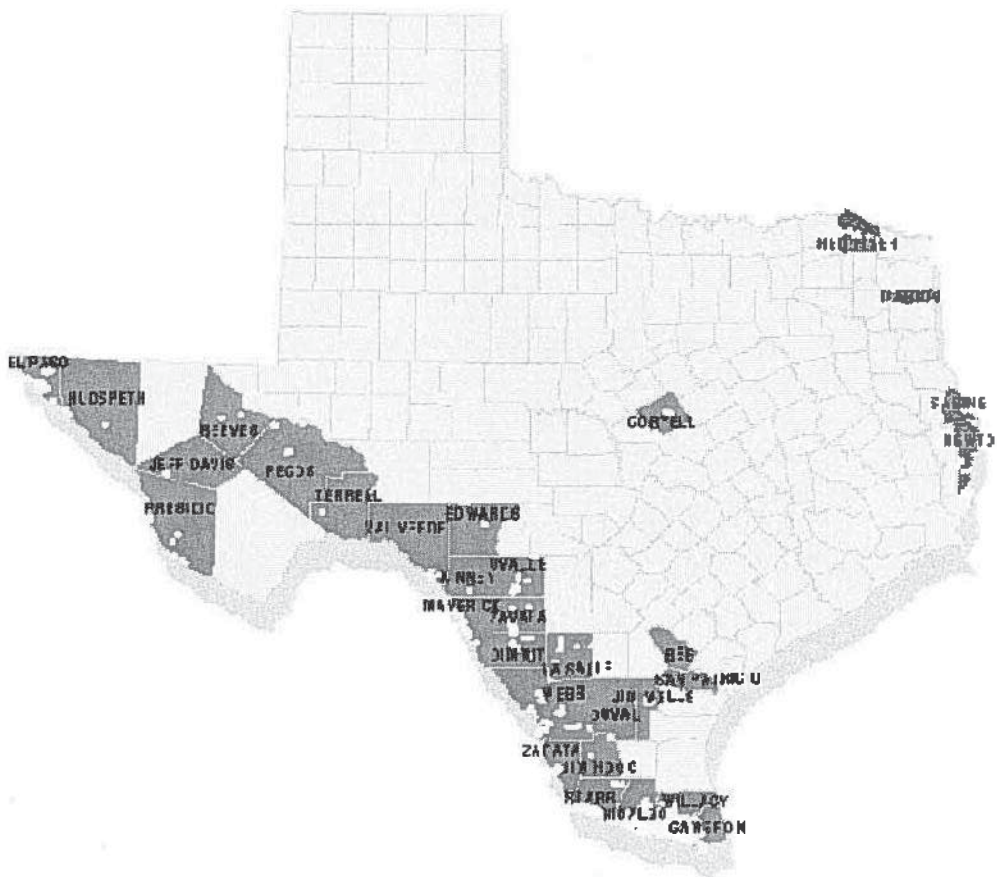
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<sup>3</sup> The Texas/Mexico Borderlands Information Center (BIC) is a clearinghouse and referral center for information about both sides of the Texas/Mexico border. The BIC is a section of the Texas Natural Resources Information System (TNRIS) which in turn is a division of the Texas Water Development Board (TWDB). For more information see, <http://www.bic.state.tx.us>.

of residents and absentee owners were carried out (Northridge Estates, located near Roundrock, and Stony Point, some 17 miles outside of Austin in the adjacent county of Bastrop). Below is a map illustrating the concentrations of colonias in Texas. Unfortunately, because the TWDB's primary mandate regarding colonias targets the border region, it lacks accurate representation of the true number of non-border colonias. However, it does depict a number of important non-border counties that are home to a growing number of colonias. This is likely to be extended as further data are gathered.

Both the map and our tables show that a number of counties have already been identified as having significant colonia settlements. These include Bee and San Patricio outside of Corpus Christi, together with Red River in the north, Coryell in the center, and several others on the east Texas border. But it seems just a matter of time before substantial numbers of in colonias or SSRS's are identified around the major metropolitan areas of Dallas, Houston and San Antonio—just as soon as we start looking, and once our eyes become more receptive to what we should be looking for.

**Figure 1.1: Map of TWDB-Identified Texas Colonias**



Source: Texas Water Development Board website: [http://www.twdb.state.tx.us/colonias/tx\\_col.gif](http://www.twdb.state.tx.us/colonias/tx_col.gif)

## **The Problem of Low Densities and High Rates of Absentee Lot Ownership**

For a number of reasons Texas colonias are low-density settlements. First, there is the unusually high rate of absentee lot ownership. Second, the sharing of lots is uncommon—indeed, it is prohibited or inhibited by law. Third, lot sizes are quite large (ranging between 1/8<sup>th</sup> to 1 acre or more). For example, our survey data give an average household size of 4.52 members. Assuming a colonia with modal lot sizes of 1/8 and 1/2 an acre respectively, this translates into over residential densities of 36 persons and 9 persons per acre respectively. Even though this rises slightly if we allow for a low level of sharing and an average of 1.17 families per lot (as our survey data indicate), density levels rise only very slightly. Indeed, residential densities in Texas are between 1/3<sup>rd</sup> and 1/6<sup>th</sup> those that are commonplace for counterpart settlements in Mexico at a similar stage of “consolidation”—and these are very conservative estimates based upon the relatively small 1/8<sup>th</sup> of an acre lot sizes in Texas.<sup>4</sup> Where larger lot sizes prevail—as they often do in Texas—then low density differences between the two countries become much more exaggerated. This is not to argue in favor of raising overall densities to Mexican levels, but it does provide an interesting comparison with similar colonias in Mexico.

These low densities are problematic for a number of reasons. First, the unit cost of servicing dispersed settlement is much higher than settlements which are built or occupied-through. Second, it is inequitable that absentee lot holders (and speculator developers who hold lots off the market) “free ride” the land valorization process that derives from actual residents’ sweat-equity and mutual-aid programs designed to improve housing and colonia-wide living conditions. Third, low population density creates a low social density in colonias. This reduces the social capital of the residents themselves, and the propensity for public participation that is crucially important for successful self-help, upgrading, and community empowerment.<sup>5</sup> Fourth, low densities dramatically reduce the opportunities for income-earning and “urban productivity”, since there is an insufficient market to sustain micro enterprises, stores, public transportation, garbage collection, etc.<sup>6</sup> In short, colonia development is stunted by low population density.

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<sup>4</sup> Compare with data in Peter M. Ward, editor, 1982, *Self-help housing: a critique*, London, Mansell Press, p. 179.

<sup>5</sup> The term “social capital” refers here to the non-monetary resources that families and groups have which they can mobilize to good effect. These include reciprocity, kinship networks, neighboring patterns, etc.

<sup>6</sup> William Doebele. 1994. “Urban land and macro-economic development: moving from ‘access for the poor’ to urban productivity.” In Jones, G. and Ward, P.M. eds. *Methodology for Land and Housing Market Analysis*. University College London Press/Lincoln Institute of Land Policy, pp. 44-54.

This Policy Research Project investigates and illuminates the motives of absentee lot owners in order to better understand the phenomenon of low densities, and to provide policy recommendations that will address the problem while planning for the inevitable future growth of low-income populations in the state of Texas. While existing legislation has been quite effective at slowing (even halting) the growth of new colonias in the border region, there is evidence that new colonias are springing up elsewhere in Texas. Also, even assuming no growth of existing colonias in the border, we estimate that over the next ten years the actual overall settlement population is likely to rise 50 percent above the current 400,000 level as a result of population in-fill on existing vacant lots, a rise in sharing, and through natural increase and larger family/household size. Texas needs to plan for that anticipated increase.

### **The Texas Water Development Board: Baseline Data**

In 1992 the TWDB completed the first aggregate survey of investment in water and wastewater infrastructure of Texas colonias. This project comprised baseline data collection from some 1,436 colonias across Texas, mostly in the border region. This information was updated in 1995, though it did not systematically include all Texas counties. The project identified colonias throughout Texas with the goal of developing a method by which to administer the TWDB's state-funded Economically Distressed Areas Program (EDAP). According to the TWDB website, EDAP "provides financial assistance in the form of a grant, a loan, or a combination grant/loan to bring water and wastewater services to economically distressed areas where the present water and wastewater facilities are inadequate to meet the minimal needs of residents. The program includes measures to prevent future substandard development".<sup>7</sup> Among the data collected by the TWDB are colonia name, county, total number of lots, number of occupied lots, number of residents, and EDAP project status. Thus, despite the project's methodological shortcomings, the TWDB data provided the most comprehensive information on colonia lot occupancy rates to date. For this reason our study began by analyzing the TWDB's findings in order to use it as baseline data. We accessed the TWDB data through a report published by the LBJ School of Public Affairs in 1997.<sup>8</sup> From this initial data we derived

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<sup>7</sup> The 71st Texas Legislature (1989) passed comprehensive legislation that established the Economically Distressed Areas Program (EDAP) to be administered by the Texas Water Development Board (Board). An EDAP area is defined as an area in which: the water supply or wastewater systems are inadequate to meet minimal state standards; the financial resources are inadequate to provide services to meet those needs; and there was an established residential subdivision on June 1, 1989. Source: <http://www.twdb.state.tx.us/opfca/fin/edapfund.html>

<sup>8</sup> LBJ School of Public Affairs, *Colonia Housing and Infrastructure, Volume 2, Water and Wastewater*. Policy Research Project Report, #124. The University of Texas at Austin, 1997.

a system by which to measure the size (number of total lots), location, and distribution of Texas colonias and their populations, as well as the average lot occupancy rates per colonia and county.

### The Size, Location, and Distribution of Texas Colonias

From the TWDB data on total number of lots per colonia, we generated a classification for each colonia depending upon the total number of lots it contained. The five categories are: very small (fewer than 40 lots); small/medium (between 41 and 80 lots); medium (between 81 and 150 lots); large (between 151 and 300 lots); and very large (greater than 300 lots). Table 1.1 below depicts the distribution of colonia subdivisions and colonia populations according to size of the colonia. Only those colonias comprised of ten or more lots are included in the Table.

**Table 1.1: Distribution of TWDB-Identified Colonias by Size**

Colonia Size	Total # of Colonias	% of Total Colonias	# and % of All Colonia Residents
Very Small (< 40 lots)*	629	45.6%	49,768 (12.9%)
Small/Medium (41-80 lots)	356	25.8%	60,965 (15.8%)
Medium (81-150 lots)	193	14.0%	67,399 (17.4%)
Large (151-300 lots)	112	8.1%	68,261 (17.6%)
Very Large (> 300 lots)	91	6.6%	136,360 (35.2%)
<b>Total</b>	<b>1381</b>	<b>100.1%</b>	<b>386,982 (98.9%)</b>

\* Some 144 missing cases, most of which fall into the “small” category, comprise colonias registered as having less than 10 lots.

Source: Calculated from data contained in LBJ School of Public Affairs, *Colonia Housing and Infrastructure, Volume 2, Water and Wastewater*. 1997.

As Table 1.1 indicates, the largest concentration of colonias by size is within the “very small” category at 45.6 percent (629 colonias). These percentages and numbers of colonias steadily decrease as the total number of lots in the size category increases. The smallest concentration of colonias by size is within the “very large” category at only 6.6 percent (91 colonias). By itself this is an interesting finding, since it is not often recognized that so many Texas colonias are very small, in essence comprising single street cul-de-sacs with 15-40 lots—sometimes called “flagpole” developments.<sup>9</sup> For the

<sup>9</sup> This is because in plan form they resemble a flagpole without the flag—in fact a single street with a turning circle at the end. “Flagpoles” may also refer to large single lots running off a street or highway in which the cleared area of drive to the house, the dwelling, and the turning area, from the air at least, strongly resemble a flagpole with flag; thus—¶.

most part such small developments are 100 percent built through, and the level of non-occupancy is minimal. However, measured in terms of the total population housed, while they make up almost half of all colonias, they accommodate only 12.86 percent of the total colonia population are included here. On the other hand, the “very large” category provides housing to a more than one third of the total colonia population (35.2 percent). In fact, as colonia size increases, so does the percentage of the colonia population classified by size. It is not surprising, therefore, that the larger colonias figure more prominently in the literature as well as in public policy responses which have tended to focus upon the larger and more visible settlements. But it does alert us to the need to develop policy alternatives for the less visible, smaller, and more widespread settlement type.

