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3D Printable Housing Takes Shape

The Hidden Costs of TIF

City Planners Confront Homelessness

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Architectural rendering of Project Milestone, a 3D-printed housing development planned in Eindhoven, the Netherlands. The project represents an unusual partnership between industry, academia, and government. Credit: Houben en Van Mierlo Architects.

DEPARTMENTS

Waking Up to Scenario Planning

Has anyone ever tried to motivate you to act on a pressing problem by presenting a "nightmare scenario"? By extending current trends into the medium or distant future, these scenarios are intended to illustrate outcomes deemed inescapable unless radical behavior changes occur. Whether the issue at hand is peak oil or crumbling infrastructure, well-meaning interlocutors often use this well-worn device to try to awaken people to desperate futures.

But this approach has flaws. Nightmare scenarios are depressing, and depression immobilizes those one hopes to mobilize. The remedies required to avert disaster usually seem intractable. And the supposed inevitability of disaster can actually generate a bizarre logic that exonerates non-response, with horrible implications.

For all of these reasons, a different type of scenario planning is called for, one the Lincoln Institute is embracing. Before I explain, let me illustrate the pitfalls of relying on nightmare scenarios with two examples—one from the history books, and one more current.

Thomas Malthus provided one of the earliest rhetorical uses of a nightmare scenario in his 1798 "Principle of Population" essay. In the essay, Malthus contrived a theoretical argument that reverberates today in economics and other social sciences (it was one reason economics was nicknamed the dismal science). Malthus postulated that population grew geometrically (following a 2, 4, 8, 16, 32 . . . pattern), while food production grew arithmetically (following a 2,4, 6, 8, 10 . . . pattern).

In Malthus's view, population growth is fueled by the seemingly unlimited human proclivity to reproduce and, importantly, increases when the poor become better off. Food production, to the contrary, is limited by the fixed supply of land and the law of diminishing returns. The relation between the two could only end in disaster. "Positive checks" like famine, plague, or war would lead to the premature death of a large share of the population and restore temporary balance. Malthus suggested that "preventive checks" like later marriage or celibacy, which would produce fewer children, might forestall disaster, but he doubted that humans would voluntarily exercise this kind of moral restraint. (An Anglican minister, Malthus advocated against contraception.)

Any mathematician knows that a geometric series, no matter where it starts, will eventually overtake an arithmetic series. This made Malthus's proposition compelling—but the real world proved him wrong on all counts. Fueled by the Industrial and Agricultural revolutions, food production increased faster than population, even in the developing world, beginning in the 19th century. Population growth, for its part, began to abate in the 20th century as a result of the demographic transition driven by urbanization and rising education levels and employment opportunities for women. Across the world, as poverty levels fell, fertility fell commensurately.

Sadly, elements of Malthus's theory remain with us—both in simple-minded efforts to predict future population-oriented cataclysms (see, for example, Paul Ehrlich's *The Population Bomb* [1968], the Club of Rome, or Cristina Luiggi's 2010 essay "Still Ticking" in *The Scientist*) and in the muddled thinking of those who adopt and adhere to the logical extensions of his work.

The logical implications of Malthus' theory are terrifying and persistent. They orbit ideas like laissez-faire, divine intervention, and moral hazard, but invariably blame the victim. Malthus opposed assisting the poor based on his assertion that making the poor better off would increase fertility and end in famine once food stocks ran out. Others espoused this view more fervently. Some 50 years after the publication of Malthus' essay, Nassau Senior, a classical economist and member of the Chancery, wrote that the Great Irish Potato Famine of 1845 "would not kill more than one million people, and that would scarcely be enough to do any good." Charles Trevelyan, assistant secretary of the British Treasury and the colonial administrator responsible for organizing famine relief, described the famine as an "effective mechanism for reducing surplus population" as well as "the judgement of God." But no divinity shaped these ends. Throughout the famines of the 1840s, plenty of food was sent from Ireland to England—exports of meats, grains, and butter actually increased during the famine years. The food supply hadn't failed; only a single crop, the potato—the staple allowed to families of tenant farmers—had succumbed to blight. It was agricultural, social, and trade policy that failed.

During the 20th century, contemporary accounts of multiple famines, including those that caused the deaths of more than two million people in India in 1943 and an estimated 1.5 million people in Bangladesh in 1974, always invoked Malthus. Somehow, the thinking went, the local population had grown beyond its means and famine was the inevitable result. But these and other "Malthusian nightmares" had nothing to do with overpopulation or food shortages. They were the product of policy failures and ineffective responses. They illustrated a shrugging indifference predicated on the theoretical existence of Malthusian nightmares—a grudging admission that sometimes there's just not enough to go around.

As much as it pains me to admit it, I adopted a nightmare scenario to drive my own policy advice. Over the last couple of years, I've frequently cited estimates for the global infrastructure investment that will be required to serve the additional 2.5 billion people who will be added to the world's cities over the next 20 years.

When it comes to inspiring change, scenario planning can be a more effective route than focusing on potential disasters. Credit: Jon Nicholls/Flickr CC BY 2.0.

I even play a game with the audience, asking them to guess whether the needed $91 trillion investment is larger than global gross domestic product—the total GDP of all of the countries of the world. It is.

Do I motivate audiences or depress them? I'm wondering whether I should address this challenge more affirmatively.

We need better ways to peer into the future, inform our thinking, and guide our actions. Luckily, we have at least one. The Institute recently launched the Consortium for Scenario Planning, an expert network of scholars and practitioners that is developing more disciplined and defensible methods to help those in urban and rural areas consider alternative future scenarios and find ways to bring desired scenarios to fruition. Scenario planning identifies alternative futures based on current reality, trends, and rigorous empirical analysis of driving forces of change. It accounts for the interconnectivity or interdependency of various systems, anticipates unintended consequences, and evaluates tradeoffs between actions and outcomes.

Scenario planning is first and foremost a process, a way of thinking and structuring decision-making that leverages the skills and wisdom of a large group of people. The consortium is developing software tools to overcome the challenges of working with many participants, managing large amounts of information, and leveraging data and new analytic techniques to quantify specific elements of a plan. Scenario planning engages numerous disciplines, each bringing different approaches and insights to inform and enrich the process. As environments become increasingly complex, constraints become more limiting, and the future remains uncertain, scenario planning can help groups of decision makers better navigate challenging terrain on issues ranging from affordable housing preservation to climate change adaptation to healthier and more equitable communities.

Interestingly, the field of scenario planning originated in the boardrooms of global petrochemical corporations—the very people who coined the term "peak oil." Instead of being immobilized by the realization that the commodity on which they depended would run out, the corporations chose to consider various future scenarios, find the one that suited them best, and figure out how to get there.

How might I have broached future urban infrastructure challenges as a novice scenario planner? Rather than contextualizing the challenge as an impossible investment that exceeds global GDP, I might have asked: based on reasonable projections of GDP growth, what will it take to come up with $91 trillion over the next two decades? Global GDP in 2017 was around $79 trillion, far less than needed infrastructure investment. In 2037, GDP is expected to be $192 trillion, more than twice the investment needed. What will it take to make a cumulative investment of $91 trillion in infrastructure? About 3.33 percent of global GDP annually. How do we prepare the cities of the world to receive and provide services to 2.5 billion new residents? By building the political will to get national governments to devote one-thirtieth of their respective GDPs to infrastructure investment. Somehow that doesn't seem as hopeless a task as coming up with more than 100 percent of current global GDP.

My decision to overwhelm audiences with a killer fact was a product of faulty logic and laziness. I wanted to awaken others to urban challenges and mobilize them around the urgency of acting now. But by contextualizing the challenge as virtually impossible, I risked immobilizing them. And I risked building a foundation for future lazy thinkers to accept a reality in which millions of urban residents are left unserved by infrastructure—no water delivered to their residences, no sanitation, no reliable transport to get them to their jobs—a scenario that will come to fruition if we don't invest. I fear the policy response then will be a familiar refrain: there's just not enough infrastructure to go around, so some will have to go without.

We can be better than that. And with the help of efforts like the Consortium for Scenario Planning, we will be.

3D Printable Houses Begin to Take Shape

In Eindhoven, the Netherlands, an unusual partnership between the local university, municipal leaders, and a design firm is behind the creation of a 3D-printed housing development. The first house is expected to be ready next year. Credit: Houben en Van Mierlo Architects.

OVER THE PAST DECADE, three-dimensional printing has been one of the buzziest ideas in technology. Instead of adding ink to paper, a 3D printer translates a digital design into an object by adding layer upon layer of material (plastic, metal, concrete) through a computer-guided extruder—almost like a motorized toothpaste tube. More correctly but blandly described as "additive manufacturing," the process has evolved from rapid-prototyping uses by tech corporations and design firms to widespread experimentation by hobbyists and hackers and startups, making objects from consumer products to toys.

But what about something bigger—like a house?

Actually, researchers and entrepreneurs around the world have been applying variations on the technique to increasingly ambitious building-sized projects for several years. The latest example involves a five-house development in Eindhoven, the Netherlands. It's an ambitious experiment involving multiple partners that will wrestle with not only the practicalities of design and construction, but also regulation and the real-world marketplace, given that the properties are rentals. "We need a big revolution in the building industry," said Rudy van Gurp, the project manager for building contractor Van Wijnen Rosmalen, and the application of 3D-printing techniques could be part of that.

> The latest effort will play out over five years and, like 3D printing itself, build up layer by layer.

The advantages to this still-evolving form of building include more efficient use of materials, which both cuts costs and minimizes waste; speed of construction; and potential for customization. Or at least that's the promise, if the technology continues to improve at its current

pace. That's one reason the Eindhoven experiment is notable, as it follows a recent burst of related prototyping breakthroughs.

This past March, a firm called Icon in Austin, Texas, used its take on 3D-printing technology to build a sleek, intentionally minimalist 350-square-foot home for a reported $10,000, predicting it could knock the cost down to $4,000 as it modifies its design to further reduce non-"printed" elements. The structure was built to meet local housing codes and is currently being used as a model home and office. Envisioning the process as a potential solution to housing needs in the developing world, Icon is working with the nonprofit New Story to bring its approach to El Salvador.

The large-scale 3D technology that will be used to print the houses, shown here, was pioneered at the University of Eindhoven and used to build the world's first concrete 3D-printed bridge. Credit: Imagecollectors.

And in July, a French family of five was chosen to be apparently the first in the world to actually move into a 3D-printed house: a detached, 1,000-square-foot social housing unit with eye-catching curves. The organizers of that project say it cost about $200,000, which they say is 20 percent less than an identical version built using traditional methods. The structure took 54 hours to print—although it took another four months to finish non-printed elements such as the windows and roof.

Both build time and cost are projected to fall as the process is refined. But what will matter in the longer run is how the technology gets merged into existing city planning objectives, as well as broader thinking about development and land use. That's the other reason the Eindhoven project is compelling: one of the various parties looking to explore, and influence, the future of construction there is the city itself.

"I was wondering why [construction] was such a traditional sector," Vice Mayor Yasin Torunoglu reflected. "It has always been the same way of building houses and new buildings." And that has led to practical and workaday problems. For instance, the Netherlands has a shortage of skilled bricklayers, which seems like a very 20th-century reason for a construction delay. "I was wondering where the [tech] revolution was," Torunoglu said.

In helping coordinate the partnership behind what is now called Project Milestone, Torunoglu wanted the city to be directly involved in shaping technology's impact and regulatory implications—not trailing behind and reacting to change created by others, as is so often the case with tech disruption.

Other partners in the effort include the Eindhoven University of Technology and the design firm Houben en Van Mierlo Architecten. The core technology, developed by the university, was used to build the world's first concrete 3D-printed bridge in 2017. A big mechanical nozzle mounted on a frame squeezes concrete in precise amounts in a programmed pattern—building walls and forms as a 3D printer would, but on a larger scale.

