QUARTERLY MAGAZINE OF THE LINCOLN INSTITUTE OF LAND POLICY DCTOBER 2019

1

4022

CELEBRATING 30 YEARS OF LAND LINES

Public Libraries Provide an Affordable Housing Fix

Reimagining an Anchor Institution in Detroit

The Role of Games in Urban Planning Education

Land Lines

EDITOR Katharine Wroth

CONTRIBUTING EDITORS Anthony Flint, Will Jason, Kathleen McCormick

DESIGN & PRODUCTION Studio Rainwater www.studiorainwater.com

> PRODUCTION EDITOR Susan Pace

COMMUNICATIONS & PUBLICATIONS EDITOR Emma Zehner

VICE PRESIDENT OF PUBLICATIONS & COMMUNICATIONS Maureen Clarke

> PRESIDENT & CEO George W. McCarthy

CHAIR & CHIEF INVESTMENT OFFICER Kathryn J. Lincoln

THE LINCOLN INSTITUTE OF LAND POLICY

seeks to improve quality of life through the effective use, taxation, and stewardship of land. A nonprofit private operating foundation whose origins date to 1946, the Lincoln Institute researches and recommends creative approaches to land as a solution to economic, social, and environmental challenges. Through education, training, publications, and events, we integrate theory and practice to inform public policy decisions worldwide.

Land Lines is published as a digital monthly and print quarterly magazine to report on Institutesponsored programs and related subjects.

Lincoln Institute of Land Policy 113 Brattle St, Cambridge, MA 02138

T (617) 661-3016 or (800) 526-3873 **F** (617) 661-7235 or (800) 526-3944

EMAIL FOR EDITORIAL CONTENT publications@lincolninst.edu

EMAIL FOR INFORMATION SERVICES help@lincolninst.edu

www.lincolninst.edu



Contents

FEATURES







8 Big Plan on Campus

At a Shuttered Detroit College, a Community Redevelopment Experiment Takes Root

Marygrove College is closing its doors, but a new school serving preschoolers through graduate students is taking shape on its campus. Thanks to an innovative public-private partnership, neighborhood students will have a new place to learn—and this vital anchor institution will see another day.

By Anna Clark

20 A New Chapter

Cities Are Tackling the Housing Crunchby Building Above the Library

Defying predictions that they would die in the digital age, public libraries are finding new life as multipurpose community hubs. Now some cities, including Chicago and Miami, have begun to integrate libraries and affordable housing in mixed-use developments.

By Kathleen McCormick

32 Game Time

Active Learning Puts an Engaging Spin on Urban Planning Education

Board games? Cartoons? Crossword puzzles? Those are just a few examples of tools the Lincoln Institute of Land Policy and other educators are bringing to urban planning courses in an effort to foster a more interactive, student-centered learning experience.

By Emma Zehner

DEPARTMENTS

2 President's Message Lessons Never Learned

By George W. McCarthy

5 City Tech

Streetlights Are Getting Smarter—Are We?

By Rob Walker

41 Mayor's Desk

An Interview with Bristol, U.K., Mayor Marvin Rees

By Anthony Flint

45 Place Database

Housing Affordability in Brooklyn, New York

By Jenna DeAngelo



Independence Branch Library and Apartments in Chicago, a mixed-use development that combines a public library with affordable housing. Credit: James Florio, courtesy of John Ronan Architects.



PRESIDENT'S MESSAGE GEORGE W. McCARTHY

Lessons Never Learned

"Wish I didn't know now what I didn't know then."

IT WAS A THROWAWAY LINE in Bob Seger's 1980 ballad "Against the Wind," a reflection on innocence and regret. Although he felt the line sounded odd and thought it was grammatically incorrect, Seger kept it in because the people around him liked it. The line has since inspired other artists to offer their own interpretations. It inspires me as an invitation to learn, providing a frame for reflection on unintended consequences and letting us imagine how we might have done things differently. It's particularly apt in the context of our current national affordable housing crisis.

For four decades I directed and studied the use of public, private, and philanthropic funding to produce affordable housing and provide decent shelter for low-income families since the Great Depression. Lots of big ideas were discussed, many of them implemented. Most of those implemented did not deliver the expected results, but they all delivered unintended consequences. What can we learn from these 20th-century missteps—and more to the point, what are we *willing* to learn?

The federal government has struggled for more than eight decades to meet the basic commitments it made in the U.S. Housing Acts of 1937 and 1949: "a decent home and a suitable living environment for all Americans." The acts committed significant subsidies to build new public housing and eradicate slums. They promised new jobs, modernized cities, and better housing for those who needed it. Because the Housing Acts proposed to benefit all Americans, they attracted broad public support. When implementation time came, most public housing authorities aimed to provide housing for those in the lower half of the income distribution—a politically popular decision. To maintain the new housing stock, rents were set to cover buildings' operating expenses. But as the buildings aged, operating expenses increased, and rents increased along with them. By the late 1960s, lower income tenants were getting priced out—paying upwards of 60 percent of their income to keep a roof over their heads.

Senator Edward Brooke (R-MA) remedied the situation by sponsoring an amendment to the Housing Acts in 1969, which capped rents at 25 percent of tenants' incomes. The federal government covered operating shortfalls with subsidies. For reduced rents to be set, tenants had to disclose their incomes. It soon became apparent that public housing was not serving the poorest families with the greatest housing needs. In 1981, Congress acted again, reserving public housing for families earning half of the median income and reserving 40 percent of the units for families earning less than 30 percent of the median.

The deterioration of the buildings was accelerating. This was because federal operating subsidies did not cover capital expenses and major systems (heating, lighting, elevators) began to fail. The federal fiscal austerity of the 1980s compounded problems by reducing operating subsidies. By the end of the decade the only reasonable response to the national crisis in public housing was widespread demolition.

As the subsidies declined and our aging housing stock failed, a counternarrative emerged through which the residents themselves were blamed. The "culture of poverty" and "learned helplessness" became dominant memes. Poverty was viewed as a communicable disease rather than a symptom. The poor became convenient scapegoats bearing responsibility for the failure of their own shelter, as if any renters, poor or not, are expected to take responsibility for maintenance of their buildings. By concentrating the poor in public housing, we reinforced bad habits and transmitted values that perpetuated poverty across generations. This was supported by another dominant meme of the 1980s—the perils of big government. Big government was sloppy and inefficient, this narrative went (and still goes); the decline of public housing was the government's fault.

In the "HOPE" programs that followed— Homeownership and Opportunity for People Everywhere—many public housing projects were replaced with low-rise, mixed-income developments, typically replacing one affordable unit for three that were demolished. To stimulate additional rental housing production, the federal government created the low-income housing tax credit (LIHTC) in 1986. The program offered private investors a decade's worth of tax credits in exchange for upfront equity investments—typically the hardest money to findfor housing production. States had authority over how to allocate the credits, and regulations mandated long-term affordability of the housing.

Importantly, the LIHTC program promised to overcome the two biggest failings of public housing. By attracting private investment, the efficiencies of the private sector would overcome dependence on inefficient big government. Second, location decisions could be delegated to state and local governments who could ensure that the housing production did not concentrate poverty. Moreover, competition for the tax credits would reduce their cost to taxpayers and eventually, the private sector would produce affordable housing without the need for subsidies.

Some pundits consider the LIHTC program extraordinarily successful. Over three decades, more than 2.5 million units of housing were built. But through that period, we lost more affordable units from the national housing stock than we produced. Moreover, the promised private sector cost efficiencies never materialized. Depending on the year and the market, production of LIHTC units was estimated to cost 20 to 50 percent more than similar unsubsidized units. This does not even count the estimated \$100 million spent annually to administer the program.



The demolition of the Pruitt-Igoe public housing complex in St. Louis, Missouri, in the 1970s marked the beginning of a national reconsideration of affordable housing production and finance. Credit: Bettmann/Getty Images. Tax credits for equity from private investors came at credit card rates to taxpayers. And the costs went up when public capital was cheapest. During the Great Recession, tax credits were yielding average after-tax returns of 12 to 14 percent to investors when the federal funds rate was near zero and the 10-year Treasury yield was around 2 percent. The private sector never was weaned from subsidy dependence. Today, virtually no affordable rental production happens without tax credits. Finally, disappointingly, it is universally accepted that the production of tax credit housing exacerbated the concentration of poverty.

How can the largest housing production program in the history of the nation, with broad bipartisan support, produce such disappointment? There are a lot of things I wish I didn't know now that I (and we) didn't know then in 1999, in 1979, even in 1949.

I wish I didn't know that as good as we are at identifying big challenges and announcing ambitious responses, our commitment rarely survives economic challenges. We know now that simply building affordable housing is not sufficient for providing a decent home and a suitable living environment. One needs a sustainable model that maintains the buildings and preserves their affordability over time and builds where we need to—close to good jobs and schools.

I wish I didn't know that political support is evanescent, and memories are short. Ensuring that scarce subsidy reaches those who need it most is reasonable, but only if the subsidy is protected. The neediest are politically weak and not likely to marshal support to defend their entitlements. And when they try, they are easy to scapegoat.

I wish I didn't know that we spent tens of millions of dollars evaluating housing programs, but we haven't learned very much. We counted units, acting as if the number produced is the only important measure of impact. Twenty years ago, one in four families who qualified for housing assistance received it. Today, it is one in five families. While the general wisdom says housing costs that exceed 30 percent of income are unsustainable for families, about half of renters pay more than 30 percent of their pretax income for rent, with 20 percent handing over more than half of their income.

When do we take an honest reckoning of eight decades of effort to shelter our people? The complexity of housing challenges makes it impossible to learn anything from program evaluations. To learn, we need to reveal and commit to our intended outcomes, share the logic guiding our actions, and reconcile what we actually accomplish with our intentions. This is a learning model that we've embraced at the Lincoln Institute and I hope it can be applied more broadly to policy analysis in housing, community development, and philanthropy.

Providing affordable housing for all is no easy task. The painful truths of eight decades of work are offered not as an indictment, but as an invitation to learn, and to think and act differently. We need to try new things and learn from them. That innovation might take the form of building apartments above public libraries, a trend we explore in this issue. It might mean forging unexpected partnerships, as public utilities and housing advocates are doing in Seattle. It might mean auctioning development rights or otherwise leveraging land value.

We should aspire to the same ambition of the confident policymakers of 1949, committing to provide "a decent home and a suitable living environment for all Americans." But we'll need to try a lot of new things and learn from our mistakes. And if we commit to "searching for shelter again and again," as Seger sings later in the same song, we just might get it done.

Have your own example of "wish I didn't know now what I didn't know then"? A policy or program we could have, or should have, learned from? We hope to spotlight a few in an upcoming issue—send yours to **publications@lincolninst.edu**.

Streetlights Are Getting Smarter–Are We?



The installation of 65,000 network-enabled LED lights in Detroit brought many city blocks back from total darkness. Credit: Haomin Wei/ Detroit PLA.

IN 1879, A DELEGATION of officials from Detroit took a steamship across Lake Erie to Cleveland, where they examined the nation's first electric streetlights. Three weeks earlier, inventor and engineer Charles Brush had flipped the switch on a dozen "arc lamps" in a public square. "Most people seemed struck with admiration," reported Cleveland's *Plain Dealer* newspaper, "both by the novelty and brilliancy of the scene."

Detroit quickly embraced the new lighting technology, as did other major cities including San Francisco and Boston. In other places, including Brush's own Cleveland, leaders debated whether to make the switch from gas lamps. (They were still arguing the point a few years later when Brush hired fellow Cleveland inventor John C. Lincoln to work at his company; the latter went on to found the Lincoln Electric Company and the Lincoln Foundation, which evolved into the Lincoln Institute of Land Policy.)

Eventually, of course, electric streetlights became ubiquitous. During the 20th century, streetlight technology evolved gradually, with the carbon rods in Brush's lamps giving way to Thomas Edison's incandescent bulbs, then to mercury and sodium bulbs. In the past decade or so, that evolution has accelerated dramatically, thanks to two developments. First is the emergence of light-emitting diodes (LEDs), which offer considerable energy savings. Second is the more recent explosion of interest in outfitting streetlights with "smart city" technologies that go well beyond lighting—think everything from surveillance cameras to Wi-Fi hotspots.

