



Tracking land ownership in self-help homestead subdivisions in the United States: the case of Texas “colonias”[☆]

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Abstract

In Texas, there are some 1500 so-called *colonias* housing an estimated 400,000 people mostly in peri-urban areas of the border region with Mexico. At the outset colonias are unserviced or poorly serviced low-income housing settlements in which lots have been sold by developers upon which residents place trailers, construct manufactured homes, or engage in self-build. Recent research is beginning to identify similar types of semi-formal homestead sub-divisions elsewhere in the United States, suggesting that this is a widespread and growing phenomenon. However, while many such sub-divisions are sold out, the proportion of lots actually occupied varies greatly, with anywhere between 15 and 80 percent of lots being left vacant. This creates multiplex problems for effective provision and cost recovery of physical and social infrastructure, as well as for effective formation of social capital necessary for active community participation and mutual aid in local development projects. Sometimes, the land allocation process also has led to confused occupancy and to conflict about rightful lot ownership.

Although recent research has led to a better understanding about the nature of these sub-divisions, it is often difficult to trace the ownership of individual lots. This is especially the case with absentee owners. As the first step towards data collection about non-owners and about “clouded” land titles, this paper identifies and tests the effectiveness of various methods that can be used to trace this “invisible” population. Working in 20 such colonias in Texas, we show that property tax records offer the most complete and effective method of tracing absentee owners to their current address. The paper also offers suggestions about the possible effectiveness of different types of survey method to gather data about lot ownership and land market performance in homestead subdivisions. As an example of the application of this methodology, survey data are presented comparing colonia residents with absentee owners. The broader application of the methodology elsewhere in the United States as well as in some less developed county contexts is discussed. © 2001 Elsevier Science Ltd. All rights reserved.

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The conundrum: researching exit populations and absentee property owners

A methodological dilemma that frequently confronts researchers working in communities and neighborhoods is to know more about those members of a population who are relatively invisible and who are unavailable for systematic interviewing. This may lead to a bias in our understanding of the composition, social processes, needs and behaviors of the vestige (visible) population. Often this invisibility arises for those people whose residence or livelihood is illegal or unregulated and outside of the so-called formal sector. In order to survive they must remain hidden, and they are difficult to track down or trace. A similar problem confronts researchers of “exit” populations such as households

who have been displaced perhaps as a result of conflicts with landlords, “gentrification” processes and rising costs of residence, or for whatever reason have moved out of the local neighborhood (Robson, 1998; Schaffer and Smith, 1986; Smith, 1996). To an extent that these invisible or exit populations are different from those who can be readily interviewed, then our understanding is always likely to be incomplete and partial.

Of course, tracing these “invisible” populations is far from easy and innovative survey methods must be devised in order to gain access to these individuals. Unfortunately, all too often researchers have ignored this “nether” world, only occasionally seeking to draw some inference about its population from local observation or from vicarious questioning of those who are visible and who are more readily available for interview. Anyone seeking to systematically research these absent or less visible populations must, perforce, develop innovative strategies and methods of data gathering (Jones and Ward, 1994).³ The so-called “snowball” samples are one common technique whereby one proceeds by referral from one respondent to another. Although very useful for gaining insights about social processes, snowball samples are often unrepresentative of the universe studied, and offer only limited scope for generalization. Yet tracking even a relatively small number of out migrants or “invisible” neighborhood members is costly in terms of time and resources. Little surprise, therefore, that few analysts have made a serious attempt to systematically research these difficult-to-locate households.

The importance of low-income homestead settlements in the United States

In this paper we offer a research methodology that will allow us to learn more about absentee lot owners in low-income homestead settlements in Texas as well as in other states of the Southwest US. Called “colonias” in Texas, these settlements first began to be identified in the poorest border counties along the border with Mexico. They comprise unserviced or poorly-serviced settlements in which low-income homesteaders have bought a lot on which they live either in a trailer-type dwelling, or in a

more formally “manufactured” home (Davies and Holz, 1992; Ward, 1999). In some cases, families also build their homes through self-help, often living in a trailer until a modest level of house consolidation has been achieved. Colonias in Texas are not a small-scale phenomenon: there are more than 1500 colonias in Texas today, housing around 400,000 people (OAG, 1993; Texas Water Development Board in LBJ School, 1997).⁴ While most of these settlements are located in counties bordering Mexico (77% are to be found in only four border counties [El Paso, Cameron, Hidalgo and Webb]), it should not be inferred that they are a Hispanic phenomenon, or that they do not exist elsewhere in Texas and the United States; they do, and they include both Anglo and African-American communities. Yet so far, colonia-type developments beyond the border region and elsewhere in the United States have rarely caught the public eye, and are likely to do so in the future only insofar as data about colonias and other self-help settlements are collected more systematically.⁵ Counties throughout Texas are beginning to realize the problems presented by unregulated development of substandard subdivisions that are springing up as the only affordable homestead for low-income households.⁶ By low income we mean those households earning between \$12,000 and \$25,000 a year. Many householders in these and in even lower income brackets see the advantages of moving out of rental trailer-park accommodation in which they have no equity, in favor of poorly serviced sub-divisions where they can own property, and, they hope, valorize it through mutual aid and self-help efforts. The growing polarization in US labor markets between those in well paid manufacturing

⁴For on line data and further information about Texas colonias compiled by the Texas Water development Board, see <http://www.twdb.state.tx.us/colonias>.

⁵Traditionally in much of the rest of Texas and in other states the housing market has been more oriented towards trailer park type homes, even where the population is of Mexican origin and from the border. In one recent study of a meat-processing town in Minnesota where the bulk of the workers are of Mexican origin and often recruited from the border region, there has, as yet, been no equivalent colonia development (Brown, 1999). City planners are determined to avoid the development of “permanent” neighborhoods where migrant workers might be tempted to put down roots—notwithstanding the fact that the food-processing plant appears to be prosperous and secure. But here, too, we expect sub-divisions will eventually be established as migrants and traditional residents become more comfortable with each other, and as their economic symbiosis becomes a more permanent one.

⁶See for example *County: A publication of the Texas Association of Counties*, Vol. 10, p. 5, September/October 1998 and the series of articles entitled “Rural Texas: the Good Life”. This includes articles on the worsening conditions of Unregulated Subdivisions. Although the article emphasizes the rural nature of these sub-divisions, it is important to recognize that many are in fact urban—at least in labor market terms. See also the Texas Association of Counties “Substandard Subdivisions in Texas: Who suffers at what cost”, February 1999.

³Two brief examples of such innovative methods will suffice. In his research about petty theft or “fiddling” in a bakery firm, Jason Ditton became a driver/dispatcher in order to observe the forms of cheating and theft that pervaded the enterprise (Ditton, 1977). In another longitudinal study of Mexican migrant (undocumented) workers in the US, researchers wanted to follow up at 3 year intervals migrants whom they first interviewed before crossing the border. The strategy adopted was to identify “anchors” (kinsmen usually) whose residences were more fixed, and who could be expected to know the whereabouts of the individual migrant several years later. Several such anchors might be created and subsequently contacted in order to elicit a “good” address that another data gathering interview team could follow-up (Portes and Bach, 1985).

jobs on the one hand, and those in very low paid service sector activities on the other, is likely to aggravate the housing crisis for many in the future. Quasi-formal homestead communities akin to the colonias in Texas are likely to spring up throughout the US as the only viable means of entering home ownership for the working poor.