The latest effort will play out over five years and, like 3D printing itself, build up layer by layer. The first house, a one-story, two-bedroom structure, is meant to be ready by next year. It will be built largely in the university's construction lab, and transported and assembled on site. (Plumbing and wiring are accommodated in the printed designs and finished on site.) The subsequent houses are steadily larger and more ambitious. The team will draw lessons from each construction to shape the next, on everything from building details to coding issues. The final structure will be "printed" on-site.

Construction of the printed houses will be similar to the bridge-printing process shown here, with various elements built in the university's lab, then transported and assembled at the site of the planned development. Credit: Imagecollectors.

The designs are striking, idiosyncratic, and almost blobby, with distinct and unpredictable curves. This is a direct result of the 3D-printing process. Designs can be tweaked and modified house by house in a way that allows "true mass customization," builder van Gurp said: "Every house can have a different look." Torunoglu, the Eindhoven vice mayor, made a similar point, arguing that the process could "democratize the industry," offering unprecedented design input to home buyers.

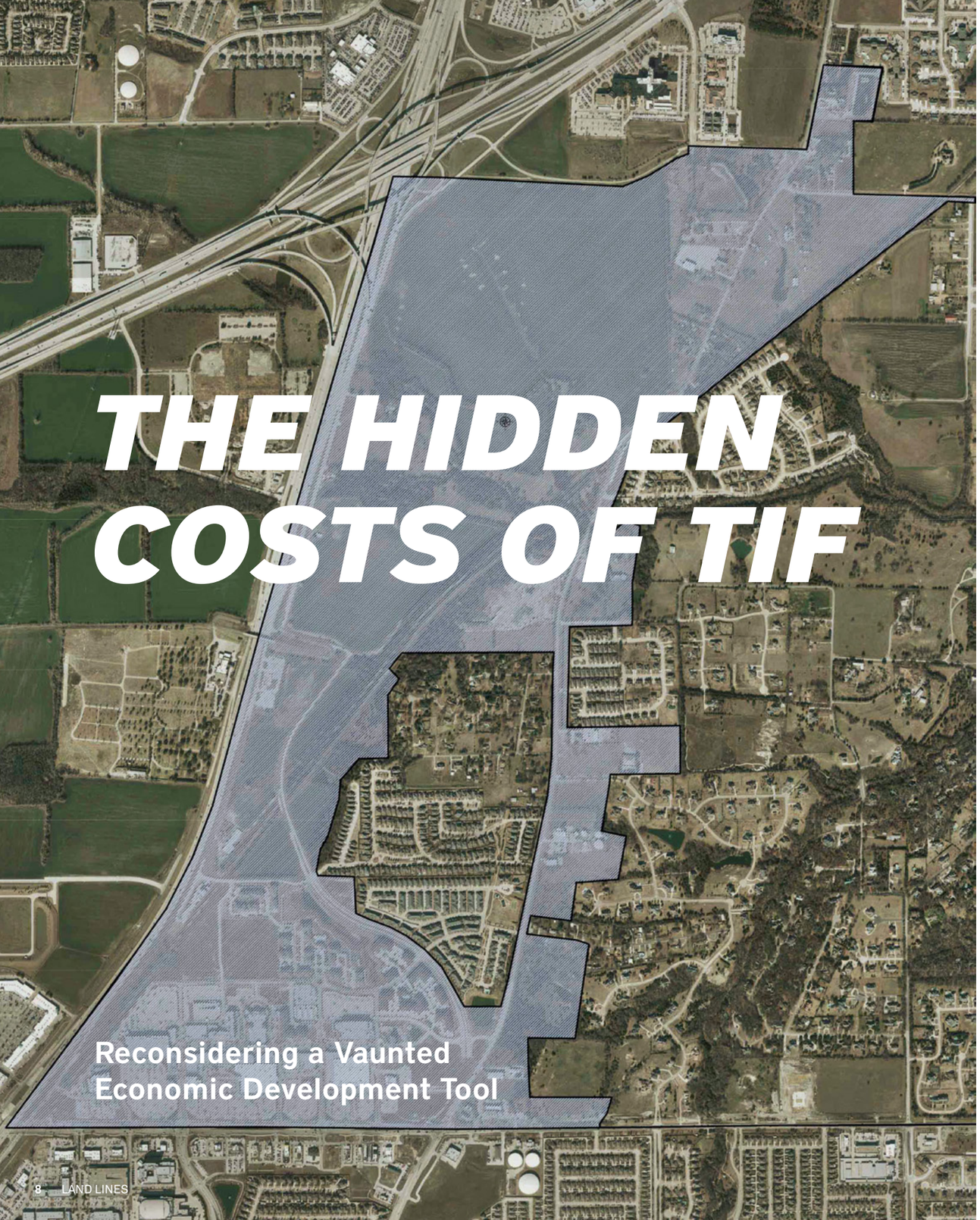
Of course, that's a long way away. The process is "really interesting and could reduce the cost of housing in a significant way," says Armando Carbonell, senior fellow and chair of the Department of Planning and Urban Form at the Lincoln Institute of Land Policy. "But that's a 'could.'"

If promised improvements materialize, this method would be 40 percent cheaper than standard construction, advocates of the burgeoning industry say. But as significant as that would be, the impact would still vary. In hot markets like New York or San Francisco, the portion of housing costs attributable to land value is two or three times construction costs; this method would be more effective in those cities if it proves possible to build "up," increasing density. In cooler markets like Cleveland or St. Louis, where construction drives the cost of housing, 3D-printed homes could drastically lower such costs, Carbonell says. This could have an even greater impact in developing-world contexts.

The Eindhoven project is more directed at higher-end buyers, but that could still significantly help establish 3D printing as a viable construction option, because its success or failure depends on actual consumer acceptance. "It's a challenge to learn from this process," Eindhoven Vice Mayor Torunoglu said. "We have to collaborate with the market."

In a good sign for that collaboration, more than 100 people have already signed up as potential renters. That level of interest isn't something you can manufacture.

Rob Walker (robwalker.net) is a columnist for the Sunday Business section of *The New York Times.*



THE HIDDEN COSTS OF TIF

Reconsidering a Vaunted Economic Development Tool

By Anthony Flint

MOLLY METZGER DIDN'T PLAN TO BECOME AN EXPERT on tax increment financing (TIF), much less lead a citizens' group focused on the issue. But when racial strife in her native St. Louis was brought into stark relief by the high-profile shooting of Michael Brown in nearby Ferguson, she felt compelled to take action.

An expert on inequities in housing and economic development, Metzger was increasingly bothered by the fact that land use policies that had long been touted for their ability to jump-start development and create economic opportunity in underserved neighborhoods were doing neither. The closer she looked, the more she saw that TIF—which front-loads future property tax revenue to speed up selected projects—seemed to benefit neighborhoods that were already gentrifying and siphoned off funds that should have gone to public schools.

"Most people don't want to spend their free time learning about such a wonky topic," says Metzger, a professor at the Brown School of Social Work at Washington University in St. Louis. "But the question we are asking now is whether we should pump the brakes. If we continue to incentivize everything, it's not benefitting the whole city, and it's not building the tax base. It's like a lot of political issues—a tiny fraction benefits." Metzger helped found a group, called Team TIF, which serves as a watchdog over the way the city uses this public-finance mechanism. So far, the group has held public meetings and produced informational materials to raise public awareness.

Team TIF is one example of the scrutiny that TIF is undergoing lately. Municipal leaders say TIF is one of the most important tools they have to regenerate urban areas, particularly in postindustrial legacy cities. And they have embraced it since it took hold in the 1950s: The United States now has at least 10,000 TIF districts across 49 states (Merriman et al. 2018). But critics say TIF has become little more than a subsidy for the private sector, diverting revenue away from schools and other important services, and contend that many TIF programs are woefully lacking in transparency.

The problems are serious enough that several grassroots efforts have derailed proposed TIF districts in recent years, through either the ballot box or the courts. Tax increment financing runs the risk of functioning more like property tax incentives for business—another flawed practice that often fails to deliver on promises but remains in widespread use.

Planners and policy makers, however, aren't giving up on TIF. Instead, they are redesigning and reimagining it, adding provisions to ensure that equity is a consideration, and building in options that allow school districts to maintain access to revenue. Some jurisdictions have experimented with community improvement districts (CIDs) as a kind of hybrid or alternative framework that corrals both sales tax and property tax revenues for a given development project.

With participation from the private sector, cities are also bundling TIF with other financing instruments, such as credit enhancement agreements or stabilization funds—so much so that a traditional, stand-alone TIF has become known as an increasingly rare "naked" TIF.

A TIF district in Fairview, Texas. Credit: Courtesy of Town of Fairview.

"TIF can be viewed as something that will save and transform neighborhoods—or something that will gentrify neighborhoods and push people out."

HOW TIF WORKS

Tax increment financing began in California, where authorities created it to help redevelop urban areas. From there, it rapidly spread across the country. The Midwest took particular interest, with a flurry of TIF activity in Wisconsin, Minnesota, and Illinois through the 1970s and 1980s.

Missouri enacted TIF legislation in 1982, a full three decades after the tool was created, but wasted no time putting it into action: Today, there are 468 TIF districts in 116 municipalities in the state, including 210 in St. Louis County and the City of St. Louis—sequestering roughly $2.2 billion in tax revenue (Rittner et al. 2015). Elsewhere, the rush to use the tool has been dramatic (see Figure 1). Over the last decade, for example, the number of TIF districts in Iowa grew from 949 to 3,340 (Collins et al. 2018).

So how does TIF work? Typically, a municipal government, enabled by state legislation, partners with the private sector to designate an area as a TIF district, and calculates the amount of property tax revenue that the project will generate for the next 10 to 20 years or more. This projected revenue typically includes taxes on the project itself, as well as expected tax increases on other properties in the district as assessed values rise because of the TIF. That money is essentially sequestered to support the project's current financial needs and make it possible. The tax revenue can be used to fund public infrastructure, compensate private developers for their investments, or provide collateral for bonds.

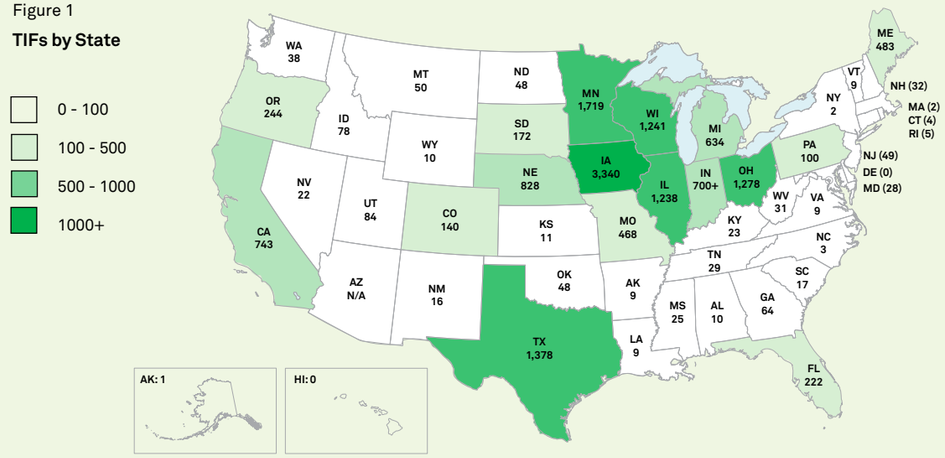
State enabling legislation spells out what TIF is supposed to be for—economic development, environmental remediation, or housing, to name just a few purposes. Most TIF use is designed to address urban blight. Some TIF districts pertain just to one parcel or development site, while others are much larger. (Critics say artificially large districts designed to boost projected revenues are just one of TIF's many pitfalls.)

Although TIF is deployed extensively, it is poorly understood except by public-finance insiders. It is also subject to a wide variation in design and interpretation.

