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# Land Lines

LINCOLN INSTITUTE OF LAND POLICY





# Land Lines

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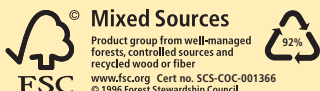
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# CONTENTS



## FEATURES

### 2 City Farms on CLTs: How Community Land Trusts Are Supporting Urban Agriculture

JEFFREY YUEN

*Community land trusts (CLTs) are providing an effective framework for urban agriculture—affording a locally controlled approach to land use, fostering community activism and engagement, and responding to evolving market conditions and neighborhood needs.*

### 10 The Window Tax: A Transparent Case of Excess Burden

WALLACE E. OATES AND ROBERT M. SCHWAB

*The 17th-century British window tax, levied upon the number of windows in a residence, inspired extreme creative measures to avoid the tax. The authors describe the effects and calculate the costs of excess burden induced by this early antecedent of the modern property tax.*

### 15 Land Values in Chicago, 1913–2010: A City's Spatial History Revealed

GABRIEL M. AHLFELDT AND DANIEL P. McMILLEN

*The authors' sampling of data from Olcott's Land Values Blue Book of Chicago provides a clear picture of the spatial evolution of Chicago from 1913 to 2010, demonstrating the strong role that history continues to play in the current structure of the city.*

## DEPARTMENTS

### 1 Report from the President *Education, Land, and Location*

### 22 Faculty Profile

*Antonio Azuela discusses eminent domain*

### 24 Announcements

### 25 Focus on the Website

*Inkling Made for Walking*



*The Food Project runs this greenhouse owned by the Dudley Street Neighborhood Initiative, a community land trust in Roxbury, Massachusetts.*

© The Food Project



## Education, Land, and Location

For the past eight years, each of our annual land policy conferences has addressed a different theme; last year's explored the changing links between education, land, and location in light of the growing importance of school choice. The volume resulting from our 2013 conference—*Education, Land, and Location*, co-edited by Lincoln Institute Fellow Daphne A. Kenyon and me—includes contributions from eminent scholars in a range of social science disciplines from across the U.S., Chile, and England.

When children attend schools near their homes, a strong link arises between residential location and quality of education. That link is strengthened when schools rely heavily on funding from the local property tax, as in the United States. Indeed, part of a house price can be thought of as paying for a ticket into a particular school system. But what if school choice is unlinked from choice of residence?

In the 1960s, approximately one in ten schoolchildren in the United States attended a private school. Now, there are new forms of school choice such as magnet schools, inter-district and intra-district choice, charter schools, vouchers, and homeschooling. The best available data indicate that today between one-quarter and one-third of schoolchildren exercise some form of school choice.

This volume focuses on three policy issues. The first is racial, ethnic, and socioeconomic segregation. Within the decentralized system of U.S. local government, a great deal of such stratification is evident. As John R. Logan notes, the “average white child attends a school that is over 78 percent white.” The second is academic achievement gaps. Eric A. Hanushek concludes that the “gaps in achievement are stunning,” even though differences in high school attainment rates and scores on the National Assessment of Educational Progress among whites, blacks, and Hispanics have converged somewhat. The third is a lack of equal opportunity flowing from residential segregation and academic achievement gaps. As Elizabeth J. Mueller and Shannon S. Van Zandt state, “Opportunities, in the form of good schools and other public services . . . are neither evenly distributed across regions nor accessible to all.”

The book is divided into four sections. The first reviews the literature, including Ellen B. Goldring and Walker Swain's



Gregory K. Ingram

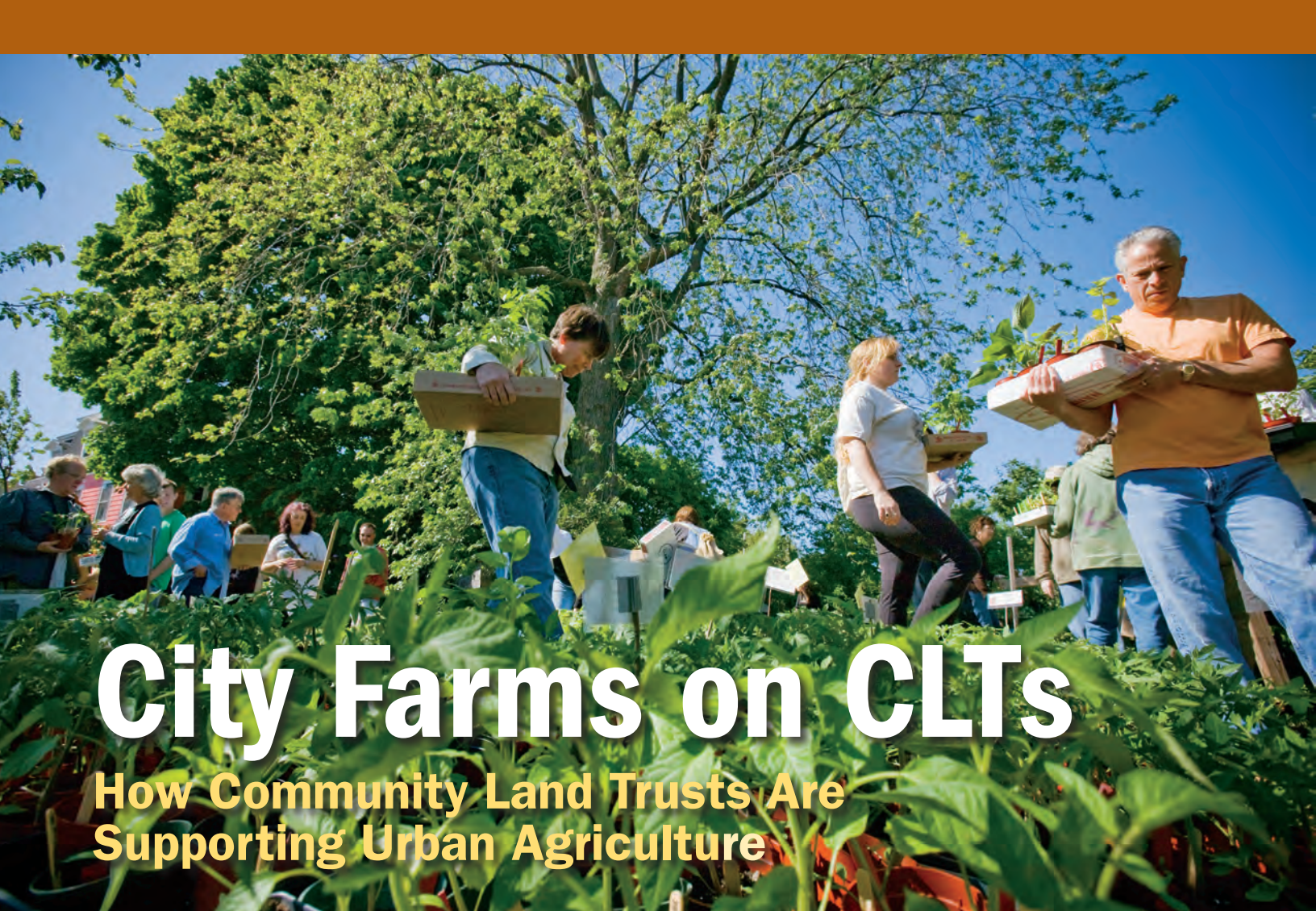
loosely chronological account of residential location–schooling linkages in the United States. The second examines questions of school district organization and finance, including William A. Fischel's economic history of the structure of school districts, Andrew Reschovsky's assessment of the property tax as the key funding source for K–12 education, and Henry A. Coleman's examination of non-traditional sources of school funding. The

third considers the effects of charter school location, with contributions from Robert Bilfulco and John R. Logan; Julia Burdick-Will and Elisabeta Minca; and Stephen Machin and Anne West, who analyze academy schools—the equivalent of charter schools in England. The fourth section examines cases where education and location are unlinked, such as homeschooling in Virginia, analyzed by Luke C. Miller.

This volume presents some evidence, highlighted in Eric J. Brunner's chapter, that introduction of school choice reduces both the housing price premium associated with location in a high-quality school district and residential segregation. So far, however, these effects are less dramatic than one might suppose. One reason is that parents strongly prefer to send their children to neighborhood schools. Another reason is that the expense and availability of transportation limit the effective range of school choice. (Transportation costs are analyzed in the chapter by Kevin J. Krizek, Elizabeth J. Wilson, Ryan Wilson, and Julian D. Marshall.) One fascinating chapter on Chile, which implemented universal school vouchers in the 1980s, is instructive. One might have thought that school choice would reduce the school segregation inherent in residential segregation, but Carolina Flores found that socioeconomic segregation in schools is even greater than in residential neighborhoods. There are a number of reasons for this, including some schools' ability to select students or to charge fees.

It is possible, however, that a decade from now school choice may have a more profound impact on housing markets and residential choice. Technological changes have begun to upend college education. Perhaps elementary and secondary education will soon face changes just as fundamental, some of which have been foreshadowed by the analysis in this volume. **L**





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# City Farms on CLTs

## How Community Land Trusts Are Supporting Urban Agriculture

**Customers shop for vegetables, herbs, and perennials at Southside Community Land Trust's (SCLT's) annual plant sale, held at City Farm in Providence, Rhode Island.**

*Jeffrey Yuen*

**D**espite the growing popularity of urban agriculture, many city farms continue to face the challenge of insecure land tenure and overly restrictive public policies. Some researchers and policy makers have identified the need for an updated framework for the movement that would support urban farmers as they navigate land use, zoning, and property tax regulations. Community land trusts (CLTs) are contributing to this structure, providing a locally controlled approach to land use that fosters community activism and engagement while responding to evolving market conditions and neighborhood needs.

### **The State of Urban Agriculture**

“Urban agriculture” refers to both commercial and noncommercial activities, within or near a city center, that produce food and non-food items to serve an urban area (Mougeot 2000). While city

farms and community gardens are often the public face of urban agriculture, small-scale backyard growing spaces and edible landscapes also yield a significant portion of production.

Urban agriculture has afforded communities diverse environmental, economic, and social benefits, including improved nutrition, heightened food security, ecological restoration, the creation of open spaces, and opportunities for education and job skills training (Bellows, Brown, and Smit 2004; Kaufman and Bailkey 2000; Smit, Ratta, and Nasr 1996). City farming also has the unique ability to bring together diverse populations, build social capital, and promote empowerment through community building (Stacheli et al. 2002). In legacy cities—older industrial centers that have suffered from sustained job and population losses and ensuing financial, social, and political changes—urban agriculture has been extensively used as both an interim and a permanent development tool to strengthen social cohesion and catalyze progress



in disinvested neighborhoods. The process of repurposing vacant and abandoned lots into growing spaces can be a relatively quick and inexpensive strategy that yields highly visible impacts and improves public safety.

