GOVERNING

THE STATES AND LOCALITIES

August 2017

The Rules & Regs of Pot

How a Colorado insider is helping other states set up legal markets for weed

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A shelf in Texas Supreme Court Justice Don Willett's office

PHOTO AND COVER PHOTO BY DAVID KIDD

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The Costs We Will Bear

One of the slipperiest concepts in the field of accounting is the idea of "costs." It's a term that is widely used and poorly understood. Put simply, a cost is just a sacrifice of resources. But distinguishing costs from expenses, or variable costs from direct costs, or sellers' costs from buyers' costs, can cause a lot of headaches for young MBA students.

In the real world of government, the idea of cost can be summarized in a single plain truth: Pay now or pay later.

That's because, in the public sector, all the resources are already ours. Government is us. It has no resources other than those we provide. The classic example is road maintenance. We can either pay through taxes or tolls to keep roads in good shape, or we can pay through higher car repair bills and wasted gasoline caused by bad roads. Either way, the costs will be incurred.

Mark Funkhouser, Publisher

That's the concept lurking in the background of two of this issue's stories, Liz Farmer's on retirement security and Zach Patton's on universal basic income. There undoubtedly will be costs if government cannot mitigate the growing retirement crisis. As more and more boomers hit retirement age with diminished pensions and inadequate 401(k)s, American retirees are getting poorer. And those larger numbers of impoverished elderly people will likely result in increased government spending for health care, senior housing and other related costs.

Of course, costs are also central to any discussion of whether government should provide a universal basic income. The idea—handing out monthly paychecks to everyone, regardless of their employment—seems far-fetched. But it's worth considering as automation and other employment trends are redefining the future of work. If there aren't enough jobs to go around, more people are going to slip into poverty. When that happens, it's government that will be left holding the bag. Again, we can pay now or pay later.

The funny thing about costs in government is that, when we carefully think them through, the hard-headed economic choice and the morally responsible choice often turn out to be one and the same. Here's one small example: Patton cites in his feature a 1970s Canadian pilot project on universal basic income in which low-income families were given a small living wage. Researchers found that "primary breadwinners scaled back their work a little or not at all," but that women "scaled back more, especially new mothers." With a little extra financial security, these mothers stayed at home longer with their babies. Child care is real work, and when children are not well cared for, we all eventually bear the costs.

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Checks and Imbalances, Indeed

In our June cover story, "Playing by New Rules," Alan Greenblatt wrote about how longstanding norms of political fair play are being tossed aside and lawmakers are moving openly to undermine critics. It's not just "Trump showing disdain for courts and legal and congressional investigators," he wrote. "Instead, institutions that themselves embody the most deeply entrenched democratic traditions are seeing the erosion of those traditions." The feature received some expected criticism along party lines. But one reader wrote in to continue the discussion, offering up her concerns about such tactics in her state.

One of the ways this power grab is playing out in Wisconsin is through attempts to castrate or altogether eliminate constitutional officers/offices (e.g., secretary of state, state treasurer, etc.). This is happening at the state and county level. A prime example is the proposed constitutional amendment to eliminate Wisconsin's state treasurer, which will go to a referendum election in April 2018.

The "formula" for this process in Wisconsin is invariably: Legislatures/governors or county boards/administrators transfer every duty they possibly can out of these constitutional offices and/or cut their staffs and budgets to the point where they are obsolete and ineffectual. Then, if possible, they pass legislation to completely eliminate the offices.

In the Republican-controlled legislature here, this is done under the guise of making government smaller and less expensive. However, I have yet to see any hard evidence of a reduction in employees or expenses overall; just a transfer of staff and duties to already massive departments under the control of the administration.

So much for checks and balances and the ability of voters to elect those who are charged with serving them.

—Melanie R. Stake, county clerk, Waushara County, Wis.

Recycling Faces Hiccups

In one of our June features, Elizabeth Daigneau asked the question, "Is recycling broken?" Challenges, which include contaminated—that is, unrecyclable—items making their way into carts, manufacturers creating more complex packaging and a decrease in the value of recycled materials, have put pressure on the system. Daigneau did not address the benefits of recycling, which one reader felt was an unfortunate omission.

In Memphis, the answer to that question is a resounding "no." A year ago, Memphis was spending a hefty sum—about $5.5 million—to send 222,000 tons of municipal waste to local landfills. Like many other cities and businesses across the country, we recognized the unsustainable economic and environmental costs of this solid waste problem and made a commitment to double the amount of materials Memphis recycles every year.

A year later, we are well on our way to meeting this goal. Since June 2016, we have provided more than 100,000 new recycling carts to households across the city. This has translated to 17,000 tons of materials diverted from landfills and a reduction in greenhouse gas emissions of more than 48,000 metric tons. Our recycling effort is also critical to helping Memphis meet the state mandated goal of a 25 percent diversion of waste from landfills—a target the city previously struggled to meet.

What's more, this commitment to recycling makes good economic sense for our city. The money we are saving from landfill fees allows us to reinvest in the community. It's also had a direct impact on jobs in the area. As a result of this investment, a national recycling company agreed to maintain their local recycling facility in Memphis. This move saved a number of local jobs in the process. Looking ahead, we anticipate more than a dozen new jobs to be created from our recycling effort.

Old models won't get us where we need to go. Building a successful recycling program takes commitment from municipal leaders and the community.

—Robert Knecht, public works director, Memphis

Corrections: In his July Tech Talk column, "G2G," Tod Newcombe incorrectly stated that Oakland County, Mich., has an annual IT budget of more than $16 million. The correct annual budget is $55 million.

In the July feature "Generation O," the bar graph on rates of death related to prescription opioids and heroin in the U.S. was credited to the "American Public Human Services Association." There were two mistakes made: First, the group's correct name is the American Public Human Services Administration. Second, the actual source for the data is the Centers for Disease Control and Prevention.

In their July Smart Management column, "Does Business Know Best?" Katherine Barrett and Richard Greene mistakenly identified Connecticut CIO Mark Raymond as Mike Raymond.

By Alan Greenblatt

Minnesota Gov. Mark Dayton

Capitol Hardball

THE MINNESOTA LEGISLATURE was having a pretty productive session. That is, until the governor cut off its funding.

Both the House and Senate are controlled by Republicans in Minnesota; Gov. Mark Dayton is a Democrat. Nevertheless, they were able to reach agreement on some major legislation this year, especially on transportation and health care, as well as settling long-simmering issues regarding liquor sales and federal ID card requirements. By the time the legislature wrapped up its work on the budget in June, most people around the Capitol were feeling pretty good about the 2017 session.

But then Dayton rejected the part of the budget needed to keep the legislature in operation. Republicans had passed the largest tax cut the state had seen in two decades. Dayton didn't like it, but he said he would let the bill become law without his signature. He changed his mind, however, when he learned of a provision in the bill that contained what he called a "poison pill" amendment that meant the Department of Revenue would have lost all its funding if the tax cut didn't go through. He still signed it—but with a catch.

The catch was that Dayton did some defunding of his own. He vetoed the legislature's budget and invited lawmakers back for a special session to work out a new deal on taxes. "It seemed to come to a head right after there was an agreement on the budget," says Andrew Karch, a University of Minnesota political scientist. "It allowed Republicans to claim he went back on his word."

Dayton's action may have seemed extreme, but similar things have been happening in other states this year. After the Montana Legislature approved a 15 percent increase in its own internal spending, Gov. Steve Bullock vetoed the entire legislative budget, telling the lawmakers to come back with a more reasonable number. In New Mexico, Gov. Susana Martinez wasn't satisfied with vetoing the legislative branch budget. She vetoed the higher education budget as well, essentially closing down the agency that handles it. As with Dayton, Bullock and Martinez belong to a different party than the one that controls the legislature. Bullock is a Democrat; Martinez is a Republican.

Martinez was miffed that state Senate Democrats had refused to confirm a couple of her nominees to the state university's board of regents. Legislators sued, claiming earlier court decisions had established that governors can't eliminate an agency using the line-item veto. The New Mexico Supreme Court quickly rejected that argument and dismissed the suit in May, noting that Martinez had already called a special session to resolve the spending issue before the start of the new fiscal year. "The proper way to resolve budget disputes is for the executive and legislature to work together on a compromise that can both pass the legislature and be signed by the governor," says Mike Lonergan, a spokesman for Martinez.

In Minnesota, Republican legislators had better luck in the courts, winning a ruling that Dayton had overstepped his bounds with his veto of the legislative budget. Even after they sued, however, the Republican leaders of the two legislative chambers went out of their way to praise Dayton in a joint newspaper column, citing all the bills they'd worked together on earlier in the year. They recognized that, however unhappy they might be with the governor, eventually they'd have to go back to working things out with him. "No one thinks this will be permanent, that we're really not going to have a legislature," says political scientist Thad Kousser. "This is just one way the governor can get huge leverage. It's part of the theater of budget negotiations."

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Work for Us—Or Else

THE IDEA that a company has a vested interest in keeping its employees around is a very old one. In medieval times, master craftsmen demanded that apprentices stay on the job for a certain period of time, so the boss didn't waste his investment in training. Nowadays, it's commonly accepted that businesses built on intellectual property, such as technology or law, stand to lose much of their value if a rival firm poaches key employees.

But some companies have taken the idea of demanding loyalty a bit too far. They are forcing workers at all levels of the business to sign noncompete agreements, barring them from leaving to join another company in the same field for a specified period of years. Those contracts may be defensible for the head of research at a pharmaceutical company, or even a top-flight software engineer, but sandwich makers, yoga instructors and summer camp counselors have also been prevented from jumping to competitors. "The noncompetes in my opinion are a little broad and overly protective," says Evan Starr, a management professor at the University of Maryland. "If only CEOs were signing these, I don't think anybody would care about it."

Starr and a pair of colleagues from the University of Michigan recently performed the first large-scale survey regarding noncompetes. They found that the practice is pervasive, with nearly 40 percent of workers having signed one over the course of their careers. About 1 in 5 workers is currently subject to such agreements, including employees in low-skilled jobs with seemingly no intellectual property or advanced training involved. Last year, facing legal complaints from state attorneys general, the sandwich chain Jimmy John's agreed to end its practice of having delivery drivers and store staff sign noncompete agreements.

Several states have now moved to make the corporate abuse of these devices illegal. Hawaii limits noncompete agreements solely to tech workers, while New Mexico allows them only in health care. Illinois has prohibited the agreements for people whose earnings are close to minimum wage. In Oregon, companies are proscribed from asking anyone to sign a noncompete within two weeks of a job's starting date. This is to prevent companies from presenting contracts to workers on their first day who feel they can't refuse to sign at that point, having turned down other offers or possibly relocated to take the job.

Business groups argue that employers have legitimate concerns about workers stealing trade secrets or taking away clients. That's not easy to envision in the case of a sandwich maker. Besides, there are other ways firms can protect those interests. They can use nonsolicitation agreements that simply block employees from walking away with client lists. That sort of narrower approach may better balance the interests of employers and employees than broader noncompetes, which can have the effect of handcuffing unhappy workers to a company indefinitely.

One continuing problem, however, is the failure of companies to let workers know what their rights are when it comes to noncompete contracts. This happens in states that regulate the contracts as well as in states that don't. "The use of noncompetes is just as high in states that don't enforce them, like California, as states that enforce them vigorously, like Florida," says Starr.

Once a contract is signed, an unhappy employee may believe she's already bargained away her right to pursue a similar job, even if there's a law meant to protect her. "We shouldn't be making it harder for anyone to get a job," says Jack Franks, who co-sponsored the Illinois legislation, "especially low-wage workers, whose jobs have the highest turnover."

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DAVID KIDD

How Do You Define Hate?

NEARLY EVERY STATE imposes additional criminal penalties when a perpetrator assaults or kills a police officer. Should such attackers also be convicted of hate crimes?

It turns out a lot of states think they should. Last year, Louisiana became the first to pass a "blue lives matter" law, treating targeted attacks against law enforcement officers as a hate crime. More than a dozen states have since followed suit. "Any piece of legislation that tries to hold people accountable for any criminal activity that's hate-driven is good," says Jim Bueermann, president of the Police Foundation, a research organization in Washington, D.C. "When you ask a certain class of people, in this case cops, to risk their lives for perfect strangers, you should step up and say, 'We're going to act when you are a victim of hate.'"

Not every assault on a police officer or sheriff's deputy should be treated as a hate crime, Bueermann stresses. A cop might get punched in the nose because the perpetrator is trying to get away, or is simply too drunk to know better. That's all in the line of duty. It's only when someone specifically targets cops—as happened with the fatal shootings in Baton Rouge and New York that prompted these laws—that it should be considered a hate crime, Bueermann says.

That's exactly what makes these laws problematic, argues Michael Bronski, a Harvard professor who co-authored a book about targeted violence called *Considering Hate.* Bronski opposes hate crime laws in general. Still, he believes the ones that seek to protect people based on sexual orientation or racial identity rather than profession make more sense, because such groups are commonly subjected to discrimination, which police officers are not. "There have been some instances where they've been singled out," he says, "but these attacks are not pervasive against police forces across the country."

Civil rights groups have made similar arguments, with the Anti-Defamation League maintaining that convictions will be difficult under blue lives matter regimes because prosecutors will have to prove intent. Others say the laws are a solution in search of a problem, since there are already enhanced penalties in place to punish anyone who physically attacks police.

Such arguments have fallen on deaf ears. Few laws have passed so rapidly and with so little opposition around the country. As with other hate crime laws, the blue lives matter provisions may end up being used sparingly, but their continuing passage is all but assured. It is quickly becoming the legislative equivalent of putting out "we support the police" yard signs. "Their job is dangerous enough already," Arizona Gov. Doug Ducey said of police as he signed his state's law. "We have zero tolerance for anyone who would target officers simply for doing their jobs."

THE BREAKDOWN

19%

The share of oil and gas workers who said they commuted more than 90 minutes to work each day, more than any other occupational group. Funeral embalmers and telemarketers had the shortest commutes.

100

The estimated number of bed bugs in a cup that a citizen slammed on the counter in a municipal office in Augusta, Maine, after being told he didn't qualify for assistance.

1.28 per 10,000

The proportion of New York City workers who reported having moved from Bangalore, India, in a survey of LinkedIn members in early 2017. Bangalore ranked first among all world cities in this category.

6

Number of states where the opioid crisis has been declared a public health emergency. They are Alaska, Arizona, Florida, Maryland, Massachusetts and Virginia.

SOURCES: U.S. CENSUS BUREAU; TRIBUNE NEWS SERVICE; LINKEDIN; *STATELINE*; IMAGE: SHUTTERSTOCK.COM

Whose Law Is It?

STATE LAWS GET CHALLENGED all the time. Luckily, every state has a law firm on retainer—namely, the attorney general's office. But who defends the state when the attorney general is not willing to do it?

That question has been coming up quite a bit lately. Before the U.S. Supreme Court made same-sex marriage rights universal in 2015, several Democratic AGs refused to defend their states' bans on the practice. Last year, Roy Cooper, then North Carolina's attorney general, decided not to defend House Bill 2, which gutted anti-discrimination protections for gay and transgender people. Currently, Maine GOP Gov. Paul LePage is suing Janet Mills, the state's Democratic attorney general, for refusing to pursue legal actions he favors.

These conflicts come up most frequently on high-profile issues where partisans hold strong and opposing positions. Defending state laws is one of the primary duties of attorneys general, something they shouldn't refuse to do, argues Greg Zoeller, a former AG in Indiana. He had to defend all kinds of laws he didn't like, including the death penalty, which he opposes on religious grounds. And indeed, most lawyers take on cases and clients they don't believe in. Attorneys general who refuse to defend state laws typically say it's because those laws are unconstitutional, but Zoeller says that's not their call to make. "The courts are empowered to make the decision of whether a law is constitutional or not," he says. "To bring that question to the courts, there has to be a lawyer on both sides."

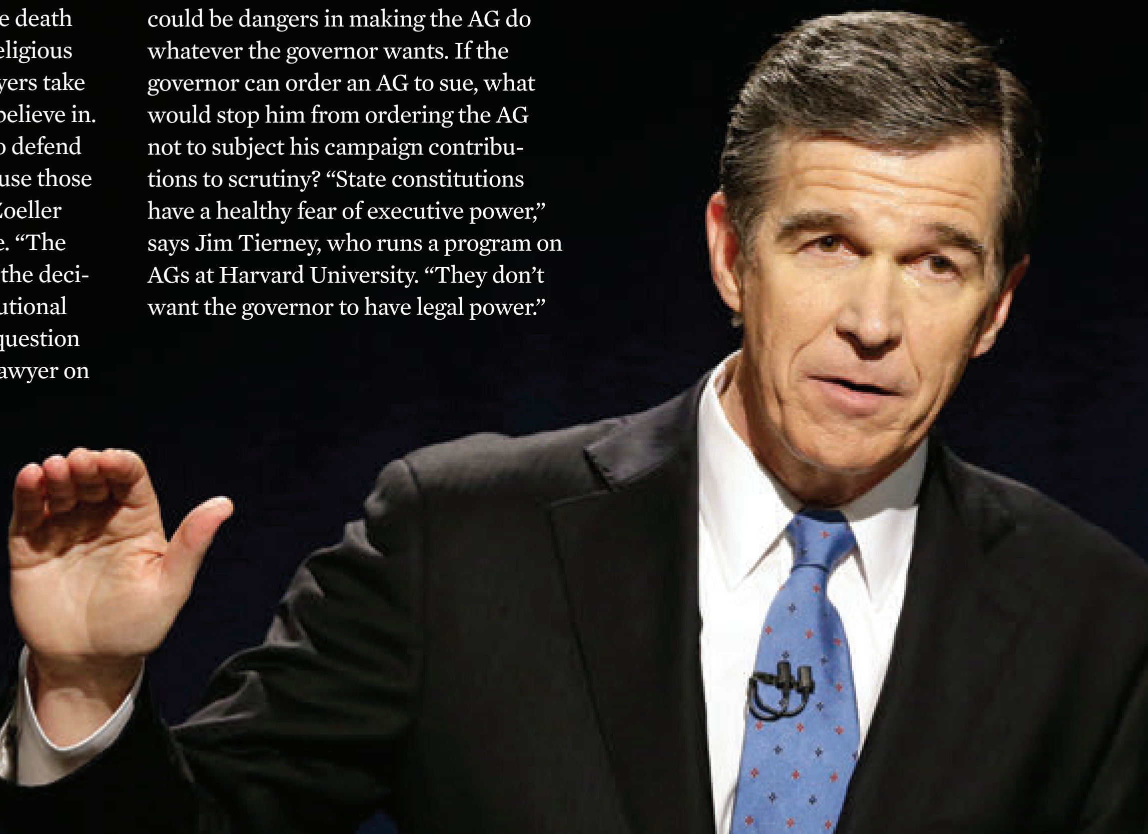
Zoeller points to the example of Proposition 8, which banned same-sex marriage in California. The attorney general there refused to defend the law, so the Supreme Court threw it out in 2013 on a question of standing, on the grounds that the ballot initiative's sponsors had no right to defend a state law if the state itself refused to do so. "It cost us two years of uncertainty," Zoeller says. "If the AG of California defended the law, we would have had an answer [on same-sex marriage] two years earlier."

In practice, an attorney general's office expresses opinions about the constitutionality of laws all the time. On almost a daily basis, assistant AGs instruct legislators on how to craft bills so they stay within allowable bounds. One reason the AG gets to defend state laws is that constitutional expertise resides in that office.

But it was also part of the intent of constitutions in most states to split authority within the executive branch. Few states follow the federal model, where the attorney general answers to the chief executive. And there clearly could be dangers in making the AG do whatever the governor wants. If the governor can order an AG to sue, what would stop him from ordering the AG not to subject his campaign contributions to scrutiny? "State constitutions have a healthy fear of executive power," says Jim Tierney, who runs a program on AGs at Harvard University. "They don't want the governor to have legal power."

The desire to preserve a balance within the executive branch is one reason why the Kentucky House balked this year at a state Senate plan to strip Attorney General Andy Beshear of much of his authority. Beshear, a Democrat, has repeatedly sued GOP Gov. Matt Bevin. Republican legislators may not like that, but they can still see the point of having an AG with independent watchdog authority.

When he was Maine's attorney general back in the 1990s, Tierney refused to defend a state law he felt was without merit. The state Supreme Court upheld his authority to exercise judgment about which state laws to defend and which ones to leave alone. It may seem problematic to have AGs decide on their own which state laws can stand up to scrutiny, but ultimately someone has to make the call. The American system of governance is all about splitting power. When it comes to legal matters, the attorney general is most often going to be the one who has the final word.



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North Carolina Gov. Roy Cooper

By Alan Ehrenhalt

Next Stop: Anybody's Guess

There are no crystal balls in transportation. Some judges don't understand that.

"It's tough to make predictions," Yogi Berra warned us. "Especially about the future." That is a true statement concerning virtually every field of human endeavor, but it is especially true when it comes to predicting the future of cities and the way people will be moving around them many years hence. We love to make bold guesses about how we will transport ourselves a generation or two down the road. These guesses have one thing in common: They almost always turn out to be wrong.

Back in 1894, a distinguished panel of New York citizens peering into the urban future issued a distant early warning. By 1930 or so, they said, the streets of Manhattan would be virtually impassable due to an exponential increase in the amount of manure dropped by horses pulling carriages. That prediction probably made sense at the time. It just failed to account for the invention of the automobile.

Fifty years ago, there were scientists at the nation's leading universities speculating that by the end of the century, Americans would be commuting to work in personal jet planes they could park on backyard landing strips. It didn't seem far-fetched. We may laugh about it now, but "The Jetsons" looked to much of the mid-century engineering elite like a glimpse into an inevitable future. Once again, it was a bit off the mark.

Thirty years ago, no one in his right mind would have looked at the decrepit New York subway system and seen it as an engine of 21st-century affluence that would transform lowly Brooklyn into a bastion of million-dollar condominiums and high-technology entrepreneurship. But that one actually happened.

Today the Internet is awash in scenarios describing how driverless cars will change our cities and our lives in the space of just a few years. No doubt the driverless revolution will arrive someday. How soon is a question on which, given history, we have every right to be skeptical.

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Maryland's Purple Line has been a dream of planners for more than 25 years. Former Gov. Parris Glendening endorsed it back in 2001.

The fact is that when it comes to transportation, we love to make wild guesses about the future, even though our previous ones didn't turn out right. And thanks to computers, we can generate large volumes of data in support of any given future we wish to promote. Some of this guesswork is harmless, but some of it can lead us to dubious public policy choices.

Consider, for example, the National Environmental Policy Act. NEPA was enacted in 1970, at a moment when environmental activists were giddily enthusiastic about their ability to produce a cleaner planet through federal regulation. Its focus was almost entirely on protecting Earth's air and water and the creatures who share the planet with us. It wasn't meant to be a statement of transportation policy, and for most of its early history it wasn't that.

But the language of NEPA was so vague as to make the law useful for a wide variety of crusades far outside its original intentions. The law promised to foster "an enjoyable harmony between man and his environment" and "a wide sharing of life's amenities." Future legislation dealing with land use was required to carry with it an environmental impact statement if it constituted a "major federal action significantly affecting the quality of the human environment." What exactly that meant was left to courts and the litigators who came before them.

Given the way the law was written, it was a relatively simple matter for activists to file suit against a new highway or bridge or public transportation system on the grounds that it would somehow interfere with the harmony between man and his environment. Thousands of such lawsuits were filed, and many of them were successful in slowing projects down, and sometimes knocking them out altogether.

For a long time, this didn't bother me very much. Most of the environmental litigation that interfered with major highway projects, especially in congested cities, seemed to be at the very least preventing construction of an eyesore and much of the time striking a blow for urban survival and recovery.

But it soon became a common requirement for communities and developers planning any new transportation project to justify it by predicting how it might be used 10, 20 or 30 years later, even though no such prediction stood much chance of being accurate. Planners often had to thread the needle when it came to feigning clairvoyance. If the usage they forecast for a project was too heavy, the project could be halted on the grounds that it would lead to unacceptable congestion. If the forecast came in too low, a judge could declare it to be an unnecessary intrusion on the pristine land around it.

And so we come to 2017, and the strange case of Maryland's Purple Line project. The Purple Line is (or would be) a 16-mile light rail system with 21 stations connecting communities in two huge suburban Washington, D.C., counties, Prince George's and Montgomery. It would cost something over $2 billion to construct. It's been a dream of local planners and urban advocates for more than 25 years. In 2014, the dream seemed to be coming true. The Federal Transit Administration (FTA) under President Barack Obama agreed to spend $900 million on the project—enough, in combination with private and state and local government funding, to get it built. The first trains were projected to begin running in 2022.

In the summer of 2016, the Purple Line was five days away from getting its federal grant money. But at the last moment, a new player entered on the scene: U.S. District Judge Richard Leon. The judge issued a response to a NEPA lawsuit brought by some suburbanites living in the vicinity of the project. These residents had no legitimate environmental concerns; they just didn't want a transit line in their neighborhoods. But they knew how to take advantage of the giant loophole that NEPA had become.

The plaintiffs managed to convince Leon that the Purple Line planners hadn't done enough to project what the line's ridership might be as far out as the year 2040. Actually, the planners had made some projections, but the judge said they weren't good enough. He said they failed to account for declining ridership on Washington, D.C.'s Metro system. While Metro is basically unrelated to the Purple Line, it could be responsible for generating as much as a quarter of the new line's passengers. So what if a weakened Metro, the judge wanted to know, left the Purple Line, 25 years from now, without a sufficient number of riders? Maybe, then, the whole project was unnecessary. Go back and make more guesses, Leon ordered.

The FTA took several months and then returned with essentially the same package of projections it had prepared several years earlier. The package offered five different scenarios, ranging from a substantial recovery in Metro ridership to a collapse of the Metro system entirely. Even if Metro ceased to exist, the agency estimated, there would still be plenty of riders in 2040 to justify the new project. And besides, what did all this have to do with protecting the environment? The answer, of course, was nothing.

In May, the judge answered back. The Purple Line planners hadn't given him the data he wanted. He wasn't releasing any money until they went back and gave him a whole new supplemental statement, with accurate numbers out into the distant future. The project managers pointed out that if the federal funding didn't arrive by June, they would have to delay the whole project, and possibly cancel it altogether. Too bad, the judge essentially told them. That wasn't his problem.

The FTA appealed Leon's ruling, and late last month a federal court issued a temporary stay of the judge's decision, while the case is being reheard. That allowed the state to resume work on the line, at least for now.

But the whole case provides glaring evidence of how years and millions of dollars can be wasted arguing about projections that can't possibly be made with even a shred of confidence.

It could be that by 2040 Metro and the Purple Line system will have combined to spark thriving new development all along the new route. It's also possible that by 2040 Metro will have fallen into disuse. But why stop there? Maybe by 2040 driverless cars will have pushed all forms of public transportation off the road. Maybe everyone will be teleporting to work. Maybe anything.

The point is that these things are not just uncertain, but unknowable. Predicting traffic patterns in Maryland in 2040 is about as valid as projecting the increase in horse manure in Manhattan between 1894 and 1930. Anybody who pretends to have precise information is either a fool or a self-interested charlatan.

But there's a larger point to be made here. Whether or not to build the Purple Line is a question for the democratic process—for the citizens we elect as legislators and appoint as managers. Reasonable people will differ on it. But when a judge hijacks the whole issue and issues rulings on spurious legal grounds, he undermines public trust in the judicial system.

In most recent election years, there have been moves in some states to curtail the power of judges, to make them answerable to the voters, usually by forcing them to stand for re-election more often. I've been against all these actions, on the grounds that judges need insulation from the vagaries of public opinion. Usually the efforts fail. But I have to admit something: When I read about decisions like the one involving the Purple Line, I begin to wonder if the anti-judge activists don't have a bit of the truth on their side. **G**

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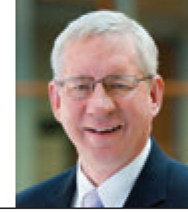
By Donald F. Kettl



28 Flavors of Infrastructure

A 75-year-old highway project offers clues to solving a critical present-day problem.

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When I was young, family fun usually involved a trip on the Pennsylvania Turnpike. Everyone—my mother and father and the four kids—would pack into our station wagon with the faux-wood paneling on the side and drive through the turnpike's tunnels. Our favorite was always Ray's Hill. My dad's name was Ray, and the family rule was that we had to clap all the way through the tunnel (which was as annoying to the driver as you might imagine). If we were really lucky, the trip would include a stop at a Howard Johnson's restaurant, best known for its orange roof and, most important, its 28 flavors of ice cream.