Our focus here, however, is less upon residents and more on the invisible “absentee” owners of colonia lots and properties. They are not absentee landlords in the usual sense. Rather they are low-income lot owners who, for one reason or the other have chosen not to build a home and live on their lot. What makes this significant is the fact that non-occupancy is sometimes the rule rather than the exception. Most lots in the majority of Texas colonias have been sold, yet the proportion of households who live on their lots can vary from 15 to 80 percent. Even the larger and best known colonias which are now more or less fully serviced and well consolidated, may have between one-sixth and one quarter of their lots vacant. In the Texas case our calculations suggest that there are over 26,000 vacant lots comprising over 7000 acres of unoccupied residential land. If these lots were to be populated at existing colonia densities, then an estimated further 100,000 people could be accommodated within the existing settlements (Ward et al., 2000).

There is an additional problem in the Texas case. Although the process of land sales is usually legal, that is not always the case. Most people delay before actually moving onto their lot and do so in order to save sufficient cash to allow them to buy a new or second-hand trailer or manufactured home to place on the lot. However, this may allow an unscrupulous developer to sell the same lot several times over creating conflicts in ownership that must be “regularized” ex post. Lot development may also be confused if the allocation is by “metes and bounds” rather than by physical demarcation on the ground, so that many legitimate homesteaders are living on someone else’s lot. This also creates a need for “regularization” and/or informal dispute resolution in order to ensure that people have security of title (Larson, 1995). But in these cases also the starting point is tracking land ownership claims.⁷

This high level of “absentee” ownership and vacant lots contrasts markedly with the situation that prevails in irregular settlement development reported in most less developed—not least on the other side of the border in Mexico—where illegality in the land acquisition process virtually requires lot occupancy to safeguard one’s claim (Gilbert and Ward, 1985). Another key difference—especially for the purpose of this article—is

that in Texas and the US lots are sold legally and are considerably larger than those acquired by self-builders in Mexico, usually at least four to six times the modal size of lots in Mexico (Ward, 1999; Ward et al., 2000). The larger size, together with legislative prohibition upon internal sub-division and lot sharing, and the high rate of absentee lot ownership and non-occupancy, means that overall population densities are very low, around 10–12 persons per acre. This creates a number of major impediments to settlement development and upgrading, *inter alia*: (1) the high unitary costs of infrastructure provision; (2) a low fiscal capacity and high financial drain upon political jurisdictions; (3) a low social density, and a severely weakened potential for successful community collaboration and participation; (4) and limited political voter “clout” and lobbying effectiveness. Colonias in Texas are population settlements with very low levels of social “capital”, especially when compared with fledgling self-help settlements and communities in Mexico and elsewhere.⁸ Similar pre-occupations with housing supply and non-occupancy of low-income residential subdivisions are also beginning to emerge in less developed countries (Potter and Watson, 1999).

Moreover, the very existence of vacant lots in such large numbers indicates that the land market is not functioning smoothly. Thus, we urgently need to know more about these absentee owners in the case of Texas colonias. Are they different from low-income homesteaders who have taken up occupancy? Why do they purchase these settlements if they do not plan to reside there? What are their medium and long-term plans for their land investment? What will persuade them to move into the settlement?—and so on. Elsewhere, we have begun to address these questions and to explore how policy-making might generate high densities in Texas colonias (Ward and Carew, 2000; Ward et al., 2000). In this article, our aim is to explore and develop a methodology that will allow researchers to gain access to these “invisible” lot owners in the first place. The relative merits and likely yield of information that can be expected from a number of different survey methods will also be evaluated. Only by developing our ability to trace absentee lot owners will we be able to identify who they are and what they want. Only then will policy makers in Texas be better informed about how to encourage more effective settlement development and to plan for colonia in-filling. It will also assist in the relatively new policy development process in Texas of land “regularization” of disputed or confused lot titles.

⁷For example, a non-government organization “Community Resources Group” has been charged with regularization in a number of settlements in and around Rio Grande City, Starr County. Here, the main problem is confused lot ownership created by “metes and bounds”.

⁸Social capital in this context may include the non-monetary resources that families and groups have at their disposal which can be mobilized to good effect—kinship networks, *compadrazgo*, neighboring patterns, etc.

Public policy towards Texas colonias

Until 1989, the plight of colonias in Texas went largely unheeded, but since then biannual Texas legislatures have undertaken a number of important policy directions. First, lawmakers have sought to curtail unregulated colonia developments, especially in the border region. Second, appropriations have begun to provide for basic infrastructure, most notably water and wastewater (Wilson and Menzies, 1997). Third, from 1995 onwards greater title security has been extended to residents by converting some Contracts for Deed, (the principal mechanism of lot sale, see below), into the equivalent of mortgages. Fourth, state and local governments have adopted a host of other measures mostly targeted at physical infrastructure and regulations to limit further unplanned and unserved colonia and housing development. Recent research has begun to identify and press for a second “wave” of public sector response targeting a number of policy areas (Ward, 1999). Several of these areas began to be addressed in the 76th Legislature (Spring, 1999), and were embodied in a wide-ranging “Colonias Omnibus Bill” (Senate Bill 1421). This included provision for: (1) better coordination between tiers of government and between agencies; (2) a more pragmatic and sensitive view of colonia housing and their populations; (3) greater flexibility in applying local ordinances and regulations in order to enhance hook-ups to services, etc; (4) and, where appropriate, the creation of planning commissions to oversee residential land-use development at the county level.⁹

Despite these modest changes, much remains to be done. One key policy arena is the need to confront low lot densities, and the desirability of increasing lot occupancy and development. Although the proliferation of new colonias in the border region of Texas has largely abated, the total population living in colonias may be expected to rise considerably in the next decade or two (by as many as a further 100,000 people). This is inevitable as physical infrastructure conditions continue to improve, and as vacant lots are gradually occupied.¹⁰ Yet current legislation in Texas inhibits densification and impedes market processes that would facilitate lot sales. Specifically, since 1995, unsold lots or those

repossessed by developers cannot be sold until all services have been installed and the colonia plan has been approved (in effect freezing the development). Furthermore, it is prohibited to subdivide lots except among close blood relatives. Nor can lots be used for anything but single-family residences. Thus, the operation of land market in colonias is stunted and inefficient, offering few opportunities for development or for the use of lots for mixed residential and income earning activities that are normally embraced in the World Bank’s notion of “urban productivity” (Doebele, 1994).

