

***Model Subdivisions: The New Face of Developer Lot Sales for  
Low-income Colonia-type Housing in Texas<sup>1</sup>***

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***Theories of Informal Urbanization and Land Market Behavior: Insights from Texas Low-Income Self-Help Housing.***

“Irregular settlement” and self-building among the urban poor are widely recognized as an important segment of the urbanization process in developing countries (Math  y 1992; Payne, 1989). But its historical and contemporary importance is less well documented and understood in developed nations such as the US (Harris 1998; Ward 2012). In Latin America and elsewhere, informal self-help housing development has traditionally provided the primary means through which low-income workers without access to formal financing entered the housing and land market and self-built and extended their homes progressively over time – as their incomes and savings allowed – a process widely known as consolidation (Turner 1976). Although social and economic costs are undoubtedly tied to this type housing production (Harms, 1982; Burgess, 1982), self-help is also viewed as a viable alternative to home ownership under conditions where the state (public sector) is unable or unwilling to provide worker housing, or where economic conditions are associated with urbanization and globalization and continue to depress wages and limit housing access for lower income populations. This continues to be the case in cities of less developed countries, but many readers may be surprised to find that informal housing production practices are alive and well in Texas and in other southern states of the US where a similar economic logic has led to the self-built and self-managed nature of homeownership for a large number of poor and very poor (largely) Hispanic populations (Texas 2014; Durst, 2015).

This paper examines land developers opening up lot sites for informal homestead development in Texas for the low-income, in particular sales corresponding to the rise of “Model Subdivisions” as an alternative to colonias. Although the thrust of the analysis is empirical, we point out how this work also engages with two realms of contemporary theory: namely “informality” and “critical theory.” First, the “informal sector” in the areas of labor and housing markets have been widely analyzed beginning with Hart’s (1973) analysis of unaccounted employment in Ghana; research that quickened in the late 1970s (e.g. Bromley et. al. 1978) and which documented the widespread nature of informality in housing production in less developed countries. The latter involved unregulated and uncontrolled capture of vacant un-serviced land, the unaided self-building process by low-income households, and the myriad informal ways in which households tapped into infrastructure (Gilbert and Ward 1985; Baross and van der Linden 1990; Payne 1989). In early iterations the informal sector was analyzed dualistically (i.e. the formal versus informal sectors), but by the early 1980s the informal sector was no longer viewed as a negative and separate residual outcome of modernization, but as a more permanent and dynamic part of the market in which informal activity and production was an intrinsic and often positive element in capitalism’s development. Increasingly, expanding informal sector practices were incorporated into new policy approaches and advocacy such as aided self-help (Ward 2012), and deregulation of permits and transaction costs (De Soto 1989). Moreover, in industrialized economies and labor markets Portes and Haller (2010) offered a similarly functional typology of the goals of informal activities: as survival strategies; as dependent

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exploitation by the formal sector; and as growth informality among small businesses that mobilize social networks to good effect.

Three contemporary approaches to informality may be identified (Mukhija and Loukaitou-Sidereis 2014: 6-7): *structuralist* approaches which explain informality as an outcome of deepening of capitalism, labor abundance, and the inability of the state to regulate employment and land use activity; *neoliberal approaches* which argue that the over regulation and bureaucratic red tape force workers and residents to find workarounds (De Soto, 1989); and *reformist approaches* that recognize the underlying economic structure as the driver of informality, but view informality as both entrepreneurial and positive in so far as they may contribute to supply of housing, survival strategies of the poor, and the integration of low-income home owners. Today the latter view is widely held, and speaks most closely to the urban context described here – namely the periurban land development of *colonias* and informal subdivisions that house poor families through what are often highly rational responses to contemporary low-waged labor markets and the structural nature of poverty. Nor is this a phenomenon only to be found in very low-income areas of the southern US: contemporary research reveals that informality is commonplace throughout the nation across several dimensions (housing and labor markets, community gardens, sidewalk sales, loft and garage conversions, food trucks, financing and subsistence, etc.) all of which may be unregulated or only lightly regulated (Wegmann and Chapple 2014; Mukhija and Loukaitou-Sidereis 2014).

The second area to which our analysis of land developer and development practices speaks is that of “critical theory” which understands space as malleable, and as a process of reconstruction as different waves of rent seeking capital intervention shapes social power relations (Brenner 2010). Critical theory has also lead to new forms of contestation and “Rights to the City” movements that affirm the right to participate in the creation of urban space as well as the right to appropriate space (Purcell 2002). David Harvey’s classic work in the 1970s and 1980s argued that urbanization and state intervention involved switching capital investment between sectors and modes of land development in order to extract profit from urban development. This involved the “creative destruction” of past defunct and devalued urban landscapes now primed for new investment cycles. More recently he goes further (Harvey 2008), and sees the right to the city as an appropriate way to challenge the creative destruction that lies at the core of the capitalists’ production of urban space and which lead to new rounds of exploitation of working class populations displaced to the periphery (see also Marcuse 2008).

Most of these arguments and analyses focus upon the inner-city rather than the peri-urban settings discussed here. However, we see important theoretical parallels between self-help housing activities and land developments in urbanizing contexts of Latin America. Namely the ways in which our analysis flags the ways in which new rent-seeking behaviors by land developers threaten to exacerbate and intensify the articulation of exploitation of low-income Hispanic homesteaders as these actors expand their operations into peri-urban rural areas, and as property markets are recycled from agriculture to low density impoverished residential land uses. Although a different face of urbanization and “sprawl” to that of the inner city and the recently observed “suburbanization of poverty” (Kneebone and Berube, 2013), land developers targeting low-income would-be home owners also place households in conditions of extreme vulnerability and risk of failure as a result of their profit-seeking behaviors.

### ***From Colonias to Model Subdivisions***

In this paper we explore land sales practices corresponding to the rise of low-income subdivisions in Texas under Model Subdivision Rules (MSRs). MSRs were enacted in 1989 as part of a federal requirement that would tie funding for infrastructure provision in existing impoverished housing developments – called *colonias* – so long as state authorities moved to prevent any further growth. Thereafter, developers were permitted to continue to promote lot sales only in subdivisions that contained basic infrastructure (water, paved streets, etc.) and wastewater or septic connections for lots one acre or less (Texas Attorney General

2014). This intervention was in response to the estimated 1,100 colonias that were developed without services and infrastructure during the 1970s and 1980s in the rural hinterlands of cities throughout several border counties, especially those in the Lower Rio Grande Valley (Cameron, Hidalgo and Starr counties), in Webb and Maverick counties, and in El Paso in the west. By 1989 an estimated 350,000 people lived in self-built or self-managed dwellings, the latter usually being trailer homes moved onto the lot site that served as the core dwelling for future self-built additions (Davies & Holz 1992; Ward 1999).<sup>2</sup>

Colonias and model subdivisions – the latter referencing the post 1990 settlements created under Model Subdivision Rules – as well as other informal housing subdivisions do not function in the same way as most land and housing markets. In particular the lack of access to formal financing for low-income homesteading underpins the informal nature of land and housing development. On the supply side developers are the primary actors and seller financing and control over the contracting and title process are central to their business. This also explains why the market inhibits owners from later selling-on their property, since they, too, must invariably engage in seller financing to a new incoming owner. On the demand side is the desire for home-ownership and the opportunity to progressively build and extend their home using “sweat equity” and self-help when resources allow. However, for the most part these are low and very-low-income Hispanic households: median household incomes in these border counties are among the lowest in the country. Though a majority of residents live in deep poverty (57% of owner households have incomes of less than \$1,600 a month), about three-quarters of residents own or have the goal of owning their homes (Ward, Way, Wood 2012, Executive Summary pp. IV-V).<sup>3</sup> Households have high rates of marriage and relatively low rates of divorce,<sup>4</sup> forming relatively stable households as well as relatively large families (ibid). The average household size far exceeds both Texas and national averages.<sup>5</sup> Once established in a colonia, low-income owners tend to remain there and build onto their dwelling environment gradually over a long period of time through a process called “housing consolidation,” which ultimately creates a substantial housing asset worth \$50,000 or more (Durst and Ward 2013). In that same study (Ward, Way and Wood 2012, 2015), three-quarters of owners were found to have been living on their lots for ten or more years. It is under these conditions of systemic poverty coupled with the dogged determination to achieve homeownership that colonia developers used seller financing to promote the sale of lots without services or infrastructure under a Contract for Deed (CfD; Way 2009). Under such title arrangement the purchaser contracted to buy the lot typically with minimal down payment<sup>6</sup> and low affordable monthly payments (100-200 dollars), at what were high interest rates (12-18%) over a set amortization period. Only when the payments were completed 10-30 years later would a formal title deed

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<sup>2</sup> Current estimates place the numbers at 2,300 colonias and 400,000 persons (Texas Secretary of State 2014) primarily from further growth along the border in the early 1990s and from residential infill of vacant lots (Rojas et al. 2012). These data do not include the scores of families in subdivisions platted under the MSR that live under similar housing conditions as colonias, but which are not defined as colonias.

<sup>3</sup> We use the word “own” to describe residents to whom title has been conferred, and to those making payments via a lease-to-own or a contract for deed arrangement. The demographic information in this paragraph was derived from our survey of 1,287 residents in eight Texas counties between January and April 2012. The remaining 25% are renters (19%) and concession residence from kinsmen (6%).