Analyzing these same data disaggregated for a selected number of Texas counties, we see that with the exception of San Patricio and Val Verde counties, which comprise mostly large and very large colonias (44.5 and 54.6 percent, respectively), nearly all the counties are, indeed, dominated by very small and small/medium sized colonias (see Table 1.2 below). No less than 82 percent of Hidalgo County, 77 percent of Coryell County, and 75 percent of Starr County’s colonias fall into these two categories.

**Table 1.2: Distribution of TWDB—Identified Colonias by County, Size, and Population**

County	% and # of Very Small Colonias (<40 lots)	% and # of Small/medium Colonias (41-80 lots)	% and # of Medium Colonias (81-150 lots)	% and # of Large Colonias (151-300 lots)	% and # of Very Large Colonias (> 300 lots)	Total # and % of All Texas Colonias [% Total Colonia Population Represented]
Cameron	33.3% (35)	32.4% (34)	16.2% (17)	8.6% (9)	9.5% (10)	105 7.6% [9.9%]
Coryell	38.5% (5)	38.5% (5)	15.4% (2)	7.7% (1)	--	13 0.9% [0.1%]
El Paso	24.8% (36)	26.2% (38)	22.1% (32)	15.9% (23)	11.0% (16)	145 10.5% [18.8%]
Hidalgo	57.5% (438)	24.5% (187)	10.9% (83)	5.2% (40)	1.8% (14)	762 55.2% [35.6%]
Jim Wells	25.0% (4)	37.5% (6)	25.0% (4)	6.3% (1)	6.3% (1)	16 1.2% [0.1%]
Maverick	28.6% (12)	23.8% (10)	14.3% (6)	14.3% (6)	19.5% (8)	42 3.0% [3.6%]
San Patricio	11.1% (2)	22.2% (4)	22.2% (4)	16.7% (3)	27.8% (5)	18 1.3% [2.8%]



County	% and # of Very Small Colonias (<40 lots)	% and # of Small/medium Colonias (41-80 lots)	% and # of Medium Colonias (81-150 lots)	% and # of Large Colonias (151-300 lots)	% and # of Very Large Colonias (> 300 lots)	Total # and % of All Texas Colonias [% Total Colonia Population Represented]
Starr	37.1% (46)	37.9% (47)	16.1% (20)	4.0% (5)	4.4% (6)	124 9.0% [8.9%]
Val Verde	27.3% (3)	9.1% (1)	9.1% (1)	36.4% (4)	18.2% (2)	11 0.8% [0.1%]
Webb	32.6% (14)	14.0% (6)	27.9% (12)	11.6% (5)	14.0% (6)	43 3.1% [5.3%]
Zavala	50.0% (6)	16.7% (2)	--	8.3% (1)	25.0% (3)	12 0.9% [1.0%]
<b>Total</b>	<b>601</b>	<b>340</b>	<b>181</b>	<b>98</b>	<b>71</b>	<b>1291</b> <b>93.5% 86.2%</b>

Looking at the final column we can also see which are the colonia “hot spots” in Texas, whether measured by total number of settlements and/or population. Hidalgo County stands out above the rest, with some 55 percent (762) of all Texas colonias, yet considerably lesser proportion of the population (36 percent of the total). Hidalgo, unlike most other counties, has relatively few colonias (7 percent) in the large and very large categories combined. El Paso is the next most important county measured in terms of colonias and population (10.5 percent), but a far higher proportion of its colonias are in the large or very large categories (27 percent or 39 colonias [of the 145 total]). Starr County is more similar to Hidalgo in that it is dominated by small and very small settlements (75 percent), while Cameron County (the third ranking county in terms of colonias and total population) has both a large number of smaller colonias and a substantial number of large and very large settlements (18 percent). Measured in terms of relative importance, after Hidalgo, El Paso and Cameron Counties, come Starr and Webb. Other counties are also included Table 1.2 where they have more than 10 colonias recorded in the TWDB database.

We were interested in assessing whether the allocation of EDAP status to colonias reflected colonia size or county distribution. However, our data analysis of the TWDB data set found little variation in terms of colonia size by EDAP/Non-EDAP designation.

### Ratios of Lot Occupancy and Vacant Lots

An important feature of the earlier LBJ School of Public Affairs 1997 report are the columns disaggregating the total number of lots and the number of occupied lots within each colonia in the study.<sup>10</sup> With these data, the percentage of lots occupied in each colonia can be determined and used as baseline data that illustrates the total percentage of colonia lots occupied per county in the study. These figures serve to pinpoint the counties with the highest and lowest percentages of lot occupation and allow one to hypothesize on the reasons for such a distribution. Later these data would be compared with occupancy levels in a number of selected settlements. In short, our question is how significant are unoccupied lots and “absentee” lot ownership?

Table 1.3 below depicts the percentage of lots occupied per county and the number of colonias per county for each of the TWDB study’s counties that contain ten or more colonias. Those counties with less than ten colonias are not included in this Table. Counties in *italics* represent those included in our study.

**Table 1.3: Percentage and Number of Colonia Lots Occupied per County**

County	% of Lots Occupied and # of Colonias per County	% of Lots Occupied and # of Colonias per County for Those Colonias Recorded as Not Having 100% Occupancy	% and # Change from Column 1 to Column 2
<i>Cameron</i>	72.9% (111)	58.8% (73)	14.1% (38)
Coryell	72.6% (11)	57.0% (7)	15.6% (4)
<i>El Paso</i>	72.6% (149)	66.5% (122)	6.1% (27)
<i>Hidalgo</i>	65.7% (839)	59.0% (703)	6.7% (136)
Jim Wells	78.6% (16)	65.7% (10)	12.9% (6)
Maverick	42.5% (44)	36.8% (40)	5.7% (4)
<i>Starr</i>	81.3% (127)	56.0% (54)	25.3% (73)
<i>Val Verde</i>	57.8% (11)	33.7% (7)	24.1% (4)
<i>Webb</i>	48.6% (43)	33.0% (33)	15.6% (10)
Zavala	90.5% (14)	33.3% (2)	57.2% (12)
<b>Total</b>	<b>68.3% (1365)</b>	<b>50.0% (1051)</b>	<b>18.3% (314)</b>

\*Counties in *italics* represent those included in the PRP case studies.

The first column presents the average colonia lot occupancy rate in ten counties of the TWDB dataset. At first sight two important facts emerge: 1) That lot occupancy rates are far from complete with an average of just over two thirds (68 percent) of lots occupied

<sup>10</sup> We are grateful to Dr. David Eaton at the LBJ School for his advice and orientation to these data.

across the 1365 colonias; and 2) That there is widespread variation between counties. There is a large range between Maverick County on the one hand, with the lowest overall rate of lot occupancy at 42.5 percent, and Zavala County on the other which has the highest at 90.5 percent. However, as we observed earlier, neither of these two counties features as being especially important in terms of overall population numbers. But with the exception of Starr County, which only has 19 percent of lots recorded as being unoccupied, the others major players (Hidalgo, Cameron, El Paso, Webb, etc.) usually have one quarter or more of colonia lots unoccupied. In Webb County the total lots actually occupied comprises less than half!

Upon compiling these data, we immediately noticed an unusually high occurrence of colonias reported by the TWDB to have 100 percent lot occupancy rates. We began questioning the reliability of the data on the common-sense basis that total lot occupancy is unlikely in any neighborhood, but especially in a colonia with strict legislative guidelines dictating the processes by which one may buy and sell land. The PRP group also discussed the likelihood that smaller colonias would have 100 percent lot occupancy than would very large ones. This could account, to some extent, for the reporting of 136 colonias with 100 percent occupancy rates in Hidalgo County, home to many very small colonias.

In part, though, these data are somewhat misleading since they underreport the actual existence of vacant lots. This is because some of colonias are recorded as having 100 percent occupancy levels—hardly likely in the majority of cases. These are either those colonias for which estimates were made without actual survey and were sometimes not true colonias as we have defined them earlier; and/or were those very small colonias which do, in fact, have all lots occupied (as mentioned above for the “flagpole” type of settlements).<sup>11</sup> In seeking to ascertain the reliability of these figures we felt it important to know: 1) how the TWDB defined “occupancy”; and 2) how they determined 100 percent lot occupancy rates for such a large number of colonias.

After consulting with an executive administrator at the TWDB, our reservations were confirmed. First of all, whereas our own definition for occupancy was the presence of people living on a lot, the TWDB’s definition includes all lots with physical structures built on them, regardless of human presence. In our study of colonias we classified lots with abandoned structures as “unoccupied”, as opposed to the TWDB’s designation of “occupied.” It is difficult to know to what degree this difference is significant. Second, our contact suggested that levels of 100 percent lot occupancy were assigned to all

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<sup>11</sup> For example 136 colonias had 100 percent occupancy rates in Hidalgo County, home to many very small colonias.

colonias 1) that were not entirely or properly platted and on record in the county court offices; 2) that the TWDB was unable to collect data for; and 3) that in reality did have 100 percent lot occupancy levels. Unfortunately he was not able to distinguish from a list of all TWDB-study colonias reported to have this total occupancy, into which of the three categories each individual colonia fell. He suspected, however, that most were representative of categories one and two.

Thus, while even small settlements will have vacant lots, it is much more likely to be true in moderate and large sized ones. Therefore, in order to get what we hoped would be a more accurate appraisal, we re-ran the analysis excluding colonias with 100 percent lot occupancy rates. This new grouping, depicted in column two of the above Table (1.3), better represents these counties' densities.

In computing this adjusted average as few as 4 colonias in Maverick County and as many as 136 in Hidalgo County were dropped (5.7 percent and 6.7 percent reduction respectively). Table 1.3 therefore presents these adjusted averages, which uniformly reduce the level of actual occupancy recorded by 6.1 percent in El Paso County to 57.2 percent in Zavala County (see column three). Looking again at our adjusted occupancy levels in column two, we can see that lot occupancy levels of 50-60 percent are commonplace; while in some counties (Webb and Val Verde for example) the average is for one-third of lots to be unoccupied. Indeed, the average occupancy rate drops overall from 68 percent to exactly one half.

This suggests two important findings from the initial data analysis. First, that absentee lot ownership is, indeed, a major issue and phenomenon—around 30 percent overall, and probably closer to 50 percent. Second, that in some counties it is more of a problem than in others. It suggests that counties like Webb, Val Verde, and Cameron—all of which have a higher proportion of large-sized colonias, need to direct especially close attention to the issue of vacant lots. These baseline data were used to select a number of settlements in a variety of counties in order that we both compare the data, and delve more deeply into the characteristics non-occupancy and absentee lot ownership.

#### Comparing TWDB Data and “Windshield” Survey Data

Once baseline statistics such as size, location, distribution, and average lot occupancy rates were compiled from the TWDB data, our research group set out to collect similar pieces of information on twenty select case study colonias throughout Texas. These colonias were selected from eight counties in the border region and in Central Texas. Data were collected by conducting so-called “windshield” surveys of each case study subdivision. A detailed account of our methodology follows in Chapter 2 of this report, but briefly the windshield survey comprised a walkabout or drive-by survey matching lot

occupancy to a detailed colonia plat map (see Appendix 2.3 for an example). These data could then be compared with those compiled from the TWDB. Later, these maps and records became the basis for developing a search on absentee lot owners. Below we compare the data collected from these two distinct sources.

Table 1.4 provides the summary results of our windshield surveys of the case study colonias alongside the TWDB-derived data (where the latter are available). Thus, one can compare the total number of lots per colonia and the lot occupancy rates per colonia and per county of both the windshield survey and the TWDB data. The Table is organized by county with each case study colonia surveyed listed alongside. The important data to view are here are those in column 6 (Total number of lots) and to compare these with the lots occupied in each colonia (column 4), together with the proportion of vacant and unoccupied lots recorded.<sup>12</sup> One observes that our case study colonias represent lot occupancy rates from as high as 87 percent in Larga Vista, which is a relatively small subdivision that has actually been annexed by the city of Laredo and has a relatively high level of consolidation and service provision, to as low as 44 percent in Pueblo Nuevo, which is buried much deeper in Webb County, and has scarcely been built through at all. It is still lacking water and wastewater, among other key basic services. Most of the case study colonias, however, show lot occupancy rates in the 60 and 70 percent ranges, which consistent with information extracted from Table 1.3 that depicts an approximate 70 percent overall lot occupancy rate as reported by the TWDB.