Yet thus far Texas policy makers have shown little enthusiasm to address the malfunctioning of the land market and the issue of densification. This is probably in part due to the perceived political costs associated with appearing to support further growth of colonia population albeit in existing settlements. Another reason has been the paucity of research and the general failure in agency programs to underscore the negative consequences that derive from such sparse settlement. In short, there is a lack of clear guidance from researchers about policy options that might be proposed in order to address the issue of population growth and densification in colonias. Scholars, legislators, and policymakers have failed to think aggressively and imaginatively about the colonias low-density issue. That is the challenge that we addressed in the research program, part of which is reported upon below.

Texas colonias and land development

The proliferation of colonias in Texas prior to 1989 responded to the same logic as that which has produced irregular settlements in less developed countries: rapid urbanization; a low-waged economy; the failure of the private market to produce or finance housing that is affordable to low income groups; a lack of state or public housing supply alternatives; and the lack of effective regulation and planning controls to prevent unscrupulous land developers from undertaking highly profitable land developments target at the poor. Around 40 percent of colonia residents work for the minimum wage or less (OAG, 1996), and per capita incomes in the border region are around half of the national average. In Hidalgo County for example, in the early 1990s only 24 percent of families earned over \$27,000 (compared to almost 40 percent nationally), while some 42 percent earned less than \$12,500 (OAG, 1993). The 2000 US Census has recently revealed that Texas has 15.6 percent of its population living in poverty (cf. 12.6 percent nationally). Average Texas border households earn just under \$20,000 per year, and most colonia household incomes are somewhere between \$10,000–12,000. Thus, in order to enter the housing market, prospective homeowners must seek low-cost alternatives and use

⁹Counties in Texas have little or no planning authority. At best, land use development may be controlled by statewide legislation. The opportunity to create Planning Commissions was first proposed to apply statewide, but was reduced to apply voluntarily in the border region only. Despite the fanfare, only one county (Webb) has created a planning commission.

¹⁰This increase assumes no draconian measures by the Texas legislature to actively prevent densification and lot occupancy—neither of which is likely. However, some legislators do feel that densification will exacerbate many of the existing problems, and are, therefore, uneasy about any measures that might increase population.

their “sweat equity” in order to self-build and self-finance their homes (Davies and Holz, 1992). In less developed countries, of course, it is the illegality of the land development process and the lack of services that reduce the market price to affordable levels (Gilbert and Ward, 1985). In Texas, however, the method of land acquisition is legal, and it is the unserved and poor location nature of the colonia that lowers the cost price and makes it affordable.

Texas colonias are created by developers who sell off land without services and infrastructure under a process called Contract for Deed (Larson, 1995, Ward, 1999). Quite deliberately these settlements are created in relative isolation in county jurisdictions beyond the urban fringe, outside of the better-endowed and more effectively empowered cities. Historically, there has been a lack of regulation in the areas beyond the city’s urban limits and its extraterritorial jurisdiction (ETJ).¹¹ Where a developer manages the project astutely, incurring relatively low development and overhead costs, there are opportunities to make spectacular profits. By buying agricultural or poor quality undeveloped land at low cost, a developer may sell the land as unserved residential colonia lots for up to 30 times the price he paid, much of which can be considered a profit (Ward, 1999). Nor do developers bring large up-front costs to the deal since the outlay in infrastructure and site development is minimal, and the transaction is often purchaser financed (i.e. the costs of development and sometimes the original land are covered out of ongoing lot sales).

Contract for Deed and land titling procedures in Texas colonias

In order to sell lots in unserved settlements developers have been well served by the Contract for Deed arrangement. This is a legal, yet highly flexible mechanism for the conveyance of real estate or other commodity in which full ownership (title) is not transferred until the purchase price has been paid in full (see Mettling, 1982). In the realm of real estate transactions, it is a particularly profitable form of seller financing. In Texas colonias, most lots sold in the early 1980s went for between \$7000 and \$8000 (around \$11,000–12,500 at 1998 prices). Upon signing the contract, the buyer pays the seller a down payment which may vary from “whatever the buyer has in his pocket at that moment”, say \$25, up to 10–20% of the total price (developer Cecil McDonald cited in Ward,

1999, p. vii). Thereafter, the purchaser makes a fixed monthly payment, usually in the range of \$80–120, which he continues to pay until retiring the debt. This may be spread over a period of between 5 and 10 years, with the possibility that the purchaser can always make a “balloon” payment to expedite the purchase. As an all inclusive legal document for property development, financing and transfer of title Contract for Deed has much to commend it, since transaction and closing costs are minimal or non-existent, and up-front deposits can be minimal.

Such attractive terms for the purchaser do not come without potential costs, however. There are several important drawbacks. First, the purchaser does not receive property title upon signing the contract (as with a mortgage transaction), but only upon making the final payment. Second, unless the Contract contains special clauses defining late payments and default proceedings, the purchaser may be considered to have defaulted on the debt after only a single missed payment. Upon default, the purchaser forfeits any equity accumulated in the property (current market price minus debt principal still owed) as well as any improvements made on the lot, such as the dwelling, yard plantings, etc. Thus, Contract for Deed is unlike any other real estate transactions where title is transferred immediately and where the purchaser is protected by the checks built into foreclosure proceedings. Indeed, until 1995, there were no specific protections built into the Contract for Deed in Texas. Although the evidence suggests that developers have usually not aggressively pursued default after a few missed payments as a pretext for repossession (since they would have to find a new purchaser for the lot), the arrangement offers clear advantages to the developer. The developer maximizes control over the property with minimum risk, while reducing the costs in the event of default and repossession.

Contract for Deed has been used throughout the US, most often as a mechanism for financing real estate purchase for those who could not afford the down payment, or whose incomes do not qualify them for more conventional methods (Jensen, 1996). Indeed, during the early 1980s when high interest rates made home purchase prohibitively expensive through regular mortgage contracts, Contracts for Deed even became commonplace as a mechanism for middle class home purchase. In the latter cases, one may best think of them as a custom-made document between two parties. Commonly it is viewed as a short-term solution (3–5 years) until the property has appreciated, or until the buyer’s income has increased, and/or the debt principal has been reduced so as to allow for conventional mortgage financing. In these cases, contracts may be expected to provide for some guarantees of compensation for

¹¹ The ETJ is a fringe area beyond the city limits over which the city may, at its discretion, exercise jurisdiction and extend services. The actual size of a city’s fringe area varies according to total city population. Cities with less than 5000 have an ETJ of one half-a-mile, while those with over 100,000 may extend as far as five miles.

improvements to the property, and for liens to be placed against the property to protect the value of improvements (Mettling, 1982).

Until recently, no such niceties were ever considered in Contracts for Deed in colonia property transactions in Texas. Common abuses include never providing a copy of the contract to the purchaser; oral rather than written contracts; contracts in English for exclusively Spanish-speaking populations; exorbitant late payment fees, and even contracts that never amortized the principal (Jensen, 1996). In the US many states have created laws governing use and protecting consumers entering into Contract for Deed transactions—as did Texas in September 1995 after passage of Senate Bill (SB) 336, but it applies only in colonias located within 200 miles of the border. Several of the aforementioned problems were addressed in this piece of legislation: namely to require sellers to disclose information such as the availability (or not) of services, encumbrances on the property, and to provide a Spanish translation of the contract. Additionally, and especially important for tracking colonia ownership through public records, several protections were created. These included the following: First, after 4 years or 48 monthly payments simple outright forfeiture no longer applies. Instead, default would be governed by mortgage law (applicable in any existing contract). Second, the vendor is required to record title in the purchaser's name within 30 days of the final payment (applicable on all contracts drawn-up after September 1995). Third, the vendor must record the contract and record the early termination of any contract (applicable on all contracts after September 1995).