Given these wide-ranging benefits, urban agriculture has enjoyed a renaissance as a social movement. In recent years, some cities and local governments have updated public policies to make them more supportive of urban agricultural practices. The movement is not without its challenges, however, including environmental safety concerns and insecure land tenure (Brown et al. 2002). Land insecurity in particular is frequently cited as the greatest barrier to the implementation and sustainability of city farming (Lawson 2004; Yuen 2012). A 1998 national survey of more than 6,000 urban agriculture sites found that 99.9 percent of gardeners saw land tenure as both a challenge and a vital element to the future success of the movement (ACGA 1998).

In these instances, land insecurity occurs when the cost of market-rate land exceeds the income generated from agricultural activities. Ultimately, the hidden hand of the market presses for the allocation of land according to its highest and best use. Due to this dominant conceptualization, planners and policy makers have historically viewed urban agriculture as an interim measure to keep a site active until higher and better uses can be developed. Scholars note, however, that urban agriculture sites can produce many positive spillover effects related to public health and community wellness, and these benefits are difficult to monetize (Schmelzkopf 1995). Traditional exchange valuations of land rarely reflect a community garden's contributions to healthy food education and the physical wellness of residents. This disconnect between social worth and market values has been the impetus for both public and private interventions.

Local governments typically respond by purchasing tracts of urban agricultural land, effectively insulating them from speculative market forces while also holding them off the tax rolls. While this public sector approach has been critical, it sometimes fails to provide long-term security, especially when administrative changes in local governments lead to shifts in priorities and strategies, as when New York Mayor Rudy Giuliani proposed to auction off 850 community gardens across the city in 1999. Therefore, researchers have focused on

the need for alternative strategies that can complement public sector efforts to support the security of land for urban agriculture.

### **CLTs as a Framework for Urban Agriculture**

A CLT is a nonprofit, community-based corporation with a place-based membership, a democratically elected board, and a charitable commitment to the use and stewardship of land on behalf of the local population. CLTs typically retain permanent ownership of land and lease it to individuals or organizations that own the improvements upon the land, such as residences, commercial buildings, and agricultural or recreational facilities. The CLT model offers a way to retain ownership of land stewarded by and for the community, so that the highest or best use of property can remain community-defined, community-controlled, and adaptable to changing conditions.

Although CLTs have focused on the development and stewardship of affordable housing in recent decades, the movement originated in response to agricultural land issues in rural Georgia during the 1960s. Even earlier agricultural influences included the kibbutzim in Israel, the Gramdan

#### **BOX 1**

#### **2012 Survey of U.S. CLTs**

In the fall of 2012, the National Community Land Trust Network (NCLTN), in partnership with the Lincoln Institute of Land Policy, commissioned a study of urban agricultural and commercial projects conducted by U.S. CLTs (Rosenberg and Yuen 2012). The inquiry examined the role of CLTs in implementing nonresidential projects and assessed the benefits and challenges of such ventures. Researchers distributed a web-based survey to the 224 organizations in the NCLTN database; 56 CLTs (25 percent) completed the questionnaire, and 37 CLTs reported agriculture activities. Twelve CLTs were selected for in-depth data collection, which captured a diversity of projects with varying levels of success in different locations. A case study approach was used for data collection, which included gathering organizational documents and secondary sources as well as interviewing CLT staff. The final working paper is supported by an additional project directory resource that highlights the projects and organizations in the study (Yuen and Rosenberg 2012).

This article draws on that research to examine the benefits, challenges, and considerations for urban agriculture activities by CLTs. It also explores how such interventions can support comprehensive community development efforts, particularly in legacy cities.





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The Somerset Community Garden in Providence, Rhode Island, was the SCLT's first urban agriculture project, started 32 years ago.

TABLE 1 Securing Access to Agricultural Land		
Tenure Arrangement	Advantages	Disadvantages
Fee-Simple Ownership	Long-Term Security High Level of Control	Cost to Acquire Property Taxation Management Obligations
Ground Lease	Low Cost High Level of Control	Legal Complexity Transaction Costs
Easement	Low Cost Ensures Agricultural Use	Transaction Costs
Deed Restriction	Low Cost Ensures Agricultural Use	Enforceability

villages in India, and the Garden Cities of Ebenezer Howard (Davis 2010). The strength of the CLT model lies in its ability to balance local land control and long-term, stewarded development that addresses changing community needs. Thus, CLTs are well positioned to tackle a diversity of land uses through comprehensive development strategies. Legacy cities may be especially ripe for CLT engagement, as the widespread availability of vacant land has spawned a flourishing urban agriculture movement, but with less emphasis on long-term land security.

Our research found that CLTs have supported urban agriculture projects in three distinct ways: by securing access to agricultural land, providing programmatic support, and engaging directly in food production.

### ***Securing Access to Agricultural Land***

The core competencies of CLTs best lend themselves to the task of securing growing space. A central mission of CLTs is to secure land for community development opportunities. To carry out this role, CLTs have utilized diverse tenure arrangements, including fee-simple ownership, ground leases, easements, and deed restrictions (table 1). These arrangements are not mutually exclusive; organizations can employ multiple techniques to secure land both within and across agricultural projects.

### **FEE-SIMPLE OWNERSHIP**

Fee-simple ownership allows a CLT to hold the greatest number of sticks in the bundle of ownership rights and provides a high level of land security, as long as it meets all mortgage payments and tax obligations. For example, Dudley Neighbors Incorporated (DNI), a CLT in Roxbury, Massachusetts, redeveloped the contaminated site of a former auto garage into the 10,000-square-foot Dudley Greenhouse, which functions both as a commercial farm and a community growing space. DNI secured the land through fee-simple ownership and leases the greenhouse structure at a nominal charge to a food-based nonprofit that handles all agricultural programming and maintenance. Harry Smith, Director of Sustainability and Economic Development at DNI, notes, "Growing food is a whole different thing, and we are not looking to take that role."



## GROUND LEASES

While fee-simple ownership is an uncomplicated, highly secure tool, it is often prohibitively expensive for CLTs to purchase urban land outright for food production. Given this challenge, some CLTs have utilized ground leases to secure growing land. The Southside CLT (SCLT), for instance, has a 10-year ground lease with the State of Rhode Island on a 20-acre farm in Cranston. In turn, the Southside CLT manages the farm as the master tenant and subleases plots to seven start-up farmers at nominal rates. The affordability and security of the ground lease creates opportunities for young farmers to incubate new businesses and participate in the local food system. A strong ground lease, with rigorous standards for performance and conditions for renewal, can provide comparable or greater security than fee-simple ownership. However, longer-term ground leases can be challenging to draft and implement, especially when the title-holding entity desires long-term flexibility.

## CONSERVATION EASEMENTS

CLTs have also secured access to land through conservation easements, or voluntary restrictions that permanently limit the uses of the land. Most commonly, the CLT holds an easement donated by a private owner. The private owner retains title

and can even sell the grounds to another party without compromising land security, as the conservation easement ensures long-term access to the agricultural space. Easements can also reduce the management burden on the titleholder, as the recipient of the easement often provides land stewardship services as part of the exchange. This strategy can financially benefit titleholders, who receive local and federal tax benefits for donating conservation easements. While easements can effectively sustain access to growing space, the relatively high legal cost may be expensive, especially for smaller tracts.

## DEED RESTRICTIONS

Deed restrictions can effectively place limitations on the uses of land and are often tied to specific funding sources. While a deed restriction can ensure that land is reserved for a specific use, it does not necessarily offer secure tenure for a specific grower or farmer. Further, deed restrictions are effective only when all parties and external agents choose to enforce the contract. Each tenure

**Sandywoods Farm encompasses 50 units of affordable, eco-friendly rental housing in Tiverton, Rhode Island. Free-range hens and ducks roam the hilltop orchard.**



© Russ Smith







© Lauren Valencio

**Ethel Collins sells produce from the Athens Land Trust community garden in Athens, Georgia.**

arrangement has relative strengths and weaknesses and is best utilized when tailored to a project-specific context. In Wisconsin, for instance, the Madison Area CLT was required to grant a deed restriction to the City of Madison as a condition for funding the Troy Gardens mixed-use development site. A deed restriction was placed over a portion of the site, limiting uses to agricultural and conservation projects. The CLT's failure to abide by the terms of the deed restriction, however, would trigger immediate repayment of all subsidy funds provided by the city.

### ***Programmatic Support***

As the task of securing agricultural land can be very challenging, it may not be a suitable undertaking for every organization or community. Some CLTs have supported urban agricultural efforts through other means, such as program management, technical assistance, and other agricultural services. In Georgia, for example, the Athens Land Trust is a dual-mission housing and open space land trust that has engaged in urban agriculture exclusively through program assistance. Athens Land Trust chose to take on this role because of

the high holding costs associated with property taxation policies in Georgia, which assesses CLT land at the unrestricted market value. The Athens Land Trust partners with public- and private-sector landowners to provide support for local agricultural projects. For instance, the Athens Land Trust staff worked with the Hill Chapel Baptist Church congregation to design a community garden on church-owned land and provided support services, such as testing and tilling of the soil, organizing workdays, and providing plant materials and instructional gardening workshops.

### ***Agricultural Production***

Finally, some CLTs have participated in agricultural production, directly and actively farming land. For example, the Southside CLT operates a three-quarter-acre commercial farm in Providence, Rhode Island, growing greens and selling produce directly to local restaurants. Many CLTs support agricultural production indirectly as well, by providing residential properties where the residents themselves grow food in backyard gardens. Hence, many CLTs have unknowingly supported urban agriculture for years, simply by offering affordable



and secure access to tillable land in cities. Some groups, such as DNI, specifically design larger home ownership lots to enable opportunities for backyard urban gardening. Harry Smith of DNI explained, “As we did our community planning, people were very clear that they wanted to see open spaces and attention paid to the residents’ quality of life. We are trying to build [agriculture] into the housing itself.” In this way, the scope of CLT agricultural production can also include innovative design features, such as edible landscapes, food forests, and other permaculture concepts that are intentionally and systematically incorporated into a development plan.

### ***Benefits of CLT-Supported Urban Agriculture***

Ultimately, the study found mutual benefits between urban agriculture and CLTs. City farms enhance the value of CLTs by helping organizations expand their development vision to include a more comprehensive set of neighborhood needs and priorities. All communities have a variety of needs beyond affordable housing, and agricultural projects can create linkages to other key issues, including food security, health education, vacant land remediation, and neighborhood safety. Agricultural projects can even be seen as neighborhood amenities, potentially increasing demand for nearby CLT properties or residences in the conventional market. For example, the Church Community Housing Corporation (CCHC) developed the Sandwoods Farm project in Tiverton, Rhode Island, to include a mix of residential, agricultural, and arts-related programming. The CCHC initially marketed the development solely as an arts community, but prospective residents expressed strong interest in the community garden and in farmland preservation. Consequently, CCHC rebranded the project as an “art and agriculture” development. Brigid Ryan, senior project manager of CCHC, explained, “The agriculture has taken off much more than we ever thought it would. The garden is actually drawing some people [to the rental housing units]. They never thought their kids would be able to grow their own food.”