Bizarre as it may seem, those memories got me thinking about the future of federalism. The turnpike was one of the country's first great public-private infrastructure projects, built by private contractors, financed with revenue bonds and repaid through drivers' tolls. As for HoJo's: It won the first private franchise to provide food (and, of course, ice cream) on public roads, paying for the privilege by dishing out money that the whole turnpike enterprise could put to use.

We're going to have to do something as innovative as that if we're going to deal with the infrastructure problems we're facing right now. When President Trump announced his $1 trillion plan to fix the nation's infrastructure, National Public Radio's Ailsa Chang tried to figure out just how far the first yearly tranche of $100 billion would go. She started counting New York City's needs and couldn't even get across the Hudson River before the money ran out.

Of course, Trump isn't really proposing that the federal government spend $1 trillion in federal tax money. Rather, he wants the feds to put up $250 billion in the next decade and leverage the rest through public-private partnerships, with the states and cities carrying a big share of the load. In his most recent budget, Trump asks for $5 billion to get started, which works out to about one-seventh of what it might take just to get our school buildings into fair condition. That leads us to confront three truths: No state or local government has much money to spare right now. Everyone knows the feds aren't going to go deeper into debt to provide a cash windfall for construction. And every state has a vast—and growing—collection of must-do infrastructure projects.

If government doesn't have the cash, the inescapable solution may indeed be a new generation of public-private partnerships. One tempting plan is to raise money for domestic infrastructure by encouraging private companies to bring back profits generated abroad. With the right tax plan, advocates think, they can repatriate profits and redirect them to American needs. Estimates of the potential for repatriated profits, in fact, range as high as $3 trillion. Infrastructure planners see that as an enormous source of untapped funds.

The idea has attracted support from Trump and from leaders across the political spectrum, including House Speaker Paul Ryan and Senate Minority Leader Charles Schumer. But anything with support that broad in principle has got to be supercomplicated in action, and that's just the case here. It's very hard to bring overseas money back without lowering corporate tax rates. It's similarly difficult to lower tax rates on foreign profits without doing so for all corporate profits. Finally, channeling overseas money into infrastructure projects will likely require special tax breaks.

This all gets very expensive very fast, and it collides with the goal of simplifying the tax code. Moreover, it wouldn't necessarily channel the money to the biggest infrastructure needs. Investors are going to put their cash where they can be most sure of getting the biggest profits. That might work for new airports and toll bridges, but it won't work for small-town street projects or bridge repairs in the inner city.

Then there's the plan to sell off airports and water companies, or at least license them to private operators who could keep whatever profits they generate. St. Louis is exploring that approach for its half-empty airport, which lost business when American Airlines bought TWA, which was once based there.

Chicago tried to do this with its Midway Airport, but the deal collapsed along with the credit markets during the 2009 economic crisis. Later on, Chicago Mayor Rahm Emanuel wrote that the city had learned an important lesson: "A true public-private partnership requires that taxpayers maintain control of the asset and share in management decisions and financial profit." Having to share control and profits, however, might shrink the enthusiasm of private operators.

There just isn't an easy way to solve the infrastructure problem we've allowed to grow and fester for a generation. To get the money it needs, government is going to have to attract substantial private investment. That, in turn, means figuring out new incentives to lure investors. It also means that state and local governments must develop new ways of managing such complex partnerships—and of figuring out how to share the proceeds with private partners.

It means, in one sense, reaching back to the Pennsylvania Turnpike and HoJo's to find clues about the future of federalism. **G**

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By Alan Greenblatt

A Push to the Left

Progressives are increasingly challenging Democrats.

Municipal elections in Minneapolis were seen as a triumph for fresh faces and diversity back in 2013, with mayoral winner Betsy Hodges leading a parade of new talent into city hall. Her victory was counted as a defeat for the party machine that had long dominated city politics.

That was then. As she seeks re-election this year, Hodges faces numerous challengers who complain that she hasn't been progressive enough. "Some of our most marginalized and vulnerable populations have been neglected by the city government, including our mayor," says Nekima Levy-Pounds, a former NAACP official running against Hodges.

The field also includes Jacob Frey, a member of the city council, state Rep. Raymond Dehn and businessman Tom Hoch. With the exception of Hoch, Hodges' main challengers are all running to her left. "You've got this progressive mayor with a booming city," says Lawrence Jacobs, a political scientist at the University of Minnesota, "and she's vulnerable."

Minneapolis Mayor Betsy Hodges

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Hodges is not alone. The city council is made up of 12 Democrats and one member of the Green Party. It would be considered a highly progressive body nearly anywhere else. Yet several city council members—including some associated with Paul Wellstone, the late U.S. senator who was a liberal icon in the 1990s—are also being challenged. "They are definitely coming from the left," says John Quincy, a Hodges ally on the city council.

Antipathy toward President Trump has energized Democrats, who are sending money to new activist groups that, in turn, are promoting more ardently progressive candidates. "The Trump dystopia is clearly motivating people to do something," writes *Minneapolis Star-Tribune* columnist Jon Tevlin, "and at the local level that means running for office, even against your own party."

Alida Tieberg, Hodges' campaign spokeswoman, notes that the mayor pushed through Minnesota's first paid sick leave requirement and has promoted reforms in police practices, such as implicit bias and de-escalation training. Hodges was also on board with a $15-an-hour-minimum-wage requirement that passed this summer.

But none of this is enough to mollify the mayor's critics, who say she's shifted positions on the minimum wage and failed to support a proposal to require employers to give workers more notice about schedule changes. Hodges' oversight of the police has also been widely criticized, especially after a high-profile shooting in 2015 that led to an 18-day occupation of a precinct house. And her opponents say she isn't visible or engaged enough. Hodges' predecessor, R.T. Rybak, was the sort of mayor who seemed to show up at every fire at 2 a.m. with a box of doughnuts. Hodges cuts much less of a visible figure around the city.

Her missteps—and a general sense of dissatisfaction among progressives—mean the mayor could be defeated at a time when her city is thriving. "Among her friends, there's a concern that there's blood in the water," Jacobs says. "She's vulnerable, and it's a question of who's going to beat her." **G**

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By Mattie Quinn

When a Health Department Fails

Is a growing focus on community factors coming at the expense of basic care?

A scandal erupted in Mecklenburg County, N.C., earlier this year when it was reported that the Health Department had failed to notify 185 women of abnormal Pap smear results. For public health officials, that's not the worst that could happen—an epidemic that could have been prevented would top that list—but it's certainly a failing in what most would agree is a key duty in preventive medicine.

Mecklenburg County Health Department Director Marcus Plescia took responsibility for the fiasco, which was traced back to the mistakes of one nurse. But Plescia's leadership continued to come under fire when he demoted a member of his executive team who had helped to blow the whistle on the mishandling of the results, adding to employee accusations that he had created a "culture of fear."

Morale wasn't the only leadership issue. *The Charlotte Observer* reported that some of the department's employees were unhappy with the general direction the agency was taking, complaining that it was focusing too much on environmental and social factors that affect health across the community while neglecting basic patient care. The final straw came when it was discovered that the department had given operating permits to public swimming pools without performing the proper inspections. Plescia announced in June that he was resigning.

The conflicts playing out in Mecklenburg County are by no means unique. Public health officials everywhere are broadening their scope of practice. It's become more apparent than ever, they argue, that a healthy community is one with plenty of affordable housing, green spaces and smoke-free environments. Yet ensuring access to care is unquestionably one of the foundations of public health work. Do health departments risk neglecting their core functions when they focus on such big-picture ideas?

"It does raise some pretty big questions, like who will provide direct care if the health department moves away from that," says Jill Rosenthal, senior program director for the National Academy for State Health Policy. "Are there federally qualified health centers or Planned Parenthoods that can pick up the slack?"

For some health departments, she says, it might make sense to shift the focus to population health initiatives and pass off more routine primary care to community-based clinics, such as those operated by Planned Parenthood. That is, as long as those systems and partnerships are already in place.

It's hard to say why things went wrong in Mecklenburg County. Some suggest that the Health Department was trying to do too much with too few resources, and without clear communication and trusted partners. Laudy Aron, a senior fellow at the Urban Institute, says the department is overwhelmed in part because North Carolina did not expand Medicaid under the Affordable Care Act. "So," she says, "there's already more care needed."

Aron is among those in the public health community advocating for departments to take a broader focus on community health factors. "There are often tradeoffs when we start focusing on more things," she says, "but at the end of the day we have to start addressing urgent health issues from a more holistic point of view."

Critics say health departments have lost focus on care issues in favor of quality-of-life factors, such as parks.

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The debate about the proper role of health departments will likely continue, especially if we see more headlines around botched medical testing and disgruntled employees. But it's important to remember that health departments are always going to be responsible for preventing disease and heading off epidemics. "It's easy to see when someone doesn't get care," says Rosenthal. "It's harder to see when a health department prevents an epidemic." G

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[1]Duncan IG, Taitel MS, Zhang J, Kirkham HS. Planning influenza vaccination programs: A cost benefit model. Cost Eff Resour Alloc. 2012;10(1):10.

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By Natalie Delgadillo

Discord

Can states and cities really uphold the Paris climate accord on their own?

President Trump formally announced his intention to pull the U.S. out of the Paris climate agreement in June. Within hours of his decision, a slew of governors, mayors and companies pledged to move forward without the president and uphold the landmark deal's mission.

The governors of California, New York and Washington—which represent 10 percent of the country's greenhouse gas emissions—created the 13-member United States Climate Alliance. At the city level, 353 mayors have so far joined a similar alliance called Climate Mayors. And Michael Bloomberg, the former mayor of New York, has assembled a group called America's Pledge, made up of mayors, governors, university presidents and companies. Bloomberg told *The New York Times* that "we're going to do everything America would have done if it had stayed committed [to the Paris Agreement]."

It's an admirable goal, says Mark Muro, a senior fellow for the Brookings Institution's Metropolitan Policy Program, "but can states and localities do everything all by themselves? No way."

Michael B. Gerrard, a professor of environmental law at Columbia Law School, agrees. "Even all the policies under Obama did not add up to enough [to hit emissions targets under the accord]," he says. "Trump's policies just mean we're going to be even further behind."

Still, Gerrard, Muro and Rob Williams, a professor of economics at the University of Maryland, say there are at least three crucial areas where states and localities can make the most difference in lieu of federal leadership: renewable energy, energy efficiency and carbon pricing.

Perhaps the most effective tool in lowering emissions is to implement renewable portfolio standards—requirements that a certain amount of energy come from renewable sources such as wind and solar. They're particularly powerful, says Williams, because of their bipartisan attraction. "You see surprisingly wide support for these standards, even in really red states," he says. Twenty-nine states currently have them, including Texas, where the requirements have helped the Lone Star State become the nation's leading producer of wind energy.

Another effective way of addressing climate change is through efficiency measures. "States and cities control things like the energy efficiency of buildings," says Gerrard, "which is one of the most important things to focus on."

Efficiency can be gained through investments as well. For instance, states can invest in urban development rather than sprawl-inducing freeways. Muro points to California, whose suite of climate policies have leaned heavily on regulation of this kind. In addition to renewable portfolio standards, California has enacted regulations to reduce tailpipe emissions, contain urban sprawl and reduce the number of miles people drive in cars.


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More hotly debated and politically divisive are programs meant to put a price on polluting. The two main versions of this kind of policy are cap-and-trade measures and carbon taxes. While cap and trade has proved to be more politically viable, both Muro and Williams think a carbon tax would be more effective. The reason? A carbon tax deters polluters by making companies pay to emit carbon and other harmful gases. A cap-and-trade program, on the other hand, allows companies to buy and sell allowances that permit them to emit only a certain amount. The prices of these permits have been much lower than originally projected, says Williams, and as a result have not acted as the kind of deterrent they were supposed to.

While there are currently no state carbon taxes anywhere in the country, some experts think that could soon change. Washington state had a carbon tax on the ballot last year, and the Carbon Tax Center has identified the District of Columbia and six other states—Connecticut, Hawaii, Illinois, Maryland, Massachusetts and New York—as places where a carbon tax looks promising.

But regardless of whether the country participates in the Paris accord or not, Gerrard, Muro and Williams say that efforts to combat climate change will likely only increase. Market forces will keep moving states away from fossil fuels and toward renewable energy, decreasing emissions in places that aren't even trying. "Many places will realize that the energy savings from efficiency measures are economically sound regardless of how you feel about climate change," Gerrard says, offering Texas and Iowa as examples. Both states have become leaders in wind energy production—not out of any particular feelings about climate change, but out of economic interest. **G**

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By Alex Marshall

Selling Anything from Anywhere

It's not easy to prosper in a rootless economy. Some people are figuring it out.

The fair, the market, the bazaar—all have a long and rich history, stretching back thousands of years and featuring prominently in the life of a community.

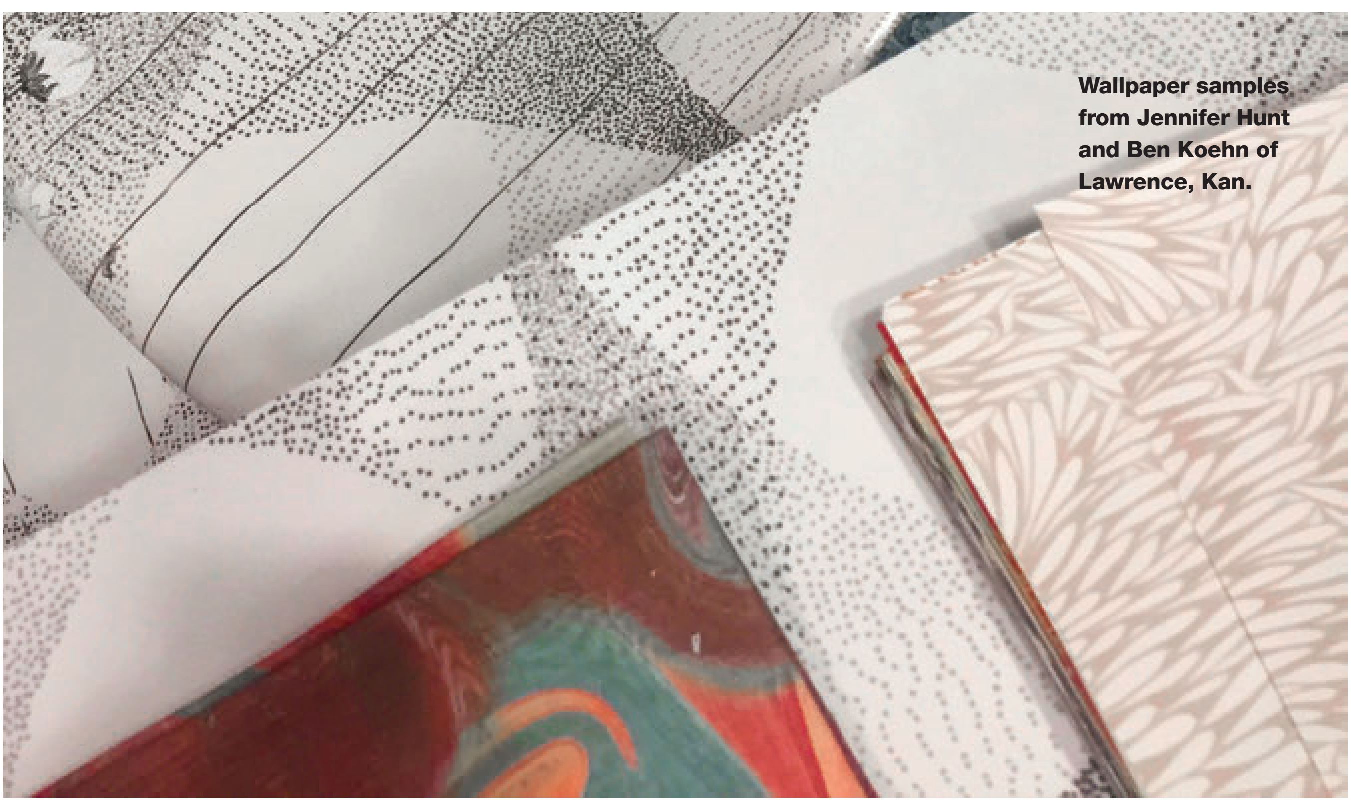
Governments have always been integral to such markets, designating where they happen, who can sell there and what the rules of exchange should be. In the old days, it was a king or baron. Now it's a mayor or city council.

Until not too long ago, just about every city had a market, a publicly built structure where local sellers of vegetables, fish and meat peddled their wares. Some still survive and thrive, like Seattle's Pike Place Market and Washington, D.C.'s Eastern Market. Just about every city also has a more specialized type of bazaar: the trade show, with its own long history that includes the medieval craft guilds. Today often held in city-owned convention centers, these events provide an opportunity for makers and dealers to show off their wares.

Such thoughts were on my mind this spring as I wandered around the International Contemporary Furniture Fair in New York City's Jacob K. Javits Convention Center. I go to this high-end trade show every year, and it's always stimulating to see how the things we sit on, look at and generally use in our homes and offices are being continually reworked and reshaped. The 700-plus participants from more than 30 countries ranged from huge global firms, with fancy pavilions showcasing their products, to booths set up by just a person or two. These small firms might be from Bushwick, one of Brooklyn's hip 'hoods for artists and craftspeople, or they might be from places like Lawrence, Kan.

That's where Jennifer Hunt and Ben Koehn hail from. The couple were there to showcase their chief product: wallpaper, which Hunt designs and both of them then make and sell to retailers and designers. This was their first time at the furniture fair; earlier, they had been at one in Los Angeles. As I spoke with them, I realized that the couple might be an example of how individuals and the towns and cities they call home can thrive in parts of the country left out of the largely bicoastal, big-city boom. The trick is to make the rootless nature of the contemporary economy work in one's favor.

Hunt and Koehn's Lawrence-based company, Poppy Print Studio, is competitive, they say, with businesses from Milan,



Wallpaper samples from Jennifer Hunt and Ben Koehn of Lawrence, Kan.

ALEX MARSHALL

New York and Paris. While Lawrence may not have the cachet of those centers of art and creative commerce, its real estate is by comparison outrageously cheap. Hunt and Koehn can afford to own a 2,800-square-foot shop and their own home. “I can have the life I want,” Hunt said. In the past, someone like her might have had to relocate to New York City, but she and Koehn seem to be doing fine in Lawrence. “The internet,” she said, “has changed everything.”

And it’s not just the internet. Although she has a background in physical textiles, Hunt draws her designs directly on a Macintosh computer using Adobe Photoshop. She and Koehn print the designs to wallpaper on a key piece of machinery that occupies a good chunk of their workshop, an industrial Hewlett-Packard latex printer. They then ship the product to distributors or customers around the country. It is these tools that have created the possibility of new jobs in what is sometimes derogatorily called “flyover country.”

Of course, Lawrence is not just any midsized city on the prairie. It’s the home of the University of Kansas, with about 30,000 students and faculty, and all the ancillary benefits a college town usually provides. While the population of most towns and cities in Kansas has stayed flat or declined, Lawrence has grown. Its county, Douglas, was one of only two of Kansas’ 105 counties that voted for Hillary Clinton last year.

So while Hunt and Koehn’s entrepreneurial skills and attitudes may have emerged from a particular local culture, there is nothing that they’re doing in Lawrence that couldn’t be done just about anywhere these days. Decades ago, the technology that enabled entrepreneurs like them to thrive just wasn’t there; today it fuels a new kind of bazaar. If small companies like Poppy Print Studio can’t save the world, or save the country, they are at least rays of light in a changing economy, examples that suggest a way forward for some people and the places where they want to live. **G**

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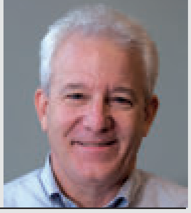
By William Fulton



The Sun Belt’s Urban Reality

The region grapples with familiar issues that need unique solutions.

The Baker-Ripley Neighborhood Center in Gulfton, Texas

FLICKR/ELMER ROMERO

Houston’s port-of-entry community, Gulfton, isn’t where you think it would be. It’s 10 miles west of downtown Houston, far away from most job centers, removed from service providers and not especially well served by public transit. Yet Gulfton is where Houston’s refugee community—the biggest in the country—is centered.

Gulfton turned into the port-of-entry neighborhood more or less by chance: Its old apartment buildings from the 1960s and 1970s had been abandoned by the middle class and were cheap. The community is a good example of how emerging urban issues in the Sun Belt look different from similar ones in more traditional cities.

Like other Sun Belt cities from Atlanta to San Diego, Houston is newer, more suburban and more auto-oriented in nature. But its suburbs, such as Gulfton, are getting more ethnically diverse and poorer: Low-wage workers are being displaced from central locations by gentrification, making commuting expensive and difficult.

Of course, none of these problems is specific to the Sun Belt, but the way they manifest themselves on the landscape is. And that poses a problem for conventional urban policy thinking, which is focused on traditional cities in the Northeast and Rust Belt—cities that often have higher density, strong public transit systems and concentrated job centers. Struggling Sun Belt neighborhoods, on the other hand, are characterized by single-family homes, low-rise development and a suburban street grid that’s sometimes close to indistinguishable from affluent neighborhoods.

Sun Belt cities also operate in a different political context. Many of them are blue cities in red states, where taxes are low, regulation is light and expectations of government are much more modest than in older parts of the country. The typical tools of urban America, such as higher taxes and tougher regulations like inclusionary housing, are not always available to them. As Sun Belt cities mature—taking on a second generation of growth that no one ever expected—they will have to find different ways to tackle urban problems.

Some already have. New models of social services and community development have emerged. Take the Baker-Ripley Neighborhood Center in Gulfton. It takes a comprehensive approach to services by providing everything in one spot, from tax preparation to financial literacy to a charter school. Or take the Purpose-Built Communities model for community revitalization, which materialized from a public housing project in Atlanta that provides social services onsite. New innovative public transit solutions are beginning to surface as well, ones that revolve around light rail systems in most of these cities.

All this can be hard for the folks on the coasts to grasp. It’s not easy to get your mind around wide-open spaces in poor neighborhoods or auto-oriented communities of apartment complexes from the 1970s. But that’s the future of much of urban America. Since 2010, almost half of all American population growth has occurred in the Sun Belt’s 20 metro areas of 1 million people or more. Here’s hoping that America’s urban policy framework will catch up to Sun Belt population growth. **G**

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Marij

Andrew Freedman, Colorado's former director of marijuana coordination

uana Inc.

Legalized cannabis is big business. Colorado's former pot czar is helping states figure out how to regulate it.

By J.B. Wogan

Photographs by David Kidd

It's a Wednesday morning in June and Andrew Freedman is taking another meeting. For once, it's at his home office in Denver. Since February, work has taken him to Boston; Chicago; Oakland, Calif.; Sacramento, Calif.; Tallahassee, Fla.; New York City; and Washington, D.C. Like every meeting for Freedman these days, this one's about marijuana.

For nearly three years, Freedman worked for Colorado as the world's first and only state marijuana czar, a temporary position created to help Colorado implement regulations around medical and recreational marijuana. Now he's taking what he learned from that experience and using it for a new consulting business.

The office of Freedman & Koski is a condo in a converted church near Denver's Five Points neighborhood. The conference room doubles as Freedman's living room, which is also his dining room. It has a giant stained glass window. Freedman has been pining for a whiteboard where he and his business partner, Lewis Koski, can conduct their weekly strategy meetings, but there isn't a practical place to put one.

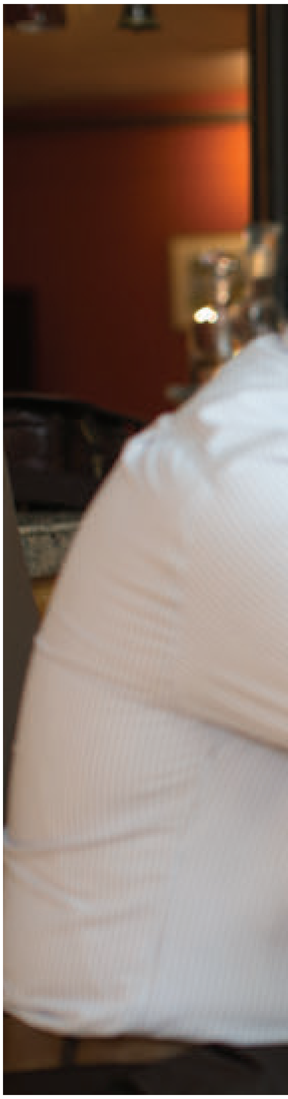
The first meeting of the day is with a potential client, David Sutton, who is developing a new line of medical marijuana products for temporary pain relief. Sutton hopes Freedman will join his company's board of directors. They both grew up in Denver and know each other from elementary school, but only reconnected recently. Sutton is pulling demo products from his bag and explaining to Koski how customers would apply a THC-infused lotion on the skin. "It doesn't get you high. It's relaxing when you put it on a pulse point," Sutton says. "I don't know if you have any pain where you can ..."

Since legalization in 2012, Colorado has licensed nearly 700 marijuana cultivation facilities.

"No, thank you," Koski interrupts, shifting uncomfortably in his chair. He smiles. It's a friendly but stern rejection. He doesn't try marijuana products.

Koski is the former director of the marijuana enforcement division within the Colorado Department of Revenue. Before he was a regulator, he was a police officer in suburban Arvada, northwest of Denver. Although he and Freedman helped make legal marijuana a reality in Colorado, they are not advocates for legalization and, as a rule, do not take clients who make money from growing or selling marijuana. Ask about their personal experience with the drug, and they decline to comment. They won't even disclose how they voted on Amendment 64, the ballot measure that brought legalized recreational marijuana to Colorado in 2012. "Not even my wife knows," Koski says.

After the meeting, Freedman and Koski agree that they can't take Sutton on as a client. "With opportunities like that, we've probably turned down a lot of work," Koski says. Though they market themselves as experts in marijuana policy, they want to maintain a regulator's distance from the industry itself. "We're a good-government company," Koski explains. "We want to do everything we can to protect public health and public safety with the cards we're dealt."



Freedman is quick to point out that they aren't lobbyists, and none of the three founding partners (the third is John Hudak, an academic researcher at the Brookings Institution) has taken a public position for or against legalization. But once voters have decided to legalize marijuana, Freedman says, "we're the technocrats who make it happen."

There's increasing demand for that kind of technocratic expertise. Support for legalizing both medical and recreational marijuana has increased over the past two decades. National polling from Gallup shows that 60 percent of Americans now think the use of marijuana should be made legal, up from 25 percent in the mid-1990s. In the past five years, voters in Alaska, California, Colorado, Maine, Massachusetts, Nevada, Oregon and Washington state have approved the legalization of marijuana for recreational purposes, with a retail market that is—or soon will be—taxed and regulated. Twenty-seven states and the District of Columbia also allow for state-regulated dispensaries of medical marijuana. An estimated 65 million Americans, about one-fifth of the country's population, now live in states with some form of legalization. With the likely expansion of it in more states, annual marijuana sales in North America are projected to grow from $6.7 billion last year to more than $20 billion by 2021.

Freedman and Koski launched their consulting firm in January.

Hickenlooper says his office has fielded calls from more than 25 states asking for guidance. When he read Freedman's pitch for a consulting firm aimed at meeting that demand, Hickenlooper encouraged him to pursue the idea. "This is going to be one of the great social experiments of the 21st century, and it's going to require taking all of the experience and the knowledge that we create, and building upon that," he says. Citing Freedman's prior role as a convener across agencies and businesses, and among legislators and other outside interest groups, Hickenlooper says Freedman is uniquely suited to provide insights about the implementation details. "His understanding of the process and how it works would be invaluable to other states."

Freedman, 34, hadn't planned on becoming the world's first marijuana czar. About seven years ago, he graduated from Harvard Law School and had a job lined up with a private law firm in Washington, D.C. But the job didn't start right away, so Freedman was toying with the idea of spending those few months learning to surf in Australia. The year after undergrad, he had managed to pack in a lot: teaching English in India, working at a peace camp in Israel and volunteering at a women's rights center in Thailand. But his older brother talked him out of embarking on yet another international adventure and persuaded him to instead work on Hickenlooper's first campaign for governor.