All of this underscores, and complicates, the often-overlooked role of streetlights in planning

and land use. "A street lighting system is there for traffic safety, pedestrian safety, and to make people feel safe in cities where there may be high crime," says Beau Taylor, executive director of Detroit's Public Lighting Authority (PLA).

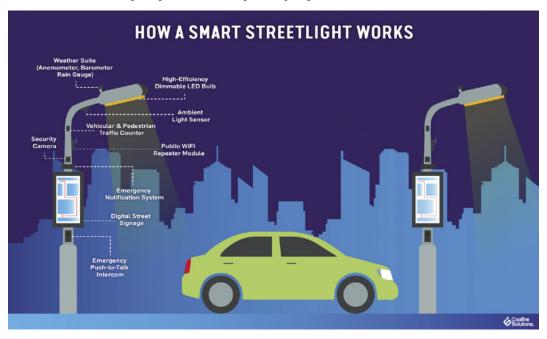
More than a century after it installed those innovative arc lamps, Detroit was essentially forced back to the leading edge of lighting. By 2014, some 40 percent or more of its 88,000 sodium streetlights had become non-functioning at any given time. The city's lighting infrastructure, spread over 139 square miles, had been designed for a thriving city of 2 million people in the 20th century. Maintaining it had become untenable.

A \$185 million bond funded 65,000 new LED streetlights, making Detroit the first large U.S. city to convert to LEDs. This upgrade was not just a matter of swapping out bulbs. The lighting from LEDs is different—a sodium bulb produces light that gradually tapers, while LEDs produce a more direct shaft that's twice as bright—and Detroit's population has shrunk, so planners had to install new poles in a revised configuration. Today the agency says the associated energy costs of the new lights are about half what they would have been with conventional lights. And an analysis by the Detroit Greenways Coalition, a policy and advocacy group, found that "pedestrian fatalities in dark, unlighted areas dropped drastically, from 24 in 2014 to just one in 2017," concluding that the new lights were the primary factor.

Those are significant outcomes. But there could be more to come: Detroit's new streetlights are equipped with fixtures that can be retrofit to perform various "smart" functions. And this brings us to the technological revolution that has attached itself to the formerly humble streetlight.

"When we use the word 'smart,' it means connected," says Dominique Bonte, a vice president at consultancy ABI Research, which forecasts the smart streetlight market will grow 31 percent between 2018 and 2026. Lights that are connected by a network, whether Wi-Fi or fiber-optic cable, can be monitored or controlled remotely. These connections also open

The new generation of streetlights can do everything from monitor the weather to listen for gunshots. Many city officials view this as a boon, but some civil rights organizations are calling for stronger regulations. Credit: Coolfire Solutions.



new possibilities, particularly as the more robust cellular network technology known as 5G rolls out over the next few years. "Streetlights, in the future, can become more like hubs or platforms," Bonte continues.

Streetlights are ideal for this role, as Austin Ashe, general manager for intelligent cities at GE subsidiary Current, explained to engineering trade publication *IEEE Spectrum*: "They have power, ubiquity, and the perfect elevation—high enough to cover a reasonable radius, low enough to capture a lot of important data."

This notion has already captured the imagination of cities around the world: if streetlights are already on every block, why not figure out what else they can do?

A study by research firm IoT Analytics estimates the total number of connected streetlights in North America will reach as high as 14.4 million over the next five years, naming Miami as the city with the most extensive deployment of connected LED streetlights, with nearly 500,000. In Los Angeles, 165,000 networked streetlights are designed to serve as a kind of backbone for the deployment of other technologies, such as noise-detection sensors that monitor gunshots and other sounds. San Diego has tested streetlights outfitted with audio and visual surveillance technology, plus sensors that monitor temperature and humidity. In Kansas City, a new 2.2-mile downtown streetcar line is dotted with Wi-Fi kiosks, traffic sensors, and LED streetlights with security cameras attached, all linked by fiber-optic cable. And Cleveland is embarking on a \$35 million effort to replace 61,000 fixtures with smart cameraenabled LED streetlights. Similar efforts are underway in Paris, Madrid, Jakarta, and other cities around the world.

But as these experiments play out, concerns are coming into view. The ACLU and others take issue with the idea of camera-enabled streetlights watching the public's every move, calling for government oversight to ensure that "smart cities" don't become "surveillance cities." As municipal enthusiasm for new technologies outpaces their regulation, some leaders are considering caution: "Technology is advancing at a rapid pace," a San Diego City Council member told the *Los Angeles Times*. "As elected officials, we have to not only keep up with the increasing developments, but also ensure that the civil rights and civil liberties of our residents are protected."

And then there are the economics of it all. Streetlights can eat up to 40 percent of municipal energy bills, according to the U.S. Department of Energy, so basic efficiency upgrades tend to pay off over time. But as ABI's Bonte points out, the return on investment for more elaborate projects isn't always clear, and realizing the benefits can take decades.

Looking ahead, Taylor of the Detroit PLA says his agency is tracking the experiments underway in other cities and participating in efforts to figure out which smart products or services might actually benefit the people of Detroit. If the city decides to, for example, add more public Wi-Fi to parks or other spaces, retrofitting the streetlights is an option. But that's in the future. "Smart city technology is more of a multiplier effect for a street lighting system," he says. "Our primary focus was getting the lights back on."

Even that comparatively cautious approach came with risks: In a frustrating development, the PLA found that lights supplied by one of its vendors are burning out far more quickly than they should. The city now has to swap out those lights, at a cost of around \$9 million, and has sued the supplier.

No wonder Taylor seems happy to wait and watch as others experiment. The last thing a city wants, given the pace of technology, is to have to overhaul its "smart" system a decade from now. "It's not about getting it all done up front," he says. "It's about keeping options open."

Rob Walker is a journalist covering design, technology, and other subjects. His book *The Art of Noticing* was published in May 2019.

DICTORY ONCAMPUS

At a Shuttered Detroit College, a Community Redevelopment Experiment Takes Root



By Anna Clark

ON A CLOUDY SUMMER MORNING IN northwest Detroit, the campus of Marygrove College was bustling. A crowd of adults and children in bright blue shirts swarmed the green lawns, surrounded by tents and balloons, readying for the opening ceremony of the Relay for Life cancer walk. A DJ blared rousing music to keep energy levels high. Elsewhere, in one of Marygrove's English Gothic buildings, the Detroit Neighborhood Summit offered free lunch and childcare to residents who had gathered to discuss foreclosures, air pollution, school closings, and blight. In another room, teachers prepared for a workshop on the dignity of learners; in the art gallery, an exhibition of local artists opened for its final day. Outside, parking attendants joked with each other and with drivers inching up in a long line, hoping to find a spot in the packed lots. You'd never guess that two days earlier, the 104-yearold college had announced that it was shutting its doors for good.

The closing of Marygrove College marks the end of an era for the institution, but it won't mean the end of Marygrove's impact. Occupying 53 leafy acres in the middle of a Detroit neighborhood that is on the road to revitalization, Marygrove is the setting for an unfolding story that's about education, but also the instrumental role public and private partnerships can play in stanching the slow bleed of disinvestment. They are doing it by creating new structures to meet long-term land use needs. At Marygrove, a community-focused "cradle to career" program is taking shape on campus, an experiment supported by influential entities including the Kresge Foundation, the University of Michigan, the Detroit Public Schools Community District, and others.

The members of the nascent Marygrove partnership don't claim to have all the answers, but their venture will have a lot to teach other communities.

Marygrove College and the Livernois-McNichols neighborhood. Credit: Jordan Garland, courtesy of The Kresge Foundation.

A Legacy of Progressive Education

Marygrove has a special place in Detroit history. Founded in 1905 by a religious order known as the Sisters, Servants of the Immaculate Heart of Mary—or the IHM nuns—it moved to the city in 1927 from its original location 40 miles south. It quickly became a hub for progressive education, prioritizing service and social justice while serving many non-traditional college students. It nurtured generations of leaders, especially African-American women, with a focus on the fields of teaching and social work.

"I just loved teaching at Marygrove," said Frank Rashid, a longtime faculty member and former dean. He pointed out that Marygrove, compared to other local colleges, was "most responsive to being in the city"—turning toward the community while others built walls.

Rashid remembered one of his favorite students, a woman about his age who worked a graveyard shift sewing upholstery in cars for GM, but somehow had enough energy to be attentive in class. An essay she wrote about growing up in segregated schools in Mississippi has stayed with Rashid for more than 30 years. The woman graduated with a double major, got a master's degree at another local university, and returned to Marygrove to teach while raising her grandchildren.

"You want to make a difference," Rashid said. "That was the call those of us who loved working there felt, and the students made it worthwhile." For this neighborhood about 10 miles outside downtown, Marygrove served another important role: along with the nearby University of Detroit Mercy (UDM), it anchored the community, even as the city endured decades of decline. This two-square-mile area is commonly called Livernois-McNichols, referencing two major corridors lined by low-rise commercial outlets. It is pockmarked by vacant lots and vacant houses, 400 of which are now publicly owned. But 33,000 people still live here, mostly in single-family homes, and their home ownership rate (66 percent) and median household income (\$43,849) is relatively high. Recent years have seen the renewal of the 2.5-acre Ella Fitzgerald Park, the arrival of new retail to fill storefront gaps, and festival programming along Livernois, once known as the "Avenue of Fashion" (City of Detroit 2018).



The gates of Marygrove College, left, have welcomed generations of students. At right, Marygrove students and faculty participate in Detroit's Freedom March for Civil Rights in 1965. Credits: Courtesy of Marygrove College.



As anchor institutions, Marygrove College and the University of Detroit Mercy have played a critical role in neighborhood stability and revitalization. Credit: Reimagining the Civic Commons.

When Marygrove began suffering from declining enrollment and suffocating debt in the 1990s, neighbors and others began to wonder: Would its precariousness cause the campus to go dark? Detroiters are all too familiar with how vacancy is contagious. It spreads like disease, first creating a tipping-point neighborhood with more and more empty doors before becoming all-out blight. They know that the loss of any major institution is a grave threat to residents and businesses.

But what happened with Marygrove isn't like what's happened anywhere else.

Investing in a New Model

In 2018, The Kresge Foundation, which has an active presence in Detroit and a focus on equitable development, announced that it was committing \$50 million to a program on the Marygrove campus, an unprecedented intervention in land use and education. It is the foundation's largest investment ever for a single neighborhood revitalization project, and one of the largest gifts in its history.

The money will build a "cradle to career" school, or what's sometimes called a P–20 (as in, preschool through graduate education). It is one of the first of its kind in the nation.

On Marygrove's campus, there will soon be an early childhood center, developed with support from IFF, a Midwest-based community development financial institution, and operated by Starfish Family Services, a local nonprofit human services organization (see sidebar page 18). There is also a new neighborhood school, part of the local public school district. A new teachers college led by the University of Michigan School of Education will work on-site at the schools, training educators in the same way that residency programs at hospitals train doctors. After graduating, the newly minted educators will work alongside veteran teachers in Detroit schools for three years or more. Besides providing on-theground experience and guidance, this program will also help the Detroit district respond to a teacher shortage.

As wraparound services develop at Marygrove's campus, other University of Michigan (UM) colleges are expected to become involved, including the schools of engineering, business, urban planning, social work, nursing, and dentistry. The campus will also offer professional development courses and certification programs.

To complement the teachers college, Marygrove College had intended to provide the tail end of the "cradle to career" education. But in 2017, as the collaboration was still being formulated, the college announced that its undergraduate program would close. Administrators hoped that the graduate school would persist, serving the city as well as the P-20 students, but then this summer brought the news that it too would close, at the end of 2019. While the question of who will provide the post-high school programming remains unresolved—a representative of the Kresge Foundation says the partnership is "exploring opportunities with a number of partners that have stepped forward"—one thing is certain: despite the loss of a beloved institution, there won't be even a single day that the campus sits empty, a target for the city's notorious and meticulous scrappers.