Beneficial connections between agriculture and housing were also present at DNI’s Dudley Greenhouse. Harry Smith of DNI notes, “The project certainly helps the marketability of our homes. People are not just getting a house, they are getting

a community, and it’s based on fresh, locally grown food.”

### ***Challenges for CLT-Supported Urban Agriculture***

Despite the benefits, CLTs implementing agricultural projects still face many challenges. In particular, financial profitability continues to be a major struggle across the entire urban agriculture sector, as revenues generated from produce sales are relatively modest, even in commercial operations. The Southside CLT covers only 8 percent of its operating expenses through commercial produce sales to local restaurants. Additional revenue sources, such as membership fees and seedling sales, bring the CLT’s earned income to only 20 percent of its expenses. CLTs continue to rely heavily on grant funding to make up the difference.

A second potential challenge is that some projects require a high level of agricultural knowledge and may test the capacity and experience of CLT staff. Even Athens Land Trust, which has staff experienced in agricultural land preservation and growing techniques, acknowledged the initial difficulties in learning the nuances of local zoning

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**Traditional exchange valuations of land rarely reflect a community garden’s beneficial effects on healthy food education and the physical wellness of residents.**

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**Schoolchildren learn to create raised beds at the Dudley Greenhouse in Roxbury, Massachusetts.**



© Travis Watson

codes related to commercial agriculture. As a result, some of the CLT's pipeline projects were delayed until workable zoning solutions could be found. The risk is compounded for commercial agricultural projects that require significant understanding of processing and distribution systems

and local market conditions. At Sandywoods Farm, for example, the CCHC initially planned to use preserved farmland for livestock and cattle grazing, only to discover that the sole Rhode Island butchering facility had closed. The nearest facility

was across the state line in Massachusetts, making it prohibitively expensive to process meat. Brigid Ryan, senior project manager at CCHC, noted, "When you end up having to learn these specialty niches, it becomes so important to find partners who know what they are talking about." Given the challenges and potential pitfalls, CLTs need to consider the following issues to improve the feasibility and sustainability of agricultural projects.

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**"People are not just getting a house, they are getting a community, and it's based on fresh, locally grown food."**

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**Sara Smith, a local resident and gardener in SCLT's Somerset Garden.**

## COMMUNITY ENGAGEMENT

As community-based organizations, CLTs should always be driven by neighborhood needs and concerns. However, strong community planning processes are particularly vital to the success of urban agriculture, where CLTs often rely on local residents and partners to carry out agricultural production. Harry Smith of DNI emphasizes this point: "I would say the work of a CLT is not just to manage the properties and get more land into the trust, but to really engage the community in what they want besides housing—whether that's commercial operations, or a greenhouse, or agricultural land." Further, CLT engagement around agricultural projects can catalyze broader community organizing efforts and help residents push for more supportive public policies.

## ORGANIZATIONAL ASSESSMENT

CLTs can support nonresidential projects in a variety of ways, and organizations should systematically assess internal capacities as well as local stakeholders who could serve as potential partners on projects. In this way, CLTs can develop complementary collaborations and build on existing assets

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and capacities in the community. A CLT that lacks growing experience can support urban agriculture in alternate ways to better align with local partners, by securing land, helping to develop urban agriculture zoning codes, or serving as a fiscal agent for grant funding.

### MANAGING RISK

CLTs should minimize their financial risk in agricultural projects, especially given the modest revenues and future uncertainties associated with food-related grant funding. In response, some CLTs have front-loaded anticipated capital expenses owing to agriculture projects. Similarly, CLTs can manage risk exposure by avoiding debt financing on agricultural projects. Several CLTs have found debt service to be extremely challenging, given the modest revenues from produce sales and the nominal lease fees that CLTs typically charge for agricultural land. For instance, DNI was able to acquire land and construct the Dudley Greenhouse without incurring long-term debt, while its local property tax-exempt status allowed for minimal holding costs. The resulting low-risk financial structure became critically important when DNI was unable to secure its initial greenhouse tenant. Even though the greenhouse was subsequently vacant for nearly five years, DNI was well positioned to absorb the unexpected vacancy loss.

### Conclusion

While the urban agriculture movement has gained much momentum in recent years, it still needs coherent, long-term strategies to protect growing spaces against speculative market forces. The fundamental relationship between land and community is at stake. Within the urban agriculture movement, land insecurity highlights the pressing need for a reconceptualization of land as a finite, shared resource that should be held in stewardship to meet the requirements of present and future communities. Further, the notion of the highest and best use needs to be expanded to include nonfinancial outcomes and avenues for substantive community engagement. CLTs are ideally suited to tackle these critical issues and, in doing so, can help community development processes become more inclusive, equitable, and responsive to changing local conditions. **L**

### ABOUT THE AUTHOR

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# The Window Tax

## A Transparent Case of Excess Burden

*Wallace E. Oates and Robert M. Schwab*

**A** major argument in support of land-value taxation is that it creates no incentives for altering behavior in order to avoid the tax. By contrast, a conventional property tax, levied on buildings, can deter landowners from erecting otherwise desirable structures on their land. For example, homeowners may decide against finishing a basement or adding a second bath because it would increase tax liability. Thus, a conventional property tax can lead to excessively low capital-land ratios and “excess burden”—a cost to taxpayers over and above the actual monetary payments they make to the tax authorities. This article reports on a recent study of excess burden resulting from an early British antecedent of the modern property tax—the 17th-century window tax.

**Blocked windows in Bath, England, owe to a 17th-century property tax levied on the number of windows in a dwelling.**

### **The Case of the Window Tax**

In 1696, King William III of England, in dire need of additional revenues, introduced a dwelling unit tax determined by the number of windows in an abode. The tax was designed as a property tax, as described by this discussion in the House of Commons in 1850: “The window tax, when first laid on, was not intended as a window tax, but as a property tax, as a house was considered a safe criterion of the value of a man’s property, and the windows were only assumed as the index of the value of houses” (HCD 9 April 1850).

In its initial form, the tax consisted of a flat rate of 2 shillings upon each house and an additional charge of 4 shillings on houses with between 10 and 20 windows, or 8 shillings on houses with more than 20 windows. The rate structure was amended over the life of the tax; in some cases, rates were raised dramatically. In response, owners of dwellings attempted to reduce their tax bills by boarding





up windows or by constructing houses with very few of them. In some dwellings, entire floors were windowless, leading to very serious and adverse health effects. In one instance, lack of ventilation led to the death of 52 people in the surrounding town, as reported by a local physician who called on a house inhabited by poor families:

In order to reduce the window tax, every window that even poverty could dispense with was built up, and all sources of ventilation were thus removed. The smell in the house was overpowering and offensive to an unbearable extent. There is no evidence that the fever was imported into this house, but it was propagated from it to other parts of town, and 52 of the inhabitants were killed. (Guthrie 1867)

The people protested and filed numerous petitions to Parliament. But, despite its pernicious effects, the tax lasted more than 150 years before it was finally repealed in 1851.

The window tax represented a substantial sum for most families. In London, it ranged from about 30 percent of rents on “smaller houses on Baker Street” to as much as 40 to 50 percent on other streets, according to a House of Commons debate in 1850 (HCD 9 April 1850). The tax was particularly burdensome on poor families living in tenements, where assessors taxed the residents collectively. Thus, if a building contained 2 apartments, each with 6 windows, the building was taxed at a rate based on 12 windows. By contrast, on very large houses of the wealthy, the tax typically did not exceed 5 percent of the rental value.

The tax schedule underwent several significant changes before it was finally repealed. In 1784, Prime Minister William Pitt raised tax rates to compensate for lower taxes on tea. Then in 1797, Pitt’s Triple Assessment Act tripled the rates to help pay for the Napoleonic Wars. The day following this new act, citizens blocked up thousands of windows and wrote in chalk on the covered spaces, “Lighten our darkness we beseech thee, O Pitt!” (HCD 24 Feb. 1848).

England and Scotland were both subject to the window tax, but Ireland was exempted because of its impoverished state. One member of Parliament quipped, “In advocating the extension of the window tax to Ireland, the Honorable Gentleman seemed to forget that an English window and

an Irish window were very different things. In England, the window was intended to let the light in; but in Ireland the use of a window was to let the smoke out” (HCD 5 May 1819).

The window tax, incidentally, was viewed as an improvement over its antecedent, the hearth tax.

In 1662, Charles II (following the Restoration) imposed a tax of 2 shillings on every fire hearth and stove in England and Wales. The tax generated great resentment largely because of the intrusive character of the assessment process. The “chimney-men,” as the assessors and tax collectors were called, had to enter the house in order to count the number of hearths and stoves. The window tax, by contrast, did not require access to the interior of a dwelling; the “window peepers” could count the apertures from the outside and avoid invading the privacy of the home.

The window tax, however, created some administrative problems of its own—most notably the definition of a window for purposes of taxation. The law was vague, and it was often unclear what constituted a window for tax purposes. In 1848, for example, Professor Scholefield of Cambridge paid tax on a hole in the wall of his coal cellar (HCD 24 Feb. 1848). In the same year, Mr. Gregory Gragoe of Westminster paid tax for a trapdoor to his cellar (HCD 24 Feb. 1848). As late as 1850, taxpayers urged the Chancellor of the Exchequer to clarify the definition of a window.

### Notches and Their Effects on Behavior

Throughout its history, the window tax consisted of a set of “notches.” A notch in a tax schedule exists if a small change in behavior—such as the addition of a window—leads to a large change in tax liability.

Notches are rare (Slemrod 2010) and not to be confused with kinks, which are far more common even today. A kink in a tax schedule exists if a small change in behavior leads to a large change in the marginal tax rate but just a small change in tax liability. The income tax in the United States, for example, has several kinks. Married couples with taxable income from \$17,850 to \$72,500 are

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**People chose the number of windows not to satisfy their own preferences, but to avoid paying higher levels of taxes. The window tax, in short, generated a real “excess burden.”**

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in the 15 percent marginal tax bracket; couples with taxable income from \$72,500 to \$146,400 are in the 25 percent marginal tax bracket. If a couple with income of \$72,500 were to earn an extra

dollar, its marginal tax rate would jump to 25 percent, but its tax liability would increase by just \$.25.

Microfilm records of local tax data in the U.K. from 1747 to 1830 allow for a more systematic examination of the impact of the window tax

and notches. This article draws on a data set from 1747 to 1757, with information on 493 dwellings from Ludlow, a market town in Shropshire, near the border of Wales. Over this period, the window tax schedule included 3 notches. A homeowner in this period paid:

- no tax if the house had fewer than 10 windows;
- 6 pence per window if the house had 10 to 14 windows;
- 9 pence per window if the house had 15 to 19 windows;
- 1 shilling per window if the house had 20 or more windows.