But this is also a period of uncertainty for the marijuana industry. Under the Obama administration, the U.S. Department of Justice signaled that it wouldn't use its limited resources to prosecute people and businesses that complied with state marijuana laws, so long as they met certain federal criteria such as keeping marijuana out of the hands of minors. But President Trump's administration has cast doubt on whether the federal government will maintain its hands-off approach. As a candidate, Trump sent mixed messages about his position on legal marijuana, calling it "bad" but also suggesting it was an issue best left up to states. Trump's attorney general, Jeff Sessions, is a longtime critic of states that legalized marijuana. In February, White House spokesman Sean Spicer told reporters to expect ramped up enforcement of federal marijuana laws.

Meanwhile, in states where marijuana ballot measures have already passed, many governors and their counterparts at the local level are becoming the reluctant stewards of a policy they once opposed. But after voters approve a marijuana measure, officials look for advice from the few places with some experience in taxing and regulating legal marijuana. Colorado Gov. John

Following the gubernatorial race, he became chief of staff for then-Lt. Gov. Joseph Garcia before spearheading an ill-fated ballot measure that sought to raise billions in new tax dollars for public education. Despite several years in state government, Freedman was a novice on marijuana policy when Hickenlooper's chief of staff recruited him to be the director of marijuana coordination. He was so unfamiliar with the industry that he hadn't been to a grow facility until he visited one on the job. In a way, that lack of experience was an asset. The governor's chief of staff told Freedman the state needed someone who was seen as neutral on the question of legalization.

Though Freedman's official title was never "marijuana czar," the term quickly became shorthand for what he did. In one TV interview, a local anchor pushed Freedman on the term. "We are working very hard not to be called that," Freedman said, in a futile effort to distance himself from the title. As he sees it, policy czars, as a rule, lack authority. And drug czars in particular are meant to be adversaries of illicit substance use. By contrast, Freedman did have authority—he spoke for the governor—and he didn't see himself as an antagonist to the marijuana industry. His role was to help in setting up rules for legitimate businesses and customers to safely use a legal product. The anchor called him the pot czar anyway, and it stuck.

The title may help Freedman and Koski market their new business. While other states have tapped someone to oversee marijuana regulation and enforcement, Colorado is the only one to have created a special position in the governor's office for coordinating policy across executive agencies and the legislature. Freedman will also go down as the last marijuana czar in Colorado. Because most of the initial implementation details have been settled, Hickenlooper, with Freedman's support, asked the legislature to sunset the czar position in June.

Although states have plenty of pro- and anti-legalization advocates, not many people can claim firsthand experience in developing and implementing policy. In addition to their insights from Colorado's rollout, Freedman and Koski also draw from the expertise of Hudak, their third founding partner, who recently published a book on the history of marijuana policy. As a result, in their first five months of business they have already won contracts with Florida, Los Angeles County and Ohio.

Public officials will be hungry for advice, says Beau Kilmer, a drug policy researcher with the RAND Corp., because there isn't a playbook for overseeing a legal marijuana retail market. Early adopters are still learning from their own experiences. "We still don't know the best way to regulate and tax marijuana," he says. In 2015, Kilmer co-authored a report for the state of Vermont on the potential benefits and costs of legalizing marijuana, illustrating the many paths that the state could take and the tradeoffs officials will need to consider. For example, some states may decide to prioritize the elimination of a black market, with looser regulations and fewer protections for public health; others may choose heavier taxes and regulations in an effort to protect public health. "So much comes down to your personal values," Kilmer says, "and your preferences for risk."

Whatever choices state and local governments make, they'll want expert counsel in thinking through competing interests, and he predicts an increasing number of private firms will try to provide those services. "It's a growing industry," Kilmer says. "No pun intended."

Although officials undoubtedly will try to emulate what worked in Colorado, the consulting business also gives Freedman an opportunity to address misgivings he has about how his own state handled the marijuana rollout. He can fix what he saw as loopholes, and apply some lessons learned.

For example, in the first year of legalization in Colorado, customers—especially out-of-state tourists and first-time users—didn't have enough guidance on recreational products. Children and adults alike were ending up in the emergency room after consuming unsafe concentrations of THC. One visiting college student from Wyoming jumped out of his hotel room after consuming some especially potent pot cookies. *New York Times* columnist Maureen Dowd highlighted the plight of uninformed consumers when she wrote about her own experience underestimating the potency of edibles.

Over time, the legislature made tweaks in the law to address some early oversights. Packaging for marijuana products now must have a universal "THC" diamond symbol, along with a warning that the edibles are for adults over 21 years old and should be kept out of children's reach. In an effort to make edible gummies look less like candy for children, the state has banned gummies in the shape of a fruit, animal or human. Chocolate bars now have to be divided in to squares with equal doses of 10 milligrams of THC, an amount that's considered safe to consume in one sitting.

Freedman also would have liked to see the state put in place public information and youth prevention campaigns before retail stores opened. Today, the state Department of Transportation runs television ads urging residents not to drive while high. Giant billboards warn against using marijuana while pregnant or during breastfeeding. But the state didn't launch those public health and safety campaigns until they could be funded with revenues from retail marijuana sales. That meant residents were buying legal marijuana for eight months before the earmarked money was available for public awareness campaigns.

Another insight from the Colorado experience is that states need to collect better baseline data. For the most part, Colorado officials don't have precise information about how expanded access to legal marijuana has affected the health and safety of residents. For example, before legalization the state didn't require schools to document when they suspended students for marijuana use; instead, the older data only show that suspensions were related to some kind of drug use. When the state examined last year's newer, more precise data, they discovered that roughly two-thirds of student drug suspensions involved marijuana. While they can monitor marijuana suspensions going forward, they'll never know if an increase occurred because of legalization.

The state faces similar problems in measuring the impact of the policy on driving under the influence of marijuana. Before legalization, Colorado didn't have statewide standards for what constituted driving while high. Now the standard is set at five nanograms of active THC per milliliter of blood. Law enforcement has also received training on identifying and charging impaired drivers, so it's likely that the marijuana DUI arrests have gone up. But it's difficult to know how much.

States seem likely to accept most of these good-government recommendations, but Freedman does have at least one controversial idea he's floating with his government clients: He doesn't think surplus revenue from marijuana sales ought to fund schools. In Colorado, the constitutional amendment legalizing recreational marijuana set aside roughly $40 million a year for public school construction projects around the state. That may sound like a lot of money, but it's dwarfed by the current demand for school infrastructure funding in the state, which is roughly $2.8 billion. Freedman worries that the average voter in Colorado is now reluctant to approve funding increases for education because the linking of marijuana revenue to education was so well publicized. "I think that it sets education back," he says. "They're more likely to believe marijuana can save education, and it can't."

States would be better off, he says, using marijuana tax

Colorado pot regulations require licensed businesses to track every plant from seed to sale with tags and bar codes.

Freedman watched as Gov. Hickenlooper signed bills to place tighter limits on the number of plants grown at home.

revenues in areas that might see a bigger return on investment. Before he left his job with the state, Freedman helped pitch the Colorado Legislature on the idea that surplus marijuana revenue—in addition to the money already going to school construction—ought to support affordable housing for the homeless. The result was roughly $15 million next year for housing and support services.

There was one last loophole in Colorado's marijuana laws that Freedman wanted to address before he stepped down from his post. The state already had strict regulations for licensed businesses selling marijuana, but it also allowed people to grow up to 99 plants for personal use, so long as they had a note from their doctor. The law allowed people to ask others to assist in growing marijuana plants for medical purposes. No other state allows caregivers or patients to grow more than 16 plants at home. The fact that Colorado had much looser regulations around homegrown medical marijuana had an unintended consequence: Organized crime syndicates were growing large amounts of marijuana in their backyards and then shipping it out of Colorado to sell in other states. Freedman saw it as the Achilles' heel of the state's regulatory system, and he spent the better part of three years working with law enforcement, legislators, marijuana lobbyists, patients and caregivers to address it.

Four separate attempts to close the loophole through legislation had failed. Patients and caregivers had fought any regulations that impeded their legitimate use of homegrown medical marijuana. "It had become my white whale," Freedman says.

Though Freedman officially launched his firm this January, he stayed on with the governor's office for four months on a part-time basis to usher through one last set of bills that might finally address the gray market. Legislators took up the bills in March, and passed them unanimously. The new laws limit the number of homegrown plants to 12, down from 99, but patients and caregivers can appeal to their local governments to receive individual exemptions. The legislature also allocated $6 million a year in grant funds for local law enforcement to find and shut down illegal grow operations.

At the bill signing in June, marijuana business owners, public health advocates, police, patients and caregivers all came to celebrate. It was a diverse set of groups who often lobbied on opposite sides of an issue. As people gathered, Freedman circled the room, shaking hands and smiling. It was his victory lap.

Hickenlooper called the bills an "unlikely compromise" that was emblematic of the way Freedman coordinated across government and private stakeholders for his three years as marijuana czar. "He was able to build relationships with conflicting interests," Hickenlooper says, and persuade the larger community to support changes that protected public health and safety. "One of the [areas] where Andrew exceeded expectations was to help advise this incipient marijuana industry that they needed to be good citizens, that they needed to care about public welfare." **G**

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No Strings Attached

What if we just gave everyone cash?

By Zach Patton

Right now in Oakland, Calif., there's a family getting $1,500 a month for doing, well, whatever it wants to do. This family, along with 99 others in the city, is receiving a monthly check without conditions of any kind. They can work, not work, travel, volunteer with a charity. They can spend it on food or rent or medicine—or yoga classes or movies or bikes. It's all part of a nascent effort to answer a question that's on the minds of a lot of economists and social scientists and a growing number of public officials: Can giving people cash without any strings attached help lift them out of poverty?

This is universal basic income, the idea that everyone deserves a certain level of economic security—and a regular paycheck—regardless of their level of employment. While it remains a radical concept, it's lately been getting a serious look from thought leaders and policymakers all over the globe. Prominent proponents range from Elon Musk and Mark Zuckerberg to Mark Muro of the Metropolitan Policy Program at the Brookings Institution, and former Labor Secretary Robert Reich, who has said that basic income is "inevitable." Rutger Bregman, a Dutch historian, advocated for basic income at this year's TED conference; his speech drew a standing ovation and has been viewed online by more than a million people since it was uploaded in May.

One of the biggest current advocates of universal basic income is Sam Altman, the president of the Silicon Valley incubator Y Combinator. Altman is personally funding the experiment in Oakland. The project has been running since January, and at this phase it's only intended to help Y Combinator researchers fine-tune their methodology. Once the kinks are ironed out, Altman has said he wants to expand it to a full pilot project of a couple thousand families. "We should make it so no one is worried about how they're going to pay for a place to live, no one has to worry about how they're going to have enough to eat," Altman told an audience in San Francisco this spring. "Just give people enough money to have a reasonable quality of life."

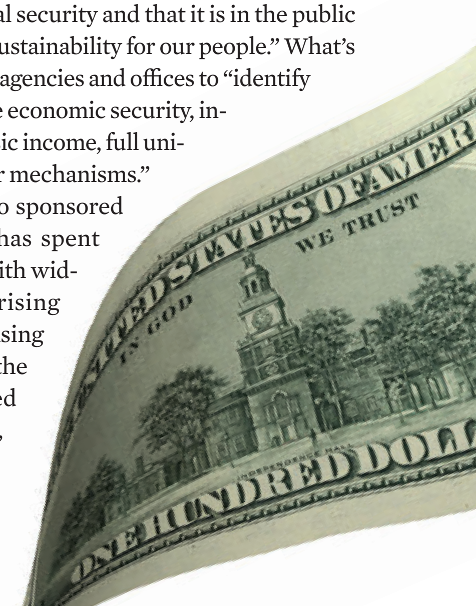
That's much easier said than done. A true universal basic income, or UBI, would be phenomenally expensive. And in any case, handing out a monthly paycheck to every low-income person is politically impossible right now, at least in the United States. But an increasing chorus of advocates argues that it's an idea whose time has come. The economy is shifting in rapid and permanent ways, they say, and the social safety net that has developed over the past century can't keep up. It's time to rethink our entire approach to welfare, and to reconsider our very understanding of what it means to be poor. "Poverty is not a lack of character," Bregman said in his TED talk. "Poverty is a lack of cash."

The idea of a UBI—or at least the idea of testing it to see how it might work—is also gaining a little steam in the public sector. San Francisco is actively exploring several possible demonstration projects; the city last year proposed the nation's first large-scale UBI program, although it hasn't managed to secure funding. The National League of Cities has promoted UBI as one option local leaders should consider as they look to the future. The Canadian province of Ontario is launching a pilot project that will disperse a basic income to some 4,000 participants. Finland started a program in January; Scotland and the Netherlands are discussing projects of their own. A massive multiyear experiment, albeit a privately funded one, is underway in Kenya.

"Poverty is not a lack of chara

Hawaii this spring became the first U.S. state to endorse UBI as possible public policy. Under a new law passed unanimously by the legislature, the state officially recognizes "that all families in Hawaii deserve basic financial security and that it is in the public interest to ensure economic sustainability for our people." What's more, it requires several state agencies and offices to "identify and analyze options to ensure economic security, including a partial universal basic income, full universal basic income and other mechanisms."

State Rep. Chris Lee, who sponsored the measure, says Hawaii has spent years debating how to deal with widening income inequality, rising homelessness and an increasing cost of living. One night on the website Reddit, he stumbled across a post on basic income, and the idea clicked: "It really



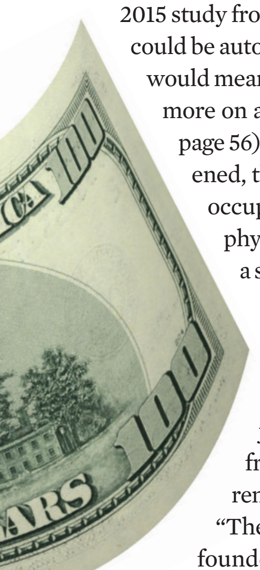
was a broader idea which could potentially address all of those things." His legislation, he says, is intended to "start a conversation about, what are our priorities and values here in our state?"

After all, say Lee and others, certain forms of UBI already exist in America. The Alaska Permanent Fund Dividend, which pays every state resident a cut of its oil revenues, is a type of basic income program. So is Social Security. So is the earned income tax credit, which augments wages for low-paid workers. It's not irrational, therefore, to consider some version of the idea for the population as a whole.

Why the widespread surge of interest in giving away cash? One reason is robots. Specifically, the recognition that increased automation is radically restructuring the economy and resulting in ever fewer available jobs. Automated machinery has already decimated American farming and manufacturing employment. Travel agents are a relic; bank tellers, grocery clerks, retail salespeople and many other categories of service workers seem to be heading toward obsolescence.

The coming decades will bring more changes. Driverless vehicles could wipe out trucking industry jobs. Algorithms could replace accountants. A 2013 Oxford University study found 50 percent of jobs currently performed by humans could be taken over by machines in the next 10 to 20 years. Separately, a November 2015 study from McKinsey said that 45 percent of work activities could be automated using technology available right now, which would mean a loss of $2 trillion in annual wages in the U.S. (For more on automation and the economy, see "Robot Anxiety," page 56). It's not just low-skill, low-wage jobs that are threatened, the McKinsey report said: "[E]ven the highest-paid occupations in the economy, such as financial managers, physicians and senior executives, including CEOs, have a significant amount of activity that can be automated."

Thanks to other tech innovations, the very nature of "work" is already being redefined. In today's gig economy, "working" for many people no longer means full employment at a single 40-hour-a-week job. It may be an inconsistent cobbling together of freelance jobs, Lyft shifts, TaskRabbit services and renting a room out on Airbnb a couple of nights a week. "The way that jobs are changing," says Jim Pugh, a co-founder of the Universal Income Project, an advocacy group based in San Francisco, "there's just not a pathway to full economic inclusion for a big percentage of our population today." It's time for a paradigm shift, he says. "It is ingrained in people that you should be able to make ends meet if you're working. But we're seeing a shift to the idea that being able to meet your basic needs is a right."



cter. Poverty is a lack of cash."

HISTORIAN RUTGER BREGMAN, IN A POPULAR TED TALK

There may be new interest in universal income, but the idea is at least five centuries old. Thomas More suggested in his 1516 book *Utopia* that providing everyone "with some means of livelihood" might be the most effective way to end theft. Four hundred years later, Bertrand Russell declared that "a certain small income, sufficient for necessities, should be secured for all, whether they work or not."

In the mid-20th century, a diverse constituency developed around the idea that government should ensure everyone a minimum income. Huey Long was preparing to run for president on a UBI platform before he was assassinated in 1935. Martin Luther King Jr. was a major proponent of the concept. Conservatives were fans as well. In 1962, the libertarian economist Milton Friedman advocated what he called a "negative income tax," which was essentially a UBI. For Friedman, it was a fairer, simpler, more transparent way to redistribute tax revenue than an overlapping web of safety-net programs run by government bureaucrats. "In the 1960s and '70s, it was the kind of thing that crossed party lines," says Karl Widerquist, an economist at Georgetown University in Qatar and a UBI advocate. "You had economists, futurists, welfare rights activists, policy wonks who wanted to make the welfare system work more efficiently. That was a real spark, when all these people realized they were talking about the same thing."

The high-water mark came on Aug. 8, 1969, when President Richard Nixon announced in a live television broadcast that he was endorsing a national basic income program. "What I am proposing," Nixon said, "is that the federal government build a foundation under the income of every American family with dependent children that cannot care for itself—and wherever in America that family may live." Nixon's "Family Assistance Plan" was relatively modest, providing $1,600 a year for a family of four without any

other income (about $10,700 today). It applied only to families with children, and it included work requirements for “employable” recipients. Nixon refused to call it universal income. But it was nevertheless a plan to replace existing welfare benefits with guaranteed payments that would ensure a minimum income for every family in America.

Nixon’s proposal breezed through the House, but it stalled in the Senate. Many Democrats said the payouts were too stingy and called for a more generous plan; they also objected to the work requirements. Conservatives balked at the tax increases that would have been required for an expanded plan. The measure died.

As the 1970s dragged on through Watergate, stagflation and oil shocks, interest in a basic income waned. By the end of the decade, the conversation on welfare had shifted and split into two warring camps: Conservatives wanted to cut social programs, liberals wanted to keep them. Low-income aid recipients became Ronald Reagan’s “welfare queens,” and the idea of a UBI withered on the vine. By the 1990s, Bill Clinton and other Democrats were pushing to end government “handouts” and reform welfare with an overarching goal of requiring people to work in order to receive benefits.

After Nixon, proposals for a basic income popped up at different times in different locations—Denmark in the 1980s, for instance, and post-apartheid South Africa in the early ’90s. But for the most part, the discussion was confined to academic papers and a smattering of conferences in Europe. By 2004, there were some 20 national networks devoted to UBI, “but it was still very underground,” says Widerquist.

Then the global economy fell apart. “When the financial meltdown happened—and the Arab Spring, the 99 Percent movement, the Occupy movement—when all those things started happening, people weren’t looking to rebuild Lyndon Johnson’s welfare state,” Widerquist says. “They were looking for something different: another model, a better model that was really going to do something to address income inequality in a new way.” In 2011, both Switzerland and the European Union saw petition drives to put a UBI on the ballot. The EU effort didn’t make it to a vote. The Swiss effort did, but it was ultimately rejected at the polls. Nonetheless, both of those campaigns brought a great deal of attention to the idea of a basic income. And they introduced the concept to a new generation of leaders eager to explore bold ways to deal with poverty, wage gaps and the realization that a growing number of people are being left out of the world economy.

Amid the current buzz about basic income, it’s worth looking back to a few real-life experiments from a generation ago that shine a light on current pilot projects.

One was a series of four large-scale trials of Friedman’s negative income tax that took place in several different locales around the United States: an experiment in Pennsylvania and New Jersey; another in Iowa and North Carolina; a third in Gary, Ind.; and a fourth, the largest and most generous, in Seattle and Denver, where 4,800 families participated in a nine-year trial. In each of the pilots, which ran for various years between 1968 and 1982, myriad government program benefits were replaced with a single guaranteed payment for poor families that would diminish as earnings increased. The government wanted to study how recipients would react: Would they quit their jobs? Go back to school? Become better parents?

Frustratingly, the data from all four trials wasn’t collected or compiled in any consistent way; the final reports from Gary and from Seattle and Denver weren’t even widely published. The programs also suffered from initial reports that the negative income tax was fueling higher divorce rates among participants—that the money was empowering women to leave their marriages. Later analysis by researchers in the 1980s showed the supposed divorce effect didn’t hold up to scrutiny. What researchers did find, however, was an effect on work habits. Recipients did reduce their participation in the labor market, but not in the ways that critics predicted. People didn’t quit their jobs in droves to lie on the couch all day. Rather, they tended to scale back their hours a little, an average of 7 percent among men and 17 percent among women.

But it’s a largely forgotten Canadian experiment that provides the world’s best look so far at how a basic income might affect society. For five years in the 1970s, the province of Manitoba conducted a minimum income project called Mincome. It took place in three different localities, but it’s one of those, the small prairie town of Dauphin, that stands out. That’s because Dauphin was a true “saturation site”—there was no selection process. Anyone whose income fell below a certain level was eligible to receive the money. Basic income advocates like to refer to Dauphin as “the town that eliminated poverty.”

Research at the time showed a work effect somewhat similar to the findings from the American negative income tax experiments. A few primary breadwinners scaled back their work a little. Women scaled back more, especially new mothers who opted to stay at home longer with their babies. The third group to reduce its labor participation was teenage boys.

As with the American experiments, though, data collection from Mincome more or less fell apart. The conservative Canadian national government that came into office in the late 1970s showed little interest in a massive wealth redistribution program for the poor. A final report was never released. Reams of paper were boxed up and bounced around among government agencies until no one could remember where they were anymore. More than two decades later, a University of Manitoba economist named Evelyn Forget became interested in the Dauphin experiment, and decided to track down the data. She finally found it—1,800 boxes gathering dust in a National Archives warehouse in Winnipeg.

> **"When the financial meltdown happened, people weren't looking to rebuild Lyndon Johnson's welfare state. They were looking for a better model."**
>
> *ECONOMIST KARL WIDERQUIST*

Forget began analyzing the data and cross-referencing it with other records from Dauphin in the 1970s, including hospital records and school attendance data. She interviewed as many of the original participants as she could. What she found was that the Mincome project didn't just have a work effect. There were other impacts as well. Hospitalizations fell 8.5 percent, and fewer people were visiting doctors. The strongest evidence was in mental health—"things like depression, anxiety and so on," Forget says today. When people didn't have to worry about making ends meet, they were under less mental stress.

The other effect she found was "a nice little bubble in the high school completion rate" among teenage boys who cut back on their work hours. "Instead of leaving school at 16 and taking a full-time job," she says, "they were completing high school, perhaps working part-time or not at all for another year or two. ... The kids who finished high school were much more likely to go on to college."

Four decades later, a different Canadian province is seeking to build on the Mincome experience. The Ontario Basic Income Pilot is a $150 million, three-year program centered on three different localities. The 4,000 participants will receive modest payments—up to about $17,000 a year for a single person—while independent researchers monitor the outcomes. "I believe it is the responsibility of government to take a stand, play a role and do what it can—do all it can—to ensure that the people of Ontario are given every chance to thrive and achieve their potential during this period of change," Premier Kathleen Wynne said in announcing the pilot in April. "We want to find out whether a basic income makes a positive difference in people's lives."

As the Ontario project makes plain, any permanent, widespread basic income project would carry an enormous price tag. Without significant increases in taxes, a UBI could actually increase poverty in most high-income countries, according to recent analysis by the Paris-based Organisation for Economic Co-operation and Development. The OECD looked at 35 member countries and calculated the result if each country took all the money it was spending on social welfare programs and spread it out in monthly "no strings" paychecks to everyone. Those paychecks, the OECD found, would leave recipients far below the poverty line. In order to fund a basic income that would actually lift people out of poverty, most countries would have to raise taxes drastically—the same problem that doomed Nixon's Family Assistance Plan.

Many economists and basic income advocates have taken issue with the OECD report. For one thing, it's modeled on a true "universal" basic income, a flat-rate payment to every single working-age adult in the country, even high-income earners. That's not the aim of most modern-day basic income proposals, which are targeted to low-income populations. Widerquist, the Georgetown economist, says the OECD analysis is "just wrong." His own estimate is that, for the U.S., a basic income large enough to eliminate poverty would cost about $539 billion a year. That's about one-fourth of what the country spends on entitlements right now. And if UBI meant fewer people would need food stamps and other sorts of government benefits, Widerquist says, "we can do it for even less."

Still, it's almost unimaginable to think that American political leaders, even those in the most progressive pockets of the country, would support the kinds of tax increases it would take to fund a truly meaningful UBI anytime soon. Even Widerquist acknowledges that, while interest in the subject has never been higher than it is today, it's not the mainstream political issue it was in the 1960s. "Now," he says, outside of a "small contingent of bleeding-heart libertarians" who support the idea, "this is clearly coming from the left."

But this is exactly why now is the time, advocates insist, to test the theories of basic income—to try to imagine the unimaginable. That's the goal behind the Y Combinator project in Oakland, a pre-pilot that could grow into a demonstration effort offering insights into how people might react if they didn't have to work to meet their basic needs. "Some people say, 'Oh, this is, like, a radical idea,'" Elizabeth Rhodes, the research director for the Oakland project, said in a Q&A video earlier this year. "But if change continues to progress in the way that everyone predicts—and already we have massive economic insecurity—we need to start thinking about outside-the-box solutions and start researching them. If we need this data in 10 or 15 years, we have to start now." G

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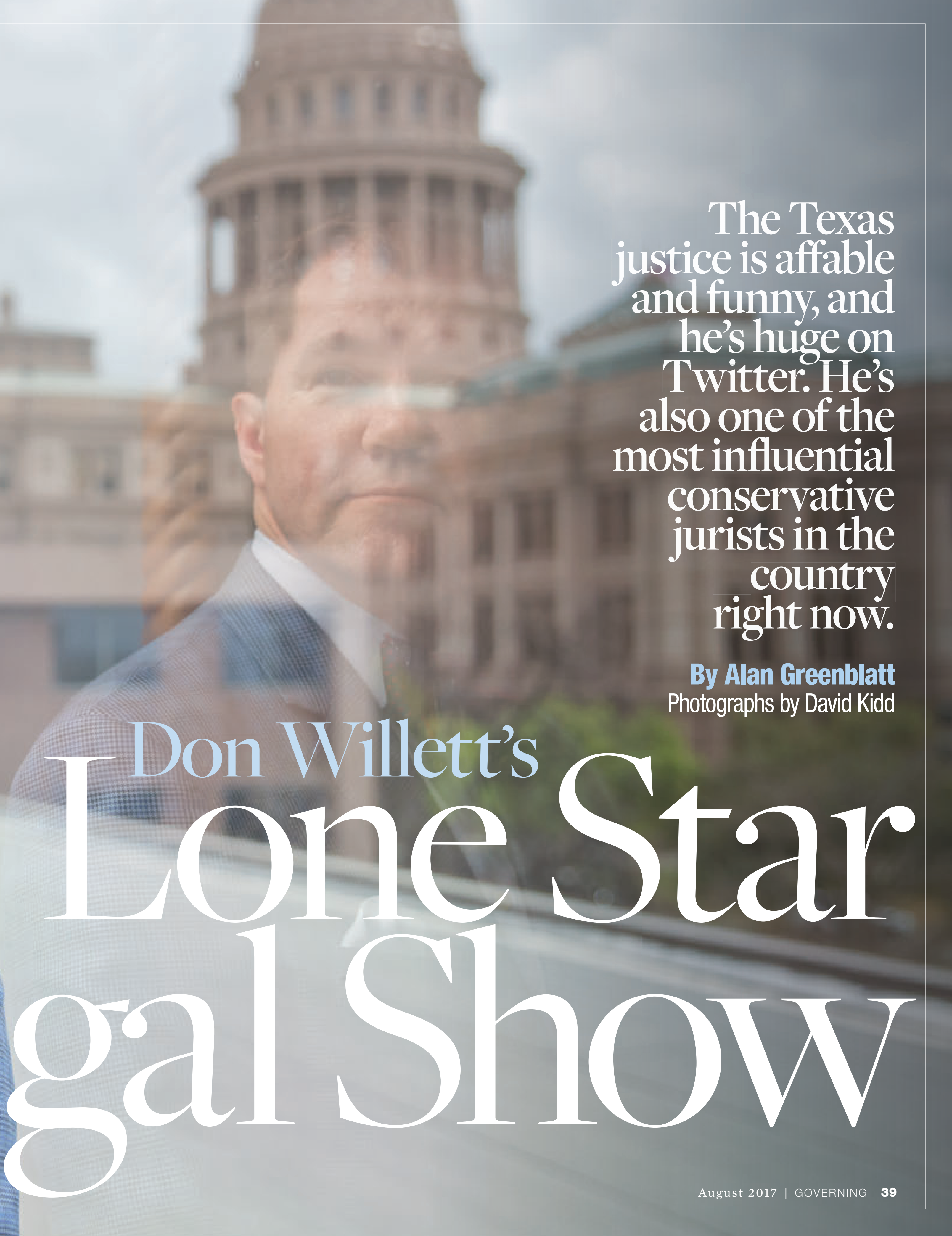


Don Willett's Lone Star gal Show

The Texas justice is affable and funny, and he's huge on Twitter. He's also one of the most influential conservative jurists in the country right now.