Enforcement of this legislation has created significant penalties for developers who do not comply with all of the requirements for disclosure and public record keeping. One of the results of the 1995 legislation was that a typical contract prior to enactment might be only one page, whereas afterwards the paperwork commonly comprised at least 10 pages. Moreover, this extra paperwork and the cost of recording documents appear to have changed the way in which business is now conducted. Increasingly developers no longer appear to be using Contract for Deed, but instead have adopted what they call a "Special Warranty Deed with Vendor's Lien". This arrangement is similar insofar as it involves purchaser financing, with the important difference that title is transferred (with a lien) from the outset rather than upon completion of the contract. In fact, such transactions were common before passage of SB 336, but have become much more frequent since then.

The documentation for colonia lots sales before and after Senate Bill 336 may be summarized as follows (see Fig. 1). Prior to the Bill most colonia lot sales were conducted under Contract for Deed, a copy of which was held by the developer and in most cases, also by the purchaser. Contracts were minimal, albeit legal, and

spelled-out the location of property in question, the level and total number of monthly payment, and the parties involved. Rarely were these contracts registered from the outset in the property records office of the county courthouse, in the same way that rental or livestock purchase agreements are hardly ever registered (Fig. 1, "Tracks" 5 and 7). Defaulted contracts were cancelled, and the property was repossessed and could be re-sold without any trace appearing in the county records. A further reason for the "invisibility" of such contracts is that even upon completion of the payments, there was neither standard procedure nor clear demarcation of responsibilities for the formal transfer of title and its registration in the public record. However, for the purchaser, there are clear incentives for having one's title registered in the county courthouse since it establishes ownership over any other claims. In many cases this occurs, and purchasers have either registered ownership themselves or were fortunate enough to buy from a responsible developer who transferred title promptly (Fig. 1, Track 5). In other cases, however, although payments on the contract have been fulfilled, title has never formally been transferred in the public record. However, not all lot purchases were so hit-or-miss. Even prior to SB 336 alternative arrangements for colonia sales existed, including owner financing with a vendor's lien, bank financing, and outright cash purchase. In these cases, because title is transferred immediately upon purchase, there are records of the sale in the property records (Fig. 1, Tracks 1–3).

Implementation of SB 336 in September 1995 was a major watershed in Contract for Deed, such that until that time a record in the County's property records of lot sales, cancellation of contract, and completion of contract were not required. Since 1995, all contracts have to be recorded (Track 4). Even in those cases of default, if purchasers had advanced beyond the 48-month or 40 percent total paid thresholds, foreclosure and contract cancellation also require registration (Track 6). Thus the 1995 legislation affected all sales and all contracts completed or defaulted upon since that date.

These changes are significant in terms of the way all Contract for Deed sales (of which colonia sales make up an important part) are conducted. In terms of our quest to identify owners of lots (absentee or not), we may now expect to be able to trace rather more easily and accurately anyone buying a lot since 1995. Unfortunately, however, only a minority of all lots has been sold since that time, and some that are being sold are not being recorded since this would indicate that developers are flouting the law—for which they could go to jail. Paradoxically, however, colonia lot sales have diminished not so much because of SB 336, but because they have been virtually frozen by other legislation, most notably by House Bill 1001 of the same year. HB 1001

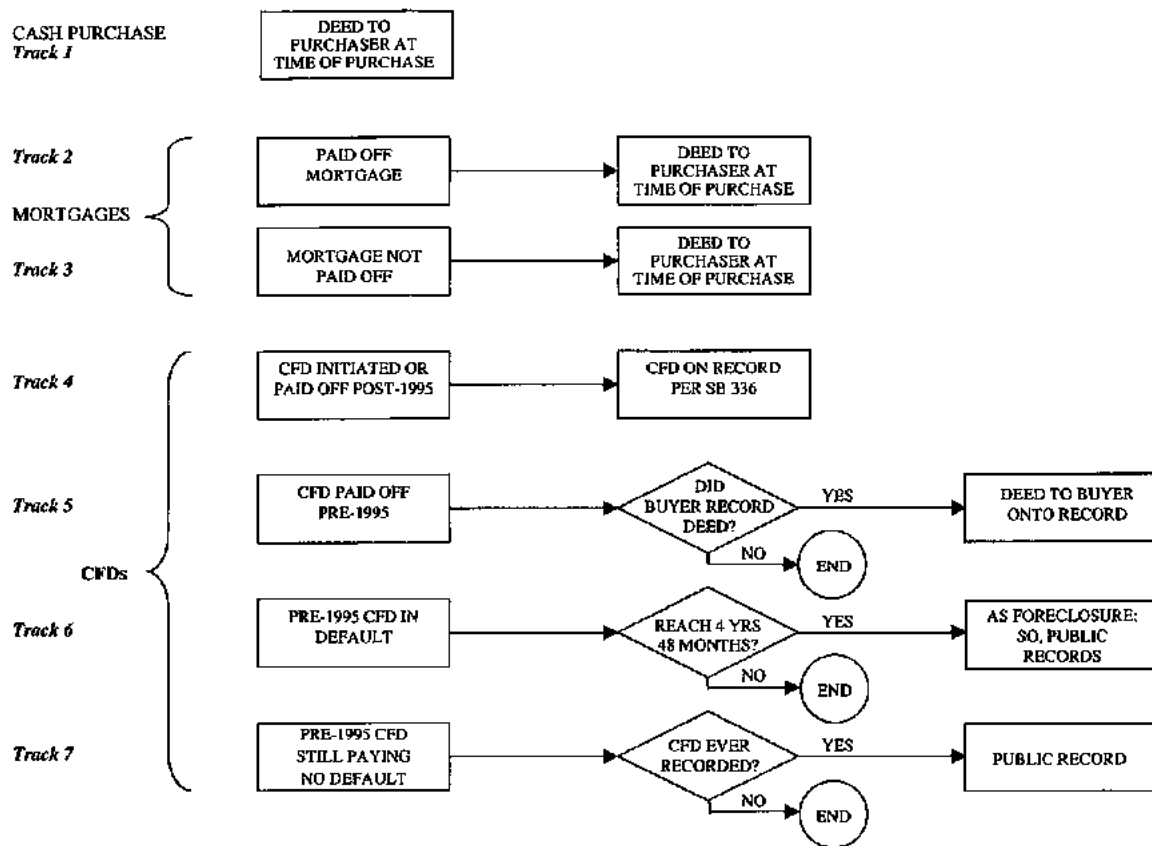


Fig. 1. Permutations of colonia lot sales in terms of public records.

sought to prevent dwelling hook-ups to services until the colonia plat and utilities map were approved and services had been installed.¹² It created some “Catch 22” anomalies whereby even some long-term residents have been prevented from hooking into services until the colonia is fully approved and serviced (LBJ School, 1997; Ward, 1999)—an anomaly that began to be rectified after 1999 legislation. So far as title registration is concerned, HB1001 requires that lots must be provided with water, sewage, and drainage before sale, even in those cases involving the sale of a repossessed lot. Thus, there are many who completed payments prior to 1995 but never registered title, as well as those who continued to pay after 1995 and who, for one reason or another, have not sought to register their claim in the County Records’ Office (see Tracks 5 and 7 “End”, for example).

