

# Innovation and the City

**Cities are driving government innovation across the globe. This report highlights fifteen bold urban policies with a proven record of success.**





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The Citi Foundation works to promote economic progress and improve the lives of people in low-income communities around the world. We invest in efforts that increase financial inclusion, catalyze job opportunities for youth, and reimagine approaches to building economically vibrant cities. The Citi Foundation's "More than Philanthropy" approach leverages the enormous expertise of Citi and its people to fulfill our mission and drive thought leadership and innovation. For more information, visit [www.citifoundation.com](http://www.citifoundation.com).

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## Center for an Urban Future

The Center for an Urban Future (CUF) is a catalyst for smart and sustainable policies that reduce inequality, increase economic mobility, and grow the economy in New York City. An independent, nonpartisan policy organization, CUF uses fact-based research to elevate important and often overlooked issues onto the radar of policymakers and advance practical solutions that strengthen New York and help all New Yorkers participate in the city's rising prosperity.



**NYU | WAGNER**

The Wagner Innovation Labs are a part of the NYU Robert F. Wagner Graduate School of Public Service. Launched in 2011, the Wagner Innovation Labs are a new series of experiments that marry theory and practice to promote informed, evidence-based policy decision-making in a complex world. Each Lab has its own focus and approach, and operates independently, but all reflect NYU Wagner's broad commitment to bringing scholars, thinkers, and practitioners together, both figuratively and literally, to improve the way policy is made.



# Innovation and the City

In recent years, cities have become the drivers of government innovation. As urban growth has exploded over the past half century—increasing from a third to nearly 60 percent of world population today—local officials have been forced to solve problems and generate new ideas, policies, and approaches. From New York to Medellín to Copenhagen, mayors and city managers are finding novel ways to address some of the biggest challenges facing society, whether combating entrenched poverty, financing new infrastructure projects, or protecting the environment.

Yet for all the innovative policies taking root in cities across the globe, there are few reliable mechanisms for sharing what is working.

This report aims to fill the gap. Drawing on well over 100 interviews with urban policy experts in the United States and around the world—including mayors, city commissioners, academic experts, corporate executives, labor officials, and philanthropic leaders—it profiles fifteen of the boldest and most innovative municipal policy reforms of the past decade.

The fifteen policies detailed in the pages that follow include San Francisco's Five Keys Charter School, the nation's only charter school embedded inside a city's correctional system; Seattle's innovative Race and Social Justice Initiative, which established a more inclusive process for municipal policymaking; Barcelona's Reempresa program, a rare economic development program focused on small business succession; Los Angeles' new model for integrating workforce and educational services for youth; São Paulo's innovative plan to capture value from new real estate development to help cover the cost of infrastructure improvements; and a path-breaking initiative from Malang, Indonesia, which uses revenue generated from garbage and recycling collection to fund comprehensive healthcare for low-income residents. Other ideas run the gamut from a crowd-sourced mapping project in the slums of Nairobi, Kenya, to a novel integration of the public

housing authority and school system in Tacoma, WA, demonstrating the broad range and scope of city initiatives explored in this report.

In publishing this catalogue of the best urban policy reforms that have been tried and proven effective, our hope is that city officials around the world won't have to reinvent the wheel when designing new programs and initiatives to solve some of their cities' biggest challenges. Instead, they'll be able to draw inspiration from successful programs and initiatives launched by their peers.

This effort is rooted in a unique partnership: the Center for an Urban Future, one of New York's leading think tanks, paired with NYU Wagner, a public service graduate school known for blending theory and practice. The entire project has been supported by Citi Foundation, a philanthropy anchored in New York with a strong tradition of promoting economic progress and municipal innovation throughout the world.

This report is an update to our 2013 *Innovation and the City* study. That two-part report highlighted a total of 30 municipal innovations from cities across the United States and around the globe. The first installment identified fifteen innovations that could work in New York City. Based on the extremely positive feedback we received from New York and many other cities around the country, we issued a second installment of fifteen additional policies that held great potential for replicability in cities outside New York.

This edition follows the same research approach as our 2013 report. But rather than focusing on policies with potential for replicability in New York, the ideas profiled here are broadly applicable to a range of municipalities throughout the United States and around the world.

We have also maintained the same rigorous vetting process. Our research methodology operates like a funnel: broadly identifying new ideas at first, systematically winnowing them down, and then carefully

editing the final slate of reforms into a readable format that pinpoints critical elements for officials interested in adopting them.

We applied three criteria to every idea we reviewed. The first is the notion of *success at scale*. The innovations we sought were not pilots or unproven reforms, but those that have been implemented citywide and could provide evidence to prove their value. We also sought policies that offered a *fresh approach* and were relatively unknown outside of the sponsoring locale. Finally, we looked for approaches that were *exportable* and could be replicated and adapted to other cities, avoiding reforms that were overly reliant on local conditions and unique circumstances. Fundamentally, we looked for ideas with the potential to significantly and dramatically improve city services and the quality of life for local residents.

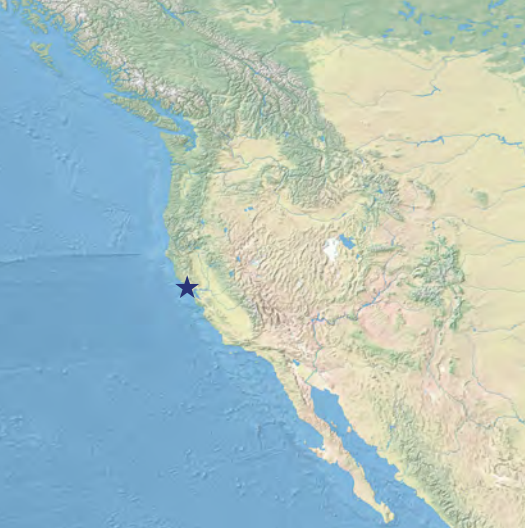
To find these ideas we cast a wide net at the outset. Over the past six months, researchers at the Center for an Urban Future and NYU Wagner interviewed nearly 150 policy experts in cities across the globe. We spoke to mayoral chiefs of staff, foundation program officers, officials at the World Bank and the United Nations, and other journalists and researchers who focus on urban reform. This phase yielded a first cut of 120 promising policies that deserved a closer look. We applied our criteria to gauge the viability of these ideas and found that just 30 made the cut. We then asked a group of international experts to review the innovations and provide critical feedback (see full list of participants at the end of the report). This resulted in the final fifteen ideas presented in this report.

This report is not an exhaustive survey of world-class ideas; there are numerous other innovative

municipal policies that have proven effective that did not make it onto our list. But our catalogue represents some of the world's very best reforms with a track record of success.

We did not focus on specific policy areas or geographic regions, and there is no comparative judgment made as to which innovations are superior. But we did find a few common themes that arose again and again. For one, gaining buy-in from administrators and traditional front-line government workers is critical. New approaches are often a shock to the system; where cities encountered resistance in the initial stages, it was frequently due to a lack of agency-level understanding of and support for the new approach. We also found that where service consumers can lead, they should. If a program is focused on community improvement, then the community should be involved or help lead the effort. And if a program is aimed at the private sector, then businesses should have a role in program design. Finally, we found that although high-capacity and relatively affluent cities tend to incubate more innovations, there are many economically challenged cities that are just as creative. In fact, economic or budgetary distress has sparked a number of the more impressive innovations we identified.

The fifteen policies profiled in this report may not work in every city, and each will need to customize these ideas to suit their particular locale. But taken together, the report presents the “art of the possible” for city leaders committed to wide-ranging and broad-reaching improvements.



# Idea 1

## Five Keys Charter School

San Francisco, CA

Bringing the charter school model to correctional education

### Innovation in a Nutshell

By serving as the nation's only charter school operated by a sheriff's department, San Francisco's Five Keys Charter School helps correctional inmates and previously incarcerated people earn high school diplomas and a better chance at employability.

### Program Elements

- Correctional charter school receives state educational funding.
- Educates inmates and the formerly incarcerated primarily for high school diplomas rather than GEDs.
- Provides wraparound services to continue educational instruction after release from correctional setting.

### Benefits

- Provides stable funding stream for educational activities.
- Establishes route for students to obtain high school diploma, not just GED.
- Integrates correctional education with post-release educational services.

In 2014, almost seven million adults were under correctional supervision: 1 in every 36 Americans.<sup>1</sup> As policymakers explore strategies to reduce the nation's jail and prison population, they are turning increasingly to the role of educational opportunity. Educating inmates and previously incarcerated people improves their odds of getting a job after prison and dramatically reduces their odds of committing another crime. In fact, a study by the RAND Corporation found that

every dollar of public funding spent on prison education saved taxpayers four dollars within three years after release.

Yet correctional education programs mostly operate at a modest scale and on a shoestring budget. There is a public stigma attached to educating prisoners, one that correctional officials sometimes share. Correctional institutions will often hire an outside organization—in some cases paid through inmate fees—and pay them a modest amount to operate GED classes inside the institution.

One program that defies the marginal condition of correctional education is Five Keys Charter School, the main provider of correctional education in San Francisco County. Founded in 2003, Five Keys operates the only high school in the nation sponsored by a sheriff's department. In addition to providing comprehensive K-12 educational services to inmates of the San Francisco County Jail, Five Keys also has contracts to serve inmates in Los Angeles, Alameda, and Solano Counties. Although far from the only high-quality correctional education provider, Five Keys offers two unusual assets: integrated instruction that continues when inmates leave detention, and a charter school structure that provides financial stability and demands academic rigor.

In the correctional field, jails are quite different from prisons. Jails hold inmates awaiting trial or sentencing, which results in a constant flow of prisoners entering and leaving. Five Keys has responded by

1. Share of U.S. Adults Under Correctional Control Down 13 Percent Since 2007," Pew Charitable Trusts, January 25, 2016, <http://www.pewtrusts.org/en/research-and-analysis/analysis/2016/01/25/share-of-us-adults-under-correctional-control-down-13-percent-since-2007>.