By Alan Greenblatt
Photographs by David Kidd

IN the past few decades, the number of American jobs requiring a state license has exploded. Roughly one out of every four workers must seek a license to work. Now some institutions are starting to push back. Perhaps the most prominent—or at least most fervent—of these is the Texas Supreme Court. In 2015, the court struck down the state's licensing requirement for eyebrow threaders (cosmetologists who remove unwanted facial hair using a thread), finding it unreasonable.

One of the justices, Don Willett, who has served on the court since 2005, went much further. The state's regulatory requirements were not just extreme, he concluded, but "preposterous." To pursue the low-paying job, prospective eyebrow threaders had to pay thousands of dollars in fees and were required to complete more than five times as many hours of initial training as emergency medical technicians. "If these rules are not arbitrary," Willett wrote in a concurring opinion, "then the definition of 'arbitrary' is itself arbitrary."

Willett's concurrence in the case, Patel v. Texas Department of Licensing and Regulation, has been hailed as one of the most important conservative opinions of recent years. It was expansive enough to trigger talk about reviving a judicial approach to regulation that has lain dormant for decades. It's one of the main reasons Willett's name appeared on President Trump's short list for the U.S. Supreme Court.

Willett is pretty blunt about his overall intent. He's a champion of individual rights, claiming a central role for the judiciary in protecting those rights against state encroachment. "Liberty is not provided by government," he wrote in Patel. "Liberty pre-exists government." In that context, Willett wasn't talking about speech or privacy rights. He was referring to economic liberty: the right to earn a living by unfettered free choice in a capitalist economy.

For someone in the important but relatively obscure position of state supreme court justice, the 51-year-old Willett has engendered an unlikely cult of personality. He's hailed by conservative columnists and think tanks and has been profiled in *The Wall Street Journal* as one of the right's leading legal thinkers. It's hard to find anyone, even among his liberal critics, who won't acknowledge Willett's combination of legal acumen and down-home style.

During his 12 years on the Texas bench, Willett has pushed libertarian ideas in language that is readily accessible to people who lack legal training. He appears frequently at law schools and other public venues. He's all over social media, telling jokes and doing everything he can to demystify the work of his court. "Among law students, at least those who follow judicial politics, he's a rock star," says Ilya Shapiro, a senior fellow at the libertarian-leaning Cato Institute. "It's in part because of Twitter and in part because of his personality."

Willett's Twitter feed is often patriotic and Texas proud, but it's primarily nonpartisan, filled with puns, encomiums to bacon and pictures of his kids slopping in the mud. He has roughly 90,000 followers. By comparison, Nathan Hecht, the chief justice of the Texas Supreme Court, has just over 2,000. "There's not a very saturated market for judges who enjoy interacting with people and are good at it," says Chris Bonneau, a political scientist who studies courts at the University of Pittsburgh. "Willett rejects these old-school norms about how judges should only speak from the bench, and I think rightly so."

Willett may be an amiable self-promoter, but there are substantive reasons why his Patel opinion made such a big splash. He went out of his way to question one of the most time-honored ideas in American jurisprudence: judicial restraint. Conservative judges have at least paid lip service in recent years to the notion of restraint, for fear of being accused of legislating from the bench. Willett doesn't do that. In his Patel opinion, he wrote that he opposes judicial activism, but argued that "judicial passivism" is also "corrosive."

"We see a guy who's willing to say that just as courts shouldn't exceed the rule of law, neither should anyone else," says Michael Quinn Sullivan, president of Empower Texans, a conservative nonprofit that's influential in state politics. "We've seen a lot of judges, all the way up the judicial food chain, give a lot of deference to agencies and to legislative bodies for taking actions that are just as unconstitutional as an activist judge creating law out of thin air."

Willett devotes a fair amount of space in his Patel opinion to describing how courts have been far more timid about calling out lawmakers when it comes to overreaching on economic issues than in other areas such as privacy or political speech. In his view, judges must intervene whenever the government tramples on an individual's right to pursue an economic path of his or her choice. "I believe that judicial passivity is incompatible with individual liberty and limited government," he wrote in Patel.

Willett had made similar arguments before. But Patel is where he took up a very old legal dare. Back in 1905, the U.S. Supreme Court ruled in Lochner v. New York that the state could not limit the working hours of people employed by a bakery. That case became the basis for crucial conservative judicial opinions invalidating economic regulation, including workplace protections. During the New Deal period of the 1930s, however, the court changed its approach. Lochner was never formally overturned, but the ideas underpinning the decision became judicial kryptonite.

A couple of years back, *The New Republic* ranked Lochner among the court's worst decisions, arguing that a revival of the ideas in Lochner would undermine the government's ability to regulate workplace safety, employment discrimination and minimum-wage rates. That's not an uncommon reading among liberals.

Even Robert Bork, the late conservative judicial icon, called Lochner "the symbol, indeed the quintessence, of judicial usurpation of power." Chief Justice John Roberts has cited Lochner numerous times, describing it as a "discredited decision." Since its repudiation, the courts have only rarely tossed out laws governing economic activity. "There's been this sense in constitutional law, at least for the last 70 to 80 years, that government has full power over regulation of economic matters," says Josh Blackman, a professor at the South Texas College of Law in Houston.

Willett is having none of it. The "Lochner bogeyman," in his view, has for too long stopped judges from doing their jobs, which include questioning the motivations and rationales of lawmakers when they impose new economic rules. In the Patel case, he wrote that some licensure requirements are justified by health and safety concerns, but eyebrow plucking is clearly not one of them. "This case concerns far more than whether Ashish Patel can pluck unwanted hair with a strand of thread," he wrote. "This case is fundamentally about the American dream and the unalienable human right to pursue happiness without curtsying to government on bended knee."


Willett's down-home style has made him a "rock star" in legal circles.

A few conservative legal scholars had previously promoted the idea that it was time to revive Lochner and get judges back in the game of challenging a broader range of economic regulation. The fact that Willett did so in a state Supreme Court opinion, joined by two of his colleagues, had far greater resonance. "Law professors, we can write whatever we want, and it serves no purpose," Blackman says. "When judges do it, it makes a big difference."

Willett's opinion in Patel has yet to make as big a difference as his allies had hoped, or his critics had feared. Courts in Texas are not throwing out economic regulations wholesale. Judges elsewhere haven't adopted Willett's rationale as a means of quashing labor protections or commerce-related laws such as the Affordable Care Act.

But that could still happen, especially if Willett brings his ideas with him to the federal bench. His willingness to wade into one of the most contentious areas of constitutional law has made a big impression, at least among those touting him for a federal post. The fact that recent Supreme Court picks have danced around issues such as abortion and campaign finance on grounds of "restraint" has left some conservatives looking to promote judges whose positions are more clear. Too many recent nominees, they complain, ended up drifting to the left after they reached the bench, in deference to progressive acts of Congress or state legislatures. Willett has offered abundant evidence that that wouldn't happen in his case. "This particular opinion wasn't just a break from the ordinary," says David Bernstein, a pro-Lochner professor at George Mason University law school. "To write a scholarly opinion taking a controversial stand shows that he's not a shrinking violet, that he'll stand up for what he believes."

The current justices on the U.S. Supreme Court all went to Harvard or Yale. They are mainly products of an elite establishment, whether of the left or right. Willett comes from different stock. He was adopted and raised in a double-wide trailer in the small town of Talty, in northeast Texas, by a single mom who scratched together a living waiting tables. His adopted father died when he was 6, leaving no will but providing Willett with a nascent sense of "the law's power to impact lives." Willett started working in his teens as a drummer and a professional bull rider. "I really wanted to be a calf roper," he says, "but there's no way we could afford a horse with cow-handling know-how."

Willett continued to work through college, graduating from Baylor University with a triple major in economics, finance and public administration. He then went to law school at Duke, where he earned a master's degree on the side. Willett fell into political life almost immediately, working for George W. Bush both as governor and president. In 2003, he returned to Austin to work with Greg Abbott, who was then the state's attorney general and is now governor.

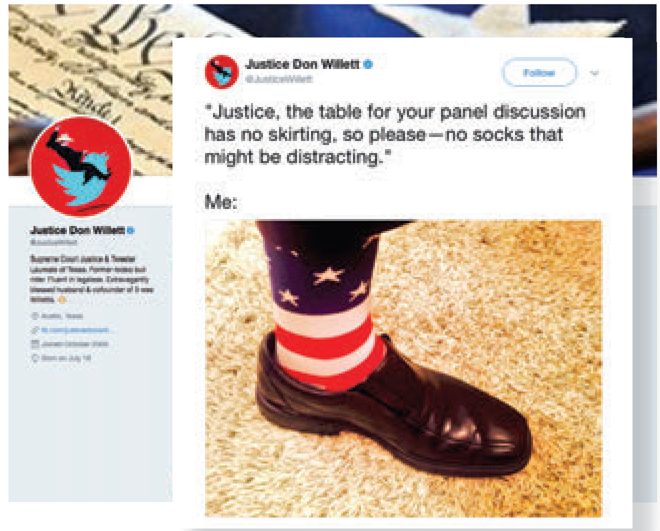
Willett's hardscrabble beginnings may be one of the reasons for his thriftiness. His doctor ordered him to move his wallet from his back pocket because it was so overstuffed with coupons and get-one-free cards that it was throwing out his back. Willett is in the habit of spending a couple of days a week writing and working by himself at his neighborhood Chick-fil-A. But when a new Chick-fil-A opens, he'll show up there, sometimes camping out overnight because the first 100 people in line at a new location receive a year's worth of free food. Willett wears his suits and bow ties until they turn to shiny threads.

All of Willett's former clerks got together this spring to write a letter to Trump urging him to appoint the judge to a spot on the Fifth U.S. Circuit Court of Appeals, which sits in New Orleans but covers Texas. But despite all his connections, Willett may not get one of the two currently empty seats on the court. Abbott, U.S. Sen. John Cornyn and the White House counsel's office all seem to have competing candidates in mind. "He may have a better shot at the Supreme Court than at the lower court, as strange as it sounds," says Blackman.

Willett is taking the possibility of a slight in stride, gearing up to run for another six-year term on the Texas Supreme Court next year. By the time of his most recent run in 2012, he recalls, social media was ubiquitous. He'd tweeted only occasionally up until then, but found it to be an indispensable way to get his name in front of voters. Not many citizens can name the supreme court justices of their state, but in Texas justices still have to go after millions of votes. Willett understands the iron law of political life: "To do my job, I must keep my job."

Given the size of his following and the amount of engagement he receives, other politicians now ask Willett for tips on tweeting. His Twitter persona is that of an easily bemused individual. The jokes aren't hilarious, but in the often-scabrous context of Twitter, they can come across as refreshing. He recently posted a photo of a cluster of red, white and blue pickup trucks, captioning them as the "greatest pick-up line of all time." It's all well and carefully calibrated to appeal to a broad range of people, without putting off partisans. "He's one of a handful of judges who is active on Twitter," says Michael Nelson, a political scientist at Penn State. "It's positive about his work—how he called the person who got the highest score on the Texas bar exam, things that have happened with his clerks. It's a great image for someone who's trying to project trustworthiness and fairness."

Willett is determined to write in his own voice, whether it is on Twitter or in formal opinions. Like Supreme Court justices John Roberts and Elena Kagan, as well as the late Antonin Scalia, Willett also tries to write so that laymen can follow his ideas. Most state supreme court opinions go unread; Willett's get shared on Twitter and Facebook. Coming up with a punchy phrase—and not shying away from occasional pop culture shout-outs—increases his chances to be quoted directly in news accounts, which gets his name in the papers. "Justice Willett has really typified the rejection of jargon and language that sounds like it came from Mt. Olympus rather than earth," says Evan Young, a former Scalia clerk who practices in Texas.



His plain-language approach is credited with helping him win the support of his peers. Even though the Texas Supreme Court is made up of nine Republicans, it produces at least as many 5-4 decisions as the U.S. Supreme Court. Willett nonetheless managed last year to convince all his colleagues to sign off on his opinion finding, for the first time in decades, that the state's school funding system was constitutional.

But Willett still has his critics, who say he puts his thumb on the scale when it comes to religious liberty. Part of his job in the Bush administration was reaching out to religious groups. In a case last year that involved a school district's ban on cheerleaders including religious messages on banners, Willett wrote a short concurring opinion that seemed to suggest a strategy for the cheerleaders to get the messages approved. He has come down against same-sex marriage rights, notably in a case decided in June that says the same-sex spouses of city workers in Houston have no inherent right to benefits. "Basically, I think Willett hides behind a bow tie and an aw-shucks demeanor," says Houston attorney Jason Truitt. "His rulings show him to be on the wrong side of history on the few civil rights issues that come before him."

After Willett emerged as a possible U.S. Supreme Court pick earlier this year, the liberal-leaning Center for American Progress said his "would be a dangerous appointment to the federal bench." But for conservatives, Willett is a dream come true—a legal scholar with a modern-day log cabin background who has kept the common touch. He's willing to press their agenda from the bench, even if it means breaking with decades of precedent to do so. "There's something distinctive about him," says Shapiro, the Cato scholar. "His presentation skills make him stand out among perhaps equally qualified legal minds." **G**

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THE END OF PARKING TICKETS

(AND WHY THAT COULD BE A BIG PROBLEM FOR CITIES)

Self-driving cars will impact city finances in a lot of important ways. By Mike Maciag

Like a growing number of cities, Austin, Texas, is getting ready for the arrival of autonomous vehicles. On any given afternoon, self-driving test models can be seen darting along a Formula One race track. More than 500 electric vehicle charging stations are already spread throughout the city. (Autonomous cars are expected to utilize electric drivetrains.) In March, the city council adopted a resolution prioritizing plans for self-driving vehicles.

Austin's transportation director, Robert Spillar, is working to prepare the city. But earlier this year, a realization hit him about what driverless cars might mean for his budget. "It struck me," he says. "Half my revenue for transportation capacity and operations improvements is based on a parking model that may be obsolete in a dozen years."

In the not-too-distant future, fleets of fully autonomous vehicles could be transporting riders all across Austin's urban landscape, largely eliminating not only the need for private vehicles but also the revenue they currently bring in. Parking fees are a critical funding source for the Austin Transportation Department, accounting for nearly a quarter of its total budget. Driverless vehicles would also cut into parking tickets and traffic citations, two other significant revenue streams for Austin and many other cities. "Municipalities generate a whole lot of revenue as a byproduct of parking management and traffic enforcement," Spillar says. "If all that suddenly disappears, we've got a huge financial issue to deal with."

To assess how vulnerable cities' budgets could be, *Governing* conducted the first national analysis of how city revenues might be affected by autonomous vehicles. For the 25 largest U.S. cities, we requested and obtained revenues for parking collections and fines, traffic citations, traffic camera fines, gas taxes, vehicle registration, licensing and select other fees. In all, these 25 cities collectively netted nearly $5 billion in auto-related revenues in fiscal 2016, or about $129 per capita. While some cities will hardly see any effect on their budgets, others could incur big fiscal consequences. For example, New York City generated $1.2 billion in 2016.

Additional sources of revenue could further decline in the long run. Because they're electric, autonomous vehicles will further reduce general sales tax collections on gasoline. Many cities also receive revenues from taxis, car rentals and other businesses expected to undergo disruption in a driverless car era.

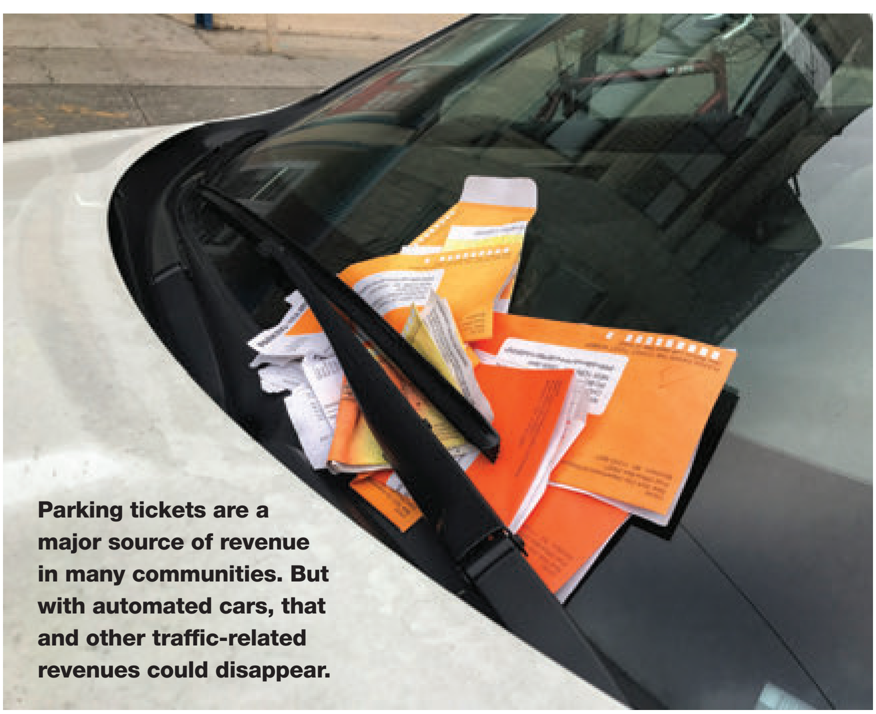
At the same time, there will be cost savings, such as a reduced need for traffic enforcement. It's far too early to say exactly when and how autonomous vehicles will reshape American cities. But regardless of what unfolds, their introduction will carry numerous fiscal implications for local budgets.

High-end vehicles today already offer limited automated driving features. Market research firms expect fully autonomous vehicles that require no human intervention to be commercially available by the early part of the next decade. It's likely to take much longer for them to proliferate to the point where parking and other public revenue streams incur major reductions. But in the long run, those hits seem inevitable.

Lois Scott, the former chief financial officer of Chicago who is studying autonomous vehicles, foresees transportation being offered as a package service in the relatively near future. People might pay hourly rates for rides. Vehicles will pick up commuters throughout the day and park themselves in remote storage facilities when not in use. Once widespread adoption occurs, Scott expects cities to lose an average of 10 to 15 percent of operating revenues. "The combination of an electric vehicle world and the sharing economy will have a powerful impact," she says.

Estimates of just how much city revenues may eventually diminish vary considerably. Cities identified as most likely to incur the steepest revenue losses in our analysis were densely populated localities where parking comes at a premium. Those reporting the highest related revenues per capita included San Francisco ($512), Washington, D.C. ($502), and Chicago ($248). Totals were much larger in cities assessing special taxes on parking operators, deploying traffic cameras or those receiving substantial shared revenues from states in the form of gas taxes or vehicle registration fees. By comparison, any revenue reductions should hardly register in Houston, Jacksonville and some other cities. Texas' large cities reported among the lowest per capita revenues, largely a result of the state distributing essentially no vehicle revenues.

Most big cities maintain large and diverse enough revenue streams to absorb such hits to their budgets. But for some smaller jurisdictions, sizable financial shortfalls may lie ahead. In addition to the data from big cities, *Governing* analyzed a more limited set of fiscal year 2014 financial



Parking tickets are a major source of revenue in many communities. But with automated cars, that and other traffic-related revenues could disappear.

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numbers reported to the Census Bureau by a national sample of counties, townships and villages. In 74 mostly smaller jurisdictions, parking revenues and all types of legal fines, court fees and forfeiture of deposits totaled more than 10 percent of general revenues.

Localities most reliant on parking revenues tend to be resort towns. This is particularly apparent in Delaware's coastal communities. In Rehoboth Beach, parking-related revenues account for 30 percent of the current budget. That makes sense given that most streets throughout the city are metered, and spots fill up quickly during the summer months. "[Autonomous vehicles] could have a huge impact on the city's budget and the services we provide," says Krys Johnson, the city's director of communications.

For several large cities, gasoline taxes account for the single largest source of revenue. Chicago and Columbus, Ohio, generate significant funds from locally administered gas taxes. Meanwhile, most other cities receive state-levied fuel taxes, plus general sales taxes on purchases. Phoenix, for instance, received $116.7 million in gas taxes last year.

It's assumed that autonomous vehicles won't be speeding or running red lights, another source of revenue for cities. On average, the largest cities took in $8.5 million in traffic citation payments. But generally, traffic tickets aren't significant revenue generators, and savings from reduced enforcement and administration costs should offset much of the loss. Most jurisdictions aren't making huge sums of money on speeding and red light cameras, either. Still, Chicago, New York and the District of Columbia all reported camera revenues around or exceeding $100 million.

Numerous tiny rural and suburban jurisdictions scattered across the country, however, still rely heavily on traffic citations to fund government. Some are notorious speed traps. This has surfaced as an issue in Missouri, where lawmakers have passed a bill limiting localities' fines and court charges to 20 percent of general operating revenue.

Some independent government agencies and special purpose municipal entities will be especially liable to major revenue hits. Convention centers and airports generate much of their revenue from parking. The Phoenix Aviation Department, for instance, reported $75 million in public parking revenues last year. Parking-related income is often routed to cities' general funds. But some transportation departments and other agencies with budgets directly tied to these revenues will be much more vulnerable financially.

The Ann Arbor, Mich., Downtown Development Authority, in addition to supporting improvement projects and programs, manages several parking lots and garages that provide about three-quarters of its annual revenue. Susan Pollay, the authority's director, says she's already seeing a shift away from car commuting. Bike-sharing and car-sharing services are gaining in popularity, and more young people are choosing not to get driver's licenses. "It's not going to be a switch flipped in five years," she says. "We're starting to experience it today." Pollay is made aware of the potential effects on her budget every time she sees autonomous vehicles from the University of Michigan's nearby testing facility cruising city streets.

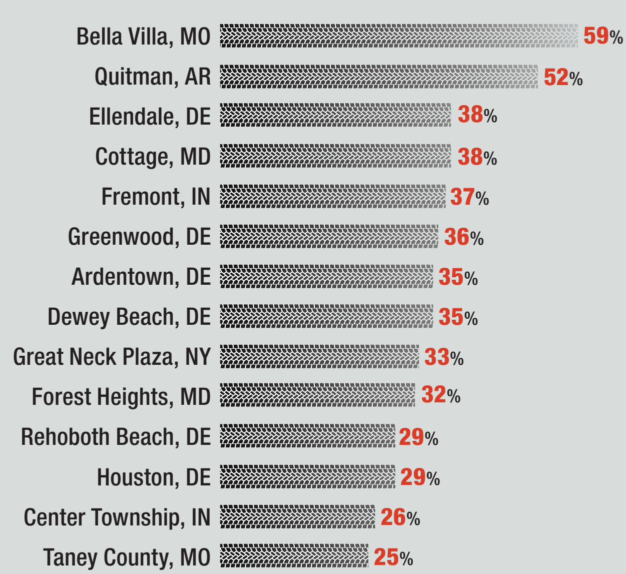
Still, Ann Arbor's growth has pushed its parking system to peak capacity during the daytime. That's led some residents and local officials to call for the construction of a new public garage. Others want to hold off, given the disruption that's set to take place with autonomous vehicles and on-demand ride-hailing. "It could turn out 100 different ways," Pollay says. "We have to design and plan flexibly."

Just how much autonomous vehicles alter budgets will depend largely on how they're adopted. A future in which low-cost shared autonomous vehicle services transport multiple passengers might lead many people to decide to go car-free, resulting in lower parking revenues, driver's license fees and other costs tied to owning a car. Alternatively, if private autonomous vehicles emerge as the predominant mode of transportation, a larger share of the population might be willing to accept longer commutes or travel more often. This could add to cities' congestion woes and likely drive up infrastructure costs. Ashley Hand of the consulting firm CityFi says she expects a hybrid of the two scenarios: Some will own private autonomous vehicles, while numerous other households will opt to go car-free to save money.

The way the technology evolves will hold major fiscal consequences for public transportation agencies. Driverless cars could help solve the "last mile" problem of better connecting people in less populated areas to transit hubs. They could also cut labor costs, which comprise about three-quarters of bus operating expenses for the nation's largest transit systems.

Small Towns, Huge Revenues

Governing **reviewed financial data reported by a national sample of local governments to the U.S. Census Bureau. These jurisdictions reported revenues for parking, traffic fines and other types of court fees that exceeded a quarter of total fiscal 2014 general revenues.**



SOURCE: *GOVERNING* ANALYSIS OF CENSUS BUREAU 2014 ANNUAL SURVEY OF STATE AND LOCAL GOVERNMENT FINANCES

Where the Money Comes From

GOVERNING SURVEYED the 25 largest U.S. cities for revenues that could eventually be hindered by the proliferation of autonomous vehicles. In all, cities took in a total of nearly $5 billion in fiscal 2016 from parking-related activities, camera and traffic citations, gas taxes, towing, vehicle registration and licensing fees.

Cities with the highest reported revenues on a per capita basis included Chicago, San Francisco and Washington, D.C. Some of these jurisdictions reported larger totals in part because they assess parking taxes or levy local gasoline taxes. Others, such as New York, derive significant revenues from parking fines and traffic citations.

Reported revenue totals are not comprehensive of all sources. They do not include general sales taxes on gasoline, parking or vehicle purchases, which were generally unavailable. These revenues can be substantial—Los Angeles received approximately $42 million in sales taxes from vehicle purchases last year. Totals also do not include taxes and fees on car rentals, taxis and ride-hailing companies.

Parking: Revenue from meters, lots and facilities. It also includes parking taxes levied in select cities and shared revenues from private operators; it excludes residential permit fees.
Parking Citations: All fines and related revenues from parking violations.
Traffic Citations: These revenues were typically reported by local courts or police.

Traffic Enforcement Cameras: Citations paid from traffic and red light cameras operating in some cities. Any revenues paid to camera vendors are subtracted unless noted.
Towing: Revenues also include storage fees, contracts and program expenses.
Gas Taxes: Locally administered motor fuel taxes and shared revenues from states. It does not include general sales taxes.
Motorist Licensing: Amounts include both vehicle registration and licensing fees where shared revenues from states are not reported separately.
Vehicle Registration: State and locally administered annual vehicle registration fees and vehicle property taxes where available.