In the following section, we develop a methodology designed to help identify absentee lot and dwelling owners. While it was principally developed with Texas and the border counties in mind, we believe that our methodology is replicable elsewhere in the United States. Even where the situation is fundamentally different—as in less developed countries, for example—we

hope that it might serve as an example for other researchers to proceed as we did. Namely to identify the various methods and sources of information that can serve to identify ownership, and then to develop innovative methods to trace ownership. Indeed, most strategies will invariably rely upon a combination of approaches and sources—a technique sometimes called “mixed sourcing” (Siembieda, 1994, p. 149; Dowall, 1991).

A methodology to identify absentee owners

The identification of possible sources

In light of the hit-and-miss possibilities of lot registration outlined above, it is fortunate that public records of colonia lot sales are not the only means by which one can track ownership of unoccupied colonia lots. For the purpose of our particular task, we were able to identify five possible sources of data.

Developer’s archives. Developer’s personal archives and files should always be considered a possible “windfall” source of information (Carroll, 1980). However, they are just that—“windfalls”—and neither their discovery nor access should be relied upon. (Like realtors, most developers are unwilling to give

¹² House Bill 1001 applies only to “certain” colonias, specifically those within 50 miles of the border with Mexico.

researchers access to their files.) However, sight of an individual developer's files is likely to provide copies of original Contracts for Deed that give the purchaser's name and (usually) address at the time of purchase. Moreover, developers often receive payments by mail, particularly when the purchaser has moved away from the area as is sometimes the case for absentee lot owners (see below). In our study, one major colonia developer reported that payments provide the necessary information to be able to contact purchasers, if needed. Even if researchers do not gain access to their files, developers can offer excellent background information and orientation regarding the land development process, together with broad-brush information about absentee lot holders. Unlike their counterparts in Mexico, developers in Texas tend to have an ongoing and sometimes quite friendly relationship with colonia residents (Ward, 1999). Thus, as sources of information they are always likely to be worth contacting, if only for "key-informant" interviewing.

County property records. As outlined earlier, in Texas, details about sales, completed contracts and defaulted contracts after September 1995 are to be found in county property records. For sales prior to that date, a small minority of purchasers will have registered their Contracts for Deed in county records (Fig. 1, Tracks 5 and 7). In addition, there are also those purchasers who have completed contracts and registered title, or who have purchased by means of another mechanism which transfers title from the outset (Fig. 1, Tracks 1–3). Furthermore, county property records are the source for what is always likely to be the first stage in any research—the colonia plat map.¹³ Thus, in Texas at least, the County Records Office will probably be the first port of call.

Tax payments and/or other charges. Our research found that in most cases Contracts for Deed (both before and after 1995) require purchasers to pay all taxes on the land from the date of signing. Information on the person or entity being billed as well as an address for billing is, in theory, available for every lot in a colonia. In addition, each record may be expected to carry information such as the appraised value, itemization of taxes, and current balance. These data are also held at

the county offices, although in a different department from property records. Forming as they do a part of the public record, they are freely accessible for consultation. However, there are two caveats. First, not all taxes are in fact paid directly by the purchaser. In the case of one of the developers we interviewed, although colonia lot purchasers were required to pay taxes, they did so through the developer's office, at least until the Contract for Deed payment schedule was completed. This meant that the taxpayer listed at the tax office was the developer, rather than the individual purchaser. This reduced the utility of the tax office as a source for contact information for absentee purchasers. The second problem is that of "bad" addresses. Some lot owners owe back property taxes (usually relatively low amounts given the low appraised values and low rates of assessment of colonia lots), and not wanting to pay, they have simply walked away from the properties.

Colonia residents. We anticipated that colonia residents might have some knowledge about neighboring owners even where these were absentee lot holders. In many cases, absentee owners make occasional visits to their lot, and it is in their interest to remain friendly with adjoining lot residents since these are in a position to keep an eye on their property. Thus it is quite probable that existing colonia residents may have contact information about the absentee owners, particularly if these are family relations. However, our subsequent surveys showed that while most colonia residents were aware of the widespread existence of vacant lots and had mixed opinions about their owners, the information that they could provide about tracing them was invariably extremely limited and did not extend to contact information that could be used. If one is interviewing in colonias, however, the inclusion of one or two questions about absentee neighbors or those who have recently moved away is often worth pursuing (Gilbert and Ward, 1985).

Planning office. This also is a "windfall" source, but it is one that is likely to occur more often than access to a developer's records. In one county (Webb), which has many colonias, the County Planning Department had conducted frequent and extensive censuses of colonias in preparation for infrastructure and planning provision. Information may provide an accurate picture of the percentage of occupied lots, number of occupants, degree of lot sharing, etc. However, because it is usually collected as a mini-census, such information is collated into aggregate tables, and offers no help in providing contact information for absentee owners. Occasionally, however, the planning department has compiled accurate lists of all lot owners for certain colonias (including both occupied and unoccupied lots). This is most likely in colonias selected for infrastructure development where existing roads are too narrow to accommodate properly spaced infrastructure lines. Thus "Easements"

¹³The plat is the base map showing the colonia layout with the lots, etc. Prior to 1989 developers did or did not submit a plat map for their developments. After the Model Subdivision Rules legislation in 1989 they were formally obliged to do so, although many did not, and were later targeted for prosecution by the Attorney General's Office. House Bill 1001 (1995) sought to close any loopholes by making it illegal to sell lots and/or to make hook-ups to utilities unless a utilities and plat map had been approved, and even then no sales were permitted until services had been provided to the colonia. As we saw earlier, this has led to a number of anomalies and hardships. But the principle that a utilities map should be filed and approved is a good one since it ensures that lots conform to local codes, and that setbacks and (future) servicing lines are properly planned and are not impeded by lot development.

or “Rights of Way” permissions have to be acquired from individual owners including absentee owners—at least until 1999 when new legislation empowered counties to be more pragmatic in interpreting regulations so long as the resident population was in favor.¹⁴ In one county (Webb), both census material and easement ownership lists were available to researchers. But as stated above, they are one-off sources and are tied to a particular infrastructure and planning program.