The Marygrove collaboration is a preemptive strike against large-scale vacancy. It also leverages local residency as an asset. People who live in the Livernois-McNichols area will most benefit from this new educational opportunity and investment, turning the usual gentrification narrative on its head. The K–12 school will have a selection process, like the application schools that are among the city's best, and students who live within a one- to two-mile neighborhood catchment zone will receive a significant boost. The result: Teens from the community make up more than 60 percent of the inaugural 120-student class that entered The School at Marygrove, as it has been officially dubbed, this fall. A full 97 percent of the class hails from Detroit, and nearly half are returning to Detroit public schools from suburban districts and charter schools. At capacity in 2029, the school—which will have a focus on social justice, engineering, and design—is expected to serve about 1,000 students.

"Even in the midst of the financial difficulties, Marygrove knew it wanted to preserve its legacy in Detroit, and it's a tremendous one," said Wendy Lewis Jackson, managing director of the Kresge Foundation's Detroit program. "It's why we wanted to be deeply engaged in creating a path for educational leadership in Detroit, particularly in serving underserved populations."

Kresge Foundation President and CEO Rip Rapson, flanked by Marygrove partners and by banners representing the project's "cradle to career" stages, announces the new educational partnership in front of Marygrove's Liberal Arts building in 2018. Credit: Ryan Southen, courtesy of The Kresge Foundation.





The catchment area for the new School at Marygrove offers students within a one- to two-mile radius of campus a leg up in the admissions process. Credit: Detroit Public Schools Community District.

Kresge's investment includes renovations to the college's Liberal Arts building, which houses the new high school, and to the former Bates Academy building on campus, future site of the new K–8 school. (The latter structure was originally Immaculata High School, a girls' school run by the IHM nuns from 1941 to 1983; Bates Academy, a public school, occupied it for 15 years before moving to another site in Detroit some years ago.) Kresge is also funding the construction of the new early childhood education center, expected to open in fall 2021. The Detroit Collaborative Design Center at UDM is one of the partners in making this happen.

"We're really trying to put education in the center of neighborhood redevelopment," Jackson said, "and using neighborhood schools as a way to both retain residents and serve residents well, and serve as a magnetic factor for new residents."

As Jackson suggests, this deal is about much more than education. Detroit Mayor Mike Duggan also made that link when the project was announced. "Not long ago, we were faced with the prospect of this incredible campus going dark, which would have been a terrible setback to the revitalization that is taking place in this area of our city," Duggan said. "Instead, today we are celebrating a new beginning."

Avoiding a Community Calamity

The \$50 million commitment from the Kresge Foundation followed \$16 million in grants that it had provided to Marygrove College over the previous two years to support restructuring of the debt-choked college. The prospect of the college closing and becoming a burden rather than a boon to the neighborhood "was deemed unacceptable," stated a Kresge Foundation press release (Kresge 2018). "The damage to surrounding home values, small businesses, and other anchors in the district would have been calamitous." Other foundations provided bridge funding as well, including the McGregor

"Not long ago, we were faced with the prospect of this incredible campus going dark, which would have been a terrible setback to the revitalization that is taking place in this area of our city. Instead, today we are celebrating a new beginning."



The K–8 program will inhabit the renovated Immaculata High School building on campus. The IHM nuns ran Immaculata from 1941 to 1983; more recently, the structure housed Bates Academy, a public gifted and talented school, from 1992 to 2007. Credit: Ryan Southen, courtesy of The Kresge Foundation.

Fund, the Community Foundation for Southeast Michigan, and the W. K. Kellogg Foundation.

To help get the books in order, these early partners created the Marygrove Conservancy in 2018, adopting a management model that's long been used to move private parks to public use. That step separated the management of the college from the management of its physical campus. (While it was deemed a necessary shift to secure a future for the campus, the creation of the conservancy was not looked upon favorably by all, notes Kresge's Jackson. "The idea of a conservancy was very foreign to [the college accreditation bodies]," she said. "So the college was facing severe sanctions because the accreditation bodies did not understand some of the land use implications of having these kinds of anchors.")

The conservancy, whose board includes representatives from Marygrove, Kresge, UDM, and community organizations, now owns the buildings and grounds. "Our vision is to steward the campus," said Sister Mary Jane Herb, president of the IHM nuns and conservancy chair. A private management company is conducting an assessment to create an audit of needed upgrades. The conservancy is also looking into short-term leases, and "how the campus could be used for various events conferences, weddings," that will bring in revenue to pay down debt and support the caretaking of historic structures, Herb said. It doesn't have staff, but intends to hire in the near future.

Such a swift and long-term collaboration might seem unlikely, but it echoes recent Detroit history—namely, the unexpected response to the city declaring bankruptcy in 2013.

"The bankruptcy was actually a galvanizing event," said Robin Hacke, executive director and cofounder of the Center for Community Investment at the Lincoln Institute of Land Policy, which helps disinvested communities identify and pursue new opportunities for sustainable growth. Hacke's own efforts to build new pipelines for capital brought her to Detroit in 2010. Three years later, the city filed for the largest municipal bankruptcy in history.

The bankruptcy resolved with the help of a "Grand Bargain," which saw a vast swath of philanthropists and the State of Michigan contribute more than \$800 million to satisfy creditors while minimizing pension cuts-and spared the city's signature art museum from having to auction off paintings, a solution that had been considered. For all its much-documented ills, the city had assets—literally. "I think that because Detroit had the economic history it had, it had some really well-endowed foundations that really cared about it," Hacke said. "Not every city has the benefit of enjoying the fact that Kresge is in the neighborhood. Ford [Foundation], which is not generally a place-based investor, is a place-based investor in Detroit."

When Detroit exited bankruptcy at the end of 2014, it was freed of billions in debt and had greater resources to invest back into the city. "What we find in our work sometimes is that things are so bad, the urgency of coming together overcomes the stasis of business as usual,"

The Livernois Community Storefront, a project of the University of Detroit Mercy, is a pop-up community hub that celebrates local culture and businesses. Credit: Reimagining the Civic Commons.



Hacke said. "These crises . . . can serve as a catalytic event so we can imagine a better future."

Aiming for Equity

Livernois-McNichols is one of Kresge's focus neighborhoods. The foundation has committed three to five years of investment in the area, supporting other efforts including the Live6 Alliance, a planning and development nonprofit that is catalyzing the commercial corridors along Livernois Avenue and McNichols Road. Meanwhile, the national consortium Reimagining the Civic Commons is working with local partners to build a greenway that connects the UDM and Marygrove campuses. Representatives from both Live6 and UDM sit on the board of the Marygrove Conservancy. Mayor Duggan also included Livernois-McNichols in his Strategic Neighborhood Initiative, launched in 2018. The city is investing in it with, among other projects, Fitzgerald Forward, a program designed to rehabilitate and sell vacant houses.

All this work would have been undercut if an anchor institution had been abandoned. As Jackson points out, the size of the Marygrove campus is larger than the former Packard plant, one of Detroit's most infamous ruins. Packard stopped making automobiles at the 40-acre complex of brick and concrete in 1958, leaving it to loom over East Grand Boulevard about 10 miles southeast of Marygrove. It has been vacant since the last major industrial users (and ravers) left in the late 1990s. While the crumbling plant was once surrounded by houses, most have vanished into empty lots. A vacant elementary school stands nearby, and the area is frequented by "ruin porn" tourists. It is this sort of future that the Marygrove collaborative is investing against.

To count the Marygrove experiment a success, Kresge will look at the school's ability to help students achieve. It will evaluate whether the school can recruit and retain



The City of Detroit has undertaken a streetscape project on Livernois Avenue that will add several elements illustrated here, including a bike lane, improved lighting, and extended sidewalks. Credit: City of Detroit Department of Public Works.

high-quality teachers, and it will track holistic metrics on the well-being of students and families. The latter approach is borrowed from the wraparound model of community schools. The overarching vision, say those involved, is to break the cycle of disinvestment by creating a new community-centered institution on the grounds of a historic one.

"It's only worth doing if it creates a better life for people who are already here," said Aaron Seybert, Kresge's social investment officer. He and Jackson are Kresge's two representatives on the board of the Marygrove Conservancy. "If we're not creating economic cohesion, I don't know what the point is. There are places that work well for upper-income people. They're already around us. We're not trying to turn Detroit into that. That's not what we're trying to do." The phrase "Two Detroits" is commonly heard now, suggesting that newcomers and commuters—generally whiter, younger, and more educated—are valued in a way that long-term residents are not. "Walking around in Detroit in 2010, the idea of having to worry about gentrification was laughable," Hacke said. But that's changed, at least in downtown and Midtown, and it's happened faster than most predicted. So fast, in fact, that it's caused concern among residents about how investment in the central city is matching up against investment in neighborhoods, where residents have endured the worst of Detroit's hardships.

Seybert says investors gravitate toward the central city in part due to scale. "The neighborhood stuff is really, really hard," he said. "In downtown and Midtown you have bigger

"It's only worth doing if it creates a better life for people who are already here. If we're not creating economic cohesion, I don't know what the point is." buildings—large hospital systems, universities; density, relatively speaking for Detroit—and you can deploy capital at a scale that smooths out a lot of the costs of doing this sort of work."

Northwest Detroit had UDM and Marygrove College, but even together, they couldn't match the institutional breadth of Midtown's Wayne State University, which has 13 schools and colleges serving 27,000 students. Access to employment isn't a primary draw to Livernois-McNichols, as it is for the core city. There is less density, too, with activity mostly along the single-story retail strips that require, Seybert said, many little deals to get the same aggregate value in increased neighborhood investment and appraisal values. And there are fewer investment tools to do it—a void that explains the power of philanthropy in the neighborhood.

While poverty remains Detroit's greatest challenge, the changes of the past decade underscore the importance of being "a lot more mindful of planning for success," Hacke said. That is, it's important to establish processes and policies in the beginning that will create equitable structures for when (not just if) things are going well.

In that vein, the P–20 partnership might broaden its scope even further. At the launch, Kresge President and CEO Rip Rapson floated the idea that other campus buildings could someday be used for senior housing and affordable housing (Rapson 2018).

Community members attended a picnic and open house to learn more about the new School at Marygrove in August 2019. Credit: Ryan Southen, courtesy of The Kresge Foundation.



Lessons from Marygrove

Detroit isn't the only place where anchor institutions have found themselves teetering on the brink. In other legacy cities that have suffered population loss, places similar to Marygrove are caught up in the city's spiraling disinvestment. If they close, they exacerbate it.

While the proud college in Detroit didn't last, its repurposing reveals a way out of this cycle. The Marygrove reinvention is a microcosm of the possibilities described by Alan Mallach and Lavea Brachman in the Lincoln Institute report *Regenerating America's Legacy Cities* (Mallach 2013):

To regenerate, cities must capitalize on [their] assets to increase their competitive advantages and build new economic engines Successful regeneration ... must be multifaceted and encompass improvements to the cities' physical environments, their economic bases, and the social and economic conditions of their residents. If market demand increases and people restore vacant buildings or build new houses on abandoned

REHABILITATING OLD FACILITIES AND OLD WAYS OF THINKING

The Marygrove effort will see another big win in a new \$15 million, 28,000-square-foot early childhood center. It's a significant investment in a city where decrepit childcare facilities, often in the basements of old churches, are the status quo. Ja'Net Defell former lead developer of IFF and a past participant in the Fulcrum Fellowship program at the Lincoln Institute's Center for Community Investment remembers visiting some of these places while working in Detroit's IFF office. "We literally had to put on face masks [because of mold and leaks]," she said.

"Improving facilities like this is like doing laundry or dirty dishes—nobody wants to deal with it," Defell added, noting that repairs and rehabilitation can be "overwhelmingly technical." Programs are asked, "Why not get a loan from the bank?," which overlooks the stunted lending in disinvested cities and neighborhoods. In Detroit, IFF had trouble even finding architects and contractors for its projects, Defell said. Working on early childhood centers wasn't as appealing as, say, getting involved in the growing marketplace of charter schools.