## Over 1,500 Five Keys students have earned high school diplomas. Their recidivism rate is 24 percent lower than the statewide average.

offering year-round classes in month-long sessions, and by providing wraparound services that continue after release. These services allow previously incarcerated people to continue their studies as they reintegrate into society.

Five Keys' academic offerings match those of traditional high schools, but with added emphasis on restorative justice and conflict resolution. "Because of their partnerships, Five Keys has an inside-out model that I think is particularly effective," says Michelle Tolbert, senior program director at RTI International and a leading expert on correctional education. "They not only provide services in the institution, but there's also a familiar face once the individual is released, so they can go to Five Keys on the outside and continue their work."

Five Keys' charter school statute ensures a stable funding stream. The correctional institution covers overhead expenses such as rent and food, as it does for all inmates, leaving charter school-financing dollars available to provide critically needed services like mental health counselling, English as a second language classes, and special education. Normally, charter schools can only operate in one county and serve students under the age of 21, but Five Keys falls under an exemption for schools that partner with Workforce Investment Boards, which strengthens the school's

financial position.

Since Five Keys' founding, over 1,500 students have graduated with high school diplomas, and nearly 60 percent of students in the most recent school year demonstrated learning gains. The state recidivism rate between 2003 and 2010 was 68 percent, but just 44 percent among Five Keys' students.

There is plenty of room for expansion of the Five Keys model, both within and outside of California. "Most of the inmates do nothing," says Steve Good, founder and executive director of Five Keys. "They're sitting on their bunks watching Oprah. That's the overwhelming experience for inmates in California." Yet Five Keys is in some ways the answer to a question that too few localities are asking: how to provide a more consistent and valuable educational experience for incarcerated people, so that they can reintegrate with society and step off the merry-go-round of release, reoffense, and further punishment. The San Francisco County Sheriff's Office had the commitment to seek substantive change and find funding for it. Other cities seeking to break the cycle of recidivism could adopt a similar approach, shifting correctional education financing and service provision from the margin to the core.



## Idea 2

# Garbage Clinical Insurance

Malang, Indonesia

Funding micro health insurance with recyclables

### Innovation in a Nutshell

Low-income residents in Malang pool funds generated through garbage and recycling collection to afford comprehensive healthcare.

### Program Elements

- In a country with low healthcare enrollments, residents contribute as little as \$1 per month for comprehensive care through recycling collection.
- Waste is converted to practical and remunerative use, including fertilizer, clothing, and paper.
- Using a cost-sharing model, the community provides healthcare to all its members at a lower cost.

### Benefits

- Addresses two of the greatest ills facing Malang: poor healthcare and poor waste disposal.
- Pooled funds allow the entire community to receive health benefits; those with higher needs and costs are subsidized by the wider group of contributors.

All cities should provide for the basic needs of their citizens. In the developed world, this often means offering adequate healthcare coverage. But in many other places, comprehensive healthcare is a luxury that most governments can't afford to subsidize and most residents can't afford on their own. A new financial scheme is taking a radical approach to paying for healthcare for the poorest residents: individuals collect garbage and recyclables for fees that are converted into comprehensive healthcare.

In Indonesia, 60 percent of the population lacks any form of healthcare coverage and 50 percent lives on less

than \$2 per day. Poor wages, lack of affordable healthcare, and dangerous living conditions add up to one of the most precarious urban environments in the world. In addition, Indonesia is the second-largest generator of plastic waste in the world, discarding over 3.22 million metric tons of plastic every year in 2010, according to a *Wall Street Journal* report. As little as 50 percent of household garbage is actually collected by either government or private services. Many cities have virtually no trash collection infrastructure, leading to piles in the streets or dumped refuse in waterways. Taken together, Indonesia faces twin crises of poor healthcare coverage and terribly low rates of waste collection.

Dr. Gamal Albinsaid, an enterprising doctor from Malang, put the two negatives together to make one big positive for thousands without health insurance. He formed the Garbage Clinical Insurance (GCI) group, a service that provides holistic, preventative, and curative care to the most at-risk citizens for a monthly fee of \$1. Villagers pay this fee by collecting 11 pounds of cardboard or 4.5 pounds of various plastic products. This simple system appears to be working—and at scale.

Dr. Albinsaid described the inspiration for the program: an encounter with a villager who became ill and needed dialysis treatments to regulate his blood toxicity. Unable to pay for the treatments, the villager's teenage daughter collected plastic bottles that litter the shoreline next to their village. The teenager took these bottles to a recycling facility a few miles outside of her village and raised the \$3 per visit needed for dialysis.

The moving story led to the idea of using recyclable waste to finance primary healthcare services for citizens that were unable to pay the cost of private or national



healthcare. Seeing the despair of citizens without health services, Dr. Albinsaid decided to depart from his original field of neurosurgery to focus on promoting preventive approaches to healthcare. Dr. Albinsaid first developed his idea for recycling-fueled insurance with Rita Rosita, a local college professor, as part of a university competition in 2010. After a number of failed attempts to establish the program, he ultimately secured mentoring from the Cambridge Program for Sustainability Leadership—an intensive program dedicated to business and social entrepreneurship training. The time at Cambridge allowed Dr. Albinsaid to puzzle through the complicated financing model. Since then the innovation has received support from 16 Indonesian government agencies, 14 private companies, 23 universities, and 21 global NGOs.

With new funding and a sound business plan, he returned to Malang and formed the GCI group. This new public charity employs a model of cost sharing in which a large pool of individuals distributes and reduces the cost of healthcare for any one participant. This form of collectivization mobilizes the community to capitalize on unused resources (in this case recyclables) to improve general health access.

The communal model is predicated on the notion that 10 to 15 percent of the members use 85 percent of the services and account for a similar percentage in costs. By pooling funds, those individuals who need more frequent, direct, and intensive care have their costs subsidized by individuals who don't need as much.

The system is comprised of the following three components:

- *Waste collection.* Residents bring their waste to GCI instead of selling it themselves or using the government-provided waste collection service.
- *Waste processing.* GCI then sorts it into compost, recyclables, and upcycle products (items that can be repurposed). Compost is used as both solid and liquid

fertilizer. Upcycle or repurposed materials are used to make new items such as clothes, jewelry, or household goods and sold directly to others. Recyclables are sold to a processing plant.

- *Healthcare provision.* Using the cost-sharing model, the community can provide healthcare to all its members at a lower cost.

Normally the residents would have to pay the government a fee of \$1 per month to collect their garbage. With GCI, residents instead submit the \$1 worth of recyclables to the health insurance clinic to cover costs of providing basic health services.

The following example is used to illustrate the cost-sharing model: Assume that the clinic insures 1,000 people who each bring recyclables worth \$1 to the clinic, resulting in \$1,000 of income for GCI. Of those 1,000 participants, 15 percent require treatment in any given month, which costs approximately \$2.50 each for a total of \$375. Deducted from the \$1,000, this leaves roughly \$675 for the clinic to use to improve services, develop preventative programs, and increase outreach.

The cost framework outlined above provides members with a full range of health services including medical consultations by phone; access to ambulatory facilities; basic cholesterol, blood sugar, heart, and urine tests; family health mentoring; nutritional mentoring; child development; chronic disease care; and post-hospitalization rehabilitation and recovery services.

As comprehensive as the program is, the founders are absolutely convinced that it can be replicated. Having diligently tracked all of the finances and health results, Dr. Albinsaid plans to expand the program throughout Indonesia. The program also makes a convincing case that other regions can use a similar communal model that pools contributions—generated from waste or possibly another accessible revenue source—to fund high- and low-cost users alike.



## Idea 3

# Civic User Testing Group

Chicago, IL

Expanding the role of non-technical city residents in civic tech

### Innovation in a Nutshell

A diverse group of more than a thousand Chicago residents tests the usability of city websites and mobile applications.

### Program Elements

- Recruits residents with small payments to join pool of software usability testers.
- When a government agency or nonprofit contracts with CUTGroup to test a mobile app or website, they convene a group of 15 to 30 people of varying levels of technical literacy to try it out and provide feedback.

### Benefits

- Engages community residents in strategies to improve the usability of applications and websites.
- Provides real-world digital learning opportunities.
- Offers critical feedback to city and nonprofit managers on their digital initiatives.

Over the past decade, city governments have turned to technology to streamline operations and engage their constituents. Savvy officials have found that continuous improvement in technology requires the infusion of certain private-sector values, such as entrepreneurialism and transparency, to achieve lasting results. The resulting cultural shift has given birth to a civic tech movement in government, which has yielded remarkable advances, from websites that tabulate and report complaints about city services to apps that detect and report potholes. Some cities are creating entire teams to develop and promote their innovative digital initiatives.

What most civic tech projects have lacked, however, is an active role for city residents. Dan O'Neil is one of the founders of the civic tech movement. As founder and executive director of Smart Chicago Collaborative, an innovation incubator sponsored through a public-private partnership, he has played an instrumental role in Chicago's tech endeavors. But at a certain point, O'Neil became disillusioned with the lack of public engagement in the ingenious parade of apps and special-purpose websites that have garnered so much attention and praise. He observed a lack of interest in meeting the needs of ordinary people, or even finding out what they considered their own needs to be.

Smart Chicago addressed the participation gap by shifting their focus from software development to software testing. Applications can be written by a small group of coders in a windowless room, but that's only the beginning. In the private sector, companies convene user-experience (UX) groups to try out applications or websites and report their experiences. UX groups are less common in the public sector, and O'Neil had the idea of creating one that would also empower and connect its participants.