Applying the methodology in practice

In developing the methodology to identify absentee lot owners our purpose was twofold. First, to become familiar with possible sources of information, and second, to test out one or more of those sources for the level and quality of information that it could yield. Of the five possible sources outlined above, four have serious limitations. Two of the methods are essentially windfall sources (developers’ archives and occasional planning office surveys). Another source—colonia residents—is at best a secondary and tangential source. While the County (property) Records Office is an important source of information, the actual data provided are likely to be incomplete. Although the Records Office is open to public scrutiny, the actual process of investigating property ownership through Public Records is not a standardized process which one can readily learn in a couple of hours. Most officials are helpful, and some document searches are very straightforward, but others require a full understanding of the structure and interaction between the different databases available.

Identifying absentee owner addresses

We have tested and used this methodology in two pieces of research starting with a 1998 pilot of four border colonias, and later with a more full fledged survey of some 20 settlements in both border and non-border locations (Ward and Carew, 2000; Ward et al., 2000). In both surveys, we consistently found that the most efficient and complete method for identifying owners is through the use of the county tax records, and this is the one that we describe in detail below.

In both surveys our first step was to obtain plat maps for each. As mentioned above, these are filed at the County Property Records Office, and searching on the

colonia name in the computer or paper index files readily accesses the maps. Possible problems arising here are that the recorded name may vary from the name commonly used in the colonia itself. Also, there may be multiple listings for a single subdivision due to subsequent modifications to plat maps after the original filing. In such cases, the earliest entry is usually the most appropriate, since later modifications affect only a small area of the subdivision.

The next step was to verify each lot on the ground using either “windshield” or “walkabout” surveys. Here we identified those lots that appeared to be occupied; those with an unoccupied dwelling structure; and vacant lots with no residents or dwelling structures. This annotated plat map formed the basis of identification for lots with (apparent) absentee owners. Depending upon the overall potential sample size (i.e. the number of vacant lots or unoccupied dwellings), we made a decision about searching on all lots or taking a sample. In some cases we were obliged to include all vacant lots, while in other large settlements with several hundred lots many of which were unoccupied, we could afford to work with a 50 percent sample. The aim was to secure 20 or more responses from absentee owners in each settlement that would allow us to begin to form a baseline about “no-see-ems” which could later be compared with a survey of residents for those same settlements. The next stage was to visit the Tax Record Office and using the block and lot information to specify lots (as opposed to street addresses), we obtained the names and addresses for each absentee lot owner.

More often than not, the name and address information appeared to relate to private individuals who start paying taxes from the time that they begin to make payments on the lot. However, occasionally in an individual settlement the name of the individual developer also appears frequently. This could mean that the lot is unsold or has been repossessed, such that the developer pays the property taxes. It is also quite possible that the developer is still trying to sell lots (illegal since 1995 under HB1001), and in order to avoid detection was leaving the taxpayer information in his own name. (This was always a probability, particularly with unscrupulous developers.) However, upon contacting one or two developers about this scenario, we were informed that these were cases where the purchaser had not yet finished making payments, and the developer was passing on the taxes from lot repayments.¹⁵

¹⁴In the case of the easements survey the methodology adopted by the Webb County Planning Office was to hire a title-abstracting firm which first compiled a list of all lot owners from tax records. While complete it was also inaccurate since the names on the tax bill are not always the owners (see our note earlier). Their second step was to cross check ownership to the greatest extent possible through the property records where many, but not all, are listed. Thus while not perfect, it provided the best and most accurate information possible.

¹⁵As discussed earlier, although the purchaser was responsible for the tax payment, these were made to the Tax Office through the developer. The tax information would be updated upon completion of the payment schedule and transfer of title. We asked if it might be possible to receive a list of purchasers for those absentee lots where the developer’s name was listed in the tax records and were told to submit a written request to this effect, but ultimately this request went unanswered.

Table 1
Summary of characteristics of absentee lot owners' addresses and response rates for telephone and mail contacts using those addresses

	Total pilot	Total full survey
<i>Sample data</i>		
Total lots	1054	9850 ^a
Sample size	644	2212
Absentee lots	191 (30%)	2713 (28%) ^b
<i>Of absentee lots</i>		
"Institutional" address	29 (15%)	250 (11%) ^c
Local address	117 (72%)	1090 (77%)
Non-local addresses	45 (27%)	322 (23%)
<i>Contact by phone</i>		
Confirmed tel. numbers ^d	42 (24%)	274 (38%)
Interviews by tel.	11 (26%)	38 (14%)
<i>Contact by mail</i>		
No. of questions sent out	123 (100%)	994
Wrong address	16 (14%)	80 (8%)
Response rate	29 (33%)	135 (14%)

^aPilot = Three settlements in Webb County in which pilot undertaken in summer 1998. Total Survey = 20 settlements in windshield survey. Sixteen settlements included in absentee mail and "phone surveys".

^bA further 4% of lots, while not vacant, appeared to have unoccupied dwellings.

^cAs a proportion of the overall total.

^dConfirmed telephone numbers included unpublished numbers, numbers where a family member informed me of a forwarding address, numbers where there was an exact match either in the telephone directory or directory assistance and no answer, or numbers where we were unable to talk to the correct person after three or four attempts. The 274 telephone numbers identified were based upon a total lot search of 726 in a smaller sample of settlements—i.e. phone numbers were not sought in all of the survey settlements.

As a brief parenthesis, this practice raises two important questions with regard to the effectiveness of the tax office methodology. First, is the practice widespread? Second, how far might it introduce bias into any attempt to compile a full list of actual absentee lot holders? In the first of these two questions, our initial evidence suggests that it is probably not very common. In only three of 16 settlements did these so-called 'Institutional' addresses make up a significant proportion (varying between 13 and 56 percent of the total addresses for that colonia). Overall within our survey population they made up 11 percent (see Table 1). Moreover, Contracts for Deed invariably contain specific clauses assigning responsibility for the tax payments to the purchaser, and in-depth interviews with key informants at planning offices as well as with tax record officials, suggested that direct tax payments by purchasers is the norm. Further research into this issue is required, but at this stage we do not believe that it distorts or introduces significant bias to our sample universe.

At first glance, the total yield of addresses provided by the tax office across the four colonias of the pilot and the 16 colonias of the full survey was very encouraging. The two samples generated an identification of a large

number of absentee owned lots (28 percent in the full survey) of whom around three quarters are recorded as living locally, i.e. in the adjacent city or within 20 miles. The remainder was non-local split between those living elsewhere in the state, and those who were out-of-state. While there was a broad spread of addresses across the state, Houston (26%) came out far ahead of other locations, followed by Dallas (15%) and San Antonio (12%)—the three principal metropolitan areas. California with 35 percent of all out-of-state absentee addresses figured as the most important state outside of Texas followed by New Mexico (14%), and the Chicago region (Illinois and Indiana with 12%). Thus, just by using these tax record survey data, we had begun to get a fix on the current location of absentee owners.

These tax-based data are also a useful source of potential data on market turnover. By comparing lot ownership records from one time horizon to another, one can get a sense of turnover in lot sales. We had not expected, of course, to find much evidence for movement in the colonia land markets, and were surprised when our questionnaire surveys of residents revealed that almost half had arrived to their current lot/home during the 1990s (Ward et al., 2000). Although absentee lot owners had generally bought much earlier, our data do show more market movement than was expected. Systematic analysis of tax record data is likely to provide at least preliminary insights into market performance, provided that one has a reasonable estimate of the size of total number of "bad" addresses which need to be discounted, since they are effectively out of the marketplace.

