TH1.30.04 Health, education and self-help housing in low-income colonias in the border and in Mexico

Subdivision regulation and the incidence of waterborne illnesses in Texas border counties
Presenter: Noah D Durst, LBJ School of Public Affairs, Univesrity of Texas at Austin (Noah Durst <noahdurst@gmail.com>)
Authors: Noah Durst, UT-Austin

This paper examines the effect of enhanced subdivision regulation on the prevalence of waterborne illnesses in low-income border counties in Texas. The regulation in question, known as the Model Subdivision Rules (MSRs), was first implemented in selected counties in 1990 in order to stymie the spread of colonias with inadequate water and wastewater infrastructure. Over the past quarter century the MSRs were adopted in a staggered fashion across 60 Texas counties. This staggered adoption allows for a difference-in-differences regression analysis comparing the incidence of waterborne illnesses in counties that adopted the MSRs before and after their implementation. Using aerial imaging, census data and health records the study results demonstrate that stricter subdivision regulation has dramatically reduced the health risks associated with poor quality drinking water in unincorporated areas.

Employment and Wage Outcomes of Students from Texas Border Colonias and Model Subdivisions
Presenter: Carlos Olmedo, University of Texas at Austin (LBJ School of Public Affairs) (colmedo@utexas.edu)
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In the urban periphery of Texas border cities, large numbers reside in informal housing found in what are termed colonias and model subdivisions, depending on their specific characteristics. The low value lots and lax regulatory standards that exist in such exurban jurisdictions foster incremental and self-help homebuilding, thus attracting large numbers of poor Hispanics who face affordability and discriminatory constraints in the traditional housing market. Residents face a multitude of economic and social challenges, including reduced job opportunities that are adversely impacted by their geographic isolation. Using Texas administrative data, this research assesses the employment and wage performance of students that originate from colonias and model subdivisions. These largely descriptive findings are part of a greater study on the labor market and higher education pathways and transitions that drive their wage outcomes using non- and semi-parametric statistical methods.

Market-oriented self-help housing provision:The Case of Cemex, Mexico
Presenter: Bara Safarova, Texas A&M University (barasafa@tamu.edu)
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This research paper focuses on low - income housing alternatives proposed to address the needs of large portion of populations who cannot afford mainstream methods of construction. Specifically, it studies Patrimonio Hoy , a for-profit program run by CEMEX, the largest cement provider in Mexico. Social ventures for lifting low-income population out of poverty in developing countries have been the focus of numerous business analyses in the past decade. This paper focuses on the physical configuration of

housing units, extent of technical advice provided by construction industry professionals and the process by which compliance with federal/public regulatory framework is achieved. Further, it aims at analyzing the urban fabric followed by a discussion on current standards of construction of self-help housing. Patrimonio Hoy program was launched in 1998 both to increase CEMEX customer base and to tackle poverty and poor housing conditions of low-income population. Since its inception, the program has served over 300,000 people by providing technical assistance, micro credit, material delivery and storage to build self-help houses. The study uses an array of tools like aerial photography analysis, physical surveys of housing units, and key interviews with architects providing technical assistance to program participants.

Keep Residents in the City: Urban Densification to Mitigate Greenhouse Gas Emissions in Mexico City's Housing Sector.

Presenter: Ariadna Reyes-Sanchez, University of Texas at Austin (ariadna.reyes@utexas.edu)
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In housing units, not only residents consume nearly 40% of the world's energy but also influence energy use in transportation activities. Thus, the housing sector's contribution to greenhouse gas emissions is a serious challenge in cities' climate change policymaking. Urban density, which is largely influenced by the spatial location of housing developments within cities, drives the extent to which residents use energy to commute from residential locations to job-rich areas. In the last two decades, government-financed housing units have been developed on a massive scale in the urban fringe of Mexico City, unaccompanied by public transportation and services. This has led to increasing automobile use and an attendant GHG emissions, because residents in distant peripheral developments extensively commute to central locations that offer services and job opportunities. A previous Life Cycle Assessment (LCA) in peripheral housing units in Mexico City revealed that the use of gasoline for private transport is the main contributor to GHG emissions generated by housing units. Therefore, fostering urban density in consolidated informal settlements placed in central locations is one possible avenue to mitigate GHG emissions in the housing sector. Increasing the affordable housing stock in these consolidated informal settlements could allow low-to-moderate-income residents to live within the city limits without gentrifying original dwellers. Mexico City could enable a better understanding of appropriate climate change policies in the housing sector that could serve as reference to other developing-world cities.

Model Subdivisions: The New Face of Developer Lot Sales for Low-Income Colonia Type Housing in Texas

Presenter: Peter M Ward, UT-Austin (peter.ward@austin.utexas.edu)
Authors: Peter Ward, UT-Austin

This paper examines developer practices and self-help housing in serviced subdivisions targeting very low income Hispanic homesteaders in the Texas border region. Laid out under "Model Subdivision Rules" after federal and state legislative intervention in the early 1990s, this initiative sought to curtail further colonia development and to ensure that any further homesteading followed regulations regarding service and infrastructure provision. Model subdivisions (MSs) proliferated after 1995 and this paper examines developer practices of seller financing, lot sales, and lot repossession for the large number of

low- income families who default. Descriptive data are presented about housing costs in a number of different sized model subdivisions, and regression analysis of over 1247 individual lots reveals aggressive rent-seeking developer practices that lead to: i) high levels of default and repossession; followed by ii) resale (flips) of to other unwary buyers; and iii) rapid “flipping” (re-sale) of lots by developers soon after repossession. Informal (seller) financing at high interest rates, combined with high private transportation and other consumption costs associated with low income residence in peri-urban areas leave little surplus for self building and home improvement such that housing conditions are among the worst in the State, and often worse than self-built homes in the colonias that the MSs were designed to replace. The paper concludes with a brief overview of the implications for theory and for a new round of public policy responses.