In 2013, Smart Chicago launched the Civic User Testing Group, or CUTGroup, to test the usability of websites and mobile apps deployed by city and regional government agencies. Testers are recruited through advertisements, public meetings, and the organization's website. Each tester receives a \$5 gift card to sign up and fill out a survey. After participating in a CUTGroup session, the participant receives a \$20 gift card. CUTGroup's goals are to provide UX testing that delivers concrete and actionable direction to the developer;



# The CUTGroup process builds digital skills among people of widely varying backgrounds, increases civic engagement through a voluntary approach, and benefits city agencies that previously lacked an effective way of soliciting public feedback.

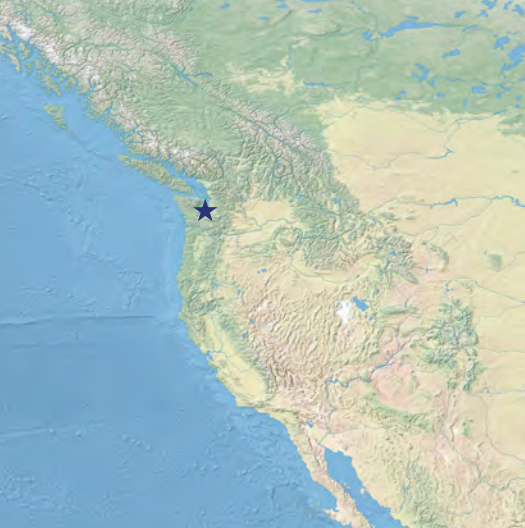
assist participants in learning digital skills as they go; and build community engagement by recruiting a large and diverse tester base and convening them in public spaces, typically libraries.

The CUTGroup has grown to over 1,200 participants and has consulted with more than twenty public-sector clients. In one project, participants tested Ventra, a new mobile application for the Chicago Transit Authority (CTA). Smart Chicago segmented a group of 27 testers by their mobile-device type, CTA vehicle choice, and commuter status, among other criteria, and then conducted both remote and in-person tests.

The group then provided detailed and penetrating critiques of Ventra, leading to a number of concrete changes, such as adding a “show password” button on the sign-in page, before CTA publicly rolled out the app. “Our work with the CUTGroup has proved to be an incredibly valuable experience as part of our test plan for the Ventra app,” enthused Tony Coppoletta,

manager of external electronic communication for the Chicago Transit Authority. The CUTGroup can also function without a client. When Smart Chicago wanted to explore how local residents learned about digital resources in their neighborhoods and prioritized gaining new technological skills, they convened a CUTGroup session.

Although CUTGroup’s outcomes are hard to quantify directly, its approach cracks several nuts that cities elsewhere have not. The CUTGroup process is simultaneously building digital skills among people of widely varying backgrounds, increasing civic engagement through a voluntary approach, and benefiting city agencies that previously lacked an effective way of getting public feedback. Cities interested in this approach may need to build public-private partnerships that are nimble enough to develop and road-test an initiative like that of the CUTGroup. If they do, however, they are likely to reap several mutually reinforcing benefits.



# Idea 4

## Race and Social Justice Initiative

Seattle, WA

Structuring input from communities of color into city policies and priorities

### Innovation in a Nutshell

Seattle has implemented a citywide strategy to include communities of color in policy decision-making to ensure that their viewpoints are heard.

### Program Elements

- Provides Racial Equity Toolkit to city agencies for use in identifying impacts of policies and programs on minority communities.
- Agency leader works through set of questions to determine possible impacts and steps needed to engage affected communities.
- Seattle mayor expects agencies to utilize Toolkit regularly in policymaking process.

### Benefits

- Gives agency leaders a framework for considering impact of policies and programs on racial equity.
- Structures constructive engagement with communities of color on city policies that affect them.

City leaders frequently struggle to navigate volatile issues such as public safety, gentrification, and education finance, which have unequal effects on residents. Reaching broadly acceptable solutions is made harder by the disproportionate impact of these policies on residents of varying neighborhoods, income and education levels, and racial and ethnic backgrounds. Increasingly, cities are confronting the complex challenges of institutional racism, in both overt and subtle manifestations, and seeking more constructive and collaborative dialogue with communities of color.

In 2004, Seattle established the Racial and Social Justice Initiative (RSJI), staffed by the Seattle Office of Civil Rights (SOCR). RSJI began by surveying communities of color about their experiences with city government. Four years later, SOCR released the Racial Equity Toolkit, which has become the centerpiece of RSJI. The toolkit provides city agencies with a step-by-step blueprint for use in soliciting and applying the input of minority communities in departmental policymaking.

For example, the city shifted from a practice of repairing broken streetlights in response to citizen complaints to a scheduled maintenance plan, after a toolkit review found that certain communities were less likely to report outages. A plan to boost recycling by reducing the frequency of trash pickups was rejected after feedback showed that neighborhoods of color accumulate more non-recyclable trash due to heavier reliance on pre-packaged foods relative to fresh fruits and vegetables.

“The Toolkit creates a framework to measure equitable outcomes, rather than focusing on a department or politician’s intentions,” says Rebecca Saldana, executive director of Puget Sound Sage, a research and policy organization. Agency managers are prompted to consider such issues as whether the proposed policy or action will have any impact on racial equity or on specific communities; whether the agency has reached out to community leaders or stakeholders; and how the agency will hold itself accountable for impacts of the policy, including unintended effects.

“It’s just a piece of paper with some questions on it, but these are questions that never get asked,” says



# The city shifted from a practice of repairing broken streetlights in response to citizen complaints to a scheduled maintenance plan, after a toolkit review found that certain communities were less likely to report outages.

Elliott Bronstein, SOCR's public information officer. "We assume that whatever we do will benefit the community at large." He compares the effect of the Racial Equity Toolkit to environmental impact statements, which government agencies initially resisted, but which have since become valued components of economic development initiatives, ensuring that environmental effects are considered in the planning process. This systematic approach has yielded important and concrete changes.

All Seattle city agencies are required to use the toolkit, and incoming Mayor Ed Murray stepped up the city's commitment upon taking office in 2014. As one of his first acts in office, Murray issued an executive order requiring agencies to report on how they have used the toolkit at least four times annually. Murray has also focused the city on other racial equity steps. For example, the city is now focusing on extending community engagement on three critical equity areas: education, criminal justice, and equitable development.

A vital question is how Seattle—or other cities interested in trying this strategy—will know whether RSJI is effective. Seattle has not developed a quantitative metric, instead focusing on qualitative feedback. "If communities of color feel they have access to city government and participate in ways they didn't used to, that's a mark of success," says Bronstein. "If they feel they are affecting policies, that's a mark of success." It should be noted that an initiative like RSJI builds trust with communities of color, but also to some degree relies on trust to be effective. Policymakers in other cities will need to consider what kind of resources and high-level support they are prepared to devote to incorporating the views of communities of color in city policies and programs. The tendency to stick with existing avenues of communication may be understandable, but Seattle's thoughtful, well-organized approach will yield greater long-term benefits.



# Idea 5

## Reempresa

**Barcelona, Spain**

Matching businesses in danger of closing with aspiring entrepreneurs

### **Innovation in a Nutshell**

A rare economic development program aimed at succession planning, Reempresa pairs small companies looking to wind down with interested buyers through an online matching system and an intensive business education and assistance program.

### **Program Elements**

- Small- and medium-sized companies that are in danger of closing down for non-economic reasons are evaluated for viability and matched with entrepreneurs vetted for their business acumen.
- Matches buyers and sellers virtually through an online system.
- Provides intensive in-person training and preparation to entrepreneurs through a network of one-stop business centers.
- Sellers also act as mentors to assure a better transition.

### **Benefits**

- Saves existing jobs and allows companies to continue growing.
- Rigorous vetting and assessment of buyers and companies reduces risk of failure.
- Connects small businesses and aspiring entrepreneurs who would rarely find each other on the open market.

Many city officials will say that they have three priorities: jobs, jobs, and jobs. So it is deeply frustrating when existing jobs disappear, especially when they could be sustained as part of a viable business restructuring. This problem is particularly acute for small- and

medium-sized enterprises (SMEs), which are susceptible to poor transition planning; when a business owner retires, dies, or simply loses the will to keep the lights on, employees end up out of work. In fact, European countries lose approximately 150,000 SMEs annually, contributing to 600,000 lost jobs.

Business transition is a critical issue and most large metropolises have some type of program in place. Perhaps the most effective is a relatively new effort from the Catalonia region of Spain, home to Barcelona, which assists faltering businesses and matches them with aspiring entrepreneurs hungry to run their own enterprises without starting from scratch.

Unlike most business assistance programs, which are designed by public policymakers, Reempresa was initiated by business associations. Leaders from the Catalan Employers Association (Cecot) and the Private Foundation for Self-Employment Promotion (Autoocupacio) teamed up to survey their constituents and published several important findings. First, many SMEs, especially in Barcelona, are confused about how to transfer their enterprise to someone else. Running a small business can be a grueling daily battle with thin profit margins. These types of businesses, unlike larger corporations, rarely have funds to dedicate to succession planning or management. However, Cecot found that these small business owners did not want to close up shop; rather, they would take advantage of transition assistance if it were available. Similarly, Autoocupacio found hundreds of aspiring “re-entrepreneurs” who wanted to run a business, but lacked the financial know-how and certainly wouldn’t know where to look to find a business ripe for takeover.



This novel connection between small businesses in danger of folding and interested buyers is an idea worth exploring in other cities. Most succession assistance programs aim to help the existing business stay in operation by finding in-house employees or relatives, for example, who are willing and able to take over the business. With Reempresa, the idea is find a new owner to step in and take over in a situation where the alternative is to close. In effect, it replicates the natural merger-and-acquisition process that occurs more readily at a much larger scale.

In 2010, on the heels of a major economic downturn in Spain, the two employer groups submitted a formal petition to Catalonia's regional government to redirect European regional development funds to create Reempresa. The regional government was easily convinced, as unemployment stood at 25 percent with no sign of abating.