"I've always been amazed at the way TIF inflames passions while not being fully understood," said David Merriman, professor at the University of Illinois at Chicago, who spent two years scouring the nation to produce the Lincoln Institute report *Improving Tax Increment Financing (TIF) for Economic Development* (Merriman 2018).

Figure 1

TIFs by State



Note: This map relies on data from *Improving Tax Increment Financing (TIF) for Economic Development*, Lincoln Institute of Land Policy. https://www.lincolninst.edu/publications/policy-focus-reports/improving-tax-increment-financing-tif-economic-development.

A new Lincoln Institute report identifies the Cortex Innovation District, a bioscience and technology hub that is one of the largest TIF-related undertakings in the St. Louis area, as a place where the public-finance mechanism worked relatively well. Credit: Cortex Innovation Community.

The report reviews the use of tax increment financing by a range of communities and recommends policies to improve TIF use. "It can be viewed as something that will save and transform neighborhoods—or something that will gentrify neighborhoods and push people out."

Researching TIF from coast to coast, Merriman found plenty of instances where the mechanism worked well, such as the Cortex Innovation District in St. Louis, a hub of bioscience and technology, which was built primarily on land left vacant by abandoned manufacturing enterprises from a previous era. In other cases, the use of the instrument led to major divisions. The fight over tax increment financing associated with Atlanta's Beltline was supercharged by concern about gentrification, issues of racial and income equity, and the diversion of tax revenue from schools.

Like tax incentives for business location, TIF can trigger bidding wars between jurisdictions competing for development. Free-market and libertarian groups have joined progressives in opposing TIF because it empowers governments to pick winners and losers.

The biggest problem associated with TIF over the last two decades is the lack of transparency, Merriman concluded. Embraced with zeal by former Chicago Mayor Richard M. Daley, tax increment financing mushroomed in Chicago to the point that $660 million—nearly a third of all property taxes in the city—was earmarked for TIF districts, effectively shielding the money from standard oversight by elected officials. Local journalists showed how the mechanism effectively became a kind of slush fund for favored projects. Mayor Rahm Emanuel commissioned a task force that recommended reforms, but change may be slow to come given that dozens of TIF districts in the city are not even halfway through their duration.

Merriman found that a relatively simple set of steps would foster transparency and benefit virtually every use of TIF in Chicago and beyond. In *Improving Tax Increment Financing (TIF) for Economic Development*, Merriman recommends that states carefully track and monitor TIF use. Model programs can be found in Wisconsin and Illinois, where state agencies track and report on total property tax revenues going to TIF districts, local governments are required to report detailed information related to revenues and their tax base, and nearly everything is published in online databases. All local governments would be well advised to provide extensive, easily accessible information about TIF use, revenues, and expenditures, he says. And researchers can do

their part by studying and documenting the different outcomes of TIF in a wide variety of areas. To date, academic studies of TIF show mixed results but do not clearly explain the causes of this variation, according to the report.

States should allow counties, school districts, and other overlying local governments to opt out of TIF, the report says. They should also confront the phenomenon known as "but for"—a loose interpretation of proof that a proposed TIF development would not occur "but for" the establishment of a TIF district.

The "but for" clause may have outlived its already limited usefulness. "It's hard to demonstrate conclusively [that a development would not have occurred 'but for' the TIF], so nothing ever gets shot down. There should be a better hurdle for bad projects," said Merriman. "It would be better to have something more concrete—to talk about a project filling 10 percent of the gap, for example."

AN EVOLVING TOOL

In many respects, change is already underway. TIF is rapidly evolving, as policy makers take notice of the problems.

California, arguably where it all began, is once again a leader in reimagining the financing of urban redevelopment and associated infrastructure. Cities and towns in the Golden State once relied heavily on TIF, which was administrated through hundreds of quasi-public redevelopment authorities and ushered in more than $50 billion over the years for infrastructure and other development costs. In 2012, Governor Jerry Brown discontinued the practice due to concerns about growing debt.

But like a pruned branch growing back, a new mechanism evolved in 2015 for cities, counties, and special districts in California: the Enhanced Infrastructure Finance District, which allows the issuance of TIF bonds under specific circumstances, with thresholds built in for voter approval. The money can be used for public works, transportation, parks, libraries, and water and sewer facilities—with an emphasis on sustainable community goals under California's landmark climate legislation.

Research suggests that TIF often displaces economic activity that would have happened anyway in economically vibrant areas. In Kansas City, Missouri, eight times as many TIF deals were approved in low-poverty areas such as Country Club Plaza (left) than in areas like East Kansas City (right), with poverty rates above 30 percent. Credit: Eric Bowers.

TAX INCREMENT FINANCING VERSUS LAND VALUE CAPTURE

Crowds in Chicago celebrate the opening of the Bloomingdale Trail and Park, which was partially funded through TIF. Credit: Charles Carper/Flickr CC BY 2.0.

It may seem like the public-finance equivalent of angels on a pin, but there is a difference between tax increment financing and land value capture. The two policies have been conflated of late, adding to some misapprehension about how urban redevelopment is funded.

In a TIF district, development is financed by calculating the property tax revenue the project will generate over a defined time period—for example, 20 years in the future. That money is effectively plowed into making the development happen in the first place, in a kind of front-loading process. This anticipated future revenue is calculated by projecting what land and property owners would pay, under whatever local property tax system is in place, based on assessed value.

Land value capture, on the other hand, allows communities to recover and reinvest land value increases that result from public investment and government actions, such as a new subway line or a rezoning. The increases, also known as the land value increment, are measured to reflect the impact of those public actions, whether infrastructure or a new park or an expanded building envelope. The revenues from that calculation can be used for a range of improvements for more equitable urban development, such as affordable housing and infrastructure.

It is true that a well-functioning property tax system will reflect increases in land value, including those driven by public investments. But property tax revenue typically goes into a general fund, rather than toward the infrastructure that is triggering the increase in value. There are also limits and restrictions on increases in the property tax in many jurisdictions. Further, value capture purists argue that the increases in value attributed to public investment belong to the public; a portion is simply being recovered.

As David Merriman writes in the Lincoln Institute report *Improving Tax Increment Financing (TIF) for Economic Development*, the public captures no more of the value created by public investments in a TIF district than it would without the TIF district. In fact, he says, "if some TIF revenues are used to subsidize private activity, as is the usual case, TIF is more properly a device that 'transfers' value to, rather than 'captures' value from, the private sector."

Land value capture instruments include betterment contributions, special assessments, charges for building rights, exactions, and impact or linkage fees, to name a few. On the surface, TIF districts seem similar, in part because of the targeted and self-contained character of the mechanism. In the future, tax increment financing and land value capture might possibly be combined, through an extra surcharge or other special assessment. But for now, largely because the approaches are based on different underlying concepts, they are not equivalent. —AEF

Residents of Stillwater, Oklahoma, gathered signatures this summer in an effort to bring their community's proposed TIF district to a public vote. Credit: Michelle Charles/ Stillwater News Press.

Enhanced Infrastructure Finance Districts are also prioritized for "the acquisition, construction, or rehabilitation of housing for persons of low and moderate income." Proposed projects thus far are in a larger catchment area than a typical TIF district, theoretically enabling more components of a given urban neighborhood to benefit.

Recent activities in state legislatures across the country, as well as a handful of court rulings, have resulted in extensive TIF reforms. Since 2017, nine states have passed substantive legislation to change TIF, according to the Lincoln Institute database *Significant Features of the Property Tax*. The adjustments focus on three areas identified in Merriman's report: protecting school funding, calibrating the "but for" and blight provisions, and requiring transparency.

North Dakota, Colorado, Montana, and Kansas all amended their statutes to exempt school districts from TIF. Minnesota expanded TIF eligibility to cover workforce housing, and Wisconsin created special zones for electronics and information technology manufacturing where TIF can be used. In the courts, some projects have been derailed by legal challenges, but the judiciary has thus far generally backed the practice. This year, the Wisconsin Supreme Court upheld the use of TIF revenue to provide cash grants to developers for project costs (Collins et al. 2018).

TIF is also increasingly being bundled with other supporting finance mechanisms, such as credit enhancement agreements, up-front special assessment levies, or reserve or contingency funds to help buttress and safeguard deals, minimizing risk to the public sector.

"There's a lot of pressure on municipalities, and they're getting smarter about the tools in their toolbox," said Emily Metzler, senior vice president of MuniCap, a Columbia, Maryland–based firm that specializes in tax increment and special assessment financing. "We've seen an uptick in TIF use, but [also] greater understanding about how to best use TIF in the capital stack."

In structuring many bundled deals, the aim is to require the private-sector developer or landowner to put cash in a kind of escrow account until the TIF revenues provide enough coverage. Layering in a special assessment, credit enhancement, or stabilization fund helps minimize the risk period at the outset and further leverages the incremental revenues, Metzler said. This kind of bundling has become so common that "we refer to TIF alone as a naked TIF," she said.

It's not surprising that tax increment financing would become contentious in so many cases, Metzler said. "We're asking to take incremental revenues that otherwise would go into the general fund. Any time you do that, it's a public process. That process has become significantly more important. It used to be, you would go to a couple of council hearings and it would be done in four months. Now it is a full branding of the project, with a lot of public outreach, to make sure the public is behind you, and it takes at least a year."

Not all modifications are greeted with equal enthusiasm. In some communities, the change can't come fast enough. Some are skeptical that the bundling approach is merely adding on to a baseline of already generous incentives, and alternatives such as community improvement districts haven't fared particularly well.

The state auditor in Missouri, Nicole Galloway, recently issued a report critical of community improvement districts as an alternative to TIF, citing one instance where the only beneficiary of redirected sales tax revenue was a Starbucks. With 80 percent of CID boards controlled by developers, "spending decisions are made by the owners and developers who stand to gain the most from the districts' tax collections," she said.

Despite amendments to enabling legislation, the "but for" and blight provisions remain stubbornly fungible in many cases. These tests and thresholds can be easily manipulated, as both eager politicians and developers engage in the marketing of project proposals. Few guidelines compel consideration of income inequality and demographic factors or otherwise ensure that tax increment financing happens in the areas that truly need a boost—rather than in neighborhoods that have already turned the corner.

Some well-intentioned changes have produced unintended consequences. After Illinois rewrote the rules to allow school districts to opt out of TIF districts and become eligible for state aid, the mayor of Naperville, Illinois, just outside of Chicago, brazenly suggested making the entire city a TIF district to collect additional revenue to cover school funding.

Throughout, TIF has proven too great a temptation for elected officials focused on economic development. Lawmakers in Kentucky responded to one troubled TIF district by authorizing the extension of its duration from 23 to 45 years. In the closing days of the legislative session in Rhode Island this year, state leaders approved tax increment financing for the seaside towns of Middletown and Newport; the deal for the latter included a hotel and retail space for this popular tourist destination. They also unhesitatingly passed a stadium financing package that included TIF to try to keep the minor league Red Sox team in Pawtucket. This summer, the team agreed to relocate to Worcester, Massachusetts—which provided an even bigger bundle of incentives including a TIF district for the downtown where a new stadium is envisioned.

"We're asking to take incremental revenues that otherwise would go into the general fund. Any time you do that, it's a public process. That process has become significantly more important."

END IT OR MEND IT?

Cities may well be at a crossroads on TIF—namely, whether to end it or mend it.

Joan Youngman, director of the Department of Valuation and Taxation and a senior fellow at the Lincoln Institute, said there are clear steps cities and states can take now to improve the performance of TIF. As tempting as it might be to stick with something familiar, those seeking more equitable development might consider skipping TIF and developing alternative tools for financing infrastructure, affordable housing, and economic development.

Merriman agrees, but added: "Economic development is viewed as the most important thing a city can do. It's not a giveaway. You pay the same taxes you would pay without the TIF. And it requires a tangible, up-front plan. At the same time, we have to keep a careful watch on it and understand the way it can be abused."