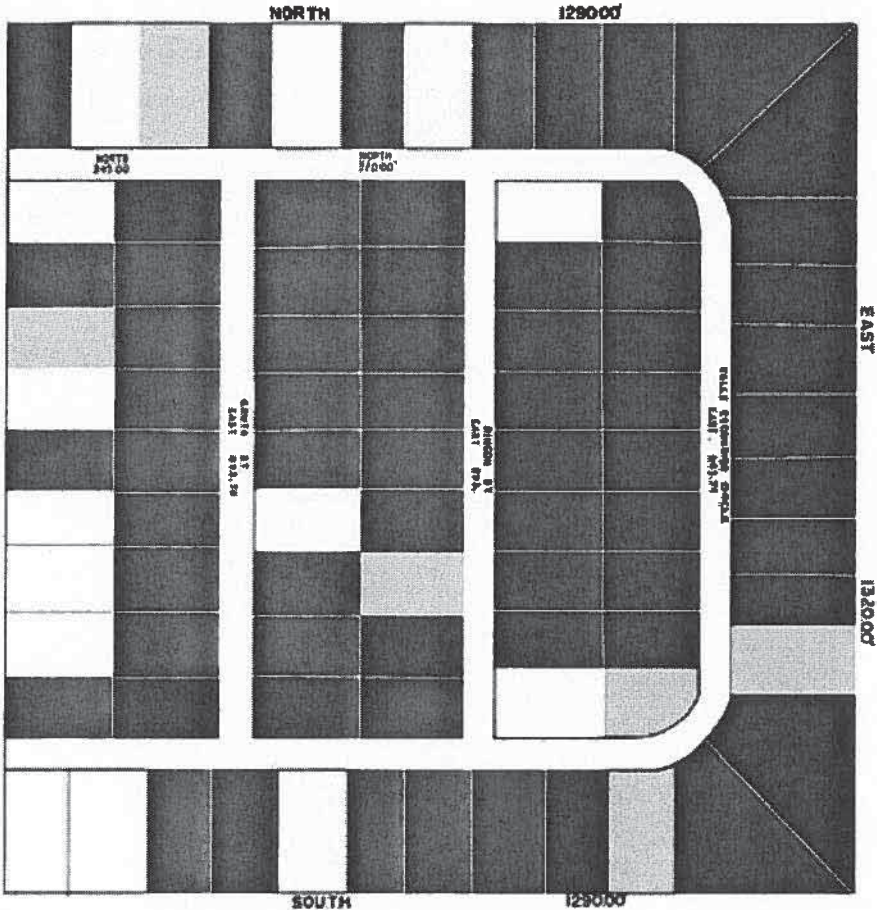
Several of the windshield survey maps that were created are included at Appendix 2.2. Some are reproduced here in Figures 1.2-1.6 (for Valle Escondido [Cameron], Mesa [Hidalgo], Visa del Este [El Paso], Hillside Terrace [Hays], and Willow Springs [Coryell]). They span a range of the moderate sized colonias included in our windshield analysis both from the border and interior. These figures offer a visual picture of the proportion of vacant versus occupied lots, and their distribution in each colonia. The white lots are vacant; gray depicts homes that we are reasonably certain were unoccupied; while black denotes occupied. It is interesting to note from these maps that although vacant lots are widely distributed throughout a colonia, it is common for two or three adjacent ones to occur together (see especially Mesa, Hillside Terrace and Willow Springs for example). This may reflect lots that were held off the market by the developer for some reason (see Hillside Terrace), or they are multiple lots acquired by a single absentee owner or kin-related families. Another possibility is that they were simply undesirable lots that were difficult to sell. Whichever, to the extent that this is the case, it

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<sup>12</sup> "Unoccupied" lots are those with dwelling structures that appear to be totally deserted (run-down) or temporarily unoccupied. In the latter case surveyors made a subjective judgement, but if there was any doubt at all then lots were recoded as being *occupied*.

does offer an opportunity for strategic purchase by a public sector agency interested in “land readjustment” programs and/or developing some extensive community services. We return to these points in Chapter 5.

**Figure 1.2 Plat Map—Valle Escondido [Cameron County]**



**Figure 1.3 Plat Map—La Mesa [Hidalgo County]**

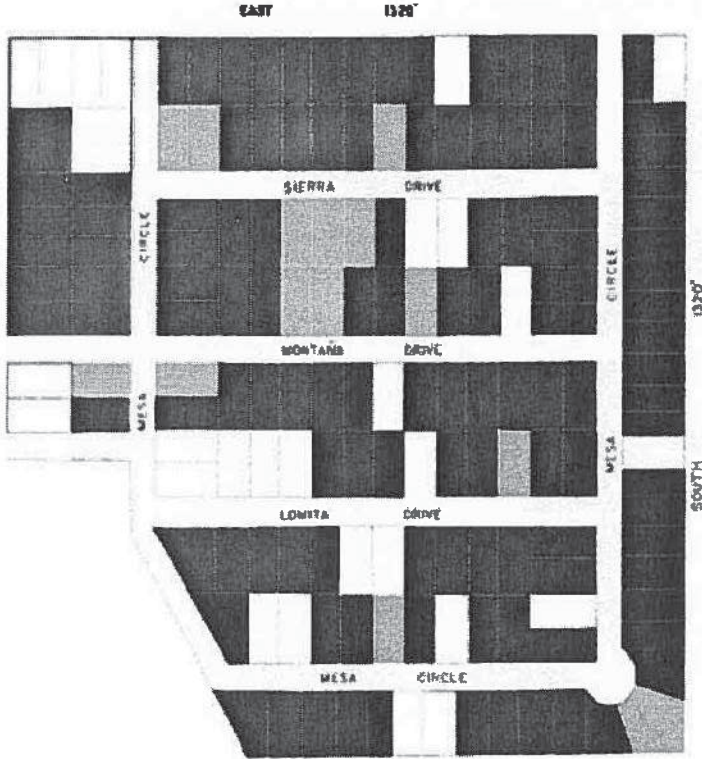


Figure 1.4: Plat Map—Vista del Este [El Paso]

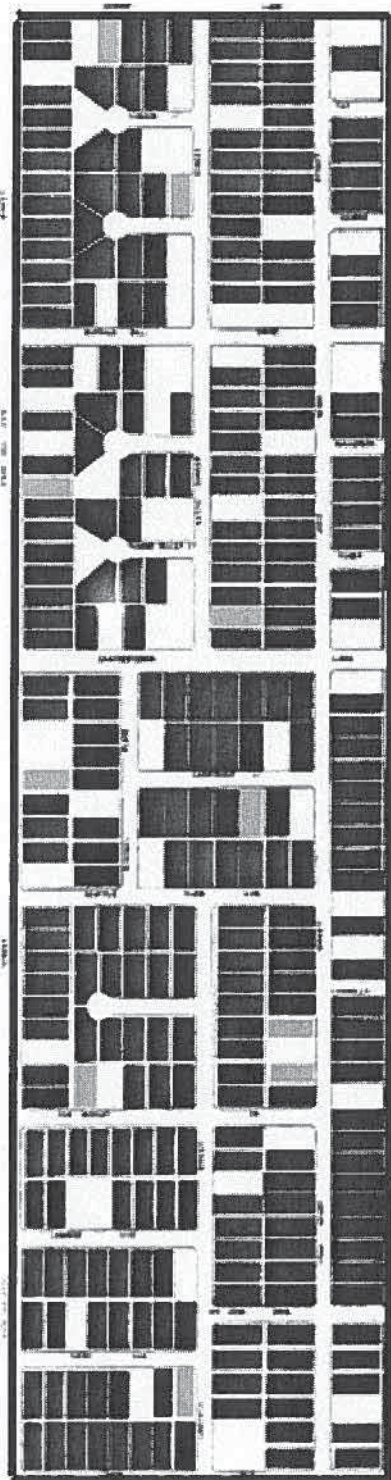
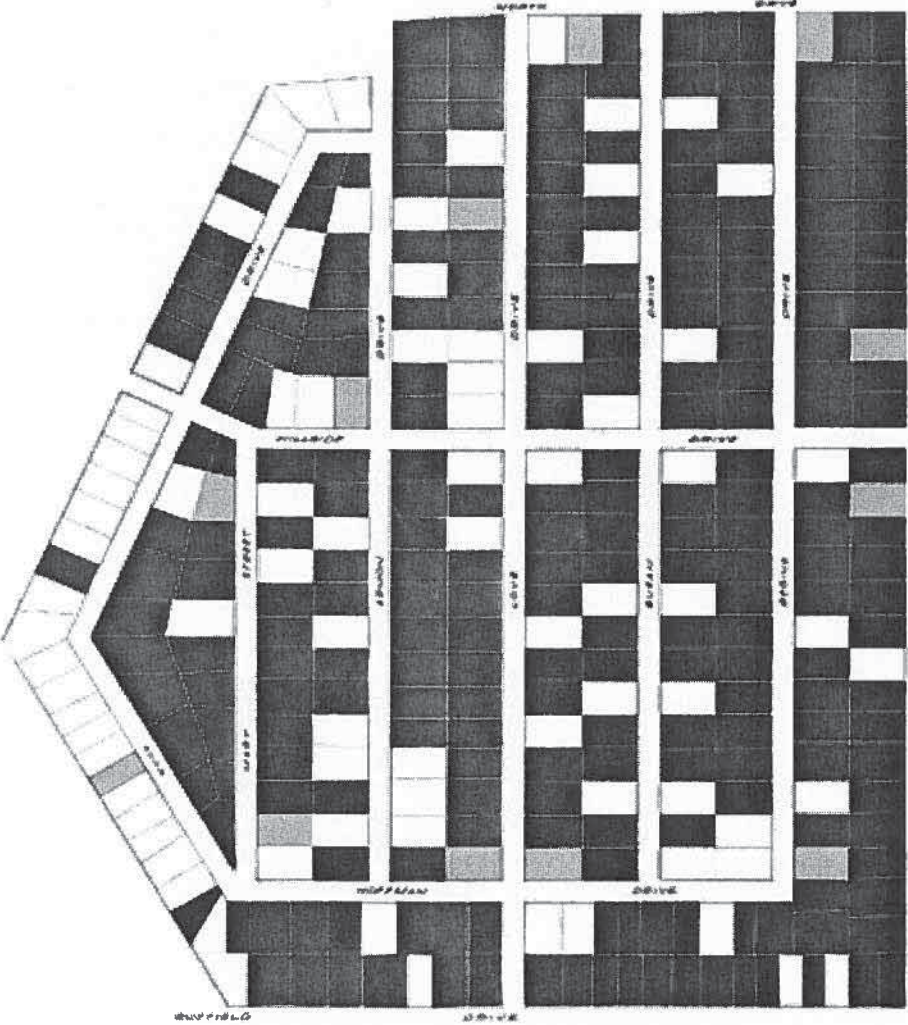
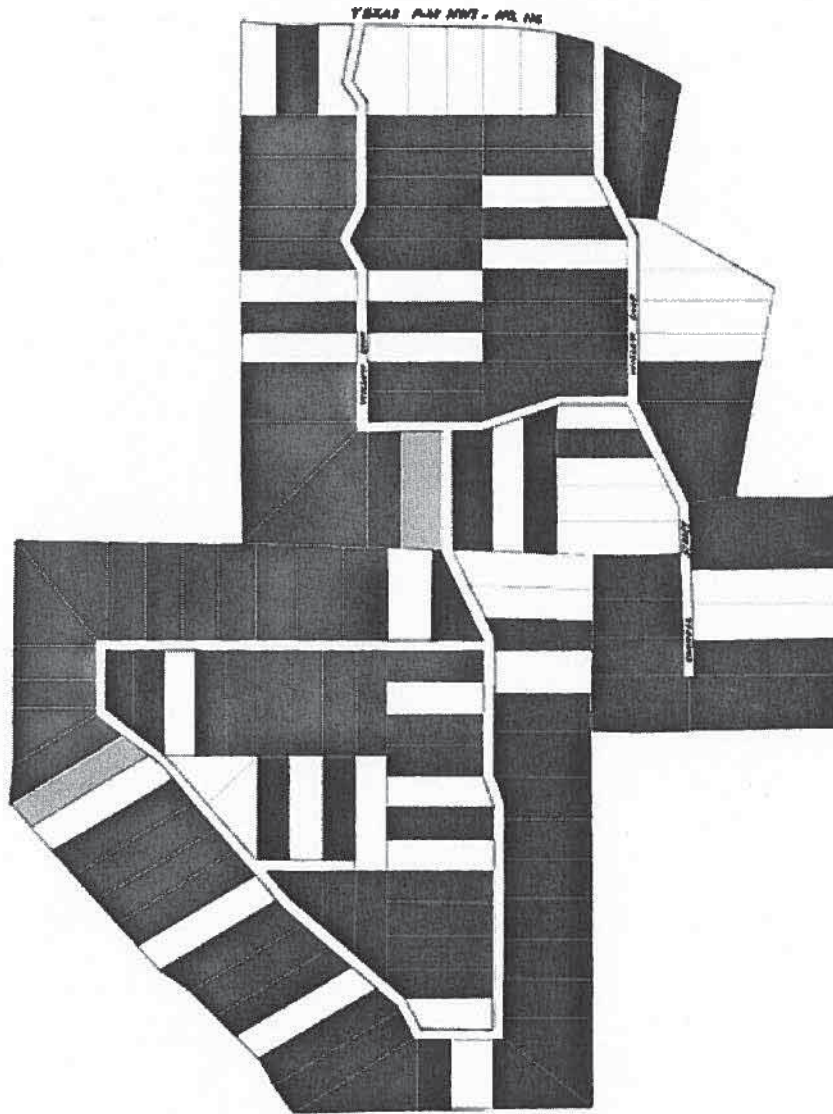