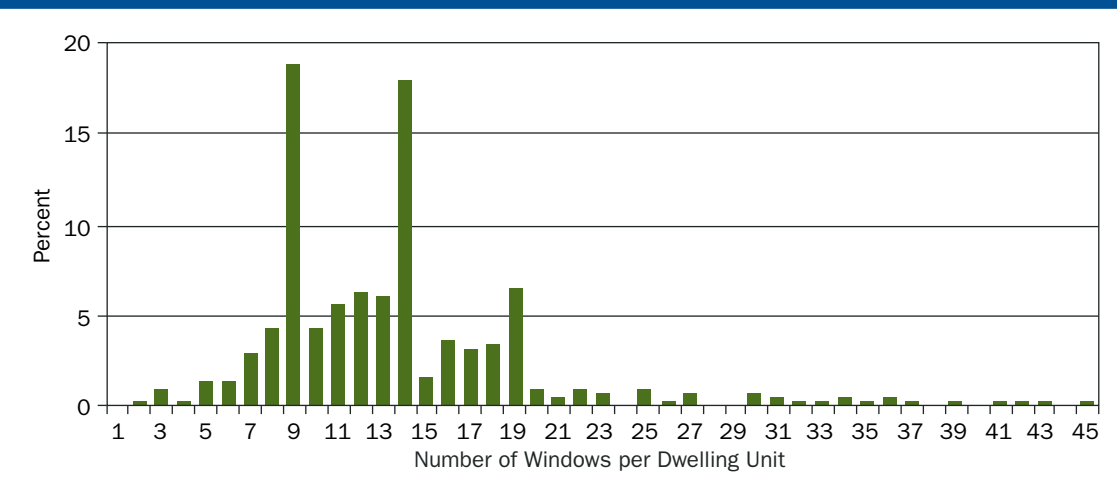
Homeowners who purchased a 10th window thus paid a 6 pence tax on the 10th window as well as on each of their 9 other windows, which previously had been untaxed. Thus the total tax on the

10th window was 60 pence, which was equal to 5 shillings. If the window tax distorted decisions and thus led to excess burden, then one would expect to find many homes with 9, 14, or 19 windows but very few with 10, 15, or 20. A test of this argument is discussed below.

Through the first half of the 18th century, the administration of the tax had been troublesome, as homeowners frequently camouflaged or boarded up windows until the tax collector was gone, or took advantage of loopholes or ambiguities in the tax code. As a result, tax collections were much lower than expected. In 1747, however, Parliament revised the tax by raising rates and introducing measures to improve its administration. Most notably, it prohibited the practice of blocking up and subsequently reopening windows in order to evade assessment; violators had to pay a penalty of 20 shillings (1 pound) for every window they reopened without notifying the tax surveyor (Glantz 2008).

The 1747 act reduced tax evasion significantly, so the data for the following 10 years should provide reasonable estimates of the actual number of windows. If the window tax distorted behavior, one would expect to find spikes in the number of dwellings at the notches, with 9, 14, or 19 windows. And this is precisely what the data demonstrate. Figure 1 is a histogram showing the number of windows for homes in the sample. The pattern is clear; there are sharp increases in the number of homes with 9, 14, or 20 windows:

**FIGURE 1**  
Distribution of the Number of Windows per Dwelling Unit 1747–1757



Source: Authors' calculations using local tax data in Ludlow, England.



- 18.4 percent of the homes have 9 windows, 3.9 percent 8 windows, and 4.6 percent 10 windows.
- 16.6 percent have 14 windows, 6.0 percent 13 windows, and 1.8 percent 15 windows
- 7.1 percent have 19 windows, 3.4 percent 18 windows, and 0.7 percent 20 windows.

Standard statistical tests reject the hypothesis that there are equal numbers of houses with 8, 9, or 10 windows; with 13, 14, or 15 windows; or with 18, 19, or 20 windows. It is manifestly clear that people responded to the window tax by locating at one of the notches so as to minimize their tax liability.

Data on a sample of 170 houses for the period 1761 to 1765 shed light on the response to Parliamentary revisions to the tax in 1761. In addition to rate increases, the 1761 revisions expanded coverage of the tax to include houses with 8 or 9 windows. Under the earlier rate structures, houses with fewer than 10 windows paid no window tax. For this second sample, figure 2 shows a large spike at 7 windows: 28.2 percent of the houses have 7 windows, but only 5.2 percent have 6 windows, and just 2.9 percent have 8 windows. Once again, it's easy to reject the hypothesis that there were an equal number of houses with 6, 7, or 8 windows.

In summary, the evidence from our two samples makes it quite clear that there was a widespread tendency to alter behavior in order to reduce tax payments. People chose the number of windows



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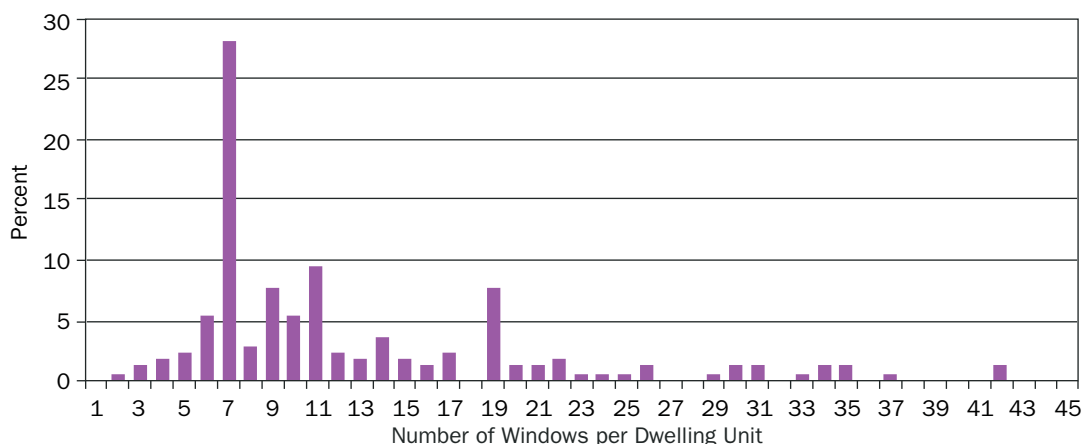
**“The adage ‘free as air’ has become obsolete by Act of Parliament,” quipped Charles Dickens in 1850, in response to the window tax.**

not to satisfy their own preferences, but to avoid paying higher levels of taxes. The window tax, in short, generated a real “excess burden.”

### How Large Was the Excess Burden from the Window Tax?

As discussed, the window tax was substantial and induced widespread tax-avoiding behavior. Based on some standard techniques of economic analysis, our simulation model generates an estimate of what people would have been willing to pay for their preferred number of windows. The model captures each consumer’s demand for windows

**FIGURE 2**  
**Distribution of the Number of Windows per Dwelling Unit 1761–1765**



Source: Authors' calculations using local tax data in Ludlow, England.



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with and without the tax, the taxes paid, and the loss of welfare from adjusting the number of windows in response to the tax.

In the sample from 1747 to 1757, the estimated welfare losses were very large for households at one of the notches. For them, the welfare loss (i.e., excess burden) is 62 percent of the taxes they paid. That is to say, for every dollar collected under our simulated version of the window tax, the tax imposed an additional burden or cost of 62 cents on these households. The excess burden, not surprisingly, is particularly large for households that chose 9 windows. One criterion economists use to evaluate a tax is excess burden relative to taxes paid. By this standard, a good tax is one that collects significant revenue but leads to very small changes in decisions. Consumers who purchased 9 windows are thus the worst possible case. Those consumers paid no tax; so, for them, the entire burden of the tax is excess burden.

For our entire sample of 1,000 simulated households, the excess burden as a fraction of taxes paid is about 14 percent. Thus for each tax dollar raised by the window tax, our simulation suggests an additional cost of 14 cents to taxpayers as a result of their distorted choices.

## Some Concluding Remarks

The window tax represents a very clear, transparent case of excess burden—a tax that placed heavy costs on taxpayers in addition to their tax liabilities resulting from tax-avoiding adjustments in behavior. But, as mentioned early on, modern property taxes also create an excess burden, although the consequences are less dramatic than in the case of the window tax.

In designing a tax system, it is important to consider this issue. The ideal, in principle, is a neutral tax that raises the desired revenues but doesn't distort taxpayer behavior so as to create additional burdens. Such a tax is a pure land-value tax levied on the site value of the land—that is, its value with no improvements. Thus, the assessed value of the land (and hence the tax liability of the owner) is completely independent of any decisions made by the owner of the land parcel. Unlike the window tax, which provides a compelling example of the additional costs that arise when property tax liabilities depend on the behavior of the property owner, a land-value tax creates no incentives for tax-avoiding behavior. **L**



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# Land Values in Chicago, 1913–2010

## A City's Spatial History Revealed

*Gabriel M. Ahlfeldt and Daniel P. McMillen*

**M**ore than any other single variable, the change in land values across time and over space provides important insights into the shifting spatial structure of a city. Whereas a typical property sale reflects the combined value of the land and buildings, the land value alone represents the actual current worth of a location and suggests expectations about the future. Even if a parcel bears the burden of an outmoded construction, the price of the land reflects the present discounted value of the stream of returns that could be earned from the highest and best use of the parcel. Rapidly rising land prices in an area of a city are a clear indication that people expect the neighborhood to be in high demand for some time to come, signaling investment opportunities to developers. Changes in land values may also serve to alert city officials that an area may require zoning changes and investments in infrastructure.

Land value is also an important component in the cost approach to property assessment, which is one of the three commonly used assessment methods (including the sales comparison and income approaches). The cost approach has three major components: (1) the cost of building the existing structure if it were new at the time of assessment; (2) the depreciation of the building

**Land value in downtown Chicago has remained at a premium for a century.**



to its current condition; and (3) the price of the land parcel. Adding (1) to (3) and subtracting (2) generally produces a good estimate of overall property value. In standard property transactions, however, land values are not easily separated from the value of structures. Sales of vacant land, which more clearly indicate a site's value, are relatively rare in large, built-up urban areas; as a result, relatively few studies of vacant land sales exist (see Ahlfeldt and Wendland 2011; Atack and Margo 1998; Colwell and Munneke 1997; Cunningham 2006). Teardowns can sometimes be used to measure land values, because land represents the entire value of a property when the existing building is demolished immediately following a sale

(McMillen 2006; Dye and McMillen 2007).

However, teardowns tend to be concentrated in certain high-value neighborhoods, and the data on demolitions can be hard to obtain.

Among U.S. cities, Chicago is uniquely fortunate to have a data source, *Olcott's Land Values Blue Book of Chicago*, which reported estimates of land values for every city block and for blocks in many Cook County suburbs for most of the 20th century. *Olcott's* provided a critical input to the cost assessment procedure: After determining the building cost and depreciation, the overall value of a property can be assessed by multiplying the parcel size by the land value provided in the *Blue Book* series. This article is based on a sampling of data from the *Olcott* volumes (box 1). It includes a series of maps that provide a clear picture of the spatial evolution of Chicago during the 20th century, similar in spirit to the classic book, *One Hundred Years of Land Values in Chicago* (Hoyt 1933).