The good news is, flaws in TIF policy are prompting innovation and creativity. Portland, Maine—an increasingly hot-market city—has been modifying TIF to achieve more targeted urban planning goals. As explained by planning director Jeff Levine, new state enabling legislation paves the way for cities to use a general TIF for credit enhancement or public infrastructure anywhere within their boundaries, up to 5 percent of the urban area, but there is no limit if the activity is within a defined downtown. Transit Oriented Development TIF can be used to fund transit operations in the area and can be combined with other TIF types. And an Affordable Housing TIF can be used to help fund any housing on a parcel or series of parcels as long as at least a third of the housing in the area is affordable at 120 percent of area median income, with deed restrictions.

In Portland, TIF is tailored to meet broader policy goals and frequently combined with other tools, such as historic or housing tax credits. The overall result is a more intentional framework for regeneration and development rather than the ad-hoc approach used elsewhere, often fueled by a sense of desperation.

The way cities approach redevelopment "has a lot to do with the self-esteem of the city," said Metzger. And it's not just St. Louis she's thinking about. A more coordinated plan that focuses on income inequality and affordable housing would help anywhere, she said—as long as governments invite the citizenry to participate.

"We have spelled out an agenda for transparency and racial equity, and we have the data and mapping to back it up," she said.

"We're trying to keep shining the light."

Dr. Molly Metzger of Washington University in St. Louis delivers a presentation on TIF inequities. Credit: Ethical Society of St. Louis.

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

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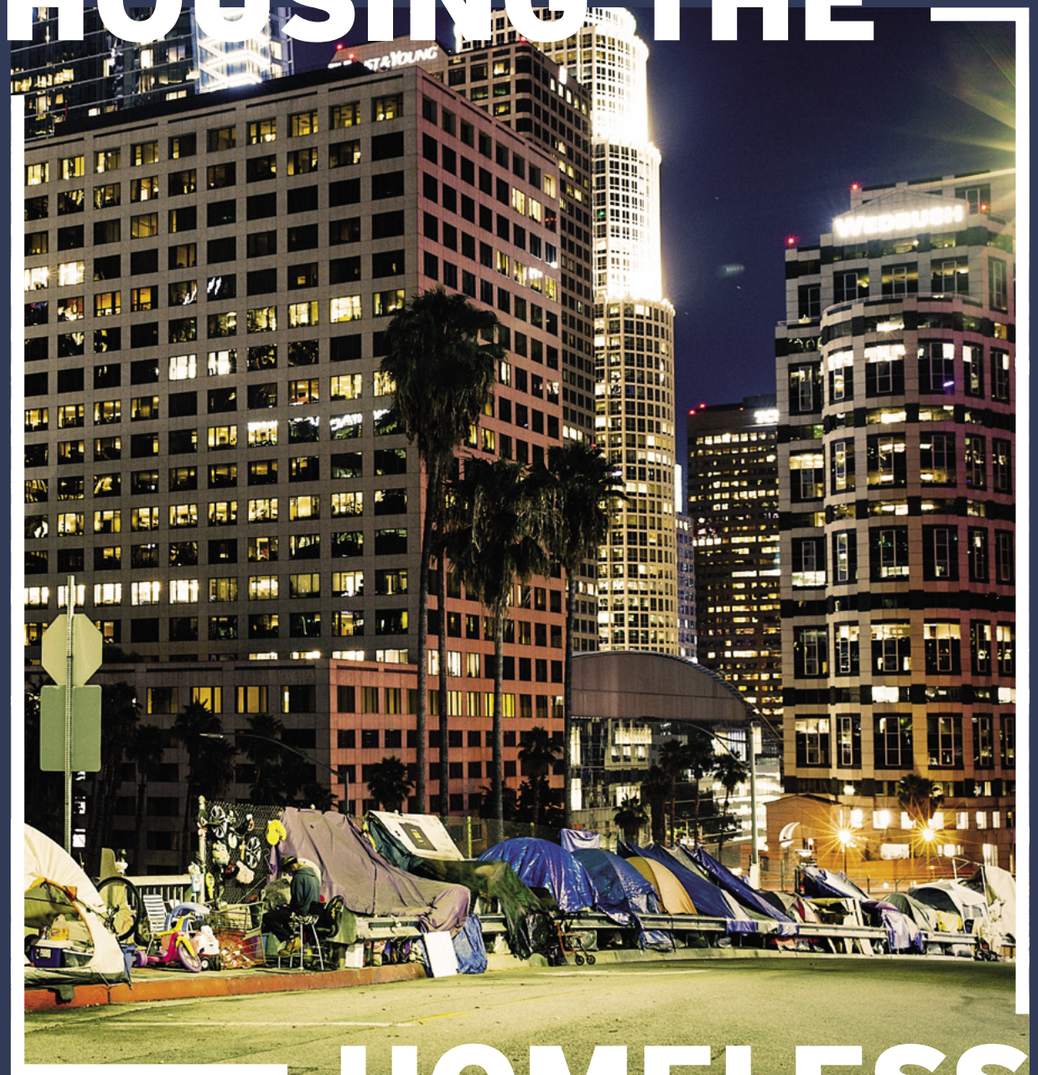
HOUSING THE HOMELESS



Booming Cities Address the Growing Crisis on Their Streets

By Kathleen McCormick

Huge cranes loom over downtown Los Angeles, and the streets are filled with the sounds of construction as gleaming new mixed-use buildings, luxury apartments, and office towers take shape. It would seem to be a sure sign of a city on the rise—except that those streets are also filled with people sleeping on the sidewalks, some in brightly colored tents, some sprawled on the pavement.

What has happened to cause so many homeless people—more than 34,000—to become part of the streetscape in this happening city? Why is it that, in a period of strong economic growth, LA and so many other U.S. cities are trying to cope with a homelessness crisis some have called the worst since the Great Depression? This is true especially for "thriving" hot-market cities, where a combination of skyrocketing housing costs, slow income growth, and a lack of housing options has increasingly led people seeking shelter to make use of common spaces like parks and public squares.

As cities create plans to deal with the urgent day-to-day needs of trying to shelter people and provide emergency health care and law-enforcement services, planners are also collaborating with their colleagues in housing and social services on logical longer-term approaches. Last fall, at the Big City Planning Directors Institute in Cambridge, Massachusetts—hosted by the Lincoln Institute of Land Policy, the Harvard Graduate School of Design, and the American Planning Association—many planning directors said rising homelessness has complicated agendas and budgets, particularly in cities where economic inequality has deepened in recent years. They were eager to learn what other cities were doing to address this issue.

The answer to that question is as complicated as the crisis itself. While some cities are investing heavily to expand the number of traditional shelter beds they provide, others are trying new approaches, from converting motels in Los Angeles to building tiny home communities in Seattle to encouraging unusual public-private partnerships in New York City. No city has found the perfect solution, but some are making significant—and instructive—progress.

While some cities are investing heavily to expand the number of traditional shelter beds they provide, others are trying new approaches, from converting motels to building tiny-home communities.

Downtown Los Angeles.
Credit: Stellalevi via iStock/Getty.

How Did We Get Here?

During a one-night count carried out across the nation in January 2017, 553,742 people in the United States were experiencing homelessness, according to the U.S. Department of Housing and Urban Development (HUD). Of those, about a third were families including children. More than 40,000 of the people counted were unaccompanied children and young adults, and another 40,000 were veterans. Thirty-five percent of the total number of people counted were "unsheltered," meaning they were living outside with no access to emergency shelters, transitional housing, or safe havens (USDHUD 2017).

Overall, homelessness is declining—it has gone down 13 percent since 2010—but last January's point-in-time count revealed something significant: For the first time in seven years, the number of people counted rose compared to the prior year, by 0.7 percent. And according to HUD, nearly all of that increase occurred in cities.

Everyone experiencing homelessness has their own story of how they ended up on the street, whether due to poverty, job loss, eviction, gentrification, domestic violence, drug addiction, medical bills, or any number of other reasons. Race—and inequities in the way services are provided—is also a factor, according to the National Alliance to End Homelessness; African-Americans, for example, make up 13 percent of the general population but more than 40 percent of the homeless population.

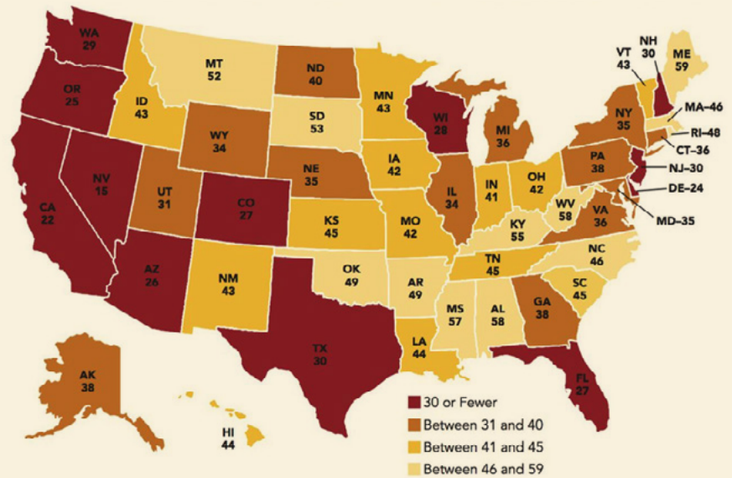
A generation or two ago, fewer people ended up homeless—in part because cities offered more diversity in low-cost housing. Common options then included rooming houses, "granny flats" or in-law units, homes where families could legally "double up," and single-room-occupancy (SRO) apartments. These options generally disappeared with urban renewal, neighborhood redevelopment that brought higher-priced housing, and zoning that favored occupancy limits.

"One of the things that led to a dramatic increase in homelessness in the 1980s was cities getting rid of things like SRO housing," says Alan Mallach of the Center for Community Progress. Mallach, a former city planner who has written policy reports for the Lincoln Institute on vacant properties (Mallach 2018) and legacy cities (Mallach 2013), says some places are beginning to consider reinstating that type of housing. In

A homeless encampment on a street in downtown Los Angeles. In the background stands the Rosslyn Hotel, one of thirty affordable-housing properties managed by the SRO Housing Corporation for homeless and low-income individuals. Credit: Peeter Viisimaa via iStock/Getty.

Figure 1

Rental Homes Affordable and Available per 100 Extremely Low-Income (ELI) Renter Households by State



Note: Extremely low-income (ELI) renter households have incomes at or below the poverty level of 30% of the area median income. Source: NLIHC tabulations of 2016 ACS PUMS Data. Copyright: 2018 National Low Income Housing Coalition.

Los Angeles, for example, a nonprofit called SRO Housing Corporation has created dwellings for more than 2,000 formerly homeless people and has 400 homes under development.

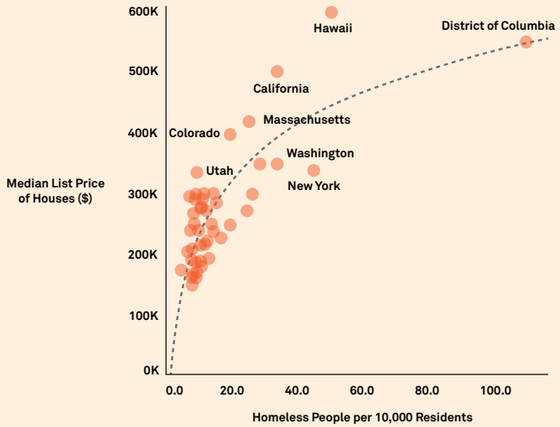
Mallach cautions that even "affordable housing" is often unaffordable in booming cities, because the rent is typically based on a percentage of area median income (AMI). As incomes increase, so do the rents that are pegged to them. The main reason people become homeless today, according to the National Alliance to End Homelessness, is because they cannot find housing they can afford (figure 1).