Figure 1.5 Plat Map—Hillside Terrace [Hays]



**Figure 1.6: Plat Map—Willow Springs [Coryell]**



**Table 1.4: Windshield Survey Tallies of Colonia Lot Occupancy Status with TWDB Data as Comparison**

County	Colonia	% and # of Vacant Lots	% and # of Un-occupied Lots	% and # of Occupied Lots	Total # of Lots	TWDB % and # of Lots Occupied	TWDB Total # of Lots	TWDB % of Lots Occupied by County
Bastrop	Stony Point	8.6% (34)	9.6% (38)	81.8% (325)	397	--	--	--
Cameron	Arroyo Colorado Estates	33.4% (137)	5.04% (22)	61.2% (251)	410	32.6% (150)	460	58.6%
	Cameron Park	17.1% (274)	4.9% (79)	78.0% (1250)	1603	46.4% (753)	1624	
	Valle Escondido	17.4% (15)	7.0% (6)	75.6% (65)	86	50.0% (28)	56	
Coryell	Willow Springs 1 & 2	30.4% (45)	2.7% (4)	66.9% (99)	148	59.2% (87)	147	91.0%
El Paso	Deerfield Park 1 & 2	22.5% (90)	2.3% (9)	75.3% (301)	400	66.3% (301)	454	65.3%
	Sparks	43.0% (626)	0.0% (0)	56.9% (826)	1452	36.5% (584)		
	Vista del Este	16.4% (60)	3.6% (13)	80.0% (292)	365	71.2% (235)		
Hays	Hillside Terrace	29.8% (106)	3.4% (12)	70.2% (250)	356	--	--	--
Hidalgo	Hoehn Drive	11.0% (18)	4.8% (8)	84.1% (138)	164	59.8% (98)	164	64.6%
	La Mesa	19.9% (33)	9.0% (15)	71.1% (118)	166	61.1% (102)	167	
	Palm Lake 1—4	29.2% (28)	6.3% (6)	64.6% (62)	96	60.0% (573)	955	
Starr	Mike's	35.6% (114)	1.9% (7)	62.2% (199)	320	--	--	--
Travis/Williamson*	Northridge Acres	13.8% (28)	2.5% (5)	83.7% (170)	203	--	--	--
Val Verde	Cienegas Terrace	44.8% (342)	8.4% (64)	46.8% (357)	763	25.7% (200)	777	31.4%
	Val Verde Park Estates	28.7% (232)	2.1% (17)	69.2% (560)	809	8.1% (100)	1236	
Webb	Larga Vista	7.4% (10)	5.9% (8)	86.8% (118)	136	--	--	39.5%
	Pueblo Nuevo	50.7% (152)	5.0% (15)	44.3% (133)	300	23.0% (70)	304	
	Tanquecitos/ Los Altos	27.1% (62)	6.1% (14)	66.8% (153)	229	57.2% (115)	201	
	Rio Bravo I, II, III, Annex	14.3% (207)	4.7% (68)	81.0% (1172)	1447	72.2% (971)	1344	

\* Northridge Acres is located outside of Austin, Texas and spans the Travis and Williamson County lines.

These windshield survey data provide an accurate depiction for the survey settlements in 1999-2000 (i.e. 4-5 years later than the data provided by the TWDB). In comparing the two data sets we can see that with the exceptions of Palm Lake and Val Verde Park Estates, the total number of lots per colonia as determined through the windshield survey and by TWDB are relatively close in number, often with the windshield survey figures slightly higher.<sup>13</sup>

It is apparent from our survey settlements that lot occupancy levels vary widely, and that there may be significant variation to the county average. For example, although Webb County has generally among the lowest occupancy rates, this not reflected in all of the settlements surveyed. For example, Rio Bravo is a particularly large settlement just beyond the city limits but some 15 miles south of downtown Laredo with 81 percent occupancy according to our data, yet in absolute numbers it has over 200 vacant lots and a further 68 unoccupied dwellings. That is 200 households that might otherwise have access to land and a homestead site were the market functioning—a not inconsiderable number in one colonia alone. Note, also, that our data show a 10 percent higher occupancy rate than the TWDB. This almost certainly reflects the considerable in-filling that has occurred in Rio Bravo during the past five years, rather than an underestimation on the part of the TWDB.

Other notable variations between our own data and those of the TWDB occur in Arroyo Colorado (Cameron County) and the two Val Verde county colonias we examined. In all cases the difference is between the plat map, which depicts a total number of lots, and the actual settlement, which has often not extended to the “extension” areas already platted. Our study assessed only the effective colonia as it existed on the ground, and not the area platted where this remained unsettled. But the existence of platted but unoccupied areas of colonias adds further credence to our argument that in-fill of existing (platted) colonias is likely to be the rule rather than an exception in the future.

Among the highest occupancy rates we encountered were those colonias closest to Austin (Northridge Acres Estates and Stony Point, both with over 80 percent), although another “local” sub-division in Hays County (Hillside Terrace) has 70 percent occupancy. According to the TWDB, Coryell County has high occupancy rates, but this is distorted by including poorly serviced rural and semi-urban areas within the classification of

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<sup>13</sup> In Palm Lake it would appear that we only “found” one section of the colonia; while in Val Verde Park Estates a large platted area remains unoccupied.

colonias—a dubious decision in our view.<sup>14</sup> Willow Springs, however, was quite typical of the sort of colonias that we have begun to discover close to Austin and which we suspect are relatively common around many other cities in Texas.

Thus, in conclusion, our data generally attest to the thesis that occupancy rates tend to be higher: 1) in smaller colonias; 2) in colonias with smaller lot sizes; 3) in “interior” long established colonias; and 4) in better serviced colonias. Also, other things being equal, the older the settlement, then the higher the occupancy rate.

#### The Total Area Represented by Vacant Lots in Texas Colonias

For the 1381 colonias in the TWDB database our calculations give an overall total of some 147,095 individual lots, 132,142 of which are in colonias with more than 40 lots (i.e. not very small-sized). Given that we know that the proportion of vacant lots is likely to be negligible in these smaller colonias, we have excluded them from some of the following calculations. Table 1.5 shows that there are approximately 13,200 vacant lots for every 10 percent vacant lot occupancy rate for individual colonias. However, although the TWDB data suggest a non-occupancy rate of over 30 percent (Table 1.3) we feel that a more conservative estimate of 20 percent is a more accurate baseline, recognizing that it is likely to be higher. This would yield an estimated 26,500 vacant lots across all Texas colonias.<sup>15</sup>

Our colonia household survey data (Chapter 3) gave a median lot size of 12,000 square feet, which is considerably lower than the trimmed averages that we also use in later analysis, but again we have chosen the median in order to err on the lower side in arriving at our estimates. Taking a median lot size of 12,000 square feet, the total residential area covered by colonias in the TWDB database is 40,522 acres (63.3 square miles). Assuming an 80 percent lot occupancy rate, this would imply 7,281 acres of unoccupied lots (11.38 square miles). These are residential lot areas, and do not take account of streets and other open spaces.

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<sup>14</sup> Indeed, we had extreme difficulty in finding the largest single designated area called Fort Gates colonia in Gatesville. This is broad urban tract with rural and semi-urban services often, but it is a far cry from the typical colonia or SSRS's. On the other hand, the cluster of colonias around Copperas Cove were rather more consistent. We included Willow Springs Sections I & II in our windshield analysis. Other colonias included small “flagpole” developments and “ranchette” zones of mixed (lower and lower-middle income) lots with mixed trailers and regular homes on one-acre or larger sized lots.

<sup>15</sup> Remembering that these are the 1381 colonias listed in the TWDB database, and that there are a considerable number of colonias that are not, therefore, included.

**Table 1.5: Distribution of Lots and Estimate of Total Acreage of Vacant Lots, Overall and by County**

County	2 Total Number of Lots in All Colonias	3 Number of lots excluding those in very small colonias (< 40 lots)	4 Average lot size in that county* sq. feet	5 Total area of all lots (acres)	6 Total area represented by 10% level of vacant lots in all but very small colonias**	7 Total area represented by 20% level of vacant lots in all but very small colonias (acres)
<b>All TWDB Colonias</b>	<b>147,095</b>	<b>132,142</b>	<b>12,000</b>	<b>40,522</b>	<b>3,640.3</b>	<b>7,280.6</b>
<i>Cameron</i>	14,110	13,280	7,200	2,332	220	439
<i>Coryell</i>	935	798	12,000	258	22	44
<i>El Paso</i>	21,656	20,743	13,069	6497	622	1,245
<i>Hidalgo</i>	43,510	33,359	7,200	7192	551	1,103
<i>Jim Wells</i>	2,347	2,239	12,000	647	62	123
<i>Maverick</i>	7,510	7,218	12,000	2,069	199	398
<i>San Patricio</i>	3,708	3,648	12,000	1,022	101	201
<i>Starr</i>	9,598	8,371	6,500	1,432	125	250
<i>Valverde</i>	3,106	3,006	12,500	891	86	173
<i>Webb</i>	9,232	8,863	32,670	6,924	665	1,300
<i>Zavala</i>	1,948	1,820	12,000	537	50	100

\* Median = 12,000 square feet for all survey counties

\*\* i.e. column 3 only (because small colonias have few vacant lots)

The survey data indicate that average lot sizes vary markedly between county as well as between colonias. Therefore, in order to paint as accurate a picture of the total area those vacant lots comprise, we factored into our calculations the best estimates of lot size in those counties for which we have data (see column 4 of Table 1.5). Elsewhere we used the overall median (12,000 sq. feet). The data in Table 1.5 show that El Paso, Hidalgo and Webb all have very large areas of unoccupied lots (well over 1000 acres in each case). Taking only the 11 counties in the TWDB that have more than 10 colonias, we calculate that some 5,406 acres are left vacant (assuming a 20 percent non-occupancy

rate). Once again, we believe that these are conservative estimates, and in reality the proportion and total acreage is likely to be considerably higher.

The data underscore the extent of the vacant lots problem. In short, the data suggest that there are over 26,000 vacant lots in Texas colonias, comprising almost 7,300 acres or 11.3 square miles. This is a lot of unused land, and were it to be occupied at an average household size of 4.3 (as our survey data indicate), a further 100,000 people could be accommodated into existing colonia settlements. Thus, the issue of absentee lot holding is an important one for policy makers to address, and in the following chapter we develop a methodology to identify who they are, and where they currently live.

## **Chapter 2. Constructing the Tools and Methodology for Resident and Absentee Lot Owner Analysis**

### **Tracking Invisible Populations**

One of the greatest challenges confronting social scientists interested in research and data collection with “hard to reach” populations is the development and application of appropriate research methodologies. More often than not, this phenomenon is found when working with populations who are relatively “invisible” and essentially unavailable for systematic interviewing. Strategies for identifying and tracing these “invisible” populations is anything but easy and require the implementation of innovative survey methods specifically designed to gain access to these individuals.<sup>16</sup> The following chapter outlines the methods we employed in the Policy Research Project during the period September 1999 and June 2000. It is our hope that these survey techniques will encourage and facilitate further research on populations that are otherwise difficult to access.

### **Developing a Methodology**

The overarching aim of the study was to examine low-income residential land market dysfunction in Texas. More specifically, we were interested in exploring the low population densities and high lot absentee ownership in colonias by identifying, tracking, and surveying absentee lot owners through a complex series of steps which comprised our methodology. Though absentee owners were the focus of the study, we also felt that it was important to conduct a baseline study of current colonia residents against whom we could compare and contrast that of the absentee owners. These data were to be collected via face-to-face interviews in the each case study colonia that would help us gain a better understanding of the social and physical infrastructure needs in Texas colonias.