<sup>4</sup> Of those households we surveyed, 75% had a married head of household, only 7% had been divorced, and only 6% were single (Ward, Way and Wood, 2012: Chapter 5, page 5).

<sup>5</sup> The average household size of our survey respondents (4.16) is higher than the US and Texas average of 2.63 and 2.82 respectively, with larger household sizes and more children found in the newer subdivisions we surveyed. US Census *Quick Facts* period 2009-13.

<sup>6</sup> “Even as low as \$25 or as little money the potential purchaser has in his pocket,” according to one developer (see Cecil McDonald’s recipe for colonia creation, in Ward 1999:vii).

be issued and residents finally possess land equity (Ward 1999).

Contract for Deeds first came under fire during the 1980s because of their lack of buyer protections and aggressive foreclosure clauses that many felt discriminated against the state's most vulnerable populations (Jensen 1996; Larson, 1995; Way 2009). Contracts usually stated that lots and even property (dwellings and other construction) could be repossessed without compensation with the effect that many lots were pulled back and resold much more aggressively than what is legally allowed under formal deed transactions.<sup>7</sup> Predominantly Spanish-speaking buyers, many of whom had low literacy, were at the mercy of developers, oftentimes lacking clear understanding of the terms and ultimate cost of the financing, forfeiture clauses and infrastructure provisions, especially in the earlier developments (Larson 1995; Way 2009). In addition, either the developer or the buyer had the option to record the contract in the local county records office, but most did not do so such that many CfDs or sales without written contracts (receipts, verbal agreements, etc.) went unnoticed and unrecorded (Ward, Way and Wood 2012, 2015) which provided another obstacle to obtaining clear title.

In part because of the danger of forfeiture for missed payments many buyers did not move onto the lot immediately, only occupying their lots later, building out their dwelling over the following 10-20 years (Durst and Ward 2014). Along the way they lobbied and contracted essential services from private providers and the county. Others were less successful in the medium- to long-term: some failed to make timely payments and lost their stake while others appear to have just walked away. Thus, in the late 1990s it was not uncommon for individual colonias to have between 25-50% of the lot sites still unoccupied, even though most had been sold (Ward and Carew 2001, 2002).<sup>8</sup>

Between 1989-95, the lack of consumer protections, extremely poor living conditions, extant hazardous health conditions, and lack of infrastructure prompted concerted action from state authorities, triggered by federal community development funding to counties included under the Economically Distressed Areas Program (EDAP). The Texas Water Development Board was charged with providing infrastructure funding in established colonias. Participating counties adopted the MSRs for new developments, forcing developers to install water and wastewater infrastructure by the time of plat map (showing property boundaries) approval, or to place a bond on the cost of their provision. Although no new colonias were permitted, some developers found loopholes or simply ignored the law. As a result, some of the most egregious developers were indicted, fined or imprisoned, and their developments sequestered, and the "build it or bond it" provision was enhanced and enforcement strengthened. Moreover, the Texas Colonias Fair Land Sales Act and subsequent legislation in 2001 and 2005 laid down a number of measures to provide buyers with greater consumer protection (House Research Organization 2013), including formal recording of CfDs and proper disclosure of available utilities, financing, penalty, and default terms (in Spanish if the transaction was mainly in Spanish). As a direct result of this legislation most developers began to formally record existing and new CfDs, but by this time many had largely sold out their colonia portfolios and were already looking for new options in the low-income real estate market (Ward, Way and Wood 2015). Indeed, a comprehensive border study on the impact of the CfD legislation found that developers in the border region have moved away from using CfDs in favor of more formal warranty deeds,

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<sup>7</sup> In 1995 the Texas Colonias Fair Land Sales Act required compensation if 40% of the purchase price or 40 consecutive payments had been paid.

<sup>8</sup> A decade later a sample survey of 20 colonias and Google Earth™ review of 11,085 individual lots across those colonias revealed that infilling by new buyers and former absentee owners in existing colonias had led to some reduction in vacant lots (a declined to just over 20% [Rojas et al. 2012]).

deeds of trust, rent-to-own deeds, etc. as part of their switching out of colonia land development into the legal promotion of model subdivisions (ibid; Ward 2014).

In the remainder of this paper we focus on the nature of subsequent developer sales practices in the post 1990 settlements created under Model Subdivision Rules by the legislative provisions of 1989 and 1995. We assess the extent to which model subdivisions (henceforth MSs) appear to provide a viable route to self-managed homeownership among lower-income populations or whether residents face similar housing and titling obstacles as those confronted by yesteryear colonia homebuilders. Until very recently there was virtually no systematic research on how subdivisions in unincorporated areas came to substitute for colonias in the border counties after the adoption of the model rules. Thus there is little appreciation of the scale to which MSs might constitute a new generation of “stealth urbanization” and very poor standards of housing development for geographically marginalized populations.<sup>9</sup> One exception is Durst (2015) who uses GIS analysis to reveal just how extensive and significant MSs have become – some 800 have proliferated across the Texas border containing over 34,000 lots. Although infrastructural conditions in these settlements conform to the model subdivision rule requirements, their housing conditions are generally worse today than those found in state-designated colonias which began earlier but have been consolidated and gained basic infrastructure from public and private interventions since 1990. Moreover, because lots in MSs are generally larger than those found in traditional colonias and the purchase includes costs of infrastructure provision and utility service, financial burdens on residents in terms of overall cost and monthly repayments are inevitably greater – as we discuss below.

Several studies document that the socio-economic profiles of populations in colonias and MSs are very similar (Donelson and Esparza 2010;<sup>10</sup> Olmedo 2013; Durst and Ward 2015), and are not much different from other informal self-help housing subdivisions in non-border areas (Sullivan and Olmedo 2014; Ward et al. 2012). Border MSs and colonias and non-border informal homestead subdivisions (IFHSs) are almost entirely comprised of Mexican and Mexican American households with large shares of children and elderly. In MSs and colonias three out of five households report incomes of less than \$1,600 per month and roughly one-quarter have no one in paid employment (Ward et al. 2012; Olmedo 2013); meanwhile three out of five IFHS households report monthly incomes of less than \$2,000 and 16% have no one in paid employment suggesting that they are slightly less poor than their border counterparts (Sullivan and Olmedo 2014). Most are Mexican-origin (75% were born in Mexico but with on average 18 years US residence and most are legal residents or citizens). The only significant difference is that colonia household heads are much older: 45% and 83% of MS heads respectively were less than 40 and 50 years of age, compared with 26% under 40 and 52% under 50 for colonia residents (Ward, Way and Wood 2012). As well as being younger, MS households are larger: 5.2 persons per household, compared with 3.8 in colonias (ibid), clearly indicating that MS population cohorts are younger and at the early phase of family building and homesteading. However, they are broadly similar to that colonia cohorts at the equivalent stage of their housing ownership trajectory in the 1980s and 1990s, but today many colonia households have completed the family building part of the life course, and adult children have left and set-up residence on their own (Durst and Ward 2014).

Whether in colonias or MSs, it is clear that poverty, health and housing are inextricably tied to the nature of low-income labor market dynamics and the inadequate supply of affordable housing, especially for would be homeowners. Many workers in these community types face high unemployment rates and fall

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<sup>9</sup> The subtitle of Ward’s 1999 volume, *Colonias and Public Policy in Texas and Mexico: Urbanization by Stealth*.

<sup>10</sup> In the Donelson and Esparza volume, see especially the chapters by Giusti; Czerniak and Hohstadt; Pavlakovich-Kochi and Esparza; and Mukhija, all of which touch upon the economic aspects of colonias and their populations.