In 2017, 8 of the 10 states with the highest median housing costs also had the highest rates of homelessness, according to San Francisco–based data analysis company The DataFace (figure 2). Since the Great Recession, trends contributing to a lack of affordable housing have included rising costs for land, construction, and maintenance; tighter financing for home builders; and a surge of interest in urban living, resulting in construction of mostly higher-end housing in city cores.

At the same time, new construction has not kept pace with job growth. Analyzing federal data on building permits and employment, a July 2017 report by Apartment List found that only 10 of the nation's 50 largest metro areas had produced enough new housing to support an influx of workers (Salviati 2017). San Francisco, for example, built just one new home for every 6.8 new jobs from 2010 to 2015. Especially in tech hubs, new job creation has stoked a demand for housing, and rent prices have lit up with the lack of supply. San Jose, which had the largest undersupply of new construction among the 50 largest metro areas, also had the most rent growth: 57 percent, according to the report.

Figure 2

Homelessness Is More Acute Where Housing is Expensive



As of 2017, 8 of the 10 states with the highest rate of homelessness are also among the 10 most expensive states by median price of housing. Utah and Connecticut are the only states that fall within the top 10 that have a below-average homelessness rate.

Note: Homeless counts are point-in-time estimates collected on a single night by HUD. Data downloaded from hudexchange.info. State population counts downloaded from Census.gov. Median listing house prices downloaded from Zillow.com.

Source: The Dataface. http://thedataface.com/2018/01/public-health/american-homelessness.

Federal Constraints, Local Innovations

This confluence of factors has created a startling reality: According to a recent report from the National Low-Income Housing Coalition, eight million Americans pay more than half their income on rent, a larger percentage of the growing rental population is extremely low-income renters, and the nation has a shortage of 7.2 million affordable rental units (NLIHC 2018).

HUD funding for homeless services reached record levels last year. HUD's housing programs serve over one million people each year, and HUD provides housing subsidies to about 4.7 million very low-income households, which represents about 80 percent of its total budget. But changes are afoot: The President's proposed FY19 budget included $8.8 billion in HUD cuts, though the Senate and House appropriations committees both rejected the cuts and voted for increased funding over 2018. Final votes could be delayed until after the November elections, according to the Center on Budget and Policy Priorities, a Washington, DC–based nonpartisan research and policy institute focused on reducing poverty and inequality. Meanwhile, the 2017 federal tax bill significantly reduced the value of the low-income housing tax credit, a source of long-term funding for affordable housing. According to analysis published in the *New York Times*, that could mean nearly 235,000 fewer apartments built over the next decade (Dougherty 2018).

With so much uncertainty at the federal level, cities are finding—and financing—their own ways forward. Increasingly, that means moving beyond stopgap measures to provide more permanent affordable housing, said Steve Berg, vice president for programs and policy at the National Alliance to End Homelessness. These longer-term policies, he said, should ensure investment of public dollars to "fix the larger affordable housing problem."

"Housing first" is a strategy that essentially bypasses shelters and seeks to place people directly into affordable housing with support services. Research has found housing first to effectively alleviate homelessness for families experiencing temporary lack of shelter, for chronically homeless individuals, and for those with substance abuse and mental health issues. Although this approach can cost more, advocates say that by creating permanent housing, cities ultimately spend less on shelters and emergency services.

Los Angeles Bets on Motels and Municipal Bonds

A surge in homelessness in Los Angeles and other West Coast cities with severe affordable housing shortages was almost entirely responsible for last year's national uptick in the number of homeless individuals, said HUD officials. In 2017, LA gained 42,470 new residents and hit the four million population mark; its homeless population spiked 20 percent to 34,189, with a total of 55,188 in Los Angeles County, according to HUD (USDHUD 2017). A one-night count in January 2018 conducted by the Los Angeles Homeless Services Authority showed the city's homeless count had declined 6 percent, to 31,285, with 22,887 of those people unsheltered. While HUD requires cities to count their total homeless population every other year, LA—second only to New York in the size of its homeless population—elects to conduct an annual tally.

In April 2018, the LA City Council declared an emergency shelter crisis, clearing the way for Mayor Eric Garcetti's plan to fund $20 million for new emergency shelters. His 2018–2019 budget, approved by the city council in May, will invest more than $442 million in permanent housing, temporary shelters, services, and facilities. Garcetti's A Bridge Home plan is setting up temporary shelters on city parking lots or vacant city-leased lots across LA. Tents, trailers, and other structures will temporarily shelter as many as 100 individuals at each site—potentially 6,000 people per year who are awaiting permanent housing.

Beyond emergency shelters, the city is using funds from Measure HHH, a ballot initiative that three-quarters of LA voters passed in November 2016, committing the city to raising $1.2 billion in bonds for construction of 10,000 units of permanently affordable housing in the next decade. The city will spend more than $238 million of HHH funding this year to build 1,500 new homes at 24 project sites. In April, the city council approved two additional programs to support the effort to increase the city's affordable housing base: one streamlines the development process for projects that include supportive affordable housing, and another allows LA's 10,000 motel rooms, many of them old and in poor shape, to be converted into affordable housing with supportive services. Finally, in one of the more creative approaches to both homelessness and land use, the city has launched a pilot program that offers financial support to homeowners in some single-family neighborhoods who agree to build or upgrade small dwellings in their backyards for the purpose of housing people who don't have homes.

Los Angeles Mayor Eric Garcetti, third from left, at the 2017 ribbon-cutting for Silver Star Apartments, a 49-unit development for homeless veterans. The project was funded in part by Measure HHH, a voter-backed initiative that committed $1.2 billion in bonds to build 10,000 units of permanently affordable housing over 10 years. Credit: County of Los Angeles.

The Bread of Life Mission, a traditional, faith-based shelter in downtown Seattle, provides 121,000 meals and more than 40,000 nights of shelter per year. Credit: Ruben Ramos via Getty.

Seattle Finds a Big Solution in Tiny Homes

Seattle's homeless crisis made national headlines earlier this year when the city got into a scuffle with Amazon over a corporate head tax that would have funded social services and outreach. But the extent of homelessness in the Emerald City isn't news to anyone who has been paying attention, especially city leaders. A January 2017 count documented 8,522 homeless people, 45 percent of whom were living unsheltered on the streets.

"The affordable housing crisis is feeding the homeless issue such that we can't keep up," said George Scarola, Seattle's strategic advisor for homelessness response, at a standing-room-only session at the Urban Land Institute annual meeting in Los Angeles last year. In 2015, former Seattle Mayor Ed Murray declared a state of emergency on homelessness and called for building 1,000 tiny homes to replace tent cities. Since then, eight tiny-home villages have been built throughout the city as temporary shelters until permanent affordable housing becomes available. This approach is also being used in cities including Detroit, Dallas, and Syracuse.

Each tiny house in Seattle is built by volunteers and costs between $2,200 and $2,500. The houses are paid for by donations and by the Low Income Housing Institute (LIHI), a local nonprofit that oversees the villages and owns and operates about 2,000 units of affordable housing in the region. The city or LIHI owns the land for seven of the villages, which each have about 35 tiny homes. A local church owns the land for the remaining village, which has 14 tiny homes that LIHI also manages. LIHI said some 1,000 people are served over the course of a year by the 250 tiny homes it manages. The organization has two more villages in the pipeline.

The 8-by-12-foot homes are insulated and have heat, electricity, and locks. Because they measure under 120 square feet, they are not considered dwelling units under the International Building Code and are not required to go through the city's permitting process. Many residents are single men and women or couples, though some villages provide two homes for families with children. Residents share common on-site bathroom, kitchen, and laundry facilities. They pay for utilities and pitch in with chores. LIHI employs case managers paid for by the city, while daily operations are self-managed by the residents.

"For folks who have been homeless for 10 years, it's an easier transition" than an apartment, said Scarola at the ULI meeting. "People take pride in keeping these homes neat and in being part of the community." Though the tiny home villages serve as temporary housing for only a fraction of the city's homeless population, they're serving an important role, he said. "More permanent supportive housing is better than 'two hots and a cot,'" meaning a shelter's two hot meals and a bed, Scarola said. "Overnight shelters are expensive, particularly if you're serving the same people over 10 years."

What cities need, Scarola said, is affordable housing that is "smaller, built faster, with many more units." In 2017, the city invested over $68 million in rental assistance programs, bridge shelter, and low-income housing and in 2018 planned to increase that amount to $78 million. During her election campaign last fall, Seattle Mayor Jenny Durkan promised 1,000 additional tiny houses at an estimated cost of $10 million. Last December, after being elected, she announced city investments on a much larger scale: $100 million for affordable housing construction and preservation and home buyer assistance. These funds will help build 896 apartments in 9 new buildings, preserve 535 apartments in 4 buildings, and construct 26 new homes for low- to moderate-income families. Three of the new affordable-housing projects will provide 195 units of permanent supportive housing for formerly homeless people and people with chronic mental illness.

As for that corporate head tax: the Seattle City Council voted 7–2 to repeal it less than a month after approving it unanimously. The tax had promised to produce $47.5 million annually for the next five years to help address the homeless crisis.

Tiny-house villages across Seattle are providing a temporary solution to the city's homelessness crisis. Credit: Low Income Housing Institute.

Lessons from the City That Never Sleeps

New York is the nation's most populous and densest city, with 8.6 million residents in 5 boroughs encompassing about 300 square miles. It also has the nation's largest homeless population—approximately 76,500, an all-time high, according to the January 2017 HUD count. Most homeless New Yorkers aren't as "visible" on the street as they are in other cities because of the city's "right to shelter" law, a policy that grew out of court rulings in the 1970s. New York, Washington, DC, and Boston are among the few cities in the United States that are required to provide temporary housing for homeless people. As a result, New York City sheltered 95 percent of people needing homes in 2017, while Los Angeles sheltered only 25 percent, according to HUD (USDHUD 2017).

In January 2017 and January 2018, the city counted approximately 60,000 residents in municipal shelters and 3,000-plus residents who were unsheltered. (The HUD figure is higher because it includes people served in shelters operated by religious and nonprofit agencies, as well as other government agencies.) Families comprise 70 percent of the municipal shelter population.

The city tries to place people close to their support networks, in the communities they call home, to improve the odds of quickly stabilizing lives. It also provides dedicated facilities for families, men, women, unaccompanied youth, and LGBTQ residents. In 2017, New York City spent $1.7 billion in city, state, and federal money to aid its homeless population.

New York City has the nation's largest homeless population—an all-time high of 76,500 people, according to the most recent HUD count. Credit: JasonParis/Flickr CC BY 2.0.

The Housing New York 2.0 plan spells out some of the city's ambitious goals, including affordable housing for seniors, mandatory inclusionary zoning, and a vacant land tax. Credit: City of New York.

In New York, rising homelessness and dwindling affordable housing have been on twin trajectories for the past two decades. From 1994 to 2012, while the city swelled by more than a million new residents, it lost 150,000 rent-stabilized apartments, putting low-income residents at particular peril in the competition for housing. The city's homeless population also more than doubled during that time, increasing 115 percent. Between 2000 and 2014, the city's median rent increased by 19 percent, and household income decreased by 6.3 percent in real dollars. Two-thirds of households now rent, and in June 2018, median rent was more than twice the national average—$2,900, according to Zillow.

"The way you get homelessness is the gap between rent and incomes," confirmed Steve Banks, commissioner of the city's Human Resources Administration (HRA), who oversees the Department of Social Services (DSS) and the Department of Homeless Services (DHS). After two decades of rising homelessness, he said, the number of people housed in DHS shelters is now stable and beginning to decline as the city makes headway in "keeping people in their homes and moving homeless people out of the shelter system and into more permanent housing."