		FY 2016 REVENUE TOTALS SHOWN IN MILLION DOLLARS								
CITY	PER CAPITA TOTAL	TOTAL	PARKING	PARKING FINES	TRAFFIC CITATIONS	CAMERA CITATIONS	TOWING	GAS TAXES	MOTORIST LICENSING	VEHICLE REGISTRATION
Austin	>$39	>$36.6	$11.8	$4.0	$18.9	$0.8	UNAVAILABLE	$0	$0	$1.0
Boston	$218	$146.9	$17.4	$58.9	$1.7	$0	$1.3	$0	$0	$67.6
Charlotte	>$85	>$71.9	$1.1	$0.9	UNAVAILABLE	$0	$0.1	$20.4	$0	$49.4
Chicago	>$248	>$671.3	$145.0	$162.5	UNAVAILABLE	$101.2	$14.7	$117.4	$0	$130.5
Columbus	>$61	>$52.7	$6.4	$6.6	UNAVAILABLE	UNAVAILABLE	$0.0	$24.6	$15.1	$0
Dallas	>$13	>$17.8	$6.8	$2.8	$8.0	UNAVAILABLE	UNAVAILABLE	$0	$0	$0.1
Denver	$184	$127.7	$22.6	$30.6	$9.9	$0.6	$2.1	$28.6	$5.3	$28.1
Detroit	$152	$102.3	$13.2	$11.7	$17.8	$0	$1.4	$58.1	-	-
El Paso	$25	$17.4	$1.3	$2.1	$13.5	$0.5	$0	$0	$0	$0.1
Fort Worth	$36	$30.9	$7.8	$1.5	$11.0	$8.9	$1.7	$0	$0	$0.0
Houston	$15	$33.6	$8.9	$10.9	$13.8	$0	$0	$0	$0	$0
Indianapolis	>$96	>$82.4	$2.7	INCLUDED IN PARKING	UNAVAILABLE	$0	$0.3	$51.6	$27.8	$0
Jacksonville	$22	$19.3	$3.0	$1.1	$4.1	$1.1	$0	$6.0	$4.0	$0
Los Angeles	$111	$441.5	$190.1	$148.0	$5.1	$0.0	$12.2	$84.5	$1.6	$0
Memphis	$72	$47.0	$0.9	$1.1	$12.6	$2.3	$0	$17.8	$0	$12.2
Nashville	$87	$57.6	$6.0	$0.6	$2.5	$0	$0	$19.7	$0	$28.8
New York	$138	$1,176.0	$392.7	$545.4	$23.8	$96.3	$24.2	$0	$0	$93.7
Philadelphia	$210	$329.2	$181.6	$83.0	$6.0	$15.1	$5.5	$38.0	$0	$0
Phoenix	$168	$271.5	$86.3	$0.9	$4.9	$0.9	$2.0	$116.7	$59.8	$0
San Antonio	$15	$22.6	$9.5	$2.0	$5.5	$0	$3.7	$0	$0	$2.0
San Diego	$57	$80.2	$13.1	$32.1	$4.7	$0	$0	$29.6	$0.6	$0
San Francisco	$512	$445.6	$234.0	$88.2	$8.6	$1.3	$10.0	$23.0	$78.1	$2.3
San Jose	$56	$57.4	$16.4	$11.4	$1.0	$0	$1.1	$21.0	$0.4	$6.1
Seattle	$233	$164.1	$80.5	$20.8	$2.2	$14.1	$0.7	$14.3	$31.4	$0.0
Washington, D.C.	$502	$341.8	$41.0	$68.3	$3.2	$170.9	$0.4	$25.3	$4.4	$28.3

Notes: Revenues represent totals for general funds, transportation capital funds and all other areas of cities' budgets. Some figures are preliminary. Vehicle property taxes were unavailable in a few cities receiving such revenues. All revenues Detroit receives from the state are reflected in its gas tax total. Parking, towing and traffic camera totals for San Francisco are for FY 2015. New York's parking revenues include $178 million in parking taxes received in sales tax year 2016. The four California cities collectively received approximately $800 million in additional property tax revenues in lieu of vehicle licensing fees from the state (not shown).

See expanded data with notes for each city at governing.com/autorevenues

But there's concern that some riders might simply forgo transit altogether, says Jennifer Bradley, who heads the Aspen Institute's Center for Urban Innovation. In New York City, a recent study by transit consultant Bruce Schaller found ridership for app-based ride services tripled between the spring of 2015 and last fall, while bus ridership declined and subway ridership dropped for the first time in years. If ride-hailing and ride-sharing companies don't have to pay drivers, they could potentially offer transportation at a price so low that people will chose to travel by car all the way to their destinations, draining transit ridership revenues.

Gasoline tax revenues may be first to shrink as vehicles shift to electric drivetrains. Volvo recently announced that, by 2019, all its new models will be electrics or hybrids. In 2015, state-levied motor fuel taxes amounted to $11 billion in transfers to local government or direct spending on local infrastructure. Another $5.2 billion went to transit, according to Federal Highway Administration data.

Later on, if the costs of commuting by ride-sharing come down and more people opt out of vehicle ownership, governments will lose out on license and registration fees and sales taxes on vehicle purchases. Eleven of the 25 largest cities reported annual registration and licensing revenues exceeding $25 million. Scott, Chicago's former chief financial officer, also expects an eventual reorientation of entire local property tax systems as autonomous vehicles improve mobility and increase property values in neighborhoods currently deemed less desirable.

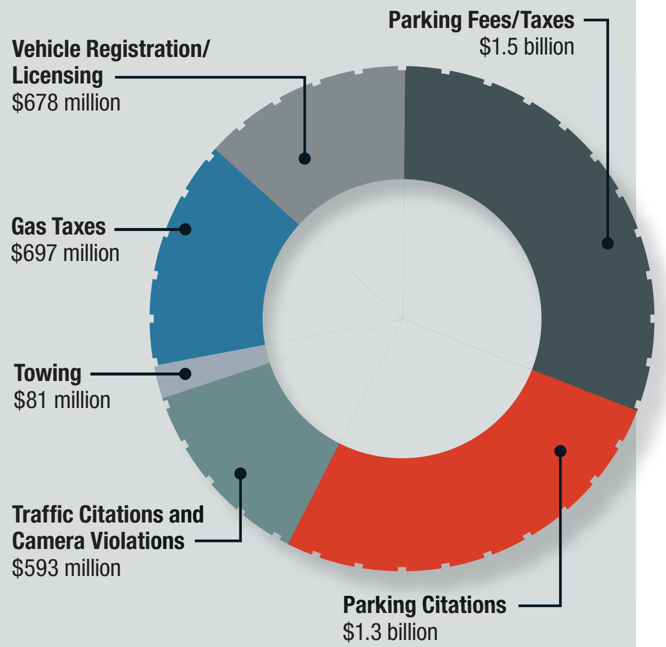
This leads to the larger issue of how motorists should pay for transportation, one that policymakers have long contended with. Many seem to think the solution is a vehicle miles traveled (VMT) fee as a replacement for traditional gas taxes. The idea isn't new, but autonomous vehicles and the new technology that accompanies them would make VMT fees much easier to administer, says Paul Lewis of the Eno Center for Transportation. Eno proposes a national per-mile fee on autonomous vehicles as a baseline, with the ability to vary rates based on types of vehicles, number of passengers and other factors. Oregon operates a limited VMT program now, charging volunteer participants 1.5 cents per mile and crediting them for fuel taxes paid. The state Department of Transportation reports it's considering testing new technology that would enable localities to assess their own fees on top of the state rate, which would likely require federal approval.

States and localities might recoup lost revenue by taxing or licensing autonomous vehicle services. Seattle collected $2.4 million in the last fiscal year in car-sharing fees paid by services such as car2go in lieu of charging subscribers for on-street parking. Electric vehicles will also require charging stations. But these sources alone probably won't overcome sizable revenue reductions elsewhere. "We couldn't find adequate sources of new revenue that would compensate for the losses," says Kevin Desouza, a professor at Arizona State University who researches the issue.

In other ways, however, the introduction of autonomous vehicles should yield significant cost savings. Parking and traffic enforcement would require far fewer resources. If autonomous vehicles help to ease congestion, infrastructure maintenance and construction costs could go down in the long run. The parking lots and garages that currently take up huge portions of downtown land could be redeveloped into new revenue-generating residential or commercial buildings as the need for parking subsides.

How Revenues Break Down

The 25 largest cities generated a total of nearly $5 billion from major revenue sources related to vehicles in fiscal year 2016.



Traffic citation revenues were unavailable from four cities. A portion of gas tax state revenues shared with Detroit and Denver include registration or licensing fees.

"We're going to start to rethink how we make use of our public facilities," says Ken Husting of Los Angeles' parking management division. One development project in the city's downtown features a parking garage that can be altered to eventually accommodate retail and other uses. Some vehicles on the market today already employ technology enabling them to park in much tighter spaces. Unused street parking spaces, Husting says, could be converted into wider sidewalks, bike lanes or transit lanes.

One thing everyone agrees on is that cities shouldn't wait to plan for autonomous vehicles. Desouza says American cities are well behind other parts of the world in this regard. A 2015 National League of Cities analysis of urban transportation planning documents found that only 6 percent of the plans considered the potential effects of driverless technology. It's critical, Desouza says, that governments first engage citizens on what's important to them. "The hits can be minimized," he says, "but it really comes down to how the local governments are planning for it."

While it's far too early to know exactly how the technology will evolve, the consequences are certain to go far beyond any city's bottom line. "It's hard to think of an aspect of city government," says the Aspen Institute's Bradley, "that won't eventually be touched and changed by autonomous vehicles." **G**

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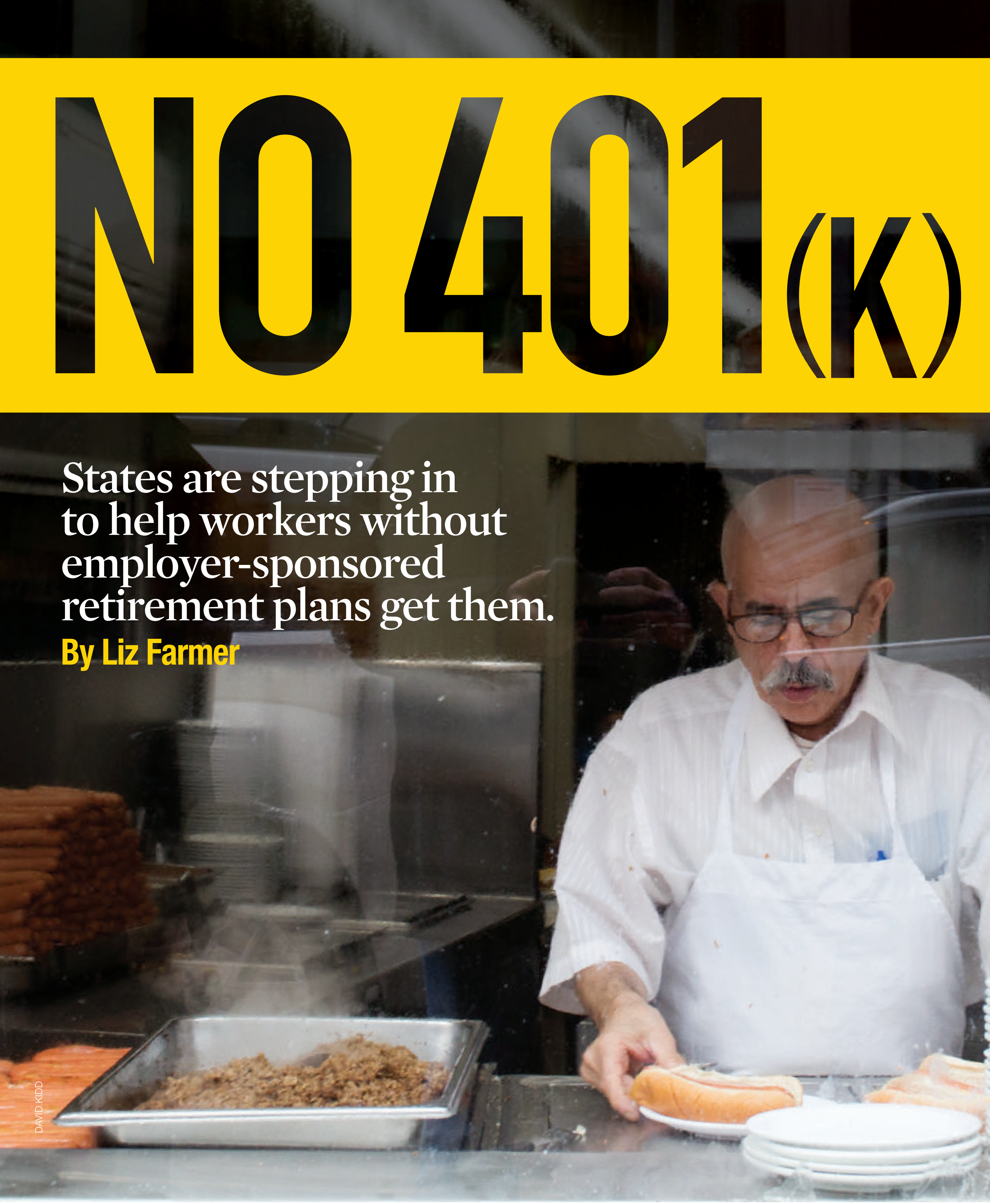
NO 401(K)

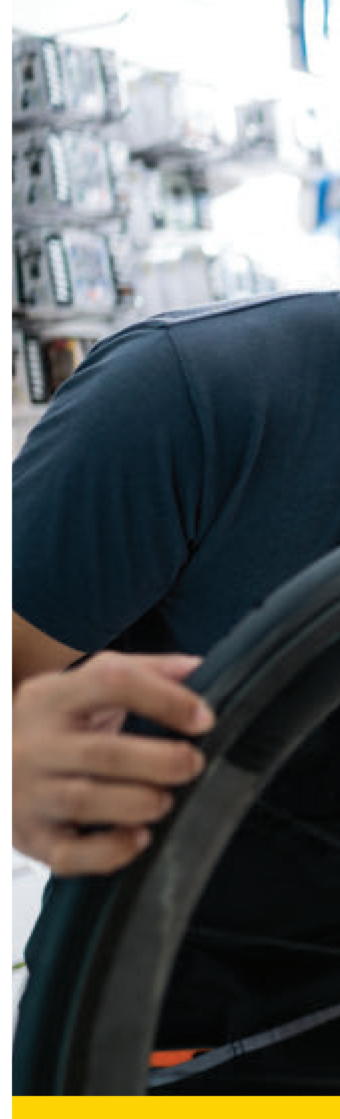
States are stepping in to help workers without employer-sponsored retirement plans get them.

By Liz Farmer



DAVID KIDD

? SOME STATES HAVE YOU COVERED.



Matt Birong spent years cooking in upscale restaurants in Boston and New York City. In an industry notorious for low wages and zero benefits, he did something very unusual: He opened a retirement savings account for himself. Birong admits that if his parents hadn't insisted he do so, he likely would have skipped the process. Even then, the notion of setting up an investment plan on his own would have been overwhelming if he didn't have a trusted friend in the financial services industry to walk him through it.

Now, as owner and head chef of 3 Squares Café south of Burlington, Vt., Birong wishes he could do the same thing for his employees. He already offers other unusual perks for the industry to attract quality and loyal workers, such as paid time off after one year of service. But setting up a retirement savings program for his roughly 15 employees? "I've got my head under a sink making sure the water's not leaking on the tenants downstairs," he says. "I just don't have the time; it's not that I don't want to."

Birong's situation is similar to that of many small-business owners across the country and is a big reason why half of private-sector workers don't have an employer-sponsored retirement plan. Of those 57 million people, only a small percentage have saved on their own and those savings are generally paltry. According to the National Institute on Retirement Security, the median retirement account balance is $3,000 for all working-age households and $12,000 for near-retirement households.

Some states want to change that. This July, Oregon became the first to offer a retirement plan to full- and part-time private-sector workers who don't have access to one through their employer. Eight other states—California, Connecticut, Illinois, Maryland, Massachusetts, New Jersey, Vermont and Washington—are implementing similar plans that should reach full rollout within the next five years. In general, the programs will run independently from the state and will be paid for through retirement account fees. When the nine state plans are up and running, they will serve roughly one-quarter of private-sector workers across the country. In California alone, the plans will cover nearly 7 million people.

This effort to close what many feel is a retirement security gap among working Americans has been batted around for more than a decade, first at the federal level and then by states. During President Barack Obama's first term, he proposed a national retirement savings program that would automatically enroll workers with an option to opt out. The effort stalled in Congress, so in 2015 the administration launched its myRA program, a voluntary retirement program for workers who could afford only small monthly contributions. By then, states were pushing hard to offer their own retirement plans. California in 2012 and Connecticut in 2014 set up feasibility studies for a state-run retirement plan for private workers. Illinois in 2015 became the first state to pass legislation approving such a program. And last year, California and Connecticut released the findings from their studies, which helped spur adoption of retirement programs in those states and in a handful of others.

But just as the momentum seemed to be building for the programs, Congress delivered a blow to the concept. Earlier this year, it reversed an Obama administration rule that exempted state-run individual retirement account (IRA) plans from some aspects of the Employee Retirement Income Security Act (ERISA), thus calling into question states' legal authority to sponsor private-sector retirement programs. The move, which was a surprise to many, was spurred by financial groups that opposed these programs. But that isn't stopping the nine states from moving forward with their plans—and several more may join them. This determination to push on suggests that states are willing to solve the national retirement crisis without federal help and despite federal roadblocks.

There's certainly good reason to see the retirement crisis as a state problem: Research shows that it is states that will be footing the bill for Americans who aren't financially prepared to enter their golden years. "Nothing has happened at the federal level," says Rocky Joyner, vice president and actuary at the financial firm Segal Consulting. "State officials are saying, 'These people are retiring in my community, in my state.'"

That reality is one reason why Segal Consulting conducted an analysis looking at what would happen if all full-time workers gained access to retirement plans. The findings, released earlier this year, show that states could save big on future Medicaid costs: a collective $5 billion in the first decade. These savings would be a result of potentially vulnerable households being removed from the poverty rolls by the time they retire. More specifically, the Segal study found that in the first 10 years after a retirement savings plan is introduced, 15 states would save more than $100 million each in Medicaid payments; California and New York alone would combine to save more than $1.1 billion.

The study has validated what experts have long warned—that states will ultimately pay for poor retirees. That notion has helped fuel bipartisan support in an era of constrained finances. "This is an approach where we can save taxpayer dollars," says Sarah Gill, senior legislative representative for AARP. "This is not a red or blue state issue." In fact, the idea of having a government-sponsored, automatic-enrollment IRA plan actually came from a 2006 paper co-authored by researchers from the moderate-left Brookings Institution and the conservative-leaning Heritage Foundation.

But while Republican-dominated states such as Arkansas and Utah are looking at establishing retirement savings programs, the issue has gained the most traction in states with Democratic leadership. That difference likely has to do with the policy's two biggest opponents: businesses and the insurance and financial

Fifty-seven million American workers don't have access to a retirement plan through their jobs.

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industry—traditionally conservative groups that feel the programs are either too burdensome or in some other way meddle with the private sector.

The ERISA Industry Committee, which lobbies on behalf of large employers that generally already sponsor retirement savings programs, has pushed back against any policy that they believe might be burdensome for their members. For example, Oregon is one of six states that requires employers to participate in the state program if they don't already offer their own retirement plan. In that state, the committee successfully lobbied to simplify what businesses providing a savings plan have to do to be exempt from participating in OregonSaves. Meanwhile, the insurance and financial industry has protested the programs on the grounds that they are government overreach and aren't necessary. "Anyone can walk into any of our offices today and come out a couple hours later with a retirement plan that fits their individual needs," says Gary Sanders, a lobbyist for the National Association of Insurance and Financial Advisors.

When asked why people don't already do so, Sanders says the disconnect is due to a lack of financial education and desire to save. He points to the relatively low enrollment (about 20,000) in Obama's myRA since launching in late 2015. Sanders also says the mandate for employers to participate in state plans and facilitate the payroll deduction is a burden. And he disputes the idea that state-sponsored retirement programs would create more business for his members. Even when states choose a private-sector company to run the programs, Sanders says, "you have [businesses that are] winners and losers."

Advocates for state-run programs have scoffed at such claims. The myRA program, they say, puts the onus on savers to seek it out and sign up. State programs, on the other hand, auto-enroll employees—a feature that research has shown makes people 15 times more likely to save for retirement. Besides, advocates argue, research by the Pew Charitable Trusts has found that small-business owners view sponsoring their own retirement savings program as overwhelming and expensive. "The retirement industry just didn't want competition," says Illinois Treasurer Michael Frerichs.

This past January the opposition to state-run retirement plans found a sympathetic ear in Congress. House Republicans moved to block states' and localities' efforts to establish these plans by passing a resolution overturning a Department of Labor rule last year that reaffirmed governments' legal right to sponsor private-sector savings programs for small businesses. Referred to as the "safe harbor" rule, it specifically exempted state and potential city savings plans from ERISA, which governs private retirement plans and requires certain legal and financial protections for plan enrollees. The measure easily passed in the House, and after more than a month of stalling, the Senate narrowly approved the resolution despite a bipartisan outcry from state and local officials and AARP.

The effort played upon one of the central weaknesses of a state-sponsored retirement plan: While the vast majority of small-business owners support the idea of offering auto-IRAs to their employees, most oppose the plans being sponsored and administered by the state or the federal government, according to a survey conducted by Pew. Seemingly, the negative news regarding many governments' growing public pension liabilities has cast a cloud over states getting involved in any kind of new retirement plan—even one where the state has no liability. Oregon Treasurer Tobias Read says he still has to dispel the myth that OregonSaves is a pension plan.

But many feel this perception problem can be fixed. At a retirement conference in Washington, D.C., this winter, John Scott, who directs the retirement savings project at Pew, noted the survey also found that small employers are more comfortable with mutual fund and insurance companies taking the helm as an auto-IRA sponsor. He said that respondents likely thought that government sponsorship meant that taxpayers would be liable for the plans. “If we had explained that sponsorship means partnering with a financial services company,” he said, “we most likely would have seen a higher level of support.”

Despite congressional action this year, all states that had already approved a retirement savings program are moving ahead to implement it. There is widespread sense that this is the most beneficial road to take—for the state as well as low-income workers. “There are dire consequences to individuals—to communities—when you have people who don’t have a secure life and long-term stability,” says California State Treasurer John Chiang.

The plans—often called Secure Choice—mainly follow one of two structures. In New Jersey and Washington, for example, the plans are offered through a marketplace. Businesses’ participation is voluntary, but if they opt in they can decide to work with private entities to create their own plan or they can choose a plan through the state to auto-enroll their workers. This approach has met the least amount of resistance from the National Association of Insurance and Financial Advisors, as it allows financial service companies to compete against each other for clients.

The more common course employed by states, however, is a program where a service provider is selected by the state to run and administer the retirement program. Workers are auto-enrolled into an IRA retirement plan in places where the employer doesn’t offer one. Each plan that follows this structure still has its own unique components. Maryland, for example, is waiving the annual business license fee for businesses that already offer a retirement plan and for businesses that eventually will through the state.

Vermont’s plan is a multiple employer plan, and it is voluntary for employers. Those who opt in will auto-enroll employees into the Green Mountain Secure Retirement Plan. It is ERISA-compliant, and so is largely unaffected by the congressional action. Massachusetts passed a similar plan in 2012 for nonprofits. So far, however, the state has been unsuccessful at passing an auto-IRA plan for all workplaces.

In every case, the programs are phased in. Oregon, for example, first rolled out OregonSaves as a pilot program to 11 businesses covering about 150 employees. The state plans to initiate a second pilot program in October and use what it learns from the pilots to fully launch in January, with larger employers going first.

Despite Congress’ repeal of the safe harbor rule, state officials say they are still on solid legal ground: The 2016 rule simply clarified that employers wouldn’t have to comply with ERISA under a government-sponsored retirement plan. In other words, there is no rule or law that says governments have to comply with ERISA. Some state treasurers have sought out legal opinions to back up their beliefs. Others think the issue will ultimately be decided by the courts.

Sanders, the lobbyist, says his group isn’t planning on filing any lawsuits but notes that former Labor Secretary Tom Perez had said that the safe harbor rule was issued to help “reduce the risk” of ERISA exposure. “It’s a really complicated law and subject,” he says. “I don’t think it’s a certainty either way and I think there is the possibility of a lawsuit.”

But those who have pushed states to adopt these plans believe that the fight this past spring will ultimately help propel them forward. More of them may adopt a marketplace approach or even a multiple employer plan like Vermont. But at a minimum, states have not shied away from talking about securing a savings plan for workers. In addition to Arkansas and Utah, programs are being debated in New Mexico, New York, North Carolina, South Carolina and Wisconsin. “The [ERISA rule] repeal was certainly something they took seriously,” says AARP’s Gill. “But the [general] reaction of states has been to double down.”

That’s good news for small employers like Birong, who says offering retirement benefits is another way for his business to stand out and encourage employee loyalty. He also believes political resistance elsewhere will eventually weaken in the face of real results in early adoption states. “Financial firms are not going to chase a business with 15 people like mine,” he says. “But you throw 1,500 in a pool? That’s a huge account.” **G**

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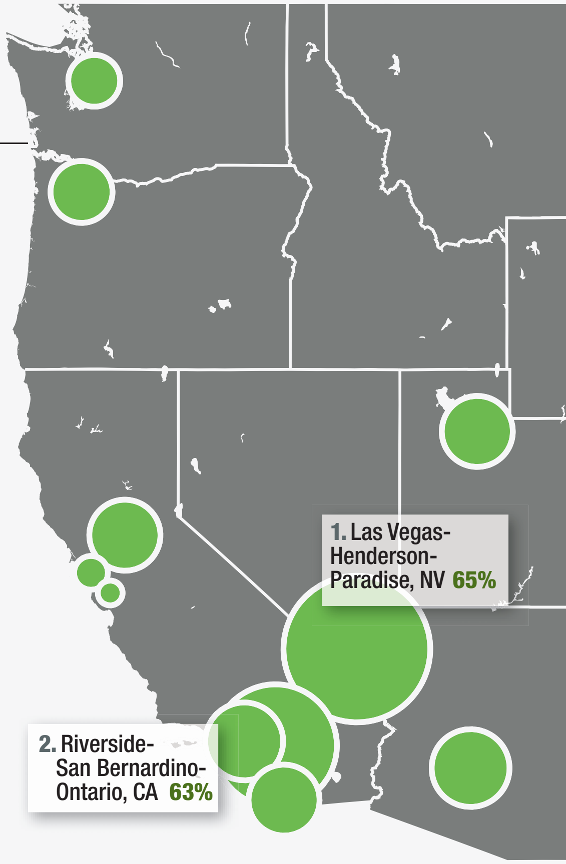
Chef and restaurant owner Matt Birong says he’d welcome a state-run retirement plan for his employees.

LETTER 10 CREATIVE

Robot Anxiety

Fears are spreading that automation will be a massive job-killer. Some of that is hype. Some is not.



There is widespread concern these days that robots and automation will soon be permeating much of the American workforce—taking over factory floors, performing hospitality jobs, becoming ubiquitous in the casinos of Las Vegas. Even Silicon Valley worries about automation's effects, although they likely won't be as severe there as elsewhere.

Some recent studies add to these fears, predicting sizable job displacement from numerous forms of automation and artificial intelligence in virtually all corners of the economy. But just as automation will alter industries differently, its effects will be much more intensive in some regional economies.

To estimate the potential effects of automation in those areas, *Governing* utilized definitions in a University of Oxford study assessing the automatability of individual occupations, then compared them with the Department of Labor's most recent occupational employment estimates for the 100 largest U.S. metro areas. About 65 percent of Las Vegas area jobs were found to be susceptible to automation, the highest in any metro area. Much of that stems from the region's large armies of servers, food preparers, cashiers and other occupations thought to be highly automatable. El Paso, Texas, and Cape Coral-Fort Myers, Fla., similarly employ many of these workers, and registered the next-highest shares of potential automatability.

Professors Carl Frey and Michael Osborne, who conducted the Oxford study, assigned a probability to each occupation by evaluating the extent to which its work activities require "creativity, social intelligence and perception, and manipulation." Retail sales accounted for the single largest number of possible job displacements as a result of automation in most regions. The New York metro area, for instance, employs more than 500,000 retail salespersons and cashiers. Predominantly low-wage food service jobs are susceptible to drastic change as well, both in the United States and overseas. Robots will start delivering Domino's pizza orders in Hamburg, Germany, this summer.

Regions with higher education levels should fare better. But the Brookings Institution's Mark Muro points out that there's more to it than that. Physical jobs that are more complex or personalized—the kinds you won't find on assembly lines—may actually be less vulnerable to automation than routine office jobs. "Often, lower-skill but physical, personal or direct-caring occupations seem quite durable," Muro says.

Middle-class, white-collar jobs, on the other hand, can be significantly liable to automation. A forthcoming report from Brookings reviews hundreds of U.S. occupations, finding use and knowledge of digital skills doubled between 2002 and 2016 and led to a wide array of jobs being digitized, including those of office clerks, customer service representatives and accounting workers. "The middle is where there will be some of the most disruption," Muro says.