Rather than place Reempresa in the public sector, a standalone nongovernmental enterprise was established. The core work was divided into two areas. The first component is an online marketplace, where businesses looking to transition are put in touch with interested re-entrepreneurs. The second is a network of 60 one-stop business centers, providing professional advisement and business training to prospective entrepreneurs.

A fairly rigorous vetting process helps to ensure that both business owners and entrepreneurs are positioned to succeed. Owners must meet with Reempresa's financial advisers and fulfill requirements related to their companies' value, payroll, financial liabilities, and contractual specifications. A similar process has to be fulfilled by re-entrepreneurs. In this case, financial advisement includes an assessment of capacity and experience. It is only at the end of this evaluation process that information is uploaded to the online marketplace, and the Reempresa process begins in earnest.

At this stage, clients are able to browse the online platform for prospective matches and contact their financial advisers if a selling business fulfills their requirements. Users' preferences are automatically stored on Reempresa's customer relationship

management platform and an alert system is implemented as a business tracking mechanism for re-entrepreneurs. Once a match occurs, the average transition procedure lasts six months and principals on both sides of the transaction receive financial and project management training along the way.

The entire process has yielded significant economic benefits for the greater Catalonia region. In 2015, 325 small businesses were sold through Reempresa's marketplace. And already in 2016 another 200 businesses (as of June) were acquired. To date, more than 900 deals have been transacted for a total value of 45.5 million euros, saving more than 3,000 jobs.

The program's success stems, in part, from its public-private structure. The private associations build in trust from the business community. At the same time, government plays a crucial role in scaling up the program; SMEs would never connect with prospective buyers without the subsidized marketplace and assistance that government supports and sustains.

The other critical element is the intensive vetting process. Giving up a business or taking one over is riddled with unforeseen pitfalls; for those operating on a smaller scale, the vetting process that Reempresa provides greatly reduces risk. Adam Friedman, executive director of Pratt Center and a U.S. expert on small business programs, noted, "The vetting aspect of the programs seems like a great improvement over other transition efforts. Risks and unknowns are a huge issue for buyers."

Many policymakers in the European Union have also recognized the model's value. Marie Depelsse-maker, secretary-general of Transeo, the European association for SME transfer, sums up Reempresa by saying, "The approach is comprehensive: indeed, they make sure to cover all the important aspects of a business transfer process: awareness-raising, support and advice, matching with suitable counterparts, access to finance." Reempresa is an imminently replicable program and it shows that with the right public and private partners in place, businesses that are in danger of failing can be effectively transferred to a new generation of entrepreneurs.



# Idea 6

## Mandatory Inclusionary Housing

### New York City

Requiring a share of new housing to be permanently affordable

#### Innovation in a Nutshell

New rules set aside up to 30 percent of apartments in new residential buildings for low-income residents.

#### Program Elements

- When a neighborhood is rezoned or a special permit is issued to increase development potential, all ensuing residential development must include a predetermined share of affordable housing units in perpetuity.
- Before an area is rezoned, the City Council decides the share of new residential units that must be allotted for low-income tenants.
- Developers can choose to build affordable housing units offsite in order to fulfill the mandate, but are then required to increase the share of affordable housing units by five percent.

#### Benefits

- Rezoning and “upzoning” is highly lucrative for property owners. Mandatory Inclusionary Housing (MIH) requires developers to bear some costs of building and maintaining housing for low-income residents, shifting the burden away from the city and taxpayers.
- MIH is projected to produce 12,000 below-market units within the next decade.
- As urban populations surge across the country and housing prices soar, MIH offers the dual benefits of increasing the housing supply through rezoning, while increasing the number of affordable units.

Cities around the globe are struggling to cope with swelling populations and are facing severe affordability crises. In the United States, over 25 percent of households are severely rent burdened, devoting more than 50 percent of their income to housing expenses. This has risen steadily in recent years, from 7 million households in 2000 to 11.8 million in 2015.<sup>1</sup>

New York City is emblematic of this affordability crisis. In the last quarter century, the city’s population has grown by 1.2 million people, a 17 percent increase. With housing demand outpacing supply and with over 1.7 million New Yorkers currently living in poverty, households across the city are struggling to find affordable apartments. Nearly 55 percent of all renter households in New York City pay more than 30 percent of their income toward housing costs, an increase of 11 percent since 2000.

To counteract this crisis, Mayor Bill de Blasio has made a historic commitment to build 80,000 units of affordable housing in the next decade. A key component of this plan is the Mandatory Inclusionary Housing amendment, which was passed in March 2016 and is projected to produce 12,000 below-market units within the next decade.

MIH requires developers in upzoned areas—where a neighborhood is rezoned or a special permit is granted that increases the development potential of an area—to devote a fixed portion of all new apartment units for low-income residents in perpetuity. The plan

1. Allison Charette, Chris Herbert, et. al., Projecting Trends in Severely Cost-Burdened Renters: 2015–2025, Joint Center for Housing Studies, 2015, [https://s3.amazonaws.com/KSPPProd/ERC\\_Upload/0100886.pdf](https://s3.amazonaws.com/KSPPProd/ERC_Upload/0100886.pdf).



# Cities are working to capture the value created through zoning changes, ensuring that a portion of the wealth created by a zoning amendment is directed toward the public good.

offers flexibility to members of the City Council, who determine the affordability requirements in the newly upzoned area by choosing from among the following four options:

- 20 percent of total housing units priced for tenants earning 40 percent of Area Median Income (AMI)
- 25 percent at an average of 60 percent of AMI
- 30 percent at an average of 80 percent of AMI
- 5 percent of total housing at an average of 70 percent of AMI, 5 percent at 90 percent of AMI, and 20 percent at 115 percent of AMI (in emerging or mid-market areas only)

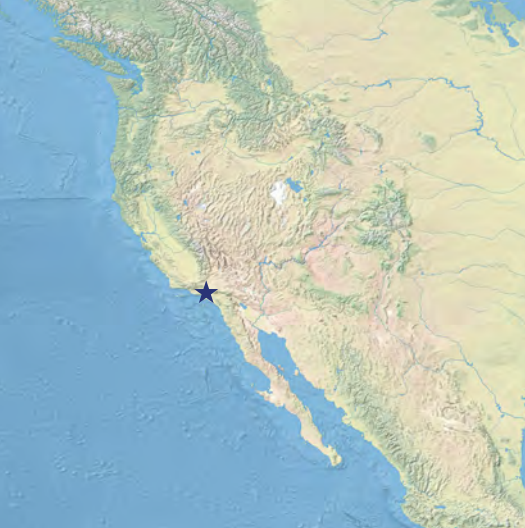
According to Moses Gates, director of community planning and design at the Regional Plan Association, “Most other places that have adopted inclusionary housing only have a 10 to 20 percent requirement for affordable housing. [New York’s] 20 to 30 percent, and at relatively low AMI levels, is a very significant affordable component, and the strongest requirements for a large city in the United States. And since developers usually want to upzone and build in higher-market areas, it also serves as an important tool to integrate neighborhoods economically.”

If developers choose to build their units offsite, rather than within a new building, they must designate an additional 5 percent of units for affordable housing. With this penalty, the city hopes to encourage more mixed-income housing, ensuring that New

Yorkers of all backgrounds enjoy equal access to quality schools, parks, public transit, and other amenities prevalent in those areas where developers are eager to build new apartments.

These 20 to 30 percent thresholds were calibrated to ensure that development would remain profitable and the law would not stymie new construction. This is part of the reason why MIH only applies to upzoned areas rather than all new construction, as is the case in other jurisdictions that have implemented inclusionary housing policies. The city also tied MIH to upzonings in hopes of avoiding legal challenges. Requiring affordable housing in areas that are not rezoned could potentially depreciate property values. This could open the city to charges that they are violating federal constitutional protections against the taking of private property. Several municipalities in California, in fact, were required to revoke their inclusionary housing plans because they were deemed unconstitutional. The New York City Department of City Planning carefully constructed the legislation in order to avoid similar challenges.

When a neighborhood is rezoned and additional development capacity is permitted, private property in the area becomes significantly more valuable. More than ever, cities are working to capture this value, ensuring that a portion of the wealth created by a zoning amendment is directed toward the public good. New York City’s MIH plan offers a model for channeling new growth toward the creation of affordable housing.



# Idea 7

## YouthSource Centers

Los Angeles, CA

Integrating workforce and educational services for youth

### Innovation in a Nutshell

By stationing educational staff in youth workforce centers, Los Angeles is able to reach high school dropouts and get them back on track to an educational goal.

### Program Elements

- Youth can walk in to center for help finding a job or obtaining occupational training.
- Public school staff are stationed on-site to help out-of-school youth develop education plans and get back on track for a high school diploma or equivalency.
- YouthSource staff also conduct outreach to out-of-school youth.

### Benefits

- Integrates education and workforce services to disadvantaged and at-risk youth.
- Proactively seeks high school dropouts and gives them a path to a diploma.

In Los Angeles, 17 percent of high school students drop out without a diploma—more than 53,000 young people every year. These kids end their formal education without a high school degree, which has proven to be indispensable for stable adult careers. Los Angeles has tackled this problem by scaling up an aggressive strategy to pull some of those high school dropouts back into the educational system and prepare them for future opportunities and a chance at a career.

Much like other major cities, Los Angeles' workforce and youth development systems struggled for years to provide effective and streamlined services. In 2013, the city's Economic and Workforce Development

Department (EWDD) partnered with the Los Angeles Unified School District (LAUSD) to address this chronic program by offering the city's full range of services through thirteen YouthSource Centers.

