

**Final Report of a Study Commissioned by the  
Ford Foundation in 2010**

***Introduction and Overview of the Research Project:***

**“Housing Sustainability, Self-help and Upgrading  
in Texas *Colonias*: A Longitudinal Perspective --  
2002 plus 10”**

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## Introduction & Description of the Problem Researched

*Colonias* comprise poorly serviced self-built or self managed housing located in the rural hinterland of cities in the border region of the USA. They are (usually) platted legally by developers, land lots are sold under contract for deed or warranty deed, but with only a minimum of basic services and infrastructure, most of which the individual lot purchaser must install by contracting with private providers or with the county. Settlements vary in size, but most are quite small, ranging from a small handful of lots to less than 100, with a few that are much larger.<sup>1</sup> Actual lots size varies, but the norm is somewhere between one-half and one acre. Densities are low, partly because lot size is substantial for average family size of 4.5, and partly because settlement occupation is gradual. While most settlements are sold-through are rarely built through and baseline data in 2000 suggested that many were only 60%-75% built through, and sometimes considerably less. Families occupy the lot only when they are near completing payments and when they own a private vehicle (there is rarely any public transportation service). At that point they move on site and either self-build a dwelling or place a manufactured home (mobile home/trailer on piers) in the lot. They may start living out of a camper or a dilapidated repossessed trailer home, and modify this over time replacing the trailer itself with a modern unit, or adding to it with extensions, or with additional trailer units. Others purchase a stick frame manufactured homes (not on a wheelbase), which is placed either on a slab or on piers. Given the haphazard and self built or self managed nature of this housing process, the resulting dwelling environment is heterogeneous with motley and hybrid housing arrangements in which parents struggle to become home owners, build an asset, and raise a family. The social costs of living in poorly serviced and isolated settlements are high, but this is the only way in which very low and low-income populations can become home owners, earning as most households do \$12-\$15,000 a year. These are the working poor, largely Mexican origin and Hispanic, and in the Texas border region alone there are more than 500,000 people living in colonias.<sup>2</sup>

Recent research shows that this phenomenon is actually much more widespread than being simply a border issue,<sup>3</sup> and that very similar (if slightly less poor households earning \$20-30K a year) populations live in colonia-type subdivisions in the peri-urban areas of many large cities, particularly those with dynamic service and food processing economies built around low waged employment. Also largely Hispanic, these are more appropriately called informal homestead subdivisions, and we mention them here in order to emphasize that although conditions in border colonias are more extreme, the issues of housing assistance and rehab affects many people than is commonly understood. In the USA today it is believed that an estimated 3-5 million people live in colonia type subdivisions of one sort or another. Thus, while this research adds significantly to knowledge and policy formulation in border area of Texas (especially the

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<sup>1</sup> Ward, Peter M. in collaboration with Robert Stevenson and Angela Stuesse, 2000. *Residential Land Market Dynamics, Absentee Lot Owners and Densification Policies for Texas Colonias*, An LBJ School of Public Affairs Policy Report.

<sup>2</sup> Ward, Peter. 2003. Informality of housing production at the urban-rural interface: the not-so-strange case of colonias in the US: Texas, the border and beyond" In *Urban Informality* Editors, Annanya Roy and Nezar AlSayyad, Lexington/Center for Middle Eastern Studies, UC Berkeley. (pp. 243-70)

<sup>3</sup> Ward Peter, and Paul Peters, 2007. "Self-help housing and Informal Homesteading in Peri-Urban America: Settlement Identification Using Digital Imagery and GIS", *Habitat International*, 31, 2 pp. 141-64.