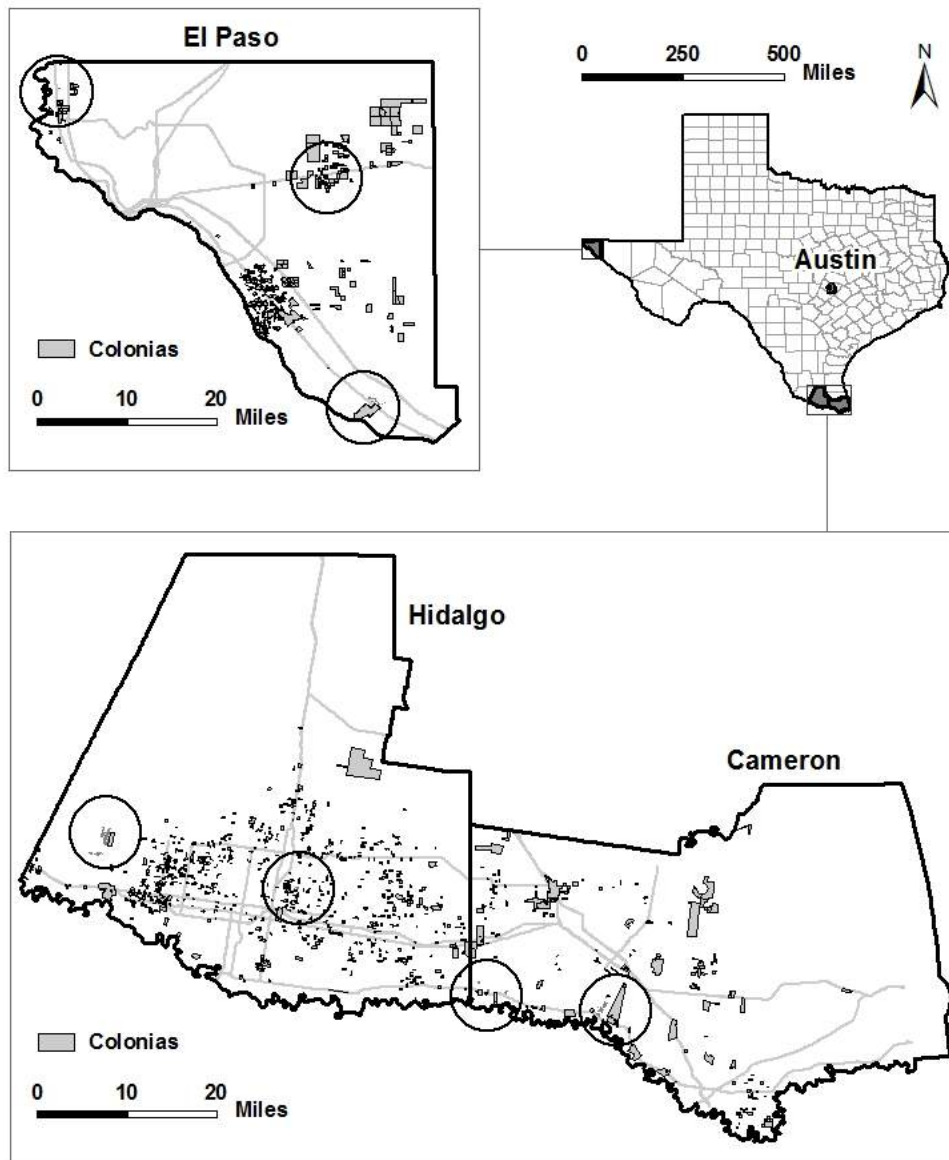
into labor intensive, lower paying construction and service occupations (sales, food preparation and serving, building/grounds cleaning and maintenance, etc.). Such skills are not readily transferable across occupations, so workers face little job mobility, and have higher rates of informal cash-based subsistence or seasonal work (e.g., agricultural), especially in times of economic downturns.

The initial spur for this paper arose when, as a part of a 2012 major Contract for Deed study commissioned by the Texas Department of Housing and Community Affairs (TDHCA), we came across two large and relatively recent MSs, Pueblo de Palmas in Hidalgo County and Drake in El Paso County, the former of which was being very actively promoted by the developer via seller financing. In those two MSs our preliminary study revealed extreme substandard conditions in many of the homes with little prospect of a successful self-building trajectory in the short- or medium-term (Ward, Way and Wood 2012). We began to suspect that developers were using sales and repossessions of lots and new types of deeds as a system of portfolio promotion similar to that which occurred in colonias, and sometimes on a very large scale. A preliminary pilot study of randomly selected lots in those two subdivisions, tied to online transaction records in their respective Central Appraisal Districts revealed a high “flip” rate (repossessions by the developer), often followed by rapid resale of the foreclosed property. This was especially the case in Pueblo de Palmas.

Therefore our aim here is to extend and deepen that preliminary research about what we will refer to as “flip” rates and housing conditions to a wider number of MSs in Cameron, El Paso and Hidalgo counties where most of the colonias and MSs are located. We explore whether appraised land and house improvement values, lot sales, titling, and repossessions by developers vary by size, location, and period of development. Our mixed-methods approach finds that many buyers in MSs lose their lots early in the homesteading process and the titles are returned (“flipped” back) to the developer who quickly resells, suggesting that some developers exploit this strategy of repossessions as a deliberate part of their sales portfolio. We also show that flips and shorter flip spans (the time between the initial sale and the repossession) are more likely to occur in more recently platted subdivisions, and in cases where residents are less likely to claim home exemption tax relief on their properties. Not surprisingly given this ongoing insecurity of tenure and the higher costs associated with purchasing into a MS, many buyers have great difficulty in constructing or placing an adequate dwelling structure on the lot. Their low-incomes are insufficient to meet the cumulative costs of household expenses, private transport (public transport is rare if at all) and the monthly lot payments, let alone make a substantial investment or timely improvements on the home. Thus, despite having the basic infrastructure, MSs today contain some of the worst housing in Texas. We expect that these findings will give pause to policy makers, both about the rapid expansion of model subdivisions and the poor housing conditions within them, as well as about the extent to which developer practices can be exploitative of the housing aspirations of this new generation of self-helpers – especially when there is little or no selection and approval criteria that would assess a household’s capacity to purchase and successfully homestead under these new forms of seller financing.

### ***Data Sources and Methodology***

In the absence of normal housing market transaction data (sales, land and housing prices, formal financing contracts, etc.) this research uses online Central Appraisal District (CAD) data – the primary public source for residential property information – to assess property and developer transactions across ten model subdivisions in Cameron, El Paso and Hidalgo counties (Figure 1). When CAD transactions provide only partial evidence of property defaults, official (online) public records from the respective county clerk offices are used to complete the analysis. Additionally, site visits and six key informant interviews are performed to document housing conditions, abandonments, vacancies, and expert insight on the barriers to homeownership across the subdivisions.



**Figure 1. Model Subdivisions Sampled (locations encircled)**

Sources: Maps created using the Texas Attorney General (2013) Colonia Geographic Database and GIS property parcels from respective county CADs (2014). MSs are oftentimes located clustered alongside established colonias.

Subdivisions were purposively selected on the basis of their location adjacent or close to the 2012 random colonias survey about CfDs undertaken in the TDHCA study (Ward, Way and Wood 2012). Each subdivision was developed in multiple phases or sections (typically adjacent), and varies in the number of lots it contains (Table 1). The selection of four cases – Drake, Pueblo de Palmas, Rancho Grande South, and Taurus Estates – is also based on their size, containing as they do a very large number of lots, as well as the observed variation in housing conditions. All of the subdivisions except Drake were developed post-1995 after the passage of the revised platting legislation. In Drake the first phase commenced in 1992 with 72% of the lots platted between 1996 and 2000, thus containing facets of both colonias and MSs.

**Table 1. Background of Model Subdivisions Sampled**

		# Lots 3,484	Lots Sampled 1,247	Plat Years 1992 to 2011	Principal Developer
CAMERON	La Gloria Canal	119	All	1999 to 2004	Dunkin-Shofner Land Development
	La Iglesia Vieja	75	All	1997 to 2000	Fincher-Russell Partnership
	Rancho Grande South	887	231 (25% R)	1994 to 2004	El Valle Investments
	Santa Maria Norte	74	All	2004 & 2005	La Cuesta Sol Development & Dunkin-Shofner
EL PASO	Deerfield Park 3	62	All (6 C)	2000	East Montana Properties
	Drake	544	144 (25% R)	1992 to 2002	Dale & Tonya Drake (Drake / Bella Vista Enterprises)
	Rancho Estancias	85	All (18 C)	1995	A D Jr Greenwood
HIDALGO	Pueblo de Palmas	1,164	236 (20% R)	2000 to 2011	John G Frisby (JGF Land Co), Steve Griffith & others
	Seminole Valley	118	All (10 C)	1996 & 1998	Jack McClelland
	Taurus Estates 11 & 21	356	142 (40% R; 5 C)	2004 & 2007	Pena Chapa Development, Leonel Bazan & others

Notes: R – % weighted random sample that includes an oversample in individual phases with small N.  
C – # commercial properties omitted from the analysis.

In total, 1,247 lot records were gathered for the study (Table 1). In the six smaller subdivisions all of the lots are included in the analysis with the exception that the very small number of commercial properties are dropped since our interest here is residential transactions. In the four larger subdivisions, given the manual and time intensive nature of the data collection, a weighted random sample is undertaken based on the number of lots developed in each phase, with an oversample applied to individual phases with fewer lots to ensure enough properties are represented. Overall the random sample sizes range from 20% to 40% of the total subdivision lots.

*Brief Note on Variables that Shape Land Prices*

Within formal land market analysis location to valued amenities and/or distance from the city center are likely to be an important determinant for the type of residential development and property prices. However, in informal land and housing markets (i.e., colonias and MSs) these criteria apply far less. Invariably these settlements form outside the city boundaries in the rural hinterland, on varying quality (often poor) agricultural land, with homogenous lot size, land conditions and prices (see Table 1), and poor access to important quality of life services. School districts provide new schools that follow colonia and MS



development, so quality education facilities do not figure as a residential location determinant as they might in places where schooling choices are more established.

Social criteria play a more central role in informal land and housing markets. For example, Olmedo (2013) ranks the top two amenities individuals place value on in their purchasing decision in a study of 343 colonia and MS heads of households: 1) familial ties are the single most important factor (n=133); followed by 2) a combination of low cost lots, affordability, ability to build in phases, and access to seller financing (n=147); 3) a liking of the area and people (n=78); 4) wanting to own their own piece of property and/or stop renting (n=58); 5) job opportunity (n=32); while 6) schools played a minimal role in the location decision (n=11). Interestingly, proximity to Mexico (via international bridges) was also mentioned (n=9). Hence, both affordability/discriminatory constraints and self-selection/sorting processes (Gobillon et al. 2007) create a centrifugal force to housing locations for the low-income and explain why informal housing developments thrive in Texas. Housing options for the poor are not simply market driven, they entail overlapping (and bounded rational) considerations that include choice and constraints such as resources, as well as class and social disparities that create or force upon people a sense of comfort around others with similar characteristics.