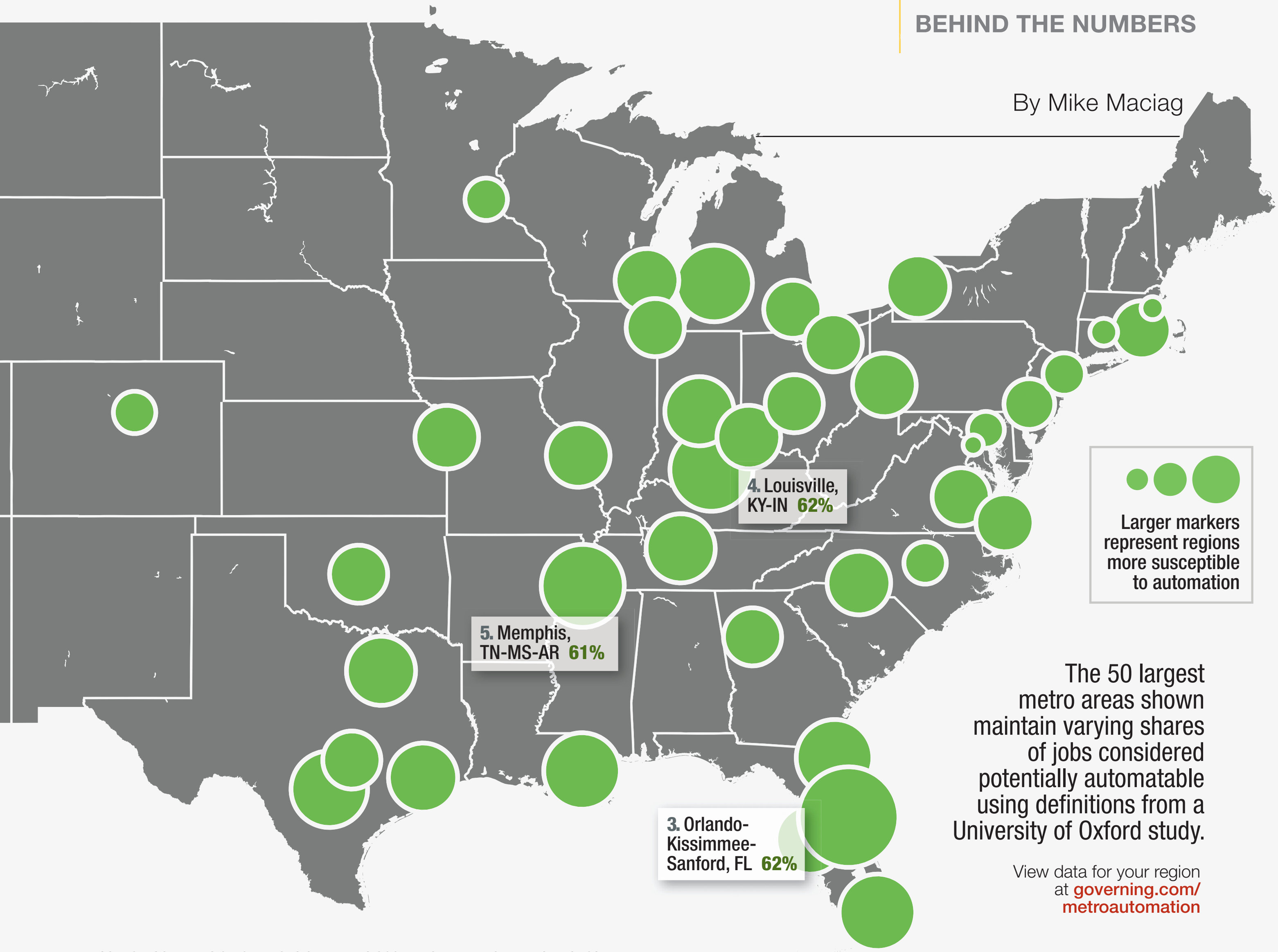
Some well-paying jobs in demand today aren't off-limits from automation, either. A McKinsey Global Institute study concluded that some of the jobs most at risk involve data collecting and processing. Around a quarter of the activities of attorneys and physicians were deemed to be potentially automatable.

Large regions with jobs least susceptible to computerization, using the Oxford study's definitions, are high-tech centers, such as San Jose-Sunnyvale-Santa Clara, Calif., and Durham-Chapel Hill, N.C. Other metro areas with highly educated workforces such as Washington, D.C., and Boston similarly appear to have fewer jobs vulnerable to displacement. Regional economies relying heavily on education and health care may be less prone to automation because jobs requiring a high degree of human interaction are thought to be among the most resilient.

Of course, widespread automation won't happen overnight. McKinsey projected that half the work activities across the economy today could be automated by 2055. An analysis by PricewaterhouseCoopers concluded that 38 percent of American jobs were at "high risk" of automation by the early 2030s. McKinsey studied prior cases of technological upheaval, finding that the time between initial commercial availability and peak adoption ranged between eight and 28 years.

The biggest unknown at this point is whether automation will eliminate more jobs than it creates. Automation itself isn't new, and prior advances in technology and industrialization haven't brought about higher overall unemployment over

By Mike Maciag



The 50 largest metro areas shown maintain varying shares of jobs considered potentially automatable using definitions from a University of Oxford study.

View data for your region at governing.com/metroautomation

SOURCE: *GOVERNING* CALCULATIONS OF 2016 BLS OCCUPATIONAL EMPLOYMENT STATISTICS, AUTOMATION ESTIMATES BY CARL FREY AND MICHAEL OSBORNE (OXFORD)

the long term. But a growing number of academics are concluding that automation this time around could, in fact, wield noticeably more harmful effects on the workforce. One highly cited paper by economists Daron Acemoglu and Pascual Restrepo forecasts lower overall employment resulting from the introduction of more robots into the workplace.

Other researchers, notably ones at the Economic Policy Institute, argue that automation has not led and will not lead to higher joblessness. Experts appear to be divided almost evenly on this question: A 2014 Pew Research Center survey of experts found 48 percent agreeing that automation, robots and artificial intelligence will displace more jobs than they create by 2025.

While many unknowns remain, it wouldn't hurt for policymakers to start thinking about how to respond.

Some state workforce boards are looking at the issue. States already typically maintain labor market information divisions that project which occupations will be in demand in future years. Preparing farms and their workers for automation was the subject of a recent meeting of the California State Board of Food and Agriculture. While there aren't yet many programs that specifically address automation, some states are engaged in activities that could help alleviate the impact of job losses. Apprenticeships are gaining a lot of attention and are expanding to health care, finance and other fields where they haven't been common before. "The model is being modified and they're really trying to ramp it up," says Scott Sanders, executive director of the National Association of State Workforce Agencies.

For workers displaced by automation, community and technical colleges will play a crucial role in the pursuit of new careers. The federal government, however, has historically focused little on workforce training, spending much less than other wealthy nations do. "We don't do training in America, we do education," says Anthony Carnevale, who directs the Georgetown University Center on Education and the Workforce. "Our policy is: Go to college."

It was only a few short decades ago that computers began revolutionizing the American workplace. Regions and employers that were early adopters with skilled workforces are well ahead today, and it's likely they will continue to be in the years to come. **G**

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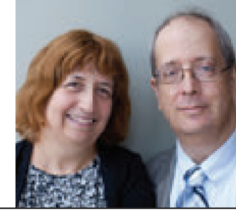
By Katherine Barrett and Richard Greene



Open Wide

Why can't legislative websites be less opaque?

Years ago, it took days to get our hands on basic government documents. We'd call someone who could send them to us, hope they would follow through and then wait for the U.S. Postal Service to do its job. When they didn't arrive in a week or so, we'd repeat the process.

These days, like many other researchers, journalists, policymakers and citizens, we rely on the troves of reports, budgets, data and plans that state and local governments post on their websites. This isn't just an executive branch phenomenon. State legislative websites now provide more information online than anyone would have thought possible 20 years ago, including such helpful items as access to meeting minutes and summaries of proposed bills.

But the postings often leave users more frustrated than grateful. Many of us feel that this promised land of facts is more of a mirage than an informational oasis.

Consider the common absence of plain English. Connecticut legislative committee minutes, for example, often use the initials "JF." What does this mean? We sure didn't know. According to other parts of the committee's website, we learned that JF means "joint favorable." But even with that in hand, users need further translation. It turns out that JF means a bill made it out of committee with a favorable report. Wouldn't it be easier on users to just say that? Or, at least, to add a simple footnote to the initials?

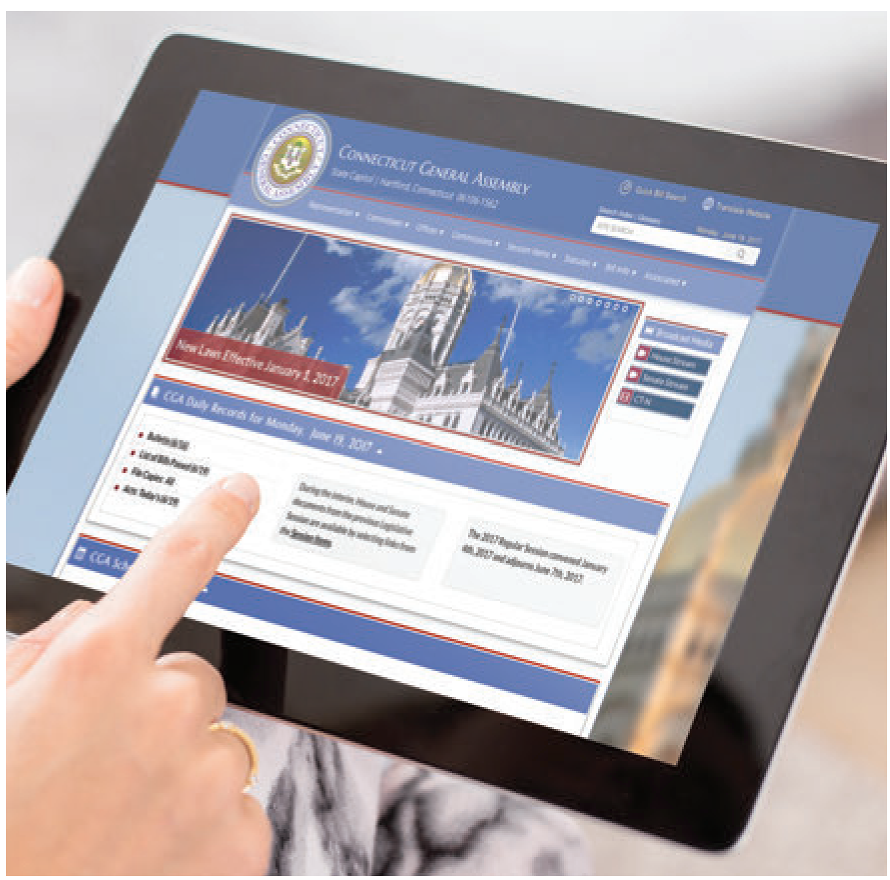
At least Connecticut committees produce minutes. When we looked for notes on proceedings from the dozens of legislative committee meetings held this year in Delaware, we found exactly one.

Here's another issue that would be relatively easy to fix: Many legislatures refer to sessions by their assigned number rather than the year. There may be a spot on the website that translates session numbers into session years, as there is in Texas, but we'd find it easier if the dates were listed parenthetically when reference is made to the session number. No one should have to delve deeply to see that the 80th session was held in 2007.

Particularly galling are prominent website tabs that promise to link users to pages that sound like they will provide helpful data, but lead to sites with very little information. The Rhode Island website provides links to annual reports on its homepage, for instance. But many of the "annual" reports available are five to 10 years old. Our own spot check of the information shows that more recent reports exist. The list just hasn't been updated.

In some cases, the links are broken. Take the one for the Rhode Island Corrections Department. The link to its annual report sends you to a "not found" message. But a Google search revealed several annual reports published by that department including a population report for 2016.

Or take the Legislative Reference Library in Texas. At the top of the webpage there's a tab for committees. Once you click onto the committee page, you'll see the clickable words "Committee minutes & related documents" posted on the left. Click through, as we did, and you'll find that the most recent committee minutes and related documents are from the 75th session of the legislature, which was two decades ago.



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After years of going through legislative websites, we've developed a short wish list of items we'd like to see on them, starting with a central repository for reports. In Virginia, such material is kept meticulously up to date, and the astonishing number of reports listed each year gives us a sense of the work that is buried and hard to find in many other states. By mid-June 2017, for instance, there were nearly 200 reports for the year. Clicking on each link brings you to a short summary first—a very nice feature—and then you can click through to the whole document.

As we've already mentioned, we're fans of comprehensive meeting minutes. In Idaho, legislative committee minutes are frequently cited as a model for local government folks. According to Betsy Russell, president of Idahoans for Openness in Government, an affiliate of the National Freedom of Information Coalition, the legislature's approach shows "how to do minutes right." In part that's because the minutes tell the reader who the speakers are and offer summaries of what they said, as well as listing motions, votes and decisions.

Particularly helpful is information explicitly labeled as useful for citizen engagement. Oregon is a standout here. Its website offers audio and video links to legislative meetings, publications and reports, as well as a legislative data site.

Research organizations with buckets full of money can hire companies to track bills for them. But some legislative websites make this process much easier. Notable is Florida. The pages for a bill's history are clear and concise and tell you the status of each bill filed.

We honestly do not believe that state legislatures are being purposefully opaque when it comes to presenting important information online. That might be true at times, but we think it is more likely that many legislators simply aren't paying much attention to the information they make available to the public—and what they could accomplish with improved communication. **G**

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By Mark Funkhouser

Economic Development's Bad Idea

Throwing money at businesses isn't the best approach.

While spending public resources to lure private companies and the jobs they bring has mushroomed in recent years, the idea is actually pretty old. In his book *City Power: Urban Governance in a Global Age*, published last year, law professor Richard Schragger cites a passage from the September 1890 issue of *Scribner's Magazine*: "A curious outgrowth of the rivalries of American cities, is the practice that obtains so generally of offering bonuses and pecuniary inducements to manufacturers to move their plant."

It was a bad idea then. It contributed to a municipal bond default crisis when promised returns did not materialize and cities could not pay off the debts they had incurred. And as the evidence densely piled up in Schragger's book demonstrates, it remains a bad idea today.

Yet the practice continues to grow. This March, the Upjohn Institute published the most comprehensive study of economic development incentives yet produced, analyzing data from 1990 to 2015. The researchers found that although the average amount of incentives tripled over that period, increasing from 9 percent of business taxes to 30 percent, they were largely ineffective and governments would have experienced the same results without the incentives 94 percent of the time.

> "Although the average amount of tax incentives tripled between 1990 and 2015, they were largely ineffective."

Governments looking for a more effective way to spur economic development ought to take a look at what's going on in Richmond, Va. In 2014, then-Mayor Dwight C. Jones created the Office of Community Wealth Building, which was charged with reducing overall poverty by 40 percent and child poverty by 50 percent by 2030. The program's integrated strategy focuses on expanded workforce development, targeted job creation, improved educational outcomes and development of a regional transportation system.

Unlike a lot of innovative government programs, the Office of Community Wealth Building has not only survived a change of administration but has been strengthened and expanded. The current mayor, Levar Stoney, lauded the program during his campaign. A quarter of Richmond's residents live below the federal poverty level and, as Stoney says, "You can't be a AAA bond-rated city without reducing poverty."

Richmond hasn't entirely abandoned the idea of incentives. While cash incentives that Stoney proposed didn't survive the budget process, two business developments in Richmond each received major tax breaks from the state. In each case the city provided customized workforce training, which the Upjohn study says research suggests "might be 10 times more effective than tax incentives in encouraging local business growth." But states typically spend only $1 on customized job training for every $20 in tax incentives, the researchers found.

In *City Power*, Schragger writes that while abandoning economic development policies that rely on tax breaks and other giveaways is practically impossible politically, "it is the right thing to do." Perhaps as the evidence piles up and experiments like Richmond's are seen as successful, more public leaders will be able to actually do the right thing. **G**

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By Tod Newcombe

You Don’t Have to Be an Expert

As cities become inundated with data, they’re turning to citizens for help.

Government has a data problem. Put simply, it collects so much of it that it struggles to analyze most of it.

Of course, states and localities already use data analytics for a lot of things. Departments of revenue, for instance, rely on it to curb tax fraud. Public schools use it to measure student performance and figure out how to boost grades and graduation rates. Cities turn to it to manage traffic congestion and monitor air pollution. But despite all of this, governments are still collecting vast amounts of data and, well, doing nothing with it. “A lot of time is spent and wasted trying to find the right data,” says Adnan Mahmud, founder and CEO of LiveStories, a firm that creates digital tools for visualizing data. “Very little time is spent exploring it.”

Mahmud estimates that government workers spend about 80 percent of their time trying to find data and only about 20 percent of their time analyzing it. “We need to flip that number,” he says. He and others argue that government needs a better way to sift through and tell the story that lies behind the data it collects. But most important, it needs people who can analyze and diagnose what it means.

That’s where “citizen data scientists” come in. These people aren’t statisticians or analysts by training, nor are they coders—the people who build apps using government data and programming software during hackathons. Rather, these are skilled workers who can generate predictive models or pursue data analysis using new software tools or apps. The technology research firm Gartner predicts that as much as 40 percent of data science tasks will be either automated or conducted by these nonexperts by 2020.

In the public sector, citizen data scientists range from volunteers to government workers. Dr. Matt Willis, a public health officer for Marin County, Calif., uses citizen data scientists to tackle a range of problems, from finding better ways to manage the county’s emergency services to stemming the exploding opioid epidemic. He’s excited by the potential and says that it’s increasingly important for governments to “provide tools that allow people who are not analysts to conduct analytical research.”

FLICKR/RACHEL HINMAN

Marin County has begun using report cards that present data in what Willis calls a “storytelling” format so that everyone from county workers and government partners to policymakers can better understand the correlations between certain sets of data. He’s hoping it’s a first step toward encouraging citizen volunteers to begin to do their own analysis using the county’s open data and tools.

Tom Schenk, Chicago’s chief data officer, has similar hopes. He says that with the right planning, the city can get high-quality predictive models using nonexperts and volunteers. Already, the city has used citizen data scientists to predict with a high degree of accuracy when the city’s beaches could be affected by an outbreak of E. coli. Another project the city hopes to engage nonexperts on is to accurately gauge how much rainwater runoff goes into the city’s sewers and how much can be diverted by more environmentally friendly methods.

But some in governments are wary about letting volunteers and nonexperts interpret data using dashboards and other analytical tools. These officials are worried citizen data scientists will see things that government doesn’t want them to see. For instance, will a map reveal awkward disparities in how rich and poor neighborhoods receive public funding? They also worry that the correlations and predictions could end up being spurious or distracting. Already there’s a cottage industry of unusual and ridiculous correlations. One online meme jokingly notes a correlation between the release of Nicolas Cage movies and the number of swimming pool drownings in the U.S.

Mahmud, Willis, Schenk and others think these concerns can be avoided. When government makes sure the data is presented in the proper context and the right parameters are set around the project, the prospect of something going wrong can be minimized, says Willis. “I believe we can benefit from the collective wisdom of the community.” **G**

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By Justin Marlowe

If It's Good Enough for the Gherkin ...

The biggest of big investors see less risk in government than Main Street does.

London's iconic skyline features an enormous, cigar-shaped glass building lovingly known as the "Gherkin." Tourists from around the world stop to take in its bold, environmentally friendly design and spectacular views. The Gherkin is also becoming a destination for U.S. public finance—but more on that in a bit.

First, let's look at the wild ride municipal bond investors have been on since the 2016 elections. Back in July 2016 the interest rate on a 30-year muni bond was just over 2 percent, according to a Bloomberg index. That was its lowest rate in years. By that December, it had jumped to 3.3 percent, its highest in years. More recently, it has hovered closer to 2.75 percent, and market experts agree there's more volatility to come.

Some of those wide swings are due to a Trump effect. President Trump has promised a peculiar combination of spending and tax cuts, which in most scenarios will lead to increases in inflation. Higher inflation, in turn, generally means higher interest rates.

The Trump factor aside, many muni investors think they have good reason to expect higher interest rates. They've heard relentless chatter about a housing bubble, big potential cuts to Medicaid, late state budgets, unfunded pensions, the unfolding fiscal debacle in Puerto Rico, and other bad news for states and localities. According to J.P. Morgan, investors pulled more than $3 billion from municipal bond funds in the week following the election. Since then, they've put some of that money back in, but overall fund levels have not returned to their pre-election levels.

More than half the money invested in the muni market is from mom-and-pop investors who have traditionally seen munis as a safe place to save for retirement, college or other long-term investment goals. And indeed, munis are a great vehicle to achieve those long-term goals—despite the muni market's recent swings.

Which brings us back to the Gherkin.

The Gherkin is the U.K. headquarters of Swiss Re, a global insurance and financial services company. Swiss Re is a major player in the "reinsurance" market—that is, they sell insurance to insurance companies. They're some of the most sophisticated risk managers in the world.

Swiss Re and entities like it have become major players in public-private partnerships for state and local infrastructure. P3s come in a variety of forms, but in this case we're talking about an arrangement where a private entity enters into a long-term deal with a government to finance, design, build, operate and maintain a piece of infrastructure. In exchange, the government pays the private partner a predetermined amount, usually as a lease or "availability payment." Many of the major airports, convention centers, civic centers and other big public projects in the U.S. today are happening through this model.

Swiss Re and entities like it get involved in P3s in several ways. For one, they insure the contractors that perform the construction work. Or they manage money on behalf of global investment funds that front the capital for many P3s. Or sometimes they invest in P3s directly. For example, last year the city of Long Beach, Calif., finalized an innovative, 30-year P3 for a new civic center. Nearly half the upfront investment came from the German insurer Allianz, one of Swiss Re's key competitors. The interest rates on the Allianz loan were just above comparable, taxable rates on munis, so unsurprisingly Allianz was eager to get in on the action.

This is quite a contrast to traditional muni investors who seem anything but confident in munis. What do Swiss Re and Allianz know that traditional muni bond investors don't? They know how to evaluate muni risks with cold, dispassionate logic, and their evaluations have shown again and again that state and local governments are a good long-term risk.

If loans backing U.S. state and local infrastructure are a good enough bet for the most sophisticated risk managers in the world, then they should be a good enough bet for the average person's retirement fund. States and municipalities should tell their investors: If it's good enough for the Gherkin, it's good enough for you. **G**

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London's Gherkin building

New York Uses Data to Transform Healthcare Delivery

An industrial-strength data warehouse provides the enriched data insights needed to improve Medicaid patient care.

There are six million eligible Medicaid recipients in the state of New York – the second most of any state. The program is costing the state $18.2 billion in FY 2017, or 19 percent of its $96 billion operating fund. That expense is expected to increase by another $1 billion in FY 2018. These numbers mean that if New York can make Medicaid more efficient by even a fraction of a percent, it will positively impact other programs the state supports – not to mention its bottom line.

Most states – including New York – have transitioned to a managed care model to gain more control over Medicaid-related expenses and provide better care to this often-underserved population. But this can be a difficult undertaking without a strong foundation of coordination among the variety of providers serving Medicaid recipients, and a holistic view of their care.

In 2014, New York began to implement Medicaid's Delivery System Reform Incentive Payment (DSRIP) program, a federally funded initiative that promotes community-level collaborations and focuses on system reforms. The goal of the program is to reduce avoidable hospital visits by 25 percent over 5 years.

To meet this goal, the state not only needed data, but also the ability to glean valuable patient insights from that data to help pinpoint risks and inform care decisions.

"DSRIP provides the runway and the funding for providers to come together, begin to work and act differently, and better coordinate and collaborate patient care – all with the intention to drive better outcomes," says Ken Romanski, executive vice president of CMA, the IT solutions and services company New York contracted with to design and operate a data warehouse to achieve its DSRIP goals.

Tackling Data Challenges at the Speed of Thought

Central to DSRIP's success is the collaboration and coordination of a tightly organized group of providers, or Performing Provider Systems (PPS). PPS units include primary care physicians, hospitals, laboratories, pharmacies, home care agencies and even durable medical equipment providers. Regardless of where a patient goes for help, "the essence of a PPS is to create the information and insights necessary so there is no wrong door," says Jeff Wendth, vice president of CMA Healthcare Solutions.

Essential to this objective is an industrial-strength data warehouse of patient encounters and payment claim information.

New York Medicaid has long operated a data warehouse, serving as the system of record for 20 years' worth of claims and encounter data. As experienced as the Medicaid program was in amassing databases of claims data, however, the existing data infrastructure wasn't set up to provide insight into care needs of Medicaid recipients and identify disease trends and cost – all of which are necessary to manage care successfully and meet the goals of DSRIP.

"DSRIP provided the motivation to tackle the challenge of manipulating and analyzing the data to be considerably more beneficial," says Bob Nevins, director of health and human services strategy for Oracle, a key supplier of data warehouse infrastructure products for New York Medicaid.

"The speed and rate at which we receive data, the number of disparate sources for the data and the scale of the data is all increasing pretty significantly."

– Brian Dougherty, Chief Technical Architect for CMA

To equip healthcare providers statewide with the detailed information they need to fully understand the medical problems of the patients they are contracted to manage, the data warehouse must handle prodigious amounts of information.

But th at's just the first step. The warehouse must also have a plan for how various data streams intersect and match them in intricate ways to yield insights and conclusions.

"The speed and rate at which we receive data, the number of disparate sources for the data and the scale of the data is all increasing pretty significantly," says Brian Dougherty, chief technical architect for CMA. "Now the big challenge for us is to handle those three dimensions and to do this at the speed of thought."

"Oracle provides a great set of technologies for dealing with the challenges that we have," adds Dougherty. "The database is very capable; it's been around for a long time – it's industrial-strength. It has features that allow us to scale and manipulate the data – especially on the back end – very, very well."

Next Up: Whole-Health Management

Using the data warehouse as a foundation, CMA worked with the state to build an intelligence platform to extract additional granularity from the data. It can now group together individual patient characteristics, test results, current conditions and other factors based on a variety of queries. The platform also supports executive dashboards, standard reporting, guided query and data mining capabilities for DSRIP metrics, which are used by administrators, payers and care providers.

The information has allowed the state to stratify its Medicaid population, and group individuals according to common health conditions such as diabetes or heart disease so PPS units can target the most seriously ill and costly patients. It also helps identify opportunities for improvement and guide action at the point of care with the clinical data that providers can immediately access.

That won't be enough, though, as the program evolves into more focused population health management, which reaches beyond the clinical environment to embrace social, economic and care-coordination factors.

"I know the state recognizes the need to move beyond the data it's working with today and expand it to clinical and social-determinant data sets to achieve a more holistic, 360-degree view of the individual," Romanski says. "In order to negotiate, contract and manage a value-based payment system, the whole ecosystem is going to need enhanced capabilities that the state is mindful of and looking to support."

This translates to looking for data never captured before and developing different collection architectures to plug into the multitude of analytical dimensions already in place, says Dougherty. Medicaid recipients who are homeless are one example of the need for a larger scope of data. For this population, traveling without transportation is a health-influencing factor, as is their lack of housing.

"Much of the population health expansion is still in the planning stage," says Daniel Hallenbeck, director of the Medicaid data warehouse for the New York Department of Health. "But the state recognizes the value of incorporating new data sets to create the whole view, including social determinants that might assist in producing more meaningful metrics for measuring outcomes. This is the future we are working toward."