Lower Rio Grande Valley), the findings also have traction elsewhere, not least because other low income subdivisions are often not quite so poor. In short, what works in the Valley will almost certainly work elsewhere, including DIY and self-help upgrades in poorer neighborhoods of cities – the first suburbs or “innerburbs”.<sup>4</sup> Policy making and public response to colonias in the border and elsewhere began in earnest in the early mid 1990s.<sup>5</sup> Most of the larger colonias now have at least basic water services, if not wastewater and mains drainage. But there remain many smaller settlements where the costs and lack of economies of scale make it less easy to intervene. Moreover, many settlements are unincorporated, and it is relatively rare for cities to annex or incorporate colonias on the boundaries or in their ETJs since they are a fiscal drain. While federal, state and local (county) intervention has targeted these neighborhoods and has had significant positive impact, many challenges remain as these settlements become more populated through infilling; as homes continue to be upgraded and replaced or modified through self-help; as septic systems need replacing or upgrading; as weatherization programs and more sustainable housing and urban development initiatives gain saliency; and as homes become an important asset in (modest) wealth creation, entering the market or passing from one generation to another through inheritance; and as these homesteads become the home place to care for elderly parents.<sup>6</sup> The social costs of raising a family in poor living conditions and contributing their sweat equity to home improvement continues to be high, and while there is considerable latent social capital in these settlements, the sense of community and empowerment is invariably low: thus they are settlements rather than communities.

If the problem of colonias 20 years ago was one of neglect, exploitation, appalling housing conditions and poor health, we now confront a second generation of challenges. The purpose of the research presented in these reports was to provide data about, and answers to questions that will face the next generation of housing and neighborhood challenges in the border region. To that end it will be necessary to move beyond the proven policies of the past fifteen years, and incorporate what we now know about alternative technologies, energy conservation, sustainability, community development, self-help, and cross generational inheritance transfers.

## Description of the Research Project

Specifically the research project was designed to assess:

- The extent to which many colonias continue to have a significant number of lots that are unoccupied, and to assess population infill 2002—2010.
- Market performance relative to other sectors of the housing market and the extent to which colonia households make use of credit use their homesteads as collateral.

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<sup>4</sup> Puentes, Robert and David Warren. *One-Fifth of America: A Comprehensive Guide to America's First Suburbs*. (Washington, D.C.: The Brookings Institution Press, February 2006),

<sup>5</sup> Ward., Peter M. 1999. *Colonias and Public Policy in Texas and Mexico: Urbanization by Stealth*. Austin: University of Texas Press.

<sup>6</sup> Ward, P.M. 2007. “Colonias, Informal Homestead Subdivisions and Self-Help Care for the Elderly among Mexican Populations in the USA”, In *The Health of Aging Hispanics: The Mexican-origin Population* (Jacqueline L. Angel and Keith E. Whitfield, Eds.). Springer Publishing Co., New York

- How the 2008-9 housing crisis in the formal sector may have impacted colonias and the informal sector.
- The extent to which self-help and self-managed housing processes have led to significant upgrading and home improvement in the past ten years.
- The extent of construction and other skills within the colonias and to assess how these skills and human resources might be leveraged to create employment locally.
- What people understand by “sustainability”, and to identify the opportunities for incorporating “green” applications to sustainable housing and life style residential practices among low income groups, especially tied to weatherization and stimulus package programs.
- The extent of construction and other skills within the colonias and to assess how these skills and human resources might be leveraged to create employment locally.
- Whether the idea of energy audits could successfully be applied to different types of manufactured and self-help housing, and, if so, to create a model to assess cost/benefit effects of investment in sustainable housing applications.
- To identify the trans-generational impacts of colonia (and other) housing as owners die intestate and as property inheritance and succession practices lead to an increase in informality of title transfer, property distribution and sales.

While seemingly far ranging, these research questions and issues all break out of the same arena of interest – that of self-help and self-managed housing in colonias. Several of these issues are new to us (such as research into sustainable applications to self-help, inheritance and succession), while many other research questions that we report on build upon previous work and surveys and comprise 2011 resurveys of self-help neighborhoods for which data were gathered between 2000-2003.