### Recording Repossessions or “Flips”

Owner and property information, homestead exemptions, lot size, appraisal roll histories, and deed history transactions are the primary fields captured from the CAD records. The deed transactions are central to our investigation of developers and property turnovers, and are also used to enumerate the extent to which certain types of less common transactions (CfDs and Deeds in Lieu of Foreclosure) appear in MSs, alongside the usual deed sales/transfers and re-sales after flips. The drawback of using the CAD data is that the system only provides the three most recent deed transactions for each land parcel, which limits how far back in time one can view the developer’s history with a specific lot. This is especially problematic when studying colonia title histories that go back several decades and where the title may have changed hands several times. However, in our analysis here the relatively recent development of MSs led us to hypothesize that the history of transactions is mostly captured in the last three transactions’ window, and this generally proved to be the case.

In this paper a “flip” formally designates the transfer of property from a “grantee” back to the “grantor”. Such transfers back to the seller result from purchase defaults whereby the seller is typically the developer or related financial or holding company. In very few cases the transfer is back to a former resident owner (whom we call “consumers”), or to what appears to be a third party bank or investors that purchased the mortgage lien in a secondary market. Flip transactions are almost always likely to be just the lot, and where a dwelling structure exists, it is likely to be removed by the putative owner (relatively easy if it is a camper or trailer home), or cannibalized and carried off-site if it comprises a shack or more permanent structure that cannot readily be moved to another site. While our method takes into account third party loan providers, they in fact show up in very few title transactions, further confirmation that – as in the case of colonias – formal or traditional bank and mortgage financing is little used in MSs (Giusti and Estevez 2011; Durst and Ward 2014).

Foreclosures are usually not explicitly stated in the deed transactions, which is why we analyze all title transactions involved with each property to determine if a seller takes back possession of a title. Three types of flips are captured in our analysis:

1. **Full flip:** the property is transferred from grantor (seller) to grantee (buyer) then back to the grantor. Because the CAD transactions are limited to the three most recent transactions, only one full flip is possible since it takes at minimum two transactions. Example: (transaction 1) developer A to

consumer B, then (transaction 2) consumer B to developer A. In such an instance a third transaction captures whether the developer resold the property and the time span it took for the resale.

2. **Partial flip confirmed as full flip:** the CAD record shows a transfer from a consumer to a developer or financial intermediary, and most oftentimes the property was then resold to a different consumer. These partial flips occur in the earliest of the three transactions, indicating that if an earlier fourth transaction was reported on the CAD, then a full flip may have been observed. In these instances the missing transactions were located through the county clerk's office with the result that 91 out of 94 partial flips were confirmed and recoded as full flips.
3. **Consumer flip:** here the property originally sold by the developer to a consumer is sold on to another consumer. Consumer-to-consumer sales are not considered flips, therefore, unless they go back to the original owner. To the limited extent that these occur, we include them here since they offer some partial evidence of the lot and housing market turnover or activity after the initial developer title transfer. These transactions involve a sale between two parties or, sometimes a non-sale between kin (i.e., gifted or inherited property). Since we are unable to fully determine if the parties are related, the field created for this analysis combines both consumer sales and (non-sale) transfers.

The primary focus of this research was to ascertain the extent and process of foreclosures occurring among property deed holders in informal housing communities. Although many of the findings that follow are in the form of descriptive tables and statistics, regression analysis provides additional support and interpretation. We perform logistic regression with "flip" as the response variable (0=no, 1=yes), and apply linear regression to help predict the number of days it takes between the sale and repossession (flip span). In both sets of models we include the following independent variables: 1) plat year of the subdivision, 2) natural log of the lot dollar cost per acre,<sup>11</sup> and dummy variables for whether or not the property history contains 3) a contract for deed, 4) a deed in lieu of foreclosure, 5) consumer sale or transfer, 6) a claimed home exemption, and 7) MS size. Further included in the specification of the linear model for flip span are 8) the flip year, and whether or not the flip type involved 9) a bank or 10) a consumer, (the developer flip is the reference flip type).

To account for geographic variation we cluster the data by model subdivision and estimate robust standard errors to compensate for concerns about heterogeneity and lack of normality. By clustering we allow for intra-settlement correlation, relaxing the assumption that the observations be independent – i.e. independent between MS groups but not necessarily within MS groups (property characteristics within an MS may be correlated). Robustness and clustering do not affect the point estimates, only the standard errors which typically are inflated thereby providing a more conservative test for significance. In addition, to account for few clusters in our sample that may lead to over-rejection, we apply a cluster bootstrap-t procedure to provide asymptotic refinement and improve inference (Cameron, Gelbach and Miller 2008). This resampling method generates a number of random pseudo-samples and corresponding test statistic, then uses the distribution of the statistic to infer the distribution of the original sample statistic.

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<sup>11</sup> We use 2013 dollar values but land appraisals have remained stable, oftentimes not changing at all. Due to data limitations interest rates are not included but are also relatively stable (but high), indicating that this noise could be captured in the constant term of the model.

## *Findings*

### Titling

Traditionally in the past developer-promoted transactions in border colonias and in informal homestead subdivisions elsewhere in Texas were undertaken using a seller-financed CfD that often went unrecorded. The legislative changes outlined earlier meant that there was little advantage for developers to continue to use CfDs after 1995, and the conveyancing method of choice became a Warranty Deed, Deed of Trust, or other types of formal deed that would be held by the buyer from the outset (the lender would only hold on to the lien). Moreover, faced with the rising requirements to provide infrastructure, developers began to promote subdivisions that conformed to the model rules first prescribed by the EDAP in 1989. Nonetheless, as was always the case in colonia sales, seller financing by the developer continues to prevail in MSs.

Our analysis confirms that in Cameron and Hidalgo recorded CfDs are for the most part no longer in use (only four of these agreements are documented in Rancho Grande South). The exception is Drake located in El Paso, where 72% of the properties randomly sampled had been sold with a recorded CfD. There is no clear reason why the developer issued the large number of CfDs in the first place during the early 1990s, or why it remained the preferred mode of sale even after the 1995 legislation that required recording of CfDs. Expert interviews indicate that to-date, very few homes (about five) in the Drake area have benefited from a program of federal-state funded CfD conversions.<sup>12</sup>

In the earlier study (Ward, Way and Wood 2012) we had come across the use of Deeds-in-Lieu of Foreclosure (DiLoF) that were being used by some developers to expedite repossession of lots without going through formal foreclosure proceedings.<sup>13</sup> Used elsewhere in the US, the practice was successfully challenged by Texas Rural Legal Aid and led to the practice being outlawed in the 2011 Legislative Session (SB 1320). We came across a few cases where it had been used: of the three Hidalgo MSs only one DiLoF was found in Seminole Valley in a 2007 purchase; while in Cameron a total of 11 properties (out of 500 analyzed) were found to have signed a DiLoF mainly before the legislation kicked-in. It appears that developer use of DiLoF was nipped-in-the bud before it became widely practiced in Texas.

### Property Values

Residential land values are relatively “flat” within individual settlements (i.e. they cost the same for a standard size lot). Between settlements, however, they vary substantially, with the lowest square footage cost found in La Iglesia Vieja in Cameron County, and the highest in Seminole Valley, Hidalgo (Table 2). Using a weighted average, residents in Cameron paid \$0.58 per square foot for their lots, \$0.74 in El Paso and \$1.09 in Hidalgo (total 5% trimmed mean = \$0.79 with a standard deviation = \$0.26). The typical lot size across communities is between 0.5-0.6 acres, with the clear outlier being La Iglesia Vieja where buyers get almost twice the lot area (roughly one acre).

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<sup>12</sup> Phone interview on 7/21/14 with Abigail Versyp. HOME Program Performance Specialist Project Manager, TDHCA; Phone interview on 7/22/14 with Miguel Chacon, TDHCA Housing Trust Fund and HOME Program CfD Conversion Coordinator (Mr. Chacon is an independent contractor that identifies and qualifies colonia residents in West Texas for program assistance).

<sup>13</sup> An in-person interview on 11/18/2011 with Mr. Nick Mitchell-Bennett, Executive Director, Community Development Corporation of Brownsville first made us aware of this title transaction.