Young people who walk into a YouthSource Center in one of the city's disadvantaged neighborhoods are primarily seeking jobs and career opportunities, such as work-readiness preparation, career navigation, job skills training, and computer classes. Any young person who has left school can access YouthSource's valuable employment and training resources to find job openings or pursue certifications. But the city has an agenda too: getting youth back on track for a high school diploma. "We designed YouthSource so that education and workforce would work in tandem," says EWDD Assistant General Manager Robert Sainz, a key YouthSource architect. "A job might put immediate dollars in their pocket. But [without a diploma] they'll be in a nothing job when they're 28 and probably when they're 38."

YouthSource staff members encourage their clients to start by meeting with a school counselor who can access that young person's school record and work collaboratively to develop a new educational plan. "The counselors don't try to put kids right back in the school situation where they failed," says Sainz. "We get them into a community center to help them find an educational path and a job." This individually tailored educational plan is made possible through the LAUSD partnership, since personnel outside the school system cannot legally access school records. "There is no longer a separation between our school district and the workforce system because of

**“The counselors don’t try to put kids right back in the school situation where they failed. We get them into a community center to help them find an educational path and a job.”**

YouthSource,” observes Alma Salazar, vice president of education and workforce at the Los Angeles Chamber of Commerce.

The YouthSource Centers serve many walk-in clients, but their most important strategy is reaching out to youth on LAUSD’s lists of school dropouts. Through proactive outreach and partnerships with the Los Angeles Area Chamber of Commerce, nonprofit organizations, and private employers, YouthSource staff can engage youth at greater scale and with a wider scope of services than similar agencies in most other cities. During the 2014–2015 school year, 15,873 young adults used a YouthSource Center, 6,414 met with an LAUSD counselor, and 527 high school dropouts were brought back into the school system. In addition, 2,377 young adults were enrolled into the city’s youth training program, which provides twelve months of intensive educational and job training assistance. “What’s special about YouthSource is that it’s comprehensive,”

says Kisha Bird, director of youth policy at the Center for Law and Social Policy.

Virtually all American cities, and many others around the world, are struggling to connect with young people who have dropped out of high school and bring them back on an educational and career track. The YouthSource Center model has much to offer, but it is not an easy model to properly implement. Establishing the network of brick-and-mortar walk-in centers required a substantial commitment of federal youth workforce dollars, in addition to city tax levy funding, grant support, and in-kind contributions from private employers. Other cities considering YouthSource may well find it a heavy lift. However, the success of Los Angeles’s program, which leverages a robust network of centers to deliver consistent, valued, and developmentally appropriate services to the youth who urgently need them, should provide insight and inspiration for other cities.





## Idea 8

# Map Kibera

Nairobi, Kenya

Mapping informal communities to empower citizens with data

### Innovation in a Nutshell

New mapping technology and strategies are vastly increasing the understanding of informal settlement areas, building community leadership and leading to improved policy and service delivery interventions.

### Program Elements

- Residents in slums and undocumented areas gather precise geospatial data that is uploaded to an open mapping program.
- The map is updated in real time by users who report service gaps and incidents, such as crimes or accidents.
- Community empowerment outlets complement the mapping function, including a YouTube news channel that reports on priority issues arising from the plotted data.

### Benefits

- When undocumented areas are mapped it is far easier for government, NGOs, and charities to target interventions and assistance.
- Residents are able to keep one another informed of significant events, such as crimes, extreme weather conditions, and the location of needed services.
- Amplifies the voice of community residents with data and evidence.

According to a 2012 UN-Habitat study, one-third of city dwellers live in the developing world, with roughly 863 million people residing in slums. These informal communities are often completely inaccessible to outsiders, including government agencies. In part due to the lack of basic demographic statistics and geographic

knowledge about the slums, essential city services—such as water, sewer, security, and education—are woefully underprovided.

In Nairobi, Kenya, a breakthrough solution is filling the knowledge gap while building community leadership. Map Kibera, launched in 2009, enlists slum residents—especially young people—to map their community by using GPS devices to identify and locate formal and informal social service delivery points, as well as community risks and vulnerabilities. Map Kibera is a pioneer in a growing movement of community mapping initiatives throughout Africa. A closer look at the program reveals the critical elements needed for success.

Participants collect data on infrastructure (roads, paths, railway tracks), health (locations of medical facilities), education (locations of schools), water (locations of wells or spigots), and sanitation (locations of pit latrines, sewers). As the data constantly changes, the project makes use of the OpenStreetMap platform, which crowdsources updates and corrections to improve accuracy. Kibera went from a blank space to a fully mapped part of the larger Nairobi metropolis. The influx of data elevated Kibera's needs and alerted local government, NGOs, and other charities, who used that information to better target donations, infrastructure development, and other service improvements.

The project began with two enterprising mappers, Erica Hagen and Mikel Maron, who were part of a growing community of young geographers who recognized the power of maps to effect change. In 2008, Hagen and Maron learned about Kibera—the largest informal settlement in Kenya—which had virtually no geospatial data. In fact, there wasn't even clear knowledge of

the slum's population, with estimates varying between 200,000 and a million.

One local Kenyan mapper noted, "You have no idea the difference in sense of place in the Western world and in Africa. In Nairobi, you wouldn't give directions by saying 'turn right at 53rd and 5th Ave,' you say, 'go down the road and when you see the red bump turn around until you drive past two small hills and then take a left.'" Hagen and Maron saw a challenge and received a small grant from the Jumpstart foundation to move to Kenya and 'make the invisible, visible.'

More than simply making unmapped areas visible, it is Map Kibera's ethos of open source development and community empowerment that makes the project so effective. Hagen and Maron partnered with local groups including Carolina for Kibera (CfK), an international NGO with deep roots in the community, to reach out to local residents. The team recruited a dozen local volunteers between the ages of 18 and 25, with a focus on residents who had demonstrated a commitment to their communities. They were trained on how to use simple GPS devices, asked to list Kibera's important landmarks, and then sent out into the community to map those landmarks and other relevant sites. The process took three weeks: the volunteers gathered the data, uploaded it, edited it, and created a map. Few of the volunteers were computer literate, so the bulk of the work involved uploading and editing the data. Maps were posted online, distributed as printed flyers, and eventually painted on walls in central locations.

The basic map turned out to be just the beginning, as Map Kibera quickly evolved into an organization with a number of associated community development components—all linked to geospatial data. The three interconnected projects consisted of Thematic Mapping (data about specific service areas such as schools or roads); Voice of Kibera (collection and mapping of local news and incidents such as flash floods or violent crimes); and Kibera News Network (citizen journalism via YouTube reporting on the themes and incidents reported).

The combination of mapping and community voices allowed residents and community organizers to take data and use it to advocate for better services. One mapper in Nairobi noted, "Maps were no longer just

red dots on a computer screen, they now had a human dimension." Maps were used to point out service gaps (e.g., the absence of a public hospital or of streetlights in an area with high incidents of rape). And through outlets such as Kibera News Network, residents could tell stories that the mainstream media was ignoring.

The benefits of Map Kibera were tangible throughout the community, as service interventions were targeted where they were needed most. In one notable example, officials were able to see the exact location of more than 350 informal schools and respond by improving existing government schools and making a case for additional student resources. In the general elections of 2013, citizen mapping pinpointed major issues—such as crime hot spots—that demanded action, leading to the election of a member of parliament who committed to addressing those specific issues. During the elections, Map Kibera positioned citizen reporters at polling stations throughout the slum to monitor for any irregularities and distributed maps to security officials to help target new police outposts and improve security.

Although Map Kibera has led to service improvements and amplified the voices of residents, it has also faced growing pains. Creating a democratic and self-funded venture in an urban slum presents many challenges, including fundraising for services that many believe should be free; hiring and retaining a tech-savvy workforce; and building trust among community members and external government agencies. These issues have demanded patience and continual course adjustments at every turn.

Taken together, Map Kibera is a bold and successful approach to community mapping that is highly transferrable. What is needed is a clear understanding of the political terrain, the right private support, and an organizational and governance structure that builds in local residents. With those elements in mind and the availability of even more sophisticated mapping programs, a similar project could go a long way toward making the undocumented visible and providing historically marginalized residents with a data-backed voice for improvement.



# Idea 9

## Tacoma Education Project

Tacoma, WA

Leveraging public housing resources to support education

### Innovation in a Nutshell

The Tacoma Housing Authority has leveraged its residential access to low-income families to boost student success at local schools and colleges.

### Program Elements

- Provides focused set of supports to elementary school near public housing development, including rental assistance to homeless families and funding for in-school caseworkers who provide supportive services to students and families.
- Includes sign-up for college scholarship program into standard housing application.
- Houses homeless students and dependents attending local community college.

### Benefits

- Leverages assets of public housing authority to support educational institutions.
- Broadens mission of public housing authority beyond passive landlord role to a more effective multi-generational approach.

Education has become synonymous with economic opportunity for low-income children and youth. Yet schools can only influence their students for a third of each day. After class, students scatter to their homes, far from the guidance of teachers and social workers. For students whose housing situation is precarious, succeeding in school can become an even greater challenge. In Tacoma, WA, the local housing authority is at the forefront of an urban movement to integrate home with school, addressing several critical issues in the

process. They are embracing a two-generation strategy that supports and empowers parents and their children simultaneously.

Public housing authorities typically perform a narrow role for their residents: collecting rent and performing maintenance. Yet the Tacoma Housing Authority (THA), which houses almost one in four of its city's low-income students, is determined to leverage its influence among residents and prospective residents to support Tacoma's schools and colleges in ways that only a large-scale residential provider can. THA launched the Education Project in partnership with Tacoma Public Schools, Tacoma Community College, and other service providers, with funding from the Bill and Melinda Gates Foundation. "This project is an effort to help students we serve to succeed in school and to also help schools that serve low-income students succeed," says Education Project Director Andrea Cobb.