According to *Turning the Tide on Homelessness in New York City*, a 2017 municipal report, new policies have indeed led to measurable progress on this front (CNY 2017a). In December 2015, HUD announced the city had ended chronic homelessness among veterans. From 2016 to August 2018, an outreach program secured transitional and permanent housing for 1,815 street homeless people. The city has opened 15 new shelters as part of a plan to close old shelters in poor condition and build 90 new ones. At the same time, the overall number of shelter facilities has been reduced by 25 percent, from 647 to 492, as new shelter options have been developed and more people are housed. Since 2014, 94,300 people have moved from the shelter system into more permanent housing, and 161,000 households have been prevented from falling into homelessness through approaches such as an enhanced rent voucher program, free anti-eviction legal services, and more supportive housing. During that same span, the city financed the creation and preservation of over 109,700 affordable homes.

Enacting Solutions in NYC

New York City is successfully using strategies such as helping nonprofit organizations buy affordable rental housing to prevent displacement, rezoning land for residential use and greater height and density, taxing unused land at a higher rate, and investing in modular micro-apartment buildings. Deputy Commissioner for Development Molly Park, who oversees the Housing Preservation and Development (HPD) division, offered a word of caution. Homelessness is "a very nuanced situation," she said. "We can't draw a direct correlation between homelessness and these new affordable housing programs."

Still, New York has much to offer other cities struggling with these complex issues. Its approaches include:

HOUSING NEW YORK

The guiding plan developed during Mayor Bill de Blasio's first term, *Housing New York*, defines priorities that include creating pathways to permanent housing for homeless residents, identifying more affordable housing for a growing senior population (another 400,000 are projected to reach senior status by 2040), and providing more accessible housing for people with disabilities. The mayor's housing plan called for adding or preserving 200,000 affordable units by 2024, but the city's accelerated pace put it on course to meet that goal by 2022, two years ahead of schedule; in October 2017, de Blasio released *Housing New York 2.0*, an updated plan to preserve and create an additional 100,000 units of affordable housing by 2026, or 300,000 units total at a rate of 25,000 per year (CNY 2017b).

"We have a robust system in place and we're ramping up," said Park of HPD. From 2014 to January 2018, the city spent $3.3 billion in direct subsidies to preserve or create a total of 87,557 affordable homes, she said. Most of this housing includes some level of construction, from light-touch rehabilitation such as replacing a boiler or roof to building new units, she said. The vast majority of homes are multifamily rentals, with some home ownership, including small buildings for between one and four families. Though publicly financed and regulated, all are owned and operated by private nonprofits, development firms, or private multifamily project owners, such as co-op tenant associations.

Some of these projects preserve existing affordable housing that was created in the 1950s and 1960s under the Mitchell-Lama Residential Program, in which the city built 70,000 rental and co-operative apartments for lower- and middle-income tenants. The program's affordability tax credits expired, however, and nearly half of the units have exited the program, mostly because rising property values made market-rate rents more attractive than the program's tax breaks. The city has committed $250 million to preserving 15,000 Mitchell-Lama co-ops and is working with owners to make repairs and restructure debt.

Projects such as the Dinsmore-Chestnut building in East New York, top, and the Hunter's Point complex in Queens, bottom, are part of the city's ambitious effort to expand its affordable housing stock. Credit: City of New York.

The Eliza, an affordable-housing hybrid under development in the Upper Manhattan neighborhood of Inwood, represents a partnership between the city, the New York Public Library, community groups, and an affordable-housing developer. Credit: City of New York.

AFFORDABLE-HOUSING HYBRIDS

Housing New York 2.0 earmarked 15,000 affordable units for homeless people, and 8,948 homes have so far been created for people coming out of the shelter system. These efforts include some highly innovative models. In the Bronx, Landing Road Residence provides affordable apartments subsidized by two floors devoted to a 200-person shelter. With city support, the Bowery Residents Committee developed, owns, and operates the $62.8 million building, which provides 111 studios for formerly homeless people and 24 affordable one- and two-bedroom apartments available by lottery to the community. In the Inwood neighborhood of Upper Manhattan, the city, the New York Public Library, community organizations, and an affordable housing developer are codeveloping The Eliza, which will include 175 deeply affordable apartments, a new library branch, and a universal prekindergarten facility. Apartments will be reserved for individuals and families with a range of low-income levels, including formerly homeless people.

The city is also partnering with local nonprofits and affordable housing developers to convert temporary shelter apartments into permanently affordable housing. Since 2000, New York had used "cluster apartments" as a stopgap shelter measure, at its peak paying market rates to rent 3,600 apartments in low-income neighborhoods. In 2016, the city began phasing out cluster apartments and instead placed people in commercial hotels, where it cost the city as much as $530,000 per night to shelter 7,800 people, according to a 2017 city comptroller report. The city is now helping to buy and renovate about a third of the remaining cluster apartments and converting them to permanent housing for formerly homeless and low-income New Yorkers, taking ownership by eminent domain if necessary.

"We're trying to make sure we're building for very low-income families who are not in homeless shelters but are at risk of becoming homeless," said Park. In 2017, nearly half of all new homes produced were for people with incomes at 50 percent of AMI or below, she said. "I see that as a homeless preservation tool."

An affordable housing lottery system now accepts 700 applications for every available unit, according to Matthew Creegan of HPD's press office. That number is a big improvement over the 1,000 applications per unit HPD received a couple years ago, he said: "Outreach, education, and the growing number of new units built have reduced the need."

MANDATORY INCLUSIONARY HOUSING

To ensure that every borough would have affordable housing opportunities, the city created a new mandatory inclusionary housing (MIH) program that is activated when an area is upzoned to increase commercial use and density. A voluntary inclusionary housing policy in effect since 1987 had allowed developers a density bonus of additional height for new construction, substantial rehabilitation, or preservation of permanently affordable housing. The new MIH policy, adopted by the city council in March 2016, requires developers who want to increase floor area in rezoned areas or areas requiring special permits to provide typically 25 to 30 percent of units as affordable, for a range of income levels. Developers also have limited options to create affordable housing off-site at another location, or to pay "in lieu" fees into a housing fund.

The policy aims to increase neighborhood economic diversity by ensuring that any new housing built would also include units affordable for a range of income levels, from 40 percent to 115 percent of AMI, which in 2017 was about $93,000 for a family of three. After setting aside the requisite affordable units, the rest can be rented at neighborhood market rates.

"The mandatory inclusionary housing policy has made a difference," said Park. By 2018, the MIH policy had created 4,000 new permanently affordable apartments, in addition to those created by neighborhood rezoning. The MIH policy is somewhat controversial, as the 51 city council members can determine level of affordability on a project-by-project basis and have the legal ability to oppose projects. At least a couple of city councilors have exercised this right, for example, by blocking building approvals on the basis of opposition to additional building height. Some major developers also have been hesitant to risk upzoning or applying for special permits that would trigger the MIH requirement. But revisions to the policy, including the introduction of fast-track approvals, have put things back on track.

In its search for more land, the city is trying to unlock the potential of vacant lots long considered too small or irregular for traditional housing stock.

REZONING FOR NEW AFFORDABLE HOUSING

"We're employing whatever land we have for housing," said Purnima Kapur, until recently the executive director of the New York City Department of City Planning (DCP). "It becomes a balance: with limited subsidies and land available, we're always looking for opportunities, and that typically happens with higher density."

The city is rezoning industrial areas near established neighborhoods that have infrastructure such as sewers and "areas in which urban renewal razed affordable multifamily buildings, such as East New York, where we can upzone and allow for bigger apartment buildings," said Kapur. DCP is leading an integrated community planning approach with various city agencies to plan for elements such as schools, transportation, workforce training facilities, and open space. "We're looking at a framework that would continue to allow for industrial uses as well as new mixed uses including housing," she said. A lot of waterfront was traditionally mixed-use, "and with new tech and creative firms wanting to relocate there, we're envisioning more housing for live-work and commercial uses."

New neighborhood plans that allow for upzoning for mid- and higher-density are underway in East New York, Brooklyn, and Far Rockaway, Queens, among other neighborhoods, said Kapur. Two Brooklyn neighborhoods under consideration include Gowanus, an old waterfront area now enlivened by a hip mix of art and culture groups and maker industries, and Brownsville, where 900 affordable homes will be developed on multiple city sites for households including extremely low-income, formerly homeless, and low-income senior residents. The mixed-use projects feature amenities such as a cultural center, senior center, supermarket, and rooftop greenhouse.

Carmel Place, New York's first micro-unit apartment building, features modular units that were built in a factory space at the Brooklyn Navy Yard (left), then pieced together on-site on a lot considered too small for traditional construction (right). Credit: nArchitects.

In its search for more land, the city is trying to unlock the potential of vacant lots long considered too small or irregular for traditional housing stock to be developed with innovative smaller homes, said Kapur. It is planning affordable housing for seniors on parking lots at existing Mitchell-Lama and HUD-regulated complexes. In highly transit-accessible areas, the city is enabling the development of mixed-income buildings for small households, including studios and units with shared cooking spaces, and is relaxing some zoning restrictions on apartment size. The city is also looking at reclassifying residentially zoned vacant lots to increase the owners' tax bills and incentivize them to develop the sites for housing.

With support from a $1.65 million Enterprise grant, the city is also helping expand community land trusts (CLTs) citywide with nonprofit organizations, so community members can own and manage development on parcels of land. The grant helped to create the first citywide land trust, called the Interboro CLT, and to educate neighborhood organizations on how they can implement CLTs in their own communities.

MODULAR HOUSING

To reduce the cost and speed up construction of affordable homes and to respond to changing demographics, *Housing New York 2.0* called for capitalizing on advances in technology and innovative design to expand modular building and micro-units. HPD has launched a program encouraging advanced modular construction with updated design guidelines. *Housing New York 2.0* referenced New York's first micro-unit apartment building, Carmel Place in Kips Bay, Manhattan. Opened in 2016, the building has 55 micro units, including 8 reserved for homeless veterans and 14 affordable units that drew 60,000 lottery applicants. The 260- and 360-square-foot apartments were built with prefabricated modules transported from a Brooklyn warehouse and 'stacked' on a traditionally constructed foundation with ground-floor utilities. The city is piloting additional modular construction through the Build-It-Back program and has built nearly 100 single-family modular homes that cost 25 percent less than conventional construction. In May, HPD issued a competitive RFP for 100 percent affordable

multifamily housing projects in East Bay, Brooklyn, that would use modular construction to further test whether the benefits of this approach are achievable at scale.

Housing for the Future

As cities across the country seek solutions to the homeless crisis and the severe shortage of affordable housing, New York City has many lessons to offer. The city has now seen several strong years of housing production that includes affordable housing, notes Kapur. But to address a root cause of homelessness, she said, the city must sustain this pace over time to keep up with demand for housing and reduce upward pressure on rents. This requires planning ahead for the capacity for future growth.

Perhaps one of the most valuable lessons for these booming cities is captured in Kapur's reflection on the necessity of committing to long-term policy shifts and investments. "We continue to look ahead" to a city with 9 million by 2040, said Kapur, "so we're focused on the near and distant future. We realize we need to do this on an ongoing basis. It's not a five-year plan."

Kathleen McCormick, principal of Fountainhead Communications in Boulder, Colorado, writes frequently about healthy, sustainable, and resilient communities.

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Land Value Capture

Tools to Finance Our Urban Future

By Lourdes Germán and Allison Ehrich Bernstein

In an era of tight budgets and exploding need, cities around the world are funding infrastructure and other public improvements through "land value capture." This policy approach offers an array of public finance instruments and initiatives that enable communities to recover and reinvest land value increases resulting from public investment and other government actions. Notably, as new subway lines, roads, and other public works raise the value of nearby land and real estate, developers and property owners share that publicly generated windfall to help local governments pay for new bridges, transit, parks, affordable housing, and other infrastructure upgrades.