**Table 2. Land and Housing Market Statistics for 2013**

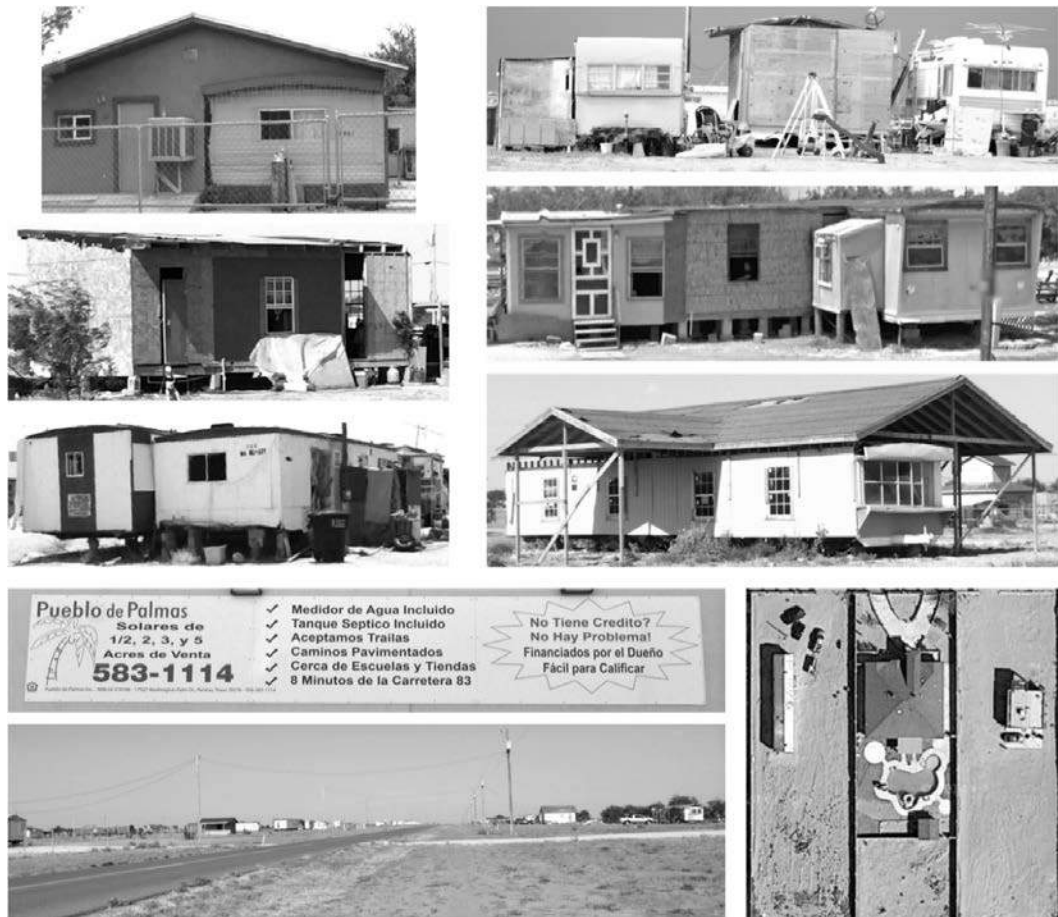
			Lot Acreage	Land Value	Land \$ / sf.	Home Value	Vacancy Rate	Home Exempt Rate	Level of Poor Housing
CAMERON	La Gloria Canal N = 119	Mean	0.672	\$16,512	\$0.56	\$22,799	18%	24%	Mild
		Median	0.620	\$16,540	\$0.61	\$20,962			
	La Iglesia Vieja N = 75	Mean	0.945	\$16,470	\$0.40	\$29,571	21%	29%	Mild
		Median	1.000	\$15,571	\$0.36	\$26,221			
	Rancho Grande South N = 231	Mean	0.595	\$17,231	\$0.66	\$42,431	28%	29%	Significant
		Median	0.500	\$16,900	\$0.78	\$42,402			
	Santa Maria Norte N = 74	Mean	0.629	\$17,538	\$0.64	\$22,176	24%	7%	Mild
		Median	0.630	\$16,900	\$0.62	\$16,025			
EL PASO	Deerfield Park 3 N = 56	Mean	0.539	\$20,173	\$0.86	\$27,978	0%	16%	Significant
		Median	0.536	\$20,061	\$0.86	\$18,623			
	Drake N = 144	Mean	0.501	\$13,082	\$0.60	\$35,588	7%	22%	Severe
		Median	0.511	\$12,844	\$0.58	\$26,520			
	Rancho Estancias N = 67	Mean	0.600	\$23,459	\$0.90	\$34,988	5%	48%	Mild
		Median	0.566	\$22,310	\$0.90	\$25,079			
HIDALGO	Pueblo de Palmas N = 236	Mean	0.520	\$24,941	\$1.10	\$19,834	14%	13%	Severe
		Median	0.505	\$24,213	\$1.10	\$15,451			
	Seminole Valley N = 108	Mean	0.501	\$28,369	\$1.30	\$46,967	8%	51%	Mild
		Median	0.500	\$28,319	\$1.30	\$34,512			
	Taurus Estates 11 & 21 N = 137	Mean	0.525	\$21,088	\$0.92	\$9,400	10%	14%	Severe
		Median	0.501	\$21,631	\$0.99	\$8,231			
<b>Total (weighted)</b> N = 1,247		Mean	0.582	\$19,970	\$0.79	\$29,230	16%	24%	
		Median	0.557	\$19,643	\$0.81	\$24,447			

Notes: 1) Mean is 5% trimmed mean which omits the top and bottom 2.5% outliers; 2) home values are calculated using a \$2,000 threshold; 3) vacancy rates and levels of poor housing are based on site visits; 4) vacant lots include those not sold, sold but with no current structure, and a few (20) with apparently abandoned homes.

A key finding was the substantial number of lots with a reported zero home improvement value suggesting that no homestead had yet been erected on the lot. Vacant lots are a common feature in colonias where research shows that most have been sold but remain unoccupied for a variety of reasons (Ward and Carew 2000; Durst and Ward 2015). Physical counts during the site visits confirm that vacancies are also a feature of MSs (Table 2). Given their relatively recent development, a higher number of lots remain without a dwelling on site, or are unsold and still in the developer’s hands. Vacancy rates vary more or less with year and size of development; for example, in Pueblo de Palmas, the largest of the subdivisions studied, the oldest sections have almost in-filled completely, while the newer sections are almost entirely vacant. Hence, the nature of the homes varies widely, from nicer or at least more established homes in the initial phases, and showing greater dilapidation in the newer phases. Countywide, the lowest vacancy rates are found in our El Paso sample (between 0-7%) while the highest rates are in Cameron where over one in five lots remain vacant.

In order to get a more realistic estimate of the level of on-site home improvements we used a threshold improvement value of \$2,000 to remove both the \$0 home improvement records and those with

some occupied dwellings that have minimal value (i.e., shacks and old campers), or whose appraised value is not related to a structure (i.e., a paved driveway). Omitting zero or negligible improvement values, the Table 2 data are an indication of the poor quality of the general housing stock found in MSs: only six of the ten developments have properties with (trimmed) mean values over \$25,000 (the highest by far being in Rancho Grande South and Seminole Valley). Given that many of these dwellings are self-built, or are single-wide manufactured homes, or a hybrid of the two, these low property values are not especially surprising. Not all dwelling structures have such low values however, and one of the interesting aspects of self-managed housing found in some MSs, colonias and other informal homestead subdivisions is the variation in types of dwellings and housing quality, which ranges from provisional shacks and campers to modest manufactured homes, and even some custom built homes (see montage, Figure 2).



**Figure 2. Housing and Land Across Model Subdivisions**

**Top** – Self-help hybrid structures using single-wide trailers, campers or shacks. **Bottom Left** – Sales promotion and view of lots available; sign reads: “Various lot sizes with metered water, septic, trailers accepted, and seller financing with no credit needed and easy qualification terms.” **Bottom Right** – Aerial view of custom built home with a pool, while neighboring lots contain a trailer, and self-built home.

Combining the (trimmed) average housing improvement (>\$2,000) and land values, most MSs have overall appraised property values in the range of \$39,000-\$49,000, and only three get into the \$50,000s or higher. Seminole Valley at \$75,000 is the most successful MS in our sample having attracted a better off

cliente, linked in part to its more central location to multiple cities in Hidalgo.<sup>14</sup> While most buyers into MSs are unequivocally low- and very low-income who rely on seller financing, a few are middle-income households who are able to acquire formal mortgage loans to construct custom-built homes valued over \$100,000 (2.3% in our sample), although these houses stand out among a sea of lesser properties. Through our site visits the clear pattern that emerged was that the largest subdivisions contain the highest levels of dilapidated housing driven by large numbers of hybrid construction where self-built extensions to trailers and campers are common (Figure 2 Montage). It is here that we observe extreme variation in living conditions.

Another housing aspect we wished to measure was the extent to which MS homes claim a homestead tax exemption that is widely available to owners where the property is the primary place of residence. A second popular tax exemption may also be claimed where the owner is aged over 65 and which reduces the amount paid in ISD (school) taxes (often the significant part of the property tax). Across our sample the average lot vacancy rate is 16% and average home exemption is 24%, meaning that six in ten lots that contain structures do not take advantage of any type of exemption (this ratio is not reduced much by including rental properties that theoretically cannot claim exemption). The Table 2 data confirm previous findings that underscore the policy need of increasing (bilingual) awareness about the benefits provided by this legal means of tax relief to informal housing communities (Ward, Way and Wood 2012, 2015).