## **Deliverables and Summary Findings**

Three “Deliverables” Form Part of this Final Report to the Ford Foundation and each is included below in the form of three separate stand-alone reports, along with appendices containing databases (with identifying marks removed), survey instruments and codebooks, and various methodologies which are designed to assist future researchers and NGOs to gather data in their local constituencies.

First, the **Changing Lot Occupancy Study** (Report # 1 led by Danielle Rojas) offers a benchmark analysis and methodology that examines the extent to which vacant lots in existing colonias and settlements have been occupied and built out since a an earlier 1999 survey that formed part of an LBJ Policy Research Project, and provides important new data about densification and lot occupancy rates over the last ten years. Using similar methods and measurement techniques as those adopted ten years ago: namely windshield surveys and the (now freely available) time sequenced Google Earth™ images, we plot the current occupancy status of lots known to have been vacant some ten years earlier and track the occupancy and land use changes on those lots. The study outlines a detailed and minimal cost methodology

and database templates that will allow other researchers to replicate the study across future additional time horizons, and more importantly extend it to other locations in the USA.

We use the methodology to demonstrate how we created a database for 22 colonias and informal homestead subdivisions in the border and Central Texas in order to analyze the process of changing lot occupancy. The principal conclusions are that:

- 1) Overall occupancy increased by 13% between from 2000-2010 and all but one settlement had reduced its vacancy level to less than 30%.
- 2) Modest overall increase has occurred during each of the three “snapshot periods analyzed (2000-2002; 2000-2006; and 2007-2010) ranging from 5.2 % in the first period to 3.1% in the latter. There appears to have been some slight slowing in lot occupations since the housing crisis in 2007-8.
- 3) Lot occupancy is not a linear process, but rather net growth involves considerable churn or turnover as some lots are vacated; and others vacated and then re-occupied. This alerts us to the fact that there is rather more market turnover than has been previously recognized, (although as yet we still have little clear idea of what is driving these changes, or how they vary for individual colonia characteristics).
- 4) These changes and turnover notwithstanding, the large majority of formerly vacant lots remained vacant throughout. Absentee lot ownership remains high: in 2010 almost 20% of over 11,000 lots that we viewed had never been occupied, representing a high opportunity costs for non-development and abandonment.
- 5) Of these twenty percent of vacant lots today, relatively few (6%) are held by the developers indicating that they are no longer the principal targets for policy attention and control.

These findings highlight the opportunity costs that arise from the Texas Legislature’s continued failure to address the policy issues of absentee lot ownership and vacant lots and how to bring these lots back into the marketplace. Several of these policy recommendations were made in the earlier 1999 study.

Second, we present report # 2 led by Noah Durst that is a **Ten Year Housing Re-study**, focusing upon the levels, nature, and financing of dwelling improvements made to some 250 homes in several colonias outside Rio Grande City (Starr County). In this case the baseline study and database come from a joint UT-Austin & Texas A & M evaluation of The Community Resources Group Receivership Program (1998-2002) that provided clean property titles to residents (Ward et al 2002). Now, ten years later, we have taken the opportunity to undertake a second detailed “snapshot” survey of many of those same households in order provide directly comparable data to help us better understand: 1) the extent and nature of improvements that have been made to dwellings over the intervening ten years, future plans, and how improvements are being financed (from loans or savings and the collateral used); 2) the impact of intervention upon housing market performance, asset/wealth building, and housing turnover and sales in colonias; 3) the ways in which households adjusted to the 2008-9 housing and financial crisis; 4) plans for inheritance and succession (formal or informal); and 5), the potential for home owner to incorporate more sustainable and “green” technologies and practices within colonia homes and in living arrangements both in the dwelling and on the lot.