#### BOX 1

#### Data Sources for Chicago Land Values

**O**lcott's *Land Values Blue Book of Chicago* covers the City and much of suburban Cook County with a series of 300 maps, each printed on one page of a book. The city itself comprises 160 individual maps with an impressive level of detail. Most block faces have a value representing the price per square foot for a standard 125-foot-deep lot. Land use is also indicated. Large lots and most industrial land have prices quoted by the acre or occasionally by the square foot for an unspecified lot depth. The data represent land values for 1/8- x 1/8-mile square grids, which closely follow Chicago's street layout and thus resemble city blocks. Each year's data set includes 43,324 observations for the entire city.

The Lincoln Institute of Land Policy has provided funding to digitize the data contained in *Olcott's Blue Book* for a series of years spanning much of the twentieth century: 1913, 1926, 1932, 1939, 1949, 1961, 1965, 1971, 1981, and 1990. A more thorough description of the procedure used is presented in Ahlfeldt et al. (2011). Digitizing the maps involves bringing them into a GIS environment. Average land values are calculated for 1/8- x 1/8-mile squares overlaid on the maps. The full data set has more than 600,000 data points across the 10 individual years.

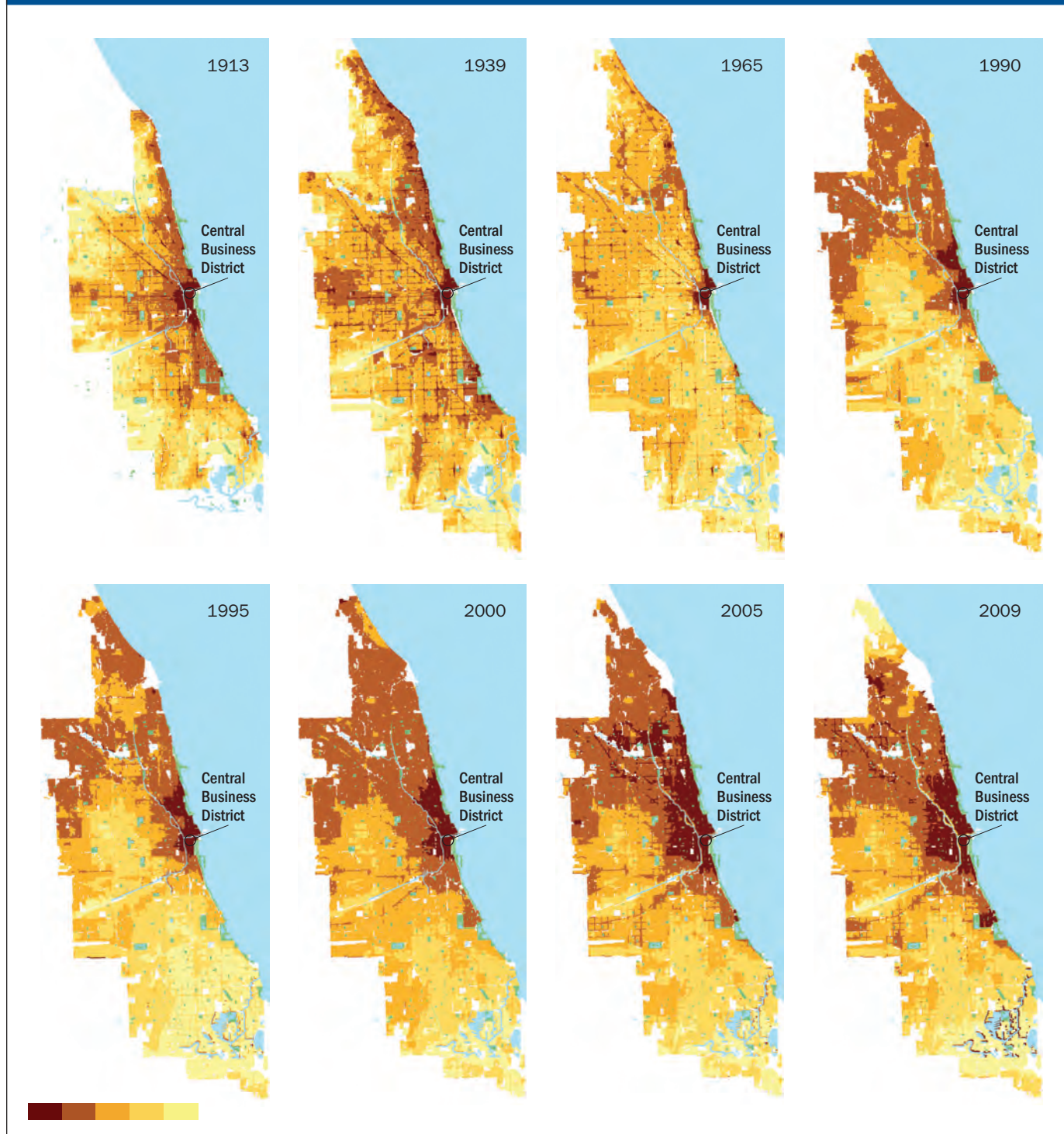
*Olcott's* stopped publication in the early 1990s, and the last year of digitized data is 1990. To supplement *Olcott's* records for recent years, the authors obtained data on all vacant land sales in the city from 1980 to 2011. More than 16,000 sales were successfully geocoded, and they display the dramatic increase in land prices during the period prior to the collapse of the housing market at the end of 2006. These combined data sets provide a unique opportunity to analyze the changing spatial structure of an entire city over an extended time.

#### Spatial Variation in Land Values

Despite its flat terrain, Chicago has never been a truly monocentric city. Lake Michigan has long been an attractive amenity for its scenic value, its moderating effect on the climate, and the series of parks lining its shore. The Chicago River also has had a significant influence on the location of both businesses and households. Development to the north of the Central Business District (CBD) was delayed because the bridges over the main branch of the river had to open so often for river traffic that commuting to the Loop business area was unpredictable and time consuming. The north and south branches of the river attracted both industrial firms and low-priced residential developments for laborers while repelling high-priced homes designed for CBD workers. The locations of major streets, highways, and train lines also had significant effects on development patterns. Thus, there is ample reason to expect that the rate of change in land values varies across the city.

The maps in figure 1 show this spatial variation in land values in Chicago over time. In 1913, land values were highest in a large area around the CBD, and they were also quite high along the lake-front and along some of the major avenues and boulevards leading out of the downtown area. In 1939, this pattern was generally similar, along with the rise of the north side relative to the south side of the city: Land values were very high all along

**FIGURE 1**  
**A Century of Land Values in Chicago**

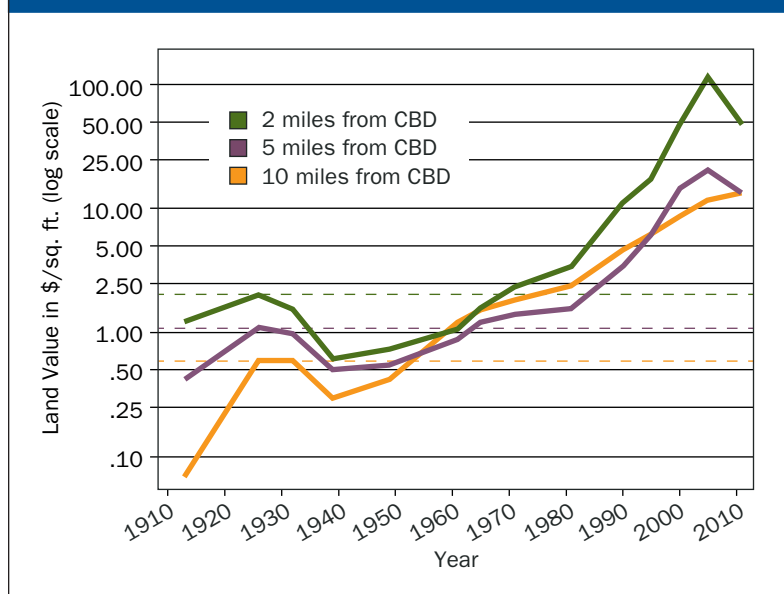


Note: Dark brown = very high land value, fading into light yellow = very low land value.

Source: Authors' calculations using *Olcott's* data for years prior to 1995 and vacant land sales for 1995–2005.



**FIGURE 2**  
**Land Values Relative to Distance from the CBD**



Source: Authors' calculations.

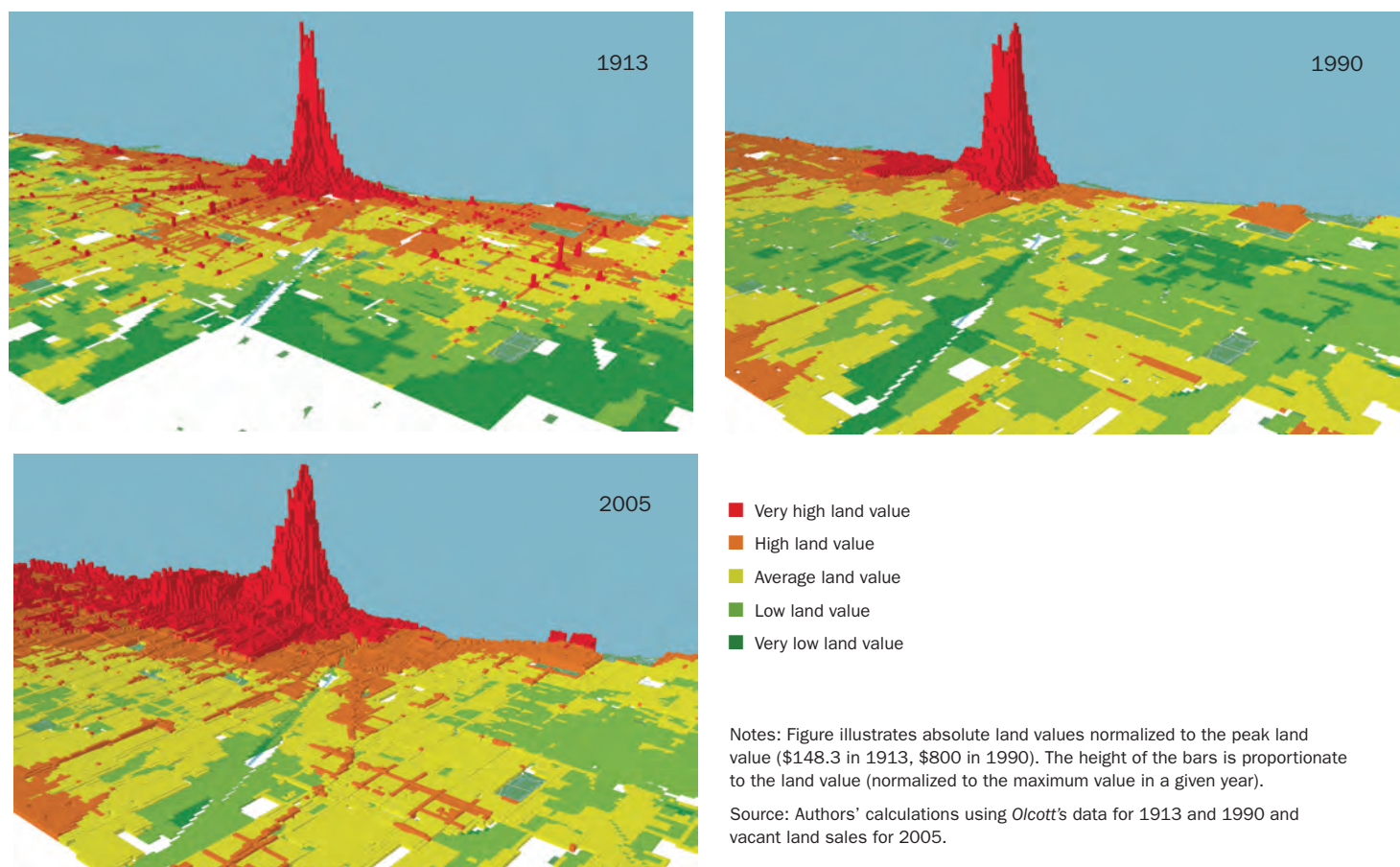
the northern lakefront and extending well inland on the north side. The area at the edge of the city due west of the CBD (the Austin neighborhood) also had relatively high land values in 1939.