### Property “Flips”

Here we explore the prevalence and timing of property flips and their subsequent resale. More specifically we look at whether certain developers and MS locations are tied to higher levels of foreclosed properties. When aggressive developer practices are involved they not only create an impediment to homeownership among low-income families, but can also negatively affect the housing costs and welfare of other residents within these communities by inducing blight, abandonment and lot vacancies. The database on title transactions quickly allowed us to identify the primary developers and companies engaged in lot sales and flips, and as expected they remain quite active and visible as lien holders. In one MS (Pueblo de Palmas) the developer continues to have a substantial portfolio of lots for sale in the more recently developed sections and provides seller financing on a large scale. The majority of the settlements have a single primary developer (see Table 1 above).

Most striking in Table 3 (below) is the high percentage of flips overall, and in Hidalgo County in particular. Across our study sites the highest default rates by developers affect half of the properties (51%) in Pueblo de Palmas where there is a principal developer and multiple intermediaries and investors. Two key informant interviews<sup>15</sup> and archival analysis suggest that these parties interact with related land and holding companies to manage the land portfolios in order to diversify their financial risk, a practice also witnessed in adjacent Taurus Estates #11 and #21. Interestingly, Pueblo de Palmas was platted between 2000 and 2011, yet the highest flip rates have occurred in three of its phases developed in 2007 and 2008, with a high prevalence also occurring in the most recent 2011 platted area. This may reflect trickle-down effects of the housing and economic crisis into very low-income populations, especially if buyers were Mexican nationals (documented or undocumented) who returned to Mexico or who have moved elsewhere.

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<sup>14</sup> We also suspect (based on visual inspection of recorded contracts with the county clerk’s office) that the developer may have included and, more importantly, enforced a restrictive covenant in the sales contract which specify things like any mobile home or trailer “shall be of a modern type” and that no structure of a temporary character or less than 1000 square feet “shall be erected or placed upon said lot.” This may explain why better off families still live in the MS, thus reducing the vacancy level.

<sup>15</sup> In-person interview on 8/8/14 with Ann W. Cass, Executive Director, Proyecto Azteca; Email correspondence on 8/21/14 with Blanca Juárez, Texas Secretary of State Colonia Ombudsperson.

Both empty lots as well as lots with a substantial structure on them (e.g. a manufactured [trailer] home that could be moved off-site) were vulnerable to flipping in Pueblo de Palmas.

**Table 3. “Flips” by Developers and Resident Sales (as a percentage of N)**

		N	FLIPS				FLIP SPAN (in months)		
			None	Developer & related	Bank & related	Consumer	<= 12	> 12 to 24	> 24
CAMERON	La Gloria Canal	119	57%	35%	4%	3%	61%	16%	24%
	La Iglesia Vieja	75	91%	5%	4%	0%	43%	14%	43%
	Rancho Grande South	231	70%	26%	1%	2%	43%	20%	36%
	Santa Maria Norte	74	70%	30%	0%	0%	36%	27%	36%
EL PASO	Deerfield Park 3	56	68%	25%	5%	2%	28%	22%	50%
	Drake	144	85%	13%	1%	1%	24%	38%	38%
	Rancho Estancias	67	87%	4%	9%	0%	11%	11%	78%
HIDALGO	Pueblo de Palmas	236	43%	51%	6%	0%	62%	17%	21%
	Seminole Valley	108	59%	33%	6%	2%	43%	23%	34%
	Taurus Estates 11 & 21	137	58%	39%	3%	1%	43%	47%	10%
<b>TOTAL</b>		1247	65%	30%	4%	1%	48%	24%	28%
Flip Span (mean days)				516	1636	1070			
<b>DEVELOPER FLIPS</b>		373					53%	24%	23%

At first glance flips of vacant (unoccupied) lots was counterintuitive: why buy and pay the (albeit) low transaction costs, only to relinquish the lot without occupying it? Notwithstanding the affordability and discriminatory constraints to residential choice (Gobillon et al. 2007), one explanation is that working poor aspiring homeowners take a (bounded rational) risk of purchasing a lot in an isolated subdivision in the hope of attaining and improving on their own tangible asset, rather than living in government subsidized housing or in dilapidated rental properties closer to the city core where poverty and aspects of poverty may be highly concentrated, where not-in-my-back-yard sentiment prevails, and where little mixed-income housing is produced.<sup>16</sup> In model subdivisions they at least have half-acre serviced lots that they can call their own, albeit isolated from the city center. At the outset, and in varying degrees, residents trade off the greater social and economic costs that they will encounter (namely poor or inadequate amenities, worse nutrition options, poor access to job opportunities, high transport costs, high nominal interest rates, and the real risk of repossession), against the perceived long-term benefits and hope of having a “stake” and housing equity in a community. Subsequently however, they can quickly find themselves unable to afford the

<sup>16</sup> See Ann Cass (8/8/14 interview) letter to the McAllen Monitor Editor for example of a NIMBY stereotype towards the working poor: < [http://rgvequalvoice.nationbuilder.com/not\\_in\\_my\\_backyard](http://rgvequalvoice.nationbuilder.com/not_in_my_backyard) >.

combination of lot payments, the cost of the initial house structure, and the additional costs of running a reliable vehicle, so they cut their losses (which early on may be minimal).<sup>17</sup>

An interview with the Pueblo de Palmas sales office offers some greater insight to this quick flip process.<sup>18</sup> First, there are no selection or approval criteria for a lot purchase – seller financing is provided to everyone regardless of income, work or credit (see bottom left image in Figure 2). Second, affordability is a central reason why families choose to live there, so the developer offers long-term financing, up to 30 years, for half-acre lots costing \$29,950 with a minimum down payment of \$500. However, with an adjustable interest rate of 12.95% and such a long amortization period, these families can spend up to three times that amount (\$87,550) in interest alone for a total cost of \$117,000.<sup>19</sup> Thus, on the one hand the developer provides financing to lower-income Hispanic families who cannot access traditional lending. On the other hand, given the high interest rate and low and irregular incomes of many primary wage earners, it is not surprising that buyers can quickly fall behind on payments and have their properties repossessed, especially if this is an investment for the medium- to long-term, and if buyers are still making regular rental payments elsewhere.

On average 30% of the total properties have undergone a flip by the developer and related intermediary, with an additional four percent involving a banking institution. Looking at the high variation in flip rates in Table 3, it appears that some developers, regardless of whether they provide financial education at the time of sale, foreclosure more aggressively than others, and do so within a short time span after the purchase with over 50% flipping the property inside one year (and an overall average flip time span of 516 days). Exposing irregular- and low-income populations to a high risk venture in this way suggests, at least prima facie, that repossessions are part of these developers' sales portfolio, a sentiment aired by two key informants who work daily with colonia and model subdivision families.<sup>20</sup> The rationale is that sellers develop specific lands that are targeted at specific buyers whom they only sometimes screen for ability to afford purchase and residence. Indeed, developers realize that high default rates and repossessions, if achieved fairly early on, form a viable part of their sales portfolio. The developers' transaction costs of foreclosure and preparing a repossessed lot for resale is far less than the transaction costs to buyers who forfeit the initial down payment as well as subsequent monthly payments. Under foreclosure rules in Texas, if the buyer has paid less than 40% of the agreed purchase price, or made 48 months of payment, then the seller must give certified formal notice, and give the resident owner 30 days to cure the violation. If the buyer does not cure, then the seller can repossess without foreclosure proceedings. Such "fast" repossessions are especially true when the lot is still vacant or has only a modest value structure upon it. In these circumstances the purchaser, upon notice, is likely to walk away and there is no protracted foreclosure proceedings and payment in compensation.

That said, three settlements have a more successful record of purchase with lower overall flip rates of 9% (La Iglesia Vieja), 13% (Rancho Estancias) and 15% (Drake).<sup>21</sup> In the first two the developers are

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<sup>17</sup> There is little, if any, provision for public transportation to colonias and MSs. ISD school buses do fetch and carry children to schools, however, although the kids may have to walk to the bus stops relatively greater distances than their student counterparts.

<sup>18</sup> In-person interview on 8/7/14 with Paula Bridges, Mortgage Broker, Pueblo de Palmas sales office.

<sup>19</sup> In a 30-year contract with \$500 down, the monthly payments without escrow amount to \$325 (roughly \$376 with escrow).

<sup>20</sup> In-person interview on 8/8/14 with Ann W. Cass; Email correspondence on 8/21/14 with Blanca Juarez.

<sup>21</sup> By comparison, in 2010 the mortgage delinquency and foreclosure rates were 9.3% and 4.6% nationally (US Census 2012).



no longer active and three factors appear to have helped their buyers: 1) lots were platted in the mid- to late-1990s so buyers were immune from the recessionary periods of the early 1990s and 2000s; 2) these were smaller subdivisions, so sellers may have performed more screening on potential buyers for the limited number of lots; and 3) the site visits indicated fewer homes in poor condition than other MSs suggesting relatively better off low-income homesteaders. In Drake subdivision, however, many families currently appear to be having difficulty making the monthly payments so we may see foreclosures rise in the area, especially given that one of the two owners who inherited the liens after the death of the original developer has been less flexible in the past with residents over missed payments.<sup>22</sup>

### *Flip Spans & Resale*

We hypothesized that many of the flips occur within a relatively short time span especially where, as described above, it is easier for developers to foreclose and repossess a property with fewer legal recourses and compensation to the buyer (especially if there no significant structure remains on the lot). Table 3 shows that across our study areas 72% of the properties that underwent a flip did so within two years from the date of purchase, and 48% within one year. Pueblo de Palmas and La Gloria Canal had the most default turnarounds within a year (62% and 61% respectively), while Taurus Estates the most within two years (90%). In fact, La Gloria Canal in Cameron and the three MSs in Hidalgo had both the highest and fastest flip rates, and it is here where we observe the greatest vulnerability of would-be homesteaders. By contrast, buyers were more likely to be successful in La Iglesia Vieja (Cameron), and in Rancho Estancias (El Paso).