But that was the relatively easy part. More difficult was to track systematically the absentee lot owners, and then to make contact and survey them. While we knew a considerable amount about colonia residents from previous surveys, prior to our study virtually nothing was known about absentee lot owners. The principal task was to

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<sup>16</sup> Peter Ward, “Absentee Lot Owners in Texas Colonias: Who Are They, and What Do They Want?” *Habitat International*. (With Jeremiah Carew), Vol 24, 3, 327-345.



identify who they were and where they were currently residing. Only in so doing could we begin to formulate a clear idea about what they want.

It was hoped that this information, in combination with the colonia resident data, would allow us also to assess the performance of the land market over time. Thus, along with the systematic identification of absentee lot owners, including the use of windshield surveys, county tax appraisal rolls, internet searches, postal/mail and phone surveys, and the development of an absentee lot owner database, our methodology included the collection of baseline data from existing colonia residents about land acquisition costs and land price changes over time (i.e. market performance and dysfunction) as well. In this chapter, then, we will proceed to outline our methodology that led us to begin to answer our initial questions: Who are these absentee lot owners, where do they live, and why do they own lots in Texas colonias?

### Identifying Resources

Given the particular methodological problems associated with researching exit or absent populations, the research group was able to benefit from a pilot project conducted during the summer of 1998 by the PI and (then) Research Assistant, Jeremiah Carew. That work had already identified a number of possible resources for tracking ownership of unoccupied colonia lots.<sup>17</sup> These resources included:

1) *Developer's Archives*. Though difficult to access, developer's personal archives and files may likely contain copies of original Contracts for Deed that give the purchaser's name and (usually) address at the time of purchase. Developers may also receive payments via mail, particularly, when the purchaser (or absentee lot owner) has moved away from the area.

2) *County Property Records*. Texas County Property Records contain details about sales, completed contracts and defaulted contracts after September 1995. Also a small number of purchasers will have registered their Contracts for Deed in county records before 1995. Most important, county property records are the source for colonia plat maps - which is always an important first step in colonia research.

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<sup>17</sup> Ward, Peter and Carew, Jeremiah "Tracking Absentee Lot Owners in Texas Colonias: A Methodology". Forthcoming in *The Journal of Land Use Policy*. 2001.

3) *County Tax Appraisal Rolls*. Also part of public record at the county office are the County Property Tax Appraisal Rolls, usually found at the County Tax Assessor-Collector's Office. These records contain information on the lot owner, her/his mailing and residential addresses, and the assessed value of the lot and improvements upon it for property tax purposes. The only caveat is that not all taxes are paid directly by the purchaser, and some mailing addresses may be those of kin (*poste restante* or fronting addresses).

4) *Colonia Residents*. Based upon a small sample, research revealed that most colonia residents were willing to provide information about neighboring owners, even if they were absentee lot owners.

5) *Planning Office*. The County Planning Department has conducted frequent and extensive censuses of colonias in preparation for infrastructure and planning provision. However, most information is compiled into aggregate tables and offers little help regarding contact information for absentee owners.

From the above-mentioned resources identified in the 1998 study we selected the primary resources for carrying out our methodology. The basic tool selected was the county property tax records office, from which we collected the subdivision plat maps and the county tax appraisal rolls. These tax records, matched to our plat maps identifying vacant lots, allowed us to begin to identify the whereabouts of the owners of vacant and unoccupied lots.

## **Identifying Unoccupied and Vacant Lots and Locating their Owners**

### Selecting the Case Study Colonias

The research group selected twenty case study colonias throughout Texas in which we conducted independent windshield surveys of lot occupancy rates. While this survey was reported on above, for clarification here the "lot occupancy rate" means the total percentage of lots occupied (i.e. lived on) in the colonia. We were less interested at this stage as to how many people might be living on each lot or in the colonia as a whole (what we refer to as population density). Instead, we wanted to know the ratios of vacant, unoccupied, and occupied lots per the total number of lots in the colonia. The resulting percentages of vacant, unoccupied, and occupied lots were described in the previous chapter (see Table 1.4).

Case study colonias were chosen from the border counties in which the TWDB database had identified a high incidence of colonias, and sometimes included large settlements that are already widely known (Cameron Park, Rio Bravo, Sparks, for example), along with

many other lesser-known colonias. As far as possible we attempted to select settlements of varying size, history, level of service provision, or location within individual counties. However, we could not choose small or very small colonias since these were unlikely to generate sufficient cases to make for inter-colonia comparisons. One weakness of our datasets, therefore, is that they cannot be said to reflect the numerous very small colonias. The actual differences may be small, but we cannot be sure, one way or the other.

Border colonias chosen for case studies are: Arroyo Colorado Estates, Cameron Park, and Valle Escondido in Cameron County; Deerfield Park, Sparks, and Vista del Este in El Paso County; Hoehn, La Mesa, and Palm Lake in Hidalgo County; Mike's in Starr County; Cienegas Terrace and Val Verde Park Estates in Val Verde County; and Larga Vista, Pueblo Nuevo, Tanquecitos/Los Altos, and Rio Bravo in Webb County. Other colonias were chosen due to their location in Central Texas in order to address one of our main project objectives, that of deepening our knowledge of non-border colonia existence and proliferation. Non-border colonias chosen for case studies are: Stony Point in Bastrop County; Willow Springs in Coryell County; Hillside Terrace in Hays County; and Northridge Acres in Travis and Williamson Counties. See Table 1.4 (column 6) for their sizes. In sum, 55 percent (11) of the settlements were very large (over 300 lots) using the categorization that we developed earlier; 25 percent (5) were large (151-300), and the remaining 20 percent (4) were considered medium sized (81-150 lots). Valle Escondido (86 lots) and Palm Lake (96) were the smallest, but none of the case study settlements fell within the two smallest categories. As we anticipated it proved much more difficult to generate a satisfactory yield of information from the smaller settlements, given the much smaller "pool" of potential cases.

### *Descriptions of Case Study Colonias*

Below we provide a brief description of each colonia in which we conducted surveys. The photos are available for consultation at Appendix 2.2. Corresponding plat maps not included earlier in Chapter 1 may be found in Appendix 2.1. An excellent colonias database as well as localizing maps for most of the colonias included in the study may be found at the Office of the Attorney General. <http://maps.oag.state.tx.us/colgeog/>

#### **Stony Point**

Located within Bastrop County, 17 miles east of Austin off of Highway 71, Stony Point is more developed than the typical border colonia as evidenced by photo 2.1 in Appendix 2.2. It is a lower-middle class subdivision that enjoys full availability of services with the exception of wastewater; sewage is processed by septic tanks. It is characterized by a large number of mobile homes as well as self-help and custom-built home construction. Once conveniently located near Bergstrom Airforce Base for civilian employees, Stony Point now finds itself amidst some of Austin's newest development with the recent

conversion of the base to Austin Bergstrom International Airport. The lot-by-lot windshield survey conducted during the study indicates that 82 percent of the colonia's 397 total lots are occupied. The Texas Water Development Board does not have data for Stony Point. Our analysis found the median lot size to be 10,500 square feet, just shy of one-quarter of an acre.

### **Arroyo Colorado Estates**

One of three Cameron County colonias included in the study, Arroyo Colorado Estates is located just 4 miles east of Harlingen off of Highway 1846. It is an older colonia with the first plat recorded in 1962. It is also the least filled-in of the usually dense Cameron County colonias; 61 percent (251) of Arroyo Colorado's 410 lots are occupied. These numbers indicate a rapid increase from Texas Water Development Board 1994 data that found only 33 percent (150) of 460 lots to be occupied with an estimated population of 791 residents. The median lot size, according to our study, was well under a quarter of an acre at 7,200 sq. ft. See plat map 2.1 in Appendix 2.1.

### **Cameron Park**

Cameron Park is located 2-3 miles north of Brownsville off of Highway 1847. The largest and most filled-in of the Cameron County colonias included in the study; Cameron Park has a 78 percent (1250) occupancy rate with a total of 1250 lots spread out over 400 acres. TWDB counts 1624 lots with a 46 percent (753) occupancy rate. Like Arroyo Colorado, Cameron Park is an old colonia with the first plat recorded in 1961. According to information gleaned from residents, the median lot size was a cozy 7,200 sq. ft.

### **Valle Escondido**

Located off of Highway 1419, Valle Escondido is just one mile south-east of Brownsville. It is the youngest of the Cameron County case study colonias as it was first platted and recorded in the courthouse in 1984. With only 86 lots, it is also one of the smallest colonias included in the study. Consistent with high densities among most small colonias, it is over three-quarters (65) of 86 lots filled through. TWDB counts a total of 56 lots with a 50 percent (28) occupancy rate.

### **Willow Springs Sections 1 & 2**

Willow Springs is yet another non-border colonia included in the study. It is situated just south of Copperas Cove, one of the two principal service centers for the expansive Fort Hood Army Base. It falls one mile beyond the city limit on Highway 116. This colonia exhibits the most classic colonia type development to be found in Coryell County. Nestled in attractive Hill Country topography, it is generally a working class, lower-

middle income community that is largely Anglo in the composition of its population. Most housing consists of modest, custom-built homes and mobile homes with some self-help construction on ample lots. See Figure 1.5 for plat map depicting 67 percent of its 148 lots as occupied. TWDB yields a count of 147 lots with 59 percent (87) of those listed as occupied as of 1994.

### Deerfield Park

An up-market colonia for El Paso County and the entire border, Deerfield Park is 6—7 miles east of El Paso. It is just south of Highway 180, which runs along the southern border of the Fort Bliss Military Installation. Deerfield Park enjoys a relatively high standard of living and was one of the most expensive colonias in which to buy land in our study. Custom-built homes and multi-level, self-help dwellings were the norm in the flat desert terrain of this development. The colonia is 75 percent (301) occupied with 400 total lots. TWDB found 454 lots with an occupancy rate of 66 percent (301). The median lot size for Deerfield Park was 13,795 sq. ft.

### Sparks

Despite its unique desert topography of large, rolling sand dunes, Sparks exhibited the most characteristic border colonia living conditions of the El Paso colonias included in the study. The first plat was recorded for Sparks in 1958, making it also one of the oldest colonias to be included in the study. It is situated four miles down Interstate 10 outside of El Paso's southeastern city limits, just north of the I-10 / Highway 1281 intersection. Self-help housing in various stages of construction formed a slight majority of residences rivaled by an ample supply of mobile homes. Due to hills and cliffs and small lot size, homes often seemed stacked on top of one another. And lots not used for residential purposes, such as workshops or junkyards were common. Although full services are enjoyed by those with lots outside of a central wide arroyo, lack of street paving is a problem. Fifty-seven percent (826) of Sparks' 1452 lots were occupied. TWDB identified only 37 percent (584) of 1598 lots as occupied. Sparks also had one of the smaller median lot sizes of the colonias in our study at 7,700 sq. ft.

### Vista del Este

Proximate to Deerfield Park, a couple miles closer to El Paso off of Highway 180, Vista del Este is another colonia whose residents are better off economically than most inhabitants of El Paso County and the border as a whole. Multi-level, self-help homes and custom built homes on relatively large lots were not infrequent. The colonia is highly occupied at 80 percent (292) of 365 lots. See Figure 1.3 for plat map. TWDB lists Vista del Este with a 71 percent (235) occupancy rate out of 330 lots.

### **Hillside Terrace**

Hillside Terrace is located 13 miles south of Austin, in Hays County near the city of Buda. One of four non-border colonias to undergo a windshield survey during the study, Hillside Terrace exhibits a wide range of living conditions with higher income folks often juxtaposed in the same block with those obviously lacking housing resources. Self-help housing, generally more prevalent along the border, coexists with modular homes, mobile homes and custom built homes with pastoral views. The colonia has a total of 356 lots and 70 percent (250) of them are occupied. See Figure 4.1 for plat map. TWDB has no data for Hillside Terrace in Hays County.

### **Hoehn Drive**

Hoehn Drive is located northwest of Mc Allen in Hidalgo County off of FM 1825, east of Highway 281. The first plat map for this colonia was recorded in the county courthouse in 1983. It is densely populated with 84 percent (138) of its 164 total lots observed to be occupied. TWDB data indicated an equal number of total lots as our study for this colonia, but found that only 60 percent (98) of lots were occupied in 1994. The median lot size for Hoehn Drive one of the smallest of the study at 6,800 sq. ft.

### **La Mesa**

La Mesa is another subdivision in the colonia hotbed of Hidalgo County. It is located north of the town of Mercedes and to the east of FM 491. See Figure 1.2 for detailed plat map showing 71 percent (118) of the colonia's 166 total lots as occupied by the windshield survey. TWDB counted 167 total lots with an occupancy rate of 61 percent (102). Its median lot size is 7,200 sq. ft., well under a quarter of an acre.