By 1965, the pattern of land values had changed markedly. Very high land values were confined to a relatively small area in the CBD. The high-value area of the west-side Austin neighborhood was much smaller in 1965 than in 1939, and nearly all the formerly high-value areas had shrunk in size.

By 1990, however, the situation changed dramatically. The area with very high values extended much farther north and inland than previously. Areas on the south side had relatively high land values in 1990, particularly around the South Loop (near the CBD) and Hyde Park (along Lake Michigan south of the CBD).

After 1990, the pattern of continued redevelopment of the city is based on an analysis of actual

**FIGURE 3**  
**Land Value Surfaces in 1913, 1990, and 2005**



sales of vacant land. The expansion of the high-value area to the north and west of the CBD is remarkable, and the near south side also enjoyed a resurgence during this time.

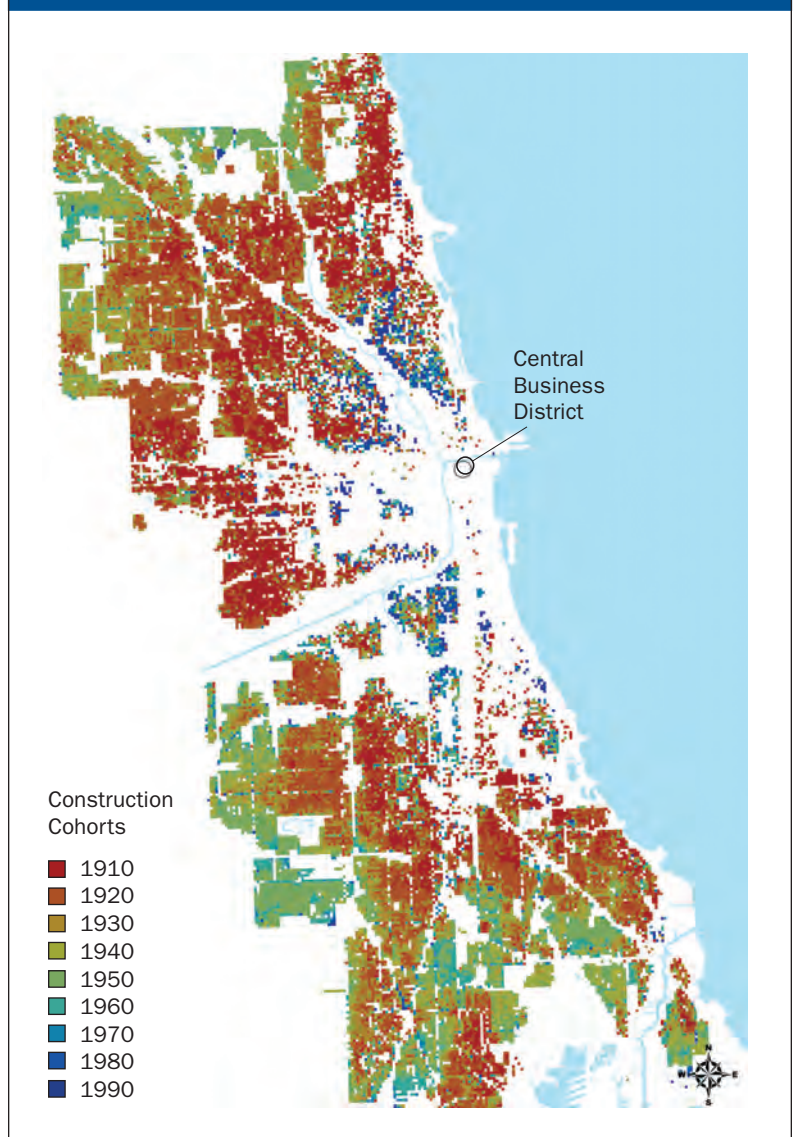
Figure 2 addresses how the recent recession affected the growth of land values in Chicago by expressing land values as a function of distance from the CBD. The plots show the change in average (log) land values over time for tracts with centroids falling within 2-, 5-, and 10-mile rings around the CBD. In 1913, average land values were far lower 10 miles from the CBD than in the closer rings. By the 1960s, there was little difference between land values across these distances. Since then, average values grew much more in the 2-mile ring than in more distant locations. During the Great Recession, land values declined rapidly in the 2-mile ring, less rapidly in the 5-mile ring, and not at all in the 10-mile ring. Thus, the areas that had the highest rates of appreciation during the period of extended growth also had the highest rates of decline during the recession.

Figure 3 provides a different perspective on the spatial variation in land values over time. The three panels show smoothed land value surfaces for 1913, 1990, and 2005. The 1913 and 1990 surfaces are estimated using *Olcott's* data, while the 2005 estimates are based on sales of vacant land. In all three years, land values are far higher in the CBD than elsewhere. In 1913, there are a large number of local peaks in land values at the intersections of major streets. These areas were relatively small commercial districts that served local residents in a time before car ownership was commonplace. In 1990, the land value peak in the CBD is accompanied by a much lower plateau just to the north along the lakefront. In 2005, the plateau has grown to a large area that extends well into the north side and inland along the lakefront. The region of high land values has also extended south along the lakefront, with a local rise much farther south in Hyde Park.

### Persistence of Spatial Patterns

Historical land values are interesting not only because they reveal how an urban area has changed over time, but also because the past continues to exert substantial influence on the present. Cities are not rebuilt from scratch in every period. Buildings last a long time before they are demolished,

**FIGURE 4**  
**Construction Date Cohorts in 2003**



Notes: Construction date cohorts are defined based on the mean construction date of buildings within 330x330 ft. as existing in 2003.

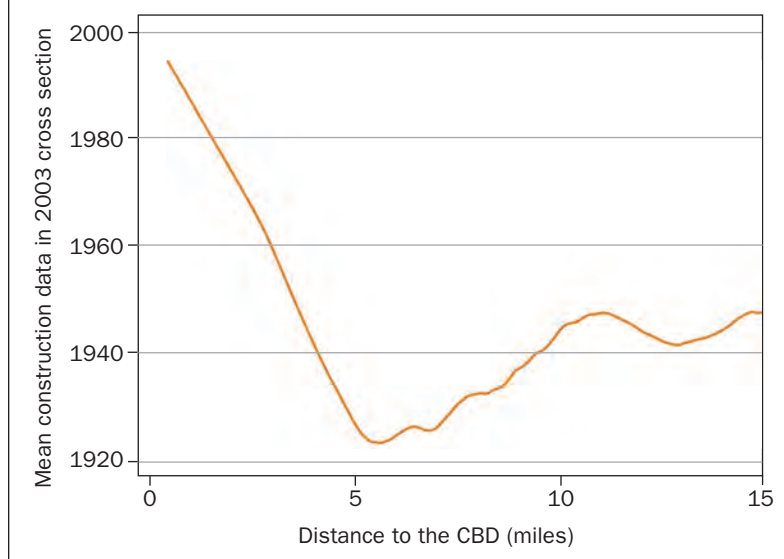
Source: Authors' calculations using 2003 assessment roll for Chicago.

and sites that were attractive in the past tend to remain desirable for a long time. One of the unique features of the *Olcott's* data set is that it allows us to compare land values from 100 years ago to current land values and land uses.

Figure 4 shows the average date of construction for the 1/8- x 1/8-mile squares. The recent recentralization of Chicago is evident in the donut shape of building ages around the CBD. The newest buildings are close to the CBD, while the oldest buildings are in the next ring. Buildings in the most



**FIGURE 5**  
Average Construction Dates by Distance from the CBD



Source: Authors' calculations.

distant region were most likely built between 1940 and 1970.

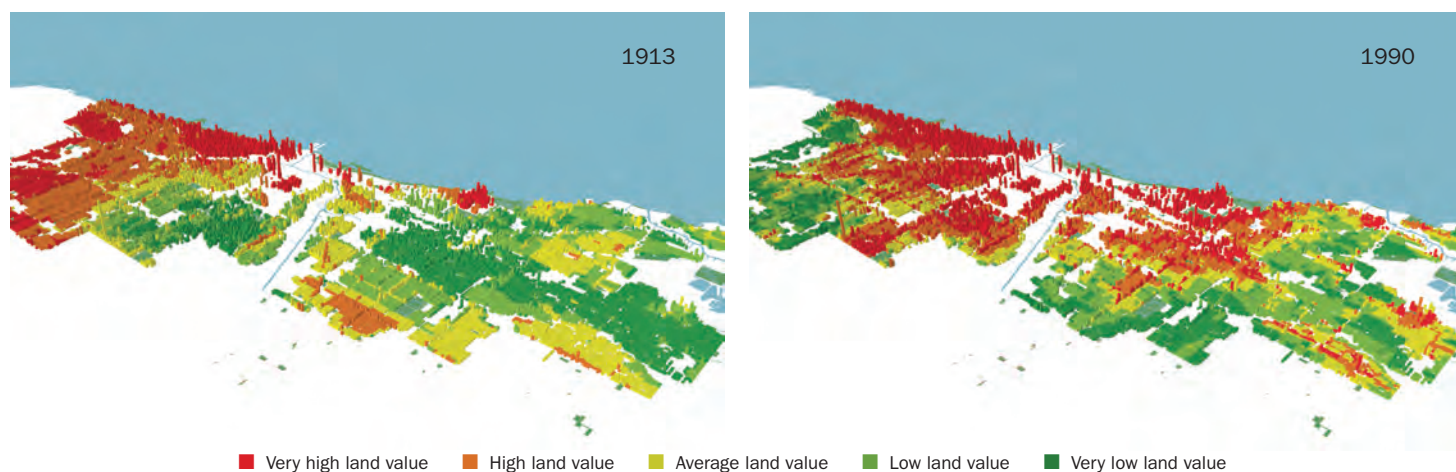
Figure 5 summarizes this relationship by comparing the mean construction date to distance from the CBD. The oldest buildings are in a ring just over 5 miles from the CBD.