The new Marygrove center, serving 144 children, will have 12 classrooms, a library, and health therapy rooms, and its design will feature natural light, courtyards, and a natural playscape built around existing oak trees. It is the result of years of work, a process that included a citywide needs assessment of preschool facilities and the exploration of funding models that would be sustainable in a neighborhood with a mix of income levels.

The early learning center is expected to motivate community members. Too often, Defell said, lowincome programs are treated as such, meaning that "there is no innovation, no excitement. What we tried to do [at Marygrove] is push the envelope. Just because the [new] building serves low-income families does not mean it has to be a 'low-income project." This parallels a best practice with affordable housing, she said: If you develop affordable housing that looks like affordable housing, you've done a bad development project.

Investing in a high-quality facility is especially meaningful for families who may be transient, not living in the best conditions, or battling foreclosure and dishonest landlords. "Detroit was in a depression, and you're bringing people out of depressions," Defell said. "Yes, it was a horrible period of time, but it's a new day. It's time to come out of this depression mode and be really energized by a new way of thinking." land, the city's physical environment will improve. If residents' skills increase so they can compete successfully for jobs throughout the region, their economic conditions will improve.

Hacke is hopeful about the Marygrove project's success because it acknowledges what it takes for people to thrive in a place and be healthy: to have an affordable home, good school, and good job. "Marygrove, in the way it is designed, is not just taking a sliver of the problem. It's looking at a number of different needs and weaving a solution together," she said. Its teacher training model, if successful, "has ramifications for education very broadly."

While the Marygrove intervention is tailored to northwest Detroit, Hacke notes that "the number of campuses like Marygrove around the country is not small."

Catholic schools are particularly at risk, according to former Marygrove professor Rashid. There are a lot of reasons for this, not least the exodus of white middle-class Catholics from urban centers, which contributed to the closure of parishes and Catholic K–12 "feeder schools." Also, as religious vocations declined, higher education institutions that had long relied on nuns and priests to staff their campuses had to hire more laypeople at market salaries.

But it's not just urban colleges that present anchor institution challenges; the closure of rural hospitals, Hacke said, creates a similar vacuum of economic activity and land use. Like a photo negative, such closures expose the symbiotic relationship anchor institutions have with their home communities (Dever 2014).

One way or another, physical investments are a common way to lure people back or entice them to stay. They also provide the satisfaction of concrete results. The Marygrove team is responding to a land use problem by investing in high-quality, all-ages education. It just happens that physical space—the campus—is the vehicle to deliver it. As Seybert explained it, blight wasn't just caused by disinvestment in Detroit's physical landscape. It was caused by disinvestment from the city's people, mostly African-Americans, and it was carried out through all the systems that serve human potential. The Marygrove project is countering that.

"Education is investing in people as opposed to institutions," he said. "We bet yes." \square

Anna Clark is a journalist in Detroit and the author of The Poisoned City: Flint's Water and the American Urban Tragedy (Metropolitan 2018).

REFERENCES

City of Detroit. 2019. "Livernois-McNichols." https:// detroitmi.gov/departments/planning-and-developmentdepartment/west-design-region/livernois-mcnichols.

Dever, Beth, Omar Blaik, George Smith, and George McCarthy. 2014. "(Re)Defining Successful Anchor Strategies." Working paper. Cambridge, MA: Lincoln Institute of Land Policy. December. https://www. lincolninst.edu/publications/working-papers/ redefining-successful-anchor-strategies.

Kresge Foundation. 2018. "New Cradle-to-Career Educational Partnership to Serve More Than 1,000 Detroit Children on Marygrove Campus." Press release. September 13. https://kresge.org/news/new-cradlecareer-educational-partnership-serve-more-1000detroit-children-marygrove-campus.

Mallach, Alan and Lavea Brachman. 2013. Regenerating America's Legacy Cities. Policy focus report. Cambridge, MA: Lincoln Institute of Land Policy. https://www. lincolninst.edu/publications/policy-focus-reports/ regenerating-americas-legacy-cities.

Rapson, Rip. 2018. "The Marygrove Partnership: An Unprecedented Model of Neighborhood Revitalization." Transcript. September 13. https://kresge.org/library/ marygrove-partnership-unprecedented-modelneighborhood-revitalization.

A REM CHAP

Cities Are Tackling the Housing Crunchby Building Above the Library IN EARLY 2019, THE TOWN OF CORNELIUS, OREGON, celebrated the opening of a new mixed-use development called Cornelius Place. Situated on the town's main thoroughfare, the building features a 13,650-square-foot public library that replaces one at City Hall that was only onequarter that size. It also includes a café, a courtyard that will host concerts and a farmers' market, and a 2,900-square-foot YMCA recreation and fitness center. "Our town didn't have a senior, youth, or community center, so our library is a lot more than a repository for books—it's a multipurpose community space as well," says Library Director Karen Hill, who shepherded the project.

Cornelius Place offers something else for the community: above the library are 45 apartments intended to be affordable for seniors with household incomes of up to 60 percent of area median income (AMI). Eleven apartments are part of the Section 8 program, making them more deeply affordable by requiring households to pay no more than 30 percent of their income in rent.

Cornelius, a city of 12,400 in metro Portland, anticipates growing by more than one-third in the next five years. Cornelius Place is its first three-story building, first mixed-use building, and an anchor for a new walkable-downtown master plan, says Ryan Wells, community development director. Combining a new public library with affordable senior housing made both projects possible. "There is cost sharing to construction when you mix those uses," says Wells. "We could not have built the library on its own."

Despite predictions that they would die in the digital age, public libraries in many U.S. communities are in fact busier and more loved than ever. Increasingly viewed as community hubs, the nation's 16,568 public libraries are places where visitors peruse the stacks, focus on laptops, upgrade job skills, study English, try out "maker" equipment, connect with social workers on staff,

View from a residential balcony at Independence Branch Library and Apartments, Chicago. Credit: James Florio, courtesy of John Ronan Architects. and more. But many libraries are struggling to meet this demand with facilities that are small, outdated, and in need of repair—or in need of major upgrades to offer the collaborative areas, flexible workspaces, and cutting-edge technology that patrons increasingly expect.

As public libraries look to rebuild, however, they often face financial challenges. Land values and construction costs in many cities are on the rise, making such projects increasingly costly and frequently requiring special tax levies or capital campaigns. Meanwhile, cities seeking new solutions to the affordable housing crisis are eyeing some desirable real estate: the air space above those typically low-lying public libraries. Joining forces makes it possible to invest public dollars in—and leverage additional funds for—projects that serve the community in multiple ways.

"The evolution of public libraries in U.S. cities generally has followed the evolution of community needs, and in a growing number of cities, that now means combining new libraries with affordable housing," says Loida Garcia-Febo, a library consultant and 2018–2019 president of the American Library Association. "Most libraries see their value in how they integrate and respond to the community, and it's clear that in tight real estate markets, libraries can leverage their physical assets to increase the value they provide to the community."

"Most libraries see their value in how they integrate and respond to the community, and it's clear that in tight real estate markets, libraries can leverage their physical assets to increase the value they provide."



Cornelius Place, a mixed-use development in Cornelius, Oregon, combines a ground-floor library with affordable senior housing that is walkable to the downtown area. An apartment interior is shown at right. Credits (I-r): Courtesy of Washington County, Oregon; Christopher Oertell, staff photographer, *Hillsboro Tribune/Forest Grove News-Times*.

Living at the Library

Combining libraries with apartments is "part of a trend away from single-use zoning and back to mixed uses," says Robin Hacke, executive director of the Center for Community Investment at the Lincoln Institute, which helps disadvantaged communities harness investment to achieve their economic, social, and environmental priorities. Hacke added that the trend also reflects a recognition of the importance of libraries as "third places for civic engagement and social cohesion."

One of the nation's first examples of a library and affordable housing sharing space took shape in San Francisco in 2006. As part of the 50-acre Mission Bay redevelopment, the city partnered with Catellus Development Corporation and Mercy Housing, a nonprofit affordable housing developer, to add a 7,500-square-foot branch library as a civic anchor. The building that houses the library includes a community meeting hall, an adult day health center, a coffee shop, and Mission Creek Senior Housing, with 140 apartments for low-income seniors. Though it has been successful, this project so far has been a one-off for the city. At least one public official has asked the city's acting librarian to explore whether future library renovations might be combined with affordable housing. "We are in an affordability crisis and we need to maximize our existing public land for 100 percent affordable housing," wrote Sandra Lee Fewer, a member of the city's Board of Supervisors, in an email response to Next City (Brey 2018). "It would be a missed opportunity to not pursue adding affordable housing above newly renovated public resources like our libraries."

Although San Francisco has been slow to replicate the Mission Bay model, other cities have taken up the idea, including Chicago. Under Mayor Rahm Emanuel's leadership from 2011 to 2019, the city made more than \$300 million in new investments to renovate or build 30 public libraries in the city's network of 80 libraries, which serves 10 million visitors annually. The "Branching Out: Building Libraries, Building Communities" initiative has focused on investing in libraries as community anchors with high-quality civic architecture and programming. Since 2011, six new libraries have been built, and 14 branches have seen significant updates. By the end of 2019, construction of five additional libraries will be finished, with four existing libraries renovated.

Three of the new libraries are co-located with housing in world-class examples of modern architecture. In 2016, the city announced a partnership between the Chicago Public Library (CPL) and Chicago Housing Authority (CHA) that would cut costs, increase library patrons, and invest in attractive, sustainable buildings that provide the kinds of services the city needs. A city-run competition attracted submissions from 32 architecture firms, and three awardwinning, Chicago-based firms were selected to design the projects:

 The six-story, \$33.4 million Independence Branch Library and Apartments in Irving Park on the Northwest Side, designed by John Ronan Architects and developed by Evergreen Real Estate Group, has a two-level library featuring a music studio and makers' workshop, topped by 44 subsidized apartments for seniors.

- The \$34 million Northtown Public Library and Affordable Apartments in West Ridge, a fourstory, curvilinear structure designed by Perkins and Will, also was developed by Evergreen Real Estate Group. The bright, 16,000-square-foot library has a garden and a rooftop terrace shared with tenants. The upper floors include 44 apartments for seniors, with 30 CHA public housing and 14 affordable apartments.
- The seven-story, \$41 million Little Italy Branch Library and Taylor Street Apartments on the Near West Side, designed by Skidmore, Owings & Merrill (SOM) and developed by Related Midwest, includes a single-level, open-floorplan library and six floors with 73 apartments above, including 37 CHA public housing, 29 affordable, and seven market-rate apartments.

Besides traditional library programs, such as book clubs for seniors and intergenerational educational and cultural programming, each branch offers early-learning playspaces and facilities for teens to explore digital design, music, and recording technology with help from skilled mentors. They also provide high-tech



Interior of an affordable apartment at Chicago's Northtown Public Library. Credit: James Steinkamp, courtesy of Perkins and Will. programming such as 3D printing, virtual reality, and robotics, as well as dedicated workforce development support and technology tutors.

In West Ridge and Irving Park, "these projects enabled CHA to deliver new housing units and expand affordable housing opportunities in two communities where CHA had not previously had much of a presence," says Molly Sullivan, CHA senior director of communications. "This helped meet a demand for affordable senior housing in those communities." The library system also had been seeking ways to bring modern facilities and services to these communities, says Sullivan, so combining housing with libraries made sense.

"Co-locating libraries with affordable housing provides housing and learning centers where they are needed—and makes communities more resilient and sustainable," says Sullivan. "We know that housing is vital to our neighborhoods, but strong, healthy communities also require anchors that provide resources for lifelong learning."

Critiquing the three projects in *The New York Times*, architecture critic Michael Kimmelman characterized the libraries as "just plain good urban planning." He praised Emanuel for promoting the idea that "distinguished civic buildings in underserved neighborhoods constituted their own brand of equity" (Kimmelman 2019).