The Education Project's foundational partner is the Tacoma public school system, and their laboratory is an elementary school in downtown Tacoma. The McCa-rver Elementary School Housing Assistance Program provides a set of powerful supports for a school with more homeless students than any other elementary school in Washington State. THA provides rental assistance to 50 homeless families with children enrolled in kindergarten through second grade, and funds two caseworkers with offices in the school to provide supportive services to students and their families. McCa-rver families who are homeless or facing homelessness go to the front of the line for housing assistance and supportive services. The housing authority also helps



## **In the first year, 21 out of 22 participating students remained in school, compared to only 35 out of 146 eligible applicants (24 percent) that the program could not serve.**

with modest measures, such as adding informal lending libraries to all of their buildings.

The McCarver program is small, but its outcomes are promising. Reading scores have risen at almost triple the rate of similar children, and the rate at which these students change schools has dropped by almost one-third. THA is preparing to expand the program to other schools in Tacoma with large populations of homeless students.

THA is also building partnerships to strengthen college access and success among its residents and homeless students. In 2013, the Education Project integrated sign-up for a statewide college scholarship program into the standard housing application completed by each family. Before the Education Project, nearly half of Tacoma's students eligible for this program missed their chance. THA, however, reached a 100 percent sign-up rate, and later incorporated its initiative into a citywide enrollment program. The following year, THA began a collaboration with Tacoma Community College to house 22 homeless students

and their dependents during enrollment. The assistance lasts for three years, or until graduation. In the first year, 21 out of 22 participating students remained in school, compared to only 35 out of 146 eligible applicants (24 percent) that the program could not serve.

The potential for urban public housing authorities to expand their mission from landlord to steward of a two-generation strategy is an exciting opportunity. Almost 1.2 million households live in public housing across the United States, and many have school-age children. Yet Tacoma also shows how difficult this enterprise may be. "The programs have touched smaller numbers of children than we would like," reports Cobb. There is no dedicated funding stream, so almost all of THA's innovative work has been funded by foundations. Efforts to establish funding for housing authority partnerships with schools have repeatedly died in the Washington State legislature. Yet the Education Project continues to serve as a powerful proof of concept for other cities seeking to build supportive networks around their most vulnerable children.



# Idea 10

## Certificates for Additional Construction Potential

São Paulo, Brazil

Capturing value from new development to fund public projects

### Innovation in a Nutshell

In this new form of value capture, municipal governments issue bonds that real estate developers bid on for the right to construct new and taller buildings.

### Program Elements

- Large areas are rezoned for significant growth and new development.
- Developers gain the right to build by buying bonds that are traded on a public exchange.
- All revenue must be used within the designated area, funding investments in sewer upgrades, transit improvements, and other core infrastructure needs in low-income neighborhoods.

### Benefits

- Rather than government paying for needed infrastructure improvements by issuing debt, funding is received upfront from the private sector.
- The process is transparent, allowing developers to avoid red tape or potentially corrupt officials.
- Revenue is maximized via a competitive bidding system. If an area has high demand for development, then more funds will be raised to pay for upgrades.
- Funds are dedicated to social housing, including slum improvements and new developments.

As urban population increases and strains capacity, construction is booming to meet the demand, with real estate developers reaping substantial profits. City governments are struggling to benefit from this expansion and secure sufficient capital to pay for the infrastructure and services that new development

requires, while protecting the many residents that may be displaced by rapid growth.

São Paulo, Brazil, has developed an answer in the form of a simple yet sophisticated, bond-like mechanism that captures the increased value of real estate development in large metropolitan areas.

The value-capture tool is called Certificates for Additional Construction Potential (CEPAC) and it converts construction and upzoning rights into transferable, bond-like instruments that are publicly auctioned and traded, allowing the market to determine the increase in land value generated by a new development. The certificate grants the developer the right to build bigger and denser buildings, superseding the restrictions imposed by an existing master plan or zoning ordinances.

The benefits of the CEPAC tool are multifold. The system creates coherence in the area of large-scale development, which is often shrouded in mystery and guesswork. Estimating the current and future value of property when new zoning and government interventions are applied is often determined by the public sector with little solid evidence. And developers operate with little clear information or guidance when faced with the daunting process of gaining zoning approvals from dense, even corrupt, bureaucracies and recalcitrant community boards. The CEPAC process provides clear accountability and protection for all parties by making transactions open and transparent through the public auction of development rights.

Another crucial benefit is the procurement of development funds before construction begins. Government entities usually face significant upfront costs

for sewers, transit connections, and housing improvements to support and incentivize new development. CEPACs provide government with virtually all of the capital needed in advance. Selling building rights at auction creates an optimized public investment opportunity: as the perceived benefit of government-led investment increases, the value of the CEPAC rises, and the corresponding revenues are then sufficient to achieve the necessary improvements.

Local communities also benefit, as CEPAC funds are required to be used within the designated area for social purposes. Such funds are employed in São Paulo to improve slums by paying for new or vastly improved housing and essential services.

In the 1960s, São Paulo was the leading industrial center in Latin America and migrants poured in from across the globe in search of stable employment. The strains on the city were immense, as traffic became unbearable and teeming slums expanded throughout the periphery. Calls for reform reached a fever pitch in the mid-1980s, as the military dictatorship came to an end and a democratically elected local government scrambled to address citizen demands for improved services.

A group of university professors and city officials began experimenting with a number of new approaches, animated by the principle that government-supported developers should share the profits. Paulo Sandroni, one of the architects and operators of the program of value capture when he was a housing official for the city in the 1990s, explains that “the key was separating the right to simply own property and the right to build on it.”

São Paulo codified the approach in the 2001 *Estatuto da Cidade* or City Bill, leading to the implementation of CEPACs. The right to alter zoning restrictions or increase FAR was converted into bonds issued by City Hall and traded through public electronic auctions regulated by *Comissao de Valores Mobiliarios*, the Brazilian equivalent of the U.S. Securities and Exchange Commission.

Since going into effect, thousands of bonds have been sold (ranging from \$500 to \$2,000 U.S. dollars per bond), generating billions in revenue for local government. The results on the ground have been impressive. City officials

have used CEPAC funds to defray costs of improvements in slums such as Jardim Edith, located in one of the most expensive areas of São Paulo, as well as the construction of bridges and new rapid transit bus lines.

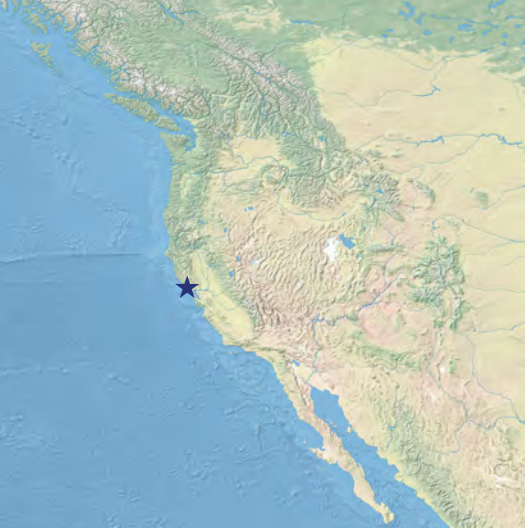
Although the CEPACs program was born from the fast-growth, high-need environment in São Paulo, it is a vehicle that can be adopted by other locales to address similar challenges.

Eric Rothman, president of HR&A Advisors, a leading U.S.-based economic development firm, says, “On its surface, CEPACs seems to be a mechanism that translates future development value into hard dollars that can be invested immediately for public good. Unlike other vehicles, like tax increment financing, that capture a fraction of future value for infrastructure investment, this actually monetizes the true incremental land value.”

But CEPACs are not right for every city. CEPAC requires a relatively sophisticated and stable local government to coordinate and execute the complex financial transactions, as well as a high-growth local climate where developers have confidence that more building and greater density will yield increased profits. Therefore, the Hong Kong or New York markets may be good candidates; Cleveland and Detroit, less so. In the United States, tax increment financing allows cities to leverage the estimated increase in property tax revenues resulting from new development. This is a more abstract approach than a CEPAC auction, but it can be more readily applied to virtually any market.

CEPACs do not automatically lead to improvements in surrounding slums or policies that address the inequality and gentrification issues that often accompany development. The Lincoln Institute of Land Policy in Cambridge, MA, notes that CEPACs are “themselves neutral so they can be used to create a more equitable city, or do the opposite.” São Paulo used generated revenue to ameliorate the impact of development and even improve housing conditions, which should serve as a model for other cities interested in the CEPAC approach. For the right urban market, CEPACs are a powerful tool to vastly improve the planning process and ensure that development dollars directly benefit the communities they affect.





# Idea 11

## Enforcing Wage Standards in Ethnic Communities

San Francisco, CA

Enlisting community organizations to stop wage theft

### Innovation in a Nutshell

Ensuring minimum-wage compliance in ethnic enclaves is difficult, but San Francisco has made progress by contracting with community-based organizations that low-wage immigrants trust.

### Program Elements

- City Office of Labor Standards Enforcement (OLSE) contracts with nonprofit organizations in ethnic communities to educate community members about wage-and-hour protections.
- When the organization identifies a possible case of wage theft, it refers to OLSE for investigation.

### Benefits

- Strengthens wage-and-hour enforcement in immigrant communities where wage theft is common.
- Builds civil society role for community-based organizations in protecting local residents from exploitation.

Raising the minimum wage has become a powerful issue for low-income communities, especially in high-cost urban areas. But enacting a livable minimum wage is one thing; enforcing it is quite another. The city of San Francisco has much experience in this arena. Even before enacting a \$15 per hour minimum wage in 2015—the nation's second such statute after Seattle—San Francisco struggled with rampant wage-and-hour violations. A 2008 Ford Foundation study estimated that up to 39,000 workers might be earning less than the minimum wage, about one-quarter of the low-wage labor market.