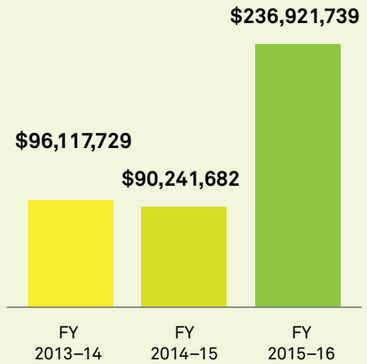
Land value capture is based on a simple core premise: public action should generate public benefit. As challenges mount from rapid urbanization, deteriorating infrastructure, climate change, and more, this funding source has never been more important to the future of municipalities.

Land value capture enables communities to recover and reinvest land value increases resulting from public investment and other government actions.

When used in conjunction with good governance and urban planning principles, land value capture can be an integral tool to help governments advance positive fiscal, social, and environmental outcomes. On every continent, communities are already improving quality of life for their residents through such instruments, which include: betterment contributions, charges for building rights, inclusionary housing and zoning, linkage or impact fees (figure 1), special assessments, transferable development rights, and even certain applications of the property tax (see next page).

Figure 1

Revenue from Development Impact Fees in San Francisco, California, 2013–2016



For decades, the City of San Francisco, California, has levied development impact fees—monetary exactions charged to a developer as a condition of approval for a development project. Those revenues finance the cost of public infrastructure improvements necessitated by the new development, helping to manage growth as more residents utilize municipal transportation networks, parks, and other assets. The fees collected from fiscal year 2013 through 2016, for example, funded transit needs, bicycle infrastructure, pedestrian capital improvements, and more.

Source: City of San Francisco, FY2014–15 & FY2015–16 Biennial Development Impact Fee Report

The Land Value Capture Toolbox

In practice, land value capture includes a range of mechanisms and policies, which various jurisdictions implement and practice differently. All of these tools share one common goal, however: returning land value to the public. Several examples follow.

TOOL	JURISDICTIONAL EXAMPLE
Betterment Contributions and Special Assessments: Owners of select properties pay the municipality a fee, which defrays the cost of a public improvement or service from which the owner specifically benefits.	Betterment levies from property owners in the city of Manizales, Colombia, have contributed to the city's revenue base for urban infrastructure financing and funded road improvements, urban renewal, and the renovation of notable projects such as the Alfonso Lopez Plaza.[1]
Charges for Building Rights: Developers pay the municipality a fee for additional development rights, which funds infrastructure or other public improvements. In some jurisdictions, developers can bid to purchase building rights in the form of higher Floor Area Ratio (FAR) from the city at auction.[2]	In Brazil, CEPACs (Certificados de Potencial Adicional de Construção in Portuguese) are a form of charges for building rights that are sold on a securities exchange. The City of São Paolo has generated nearly US$2 billion from CEPACs to fund infrastructure and planning programs within a designated redevelopment area.[3]
Exactions: Developers pay the municipality (in cash, land, or other in-kind avenues) to obtain special approvals or permissions required to develop or build on a parcel, in order to defray the cost of additional public services required by new development.	The city of Córdoba, Argentina, relies on the mandate of Articles 180–188 of its provincial constitution to impose this charge on developers who seek changes in existing building norms.[4]
Impact Fees (Linkage Fees): Developers pay the municipality a one-time charge designed to cover the costs associated with a development's impact on certain public services and infrastructure, and the municipality invests this revenue in public services and infrastructure.	Impact fees in Orange County, Florida, generate funds for parks, fire stations, police cruisers, and other public-safety investments.[5]
Inclusionary Housing or Inclusionary Zoning: Developers provide the municipality with a certain amount of low- or moderate-income housing in exchange for the right to construct market-rate residential or commercial properties.	Via its 1998 Inclusionary Zoning Ordinance, the city of Cambridge, Massachusetts, created 1,000 units of affordable rental and ownership housing in new developments located throughout the city.[6]
Land Readjustment : Landowners collectively cooperate with a municipality or developer to pool their land to accomplish a redevelopment project. The investments in infrastructure and services undertaken on the pooled land are intended to increase the value of the properties in the redeveloped area; afterward, each landowner receives a smaller parcel of land that has greater value due to the improvements made.	In one of the most successful examples of large-scale redevelopment in the 20th century, Japan's Greater Tokyo Railway Network used land readjustment as a strategic component of its financing.[7]
Rail Plus Property Co-Development (R+P): In the area where a new rail line will be built, the government transfers land development rights to a transit authority at the before-transit development price. The authority then partners with private developers to further develop properties near the new transit route, shares the profits, and uses the funds to reinvest in the rail system and other public improvements.[8]	The Hong Kong Mass Transit Railway (MTR) Corporation has used the R+P model for three decades to build vibrant neighborhoods, conserve open space, and construct a railway system that covers 221 kilometers and serves more than five million people. The Corporation has at times raised US$1.5 billion annually via the self-sustaining R+P model.[9]
Transfer of Development Rights: Landowners pay a government entity a fee to transfer the density potential (as established in the local zoning law or ordinance) of one tract of land to a noncontiguous parcel of land that is better suited to greater densities. The fee generates revenue for public investment, and the transfer of density can also further urban planning objectives.	Pennsylvania uses the transfer of development rights to permanently protect farms and natural resources by redirecting development from such areas to parts of municipalities meant to better accommodate development. This furthers conservation objectives and produces revenues that municipalities can use for public investments.[10]

PROPERTY TAX AND TAX INCREMENT FINANCE (TIF)

Property taxes can be an important form of land value capture, as well-functioning property tax systems base obligations on the market value of real estate. But that link is not automatic. Rather, it depends on the enabling and administrative frameworks in place for the property tax. Land value increases in jurisdictions with well-functioning property tax systems should generate higher assessed values for properties near planned public investments—and such taxation does capture some value from private entities for the public sector. However, limits on value assessments or increases can restrict the property tax's ability to capture value.

Many communities use tax increment finance (TIF) to promote economic development and community investment by earmarking property tax revenues from anticipated increases in assessed values within a designated district. TIFs can similarly direct a portion of funds captured by the property tax toward specific public purposes, but they are not in themselves an additional means of land value capture.

1 Luis Schloeter, "Financing Urban Infrastructure in Emerging Cities: Betterment Levies," *Ciudades Sostenibles* (blog), Banco Interamericano de Desarollo, January 8, 2016, https://blogs.iadb .org/ciudadessostenibles/2016/01/08/betterment-levies/.

2 Martim O. Smolka, *Implementing Value Capture in Latin America: Policies and Tools for Urban Development* (Cambridge, MA: Lincoln Institute of Land Policy, 2013), 14.

3 Gregory K. Ingram and Yu-Hung Hong, eds., *Municipal Revenues and Land Policies* (Cambridge, MA: Lincoln Institute of Land Policy, 2012), 218–219; Leão Serva, "How São Paulo Uses 'Value Capture' to Raise Billions for Infrastructure," Citiscope.org, May 22, 2014, http://archive.citiscope.org/story/2014/how-sao-paulo-uses-value-capture-raise-billions-infrastructure; CEPACs can also be purchased in a secondary market where developers can sell them among each other.

4 Smolka, 34.

5 Stephen Hudak and Martin E. Comas, "Orange, Seminole Counties Boost Impact Fees to Keep Up with Growth Demands," *Orlando Sentinel*, January 10, 2018, www.orlandosentinel.com/news/orange/os-orange-county-impact-fees-20180108-story.html.

6 "Inclusionary Housing Program for Developers," Community Development Department, City of Cambridge, accessed June 5, 2018, www.cambridgema.gov/CDD/housing/fordevelopersandpropmanagers/inclusionarydevelopers.

7 Gregory K. Ingram and Yu-Hung Hong, eds., *Value Capture and Land Policies* (Cambridge, MA: Lincoln Institute of Land Policy, 2012), 290–291.

8 Lincoln Leong, "The 'Rail plus Property' Model: Hong Kong's Successful Self-Financing Formula," McKinsey & Company, June 2016, https://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/the-rail-plus-property-model.

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Land Value Capture Policies and Practices

Government officials have long recognized the need to capture land value for sustainable urban development, but the ability to mobilize land value capture instruments often depends on factors including legal enabling authority, political will, fiscal frameworks, and the capacity of public officials. A few representative examples of land value capture policies and the instruments they enable are below.

NATIONAL-LEVEL EXAMPLE

Enacted in the National Constitution of 1988, Brazil's Federal Law 10,257/2001 codified municipal charges on building rights and the use of CEPACs to help municipalities capture rising land values.[11] It also allows the government to charge private developers for the right to develop land above a defined "floor-area ratio" (FAR). These instruments encourage fair distribution of the costs and benefits of urbanization by allowing municipalities to leverage them according to local needs and contexts.

LOCAL-LEVEL EXAMPLE

Building density in Mumbai, India, is limited by the "floor space index" (FSI)—the ratio of allowable floor space to the plot area. The city can then redirect development intensity by allowing property owners to sell or trade the rights to their unused FSI.[12] Mumbai also enables the sale of development rights, allowing developers to purchase up to a specific amount of additional FSI from the government, to generate public revenues to fund urban infrastructure.

PUBLIC AUTHORITIES EXAMPLE

The Hudson Yards Infrastructure Corporation ("HYIC"), created in 2005 by the City of New York under the statewide Not-For-Profit Corporation Law, promotes economic development and growth on the western side of midtown Manhattan.[13] To finance the extension of the Number 7 subway line and development within the general vicinity of that extension, HYIC issued municipal bonds to raise the capital to finance the project up front. It then deployed an array of land value capture instruments to repay the bonds. For example, HYIC leveraged transferable development rights and a "District Improvement Bonus" (DIB) to charge developers for the right to create additional density in certain project sites.

Some developers were further required to combine the DIB with the provision of inclusionary housing. HYIC also leveraged the City's property tax for the financing. Once the bonds are paid, money generated from the various mechanisms will be used to support future infrastructure investment needs in the Hudson Yards project area.[14]

Conclusion

A city's built environment is the result of cumulative land use decisions and investments. Infrastructure and buildings shape a city's character and urban form for generations, and land value capture can significantly improve that process. In practice, successful implementation demands management of many complex factors and diverse stakeholders; proper understanding of land market conditions; comprehensive property-monitoring systems; fluid communication among fiscal, planning, and judicial entities; and political resolve to realize the full potential of land value capture.

Our challenge now is to better understand the intersection of policies arising under different levels of government, within public authorities, or through special entities—any of which can create a foundation for the implementation of land value capture.

Looking ahead, practitioners seeking strong urban outcomes should plan to learn from varied global experiences with the implementation of land value capture policies and tools. We should also work to increase knowledge of the complex nature of various approaches, and to promote greater understanding among public officials and citizens about how these tools can benefit their communities—and our shared urban future.

[11] For a history of Outorga Onerosa do Direito de Construir, which was established by Federal Law 10,257/2001, see Fernanda Furtado and Isabela Bacellar, "Public Charge and Private Transfer of Building Rights in Brazil: The Need for Coherence in Regulation and Implementation" (paper, IV World Planning Schools Congress, Rio de Janeiro, July 3–8, 2016).

[12] Marco Kamiya and Le-Yin Zhang, eds., *Finance for City Leaders*, 2nd ed. (Nairobi: UN-Habitat, 2017), 202.

[13] Hudson Yards Infrastructure Corporation (HYIC), *Annual Report 2017*, https://www1.nyc.gov/assets/hyic/downloads/hyic-annual-report-17.pdf.

[14] HYIC.

Credit: City of Warsaw/Ewelina Lach.