A good measure of structural density is the ratio of building area to lot size. Economic theory

predicts that structural densities will be high where land values are high. Structures last for a long time. How well do past values predict current structural density? Figure 6 compares the structural density of buildings in the 2003 Cook County assessment rolls to land values in 1913 and 1990. This data set includes the building area of every small (six units or fewer) residential structure in Chicago.

The height of the bars indicates the structural densities: Tall bars have relatively high ratios of building areas to lot sizes. The color of the bars indicates land values: Red bars have relatively high land values. Thus, we should expect to see a large number of tall red bars and low green bars. In general, the two panels do indicate a positive correlation between structural density and land values. The correlation is particularly evident on the north side and along the lakefront. The correlation with 1990 is less clear on the south and west sides. Several elevations in the density surface are not matched by correspondingly high land values. One explanation for these results, which are in line with the reorientation of high-priced areas toward the north side, is that the relatively high densities in these areas are artifacts of a past when those blocks were relatively more valuable and when there were incentives to use the land intensively. The 1913 panel of figure 6 suggests that land

**FIGURE 6**  
Intensity of Land Use in 2003 vs. 1990 and 1913 Land Values



Note: In this figure, the height of the bars is proportionate to density (the ratio of total floor space to land area).

Source: Authors' calculations using Olcott's data and the Chicago assessment roll.

values are actually more closely correlated with building densities for 2003 than are the 1990 values. The root of this apparently anomalous result is that building density reflects the economic conditions at the time of construction, and most of the buildings in that part of the city date from long ago. The past continues to exert a major influence on the present.

## Conclusion

*Olcott's* data provide a clear picture of the changes in Chicago's spatial structure during most of the 20th century. Never a truly monocentric city, Chicago began the century with very high land values in the CBD, along the lakefront, and along major avenues and boulevards leading out of the downtown area. Values were also high in neighborhood retail areas at the intersections of major streets. By 1939, the north side of Chicago had already begun to display its economic dominance. The city then suffered an extended period of decline, with the CBD holding the only major cluster of high land values in the 1960s. Since then, the city has undergone a remarkable resurgence. High land values now extend over nearly the entire north side, and land values have also rebounded in parts of the south side. Our analysis also shows the strong role that history continues to play in the current spatial structure of the city. A result of this persistence is that land values from a century ago are better than current land values at predicting the density of the current housing stock. **L**

## Acknowledgments

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**The Chicago River's influence on development patterns remained strong throughout the 20th century.**

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*Antonio Azuela, a fellow of the Institute for Social Research at Mexico's National University, holds law degrees from the Universidad Iberoamericana (Mexico) and the University of Warwick (England), as well as a Ph.D. in sociology from Mexico's National University (UNAM). Since the late 1970s, he has been engaged in research and teaching on urban and environmental law from a sociolegal perspective. His book *Visionarios y pragmáticos: Una aproximación sociológica al derecho ambiental* (*Visionaries and Pragmatists: A Sociological Approach to Environmental Law*), Mexico: UNAM, 2006, is a sociological reconstruction of his experience as General Attorney for the Environment in the Mexican Federal Government, from 1994 to 2000. He has recently edited the book *Expropiación y conflicto social* (*Expropriations and Social Conflict in Five Latin American Metropolises*), published by UNAM and the Lincoln Institute of Land Policy in 2013.*

**LAND LINES:** *How did you get involved with the Lincoln Institute of Land Policy?*

**ANTONIO AZUELA:** In 1991, I met several of the Institute's officers while they were on an exploratory trip to Mexico. I stayed in touch, because I was interested in the Institute's approach to urban policy. My relationship grew stronger in 1998 through a meeting in Cairo organized by the International Research Group on Law and Urban Space (IRGLUS), where the Institute expressed interest in a sociolegal approach to urban land problems. In 2000, I was honored with an invitation to join the Institute's Board of Directors. Since then, I have been in permanent contact with the Lincoln Institute staff and programs.

**LAND LINES:** *Why has the public acquisition of land become such a critical issue, particularly in Latin America?*

**ANTONIO AZUELA:** Expropriation, also known as eminent domain (i.e., the compulsory acquisition of land by the state) is an important subject all over the world, because it is a way of procuring land for public urban projects. But in Latin America it is even more critical, due to the weak nature of the state regarding urban matters. Before the democratic transition in the region, it was easier for governments to procure land using mechanisms that would be questionable in a democracy. But the transition has strengthened the judicial branch, which is generally unsympathetic to government interventions in the marketplace. Now, it's increasingly possible for private owners to interfere with the public acquisition of land in the region (with the notable exception of Colombia, where a wide-ranging coalition of professionals, judges, and social organizations supports the doctrine of the social function of property). This trend can be seen, for example, in the exorbitant compensation that some courts have granted for land expropriations in Mexico City and São Paulo.

**LAND LINES:** *What are the main watershed issues?*

**ANTONIO AZUELA:** The first is the adoption of economic policies that advocate a lesser role for the state. The second pertains to the legal status of property rights. When constitutional reforms empower judges to limit the power of eminent domain, this restriction is not necessarily bad, because it can lead to higher quality public administration, but in the short term it has interfered with government power to purchase urban land for public projects. There are two notable exceptions: In Brazil and Colombia, constitutional reforms have established urban policies inspired by ideas of social justice—though only in Colombia do we find a new generation of judges who act in accordance with these principles. In Brazil, the courts are dominated by the classic liberal view of private property, which interferes with the ability to implement the social function of property—an idea that has been circulating in Latin America for almost a century.

**LAND LINES:** *Many jurisdictions prefer to acquire land in the open market instead of using instruments such as eminent domain.*

**ANTONIO AZUELA:** Eminent domain should not be the first option for acquiring land. The challenge is for governments to regulate a variety of instruments in order to achieve a general goal, which is to reduce the land component of the total cost of urban development. The use of eminent domain must be guaranteed by a strong legal framework that can establish an adequate balance between the power of the state and the power of the landowners, and it should be the last option when acquiring land for public urban projects.

The big problem is the cost of land, but the mechanisms of government intervention can inflate prices. For example, if the use of eminent domain is not expected to increase land value, and the judges determine it's the right approach, it can have a positive impact on land markets. At the very least, we can expect from governments that their acquisition of land does not raise prices.

**LAND LINES:** *What are the main outcomes of your research on the use of eminent domain for urban development in the region?*

**ANTONIO AZUELA:** While there is a general trend to strengthen property rights, which interferes with the power of eminent domain, this trend shows several variations, depending on the relationship between the judicial and executive branches in the post-authoritarian governments of the region. The process of institutional change depends less on global trends than on domestic and even local forces, as certain cities follow different paths from others in the same country. Even if all local governments were to adopt the same strategy, the courts in one region will protect landowners more than the courts in other regions. The metropolitan area of Buenos Aires, for example, illustrates how the institutional system of eminent domain is not homogeneous, even within the same metropolitan area. In the Autonomous City of Buenos Aires, for example, people who live in informal settlements (*villas miseria*) have gone to court and prevented evictions. In the Province of Buenos Aires, however, the political climate is such that there is no threat of eviction; eminent domain is used to ensure that settlers can remain where they are.

Another important lesson is that there is no authentic dialog in Latin America on the significance of eminent domain or on the various ways the courts have tackled the dilemmas it presents. While the constitutional thinking in the region is very rich in ideas about certain legal issues, such as the rights of indigenous people and the elderly, urban policies—in particular, eminent domain—have not triggered deep discussions among legal scholars. Unfortunately, these issues seem to be viewed as exceptions, despite the enormous number of people who live (suffering or enjoying) in large urban centers.

**LAND LINES:** *Are eminent domain compensations arbitrary or unfair? If so, for whom?*

**ANTONIO AZUELA:** Inadequate compensation is, no doubt, one of the great challenges for the future development of eminent domain as a land policy instrument. In some cases, governments may take

advantage of the powerlessness of certain social groups and offer them ridiculously low compensation for their land or homes. In other cases, however, the landowner's economic power and influence can result in exorbitant compensations. Beyond these two extremes, in which the affected landowner is either very vulnerable or very powerful, it is difficult to discern a dominant trend.

A precise answer to your question would require a market study of a large number of eminent domain cases in order to determine if the compensation is high or low when compared to pre-established criteria. The existing research has shown, however, that in general the courts do not possess clear and widely shared criteria for determining whether compensations are fair. Moreover, courts lack the capacity to understand what is at stake during the process of urban transformation in which eminent domain is used. Consider, for instance, the case of a prominent family from Ecuador that received a very high compensation for the expropriation of agricultural land on the periphery of Quito. What is remarkable is that this case was decided by the Inter-American Court of Human Rights, and it was obvious that the court did not establish clear criteria to determine the amount of compensation; it simply averaged the assessments submitted by the different parties. The compensation was the highest ever awarded by this high court, which was created to address violations of human rights committed by dictatorships yet ended up benefiting private property owners at the expense of the public interest. The fact that this case did not create a scandal among constitutionalists in the region indicates how marginalized urban legal issues are in Latin America.

**LAND LINES:** *What are some changing trends you have observed?*


**ANTONIO AZUELA:** I observe, with some optimism, that many courts and local governments in the region are undergoing a learning process, trying not to repeat prior judicial mistakes. Unfortunately, these lessons rarely transcend the affected local area and become incorporated into the common regional juridical knowledge.

**LAND LINES:** *What sort of education or training would you recommend?*

**ANTONIO AZUELA:** Logically, we need to intensify exchanges among different disciplines and countries, placing the courts at the center of the discussion, as they will make the final decisions. These decisions should express the best possible synthesis of a body of knowledge that we need to build around the urban dynamics of the region. In the contact we have had with the courts, with the support of the Lincoln Institute, we have found that once a dialog is established, judges understand the need to learn more in order to grasp the effects of their decisions. In other words, while the courts do not seem to show a great interest in urban problems, as evidenced by the routine attitude shown in their day-to-day decisions, they can see new perspectives for their own professional development in the context of a critical analysis of urban issues.

**LAND LINES:** *What are the critical issues that need to be investigated more deeply?*

*What is it that we do not yet know?*

**ANTONIO AZUELA:** We should try to understand the logic of court decisions in the region. We frequently make a simplistic interpretation of the actions taken by the courts, because the media tend to amplify the worst cases. However, many judges make an effort to find the best possible solution to each case. Under what conditions do they operate? One of the challenges of investigating these issues in Latin America is to understand the real world in which these decisions are made, apart from the common but always relevant themes of corruption and incompetence. We need to analyze statistical information to observe general trends, combined with an ethnographic approach to the functioning of the courts. Only then will we be able to understand what needs to be reformed in order to improve the court performance in urban conflicts. While it is important to ascertain who is being favored by the court decisions—which can be done by analyzing the contents of judicial decisions—we need better understanding of the conditions under which these decisions are made. In order to do that, we need to get closer to the courts themselves. 