In June, Smart Growth America named the Taylor Street library its Project of the Year. "We knew when we embarked on this unique project and partnership that we were building more than a new building," said former Chicago Housing Authority CEO Eugene E. Jones, Jr., when the award was announced. "We were creating a community anchor and asset that will have a lasting impact on residents and this neighborhood" (CHA 2019).

A Branch Grows in Brooklyn

Brooklyn is also leveraging opportunities to improve library infrastructure with housing, using aging branches as sites for redevelopment projects that combine new libraries with affordable apartments, or, in one case, sleek new tower architecture with market-rate luxury condominiums.

The Brooklyn Public Library (BPL) is an independent library system that serves the 2.5 million residents of the borough. BPL is the fifth-largest library system in the U.S., with 59 neighborhood libraries and 7.9 million annual visits. That might sound like a lot of capacity, but many of the system's buildings are crowded, worn, and inadequate for modern use. In total, New York City libraries have some \$1.1 billion in unfunded capital needs, mostly repairs, with \$271 million needed just in Brooklyn, according to a 2014 report by the Center for an Urban Future, an independent nonprofit research and policy organization (Giles 2014). The report recommends ways to bolster libraries as community centers, including incorporating affordable housing.

"We see libraries performing a much bigger role in New York," says Eli Dvorkin, editorial and policy director for the Center. "We have never relied on libraries as we do today." He says libraries "are the single resource of first resort for immigrants, teenagers, seniors. They are the 21st-century settlement house, building the social infrastructure of our cities, but we haven't invested in their infrastructure."

That is changing with projects like Brooklyn's Sunset Park Public Library redevelopment. Built in the 1970s, the popular Sunset Park branch was too small to meet the needs of a community whose population increased 34 percent between 1990 and 2014, double the citywide growth rate. Housing costs were also surging, with a state report indicating that median rent increases in the area had far outpaced median income growth between 2002 and 2014. In 2017, the city issued a competitive



The unassuming, single-story Sunset Park Public Library in Brooklyn, New York (left), has been reimagined as an eight-story, mixed-use building (right). Credits (l-r): Edward Blake, Brooklyn Public Library.

"The City of New York isn't creating more land, but our population is growing, and resources are in demand for both libraries and affordable housing . . . We wanted to create the model so it can be replicated and we can have more of these win-win-win situations for libraries, for people who need affordable housing, and for taxpayers."

RFP and selected the Fifth Avenue Committee (FAC), a Brooklyn-based nonprofit affordable housing developer and social justice organization, as a partner in revamping the library. FAC proposed a 21,000-square-foot library—double the original size—with 49 units of permanently affordable housing on top.

Located on the first two floors of the eight-story building, the library will be outfitted with collections, technology, and flexible space. Above that, the apartments are slated for lowand middle-income households ranging from formerly homeless residents with no income to those earning between 30 and 80 percent of AMI. Apartments in the building, which is expected to open in 2020, will rent for well below the current market rents in the neighborhood. "The City of New York isn't creating more land, but our population is growing, and resources are in demand for both libraries and affordable housing," says Michelle de la Uz, executive director of FAC and a New York City planning commissioner. The city has a long history of combining civic uses with other development, she noted, but those projects haven't included 100 percent affordable housing. "We wanted to create the model so it can be replicated and we can have more of these win-win-win situations for libraries, for people who need affordable housing, and for taxpayers" to achieve the greatest benefit possible from public land.

The Sunset Park branch is one of several library-housing hybrids in New York. The three-story, 26,000-square-foot Inwood Public Library in Upper Manhattan, now under construction, anchors a 14-story mixed-use building called the Eliza, which has 175 deeply affordable apartments, universal pre-K classrooms, a social services delivery center, and amenities including a children's playroom, gym, and roof garden.

The Inwood site was rezoned to allow for a sizeable increase in height and density, notes de la Uz, while "at Sunset Park, we built as-of-right and didn't have to rezone-the height was allowed." She agrees with a recommendation from the Center for an Urban Future that rezoning, where appropriate, would make many more of these projects feasible (see sidebar page 31). "We've done many projects in partnership with government, and giving land at a reduced rate is how you make affordable housing happen," she says. "The project has to be a certain size" to support the cost of construction, she notes, and rezoning and revaluing the land on which libraries sit to allow for higher buildings and greater density "would allow for many more affordable units above libraries and greater public benefit to be realized."

Not Always Affordable

Not all of the city's library-housing projects offer affordable housing, and some have inspired controversy. The 28,000-square-foot 53rd Street Library across from the Museum of Modern Art in Midtown Manhattan, which opened in 2016, provides a three-story base for the 50-story luxury Bacarat hotel and apartment tower. And a rebuild of BPL's Brooklyn Heights branch saw the original 1962 building demolished and the site reenvisioned as One Clinton, a mixed-used, 38-story condominium tower with a new library, STEM learning center, and retail space at its base. Due to be completed in 2020, the tower's 133 market-rate condominiums are listed for between \$1 million and \$6.4 million.

The Brooklyn Heights branch would have required over \$9 million for renovations and upgrades. Instead, Hudson Companies paid \$52 million for the old branch library site. That money is providing funding for BPL's capital needs, including \$12 million to fit out the new One Clinton library—and \$10 million for the Sunset Park branch.

One Clinton, center, houses the Brooklyn Heights library—and more than 130 market-rate condominiums listed for \$1 million to \$6.4 million. Proceeds from the sale of the original library site helped fund the library's renovation, as well as other improvements in the Brooklyn Public Library system. Credit: Noe and Associates/The Boundary.





Opening day at Milwaukee's Mitchell Street Branch in October 2017. The development is one of several in the city that combine libraries with affordable or market-rate housing. Credit: Adam Carr.

Critics of One Clinton have been outspoken about the dangers of "privatizing" public land and property, the plan to scrap the old library rather than renovating it, and the new project's lack of on-site affordable housing. As part of the deal, Hudson Companies is building 114 units of permanently affordable workforce apartments nearby, at no cost to the city. Off-site development of affordable housing within the same community district is allowed under the city's mandatory inclusionary housing program. The apartments are intended for households earning from 60 to 125 percent of AMI, with half reserved for local residents.

Milwaukee is also combining a mix of market-rate and affordable housing with libraries. Milwaukee Public Library (MPL) has partnered with developers to build four new mixed-use branches that cost the library system a total of \$18 million. They include the Mitchell Street Branch Library and Alexander Lofts, which opened in 2017 in the South Side historic commercial district. With 23,000 square feet on two floors that feature a large community room, recording studio, makerspace with kitchen, and a reading area with a fireplace, Mitchell Street is now the city's largest branch library. The \$21 million project—\$6 million for the library and \$15 million for market-rate housing involved the restoration of a historic building that once housed a department store. The new development has 52 market-rate apartments and eight adjacent townhouses.

The housing for these four projects varies from affordable to market-rate, a decision left to the developer, says Sam McGovern-Rowen, MPL project manager. "The library board and the city have expressed a preference for mixed-use housing developments, but we do not dictate the affordability aspect," he says. "The developers propose projects through our RFP process, and we have selected projects that cover the full spectrum of affordability."

Co-locating libraries with at least some market-rate housing "means that the library can play a role in community economic development," McGovern-Rowen points out. "We take formerly untaxed property and put it on the tax rolls, generating hundreds of thousands of dollars in tax base so far." The libraries have also been "a shot in the arm to the neighborhoods and business districts where we build these projects," he says, as thousands of library visitors and new residents patronize local businesses.

Unlocking the Value of Land

Co-locating libraries and affordable housing "seems to fit into a broader trend of unlocking the value of land," says Rick Jacobus, principal of Street Level Advisors in Oakland, California, and author of a Lincoln Institute report, *Inclusionary Housing: Creating and Maintaining Equitable Communities* (Jacobus 2015). "Libraries also are an obvious and synergistic pairing with affordable housing, which needs a ground-floor activation that is not housing."

"A common challenge in mixed-use buildings, especially with developers of affordable housing, is they run into difficulty locating the right institution or organization to partner with for ground-floor development, and banks then have trouble financing the projects," confirmed Hacke of the Center for Community Investment. Incorporating a library, Hacke says, "can contribute to financial viability for a building, but also to the well-being of people who live in the building. When you can bake that into the design of the project, it serves the financials as well as the residents."

Are co-located libraries and affordable housing any more difficult to finance than separate projects? Yes and no. Generally a city's public library division pays for the library, and the housing developer, whether it's the local housing authority, a nonprofit, or a private for-profit developer, works separately to secure financing. The affordable housing component, and often the library, typically have to seek multiple funding partners. But co-location can provide a core and shell for the library building, some shared space, and a catalyst for additional funding. "Mixed-use development and shared costs make the building of new libraries affordable," says ALA's Garcia-Febo.

The \$20 million Cornelius Place project in Oregon, developed by the national nonprofit BRIDGE Housing with local service provider Bienestar, was 12 years in the planning and required more than a dozen financial partners. After a library levy failed to pass, the library conceived of introducing senior housing as a feasibility step. The library cobbled together its \$5.8 million share of construction costs from sources such as local businesses, individuals, and county, state, and federal funds, including a \$500,000 grant from the National Endowment for the Humanities. The city owns the land, and the building is owned by BRIDGE Housing, with the library paying a nominal leasing fee for its space.

Mixed-use projects, especially those with an affordable housing component, can also offset construction costs by taking advantage of low-income housing tax credits or state tax credits. In 2009, the Miami-Dade Public Library System joined forces with the county's Homeless Trust and Carrfour Supportive Housing to build the Hispanic Branch Library and, above it, the Villa Aurora Apartments. The project included 76 units of permanently affordable housing: 39 for formerly homeless families and 37 for lowincome families. The new 12,000-square-foot branch library quickly became a community destination. Carrfour, a nonprofit affordable housing provider, built the complex on the site of a former Salvation Army shelter and leases the first-floor space to the library system. Funding sources for the \$29 million project included the Enterprise Social Investment Corporation's tax credit equity, an incentive loan from the Florida



Left: Loida Garcia-Febo, past president of the American Library Association, celebrates the community-building role of libraries during a February 2019 visit to the Miami area. Credit: American Library Association. Right: Miami's Hispanic Branch Library occupies the ground floor of the Villa Aurora Apartments. Credit: Carrfour Supportive Housing.



A mix of sources covered the cost to build the award-winning Little Italy Branch Library and Taylor Street Apartments in Chicago, including federal funds, tax credits, and TIF revenue. Credit: Courtesy of Chicago Housing Authority.

Housing Finance Corporation, deferred developer fees, and city, county, and federal funds. The cost to the library system was \$3 million.

The City of Chicago worked to persuade federal officials that public libraries could be co-located with public housing without putting federal housing subsidies at risk, noted Kimmelman in The New York Times. The three Chicago projects had different funding packages. Financing for the Little Italy branch, for example, included U.S. Department of Housing and Urban Development (HUD) funds, federal tax credits, revenue from two tax-increment financing districts, and another housing fund. By adding the housing component to the library, the project qualified for federal tax credits and government housing funds, including from HUD, that provided almost half the needed funds. Thus, the construction of the building was underwritten significantly by co-location.

In Brooklyn, FAC is leveraging eight sources to finance the \$35.8 million Sunset Park library, which breaks down to \$7.8 million for the "core and shell" of the library and \$28 million for the residential portion. Funding sources include over \$10 million in state and federal affordable housing tax credits and \$8.75 million from the New York City Department of Housing Preservation and Development. The developer is constructing the building at no cost to BPL, which will fit out the new library for \$10 million-half the cost of demolishing the library and building a new one-derived from the sale of air rights to the old Brooklyn Heights library site. The city turned the property over to FAC during development, but when construction is completed, the city will own the library in perpetuity, with both its portion and the housing units treated as condominiums. FAC will own and manage the apartments.

By adding the housing component to the library, the project qualified for federal tax credits and government housing funds . . . that provided almost half the needed funds. Thus, the construction of the building was underwritten significantly by co-location. One new resident of the Northtown Public Library and Affordable Apartments told the *Chicago Tribune* how much she appreciated the services on the ground floor: "The library was a blessing." Credit: Perkins and Will.