A native of Warsaw, Poland, **Mayor Hanna Gronkiewicz-Waltz** has made her mark on this city of 1.7 million people. She was elected its first female mayor in 2006 and is currently serving an unprecedented third term. Prior to assuming her post—where she has faced controversial issues including the restitution of properties seized under Nazi and Communist rule—Gronkiewicz-Waltz had been president of the National Bank of Poland, vice president of the European Bank for Reconstruction and Development, a member of the Polish Parliament, and chairperson of the State Treasury Commission. In November 2012, she was elected for a two-year term as president of Eurocities, a network of major European cities. Gronkiewicz-Waltz, a professor of law and economics at the University of Warsaw, has authored over 40 academic publications. She spoke with Lincoln Institute Senior Fellow Anthony Flint for this issue of *Land Lines*.

Leading Warsaw to Prosperity, One Bike Lane at a Time

ANTHONY FLINT: **Last year, the national government proposed expanding Warsaw by bringing more than 30 outlying districts within its boundaries, an idea you opposed. In your view, what are the merits of a more regional approach to metropolitan governance?**

HANNA GRONKIEWICZ-WALTZ: The target [of that proposal] was purely political, as one party saw the opportunity to get power in Warsaw through votes from around the region. They wanted to enlarge the municipality [in an effort] to get people from the countryside and the smaller towns to vote for the next mayor of Warsaw. We protested, and in various local referendums the people said no. They preferred remaining independent, with their own local governments and their own mayors.

People understand that our metropolitan policies have been successful. We collaborate as a region through contracts and agreements, and we rely on revenue sharing among the 30 municipalities [that make up our metropolitan area]. Funding is organized through the Integrated Territorial Investments, an EU program, for these municipalities, with investment in everything from administration capacity to bike paths. That is the way to trust each other. And it works. There is an efficient public transportation scheme in place, under which the capital city's fleet serves the whole metropolitan area. Metropolitan governance should always respect the needs of all its members.

AF: **What are the critical elements in your effort to maintain good municipal fiscal health? What has been your experience on the revenue side?**

HGW: On the revenue side, we have a property tax, but it's not very high, though some people complain. We also have a lease tax, which is adjusted to the value of the property. A typical apartment tax bill in the city center is about $400 per year. There is also the commercial property tax and a tax on civil law transactions. However, these are only a few percent of the total budget. The biggest revenue source is the city's share in personal and corporate income tax, which flows directly from the central government. There are many needs for revenue; for example, we contribute to teachers' salaries and we have to maintain our infrastructure.

AF: **Speaking of infrastructure: How is climate change going to have an impact on Warsaw, and what is the city doing with respect to mitigation and adaptation?**

HGW: The main fuel for so long was coal. Step by step, we have to move away from this, changing to natural gas and renewables. First we focused on transportation—new buses, new trams, and a second Metro line. We are changing our rolling stock, replacing diesel buses with electric and natural-gas models. The network is very well used: Seventy percent of our citizens use public transport. The modernization of our district heating network, which serves 80 percent of the city's residents, is also very important. Ten thousand additional homes have been connected to the system in the past 10 years. Warsaw's heat is produced in two combined heat and power plants. We are planning to switch one of the plants from coal to gas, which will bring a significant carbon dioxide emission reduction. Also, individuals can apply for subsidies to install photovoltaics, solar panels, and heat pumps, and thus replace old-fashioned stoves. This has been a very popular program, inspiring hundreds of applications. We are active internationally as well; for example, we are part of the EU Covenant of Mayors, [which is committed to implementing climate and energy initiatives].

AF: **What successes have you seen flowing from the expansion of public transit? Are you seeing success in terms of ridership and reduced traffic congestion?**

HGW: In terms of being car-free, people know one day it will come, though it may have to come from my successors. The way it was done in London—starting with a pilot for one year—was very good. People [there] decided they preferred the congestion fee and supported the money going to transit. Public transport is costly. We have [been able to do] so much because 85 percent of the investment was covered by EU funds. For users, it is important for it to be quite cheap. Thirty dollars per month is the approximate price for users in Warsaw, and our seniors pay $20 for the whole year. Last year, we began offering free transportation for students up to 15 years old; it is important for families to teach the young that it's OK to go by bus. We have dedicated bus lanes, 500 kilometers of bicycle lanes, and bike sharing. Even with all of that, there is still congestion, though it is not as bad as before.

Pedestrians and bicyclists flock to Krakowskie Przedmieście, a major thoroughfare in the city of Warsaw. Credit: Filip Kwiatkowski/Warsaw Tourist Office.

Warsaw opened a second Metro line in 2015, twenty years after the first line opened—and nearly a century after city leaders first came up with plans to construct a subway. Credit: Tim Adams/Flickr CC BY 2.0.

AF: **As Warsaw joins the array of economic powerhouses, how are you addressing gentrification, providing affordable housing, and fostering a more inclusive economy?**

HGW: We had to start from scratch. There was no private ownership [under Soviet control]. Beginning in the 1970s, there was a policy that let you buy your home for 10 percent of its value. I was the first mayor who stopped [that kind of] sale of municipal apartments. At the same time, we started to build more housing: 3,500 new apartments over the last 10 years. We use the city's land and keep the construction costs down, so people's rent is not so high. I lived in Knightsbridge [in London] for a few years, and I saw how investments by foreign developers made the price of apartments skyrocket. We don't have that in Warsaw—housing prices are rising gradually, but at an affordable pace. Another problem is that many apartments have not been maintained. That is why the city is directing finances toward revitalization, especially in the most neglected neighborhoods.

AF: **What have been the effects of rising nationalism and anti-immigration sentiment on the city's economy, taxation, and social spending?**

HGW: The national government decided to withdraw from Poland's agreement to accept, under the EU's quota system, a proportional number of refugees. This was not helpful, as we have abandoned our European allies in the midst of the refugee crisis. Generally, [anti-immigration sentiment] can discourage investment in the medium and long term. It's a very bad thing when someone with a different ethnic background is attacked on the bus, and it can also prevent others from coming to Poland, including businesspeople. On the other hand, Warsaw does have many foreigners who come as economic migrants, and the majority of them are from Ukraine. Some are teachers, some are doctors; they are nannies or they work in the shops. We also have a significant number of Vietnamese immigrants, as well as people from Somalia, Ethiopia, and Chechnya.

To meet the growing need for integration, the city has created a multicultural center, which offers free language and cultural courses. It is important for the economy [to welcome and train immigrants], because it helps our new residents better integrate into our society. As a consequence, the economy and the labor market are better off. Unemployment is 1.7 percent in Warsaw. The local economy is booming, which can be witnessed through the city's many construction sites, which have to compete for workers. Economically, we are certainly benefiting from migration.

"In terms of being car-free, people know it will come, though it may have to come from my successors."

NEW LINCOLN INSTITUTE REPORT

Improving Tax Increment Financing (TIF) for Economic Development

By David Merriman

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To order, visit www.lincolninst.edu/publications

Tax increment financing, or TIF, is a wildly popular economic development tool in the United States, but it often falls short of its promise to revitalize struggling neighborhoods. So concludes a new Lincoln Institute report.

In *Improving Tax Increment Financing (TIF) for Economic Development*, University of Illinois at Chicago Professor David Merriman reviews more than 30 studies of TIF over several decades, concluding that "in most cases, TIF has not accomplished the goal of promoting economic development."

The report explains the history and mechanics of TIF, details how cities and regions are currently using the tool, and recommends how policy makers can improve TIF practices.

"Tax increment financing has the potential to draw investment into long-neglected places, but its success requires rigorous analysis, transparency, and oversight to ensure that the expenditure of taxpayer dollars truly benefits the public," Merriman said.

First implemented in the 1950s, TIF is a method of funding economic development in a designated area—a TIF district—by earmarking increases in future property tax revenues that result from increases in real estate values in the district. The tax revenue can be used for public infrastructure or to compensate private developers for their investments.

In theory, TIF generates new property tax revenue by spurring development that would not otherwise occur, which results in a larger tax base. The tool can help build trust between local government and developers, and it can facilitate political support for investments by stipulating that taxpayers outside the TIF district will not have to contribute.

In practice, however, TIF often captures some revenues that would have been generated through normal appreciation in property values, even without the TIF-funded investment. Cities also sometimes exploit TIF to obtain revenues that would otherwise go to overlying government entities such as school districts. In addition, TIF can make cities' financial decisions less transparent and more focused on the short-term.

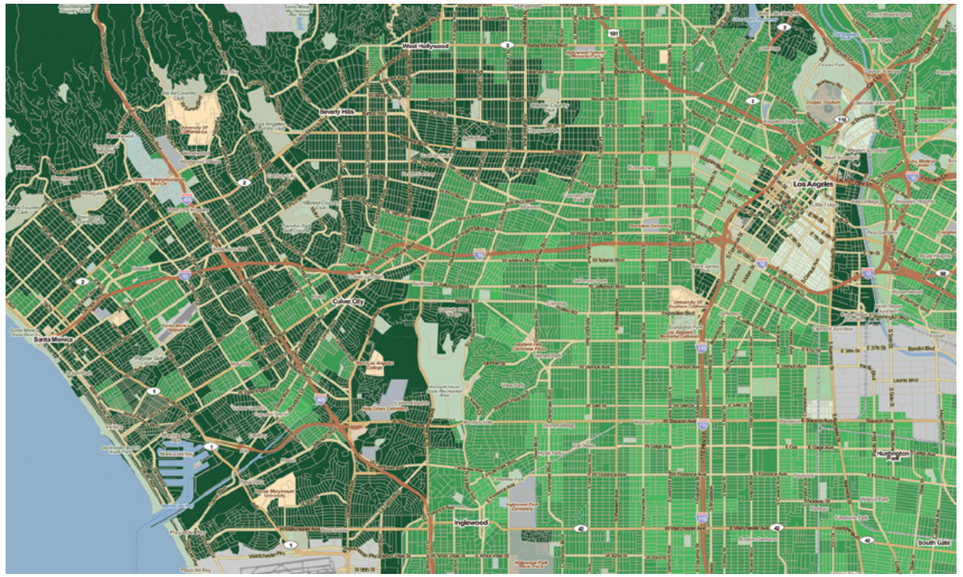
Merriman makes five recommendations to improve the performance of TIF:

- **States should track and monitor TIF use.** Most states already monitor property tax assessment and could easily report on the number of TIF districts and changes in property values. Wisconsin and Illinois can serve as models for other states.
- **States should allow counties, school districts, and other overlying local governments to opt out of TIF.** This measure would reduce the incentive for cities to use TIF to capture revenues that otherwise would have gone to overlying governments.
- **States should review their "but for" TIF requirements to determine whether they are effective.** States sometimes require proof that a proposed development would not occur "but for" the establishment of a TIF district, but the rules are often open to loose interpretation. A 2015 California law could serve as a model.
- **Local governments should provide extensive, easily accessible information about TIF.** Greater transparency would help elected officials monitor and regulate the use of TIF.
- **Researchers should study, document, and explain the different outcomes of TIF use in various geographic areas.** To date, academic studies of TIF document mixed outcomes but do not clearly explain the causes of this variation.

"While further research is needed, there are clear steps cities and states can take now to improve the performance of TIF," said Lincoln Institute Senior Fellow Joan Youngman, head of the Department of Valuation and Taxation. "In some cases, policy makers might opt to develop alternative tools for financing infrastructure, affordable housing, and economic development."

TIF is a wildly popular economic development tool in the United States, but it often falls short of its promise.

Estimated Median Gross Rent in Los Angeles County (2012–2016)



Median Gross Rent (2012–2016)

- **Insufficient Data**
- **$677 or less**
- **$678–$825**
- **$826–$1,011**
- **$1,012–$1,500**
- **$1,501 or more**

As Los Angeles experiences record population growth, more than 34,000 people in the city are homeless, and a total of more than 55,000 people are experiencing homelessness in Los Angeles County. Median gross rent in Los Angeles County was $1,264 in the period between 2012–2016, compared to the national median gross rent of $949.

Credit: The Place Database. *www.lincolninst.edu/research-data/data/place-database*

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