Not surprisingly, the majority of the properties that have been flipped have been resold (91%), and only in recent defaults has insufficient time elapsed to allow for a consequent resale. The period between the flips and the resale typically occurs almost immediately (77% within six months). On the high end, in Seminole Valley, Santa Maria Norte and La Gloria Canal the properties were resold within six months in almost all cases, in part probably due to the smaller subdivision size and the somewhat better neighboring housing conditions. Drake in El Paso is a large subdivision quite far from the urban core and seems to resell more slowly (60% of the properties sold outside the 6 month window). Although lots in Drake were less expensive (\$13K lots), the subdivision's isolation makes it less attractive to low-income buyers who may turn to several costlier MS options that are closer to the city.

### *Regression Analysis – Flips and Flip Span*

In this section we discuss the factors that may influence foreclosures in model subdivisions and the time it takes from purchase to foreclose through a set of regressions presented in Table 4. Three response variables are modeled – all flips (developer, bank and consumer), just-developer flips, and the flip span. We use the same specification for the first two logistic regressions, and add the separate effects of flip type to the third linear regression model plus the year the flip occurred. Each of the three models is specified with and without a clustered robust variance estimator to allow for observation dependence within subdivisions. That is to say we account for some correlation between properties within the same subdivision. Additionally, because standard asymptotic tests can over-reject with few clusters, the models are estimated using a cluster bootstrap standard error approach (10,000 replications). The odds ratios are provided for the logistic regressions for ease of interpretation, (note: an odds ratio greater than 1 is equivalent to a positive coefficient estimate, while an odds ratio between 0 and 1 a negative coefficient). Lastly, we run separate models for the same three response variables to include a model subdivision size variable (0 = small and 1 = large as discussed at the start of the methods section). We do this to assess if the MS size affects the test statistics.

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<sup>22</sup> Based on phone interview on 7/22/14 with Miguel Chacon.

In general, this inclusion does not change the results in any substantive manner, as shown in Table 4. Hence, below we provide interpretation using the slightly more parsimonious models that exclude MS size.<sup>23</sup>

**Table 4. Regressions for Flips and Flip Span**

	Logistic (N = 1,110)				Linear (N = 394)		Linear (N = 394)			
	Flip (all types)		Developer Flip		Flip Span in days		Developer Flip		Flip Span in days	
	odds ratio	se	odds ratio	se	coef. b	se	odds ratio	se	coef. b	se
	1.072		1.096		-140.90		1.087		-140.35	
plat year	0/	0.018 **	0.020 **		11.11 **		0.022 **		11.96 **	
	1/	0.029 **	0.036 **		27.95 **		0.033 **		25.71 **	
	2/	0.032 *	0.039 **		31.17 **		0.037 *		29.59 **	
	2.131		2.024		48.48		1.886		50.45	
In \$ cost / acre	0/	0.410 **	0.416 **		72.58		0.411 **		74.40	
	1/	0.957	0.921		91.58		0.922		92.76	
	2/	1.010	1.000		95.95		1.020		118.39	
	0.643		0.823		-283.17		0.719		-275.90	
contract for deed	0/	0.185	0.251		137.96 *		0.243		150.15	
	1/	0.173	0.225		119.40 *		0.242		91.88 **	
	2/	0.145	0.204		128.06 *		0.307		99.32 **	
	12.714		7.324		-191.14		7.607		-193.18	
deed in lieu of foreclosure	0/	9.799 **	4.407 **		148.98		4.591 **		150.08	
	1/	8.268 **	4.566 **		176.61		5.038 **		164.37	
	2/	8.269 **	4.745 **		202.01		5.098 **		185.73	
	0.771		0.576		52.36		0.570		53.08	
consumer sale or transfer	0/	0.119	0.096 **		65.85		0.096 **		66.19	
	1/	0.138	0.138 *		75.93		0.133 *		73.30	
	2/	0.131	0.125 *		70.29		0.123 **		69.92	
	0.534		0.589		81.93		0.592		82.49	
home exemption	0/	0.095 **	0.111 **		79.98		0.112 **		80.21	
	1/	0.107 **	0.148 *		65.63		0.150 *		61.89	
	2/	0.099 **	0.140 *		71.15		0.143 *		64.67	
						1.173		-8.34		
ms size	0/						0.205		67.47	
	1/						0.334		96.60	
	2/						0.519		139.18	
				581.93				581.71		
bank flip	0/				96.08 **				96.22 **	
	1/				130.92 **				131.95 **	
	2/				139.00 **				146.76 **	
				-199.42				-198.75		
consumer flip	0/				160.67				160.96	
	1/				164.66				165.88	
	2/				165.31				161.23	
				126.89				126.85		
flip year	0/				10.56 **				10.58 **	
	1/				27.32 **				27.25 **	
	2/				27.52 **				27.66 **	
	0.000		0.000		27628		0.000		26602	
constant	0/	0.000 **	0.000 **		14544		0.000 **		16765	
	1/	0.000 **	0.000 **		24704		0.000 **		20898	
	2/	0.000 *	0.000 **		29710		0.000 **		24873	

0/ standard error

1/ standard error w/ robust clusters

2/ standard error w/ bootstrap clusters (reps[10000])

\* p < 0.05 \*\* p < 0.01

odds ratio = exp(b)

se(or[b]) = exp(b) \* se(b)

<sup>23</sup> The models were also estimated with plat year as a separate dummy since the propensity to flip might not be increasing linearly with time (especially given that we had both housing booms and busts). There were no notable changes to interpretation and significance as those in Table 4 with the exception of the dollar cost per acre coefficient, which decreased slightly, but significance did not change.

The data in Table 4 show that plat year is a statistically significant predictor in the flipping process. Specifically, as the plat year increases (developed more recently), a flip (developer flip) is 7.2% (9.6%) more likely to occur, and the flip span is estimated to contract by 141 days. This means that more and faster flips occurred in sections of subdivisions that were more recently platted, a finding that may be a result of the poor US economic and housing performance of the 2000s when homeownerships fell, and delinquency and foreclosure rates spiked (US Census 2012). We also see that the flip year is positively associated with flip span, and considering that flips often involve the initial developer sale, all else being equal, the repossession of lots purchased soon after a subdivision is platted occurs much faster (i.e. takes fewer days) than for lots purchased several years after the MS was platted. Viewed in terms of consumer behavior, it appears that low-income buyers who first buy into a newly developed MS may be more vulnerable to losing their initial investment than buyers who let the dust settle and come in later. Returning to Table 3, the average flip span for developer flips is over three times faster than that of bank flips. The statistical significance of this difference is verified in the flip span model, showing that if a bank flip occurred (relative to a developer flip), the foreclosure took an additional 582 days.

One would expect to find that the dollar cost per acre would be a strong predictor of repossessions, but its influence drops when estimating within clustered data. For example, a 10% rise in the cost per acre increases overall flips by 7.5% in the standard model (statistically significant at the 1% level), but this relationship drops away when robust clusters and bootstrapping are applied.<sup>24</sup> There are several confounding issues here, but one aspect that helps explain this weaker direct association is that higher cost lots may be associated with buyers who are slightly better-off (albeit still low-income families), while the more affordable land attracts very low-income families who are more vulnerable to financial circumstances that lead to missed payments. Hence, flips result from both high and lower cost lots.

Two types of title transactions are included as controls – Contracts for Deed (CfDs) and Deeds in Lieu of Foreclosure (DiLoF). Although there were very few DiLoF in the sample, Table 4 shows that when one was found, the likelihood of that property would lead to a repossession by a developer was 7.3 times more likely than a regular deed. As noted above CfDs were almost entirely found in Drake, and in these transactions we see in Table 4 that the time between sale and default was 283 days faster than flips involving regular deed transactions.

Lastly, sales and transfers between consumers and those owners who claim any type of home exemption are two significant explanatories shaping foreclosures. Whenever either of these (consumer sale/transfer and home exemption) was linked to the property it was more than 40% less likely to be repossessed by the developer. Intuitively it may be that more consumers claiming their entitled exemptions, and/or are part of a healthier and more established housing market, may not only have better information about the homesteading process but also be better prepared financially and more committed to making self-help ownership work in the long-term.