Mail interviews

This address listing derived from the tax records encouraged us to proceed to the next stage, which was to prepare a postal interview survey. Table 1 shows the total number of entries in our database (addresses), the sample size, the number of institutional addresses identified, the number of surveys mailed out, etc. From a total 2212 addresses in our database, we identified 250 institutional entries, and a further 245 duplicate entries. Ultimately we sent questionnaires to 994 individual addresses, which represents 46.3 percent of the total addresses in the database and 59.7 percent of the valid addresses.

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 out. Although low, this rate of return 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 questionnaires. It is

important to note that the 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 non-viable or incorrect addresses from which letters were not returned. Our estimates suggest that up to one-quarter of tax addresses for colonia lot owners may be “bad”. The much higher response rate achieved in the pilot survey is probably due to more assiduous chasing that we were able to undertake given the much smaller sample size and our focus in a single county, together with the follow-up reminder letters that we sent out. No second “reminder” letters were sent out in the full survey.

Telephone interviews

As part of this particular methodological analysis we also wanted to explore the likely yield that other survey methods might generate. Specifically, how far could the initial address listing be used to generate a list of absentee lot owners’ telephone numbers, and how far can researchers be expected to be successful in interviewing absentee owners by telephone. Using an internet search engine (AT&T’s “Anywho”) for those settlements where we anticipated that the response rate was likely to fall well below the number required, we systematically searched for telephone numbers against surname, street and zip code. As was anticipated, the yield of telephone numbers was modest overall—38 percent, probably due to the mobile nature and/or the low socio-economic status of this population (Table 1). Ultimately, however, we were able to top-up the number of interviews conducted by telephone, securing a 14 percent response rate from the total listing generated—almost identical to our mail returns from “good” addresses. Later systematic comparison between the data received from mail interviewees and personal telephone interviews revealed no significant differences across a number of key dependent variables: income, ethnicity, etc. This is reassuring, since we had suspected that bias might enter in our mail survey if it contained a higher proportion of older, better off, more literate respondents than those tracked down for one-on-one telephone interview and who would, therefore, be less self-selecting.

Absentee lot owners: who are they, what do they want?

Elsewhere we offer a detailed analysis of the data that we collected through mail interviews of vacant lot owners, and their resident colonia counterparts (Ward and Carew, 2000; Ward et al., 2000). While the purpose

of this paper has been to demonstrate how innovative methodologies may be developed to collect information about difficult-to-find populations, in closing we wish to briefly describe some of the very insightful and important findings that this particular study and methodology have generated.

Identifying and interviewing colonia residents was relatively straightforward and is not the subject of this article. However, the best way of highlighting the important differences that we have discovered between residents and their less well known and more difficult to access absentee populations, is to compare them directly (Table 2). Briefly, our research reveals quite clearly that these are substantially different populations. Absentee owners are more likely to be Mexican–American and are more ethnically diverse. While poor, they are considerably better off than the actual residents. As we have already described, they are more likely to have purchased their lots earlier, and as a result bought in at a lower price in real terms. But it is in their residential search behavior and their motives for purchase that the most dramatic differences emerge. Absentee lot owner households are not waiting in the wings to move onto their lots, once an adequate level of servicing has been provided as the conventional wisdom suggests. Quite the opposite: they are almost all homeowners already (81%), and are quite comfortable in their current neighborhoods. Moreover, few bought their lots for their own use, but rather as an investment, as security, and/or as a future gift or inheritance for their children (49%). Less than one quarter stated that the lack of services was an issue. More than half expressed no future intention to move onto the lot that they own, and of the 42 percent that do, very few see it as a likely short-term prospect (5–10 years). In reality we anticipate that few will ever do so. Indeed, some said that they would sell now if they could, and if the price was right.

We were also able to analyze land market performance for both sample populations (not reported here), and it is interesting to observe that unlike other residential land markets, land values in real terms have remained very “flat” in low-standard subdivisions. The rate of return has been low especially compared with other sectors of the land and housing market, especially in recent years. The poor are not benefiting significantly either from their land purchase investment, or from their sweat equity investment in the case of residents. Although there is some modest level of market sales, colonia land markets are not being valorized, but remain rather stunted. In part, at least, vacant lots are both a cause and an effect of this poor market performance. But one of the most important points that emerges from this study is our demonstration that the “build-it-and-they-will come” argument by government officials regarding the provision of urban services being a catalyst to greater lot occupancy and densification is

Table 2
Absentee lot owners: who are they, and what do they want?^a

Dimensions of analysis & comparison	All absentee owners returns by June 20, 2000	cf. Colonia residents
Total cases (<i>N</i>)	173	261
Characteristics		
<i>Ethnicity</i>		
Anglo	10% (16)	5% (13)
Mexican born	49% (83)	67% (166)
Mexican/American	36% (61)	27% (66)
Years in US (Mexicans)	29.3	18.3
Average household size	3.761	4.531
Total household income		
< \$600 per month	9% (13)	14% (36)
600–1000	20% (29)	32% (79)
1001–1600	29% (43)	29% (73)
1601–2500	12% (17)	14% (34)
> 2500	31% (45) ^b	11% (26)
Lot purchase: year, lot size, and real prices at 1999 values		
<i>When bought?</i>		
Pre-1980	35% (52)	20% (51)
1981–1990	39% (58)	33% (85)
1991–1999	27% (40)	47% (120)
Average cost of lot in \$ ^c	9498	13,281
Size of lot in square feet ^d	18,622	15,482
Cost per sq. foot ¢ (US) ^e	79¢	\$1.09
Principal reason for original lot purchase? ^f		
As a home in long term	21% (49)	49% (169)
To own property	3% (7)	4.9% (17)
As an investment	25% (60)	4.9% (17)
An inheritance for kids	24% (57)	9% (31)
Good deal/opportunity	17% (39)	8% (26)
Others	11% (25)	19% (64) ^g
Reasons for non-occupancy ^h		
Distance/location	9.7% (23)	NA
Lack of services	22.5% (53)	NA
An investment	23.7% (56)	NA
For children	11% (26)	NA
Moved elsewhere	9.3% (22)	NA
Lack of capital	2.9% (7)	NA
Other reason	11.4% (27)	NA
Visit the colonia?		
Yes	87%	NA
More than once a month	26% (32)	NA
Every 2–3 months	31% (38)	NA
Every 6 months	16% (20)	NA
At least once a year	27% (33)	NA
Intend to move to colonia in the future?		
Yes	42%	NA
No	58%	NA
Time span for move? (years from now)		
5–10	16% (22)	NA
11–20	27% (37)	NA
> 21	13% (17)	NA
Housing conditions		
Current tenure: own	81% (128)	ALL ⁱ
Renter	19% (31)	
Previous home tenure: own	NA	25% (58)
Renter	NA	60% (138)

Table 2 (continued)

Dimensions of analysis & comparison	All absentee owners returns by June 20, 2000	cf. Colonia residents
Sharer (kin)	NA	13% (29)
No. of bedrooms now	3.033	2.816

^aNote: Dollars and cents were converted to constant (1984) values and have been raised to 1999 equivalents in the table. NA = not applicable.