The city Office of Labor Standards Enforcement (OLSE) is one of the few city-level agencies responding

to complaints about wage violations, as well as overtime pay, paid sick leave, health coverage, and prevailing wage. Like other wage enforcement agencies, OLSE has found that wage theft is not evenly distributed. About half of wage theft complaints emanate from the food service industry, which is the fastest growing industry in the city. It is also the employer of necessity for many recent immigrants, many of whom fear employer retaliation or even deportation if their name appears on a complaint. OLSE lacks the trust of workers in San Francisco's immigrant enclaves to address these fears. "A lot of workers fear that they will lose their jobs by speaking up about violations," observes Ellen Love, senior analyst at OLSE.

In 2007, San Francisco adopted a unique approach to ferreting out labor exploitation: it funded organizations in local communities to identify exploited workers, educate residents of ethnic enclaves about their rights, and refer cases of exploitation to OLSE for investigation. In 2015, \$380,000 went to three organizations—the Chinese Progressive Association, the Filipino Community Center, and La Raza Centro Legal. "We made the argument that these are precarious workers who would be afraid of city employees," says Alex Tom, executive director of the Chinese Progressive Association. "You should leverage local organizations instead." The three groups have strong reputations in their communities, language and cultural bonds to low-wage workers, and passionate commitment to their work.

Staff members of the three groups advocate among workers in their communities, organize workshops, and host regular meetings. Every two weeks, for example, the Filipino Community Center welcomes workers

at group homes for the disabled to a meeting at their office, serving Filipino food to those who attend. Staff members explain the city's labor standards to attendees and probe for possible violations.

In 2011, a woman came forward in a workshop hosted by the Chinese Progressive Association to say that her husband was not being paid minimum wage for his work in a high-end restaurant. Staff contacted her husband, and then subsequently reached out to 100 other workers inadequately compensated for their work. In 2014 the restaurant owners settled for \$4.2 million—one of the largest wage-and-hour settlements in California history. “It’s been an extremely

valuable partnership in terms of bringing forth allegations of wage theft,” says Love. “They can build trust in communities and with employees that wouldn’t usually come forward.”

San Francisco has certain advantages that not all cities can match. It has a robust tax base to finance creative wage enforcement initiatives, for example, as well as a sophisticated network of ethnic organizations with deep credibility in their communities. The program should be adaptable to multiple configurations, at varying levels of funding, with expectations that may include fewer elements, such as education or outreach, as long as the city is prepared to act on wage-theft referrals.



## Idea 12

# Financial Empowerment Centers for Reentry

Lansing, MI

Helping formerly incarcerated people gain financial literacy

### Innovation in a Nutshell

Formerly incarcerated people urgently need financial counseling, and the city of Lansing has taken the lead to provide it through an innovative adaptation of the financial empowerment center model.

### Program Elements

- Former inmates living in transitional housing receive free financial counseling and one-on-one support to achieve financial goals, such as establishing checking accounts, prioritizing debt repayment, and cleaning up credit ratings.

- Clients meet with financial counselors at the same time and place as their monthly meetings with their parole officers.

### Benefits

- Assists formerly incarcerated people in coping with post-release debt and financial stress.
- Offers a potential model for reducing recidivism by boosting post-release financial stability.

## The outcomes for participants are impressive: they have reduced over \$432,000 in debt, opened fourteen bank accounts, and increased savings by \$3,500.

Making financial decisions is complicated, difficult, and stressful in the best of times. But those who most need to avoid mistakes—low-income and disadvantaged adults—suffer the greatest risks and have the fewest supports. They are more likely to have low educational attainment and less likely to have a checking account at a bank. As a result, they tend to rely on payday lenders, and may put off paying a fine or bill, which results in penalties and interest charges that compound the debt.

Several cities have responded by seeking to develop robust financial counseling supports, turning in particular to the financial empowerment center (FEC) model developed in New York City. FECs provide professional, one-on-one financial counseling that is free of charge, preferably in settings that integrate financial counseling with other social services. One city, Lansing, Michigan, has taken the model a step further to help clients who need financial counseling more than most: formerly incarcerated people released into transitional housing. Inmates often finish their prison sentences owing considerable debts—legal fees, fines, child support, and more—which they cannot begin to pay off until finding a new job, which is no easy task. “People let bills go delinquent, and their credit is a mess,” says Douglas Clark, parole supervisor for the Lansing regional office of the Michigan Department of Parole.

The Lansing Office of Financial Empowerment, established in March 2013, provides general services using the FEC model to low-income and disadvantaged Lansing residents. To serve former inmates, the Office of Financial Empowerment partners with the county

parole office to counsel parolees living in state-funded housing, usually because they are barred from residing in a public shelter. The meetings take place at the county parole office as part of a monthly housing review, thereby ensuring attendance. In the first two sessions, the counselor gauges the client’s financial situation, and then begins developing a roadmap for financial literacy and empowerment. After that, they work together to develop a plan to addresses timely issues, such as foreclosure, wage garnishment, or opening a bank account, so that financial behaviors and financial stability improve in tandem.

The program is still in the pilot stage. Only 40 of the 1,700 clients served by the Lansing FEC are re-entry citizens. But the outcomes for those participants are impressive: they have reduced over \$432,000 in debt, opened fourteen bank accounts, and increased savings by \$3,500.

The program launched with a \$1.5 million grant from the Cities for Financial Empowerment Fund and now receives general fund dollars from the city of Lansing. Other cities considering replication should consider funding issues from the beginning.

“The FEC helps offenders avoid predatory lending,” says Clark. “Through the FEC, we’ve partnered with a bank and some credit unions to safely bank them.” The longer-term goal of stabilizing personal finances, of course, is to make it easier for formerly incarcerated people to work legitimately, manage their money, and resist the pull of illicit activities. Lansing’s program suggests that these initial steps can lead to significant benefits for both clients and cities, given a sufficient level of support for these programs over the long term.





# Idea 13

## Smart Water Management

**Valencia, Spain**

Providing utilities and residents with data to cut water usage

### **Innovation in a Nutshell**

A major city is using smart metering technology to repair leaks, catch fraud, and influence residents to reduce their water consumption.

### **Program Elements**

- Smart water meters send daily or hourly information on water usage to the utility.
- The utility uses this granular data to identify water leaks and fraud, as well as providing information to water users about their consumption.
- Utility employees no longer need to visit homes to read the water meter and are therefore reassigned to more valuable tasks.

### **Benefits**

- Enables the utility to spot and repair leaks that previously went unidentified.
- Enables the utility to identify fraudulent water usage that previously went under the radar.
- Empowers homeowners to understand and minimize their own water usage.
- Reduces billing complaints and low value-added utility employee work tasks.

The converging forces of global climate change, population increase, rapid urbanization, and decaying infrastructure are squeezing the world's water resources. Between 2010 and 2050, the number of people requiring access to urban drinking water and wastewater management services is expected to rise by three billion, requiring 50 percent more freshwater availability. As cities seek new ways to change ingrained habits of

excessive water usage, they are exploring the potential that better data can change behaviors. One city in particular has developed a technology-led strategy that may point the way for its peers.

Valencia is Spain's third largest metropolitan area, with a population of more than two million people. Given Valencia's hot, semi-arid climate, management of scarce water resources is a high priority. Beginning in 2009, the regional water utility, Grupo Aguas de Valencia (AdV), began encouraging municipal authorities to install smart water meters, which can communicate water usage on a daily or even hourly basis to the utility. By the end of 2015, more than half of all meters in Valencia were smart meters. AdV has contracted with multiple smart-metering vendors to avoid getting locked in to one contract.

Although the technology is new, initial results are impressive. AdV employees no longer need to access homes in order to read water meters. As a result, billing complaints dropped by 60 percent and staff could be reassigned to more proactive tasks, such as leak repair, fraud surveillance, and installing or maintaining infrastructure. Customers receive detailed water consumption information, which creates a platform for innovative strategies to influence consumer behavior. Smart metering technology is highly effective in detecting leaks, and AdV reports detecting and repairing an average of 100 major leaks each month. Finally, smart metering has also supported fraud detection. Regular and detailed water consumption information reportedly prevents some users from illicit water usage or meter tampering.

According to AdV, smart metering saved more than 5.2 million cubic meters of water in 2015—about 5

percent of the city's total supply. As the Valencia region tips further toward smart metering, and as behavioral strategies for reducing water usage grow in sophistication, savings are likely to rise.

Smart water meters are emerging as a crucial technology for water management. They avoid the blunt instrument of cost increases (which may have perverse effects on water usage), empower homeowners to reduce their own use with clear data, and develop the water utility's capacity to spot leaks in real time.

Furthermore, they establish a precedent for smart metering other utilities, such as electricity and gas. However, smart water metering requires municipalities to choose between competing proprietary technologies, and it creates a vast river of data to be compiled, analyzed, and interpreted for the end users. Smart metering offers huge benefits to cities around the world, if they can meet the challenge of implementing efficiently, managing the data flows, and making it useful enough to justify transitional costs.



## Idea 14 Talent ABQ

Albuquerque, NM

Enabling jobseekers to document their relevant skills

### Innovation in a Nutshell

In Albuquerque, public and private employers are piloting a skills-based hiring model. Applicants are assessed and hired on the basis of their skills rather than solely on educational attainment, and they have the opportunity to build skills relevant to the workplace.

### Program Elements

- City has network of Skill Up Centers located in public libraries and community centers.
- Residents can take a test to demonstrate workplace skills needed by employers.
- Residents can train to develop skills, either at the Skill Up Center or at a home computer.
- Employers agree to include needed skill levels in job

postings so that validated skills can be used in job application.

### Benefits

- Enables city residents to obtain jobs based on their documented skills rather than being screened out because they lack an educational credential.
- Provides employers with a rigorous method for identifying suitable employees.