### ***Conclusions: Implications for Policy Making***

Although this study analyzes only a small number of subdivisions created under the model rules, it goes some way to reflect the new range of developer practices and the resulting housing conditions and homesteading trajectories of low-income households in the three primary Texas border counties where MSs are most salient. We have shown that property repossessions by developers and related intermediaries are very high – 30% of the lot sales on average. *Prima facie* we have also shown that some developers appear

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<sup>24</sup> 10% increase in the log transformed \$ / acre coefficient on flips = 1.1 \* beta = 1.1 \* ln odds ratio = 1.1 \* ln(2.131) = 1.075. The average \$ / acre across the entire sample = \$37,544, so a 10% rise to \$41,298 leads to 7.5% more flips.

to pursue this strategy of sales in the full expectation and knowledge that many buyers will not be able to afford the high interest and long repayment costs, such that a significant proportion of the lots they sell revert to the market within one or two years, and are then quickly resold. However, not all developers are so aggressive: those linked to smaller subdivisions appear to undertake some screening of applicants which helps ensure that buyers can reasonably expect to be able afford both the lot purchase, and in the short-term, can erect at least a modest dwelling on the site (unscreened volume plays a bigger role for larger MSs). Seminole Valley appears to be one such subdivision where there are a range of homes from single trailers to more substantial homes and doublewides. However, even here where lot prices are higher, we also observe quite high developer flip rates (33%) suggesting that the path to homeownership for lower-income families remains challenging, especially in the early phase of subdivision development. At the other extreme, Pueblo de Palmas has the highest developer flip rates (51%), and by far the lowest quality and value housing compared to other larger subdivisions, especially in its most recently developed sections where families are just starting the self-building process.

These flip rates and the associated poor housing conditions provide clear evidence that many who purchase into an MS are unsuccessful in their dream of creating a viable homestead for their family. It is important to recognize that this was also true in the case of early “pioneer” cohorts who bought into colonias in the 1980s through until the mid-1990s. Unfortunately measures of “unsuccessful” colonia households who subsequently exited do not exist. However, we were able to mine one dataset for several colonias in Maverick County which tracked the number of CfDs recorded between 1989 and 2011. These data suggest that close to one-half of those purchasing a lot through a recorded CfD in Maverick County ended up never completing the purchase and obtaining the deed, and thereby likely forfeited any equity they held in the property. (In fact, unlike buyers in model subdivisions, many of these buyers never occupied their lots, so the social costs of quitting and moving would have been less [see Ward and Carew 2000, 2001]). The important point here is that we should not assume that that the flipping and resale of lots by developers in MSs did not occur in previously in colonias: patently it did. However, case studies of developer practices in colonias suggest that many developers lived locally (in the same or adjacent colonia), were well known to residents, were more particularistic in price setting and were more relaxed about not aggressively pursuing temporary non-payments, cutting residents some slack. Qualitatively, some developer repossessions may have been as instrumental and aggressive as those that we find in MSs; in fact, it is well documented that colonia developers were also guilty of egregious and exploitative behavior, particularly in failed or disingenuous promises about service provision, deception, and the non-recording of deeds (Ward 1999; Ward et al 2004).

Although the model subdivision rules ensure at least basic service installation and access, many households live in appalling and overcrowded housing conditions that are temporary at the outset, and are likely to continue for many years without seeing substantial improvement, always assuming that the family will be able to hold onto the ownership of their lot. Many fail in that enterprise, and for them the short period of “ownership” becomes a period of de facto renting. The reasons for failure are largely economic: namely low- and very low-incomes; the relatively high outgoings of lot and utility payments (Olmedo 2013); the high costs and need for private means of transportation; combined with relatively high subsistence living costs. Other factors also appear to accentuate the likelihood of failure: discriminatory developer and lending practices; lack of access to formal loans and lower interest rates; the need to move elsewhere to find work; marital splits; the decision of some Mexican nationals to return to Mexico; or just the basic disappointment and realization that the aspirations of home ownership and self-help are never going to pan-out. In these cases co-residence (sharing) with close kin in a colonia, or renting closer to the city, may be a better and more affordable option. Further research and detailed household analysis is required to better understand the decision-making process for those who enter and exit model subdivisions.

Of course policy makers never intended to price the lowest income families out of the housing market. Rather, legislation to require implementation of Model Subdivision Rules sought two outcomes:

first, to prevent further proliferation of colonias, and second, to ensure that low-income self-builders would be assured at least an acceptable baseline platform of service provision, and that the state would not be later be faced with the responsibility of cleaning up the mess – as had occurred in colonia development in the 1980s (Durst 2014b; Ward 1999). In many respects that legislation was very successful. Along the border new colonia development more or less stopped, and developers who remained in business (or entered de novo) began to comply with the MSRs in new subdivisions (Durst 2015). However, we doubt that researchers or policy makers anticipated the dramatic expansion in the number of MSs that came to replace colonias, nor of the various ways in which developers would continue to aggressively promote unscreened sales at high interest rates, over much longer amortization periods, and that they would do so in full expectation of high default rates and re-sales (flips) as an integral strategy (or windfall) part of what is clearly a profitable housing development portfolio. Furthermore, we doubt that policy makers anticipated that MSs would lead to such poor quality housing now found especially in the larger subdivisions, and that there would be minimal due diligence about a household’s capacity to afford and self-manage or to self-build a home in the medium-term. For some developers at least, compliance with the MSRs made for business as usual.

So what policy approaches might be considered? On the supply side policy makers should seek to promote formal financing measures that will enable more low-income households to tap into micro credit assistance that will facilitate modest home improvements and the hook-up costs between the dwelling unit and the service point on the lot.<sup>25</sup> Policy makers should take action against the developers to require that they be more diligent and responsible in assessing the financial capacity of the household to meet the costs of land purchase, utility costs, and to be able to establish an acceptable home on-site within a given period. This is not to suggest a full scale credit assessment or “means test,” but some consideration of the monthly income stream and affordability should be undertaken, including whether and how the family can afford the costs of private transportation to these outlying sites, as well to be able to erect and consolidate a home on site. Simply comparing current rental or household outgoings with the financial capacity to meet the land cost repayments is insufficient.

Other supply side policies could also seek to promote the likelihood that homesteaders be able to erect and consolidate their dwelling. This might include lower interest rates, stepped (lower) repayments in the initial years, guaranteed compensation for home improvements that cannot be removed from the site after repossession, and provisions for shared lot arrangements between sibling families or parents and adult children (which facilitates sharing of expenses, mutual child care, and the possibility of more adult earners, etc.). In several respects developer seller-financing presents striking parallels to the payday loan industry: they are quasi-regulated; do not perform credit checks; do not report to credit information services; borrowers are predominantly lower class/income with little access to traditional lending; loan defaults are high but stable; and obtaining enough business volume is key to success (Schwartz and Robinson 2006). Just as for lot purchase in MSs, many feel that vulnerable consumers are exploited by these similar practices, while others see such services as highly desirable, if not necessary, to fill a needed demand. Clearly, the industries’ ethical or social responsibility is questionable, but their benefit to society would be much improved if they modified some of their practices (while remaining profitable), such as: a reduction in interest rates, improving financial transparency, and reporting to credit bureaus to help consumers who pay on time with credit repair and, thus, allow them to qualify in time for cheaper mainstream loans.

Clear state-imposed guidelines to unincorporated areas of counties about the need for buyers, *once they occupy their lots*, to erect and maintain a required minimal standard of dwelling within (say) 12-18

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<sup>25</sup> A significant minority (24%) reported that they lived on the lot for a period without being able to make the hook up to the water point on their lot, and 30% “borrowed” electricity via an informal hook up to a neighbor’s meter (Durst and Ward 2015).

months. This would provide self-builders with a better appreciation of anticipated downstream expectations and costs, and help to mitigate ongoing abysmal dwelling conditions. The aim would be to ensure that temporary campers and shacks be substituted with a reasonable standard manufactured home built under HUD specifications, or a slab or on-pillar built construction to a minimum level suitable for occupancy. Where such standards are not reached within a designated time frame, the developer might reasonably be held responsible for repossession of the lot and be subject to financial penalties for delays or non-compliance, maybe with some level of compensation (of past lot payments) to the exiting household.

By law, developers are required to allow accelerated or “balloon” repayments if the purchaser so wishes, without penalty and expeditiously. However, our previous Contract for Deed prevalence project indicated that some developers drag their feet and apply surcharges for expedited payment and delivery of the final deed (Ward, Way and Wood 2012). Our argument that some residents are often entering ownership in MSs, but which becomes a de facto form of renting, might be addressed by developer-promoted rent-to-own housing in which the developer places a manufactured or modular home on a proportion of their lots (see Durst 2014a on the rise of renting in colonias). We have also shown that those buyers who claim a tax exemption on their homestead are less likely to experience repossession also speaks to the desirability of providing better information to buyers about the eligibility, opportunity, and monetary benefits of claiming their tax exemption.

A central goal in the legislation that created model subdivisions was to reduce the exploitation by developers of low- and very low-income populations who fall outside of the formal mortgage market, and yet who aspire to home ownership through self-building and self-managing the home production process by contributing their “sweat equity” to building neighborhoods, physically and socially. Aggressive “flipping” are undermining those goals for many – suggesting that *plus ça change* over developer practices of the 1980s. Of course, the more stringent requirements that we tentatively outline here will almost certainly reduce accessibility of lots to some would-be homesteaders, but if the odds are so heavily stacked against their being successful in the short- or medium-term, then they and their family’s interests are probably better served by other residential markets: in the city as renters, in established colonias as renters, or as lot sharers with close kin. For many buyers lot purchase and successful homesteading in model subdivisions remains an impossible dream. For lawmakers it is back-to-the-future, as findings from research such as ours obliges them consider a new generation of appropriate housing policies that will address the workarounds and unintended consequences of colonias legislation of the 1990s.

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