### **Palm Lake Estates**

Palm Lake Estates is a cluster of four colonias with the same name located just north of the town of Alton on FM 676, in between Highway 107 and FM 494 in southern Hidalgo County. Palm Lake Estates #4 was singled out for the purposes of our study. It is a small colonia with only 96 lots, 65 percent (62) of which are occupied. See Appendix 2.1 for plat map detailing occupation. TWDB lists Palm Lake Estates #s 1-4 as having a total of 955 lots that are 60 percent (573) occupied. The median lot size for Palm Lake Estates #4 is 7,650 sq. ft.

### **Mike's**

Located in Starr County, east of Rio Grande City on FM 2360 and just south of Highway 83, Mike's is a typical border colonia. Set in rural surroundings, Mike's lays claim to the smallest median lot size in the study at 6,500 sq. ft. It was first platted in 1989. Self-help housing dominates the scene that is intermittently sprinkled with mobile homes and

shacks. It receives water from the city of La Grulla, yet it still lacks wastewater services; sewage is often inadequately handled by cesspools. There are a total of 320 lots on the colonia with 62 percent (199) of them occupied. TWDB lists no data for Mike's subdivision.

### Northridge Acres

Northridge Acres is located off of Highway 1325, one-half mile before North Burnet Road intersects with IH-35. Just north of Austin, on the border between Travis and Williamson Counties (with portions of the colonia pertaining to each county), Northridge Acres is an unusual, dynamic colonia often involved in annexation and service issues with both Round Rock and Austin. Close to Dell Computer Corporation, the largest employer in the Austin area, Northridge Acres has found itself—substandard services, junk cars and all—in the middle of a commercial and residential explosion. The colonia totals 203 lots, 84 percent (170) of which are occupied. There are also a large number of more valuable, commercial lots along HWY 1325. Its median lot size, driven up by multi-acre tracts at the rear of the colonia, is an ample 17,690 sq. ft.

### Cienegas Terrace

Cienegas Terrace is located seven miles southwest of Del Rio on Cienegas Rd, in between the city and the Rio Grande River. It is an expansive colonia on the rolling terrain of the semi-desert, upper-middle Rio Grande Valley. Most of the colonia's residents enjoy full basic services with the common exception of wastewater; septic tanks are the norm for sewage treatment. Water lines and paved roads have yet to reach many of the inhabitants on the periphery of the colonia. It is dominated by self-help housing in various stages of construction and marked by a high incidence (53 percent) of vacant lots or unoccupied dwellings. Of the colonia's 763 lots, 47 percent (357) were occupied in the windshield survey. TWDB data indicates that only 26 percent (200) of a total of 777 lots were occupied in 1994. The median lot size for Cienegas Terrace is over a quarter acre at 12,500 sq. ft.

### Val Verde Park Estates

Four miles east of Del Rio in between Highways 90 and 2628, Val Verde Park Estates is another large colonia in Val Verde County. It is more filled-in than Cienegas Terrace however, with the windshield survey indicating 69 percent (560) of its 809 lots currently being occupied. The numbers reveal recent, rapid growth as the colonia was first platted in 1960, but according to TWDB's estimations only 8percent (100) of the 1236 lots were occupied as of 1994. This development is also somewhat more affluent than other Val Verde County colonias evidenced through its relatively large lots and high incidence of custom built homes alongside self-help housing and mobile homes.

### Larga Vista

Located on Highway 359 East in Webb County, Larga Vista has been incorporated into the city of Laredo and thus has all the services available to any city neighborhood. It is relatively well off economically and has the highest rate of occupancy of all the case study colonias with 87 percent (118) of 136 total lots identified as occupied.

### Pueblo Nuevo

Past Larga Vista, 8 miles east of Laredo on Highway 359, Pueblo Nuevo is a rural Webb County colonia with unusually large lot sizes of one acre or more. In fact, its median lot size is a healthy 43,560 sq. ft. Many lot owners purchased land in this colonia to have a retreat in the country for picnics and grazing for animals; it is thus decidedly different from the other more residential colonias in the study. Platted in 1986, it has no water or wastewater services. And not surprisingly, it has the lowest percent occupancy of all case study colonias with only 44 percent (133) out of a possible 300 lots identified as occupied. TWDB lists Pueblo Nuevo as having 304 lots with less than one-quarter (70) of them as occupied.

### Tanquecitos / Los Altos

These two colonias, paired because of their immediate proximity and hazy boundaries are located off of Highway 359, five miles east of Laredo, in between Larga Vista and Pueblo Nuevo. There are 229 lots in total with 67 percent (153) currently occupied. TWDB numbers indicate 201 lots with an occupancy rate of 57 percent (115). The most readily observable characteristics are the numerous, long, narrow lots along the highway primarily used for commercial purposes. Both colonias were first platted in between 1995 and 1997. The median lot size is a large 43,560 sq. ft., which is slightly over one acre.

### Rio Bravo

Located in southwest Webb County, 15 miles south of downtown Laredo off of Highway 83, Rio Bravo, together with its neighbor El Cenizo, is one of only a handful of colonias that have incorporated themselves into their own city with the obligation to provide services to the residents. As a result, even with the low socio-economic status of its citizens, Rio Bravo enjoys full services including garbage collection, fire department, emergency medical services and a police force. There are a total of 1,447 lots on the large colonia with an occupancy rate of 81 percent (1172). TWDB's 1994 numbers indicate 1,344 lots with a 57 percent (971) occupancy rate. The colonia is characterized by small lots and is bordered by the Rio Grande River. Areas of the colonia are subject to periodical flooding. The median lot size is 9,300 sq. ft. Also of note is that Rio Bravo was developed by Ciso McDonald.



### Windshield Survey: Mapping Lot Densities

The fieldwork began by obtaining a plat map for each case study colonia from the appropriate County Planning Department. With the plat maps in hand, groups of two or three individuals in the research group carried out windshield surveys of the chosen settlements in each county. A windshield survey, also referred to at times as a “walkabout survey” when it is done on foot, consists of driving through each colonia to identify and each lot as belonging to one of three categories. The first designation, “occupied”, labels a lot that is clearly inhabited; it contains at least one dwelling that appears to be currently occupied. The second category, “unoccupied”, refers to a lot that has at least one dwelling, but the structure is clearly not currently inhabited. When in doubt as to the status (occupied or unoccupied) of a dwelling, the team unanimously designated it as “occupied”. The final category, “vacant”, labels a lot that has no dwelling and appears to be completely uninhabited. Each lot was classified by these categories and this was recorded on the plat map. See Appendix 2.3 for an example of a hand-marked plat map after a completed windshield survey.

The actual process of conducting the windshield survey required an attention to matching the map with the lots in the colonia. It was often difficult to clearly see the boundaries of each lot and then match these up with the appropriate lots on the map. In some cases, for example in Rio Bravo, the blocks were so long that at times one arrived to the end of the street and realized the mapping process had at some point gotten off by one or two lots. In these cases, the team remapped the entire street until the plat map and actual lots finally matched up. While sometimes tedious, it was essential to ensure that the windshield survey was as accurate as possible: any errors at this stage would be compounded thereafter—not least the selection of the ostensible owner and his or her address from the tax record would be wrong if the correct lot and tax record were mistakenly tallied. Despite our care, this happened in some cases.<sup>18</sup>

The windshield survey is a primary stage of the research design since it is here that we were able to identify the occupied versus unoccupied and vacant lots, both as data for comparison with the TWDB data base, and more importantly, as the basis for the next stage—searching and surveying absentee lot owners. With two exceptions (Hillside Terrace and Willow Springs), this step of our methodology took place between October and December 1999.

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<sup>18</sup> Although it should be possible to avoid by not sending any interview requests to a colonia addresses.

With lot occupancies plotted on the plat map by hand,<sup>19</sup> we could move to the next stage of seeking to identify the names and address of the absentee owners. Later, also, we were able to use these plat maps as a basis for random selection of the resident population for survey within each colonia.

#### Utilizing County Tax Records to Identify and Locate Absentee Lot Owners

Using the annotated plat maps resulting from our windshield surveys of the colonias, the next step was for each group to visit the respective county tax assessor-collector offices to obtain subdivision tax appraisal roles. Some groups physically visited the county tax assessor-collector offices to request copies of tax records or to enter the absentee lot owner data directly into our database on laptop. Others contacted county tax offices via phone, and county staff mailed the tax records. We also discovered that certain counties, for example Travis, had tax records available on-line.

This step was carried out for all windshield survey colonias except Willow Springs, Mike's, and Val Verde Park Estates. For Mike's we received the absentee lot owner data from Rebecca Leightsey of the Community Resource Inc., and in the cases of Willow Springs and Val Verde Park Estates we went no further than the windshield survey. Willow Springs was an afterthought in June 2000, once we became aware that there were sizeable colonias located in north-central Texas. In the case of Val Verde Park Estates the similarity between it and its neighbor Cienegas Terrace, suggested that it would be overkill to survey two large settlements in the same city.

Once all of the tax records were obtained, the research group compiled a database that included block and lot numbers, names, addresses, and assessed land and improvement values for those lots that were vacant or unoccupied according to our annotated plat maps. As we began to go through the tax records a number of features became apparent. First, sometimes the tax records reflected situations in which colonia residents and absentee owners continued to pay their property taxes through the land developer—until they had paid the full purchase price of the lot. Second, it became apparent that some absentee owners might be using the address of a kinsman for mailing address purposes for the county tax office. Though this hypothesis was not pursued systematically, there is some reason to believe that a minority of absentee lot owners makes use of “fronting” addresses. A third feature was that sometimes people others than developers had several lots.

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<sup>19</sup> These were later scanned electronically into Adobe Photoshop to provide finished plat maps showing vacant and unoccupied lots.

Apart from errors sometimes introduced to the matching of lots on the ground to those on the plat map and then to the tax records, this method worked reasonably well to successfully identify names and addresses of absentee lot owners. Whether those addresses would prove to be “good” addresses, and what would be the likely level of response our survey remained an open question at this stage. The information logged into our database during this stage of the project (from October to December 1999) was key in advancing to the next phase of research; that of contacting and surveying absentee lot owners.

## **Data Collection from Absentee Landowners**

### Absentee Lot Owner Survey Development

Given that absentee lot owners were the primary focus of our study, the survey group carefully developed the survey tool to ensure that questions related to reasons for purchase and non-occupancy were included. In order to collect data from absentee landowners, the group resolved to use two different methods: mail surveys and phone interviews. Although the group had originally planned to include face-to-face interviews as a third way of collecting data, this method was discarded because of the difficulty and costliness (in both time and money) of physically tracking down absentee landowners. In essence, the group’s previous difficulty in locating the colonias themselves led to a conclusion that locating absentee landowners in their homes would not be a wise use of time or resources.

The initial method pursued was the use of a mail survey that had been elaborated in draft form by a small sub-group of the researchers in close conjunction with the PI. This sub-group met and developed questions specific to absentee lot owners that would be used to determine the reasons for non-occupancy of colonia lots. Incorporating important pieces from a previous colonia survey, the group worked together to modify questions and refine the survey tool before presenting it to the wider group for further revision.

The survey contains questions designed to collect data about the lot purchase, such as costs, methods and regularity of payment, ongoing communication with the developer, etc. We also inquired about the rationale for the original purchase and the individual’s current living situation. The questionnaire contains basic demographic information, including socio-economic and household data, and inquires about colonia improvements each individual feels is needed and whether she/he would ever consider occupying her/his lot in the future. The most telling questions selected for inclusion aimed to root out the original reasons the owner bought the land in the first place, and why she/he had not moved to occupy the lot. In comparing their socio-economic profiles and residential trajectories with those of actual residents, we hoped to be able to identify principal

variables that determined residence and non-residence. The questionnaire comprised thirty-seven questions and was designed so that it could be completed in either English or Spanish.

In addition to the questionnaire, a cover letter was drafted in both Spanish and English. This letter outlines the purposes of the study, emphasizes the confidentiality of responses and explains to participants how they were identified. In addition, the letter listed contact information at the University of Texas, including a toll-free number that survey participants could call to ask questions or to give comments. A copy of the cover letter in English and Spanish along with the English and Spanish versions of the absentee lot owners' questionnaires, used for both mail and phone surveys, are available from the principal author upon request.