^bOf whom 44% had a total income of over \$50,000 (cf. 18% of the much lower number who earned over \$2500 a month among the colonia residents' sample).

^cTrimmed mean value.

^dTrimmed mean value. Median is 13,250. Lots in many colonias vary between $\frac{1}{8}$, $\frac{1}{4}$ and $\frac{1}{2}$ acre sizes (5445, 10,890 and 21,780 square feet).

^eTrimmed mean value.

^fThese numbers are greater than the sample size since they are cumulative responses for first and second responses, etc.

^gOther reasons were wide ranging. "To be close to family" was especially important.

^hThese numbers are greater than the sample size since they are cumulative responses for first and second responses, etc.

ⁱThe survey was targeted only at owners. Renting is prohibited, but there is a modest level of sharing lots/homes with kin. Fourteen percent of lot owners interviewed had kin sharing on their lot, 41% of whom had some co-ownership rights to the lot.

misplaced. More direct interventions are required that will prime colonia land markets in order to make them operate more smoothly and efficiently (Ward et al., 2000).

Conclusion

This paper has sought to address a perennial methodological problem in the analysis of communities: namely how to trace and survey "invisible" populations. Specifically, these may be former residents who have left the community, or as in the current project, to gather information about absentee lot owners in Texas colonias. In Texas these vacant lots are widespread, sometimes even constituting the majority in any one settlement.

In order to begin to systematically track these absentee owners, we began by identifying the nature of lot acquisition processes in Texas colonias, especially the Contract for Deed mechanism that is widespread, and to follow the paper trail that lot purchase leaves within the public and private record. Two principal sources of information emerge: deed titles and tax property tax records. In both cases there are significant caveats that inhibit the creation of a complete and perfect record. On the former, notwithstanding recent (post-1995) legislation which has sought to prevent loopholes and non-registration, there continue to be serious shortcomings in the property title register's capacity to serve as an identification for current colonia owners—whether these are absentee or not. However, in the counties in which we worked property tax records are relatively complete, although here, also, problems arose especially where taxes were paid indirectly by developers.

Working with property tax records matched with vacant lot ownership in three colonias, we have demonstrated that it is possible to trace owners for subsequent interview. Since mail out interviews have a notoriously low rate of yielding completed interviews, we sought to ascertain how far address could be

converted into telephone numbers. In the US this also yielded positive results and a number of telephone interviews were also conducted. The data suggested no significant bias in the respondent populations sampled by the two techniques. We have shown that tracing absentee lot owners is feasible. Of course, tracking them down and interviewing them is another story, but we hope that this article may encourage researchers to gather those data, and that they will no longer be deterred by not knowing where to start.

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References

- Brown, C., 1999. Sojourners or Citizens: Mexican and Mexican Americans in Wilmer. Unpublished Masters Thesis, Institute of Latin American Studies.
- Carroll, A., 1980. Pirate subdivisions and the market for residential lots in Bogotá. City Study Project # 7. The World Bank.
- Davies, C.S., Holz, R., 1992. Settlement evolution of 'colonias' along the US–Mexico border: the case of the Lower Rio Grande Valley of Texas. *Habitat International* 16 (4), 119–142.
- Ditton, J., 1977. Part Time Crime: an Ethnography of Fiddling and Pilferage. Macmillan, London.
- Doebele, W., 1994. Urban land and macroeconomic development: moving from access for the poor to urban productivity. In: Jones, G., Ward, P. (Eds.), *Methodology for Land and Housing Market Analysis*. University College London Press, London, Lincoln Institute of Land Policy, MA, pp. 44–54.
- Dowall, D., 1991. *The Land Market Assessment: A New Tool for Urban Management*. Washington: The World Bank/UNDP/UNCHS.
- Gilbert, A., Ward, P., 1985. *Housing the State and the Poor: Policy and Practice in Latin American Cities*. Cambridge University Press, Cambridge.

- Jensen, J. A., 1996. Regulation of Residential Contracts for Deed in Texas: Senate Bill 336 and Beyond. M.A. Professional Report, LBJ School of Public Affairs, UT-Austin.
- Jones, G., Ward, P. (Eds.), 1994. *Methodology for Land and Housing Market Analysis*. University College London Press, London.
- Larson, J., 1995. Free markets in the heart of Texas. *Georgetown Law Journal* 84, 179–260.
- LBJ School, 1997. Lyndon Baines Johnson School of Public Affairs. *Colonia Housing and Infrastructure, Vol. I. Current Characteristics and Future Needs; Vol. II. Water and Wasterwater. Policy Research Report No. 124*. The University of Texas, Austin.
- Mettling, S.R., 1982. *The Contract for Deed*. Real Estate Education Company, Chicago.
- OAG (Office of the Attorney General, Texas), 1993. *Socio-economic Characteristics of Colonia Areas*. White Paper. Office of the Attorney General, Austin, TX.
- OAG (Office of the Attorney General, Texas), 1996. *Forgotten Americans: Life in Texas Colonias*. Texas: OAG.
- Portes, A., Bach, R., 1985. *Latin Journey: Cuban and Mexican Immigrants to the US*. University of California Press, Berkeley, CA.
- Potter, R., Watson, M., 1999. Current housing policy issues in Barbados with particular reference to vacant subdivisions. *Third World Planning Review* 21 (3), 237–260.
- Robson, B., 1998. *Those Inner Cities: Reconciling the Social and Economic Aims of Urban Policy*. Clarendon Press, Oxford.
- Schaffer, R., Smith, N., 1986. The gentrification of Harlem. *AAAG* 76, 347–365.
- Siembieda, W., 1994. Measuring the price and supply of urban land markets: insights on sources. In: Jones, G., Ward, P. (Eds.), *Methodology for Land and Housing Market Analysis*. University College London Press, London, pp. 146–158.
- Smith, N., 1996. *The New Urban frontier: Gentrification and the Revanchist City*. Routledge, London.
- Ward, P.M., 1999. *Colonias and Public Policy in Texas and Mexico: Urbanization by Stealth*. The University of Texas Press, Austin.
- Ward, P.M., Carew, J., 2000. Absentee lot owners in Texas colonias: who are they, and what do they want? *Habitat International* 24, 327–345.
- Ward, P.M., Stevenson, R., Stuesse, A., 2000. Residential land market dynamics, absentee lot owners and densification policies for Texas colonias. An LBJ School of Public Affairs Policy Report, 251pp. Also published as a Lincoln Institute of Land Policy Working Paper. <http://www.lincolninst.edu>.
- Wilson, R., Menzies, P., 1997. The colonias water bill: communities demanding change. In: Wilson, R. (Ed.), *Public Policy and Community: Activism and Governance in Texas*. University of Texas Press, Austin, pp. 229–274.