## David C. Lincoln Fellows, 2013–2014

The David C. Lincoln Fellowships in Land Value Taxation (LVT) were established in 1999 to develop academic and professional interest in this topic through support for major research projects. The fellowship program honors David C. Lincoln, former chairman of the Lincoln Foundation and founding chairman of the Lincoln Institute, and his long-standing interest in LVT. The program encourages scholars and practitioners to undertake new work in the basic theory of LVT and its applications. These research projects add to the knowledge and understanding of LVT as a component of contemporary fiscal systems in countries throughout the world. The 2013–2014 DCL fellowships announced here constitute the 14th group to be awarded. This program is administered through the Lincoln Institute's Department of Valuation and Taxation.

### David Albouy

*Associate Professor of Economics, University of Illinois at Urbana-Champaign*

#### Urban Land Value: Measurement and Theory

This project will estimate land-value differences across U.S. metropolitan areas with a large, new database of market values. Explained through site characteristics, lot size, distance, and regulations, these differences are used to estimate production parameters for residential housing, including the income share to land. The project will also estimate the costs and benefits of “regulatory taxes” on land to determine if they reduce land values. Finally, the theory of urban land values is addressed in an urban system of heterogeneous cities.

### Alex Anas

*Professor of Economics, State University of New York at Buffalo*  
**The Effects of Land Value Taxation in Los Angeles and Paris in a Computable General Equilibrium Model**

The project will utilize the RELU-TRAN (Regional Economy, Land Use and Transportation) model, a dynamic computable general equilibrium model that has been econometrically estimated and calibrated for the Los Angeles and Greater Paris regions. Systematic simulations for L.A. and Paris will reveal the effects of a shift toward land taxation on land use densification, population and job dispersion, urban sprawl, the labor markets, and traffic congestion. The simulations would also quantify the economic efficiency and equity effects of shifting taxation away from income and excise taxes toward land taxation in L.A. and Paris—two very different metro areas.

### Calvin A. Kent

*Lewis Distinguished Professor of Business, Marshall University*  
**State and Local Ad Valorem Taxation of Mineral Interests**

While property taxes have received extensive attention, particularly in urban contexts, there has been little investigation into ad valorem taxation of mineral interests. Yet mineral interests have been a major source of property tax revenue for governments in many states. Their importance has grown due to advances in extraction technology and economic growth. This study will provide an extensive compilation of the varying methodologies states use for mineral property taxation. It will also analyze the economic impacts of these taxes and consider how they correspond to Henry George's “Cannons of Taxation.”

### Zhou Yang

*Assistant Professor of Economics, Robert Morris University*

#### **The Spillover Effects of the Two-Rate Property Taxes in Pennsylvania: A Zero-Sum Game or a Win-Win Game?**

This project will be the first to empirically investigate the spillover effects of the two-rate (split-rate) property taxation on economic activity in surrounding single-rate jurisdictions in Pennsylvania. Using a unique and rich data set, this project proposes a new empirical model to explore the economic impacts of the two-rate property taxation on adjoining municipalities. The findings of this study have important policy implications and may facilitate the decision making on property tax reforms by local governments.

## Program Calendar—Latin America

### MAY 26–30, 2014

#### **Puebla, Mexico**

#### **Cadastre as Applied to Land Management and Urban Financing**

**Martim Smolka, Senior Fellow, Lincoln Institute of Land Policy**

**Diego Erba, Lincoln Institute of Land Policy**

The course objective is to analyze the relevance of cadastral systems as catalytic instruments of planning and as facilitators of funding in Latin American cities. Participants will have the opportunity to acquire the basic knowledge and common language that allows them to converse with professionals specializing in cadastral techniques. The course is interdisciplinary, aimed toward professors, researchers, public agency professionals, international agencies, real estate developers, NGOs, and consultants involved in cadastral activities and in the planning, management, formulation, and implementation of urban policies.

### APRIL 22–25, 2014

#### **Quito, Ecuador**

#### **Discussion Forum on Multifinality Cadastre for Improved Territorial Planning**

**Martim Smolka, Senior Fellow, Lincoln Institute of Land Policy**

**Diego Erba, Lincoln Institute of Land Policy**

**Banco del Estado of Ecuador and the Ministry of Urban Development and Housing of Ecuador**

This forum aims to enable autonomous, decentralized municipal governments to implement cadastres in order to facilitate local planning and land management, orient the provision of public services, and provide incremental tax revenues.

### MAY 28–30, 2014

#### **Curitiba, Brasil**

#### **Course on Financing of Urban Development: Basic Instruments for Real Estate Value Management**

**Martim Smolka, Senior Fellow, Lincoln Institute of Land Policy**

**Municipal Institute for Public Administration of Brasil**

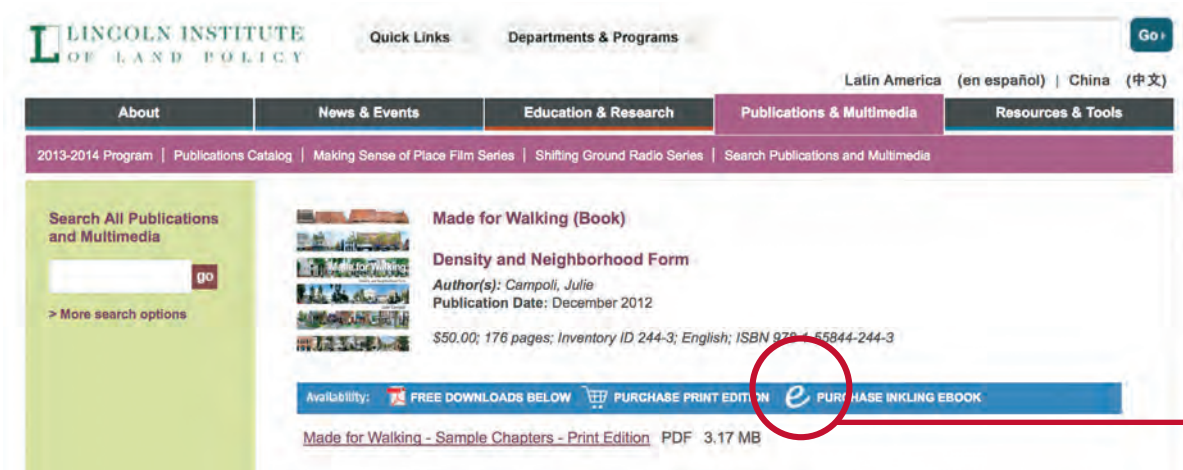
**Federal University of Paraná, Brasil**

**Ministry of the Cities of Brasil**

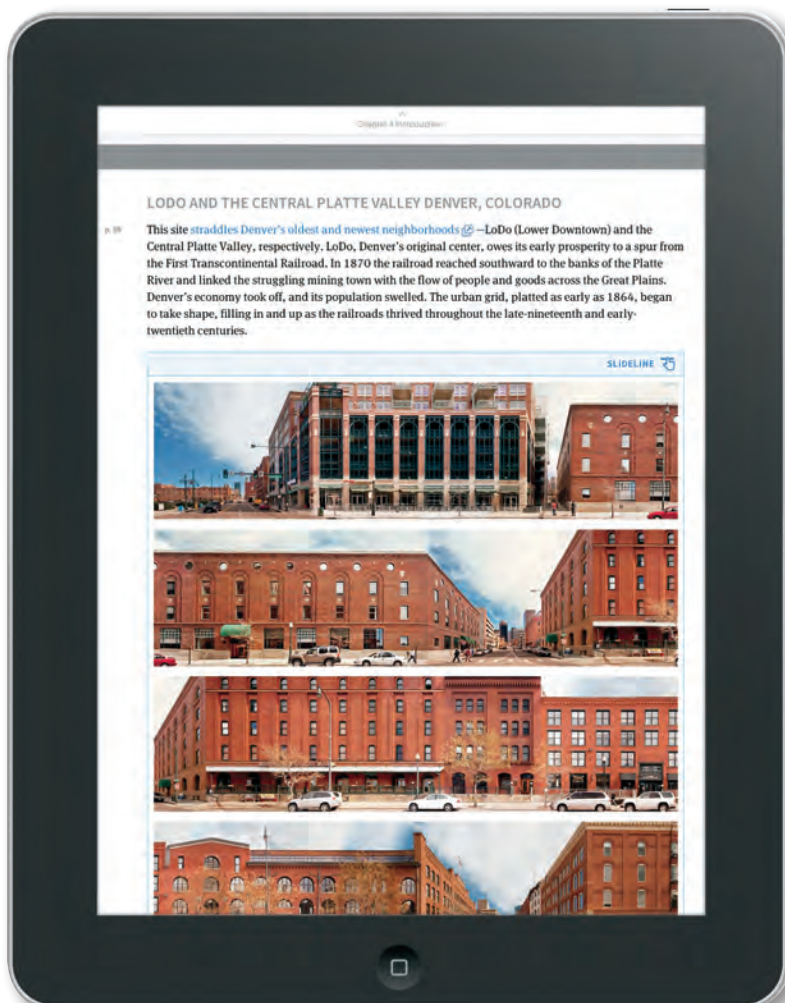
This course will discuss cost-effective alternatives for financing urban development. The course is directed to public managers and technical or juridical municipal advisers responsible for the formulation and implementation of public policies related to the planning and management of cities or public works.

## FOCUS ON THE WEBSITE

# INKLING MADE FOR WALKING



The “purchase inkling ebook” link directs users to Inkling’s website, where they download the free sample or create a login to purchase the ebook for \$19.95.



The Lincoln Institute’s best-selling title, by urban designer Julie Campoli, is now an enhanced Inkling ebook, available via [www.lincolninst.edu/pubs/2150\\_Made-for-Walking](http://www.lincolninst.edu/pubs/2150_Made-for-Walking).

The interactive Inkling format affords readers a more immersive experience of 12 pedestrian-friendly neighborhoods, in the United States and Canada, where residents can live comfortably without a car. Through self-guided tours, peel-away scale maps, scrollable panoramas, and slideshows, users can examine how urban form can influence travel behavior and neighborhood vitality.

Ideal for coursework, Inkling content is search-enabled and shareable via social media. Using Twitter or Facebook, readers can raise questions and exchange notes in the virtual margins and share interactive segments within their social networks. Inkling *Made for Walking* is available for iPads, iPhones, and web browsers on Macintosh and Windows computers. Android plans to support the platform later in 2014. A free sample chapter includes a five-minute educational video.



## Land Lines

**APRIL 2014**

## 2014 Publications Catalog

The Lincoln Institute's 2014 Publications catalog features more than 100 books, ebooks, policy focus reports, and multimedia resources. These publications represent the work of Institute faculty, fellows, and associates who are researching and reporting on the following topics: property taxation, valuation, and assessment; urban and regional planning; smart growth; land conservation; housing and urban development; and other land policy concerns in the United States, Latin America, China, Europe, Africa, and other areas around the globe.

All of the books, reports, and other items listed in the catalog are available to purchase and/or download on the Institute's website, and we encourage their adoption for academic courses and other educational meetings. Follow the instructions for requesting exam copies on the Publications homepage. The entire catalog is posted on the website for free downloading. To request a printed copy of the catalog, send your complete mailing address to [help@lincolninst.edu](mailto:help@lincolninst.edu).