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CMA

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Last Look

No matter what is happening onstage at Denver's Red Rocks Amphitheatre, the 9,500-seat, open-air venue itself is always the star attraction. Billed as "the only naturally occurring, acoustically perfect amphitheater in the world," Red Rocks has been hosting performances for more than 100 years. Situated 10 miles west of Denver on the eastern slope of the Rockies, Red Rocks gets its name from the towering sandstone formations found throughout the 640-acre, city-and-county-owned park. Three immense, 300-foot outcroppings define the amphitheater, and every seat offers an unobstructed view of the stage, downtown Denver and the Colorado plains. Once a haven for folk music, Red Rocks was forever changed in 1964 when the Beatles brought in a new era of rock 'n' roll. Since then, the venue has been booked solid—even the biggest acts have to schedule weekend dates years in advance. **—David Kidd**

CITY OF DENVER

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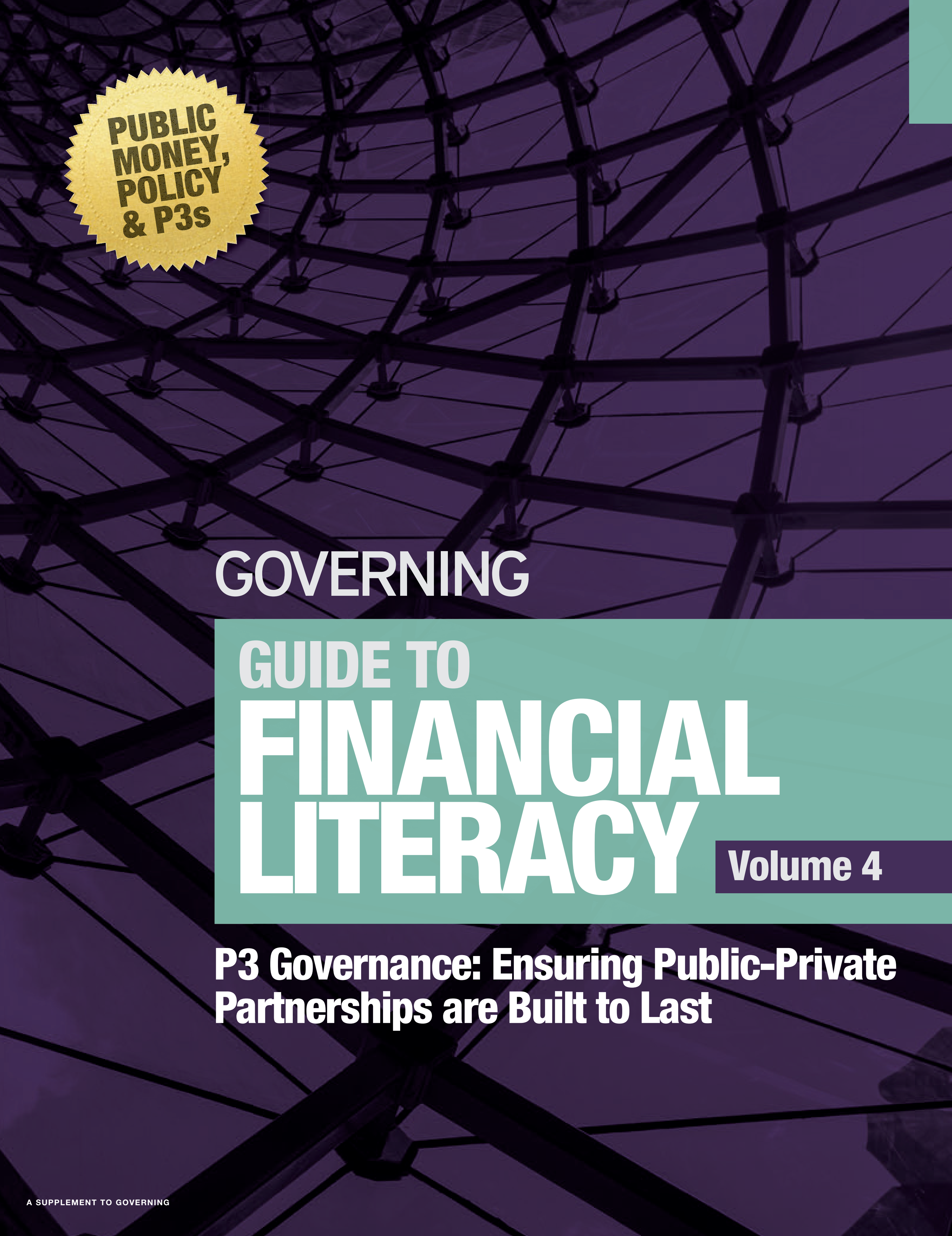


PUBLIC MONEY, POLICY & P3s

GOVERNING

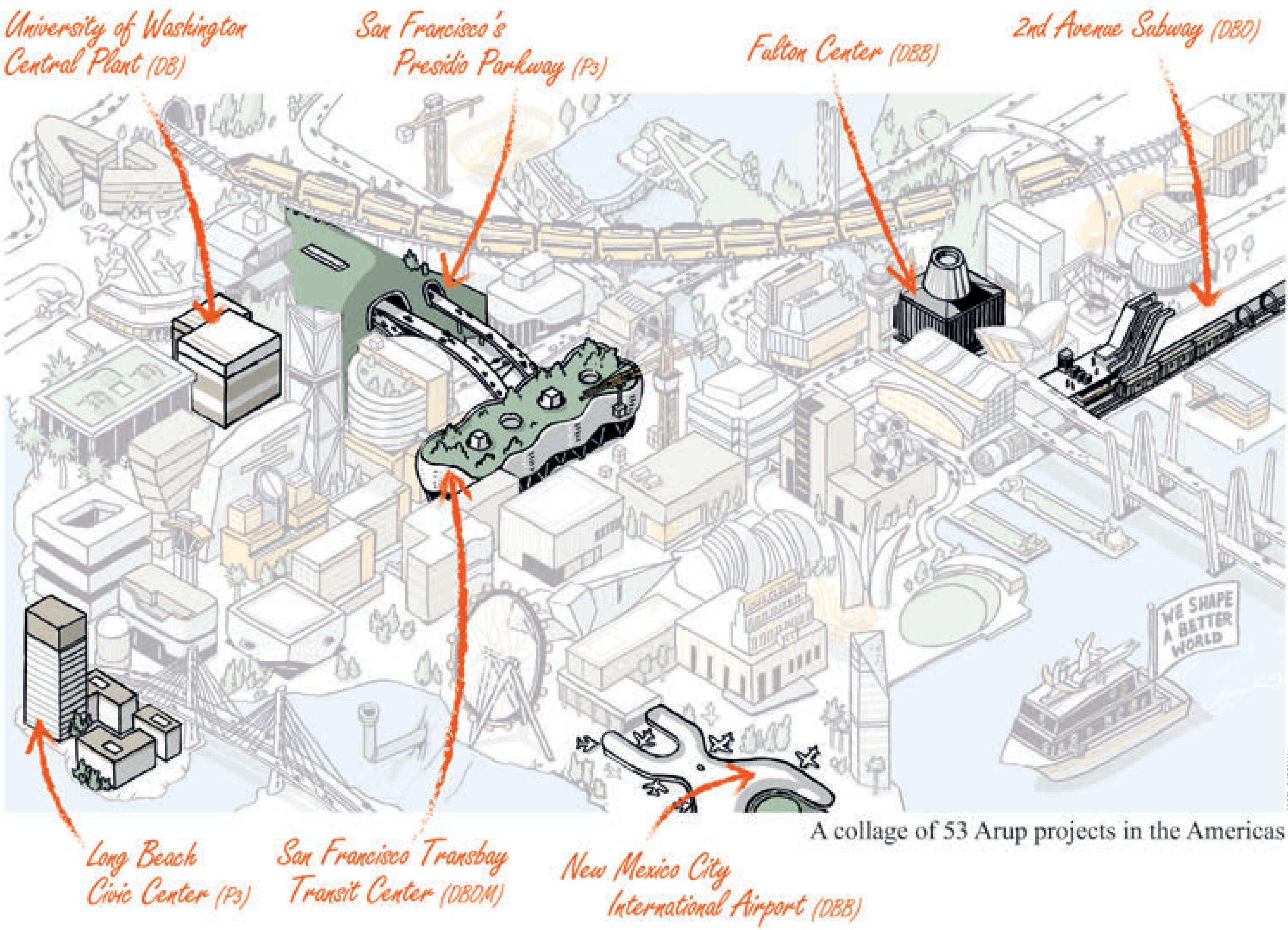
GUIDE TO FINANCIAL LITERACY

Volume 4

P3 Governance: Ensuring Public-Private Partnerships are Built to Last

A SUPPLEMENT TO GOVERNING

Arup is an independent professional services firm that provides essential advisory and engineering services to the P3 market.



A collage of 53 Arup projects in the Americas

Understanding the interconnectedness of organizational strategy, risk analysis, design, asset performance outcomes, and financing options is crucial to maximizing the value of alternative project delivery. That is why many clients are turning to Arup to successfully deliver their P3 projects. Arup has helped clients deliver over $202 billion in successful P3 transactions since 2008.

ARUP

For more information about P3 consulting with Arup's Transaction Advice team, please contact:

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CONTENTS

GOVERNING

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INTRODUCTION

In 2014 the state of Indiana reached a landmark $350 million agreement to allow a private firm — Development Operators — to manage a 21-mile stretch of Interstate Highway 69. Development Operators agreed to build and maintain the road for 35 years in exchange for a $22 million annual availability payment from the state.[1] This deal was lauded as a model public-private partnership (P3) that would bring cost transparency, efficiency, budget stability and innovative design to this crucial piece of Indiana's infrastructure.

In June 2017 Indiana and Development Operators agreed to terminate the deal and return the road to the state. That termination followed nearly two years of unexpected delays and cost overruns that raised the total costs to more than $550 million. Critics of P3s have called this termination a cautionary tale of why P3s are unlikely to work in the United States.

Meanwhile, the same week the Indiana P3 was terminated, the city of Chester, Pa., closed on a $50 million, 35-year P3 to build 350 acres of new stormwater infrastructure. Chester will pay its private partner Corvias an annual availability payment in exchange for measurable improvements in the city's stormwater quality.[2] Perhaps more important, this P3 will bolster community development and create livable wage jobs in Chester — a community where more than one-third of residents live below the poverty line.

These two anecdotes illustrate some of the key points you'll find throughout this fourth edition of the Governing Guide to Financial Literacy. The I-69 example shows that P3s can and often do fail. But they rarely fail because of cost overruns or construction delays. Governments can manage those risks through properly structured contracts and other risk-sharing tools. In fact, a P3 fails when citizens decide it's no longer achieving its goals, which is what happened with the Indiana P3 — the project came first, and the goals came second. Without a path to redefine the project's deliverables, Indiana's transportation leaders had no choice but to terminate.

By contrast, Chester chose a partnership model that allows Corvias to change the types of infrastructure it builds and manages as the regulatory and technological landscape changes, and perhaps more important, as the city's needs evolve. The partnership's goals will not change, but the tactics to achieve those goals will. This type of dynamic partnership will require deep engagement from many stakeholders, including Chester's public works personnel, local economic development officials and a citizen oversight board. If these stakeholders work together well, they will keep this P3 moving toward its desired outcomes. The process of engaging stakeholders is known as P3 governance.

The third edition of the Governing Guide to Financial Literacy described what P3s are and covered how to decide if and when a P3 is right for your jurisdiction. It emphasized the risks and rewards that surround typical P3s, and the tools governments use to assess and manage those risks.

This fourth edition of the Guide is about P3 governance. Most P3s are long-term arrangements. They'll encounter unexpected challenges to both their internal operations and their external environment. But what makes a P3 more likely to succeed for the long-haul? The answer is simple: a robust governance process. This Guide covers the tools, tactics and structures of contemporary P3 governance.

This Guide is divided into three sections:

✓ What are Public-Private Partnerships?

A definition of P3s and a discussion of how U.S. P3s are different from P3s elsewhere in the world.

✓ The Dynamic Landscape of Public-Private Partnerships

An overview of changing state and federal laws that shape P3 development, and a look at some new and emerging P3 models.

✓ 10 Tools of P3 Governance

A review and explanation of tools governments can use during P3 design and implementation.

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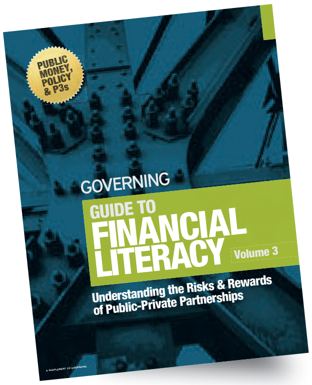
SECTION 1

The termination of the $350 million Indiana I-69 P3 agreement is a cautionary tale about the necessity of proper governance.

WHAT ARE PUBLIC-PRIVATE PARTNERSHIPS?

A QUICK REVIEW

DAVID KIDD



In the previous volume of this guide we defined public-private partnership as "a long-term agreement between a government and the private sector to share the risks and rewards of delivering an essential public service."

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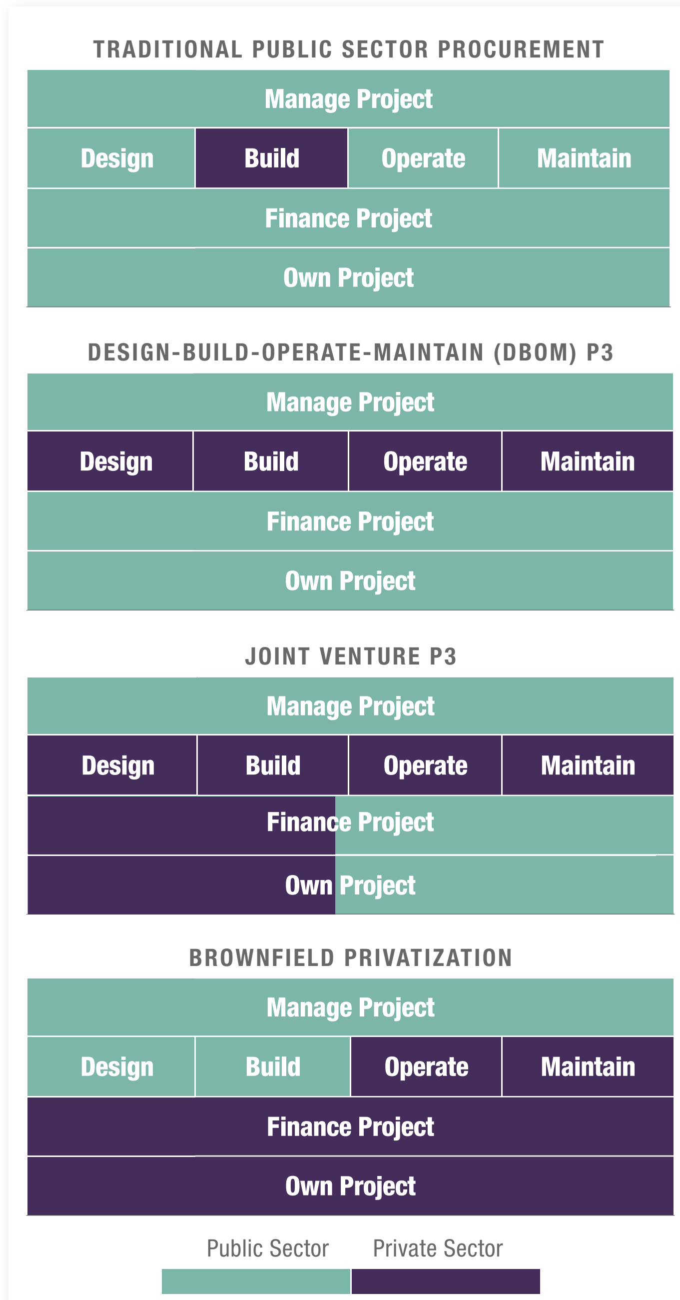
The key to this definition is shared risks and rewards. With traditional public sector procurement, the government designs the project, engages a private partner for the construction or "build" phase, and then operates and maintains the project into the future. With a few exceptions, like some of the construction-related risks assumed by the build contractor, virtually all the project risks stay with the government. It secures the requisite financing, manages all permitting and regulatory compliance, manages user demand for the project and others. In return, it keeps all the revenues or other benefits the project produces.

With a P3, the government engages the same private partner across multiple stages of the project. In "design-build" arrangements, the private partner engaged to construct the project is also responsible for designing it. In many recent P3s, private partners are involved in design, construction, maintenance and ongoing operations. This is called a "Design-Build-Operate-Maintain" P3, or DBOM. Figure 1 illustrates the most common P3 models and various roles private partners play in each model. For more details on specific P3 structures and arrangements, see Volume 3 of the Guide.

Figure 2 shows how risks are typically allocated in a DBOM P3. Under that arrangement, most of the construction, operational and financial risks are with the private partner, and the main political and demand risks are shared between the government and the private partner. Recall that "Force Majeure" is "act of God," or the risk that the project will be damaged or impaired by a natural disaster or some other uncontrollable event. For more details on strategies to manage particular risks in this chart, see Volume 3 of the Guide.

FIGURE 1:
Typical P3 Models



P3s vs. Traditional Procurement: The Government Perspective

Why would a government use a P3 instead of traditional procurement? There are four main reasons:

Fewer transaction costs. By working with a single private partner across multiple stages of a project, a government can reduce the costs of writing and enforcing separate contracts with separate partners for the same work. P3s also allow governments to focus more on monitoring performance instead of hiring contract specialists to oversee traditional procurement details. Economists call these contract development and enforcement activities "transaction costs." Contracting with a single entity, and focusing contract enforcement in areas where existing staff have relevant knowledge, are two key ways that P3s reduce transaction costs.

Design innovation. P3s can offer private partners a powerful incentive to design projects with an eye toward long-term efficiency and cost savings. Innovation sounds exciting, but it's expensive, difficult, risky work. This is especially true when designing public facilities like a city hall. If the private partner's design is flawed, everyone will know. That's why many private partners tend to stick with a design they know will work, even if that design can't adapt as the public's needs change. However, in a decades-long P3 the private partner can recover its initial investment in innovation, share some of the political and other risks with the government, and capture some of the long-term cost savings and efficiencies.

Faster delivery. In construction, time is money. For instance, prices on concrete, steel, glass, fuel and other commodities can increase by double-digit percentages over a few weeks, or interest rates on construction loans, lines of credit and other financing can rise sharply if market-wide interest rates rise.

FIGURE 2:

Typical P3 Risks

RISK	PUBLIC SECTOR	PRIVATE SECTOR	SHARED
Regulatory/Policy	●		
Planning and Design		●	
Permits and Approvals		●	
Construction		●	
Operations/Maintenance		●	
Finance/Market		●	
Private Sector Default		●	
Political			●
Force Majeure			●
Demand			●

Availability Payments

P3s are often arranged around lease payments from the government to its private partner. With a city hall P3, for instance, the government would likely retain ownership of the land on which the new city hall is built, but allow the private partner to own the actual building. The city would then lease that building from the private partner, and the private partner would commit some or all of those lease payments to the building maintenance and operations. Or put differently, the city would pay its private partner to make city hall "available." These payments are quite different from tolls. Tolls are earmarked for a specific purpose, where availability payments can come from a variety of state or local revenues. Moreover, toll-centered P3s almost always require gradual increases in tolls while most availability payments are designed to deliver the same or even better quality infrastructure for a steady payment over time.

Traditional government procurement is to some degree designed to slow down the project's progression from design to completion. Governments typically have managed the risks of large infrastructure projects by monitoring the design, financing and build components as separate processes. There is a trade-off built into this strategy. On the one hand, taxpayers can be certain contractors are accountable for their portion of the project, and that public money is spent according to the project plans. On the other hand, that oversight takes time and the project can experience major setbacks as it moves through those stages, which can lead to cost overruns.

Under a DBOM P3, the private partner can quickly adapt both the design and build plan. For these and other reasons, most research shows P3s almost always deliver completed projects faster than traditional procurement. The challenge for governments is to ensure accountability in P3s without the direct oversight offered by traditional procurement.

Budget certainty and transparency. In traditional procurement the government takes over a piece of infrastructure at the operations and management stages. Some governments are diligent about funding ongoing infrastructure operations and maintenance, but many are not. In the face of chronic problems like housing affordability, the opioid epidemic and underfunded public schools, most state and local governments are reluctant to commit the resources needed to fix pipes and fill potholes. That's a big part of why the American Society of Civil Engineers has estimated the cost of state and local governments' "failure to act" on infrastructure maintenance will add up to more than $4 trillion in lost economic productivity by 2025.[3]

With P3s, and in particular P3s organized around an availability payment, a government commits to a given level of infrastructure investment over a long period, which makes it easier to build a long-term budget. Perhaps more important, policymakers and citizens know how to hold the project accountable, since the P3 agreement outlines the outcomes the private partner must deliver in exchange for that availability payment.

To realize these potential benefits a P3 must establish a robust and effective governance process. The tools, tactics and strategies to develop that governance are described later in this guide.

P3s vs. Traditional Procurement: The Private Partner Perspective

Private partners get involved in P3s for four reasons of their own:

Steady revenues. State and local infrastructure is supported by steady, predictable revenues. Those revenues can be directly related to use of that infrastructure, such as water utility payments, stormwater user fees or tolled bridges. They also can be regular appropriations from a government, like the availability payments described previously. Regardless of the source, those revenues are attractive to investors

P3s vs. Privatization

State and local public infrastructure professionals have used the term "public-private partnership" many different ways for decades. However, the term took on a specific meaning roughly 15 years ago when the city of Chicago allowed a consortium of European investors to maintain and operate the Chicago Skyway tollway. The investors paid the city $1.6 billion upfront in exchange for the right to keep most or all of the tolls collected for the next 99 years. This transaction was a specific type of P3 known as a privatization or concession arrangement, which have been quite rare in the U.S. compared to Europe, Asia and Australia.

Many U.S. state and local governments have used DBOM and other P3 models that are less common in other countries. This is mostly because DBOMs allow states and municipalities to leverage special tools, such as tax-exempt financing and contracts with nonprofit entities, that are not available in other countries. In fact, many U.S. P3 professionals use the term P3 to describe DBOMs with availability payments for new infrastructure. This is quite different from the toll-based privatizations of existing assets that are also often called P3s.

This distinction is important. For example, the *New York Times* recently published a series of stories detailing the perils of P3s.[4] Those stories focused entirely on failed privatizations, including the Indiana I-69 project. P3 experts were quick to point out that privatizations are perhaps the least popular and most ineffective style of P3 now in use across the U.S.

P3s almost always deliver completed projects faster than traditional procurement. The challenge for governments is to ensure accountability in P3s without the direct oversight offered by traditional procurement.

The Role of Governance in P3 Risks

P3s can help governments realize a variety of benefits. But they do come with several risks and potential drawbacks. And like with the potential benefits, many of these concerns are directly related to the quality and effectiveness of P3 governance.

Solving the wrong problem. P3s give governments access to new investors who are willing to commit money to projects that have yet to produce any revenue. This process of using borrowed money and investor equity to finance a project, and then pay those creditors and investors back with cash generated by the project, is known as "project finance." This is quite different from traditional public finance where the project must have an identifiable revenue stream or a specific revenue pledge from a government before investors will commit.

P3 critics point out that while project finance is powerful, it's a financing tool, not a funding source. State and local government infrastructure is not underfunded because investors aren't willing to invest. It's underfunded because taxpayers aren't willing to pay the additional taxes, fees and user charges needed to fund it. P3s can address this problem in part by helping to contain project costs and make infrastructure outcomes more transparent. But they cannot change deeply held taxpayer attitudes.

Loss of public ownership. By necessity, P3s transfer much of the day-to-day control of a public asset to a private operator. This can undermine public trust in government, distort citizens' understanding of what their government does and diminish residents' sense of place in the community. This is why it's imperative P3s include a robust public engagement and communications effort.

Too much trust. Even with the best governance structure and the perfect alignment of incentives, the public and private sectors have fundamentally different objectives. P3s simply depend too much on trust in the best intentions across both sectors. Put differently, if the public and private sectors were good partners, we wouldn't need consumer protection laws, environmental quality standards, anti-trust regulation and other government efforts to protect the public from capitalism's ill effects.

Upsetting the status quo. Contemporary P3s require governments to engage new and unfamiliar private partners. For instance, many of the high-profile P3s among U.S. state and local governments today are led by major international construction and management companies like Skanska (Sweden), Meridiam (France), Plenary Group (Australia) and Balfour Beatty (UK), among others. These firms engage deeply with local subcontractors and stakeholders, but they inevitably displace local expertise and interests.

because they're predictable. Private partners can and often do use those predictable revenue streams to stabilize other parts of their investment portfolios. That's why international insurance and financial services companies like Allianz, Swiss Re, Macquarie and others are some of the largest P3 investors around the globe.

Economies of scope. P3s are now common for multi-billion dollar infrastructure "mega projects," such as rebuilding international airports like LAX or LaGuardia, regional water treatment and distribution systems, or housing for tens of thousands of university students. Many potential private partners have the expertise and capacity to play a specific role in a mega project but not to manage one, so they don't participate. P3s that bring together many potential private partners offer the opportunity to leverage expertise across many different project phases.

Research and development. In traditional government procurement a private partner delivers a specific piece of infrastructure according to design specifications. In most P3s, the private partner has the latitude to deliver the infrastructure however it sees fit, as long as results are delivered. That latitude allows the private partner to develop and test new technologies, materials and processes that can be used on other future projects.

Relationship-building. Like all partnerships, P3s are fundamentally a relationship between two entities. P3s offer private partners an opportunity to develop a relationship with a government. That relationship can produce a variety of benefits, including future projects and connections to other governments.

Essential Questions

- What broader goals do we hope to accomplish through infrastructure investments? Community development? Workforce development? Local capacity building?
- Do our key stakeholders understand how P3s are different from privatizations? Do they understand the various P3 models?
- How might a potential infrastructure project benefit from design innovations made possible through P3s?
- Do we have the capacity to manage demand risk? Political risk? Regulatory risk?

WHY THE PUBLIC SECTOR SHOULD ADOPT LIFE CYCLE COST ANALYSIS

The American Society of Civil Engineers' (ASCE) 2017 Infrastructure Report Card grades the nation's infrastructure a "D+," and estimates the U.S. needs to invest an additional $2 trillion in infrastructure.

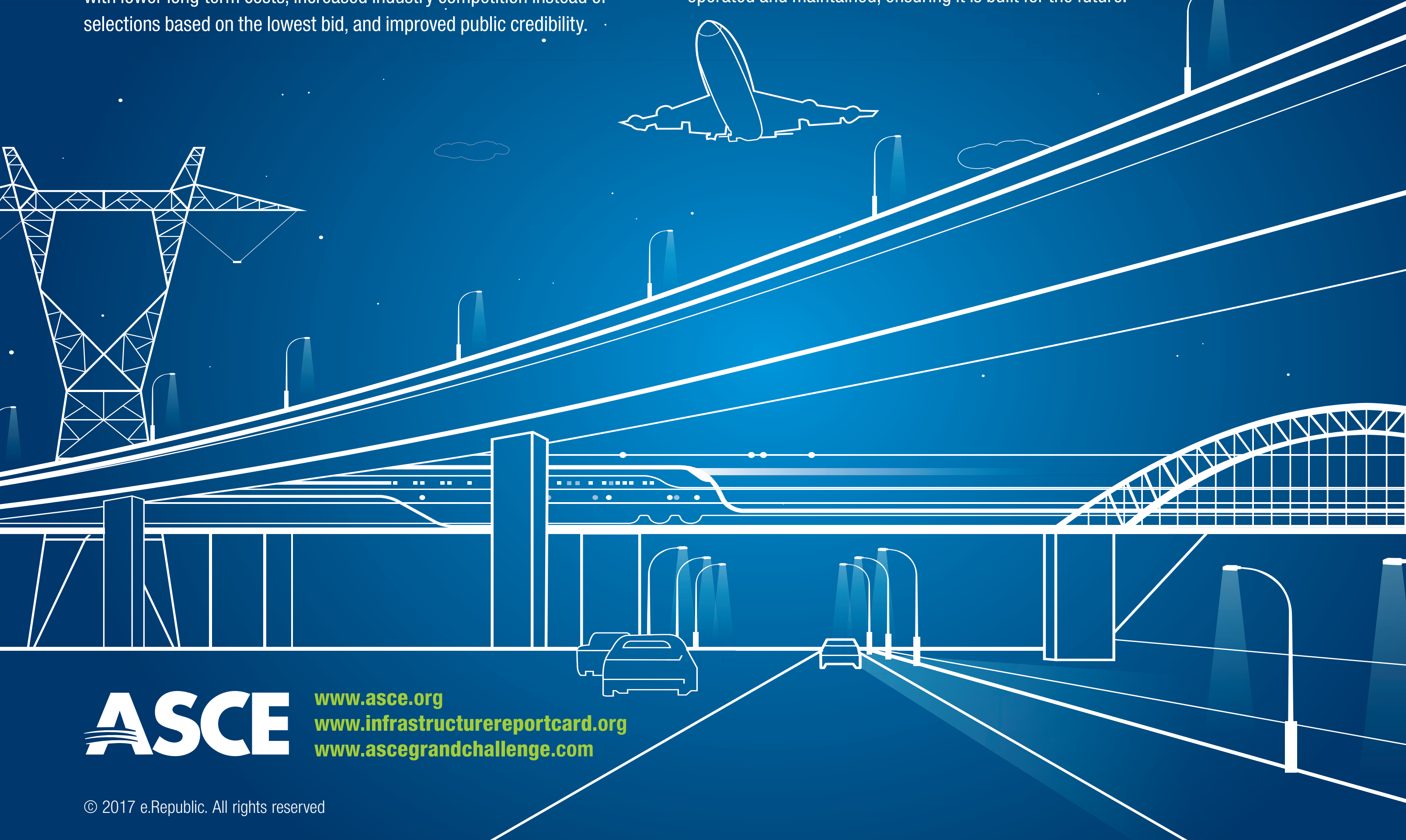
These infrastructure challenges are significant but solvable. An infrastructure system fit for the 21st century will require increased long-term investment. Public-private partnerships (P3s) offer one valuable avenue for financing some infrastructure improvements, and more must be done to incentivize and augment their use.