For the Common Good

Smart rezonings could allow dozens more libraries to be upgraded and more co-located library and affordable housing projects to be built. The Center for an Urban Future worked with the architecture firm Marble Fairbanks to identify at least 25 libraries in New York City with surplus development rights that they could leverage for affordable housing or other uses, depending on the community's needs.

"Cities are trying to lean more heavily into the production of affordable housing, and what's relevant here is the land," says Jacobus. "If you have an asset like urban land, you might as well use it to its fullest potential. This could happen in many cities with one- or two-story libraries in places that could be denser. By building a building that is denser, they're able to unlock the value of the land to subsidize affordable housing, and that extra value is a public asset."

Even projects with market-rate rather than affordable housing can provide significant public value, says Jacobus. The One Clinton project in Brooklyn Heights, for example, provides the library, housing to ease a tight market, and a fair amount of capital to underwrite improvements to other new libraries, while the developer also provides affordable housing nearby. "They were able to use the value of an asset to leverage affordable housing," Jacobus says. "It's a smart move and there's a trend there that seems promising." Pairing libraries and affordable housing helps cities meet other goals such as financial management and neighborhood development, he notes. "The bigger issue is that you get obvious public benefit out of the project, which helps with public acceptance of affordable housing," often a target for community opposition. While Jacobus doesn't see mixed-use housing and library projects as a widespread trend—in part because libraries still require additional public funding to build and operate he does see cities becoming more entrepreneurial and using all the resources they can to create more affordable housing.

Garcia-Febo of the ALA is more optimistic. As a wise use of public land that provides value to the community, co-location of libraries with housing "is a great new opportunity to distribute services across neighborhoods, and I think we'll see many more of them," she said. "It's difficult to equate the value of libraries with the land or air space they occupy, but for many library leaders, this is an opportunity to reinforce the value of libraries for access, education, lifelong learning, and the civic commons."

Kathleen McCormick, principal of Fountainhead Communications in Boulder, Colorado, is a contributing editor for *Land Lines*. She writes frequently about sustainable, healthy, and resilient communities.

CO-LOCATION CONSIDERATIONS

For a mixed-use library and housing project to succeed, planners must consider many factors, including the following:

Zoning. Zoning should allow for mixed uses combining residential with public institutions (and perhaps other uses), and for the height and density required to build a critical mass of housing over library space. A 2018 neighborhood rezoning decision by the New York City Council allowed for mixed uses and additional building height to achieve goals such as developing affordable apartments and encouraging economic development that benefits the local community. The decision paved the way for the 14-story Eliza building, which combines the new Inwood Library with 175 affordable apartments.

Air Rights. Development rights generally refer to the maximum amount of floor area permissible on a lot. When the actual built floor area is less than the maximum permitted floor area, the difference is referred to as "unused development rights," or "air rights." The value of air rights, which can be sold to adjacent property owners or others, can vary by location and can depend on factors such as zoning restrictions, the height and density of adjacent buildings, and proximity to public transit and services.

Financing. Libraries generally are funded by a city's capital budget or by special tax levies. Market-rate housing generally is financed privately or through commercial banks. Private developers of affordable housing can take advantage of low-income housing tax credits. Municipal housing authorities can access funds from local, state, and federal sources to develop subsidized public housing for low-income households. Depending on the needs of the community and developers' plans, co-location can include a mix of publicly subsidized, affordable, and market-rate housing; the latter can help underwrite development of the more affordable units.

Tax Implications. Market-rate housing that shares space with libraries is almost always taxable, so these projects can help expand a community's tax base. In contrast, affordable housing is usually tax-exempt, at least when it is owned by a housing authority or land trust. The best housing option depends on a community's needs—fiscally stressed cities may prioritize their tax base, while hot-market cities prioritize affordable housing. In general, reducing costs for the construction of libraries and public housing will benefit taxpayers.

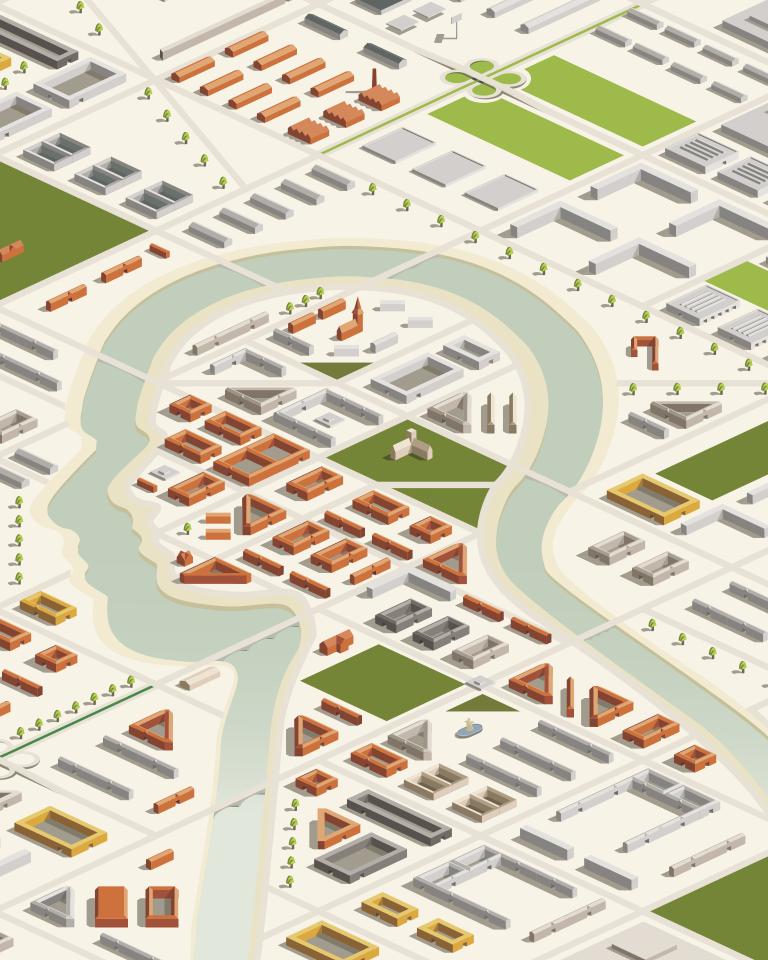
REFERENCES

Brey, Jared. 2018. "How Library Systems Can Help Address Affordable Housing Crises." Next City. June 18, 2018. https://nextcity.org/daily/entry/how-librarysystems-can-help-address-affordable-housing-crises.

CHA (Chicago Housing Authority). 2019. "Taylor Street Apartments and Little Italy Branch Library Garner National Award." Press release. June 24. https://www. thecha.org/news-media/news/taylor-street-apartmentsand-little-italy-branch-library-garner-national-award.

Giles, David, Jeanette Estima, and Noelle Francois. 2014. *Re-envisioning New York's Branch Libraries*. New York, NY: Center for an Urban Future. September. https://nycfuture. org/pdf/Re-Envisioning-New-Yorks-Branch-Libraries.pdf. Jacobus, Rick. 2015. Inclusionary Housing: Creating and Maintaining Equitable Communities. Policy focus report. Cambridge, MA: Lincoln Institute of Land Policy. https:// www.lincolninst.edu/publications/policy-focus-reports/ inclusionary-housing.

Kimmelman, Michael. 2019. "Chicago Finds a Way to Improve Public Housing: Libraries." *The New York Times*. May 15. https://www.nytimes.com/2019/05/15/arts/ design/chicago-public-housing.html.



GAME TIME

Active Learning Puts an Engaging Spin on Urban Planning Education

By Emma Zehner

CARLOS MORALES-SCHECHINGER KNEW HE WAS

doomed. An official in Mexico's ministry for urban development, he was slated to speak at a conference in San Luis Potosí immediately following a fully programmed morning and large lunch. With the students in front of him doing little to fight an onslaught of yawns, Morales had to get creative.

On a whim, he decided to forgo his formal lecture on Mexico's national urban land policy. Instead, he asked a student in the front of the room if he could buy the chair the student was sitting on, offering a bill from his pocket as payment.

After some initial confusion, the student accepted. Morales then started auctioning off the seat. He spoke in a low voice to illustrate its locational advantage, increasing demand. Soon he had the students invested in both his presentation and that suddenly invaluable piece of furniture. By the end of the session, equipped only with standard classroom objects, he had brought to life the processes of land price determination, densification, and other phenomena related to the notoriously complex and often misrepresented topic of urban land markets.

That was 30 years ago. Over the decades since, Morales's spontaneous attempt to engage

sleepy students has evolved into and informed a variety of educational games, including a multiday organized game called GIROS. Taking its name from the Spanish for both "transaction" and "turning around," which captures the notion of the interdependencies of land markets, GIROS was designed by Martim Smolka, director of the program on Latin America and the Caribbean at the Lincoln Institute of Land Policy, and enhanced in collaboration with Morales, now a member of the Lincoln Institute's teaching faculty. GIROS has been played well over 150 times and inspired spinoffs in most of Latin America, and in the Netherlands, Taiwan, Ghana, Kenya, the Philippines, and other countries. Participants have ranged from urban planning students to high-level public officials.

GIROS requires few props. Smolka and Morales developed a basic game board with color-coded pieces used to map the evolution of an imaginary city. Participants divide into teams, wearing hats to indicate roles like government officials, NGOs, different classes of citizens, and developers. During the first rounds, players—assigned "hidden agendas" to simulate the opaque nature of land markets—negotiate and trade plots in a market with little regulation. Halfway through play, the "government" introduces regulations such as high-density zones, altering the city's development trajectory. When each round concludes or when a theoretically significant phenomenon occurs as the result of a transaction, the students take off their hats to discuss what happened and why.

Depending on the decisions players make, the game can take many forms. But at least two takeaways, evident since the game's origins, always emerge. The first is that land value is not intrinsic, but is instead shaped by factors including transportation costs, land use regulations, taxation, and other externalities. The second takeaway, which the Lincoln Institute is fully embracing as part of its current instructional design work, is that games are a seriously important part of land policy education.

GIROS is just one of the Lincoln Institute's growing suite of educational games and interactive tools. While these tools are primarily used in the Institute's courses in Latin America, active learning increasingly plays a role in all its educational offerings. "In terms of broader learning design, we really want to shift the balance of our in-person courses away from presentations and lectures and toward more active learning activities," said Ge Vue, associate director of Learning Design at the Lincoln Institute. "The game is one example of this."

Games are a unique and useful pedagogical tool for a number of reasons, according to Vue. They encourage action, interactivity, and innovative thinking in ways that traditional classroom approaches don't. Vue emphasizes that games have the potential to teach not just content, but also more applicable problemsolving skills. They are a flexible tool, allowing students to provide feedback and input in real time and facilitators to contribute their own knowledge and guidance along the way.

Giovanni Pérez Macías, a lawyer who first played GIROS in 2007 as part of a three-month Lincoln Institute land policy course in Panama, sees the ability of the instructor to change the direction GIROS takes as one of this game's strengths. "If Carlos sees that a certain group needs to learn a specific issue in urban development or land policy, he can lead the game [in a way that teaches] that issue," he says.

Whatever the outcome, Morales explained in a video about the game produced by Erasmus University Rotterdam, students must understand their own influence. "If you win the game, you have to explain why," he said. "If you aren't able [to explain why you won], you lose points. The main point is not winning or losing, it is learning."

Participants in a Lincoln Institute of Land Policy course in Santo Domingo, Dominican Republic, play a round of GIROS with the help of Carlos Morales-Schechinger (seated, left). The teams wear hats to indicate their roles. Credit: Anne Hazel.









Teaching with Games

Popular games that invite players to take on the role of developer or city planner are a familiar part of the cultural landscape. Monopoly was created in 1903 by Henry George aficionado Elizabeth Magie, then bought by the Parker Brothers in the 1930s and transformed into the capitalist game known around the world today. More modern digital games like SimCity, in which players build and manage urban areas, and Minecraft, which places players in an undeveloped landscape with the tools they need to build cities and other structures, have kept the tradition going.