It has become a cliché of the labor market: employers screen out candidates without the right educational credentials, overlooking talented people in the process. Most entry-level jobs require a high school diploma, and positions that high school graduates could once obtain

now require an associate or bachelor's degree. Over 95 percent of jobs added since the recession have gone to Americans with more than a high school degree, leading many cities to focus on boosting postsecondary access and completion rates among their residents.<sup>1</sup> Yet it is not clear that employers are always responding to their economic needs in the best way. One company reviewing labor market information, for example, found "a broad range of occupations where employers are seeking a bachelor's degree for jobs that formerly required less education, even when the actual skills required haven't changed or when this makes the position harder to fill."<sup>2</sup>

The city of Albuquerque is trying something different. Policymakers there are seeking to shift their labor market to skills-based hiring, in which employers hire applicants based on skills that have been independently validated. In 2012, a workforce consultant named Jamai Blivin conducted a study in New Mexico that arrived at some surprising findings. Notably, she found hiring based on validated skills to be five times more predictive of job success than hiring based on educational credentials. Although employers may believe they need to pay extra to recruit workers with college degrees, many would be more satisfied with the performance of workers who have the necessary skills, regardless of degree. But employers also view the risk as too great, unless workers could actually be proven to have those skills.

The city of Albuquerque hired Blivin to build a comprehensive system to test jobseekers for work-relevant skills and build those skills. With funding from the city and the Kellogg Foundation, Blivin and her team designed the Talent ABQ program and launched it in 2014.

Through Talent ABQ, Albuquerque residents take a nationally validated WorkKeys exam at one of 33 Skill Up Centers located around the city in public libraries, community centers, and community college student support centers. The exam assesses job readiness in core skills, such as literacy, math, listening and observation; professional skills, such as teamwork

and critical thinking; and job-specific skills. Jobseekers who pass receive certificates that they can add to resumes and job applications.

Participating employers integrate skill-based hiring into their hiring practices by adding skills scores to their job postings and submitting postings to Talent ABQ, which sends the company applicants who meet the appropriate skill profile. As of June 2016, there were more than 6,000 job postings on the Talent ABQ website, each one bearing a set of WorkKeys scores. Workers can build their workplace skills by using a related program called KeyTrain at a Skill Up Center, or by logging in remotely.

With funding received from a competitive federal grant, Albuquerque is using Talent ABQ to map technology courses and curricula onto specific industry jobs. The goal is to fill at least five percent of IT jobs in Albuquerque based on skills and competencies, thereby opening up job opportunities for many disadvantaged city residents.

To date, about 12,000 Albuquerque residents have been assessed for job readiness, and a quarter of those have qualified for WorkKeys certificates. Over 150 employers have agreed to participate in skills-based hiring, and the city has tracked more than 800 candidates into employment.

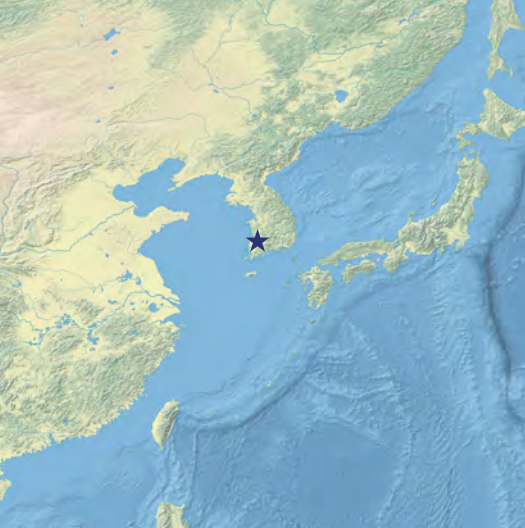
An important limitation of the Talent ABQ initiative is that workforce outcomes have not yet been documented. Other cities interested in launching their own skills-based hiring initiatives may want to know how much WorkKeys certification helped jobseekers to get the jobs they wanted; what jobs they obtained; whether the skills-based hires stayed at their jobs, satisfied their employers, and received promotions; and whether some occupational sectors proved more hospitable to skills-based hiring than others. That information should emerge within the next few months, thanks to an agreement recently signed with the New Mexico Department of Workforce Solutions to provide Blivin's firm with aggregated data for tracking purposes.

In many cities, skills-based hiring could open a number of entry-level positions to young people who lack the formal educational credentials to get hired, but who could succeed in the job.

1. Anthony Carnevale, Tamara Jayasundera, and Artem Gulish, *America's Divided Recovery: College Haves and Have-Nots* 2016, Georgetown Center for Education and the Workforce, July 2016.

2. *Moving the Goalposts: How Demand for a Bachelor's Degree is Reshaping the Workforce*, Burning Glass Technologies, September 2014.





# Idea 15

## Carbon Green Card

Gwangju, South Korea  
Carbon-banking program goes citywide

### Innovation in a Nutshell

Citizens' energy use is tracked through state-of-the-art technology; when energy use declines, "carbon green cards" can be redeemed for rewards.

### Program Elements

- Residents are issued carbon green cards from a local bank.
- Energy use is tracked through sophisticated sensor technology. Data is fed back to utilities and local government, who update residents in turn.
- The program is predicated on behavioral economics: using financial incentives to nudge residents to make different personal choices.

### Benefits

- The carbon bank card creates a common vehicle to unite government, utilities, and private sector actors around the same goal.
- Citizens are able to clearly track progress and feel part of a larger citywide effort to combat climate change.

The city of Gwangju, South Korea, is making a push to drastically lower carbon emissions by motivating citizens to conserve energy, natural gas, and drinking water in their daily lives. The city has enrolled more than 280,000 residents (about 60 percent of participating households) in a newly created carbon-banking system that encourages and rewards reductions in energy consumption, far more than other such efforts. The approach of working closely with utilities, banks, and government at the local and national level provides a possible blueprint for other cities

and countries looking to make a meaningful dent in carbon emissions.

The aggressive effort took root in South Korea because of a national focus on climate change. In the 1990s, then President Lee Myung-bak initiated a number of national environmental policies to incentivize cities to develop local carbon-reduction strategies. The idea was that national-level policy is only one piece of the puzzle, and local leaders had to take the lead on climate change.

The mayor of Gwangju jumped at the opportunity to position his city as a world leader on carbon reduction. He personally reached out to national government leaders asking for assistance in putting together a large-scale effort. In 2008, he was referred to Dr. Kwi-gon Kim, then secretary-general of Urban Environmental Accords and one of the architects of the national policy. Kim, who had spent years studying new mechanisms to reduce the effects of climate change, thought that this medium-sized, eco-conscious city was an ideal place to implement a scaled-up program. Most attractive was the urban design of the city, which is dominated by multifamily high-rise apartment buildings. Rather than having to monitor scores of detached suburban homes, the program began by targeting a manageable number of towers in the urban core.

The effort centers on a "carbon green card" issued by the Gwangju Bank to participating households. Individuals and family members earn carbon points by achieving a reduction of five percent or more in the average consumption of electricity, natural gas, and water over the past six months, when compared to the

average of the previous two years. Local utility providers cooperate by evaluating energy usage and setting baselines. A household also receives points when they buy registered environmentally friendly products or take public transportation. Accumulated points can be used to purchase green household goods or for discounts at national parks and other attractions in the region.

The effort has caught on quickly. Since launching in 2008, 54 percent of participating households reduced consumption of electricity, gas, and water. Greenhouse gas reduction has improved every year, as 60 percent of participating households achieved at least some decrease. Cumulative emission reductions totaled 84.2 kilotons of CO<sub>2</sub>. One of the city's five districts has obtained over 80 percent participation, with a goal of 100 percent enrollment of the targeted urban population by 2020.

Residents are encouraged to participate through what behavioral economists call “nudges”: small but critically important incentives, such as financial rewards, that provide positive reinforcement for preferred choices and behaviors. The green card points and discounts may not seem substantial enough to drive strong participation, but there are a few factors beyond the nudge alone that have made it successful in Gwangju. First, Korean culture places a premium on community participation. As Kwi-gon Kim noted in an interview for this report, “There is a real spirit of living together in Gwangju and other Korean cities. It is not just about the financial rewards; once residents get that it is the right thing to do, they really get with the program and it catches on.”

Another critical feature of the program is its state-of-the-art data collection. Kim and his colleagues have tapped a number of private companies to purchase or customize sensor technology, providing precise

and real-time measures of household energy use. For example, Shinhan Precision, a South Korean company, developed a gas meter that measures milliliters of gas used per hour. The detailed data feeds have become the backbone of the program, as local officials are able to easily see energy reductions and share each successful reduction with residents and the bank managing the green card program.

The effort is still relatively new, but it has been gaining recognition around the world for its promising start. Ashok Gupta, a leading expert on carbon reduction strategies at the Natural Resources Defense Council, remarked, “It is a good example of how behavioral change can lead to structural change.”

As successful as the model has been, Kim and others caution that cities in other countries looking to replicate the effort need to have a number of the same elements in place including strong national and local leadership, reliable data tracking, and a partnership between public officials and the private sector. Additionally, Gwangju is a solidly middle-income city, and low-income residents in other locales may have less wiggle room to shift their energy patterns and consumption. Finally, Gupta notes that while the model is certainly effective, it shouldn't be implemented in a vacuum; other smart planning decisions and emissions-reduction strategies need to be pursued that residents can't control, such as improved mass transit.

Gwangju's initiative demonstrates that cities can reduce emissions by targeting the energy use habits of individual citizens. Through a careful plan, reliable data tracking, and support from business, utilities, and all levels of government, the city is well on its way to achieving its mission of reduced carbon emissions with the participation of every citizen.

# Expert Participants

In preparation for this report, the authors convened a group of business, philanthropic, and nonprofit leaders to critique and refine our policy proposals. We would like to thank all those who participated for their invaluable contributions. Their feedback was extraordinarily helpful in improving *Innovation and the City* and their input is greatly appreciated. This report does not necessarily represent the views of these individuals or their organizations and should not be interpreted as an endorsement.

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