#### Logistics of the Mail Survey

Using the database compiled from the windshield surveys and tax rolls, the research group produced a mailing list of absentee lot owners. Each colonia was assigned a unique number (1-20) and, within each colonia, every entry was assigned a unique number (for example, 15.057). The names and addresses of institutional groups (developers, counties, churches, businesses, clinics, etc.) and all but one entry for multiple lot owners were removed from the mailing list. A unique number was recorded at the top of each questionnaire so that it could be carefully tracked, and questionnaires were then sent, in colonia batches, to selected absentee lot owners. Each envelope mailed included a questionnaire, a cover letter, and a self-addressed prepaid return envelope.

For most colonias, surveys were sent to all entries on the mailing list (all addresses minus institutional and duplicate lot holders). For resource expenditure reasons in a few cases where the lists were very long (Cameron Park, Cienegas Terrace, Rio Bravo, and Sparks), we sent a questionnaire to every second or third valid address. We were careful to record on our database each entry that was sent a mail survey.

The first major batch of absentee lot owner surveys were sent out several weeks before the winter holidays in late November and early December 1999. This timing was deliberate, since we hoped that many absentee owners, especially those who might be migrant workers and those who might not live at the contact address would be in touch with their relative during the holiday season. In those cases where we still lacked the tax collection records questionnaires were sent out later in January and February 2000. Statistical tallies related to the numbers of surveys mailed to absentee lot owners are reflected in Table 2.1.

**Table 2.1: Surveys Mailed for Absentee Lot Owner Data Collection**

Colonia	# of Total Addresses	# of Institutional Addresses	# of Duplicate Addresses (due to Owners of Multiple Lots)	# of Surveys Mailed	% of Surveys Mailed from Total # of Addresses	% of Surveys Mailed from Valid Addresses (Total Minus Institutional and Duplicate Addresses)
Arroyo Colorado	127	5	9	93	73.2%	82.3%
Cameron Park	217	1	32	100	46.1%	54.3%
Cienegas Terrace	381	138	44	181	47.5%	91.0%
Deerfield Park	71	5	6	60	84.5%	100.0%
Hoehn	24	5	1	18	75.0%	100.0%
Larga Vista	14	0	3	12	85.7%	109.1%*
Mesa	41	0	3	26	63.4%	68.4%
Mike's	N/A	N/A	N/A	N/A	N/A	N/A
Northridge Acres	19	1	1	17	89.5%	100.0%
Palm Lake Estates	29	0	1	29	100.0%	103.6%*
Pueblo Nuevo	181	6	39	143	79.0%	105.1%*
Rio Bravo	292	38	15	128	43.8%	53.6%
Sparks	615	8	68	81	13.2%	15.0%
Stony Point	35	0	7	27	77.1%	96.4%
Tanquecitos/ Los Altos	74	4	11	63	85.1%	106.8%*
Valle Escondido	21	0	5	16	76.2%	100.0%
Vista del Este	73	41	1	31	42.5%	100.0%
<b>Total</b>	<b>2212</b>	<b>250</b>	<b>245</b>	<b>994</b>	<b>46.3%</b>	<b>59.7%</b>

\* greater than 100% in "% mailed from total minus inst and duplicate addresses" results from having mailed survey to some of the institutional and duplicate addresses

Table 2.1 reflects the total number of entries in our database (addresses) per colonia, the number of institutional and duplicate addresses identified, the number of surveys mailed per colonia, and the percent of surveys mailed from the total number of addresses and from the valid (total minus institutional and duplicate) addresses. Of a total 2,212 addresses in our database, we identified 250 institutional entries, 245 duplicate entries, and ultimately sent questionnaires to 994 individuals, which represents 46.3 percent of the total addresses in the database and 59.7 percent of the valid addresses. For the largest case study colonia, Sparks, we mailed surveys to only 15 percent of all valid addresses. For most case study colonias, we mailed to every possible address. In some cases we accidentally sent surveys to institutional and duplicate entries as well, which is indicated by the few colonias that show over 100 percent mailings of valid addresses.

Absentee Lot Owner Survey Returns by Mail

Throughout the weeks following each mail-out, completed surveys as well as unopened letters from nonviable (bad) addresses were returned to the research group. Table 2.2 below demonstrates the statistics compiled related to returns on surveys mailed.

**Table 2.2: Surveys Returned from Absentee Data Collection Mail-out**

Colonia	# of Bad Addresses Returned	% of Bad Addresses Returned from # of Surveys Mailed	# of Viable Addresses from Surveys Mailed	# of Good Mail Returns	% Return on Viable Addresses	% of Good Returns from # of Surveys Mailed
Arroyo Colorado	8	8.6%	85	13	15.2%	14.0%
Cameron Park	11	11.0%	89	5	5.6%	5.0%
Cienegas Terrace	7	3.9%	174	27	15.5%	14.9%
Deerfield Park	8	13.3%	52	9	17.3%	15.0%
Hoehn	1	5.6%	17	2	11.8%	11.1%
Larga Vista*	0	0.0%	12	2	16.7%	16.7%
La Mesa	6	23.1%	20	2	10.0%	7.7%
Mike's	N/A	N/A	N/A	N/A	N/A	N/A
Northridge Acres	0	0.0%	17	4	23.5%	23.5%

Colonia	# of Bad Addresses Returned	% of Bad Addresses Returned from # of Surveys Mailed	# of Viable Addresses from Surveys Mailed	# of Good Mail Returns	% Return on Viable Addresses	% of Good Returns from # of Surveys Mailed
Palm Lake Estates*	1	3.4%	28	4	14.3%	13.8%
Pueblo Nuevo*	10	7.0%	133	15	11.3%	10.5%
Rio Bravo	15	11.7%	113	9	8.0%	7.0%
Sparks	3	3.7%	78	21	26.9%	25.9%
Stony Point	3	11.1%	24	4	16.7%	14.8%
Tanquecitos/ Los Altos*	6	9.5%	57	10	17.5%	15.9%
Valle Escondido	1	6.3%	15	2	13.3%	12.5%
Vista del Este	0	0.0%	31	6	19.4%	19.4%
<b>Total</b>	<b>80</b>	<b>7.8%</b>	<b>945</b>	<b>135</b>	<b>14.3%</b>	<b>13.6%</b>

Thus we received a total of 135 completed surveys by mail, which represented a 14.3 percent return on viable addresses and a 13.6 percent return on the total number of surveys mailed. Although this is relatively low, it is not out of line with mail survey returns, especially taking into account the fact that we are dealing with a relatively poor and low-literacy population not accustomed to completing this form of questionnaire. The highest percent of completed questionnaires received (percent Return on Viable Addresses) came from Sparks with a 26.9 percent return rate and Northridge Acres with a 23.5 percent return rate. The lowest percent of completed questionnaires returned comes from Cameron Park at 5.6 percent and Rio Bravo at 8.0 percent. The highest percent return of bad addresses came from La Mesa at 23.1 percent, while the lowest percent return of bad addresses came from Larga Vista, Northridge Estates, and Vista del Este with no returned mail. It is important to note that these tallies of "bad addresses" only count those that we know about since they were returned to us undelivered. There is little doubt that there are a much higher percentage of nonviable or incorrect addresses that were never returned.

#### Filling in the Gaps: Logistics of the Phone Survey

The usual practice in mail surveys is to send a follow-up letter and questionnaire to non-respondents urging them to complete the forms. However, given our "wastage" rate, and

the cost of multiple mail-outs, we resolved that it would be more useful to try to trace and contact absentee lot owners through another medium—namely by phone. Thus we began the methodological process of collecting telephone numbers for the absentee lot owner population. Our goal in doing so was to increase the rate of absentee lot owners survey completion by conducting telephone interviews with the survey already developed. Our aim was to have 20 completed surveys for each case study colonia. We received 26 completed mail surveys from Cienegas Terrace, so this colonia was not pursued further in the phone survey methodology.

*Searching for Phone Numbers: Methodology and Effectiveness*

Using the database previously compiled, several members of the research group systematically searched for phone numbers using an internet phone number search engine. Searching for these phone numbers was done on the internet at the website <www.teldir.com>. At this website, several choices for searching for individuals are given. After doing some preliminary research about the most efficient search engine, AT&T’s “Anywho” was deemed the most appropriate. Through this engine one can search for phone numbers based on either the name of an individual or street lived on. We systematically searched for numbers using three methods, advancing to the next if earlier searches proved fruitless: first, by entering last name, street name, and zip code; second, by entering only last name and zip code and then scanning the list for appropriate first names; and third, by entering only the street name and the zip code and then scanning for the appropriate address number. Searches that provided a perfect match (last name and address) were recorded in the database with an “\*” next to the phone number. Searches that yielded the first and last name but a different address or the correct address with a different name were also recorded, with the conflicting information noted alongside the phone number. Table 2.3 below outlines our success at generating phone numbers through the internet search engine.

**Table 2.3: Success at Generating Phone Numbers for Absentee Lot Owners**

Colonia	# of Absentee Lot Owners Searched for Phone Numbers	# of Phone Numbers Successfully Generated through Search	% Success at Generating Phone Number from # of Absentee Lot Owners Searched for Phone Numbers
Arroyo Colorado	67	28	41.8%
Cameron Park	162	41	25.3%
Cienegas Terrace	N/A	N/A	N/A
Deerfield Park	42	11	26.2%
Hoehn	15	9	60.0%
Larga Vista	14	10	71.4%
Mesa	19	8	42.1%



Colonia	# of Absentee Lot Owners Searched for Phone Numbers	# of Phone Numbers Successfully Generated through Search	% Success at Generating Phone Number from # of Absentee Lot Owners Searched for Phone Numbers
Mike's	N/A	N/A	N/A
Northridge Acres	12	7	58.3%
Palm Lake Estates	22	9	40.9%
Pueblo Nuevo	111	64	57.7%
Rio Bravo	92	24	26.1%
Sparks	72	20	27.8%
Stony Point	17	6	35.3%
Tanquecitos/Los Altos	43	26	60.5%
Valle Escondido	13	3	23.1%
Vista del Este	25	8	32.0%
<b>Total</b>	<b>726</b>	<b>274</b>	<b>37.7%</b>

As was anticipated, the yield of telephone numbers for absentee owners was rather modest overall—38 percent. This could be due to the mobile nature and/or the low economic status of much of this population, as well as to AT&T's lag in updating their internet search engine with current addresses and phone numbers. Nevertheless, in some colonias, such as Larga Vista (71.4 percent), Tanquecitos/Los Altos (60.5 percent), Northridge Acres (58.3 percent), and Pueblo Nuevo (57.7 percent), the success rate on entries searched was well over 50 percent. Prima facie we would deem these as the rather better-off colonias (although this was not the case in Vista del Este). Generally the larger colonias with very poor populations (Cameron Park, Rio Bravo, Sparks) had a low yield of around one-quarter.<sup>20</sup> Remember these are for absentee owners, and do not reflect the telephone ownership of actual colonia residents.

#### *Phone Survey Protocol*

Phone surveys were carried out between April and June 2000. Each phone survey administrator was bilingual and developed a "patter" with which to introduce her/himself and the project and request a few minutes of the individual's time.

When the individual called was not at home or there was no answer, the protocol was to leave no message and return the call at least one more time, preferably at a different time of day or, when so advised, at a time the individual would be home. The survey administrator then moved to the next phone number in the database until she/he found

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<sup>20</sup> Deerfield Park and Vista del Este both appear to have a more mixed socio-economic composition, and yet they also yield low returns. It may be that the website is less well developed for the El Paso region, therefore.

someone who was willing to participate in the telephone questionnaire. The protocol for the phone interview itself consisted of a brief introduction on behalf of the researcher, outlining the purpose of the study and again emphasizing the confidentiality of responses. Once the interview was complete, the researcher would thank the absentee owners and provide the same toll-free number provided in the mail survey in case absentee owners had any additional questions about the study. At thirty-seven questions, the telephone interview lasted approximately 10 minutes, assuming minimum or no interruptions.

Telephone interviews were administered in either English and Spanish, and the target number of interviews to be completed per colonia was reached by surmising how many more were needed to reach the goal of 20 surveys per colonia. The range of annotations in the database from phone survey attempts are: No Answer; Not Home; Wrong Number; Disconnected; Chooses Not to Participate; Lives in Colonia (i.e. is a resident); *Poste Restante* Address (relative of the Lot Owner); Doesn't Own a Colonia Lot; and Recently Sold Lot. Table 2.4 below shows our success rates at completing phone surveys with absentee lot owners.