These games overlap with and influence the urban planning world—"I wouldn't be where I am today without SimCity," an official with the National Association of City Transportation Officials told the *Los Angeles Times* for a 30th anniversary article on the game (Roy 2019) but they don't always reflect the realities of urban development.

In the case of Monopoly, for instance, Smolka points to the fact that land values don't vary with the behavior of the players as an example of how the iconic board game reinforces misconceptions about land markets. Smolka explained that part of the inspiration for GIROS came from a game that had been conceived in Bogotá to teach land value capture principles but suffered from this same problem: "You lose the most important part of the conversation. The rationality of the agents must affect land use and land values."

Smolka is not alone in his assessment. In an article on mainstream city-building games, Bradley Bereitschaft, assistant professor of geography at the University of Nebraska, wrote, "the limitations and inaccuracies of these games limit their utility in understanding complex urban processes" (Bereitschaft 2016). In fact, it was that type of academic unease that led to the development of so-called "serious games" beginning in the 1960s. Clark C. Abt, a German educator and engineer, put a name to the emerging trend in his 1970 book Serious Games. Such games, he wrote, "have an explicit and carefully thought-out educational purpose and are not intended to be played primarily for amusement. This does not mean that serious games are not, or should not be, entertaining" (Abt 1970).

Many of the early urban planning games were "products of local needs," according to

Eszter Tóth, a PhD student at HafenCity University Hamberg who conducts research in the field of children's participation in urban planning (Tóth 2015). Often developed by universities at the behest of local municipalities, these games were typically played only a couple of times and never published. One game that did have a longer shelf life—and has been cited by some as the origin of simulation gaming, which imitates real-life situations—was Metropolis. Richard Duke, a professor at the University of Michigan, designed that simulation in 1966 to help the Lansing City Council work through a complex budgeting process.

Soon after, Alan Feldt, a professor of urban and regional planning at Cornell who would later become one of Duke's collaborators, designed an urban planning board game specifically intended for use in higher education. The Community Land Use Game (CLUG) centered around a board with 196 one-inch squares. Over the course of 20 hours, five teams made up of two or three students each from his undergraduate and graduate regional planning courses aimed to build factories, stores, and residences in relation to transportation, resources, and utilities with the goal of maximizing land value.

A 1969 Cornell Daily Sun article on Feldt's game, which by then had been used as a teaching aid in Mexico, Germany, Israel, and England, weighed in on the new trend: "Playing with blocks used to be considered appropriate behavior for kindergarteners, but today's modern teaching theory is turning such former juvenile pastimes into accepted university techniques."

"Urban planners in general are decision makers, and a game gives them the opportunity to practice and to play in an arena of trade-offs: If I want more of X, I will have less of Y . . . games can be adapted to any situation that requires choosing different ways to solve a problem."

Why Play Is Good for Planners

Paulo Sandroni, an economist and now retired professor at the Getulio Vargas Foundation in São Paulo, Brazil, who has collaborated with the Lincoln Institute and developed simulators and games of his own, believes games are particularly useful for teaching urban planners.

"Urban planners in general are decision makers, and a game gives them the opportunity to practice and to play in an arena of trade-offs; if I want more of X, I will have less of Y," Sandroni said. "Urban planners deal with a whole city, a very complex organism. In other professions there are limitations because they deal with more specific subjects, but games can be adapted to any situation that requires choosing different ways to solve a problem."

"You can face in real time, even if simplified, the same questions and same problems that the real decision makers do in their professional lives," Pérez Macías said.

The physical aspect of games like GIROS may be particularly useful for urban planners, who are more physical by nature of their interest in the design of the built environment, said Daphne Kenyon, resident fellow in tax policy at the Lincoln Institute. Kenyon helped facilitate the play of PLUS, a condensed spinoff of GIROS, at the national American Planning Association conference in April 2019. Over the course of the APA session, planners moved between chairs and tables that represented housing units and plots of land. At the conclusion of the first round, when a lack of government intervention had led the players who were in the role of developers to overproduce for the rich and underproduce for the poor, a group of professionally dressed real-life planners huddled together on the floor in an effort to signify their homelessness. Vue explains that students' physical interaction with a game or the creation of new objects provides more options to represent their thinking and communicate the reasoning behind their actions.



Left: Games like this one, designed by Amsterdam-based Play the City, can help city leaders make decisions. Credit: Play the City. Right: A still from SimCity, a popular digital city-building simulation. Credit: Paul Hameteman/Flickr CC BY 2.0.

Role-playing games like GIROS also help students inhabit perspectives they might not otherwise, says Kenyon, who plans to use a condensed version of the game in an economics course she teaches at Brandeis University. Kenyon thinks the game might challenge some of her students' assumptions by forcing them to see the challenges that developers, in particular, can face in city-building scenarios.

The Lincoln Institute's games are also part of a larger response to a persistent trend: Many urban planning master's programs, whether in the United States or Latin America, offer limited or no instruction in urban economics and property taxation as part of their core curriculum. Instead, they focus more narrowly on urban design and the physical nature of cities. Smolka and others see games and other active learning techniques as a way to fill this gap. As Smolka explained, "GIROS is designed to teach the kind of professional who is averse to equations or formulas the fundamentals of how land prices are determined and how norms and regulations affect public revenues."

In the past few decades, as municipalities have increasingly rejected top-down planning processes, serious games have become an increasingly popular tool to aid public processes and help leaders think through real scenarios with real data. Play the City, an Amsterdam-based firm whose tagline is "serious gaming for smart and social cities," believes gaming has the potential to replace traditional formats of civic engagement. The company designs physical games tailored to specific cities that bring stakeholders together to address issues including affordable housing, urban expansion, climate change, and participatory design. Play the City is also committed to documenting games that improve city making, and maintains a database that includes GIROS.

The Latin America Context

The Lincoln Institute currently uses GIROS and other games primarily in Latin America, where the majority of the organization's courses which focus on formal and informal urban land markets, land value capture, urban redevelopment projects, and other related topics—are offered. While some local governments in the region have embraced the role of games in the planning process, academics have traditionally been less willing to use games in university classrooms.

Sandroni thinks that hesitancy can be attributed to a lack of time, financing, and exposure to these teaching aids. He first started Many urban planning master's programs, whether in the United States or Latin America, offer limited or no instruction in urban economics and property taxation as part of their core curriculum, instead focusing more narrowly on urban design and the physical nature of cities. Games and other active learning techniques are a way to fill this gap.

experimenting with using games in his classroom in the 1990s. He noticed that students were always playing cards between classes, so he developed two card games of his own, bringing them into the formal setting of the classroom. Since 1999, he has run *O Jogo da Economia Brasileira (Game of the Brazilian Economy)*, a national tournament in which economics students from across the country compete and gain an understanding of exchange rates, inflation, foreign debt, and other concepts. By supporting teachers and modeling the use of games in the classroom, Sandroni said, "the Lincoln Institute is really pioneering the use of games in education in Latin America."

Pérez Macías thinks the key to changing the cultural resistance toward games is to provide professional development opportunities so teachers can experience the games for themselves. At least that's how it worked for him, he said. After taking his first Lincoln Institute course, where he was exposed to most of the Institute's games that had been developed to date, Pérez Macías started taking additional courses in gamification and became a selfdescribed gamification practitioner, incorporating spinoffs of GIROS into his own courses. He is now using a methodology called LEGO Serious Play that is generally used to facilitate meetings and communication in corporate settings, but which Pérez Macías has adapted as a tool to teach urban issues, like participatory design and negotiation and agreement building between urban stakeholders.

Gislene Pereira, a professor in architecture and urban planning at the Federal University of Paraná who first saw GIROS in 2009 in Caracas, says she appreciated that it allowed participants "to think with the logic of each agent of the city"—literally wearing many hats. She has since helped to oversee the development of a simplified version for use in courses for architecture and urbanism students and in training for city councilors on land policies, tax, and non-tax instruments.

The appetite for games has grown in Latin America, a trend that was confirmed, at least anecdotally, by a weeklong course put on by the Lincoln Institute in Guatemala in early 2019. The course focused on using tools like games and tribunals, crosswords, and videos to teach land market and policy issues to urban planners (see sidebar). As part of the application process, applicants—some of whom had attended Lincoln Institute courses in the past—had to describe a tool they were already using in their classrooms. Of the 78 applications the Institute received, 34 said they used some type of game in their courses, with others citing the use of case studies, simulations, videos, and theater assignments.

"We are seeing much more interest than we thought," said Enrique Silva, director of International and Institute-Wide Initiatives at the Lincoln Institute. "In Guatemala, we saw that there is an audience and a willingness [for active learning tools], and most importantly a demand. There was a sense that people would love to be more engaged."

ACTIVE LEARNING AT LINCOLN

Ge Vue, associate director of Learning Design at the Lincoln Institute, said he encourages those who teach to think about active learning no matter what tool they're using: "You can insert instances of active learning in a simple scenario statement in a PowerPoint [just as you might] in a more elaborate, multiday game." In addition to games such as those described in this article, the Lincoln Institute employs a variety of student-centered, participatory active learning tools, including:

Case Studies

One of the Lincoln Institute's newer active learning approaches is the use of case studies in the classroom. Over the past year, for example, the Lincoln Institute redesigned a conventional lecture on public-private partnerships into a teaching case study on the financing of Millennium Park in Chicago. The case study, which prompts critical thinking and interaction, was then used in a municipal finance executive education course in collaboration with the University of Chicago Harris School of Public Policy.

Tribunals/Debates

During a Lincoln Institute tribunal session, participants are given a particular proposition, with half of the group required to conduct research and argue in favor, and the other half against. The activity culminates with presentations, questions from other students in the course, and the final verdict of a pre-assigned "judge."

Theater Productions/Videos

Palo Alto: Un Sistema Economica is a dramatic satire on political economy adapted to the Latin American context. It is based on the 1934 theater production of *The Shovelcrats: A Satire on the Illusional Theory of Political Economy* by the Schalkenbach Foundation and produced by the Colombia-based Teatro Vreve for use in Lincoln Institute courses. In recent years, teachers have provided students with a version of the script that excludes the final scene, asking students to write an ending.

Cartoons

Produced by the Lincoln Institute and Brazil's Ministry of Cities, *Jose K. Tastro y las Directrices para el Catastro Territorial Multifinalitario* represents common situations faced by municipal cadaster employees as they implement land information systems to meet the needs of the public and private sectors. A second cartoon, *Jacinto Bené Fício and the Property Tax*, tells the story of two cities, one with a well developed property tax system and the other with a poorly developed system.

Crossword Puzzles

The crossword puzzle, *un juego de palabras*, is used to help students review vocabulary and concepts and offers a less intimidating alternative to drill-based review techniques. The Lincoln Institute's new crossword puzzle on informal markets asks readers to come up with words based on clues such as "who bears the burden of a charge to land values."



Scenes from Jacinto Bené Fício and the Property Tax, which includes a character modeled after Lincoln Institute program director and instructor Martim Smolka. Credit: Ministry of Cities of Brazil, Lincoln Institute of Land Policy.

Looking Ahead

The success of GIROS and other games in Latin America has paved the way for the Lincoln Institute to think more strategically and broadly about its pedagogical approach. "We started by thinking that if people acquired knowledge and skills about pressing global challenges and issues and how to address them through land policy, they would make good choices, implement good projects, and make the best use of limited resources to improve the quality of life in the community," Vue explained. "With games, we've become more explicit about critical thinking skills like problem solving, social skills like teamwork and collaboration, and ethical behavior of the different interest groups that are crucial to navigating local and global challenges in the real world."

Moving forward, Vue hopes to roll out active learning approaches more consistently in the other regions where the Lincoln Institute offers courses and to encourage faculty to rethink the design of conventional courses, lectures, and presentations. The Learning Design program at the Lincoln Institute is embarking on new multimedia projects, including a case study on equitable revitalization in Cleveland that will be used in courses as far afield as Taiwan, and hopes to make many of its tools available on an e-learning platform.