The principal findings show that since the baseline study in 2002:

- 1) **housing conditions** have improved significantly over the decade. Most homeowners continue to pay for home improvements with cash or savings; despite the increasing importance of microloans, the use of formal lending for home improvement remains limited. Three-quarters of all homeowners made major home improvements in the past 10 years, on average investing \$9,446 in their home largely (49%) from income/savings; 11% from income tax rebates; and 21% through formal loans (mostly microloans provided by the CRG). Over 50% of households had at least one member with construction skills, and these households were 16% more likely to make major home improvements.
- 2) Although the provision of **clean title** provides homeowners with a sense of security, it appears to have had no discernible impact on their home improvement or borrowing practices – at least not compared with those who already had clean title.
- 3) And yet **recent property transfers appear to be largely undertaken informally**: 40% of property transfers since 2003 were informal (receipts or simply oral contracts) and although there is a greater use of formal (Warranty-type) Deeds than in the past, they still only make up one third of formal transfers. Few low-income colonia homeowners people have Wills (7%), making intestacy and informal succession and inheritance practices a further cause for clouded titles downstream.
- 4) The colonia **housing market** remains fairly sluggish and inactive, and a significant portion of lots (29%) are vacant or unoccupied. Nevertheless, both property (land and dwelling) and land values have risen modestly in recent years. Thus, increased prices and limited financing mechanisms for the purchase of homes—in particular, a continued dependence upon seller-financing—appear to have led to an increase in both the supply and demand for rental accommodation and housing options.
- 5) **Renting and lot sharing** are on the increase (the number of lots with more than one household doubled over 10 years (from 5.6% to 10.9%) and there is an increasing presence of formal rental complexes in the *colonias*.

Arising from these findings we identify a number of key policy challenges and offer specific suggestions for policy directions, namely the need to:

- 1) **Prevent a reversion to informality** that will occur due to new forms of seller financing and widespread intestacy
- 2) **Facilitate market performance** and create greater opportunities to purchase new and existing homes
- 3) Provide incentives for the continued **support self-help home improvements**;
- 4) Begin to meet the needs of **aging owners** who now make up over 30% of the population, many of whom had at least one member with a disability

This report also provides appendices that offer a detailed methodology that will assist institutions seeking to implement similar surveys and offers pre-prepared instruments and protocols (in English and Spanish) for a number of issues that were not central to our analysis

(education, health, and transportation, etc.), but which can be built around the core survey instrument thereby allowing NGOs to design, field, and analyze their own surveys for their own priority agenda.

Report #3 was coordinated by Carlos Olmedo who worked in collaboration with Dr Mario Caire to develop a **Cost-Benefit Home Intervention Tool** or **C-BHIT** that is a simple-to-use interactive tool that will allow individual households who have access to the internet to explore and quantify a range of home and dwelling interventions and cost/DIY alternatives, as well as social options that are typically ignored under a strict economic analysis. It is a virtual tool in which the selections are submitted via the web to a University of Texas at Austin server. It is an interface that processes the user preferences and provides an Excel spreadsheet of output with an easy-to-understand table summary of the benefit-cost analysis. The target audience comprises home owners in low-income *colonias*, subdivisions and inner city areas, and it will assist households and personnel working with low-income communities and help them to understand and quantify the range of benefits that can accrue from home rehabilitation and self-help home construction and weatherization initiatives. The tool identifies interventions appropriate for low-income households taking into account initial cost outlays, economic and social returns, labor and human capital involved in the installation or addition, ease of operation, and opportunities for self-help or do-it-yourself (DIY) implementation. The interventions fall under four broad categories: 1) weatherization and microclimate, 2) water and wastewater, 3) recycling and solid waste, and 4) renewable energy.

We hope that users will take advantage of this interactive tool. Readers are strongly encouraged not only to review our research findings but also to consider using any of the methodological instrumentation that we offer as appendices to our reports, revising (and improving) it to their own needs and specifications. These materials and reports are available at [www.lahn.utexas.org](http://www.lahn.utexas.org) (click on Texas Housing Database, and then on Ford Foundation Study 2010-2011). All we request is that appropriate acknowledgement be given to the authors and the LBJ School of Public Affairs at the University of Texas at Austin.

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**Peter. M. Ward, June 2012.**