After these concerted efforts to gather phone surveys we ended up with an additional 38 completed absentee lot owner questionnaires. There were a total of 50 recorded "bad phone numbers" (those recorded in the database as either wrong or disconnected numbers) and 13 recorded *poste restante* addresses (phone numbers which led us to kin rather than to the actual lot owner). Unfortunately these were not tallied systematically, so we are unable to estimate just how many lot owners actually use kin as "fronts" for registering their properties with the County Tax Assessor-Collector's Office.

**Table 2.4: Success at Completing Phone Surveys with Absentee Lot Owners**

Colonia	# of Bad Phone Numbers Noted*	# of Restant Addresses	# of Phone Surveys Completed	% of Phone Surveys Completed from Total # of Phone Numbers Generated
Arroyo Colorado	2	0	4	14.3%
Cameron Park	10	2	2	4.9%
Cienegas Terrace	N/A	N/A	N/A	N/A
Deerfield Park	3	2	2	18.2%
Hoehn	3	1	3	33.3%
Larga Vista	3	3	1	10.0%
Mesa	5	0	1	12.5%
Mike's	N/A	N/A	N/A	N/A
Northridge Acres	0	0	1	14.3%
Palm Lake Estates	2	0	0	0.0%
Pueblo Nuevo	6	2	6	9.4%

Colonia	# of Bad Phone Numbers Noted*	# of Restant Addresses	# of Phone Surveys Completed	% of Phone Surveys Completed from Total # of Phone Numbers Generated
Rio Bravo	2	1	5	20.8%
Sparks	1	no info	6	30.0%
Stony Point	1	1	0	0.0%
Tanquecitos/ Los Altos	6	0	7	26.9%
Valle Escondido	1	0	0	0.0%
Vista del Este	5	1	0	0.0%
<b>Total</b>	<b>50</b>	<b>13</b>	<b>38</b>	<b>13.9%</b>

\* "Bad Phone Numbers" is the sum of numbers that were recorded in the database as either wrong or disconnected numbers.

Thus, from the phone numbers generated by our internet search, the actual success rates at completing phone interviews fluctuated from as low as 0 percent in Palm Lake, Stony Point, Valle Escondido, and Vista del Este to almost one-third in Hoehn, Sparks, and Tanquecitos/Los Altos (Table 2.4). The overall rate of completion of phone surveys for numbers generated through the search was nearly 14 percent—almost identical, in fact, to our mail survey (see Table 2.2 above).

There is no doubt that this relatively low rate of completion could be increased somewhat by more consistent and sustained phone calling techniques. A large number of individuals were never reached because in the two or three attempts we made to contact them, they weren't home. If numbers were systematically called at varying times of day and different days of the week and days and times were recorded and eliminated, a proportion of these un-contacted individuals could be reached and possibly interviewed for the survey.

It is important to note that despite the low completion rate of absentee lot owners phone surveys, this method of data collection is important in so far as it probably provides access to a slightly different economic population than the mail surveys. Interviewing by phone increases the participation of those who may otherwise be uneasy about answering a mail survey: namely the less literate, less educated, older, or lower economic status populations. However, it also requires that households have a home phone and be listed in the directory. This is feasible in the U.S., even among poor neighborhoods, but it is unlikely to work well in developing countries.

#### Total Returns from Absentee Lot Owners: The Bottom Line

Figure 2.5 below provides a tally of all of absentee questionnaires received by both mail and phone interviews. The largest numbers total returns came from Cienegas Terrace and

Sparks at 27 surveys and Pueblo Nuevo at 21 surveys. The lowest returns came from smaller colonias like Larga Vista and Mesa, which generated total returns of 3 surveys each. Clearly a larger colonia can reflect much lower percentages of returns while still producing significant numbers of completed surveys than can a small colonia, even when it shows a decent rate of completion.

**Table 2.5: Completed and Coded Absentee Lot Owner Surveys**

Colonia Name	# of Returned Mail Surveys	# of Phone Surveys Completed	Total Number of Absentee Lot Owner Surveys Completed
Arroyo Colorado	13	4	17
Cameron Park	5	2	7
Cienegas Terrace	27	N/A	27
Deerfield Park	9	2	11
Hoehn	2	3	5
Larga Vista	2	1	3
Mesa	2	1	3
Mike's	N/A	N/A	N/A
Northridge Acres	4	1	5
Palm Lake Estates	4	0	4
Pueblo Nuevo	15	6	21
Rio Bravo	9	5	14
Sparks	21	6	27
Stony Point	4	0	4
Tanquecitos/Los Altos	10	7	17
Valle Escondido	2	0	2
Vista del Este	6	0	6
<b>Total</b>	<b>135</b>	<b>38</b>	<b>173</b>

The bottom line is that we received a total of 173 completed absentee lot owner surveys: 135 by mail and 38 supplemented by phone. These relatively low rates of completion of surveys for our absentee lot owner data collection methodology serve to illustrate the difficulties involved in identifying, tracing, and contacting what we have come to call “no-see-em” populations. Nevertheless, it was always understood that half of something was better than half of nothing—which is what we had at the outset. And, as we shall demonstrate later, these 173 completed surveys did provide a wealth of insight into absentee ownership and made for interesting comparisons with the colonia resident population.

## **Data Collection from Colonia Residents**

We now turn to the methodology of conducting surveys of colonia resident populations, which were undertaken by members of the research group between the months of January and April 2000. The annotated plat maps from the windshield surveys allowed us to distinguish absentee owners from current residents and randomly select colonia resident households to survey for our baseline resident data.

### Colonia Resident Survey Development

As for the absentee questionnaire, the colonia resident survey instrument was developed by a sub-group in conjunction with the PI. The face-to-face questionnaire comprises forty-three questions, and it is designed to be completed in either English or Spanish. It focuses upon questions relating to information about the lot purchase: costs, methods and regularity of payment, ongoing communication with the developer, etc. It also inquires about the rationale for the original purchase and future plans for lot and dwelling development. We were also interested in ascertaining how aware colonia residents were of vacant lots, and to elicit their views about absentee lot owners, and about locally needed services. As with the absentee lot owners questionnaire, this one also included basic demographical information such as socio-economic and household data.

### Resident Interview Protocol

Utilizing windshield survey data, lots where residents would be interviewed were randomly selected. The sampling frame was based on dividing the total number of occupied lots in the colonia by the total number of completed interviews we required. Then we would select every 'N'<sup>th</sup> lot on a block, for example every 4<sup>th</sup> or every 10<sup>th</sup>. When residents were not home or did not wish to be interviewed, the protocol was to move one lot to the right of the originally selected lot until we found a resident respondent. The tax records were helpful in allowing us to keep track and link block and lot numbers to resident names and addresses.

Interviewers were trained in applying the questionnaire in Spanish and English and in techniques of doorstep presentation and approach. Especially important here was to ensure that we interviewed only owners. After the first round of interviewing certain adjustments were made to terminology used in some questions, but these were relatively minor. We were always concerned to emphasize confidentiality of responses, and to be sensitive to issues relating to migration status and to terminology regarding colonias. For these reasons we did not ask any questions relating to migrant status. Invariably, too, we referred to neighborhoods as subdivisions or *fraccionamientos* rather than as colonias (see earlier discussion in Chapter 1).

The protocol for the interview itself consisted of a brief introduction on behalf of the researcher outlining the purpose of the study and emphasizing the confidentiality of responses. A cover letter on behalf of the director and university was presented to the resident, and residents were asked if they were willing to answer the questionnaire. Though it was always up to the participant to speak either Spanish or English, most of the questionnaires were administered in Spanish. Once the interview was complete, the researcher would leave the resident with a thank you letter, which provided the same toll-free number used in the absentee lot owners survey, in case residents had any additional questions about the study. A copy of the cover letter in both English and Spanish is included together with the English and Spanish versions of the colonia residents' questionnaires are available upon request from the principal author.

Consisting of forty-three questions, the face-to-face interview lasted an average of 20 minutes, though in some cases it took over an hour. The resident surveys were conducted from January to March 2000 in 14 of our original 20 case study colonias, listed in Table 1.6 below. Val Verde Park Estates, Larga Vista, Valle Escondido, and Vista del Este were not included because they were similar in nature to other nearby colonias in which we were gathering survey data, and because of time and resource constraints. Also, Hillside Terrace and Willow Springs were not included since they were only added in June 2000, by which time we had already embarked upon the analysis. The duration of colonia resident survey fieldwork averaged two to three days, usually over a weekend (with some exceptions). Table 2.6 below depicts the number of colonia resident surveys completed for each colonia included in this phase of the study.

A total of 261 colonia resident surveys were completed in 14 colonias spanning 8 Texas counties. The highest number of resident surveys (33) was completed in Cienegas Terrace, while Tanquecitos/Los Altos only comprise 12 surveys. The average number of colonia resident surveys completed per colonia is 18.6. Although small by most standards, the survey provides invaluable baseline data for comparison with that of absentee owners.

**Table 2.6: Completed Colonia Resident Surveys**

Colonia Name	Number of Resident Surveys Completed
Arroyo Colorado	19
Cameron Park	23
Cienegas Terrace	33
Deerfield Park	18
Hoehn	15
Mesa	15
Mike's	20
Northridge Acres	14
Palm Lake Estates	15
Pueblo Nuevo	13
Rio Bravo	22
Sparks	22
Stony Point	20
Tanquecitos/Los Altos	12
<b>Total</b>	<b>261</b>

In retrospect, as with any survey there were questions that did not work well, and/or about which we have our doubts. Question 5 about “tenure” contained unfamiliar vocabulary for colonia residents and was quickly modified in its application to ask about whether they were owners or not. Moreover, Question 28 about what improvements in service provision are required for Texas colonias taken as a whole, was misunderstood by most individuals as referring to *their* colonia’s needs (not colonias in general). The section where people were invited to rank services on a scale of low to high importance (Q. 28) did not generate the spread of nuanced responses that we had hoped for: most people saw all of the services as very important, and there was marked variation in the extent to which interviewers pressed a fuller ranking between services. Question 41 relating to the existence of migrant workers in the household may have been misleading, as many colonia residents who formerly migrant workers have now become settled over the past few years, or are not currently employed migrant workers. Greater specificity of the time frame is required here. But generally speaking, in both surveys the household income data questions elicited a good response: few people balked at answering.

Overall, the response of resident colonia interviews was excellent. It is significant to note the fact that our response rate for telephone interviews and postal interviews of absentee lot owners was much lower as compared with the face-to-face interviews of colonia residents. This may be attributed to the impersonal nature of mail and phone interviews

and to people's willingness to agree to face-to-face interviews over these other methods of data collection. Also important to note is the timing of the U.S. Census 2000 and how that may have positively (or negatively) influenced colonia resident participation in our study. Most evident was the colonia residents' receptiveness to our questions, their hospitality and frankness, and their desire to improve colonia living conditions for themselves, their families and neighbors.

### **Coding and Database Preparation**

The final step in our methodology is the lengthy stage of coding, inputting and "cleaning" the data. This process was done in order to convert the data from our resident and absentee surveys into a format that could be analyzed using statistical software (Microsoft Excel and MINITAB). Two separate coding guides were designed designating numerical codes for every unique question response on both surveys. Any open format questions were coded at this stage. A coding sub-group input the codes for each unique question response into two Excel database matrixes (one for absentee lot owners and one for colonia residents) so that all of our data was represented in numerical code. This took place in April and May 2000.

These complete Excel data matrixes were then converted to MINITAB data sets with which we proceeded systematically to analyze the information. Due to pressures of time and the involvement of all eleven members of the research team, some errors and different interpretations crept into the coding. These discrepancies became apparent after the initial analysis, such that it proved necessary for the two former team members (Stuesse and Stevenson) hired as research assistants to go back to the original questionnaires and to recode a number of key variables. Other common miscodes were also corrected. In addition we were able to recode "other" categories where these had elicited a large number of responses. By taking a second look at the "other" category and recoding it, we were able to better understand and provide a more nuanced portrayal of people's responses.

Similarly, due to occasional mistaken identification of vacant lots, a small number of mail surveys had been sent to and returned by actual colonia residents. These were not identified immediately as residents and were coded into the absentee lot owners data set. Later these cases were transferred to the appropriate data set, and while the questionnaires were not identical, a large number of questions were the same.

The coding guides were then revised and the recodes and other changes were made to the initial data sets. During this phase of recoding we entered data directly into Minitab as opposed to composing in Excel and then transferring the information. This took place in



June 2000. The revised coding guides are not included here, but are available from the principal author upon request.

After the recoding and fine-tuning of the MINITAB data sets, statistical and quantitative methods were once again used to aggregate and disaggregate the results of our extensive and time-consuming collection and coding of survey responses. The results of these analyses are included in the following chapters (3 and 4) of this report.