"As the Lincoln Institute thinks about its educational approach, the future may be less about what's new, and more about how instructors can be most effective at tackling a persistent learning challenge," Vue said. "The Lincoln Institute operates on a global stage because issues like climate change cross political and geographical boundaries and require change in strategic thinking and ethical behaviors. Through well-designed learning experiences that get people to collaborate, converse, teach, and learn with others who are different from them, people tend to be more humbled about what they don't know, more open to different perspectives, and more likely to be inspired and feel supported to act globally." Serious games are one approach, but to reach a diverse audience, Vue explains the Lincoln Institute needs to expand its palette of teaching strategies.

In a sense, he believes the Lincoln Institute's use of games is an active learning experiment in and of itself. "I am hoping that we can improve the current designs of our games each time we use them," Vue said. "It doesn't mean you make a dramatic change in the rules, instead [it's] around ensuring that a range of participants can learn and succeed. Just because we design a game, doesn't mean it's done."

Emma Zehner is communications and publications editor at the Lincoln Institute of Land Policy.

REFERENCES

Abt, Clark C. 1970. Serious Games. New York, NY: Viking Press.

Bereitschaft, Bradley. 2016. "Gods of the City? Reflecting on City Building Games as an Early Introduction to Urban Systems." *Journal of Geography*. 115 (2): 51-60. https:// www.tandfonline.com/doi/full/10.1080/00221341.2015. 1070366.

Play the City. "Games for Cities Database." http:// gamesforcities.com/database/.

Roy, Jessica. 2019. "From Video Game to Day Job: How 'SimCity' Inspired a Generation of City Planners." *Los Angeles Times*. March 5. https://www.latimes.com/ business/technology/la-fi-tn-simcity-inspired-urbanplanners-20190305-story.html.

Tóth, Eszter. 2014. "Potential of Games in the Field of Urban Planning." In New Perspectives in Game Studies: Proceedings of the Central and Eastern European Game Studies Conference Brno 2014 ed. Tomáš Bártek, Jan Miškov, Jaroslav Švelch, 71-91. Brno, Czech Republic: Masaryk University. https://www.researchgate.net/ publication/311233864_Potential_of_Games_in_the_ Field_of_Urban_Planning.



Marvin Rees. Credit: Office of the Bristol Mayor.

Marvin Rees was born in Bristol, U.K., and grew up in the city's public housing. From there, he went on to study economic history and politics at Swansea University, then global development at Eastern University in Pennsylvania and the Yale World Fellows global leadership program. Rees worked in public health, promoting racial equality in mental health care, and as a broadcast journalist for the BBC before seeking office in his hometown. When he was elected in May 2016, he became the first mayor of Black African-Caribbean descent to lead a European city. He has pledged to make Bristol—a former manufacturing hub that lies about 100 miles west of London and is home to more than 450,000 people—"a fairer city for all," with a focus on affordable housing, improved transit, health care, and social mobility through access to education. Rees, 47, has also worked to improve communications and collaboration with constituents and civic groups. He lives in East Bristol with his wife and their three children. In this interview with Senior Fellow Anthony Flint, Rees reflects on equity, growth, and immigration, amid a tumultuous political climate in the United Kingdom.

On Leading a Post-Industrial City in a Post-National World

ANTHONY FLINT: One of your campaign billboards indicated you would build 2,000 homes per year once elected. What was behind that promise, and how has it played out?

MARVIN REES: The reason affordable housing became our top priority is because it is one of the single most important policy tools we have for delivering population health, a strong economy, a stable society, and good educational outcomes. We have a housing crisis as many American cities do. We haven't built enough, and the private market alone hasn't provided the opportunity to own a stable home. It's been a challenge, in part because we didn't have the organizational machinery in place to bring land forward and get it developed. But it looks like we are on track to meet that target, which is 2,000 homes a year by 2020, 800 [of them] affordable. There's a whole mix: council houses where we own the land: a social housing association with rents below market rates; we've got volume builders who, within their schemes, are also required to provide affordable homes; and we are supporting self-build schemes, where communities come together [to build cohousing on underutilized land]. We've had the Bristol Housing Festival exhibition, which showcased modern methods of construction such as off-site manufacture. We place an emphasis on quality and community. What we don't want to do is just put boxes up and slot people into them.

AF: As you think about sustainable growth and affordable housing, what in your view is the role of land policy, including the taxation of land? Where do you stand on land value capture and a land value tax?

MR: I'm from a public health and journalism background, so I had to have a crash course about how various parts of a city work. Land value is a massive challenge because land has become a commodity, passing through the hands of several owners, not to be built on but just to make money. We need powers at the local government level, and the national government needs to take action to change how land is used. Personally, I think there's a huge conversation to be had. In the U.K., we think education is a public good. We think the same about health, and hence we have a National Health Service. And I think for social justice and the strength of our economy we need to reframe how we think about land and housing. If we fail on this, we'll end up with what we've seen across the world—the middle class disappears, and you end up with a bifurcated population and fragile state. This is a crisis.

AF: You have embraced the concept of reinvention for post-industrial cities, which is a big theme of the U.K. 2070 Commission, a research initiative that counts the Lincoln Institute as a partner. But how do you encourage growth in your city and others like it in the context of Brexit?

MR: Brexit is the wrong answer to the right problem. People have been left behind; they've lost hope. [People feel that] politics has become increasingly distant from them. The other problem Brexit has identified is that people have lost touch with their national story and narrative, and who they are. Just like in the United States, many want to go back to the 1950s. These are legitimate grievances, but Brexit is not going to solve the problem. Globalization has integrated our communities so we use the same productsthere's nothing British about Pizza Hut, right? In many ways we're in a post-national world and we can't leave our futures in the hands of national government. The city level of government is best placed to deliver, with cities forming international networks to work together on shared issues like climate change, immigration, and equity.

A jumble of housing adorns the hillside above Bristol Harbour. Rees has identified increasing the city's affordable housing stock as a top priority. Credit: theasis/iStock.





In the summer of 2019, 435 local councils approved a motion brought by Rees and a fellow mayor to declare a climate emergency and adopt the UN Sustainable Development goals. Credit: Office of the Bristol Mayor.

AF: Take a moment to explain Bristol's One City Plan, which lays out a vision for where the city will be in 2050 and is shortlisted for the EU's Capital of Innovation prize. How do you balance myriad ideas from constituents and pushing the agenda you have determined is needed?

MR: The One City Plan comes from an understanding that what people receive is not by government alone—that people sit at the intersection of [decisions made by] the city, universities, the private sector . . . And if we want to shape the future, we have to grab ahold of that collective impact and get some alignment. It's also based on the sense that we can't wait to see what comes down the railroad tracks. We need to see where we need to be in 2050, and if we want to be there in 2050, what needs to be delivered by 2048 or 2025, and work our way back. It's a living document with shared priorities and real agreement. Anyone in Bristol can pick up a copy of the plan and say, 'Right, I see you are doing X by 2050, but I think it should be done by 2025.' Carbon neutrality, for example. The One City Plan gives us the raw materials and shows how we can get to common ground.

The plan is based on six stories [Health and Wellbeing; Economy; Homes and Communities; Environment; Learning and Skills; Connectivity]. Each of those stories has a board [made up of community members], and they are responsible for updates every year. Every six months we also have something called the City Gathering. The first one we had 70 or so people come together ... and I said to them, between us we spend £6 billion [\$7.4 billion] and employ 70,000 people in the economy. If we align ourselves on a small number of shared priorities, what could we not do? We have incredible power. We're trying to create space for people to [connect and] come up with answers.

AF: As you've been going about your work, you've been the target of extremist and antiimmigration rhetoric. How do you manage being chief executive with a progressive agenda in that kind of climate?

MR: I manage it because I think the whole argument about immigration is, to put it charitably, a mistake, and less charitably, a big lie. Immigration is not the cause of people's problems. I grew up poor and among those often preyed upon. To have members of the British elite running around, and you see something similar in the United States, blaming migrants for the state of the country that they have had all-encompassing power over for centuries—it's a little bit rich. They have created a situation

"I think for social justice and the strength of our economy we need to reframe how we think about land and housing. If we fail on this, we'll end up with what we've seen across the world-the middle class disappears, and you end up with a bifurcated population and fragile state. This is a crisis." A mural in Bristol, known for its vibrant street art scene, offers a commentary on Brexit depicting British comedian Benny Hill. Rees describes Brexit as "the wrong answer to the right problem." Credit: Heatheronhertravels.com/Flickr CC BY 2.0.



where relatively poor and powerless people are blaming other poor and powerless people for the state we are in. It's also not difficult for me because I want to be in a place where I can say what I really think. I'm a mixed-race man. My dad came from Jamaica; my mum's English heritage goes back in Bristol for a very long time. My granddad was from South Wales and before that Ireland. I'm a physical embodiment of migration, so I think it's disingenuous to say migration is the cause of the world's ills.

Another problem is that the migration discussion is being shaped by national governments. That's the wrong way around. What we need are national governments to start talking to cities and asking what cities need. [Cities are] more inclined to look at migration as an asset in terms of our connectivity to world markets. Following our Asian, African, or Eastern European populations—they connect us to international opportunities. National governments are using abstract numbers and talking about how many more people to let in. And it's completely different from the conversation we need to have. AF: Last but certainly not least, what is your vision for how cities like Bristol can contribute to combating climate change, while also preparing for its inevitable impacts?

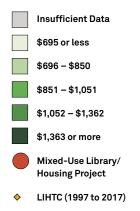
MR: We absolutely recognize it as a crisis with very real consequences. Increased flood risk, more extreme temperatures, desertificationwe'll end up with more rural-urban migration, and a source of conflict leading to more crises. For cities, the climate emergency will be inseparable from the global migration emergency. Cities have to be in the driving seat for a number of reasons. One is about political will. Certainly in the United States, your federal government seems to have no political will, but we've seen American mayors stepping up to lead when the federal government withdraws. Cities are more inclined to look in terms of interdependencies, whereas the national government is more occupied with boundaries. Cities are equipped with the political machinery to lead the way. 🗌

Anthony Flint is a senior fellow at the Lincoln Institute of Land Policy.

Housing Affordability in Brooklyn, New York



Median Gross Rent (2013 – 2017)



Median rent in Brooklyn climbed between two to six percent each month during the first half of 2019, reaching \$2,914 by July, according to Bloomberg. As the map indicates, lowincome housing tax credits (LIHTCs) tend to be clustered in the northeast section of the borough. Affordable housing is in short supply in the more westerly neighborhoods whose mixed-use library and housing projects are described in this issue: Brooklyn Heights, where average rent increased 53 percent from 1990 to 2010–2014, and Sunset Park, where average rent increased 24 percent during the same period.

NYU Furman Center. 2016. "State of New York City's Housing and Neighborhoods in 2015." New York: New York University. https://furmancenter.org/files/ sotc/NYUFurmanCenter_SOCin2015_9JUNE2016.pdf.

Price, Sydney. 2019. "Brooklyn Beats Manhattan for NYC Apartment Rent Increases." Bloomberg. July 11. https://www.bloomberg.com/news/ articles/2019-07-11/brooklyn-beats-manhattan-for-new-york-apartmentrent-increases.



Land Lines 113 Brattle Street Cambridge, MA 02138-3400 USA

RETURN SERVICE REQUESTED

Non-Profit Org. U.S. Postage **PAID** Boston, MA Permit No. 57852

Land Lines is free. To subscribe, simply register on our website: www.lincolninst.edu/user



Available in October 2019. To pre-order, visit www.lincolninst.edu/dwnn.

Announcing a New Milestone in Ecological Planning

To celebrate the 50th anniversary of Ian McHarg's seminal book, *Design with Nature*, the University of Pennsylvania showcases some of the most advanced ecological design projects in the world today. Featuring vivid color images, *Design with Nature Now* prepares practitioners to contend with climate change and other 21st-century challenges.

"Like Ian McHarg's classic Design with Nature, this beautiful and fulsome reprise of his earlier work inspires us with its sheer virtuosity. Yes, it looks back at the pioneering work of McHarg but, much more, it elucidates contemporary challenges with boldness and precision....A true manual for spaceship Earth!"

— Jerry Brown, former four-term governor, California