Increased infrastructure investment from government and the private sector must be spent wisely, considering the costs of building infrastructure and maintaining and operating it for its lifespan. One way to help maximize investments is to leverage the private sector's wealth of experience in examining total life cycle costs. Life cycle cost analysis (LCCA) — a data-driven, detailed account of the total costs of a project over its expected life — offers a proven path for cost savings and better planning. Embracing LCCA results in higher-quality projects with lower long-term costs, increased industry competition instead of selections based on the lowest bid, and improved public credibility.

The private sector often uses LCCA to justify capital investments, but there has been less incentive for its use in the public sector. P3s help public sector employees learn from private sector successes, while also demonstrating the benefits of controlling life cycle costs, promoting greater emphasis on maintenance, setting clear performance standards and encouraging innovative project design.

Increasing the use of LCCA to lower life cycle costs is one way civil engineers are addressing the nation's infrastructure challenges. Through the ASCE Grand Challenge, America's civil engineers pledge to reduce infrastructure life cycle costs, increase the value and capacity of infrastructure, and increase and optimize infrastructure investments. The federal government must incentivize LCCA's use to motivate states and cities to incorporate it into the infrastructure decision-making process and optimize performance outcomes.

By implementing LCCA and lowering life cycle costs, the U.S. can transform the way the nation's infrastructure is planned, delivered, operated and maintained, ensuring it is built for the future.



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THE DYNAMIC LANDSCAPE OF PUBLIC-PRIVATE PARTNERSHIPS

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President Donald Trump made infrastructure a centerpiece of his 2016 campaign. He pledged massive federal investment in roads, bridges, ports and other vital infrastructure as part of his "America First" policy. He claimed he could make this massive investment without raising taxes.[5] Clearly, this message resonated with voters.

In fall 2016 the Trump campaign circulated a white paper that described how he planned to pay for a massive infrastructure plan without raising taxes. The answer: public-private partnerships. In particular, he proposed to offer $137 billion in new federal tax credits. According to the main authors of that plan — Peter Navarro and Wilbur Ross, now the director of the White House National Trade Council and secretary of commerce, respectively — those credits would stimulate $1 trillion of new investment through concession/privatization-style P3s. Those credits, along with low interest rates around the world, would set off an infrastructure investment bonanza that, according to Trump adviser Steve Bannon, "would be as exciting as the 1930s."[6]

To date, the Trump infrastructure plan has not materialized into actual legislation. However, his rhetoric both as a candidate and as president has drawn new attention to both our infrastructure spending needs and the potential role of a particular type of P3 in meeting those needs.

Perhaps more important, these recent national-level developments highlight two key points that are the focus of this section. First, federal policy matters. Most infrastructure spending happens at the state and local level, including and especially ostensibly "federal" projects like interstate highways.[7] And yet, federal policy is critical because it shapes where and how much of the state and local spending happens. That's why some recent changes and proposed changes to federal policy could reshape large parts of the P3 landscape. Second, states and localities are using the P3 model to execute an ever-widening scope and scale of infrastructure projects.

Los Angeles World Airports recently finalized an RFP for a $5 billion Landside Access Modernization Program at LAX, which will be delivered through a Design-Build-Finance-Operate-Maintain arrangement.

Not Just For Roads

P3s are synonymous with major bridge and highway projects. The Chicago Skyway and the Indiana Tollway were two of the original high-profile P3s. Several recent major road and bridge projects also happened through P3s, including the Goethals and Tappan Zee bridges in greater New York City, the Pocahontas Parkway in suburban Virginia and the Highway 520 floating bridge in Seattle.

However, P3s are now at the center of an ever-expanding array of projects in areas beyond highways and bridges. In just the past two years, states and localities across the country have launched the following:

- **The San Antonio Water Supply agency (SAWS)** recently finalized a 30-year, $927 million Design-Build-Finance-Operate-Maintain (DBFOM) to develop a new water supply pipeline. According to SAWS, the Vista Ridge Water Supply project will be the first major water supply P3 in the nation.[8]

- **Los Angeles World Airports (LAWA)** recently finalized a request for proposals for a $5 billion Landside Access Modernization Program at Los Angeles International Airport (LAX).[9] This program features a new "people mover" rail system to connect LAX with the Los Angeles County Metro Transit system and a new consolidated rental car facility. LAWA will deliver this project through a DBFOM.

- **In summer 2016 the city of Fort Lauderdale, Fla.,** issued a request for proposals for a DBOM to redevelop the city-owned Las Olas Marina.[10] This $200 million project will expand Las Olas' capacity to accommodate "mega yachts" and the economic development opportunities they bring.

- **In early 2017 Pennsylvania's Department of Transportation** launched an $85 million long-term DBFOM to develop 29 compressed natural gas fueling stations for public transit agencies throughout the state.[11] These fueling stations will also be available for a fee to non-government agencies.

All these projects show the ever-widening array of stakeholders that governments now engage through P3s. That broader engagement requires new and effective approaches to P3 governance.

The Changing Federal Role

The federal government traditionally has played an important, but indirect role in state and local infrastructure development. That role is simple: State and local government debt typically is exempt from federal income taxes. In other words, investors can purchase bonds used to finance state and local infrastructure projects, receive interest payments on those bonds and not pay federal income taxes on those interest payments. There is approximately $4 trillion in state and local bonds (collectively called municipal bonds) outstanding today, and the vast majority of those bonds are federal tax-exempt.

Tax-exempt bonds are a unique feature of U.S. public finance. No other country has this type of robust, dynamic, tax-exempt public capital market. At the same time, tax-exempt financing has also discouraged states and localities from aggressively pursuing P3s. Why turn to private investors when tax-exempt financing is cheap and plentiful?

But this is changing. As described earlier, states and localities are struggling to find reliable infrastructure funding sources. Financing — that is, the upfront money needed to complete a project — is readily available. What's less available is dedicated revenue sources to pay back that financing and reliably maintain public infrastructure. That's why P3s are growing in popularity. They allow a state or local government to complete a project that can generate its own revenues, but only once it's complete. Such projects are usually not suitable for tax-exempt financing. P3s also allow states and localities to stretch their infrastructure dollar further by delivering more reliable infrastructure over time for the same basic level of spending. All this suggests states and localities will continue to use P3s to augment traditional tax-exempt financing.

To that end, one of the key policy questions today is how the federal government can best support this emerging state and local P3 industry. There are two divergent perspectives.

Financing and funding. One view is that the federal government can and should offer states and localities more direct financial support. That support could take the form of new funding sources, like new federal grants or direct appropriations. Past experience in areas like urban transit systems has shown that even a small amount of federal funding — perhaps as low as 10 percent of the total project amount — can be the difference between a state or locality going forward with a project or not. The federal government could also expand low-cost financing for P3s with new loans, loan guarantees and tax credits that allow states and localities to stretch their limited funding sources further.

Regulatory reform. Another perspective suggests the federal government should give states and localities more latitude in how they engage private partners in P3s. As an example, federal rules prohibit states and localities from using tax-exempt financing for private activity like leasing a facility from a private partner as part of a P3. Easing these types of restrictions would allow states and localities to more effectively use tax-exempt financing to drive P3s.

Recent federal government policy is a mix of both. The Obama administration was quite active on the financing side. It expanded the Transportation Infrastructure Finance Innovation Act (TIFIA) loan program, which offers tax-exempt federal loans states and localities can use to support early private investments in P3s. To date, TIFIA has supported more than $75 billion of transportation P3s.[12] Under the Obama administration the federal government also created an analog program, the Water Infrastructure Finance Innovation Act (WIFIA), to support water infrastructure P3s. This is in addition to long-standing infrastructure grant programs like the Transportation Investment Generating Economic Recovery (TIGER) and Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) grants, among others.

Federal Tax Credits and P3s

A tax credit is when one part of government gives up tax revenue so that another part can support a project without either part actually spending money. Federal Historic Tax Credits (HTC) are a good example. With the HTC program, an investor who spends money to rehabilitate a historic property can reduce its federal tax liability by up to 20 percent of the total amount of that spending. Federal policymakers prefer tax credits because they don't require any new taxes or spending cuts. They simply require the Treasury to collect less taxes. Federal and state tax credits are important because they encourage investors who might not benefit from tax-exempt bonds to participate in P3s. For example, a corporation with a low federal income tax liability is not likely to purchase tax-exempt bonds. However, it might invest in a P3 and earn a federal tax credit that it can save for a year when it has a higher tax liability or sell to another corporation. Because tax credits are popular with investors, they're a core part of P3s for housing, energy conservation, environmental remediation, historic preservation and many other areas.

At the same time, President Obama also was active on the regulatory side. For instance:

- He proposed several times to expand the scope and scale of private activity bonds (PABS). As mentioned previously, federal rules prohibit states and localities from using tax-exempt bonds for private purposes. However, the federal government does grant limited exceptions to this rule, particularly for private purposes that have substantial economic development benefits like industrial parks or convention centers. Those exceptions are called "qualified PABS." President Obama proposed expanding the definition of qualified PABS to include a variety of new public facilities.
- The Internal Revenue Service (IRS) recently changed federal rules in a way that could reshape the DBOM landscape. Until recently, the IRS considered long-term operations and maintenance contracts a private activity. Because of that interpretation, it limited the length of operations and maintenance contracts financed by tax-exempt bonds to 15 years. Most tax-exempt investors are interested in a longer-term investment, so shorter-term DBOMs have been forced to look to taxable debt or private equity for financing. However, in August 2016 the IRS released Revenue Procedure 2016-44 which changed these rules to allow for tax-exempt financed operations and maintenance contracts of up to 30 years. This change will almost certainly draw new tax-exempt investors into long-term DBOMs, particularly for social infrastructure like higher education, corrections and public buildings.
- President Obama also proposed different versions of a federal infrastructure bank and a federal P3 policy bank. The infrastructure bank would be modeled after state-revolving loan funds and other financing sources capable of supporting P3s. The federal policy bank would be modeled after state government P3 offices.

So far, President Trump has clearly favored the deregulation approach:

- His original $1 trillion infrastructure plan called for tax credits of about 80 percent of capital invested in P3s. In that plan, he also references lifting the restrictions on private activity bonds and other restrictions on private investment in a wide variety of public infrastructure projects. Taken together, these changes would create a particularly favorable environment for P3s, especially those with dedicated revenue streams like toll roads, bridges and airports.
- He has talked openly about ending the federal tax exemption for municipal bonds. That change would likely come as part of a broader comprehensive tax reform package.[13]
- In his inaugural budget proposal, he called for cuts to traditional federal grants and other direct funding sources, including TIGER and FASTLANE.[14]

State Policy and Its Implications

Today's federal P3 policy is ambiguous. But state policy is not. Several state governments have moved aggressively to develop

Five Contemporary Trends in U.S. P3s

1 Blended Financing

Many of the most exciting P3s today blend tax-exempt financing with several other sources, including: taxable debt and equity from private investors; loans from state governments and the federal government; grants and other philanthropic support from foundations; and state and federal tax credits purchased by corporations, banks and other institutional investors. This uniquely U.S. model is a sharp contrast to the emphasis on private equity common in the "international model."

2 Emphasis on O&M

Private partners are more involved in P3s with a long-term operations and maintenance (O&M) component, but where the public maintains full ownership of the asset in question. This is also a contrast to other countries where concessions and privatizations are more common.

3 Role of Nonprofits

Many emerging U.S. P3 models incorporate the investment, expertise and statutory authority of nonprofits. In some models — such as the "American Style" P3 advanced by the National Development Council — a nonprofit organization maintains ownership of the asset and the tax-exempt debt used to finance it.

4 Redefining "Essential"

In other countries P3s are the go-to approach for "essential" infrastructure like roads, bridges and water treatment facilities. The U.S. experience with those P3 models has been less favorable, mostly because of the political controversy surrounding new tolls and user charges. But P3s have exploded in the U.S. as a way to provision "social infrastructure" like courthouses, city halls and electric car charging stations.

5 Emphasis on Affordability

P3s work well as a way to provide a particular type of infrastructure on a fixed budget.

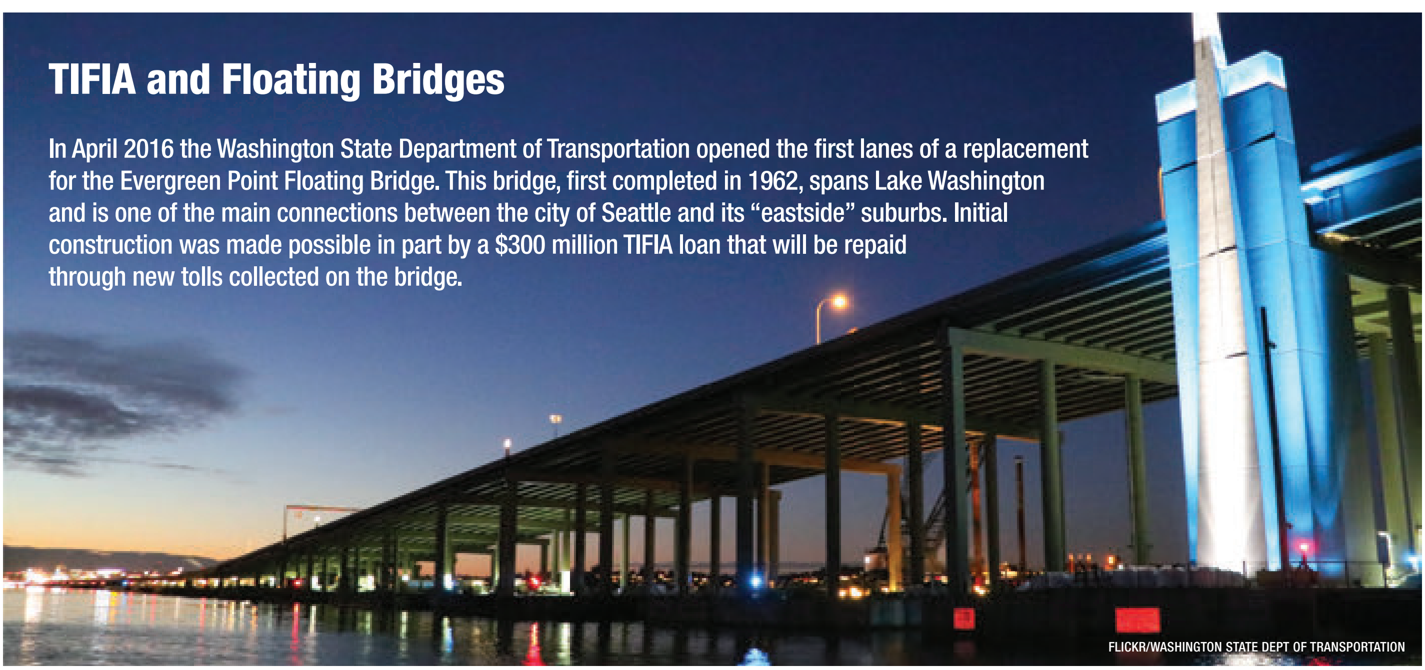
the authority, capacity and resources to expand their P3 efforts. These developments are another piece of the rapidly evolving P3 landscape. Consider the following:

- Several states have developed statewide legislative frameworks to enable both state and local P3s. For example, in 2015 Georgia Gov. Nathan Deal signed into law the "Partnership for Public Facilities and Infrastructure Act."[15] This legislation calls for the state to create consistent guidelines for social infrastructure P3s. Those guidelines are designed to streamline the development of P3s going forward. Several other states have passed or are considering similar legislation.[16]
- Many states have established P3 advisory centers within state government. These centers are tasked with developing uniform guidelines for P3 development, sample contracts and other legal documents, and technical/financial analysis of potential P3 opportunities, among other tasks. Virginia's Office of Public-Private Partnerships was one of the first, and since then Texas (Texas Center for Alternative Finance and Procurement), Illinois (Bureau for Innovative Service Delivery), Florida (Florida P3 Center), Arkansas (P3 staff within the Arkansas Economic Development Commission) and other states have established similar functions.
- Several states and regional authorities have hired or have issued RFPs/RFQs for P3 advisory services. For instance, in February 2017 the Puget Sound regional transit authority, Sound Transit, issued an RFP after the region passed a local sales tax to fund a $50 billion expansion of regional light rail.[17]
- Some states are building a performance orientation into their traditional procurement functions. For example, the Washington State Department of Enterprise Services now includes potential energy savings into its evaluation criteria for many state contracts.[18] This "green contracting" initiative is a way for the state to pursue broader policy goals like conservation and energy savings through ongoing relationships with the private sector.

These bold, definitive state and local actions stand in sharp contrast to the ambiguity in current federal policy.

Essential Questions

- Do we have infrastructure projects that are complex enough to benefit from a P3?
- Do we have the appropriate federal, state and local authority to pursue a P3?
- Do we have the relevant technical expertise to negotiate a P3? If not, is that expertise available at the state or some other level of government? If not, can we hire that expertise?
- What is our past experience with tax credits like historic preservation or "New Markets"?



TIFIA and Floating Bridges

In April 2016 the Washington State Department of Transportation opened the first lanes of a replacement for the Evergreen Point Floating Bridge. This bridge, first completed in 1962, spans Lake Washington and is one of the main connections between the city of Seattle and its "eastside" suburbs. Initial construction was made possible in part by a $300 million TIFIA loan that will be repaid through new tolls collected on the bridge.

FLICKR/WASHINGTON STATE DEPT OF TRANSPORTATION

How a Parking Garage P3 Changed Scranton's Future

A P3 in Scranton, Pa., serves as a model for how municipalities can monetize assets while maintaining control and ownership.

Parking garages may seem benign, but they can be critical to economic development.

In 2012, the city of Scranton, Pa., suffered a financial blow when the Scranton Parking Authority defaulted on its debt, and the City Council declined to cover debt payments. The default caused the city's bond rating to suffer, which increased interest rates on its debt, threatening to force the city into bankruptcy.

The National Development Council (NDC), a community and economic development nonprofit, formed a standalone nonprofit with the city to lease, operate, repair and maintain six parking structures and all on-street parking meters in downtown Scranton.

Unlike the private equity approach to monetizing city assets, NDC's nonprofit P3 model leverages tax-exempt bonds through its affiliate, the Housing and Economic Development Corporation. This approach allows cities to leverage low-cost financing and private sector management to update infrastructure without adding user fees or compromising other programs through budget offsets. The model also ensures all proceeds in excess of operating expenses, debt service, and capital repairs and replacement are returned to the city in the form of grants. When all the debt has been retired, ownership of the parking system is returned to the city.

The P3 not only stabilized Scranton's immediate financial situation, it also paved the way for the city's economic recovery. For the first time since the Parking Authority defaulted on its debt in 2012, the city did not have to increase property taxes.

Utilizing NDC's P3 model, parking garages will be repaired and small business owners in downtown Scranton will benefit from faster turnover in metered spaces. The growing downtown residential population will be positively impacted by better management and maintenance of the garages, and the pedestrian experience will be enhanced as ground floor retail spaces — which have experienced high turnover and vacancies due to neglect — are upgraded and re-leased.

This nonprofit P3 approach is ideal for small and mid-sized cities to develop any social or traditional infrastructure, such as justice centers, city halls, broadband, hospitals and laboratories, student housing and more.

NDC

For more information on NDC and our unique approach to P3s, contact Allison Kelly at akelly@ndconline.org

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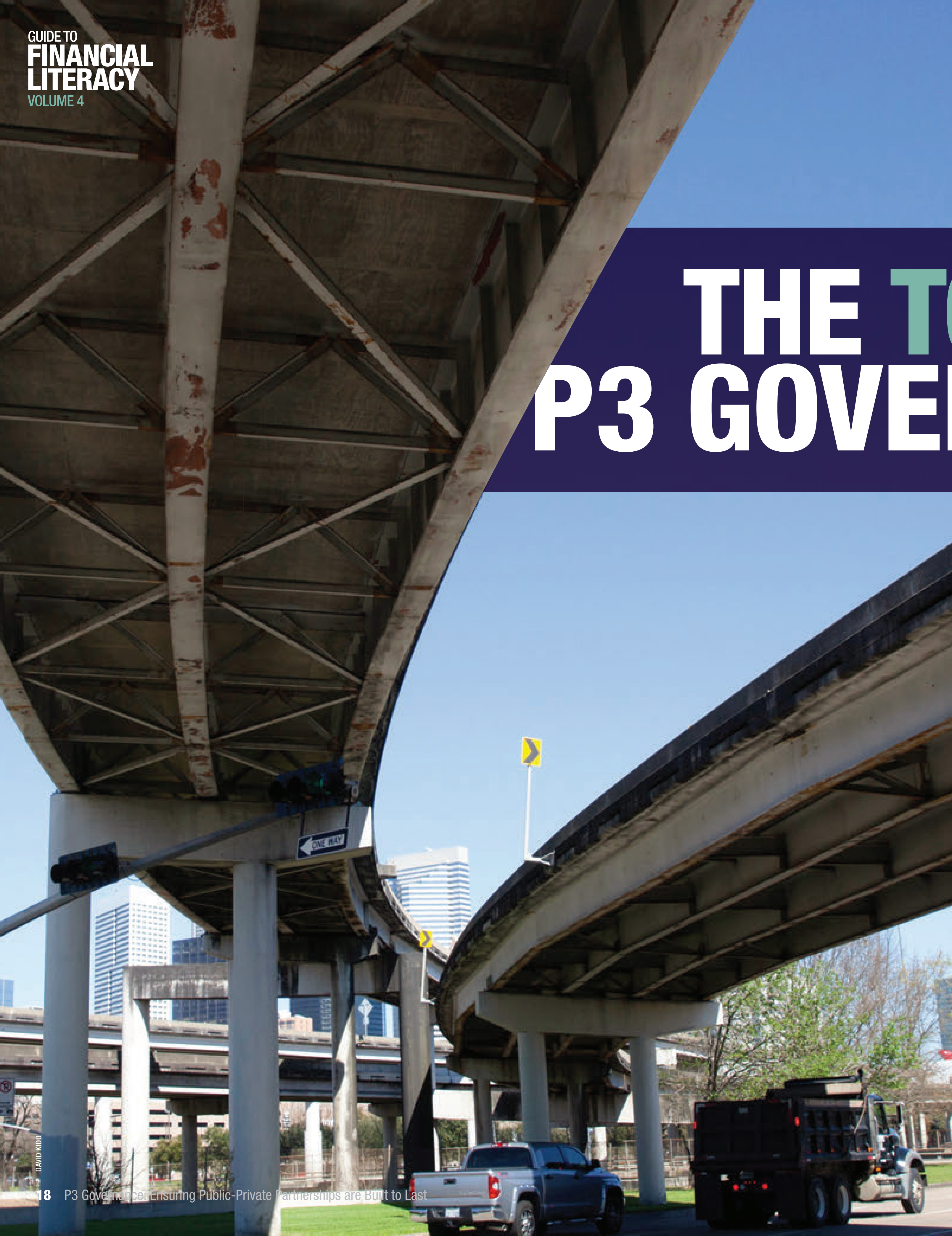
P3 GOVE



DAVID KIDD

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SECTION 4

The previous sections described how P3s today present states and localities with new challenges and opportunities. They include:

New stakeholders.

Many emerging P3 models demand that the public sector engage nonprofit organizations, small businesses, philanthropy and other stakeholders. This is a big change from traditional P3s where the arrangement is mostly between the government and the private partners' project company. New stakeholders bring fresh resources, expertise and perspectives to a P3. But they also bring different goals and objectives.

Complex operations.

Through P3s, private partners are more involved than ever in the maintenance and operations of public facilities like city hall buildings and water treatment facilities that are far more complex than the roads and bridges of traditional concession-style P3s.

Broader performance expectations.

Some of the most exciting P3s are in areas where the infrastructure itself is not the main deliverable. P3s for stormwater infrastructure, for instance, are as much about developing green, high-tech, livable wage jobs to a community as they are about water quality. This presents an additional performance measurement challenge. That is, how will citizens know if a P3 is improving the quality of life in their community?

Demands for transparency.

On occasion, P3s do fail to meet their performance goals, and often at a substantial loss to the public. That's why it's appropriate for the public to demand more transparency than ever on P3 costs and performance. The challenge, of course, is that private partners need to protect their trade, technology and financial performance secrets to preserve their competitiveness. This is a delicate and challenging balance in today's P3s.

All of these challenges have one thing in common: They can pull a P3 out of alignment and disconnect its daily operations from its long-term goals. Effective governance ensures a P3 stays in alignment even in a dynamic economic, political and regulatory environment. But as P3s change, so too must the tools of P3 governance.

This section covers the 10 tools of P3 governance. The first five are "ex ante" (i.e., based on a projection or expectation) tools. Governments can use them when evaluating or designing a P3 to ensure its long-term success. The second set of five are "ex post" (i.e., based on facts or actual circumstances) tools. Governments employ these when a P3 is operational.

Ex Ante Tools of P3 Governance

If a P3 is successful, it's usually because the government and private partners were able to think ahead. Most P3s are long-term, performance-oriented agreements. Governments today can and should consider these five tools when evaluating or designing a P3.

1. Key Performance Indicators

Many of today's most innovative P3s are for "social infrastructure" — like courthouses, "green" public buildings, affordable housing and university research labs, among others — where it's more difficult to measure performance. What does it mean for a building to perform well? Do users feel safe and comfortable? Are the spaces within the building adequate to meet users' needs? Is it energy efficient (and how do we know)? In these settings, reliable performance can mean many different things.

In response to that challenge, many social infrastructure P3s are organized around sophisticated and comprehensive systems of key performance indicators (KPIs). KPIs are a measurable indicator of a specific aspect of performance. Social infrastructure P3s use them in a big way.

For example, the Long Beach Courthouse P3 agreement was organized around 75 unique KPIs. Three of them are recreated in the table below. One of those measures covers the building management staff's responsiveness to routine maintenance orders. A second tracks management's attentiveness to preventive maintenance needs. At the end of this P3 agreement, the private partner — in this case a company formed by a group of private partners called Long Beach Judicial Partners (LBJP) — will "hand back" the courthouse building to the state of California. That's why

FIGURE 3:

Selected KPIs for the Long Beach Courthouse P3

REPORT TYPE	FREQUENCY	DESCRIPTION	METRIC
Work Order Responsiveness — Customer Service Activities: Emergency Urgent Routine Facility Modifications	**Monthly**	Total number of service work orders that are within acceptable response timeframes divided by total work orders closed X 100%	**Emergency/Urgent** Lower Limit = 98% Base Level = 99% Upper Limit =100% **Routine** LL = 94% BL = 95% UL = 100%
Preventive Maintenance Work Orders: Customer Service Activities	**Monthly**	Total number of preventive maintenance work orders (PMWOs) scheduled for the current month divided by the total number open PMWOs X 100%	**Lower Limit** = 90% **Base Level** = 100% **Upper Limit** = 110%
Job Satisfaction: Survey Conducted by the Project Company with Key Court Personnel	**Monthly**	Questionnaire asking customers about the work management program & contractual services. Use 5-point "Likert" scales where 1 is bad service and 5 is outstanding service. Use approximately 5-7 questions	**Lower Limit:** average of questions = 2 **Base Level:** average of questions = 3 **Upper Limit:** average of questions = 5

Source: Adapted from P3 Service Agreement available at www.ncppp.org/wp-content/uploads/2013/04/Pres-Redondo-Maher-0811.pdf

Financing Costs vs. Life Cycle Costs

For many P3s, and especially DBOMs, the revenue to pay back initial investors does not exist until the project is operational. That's why P3s often require equity investors to put money into a project's more uncertain early stages. For that reason, equity investment comes with a "sticker shock." Investors command a much higher rate of return than municipal bonds or other traditional investments in public infrastructure.

That sticker shock is enough to steer many governments away from P3s. But this is short-sighted. Financing costs are just one of many costs a government should consider as part of a life cycle cost analysis (LCCA). In fact, a DBOM with high financing costs might actually deliver the same infrastructure for a much lower LCCA, especially if it allows private partners to guarantee careful attention to maintenance and operations needs over a long period of time.

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the state has a particular interest in making certain the building is properly maintained. The third measure is an overall indicator of customer satisfaction.

LBJP is expected to meet the "base level" performance for each measure, or risk financial penalties. Those performance levels are based on KPI outcomes for other, similar buildings over time. As the social P3 infrastructure space develops, so will the benchmark data available to set those expectations.

2. Pay for Submissions

P3 critics often point out that P3s are unfair to small contractors who are often reluctant to devote the time and resources to prepare a P3 proposal without a guaranteed return on investment. Meanwhile, large global players in P3s are willing to commit those resources and can manage those risks across a global base of potential projects. They can afford to prepare P3s for "unsolicited" bids to governments around the world.

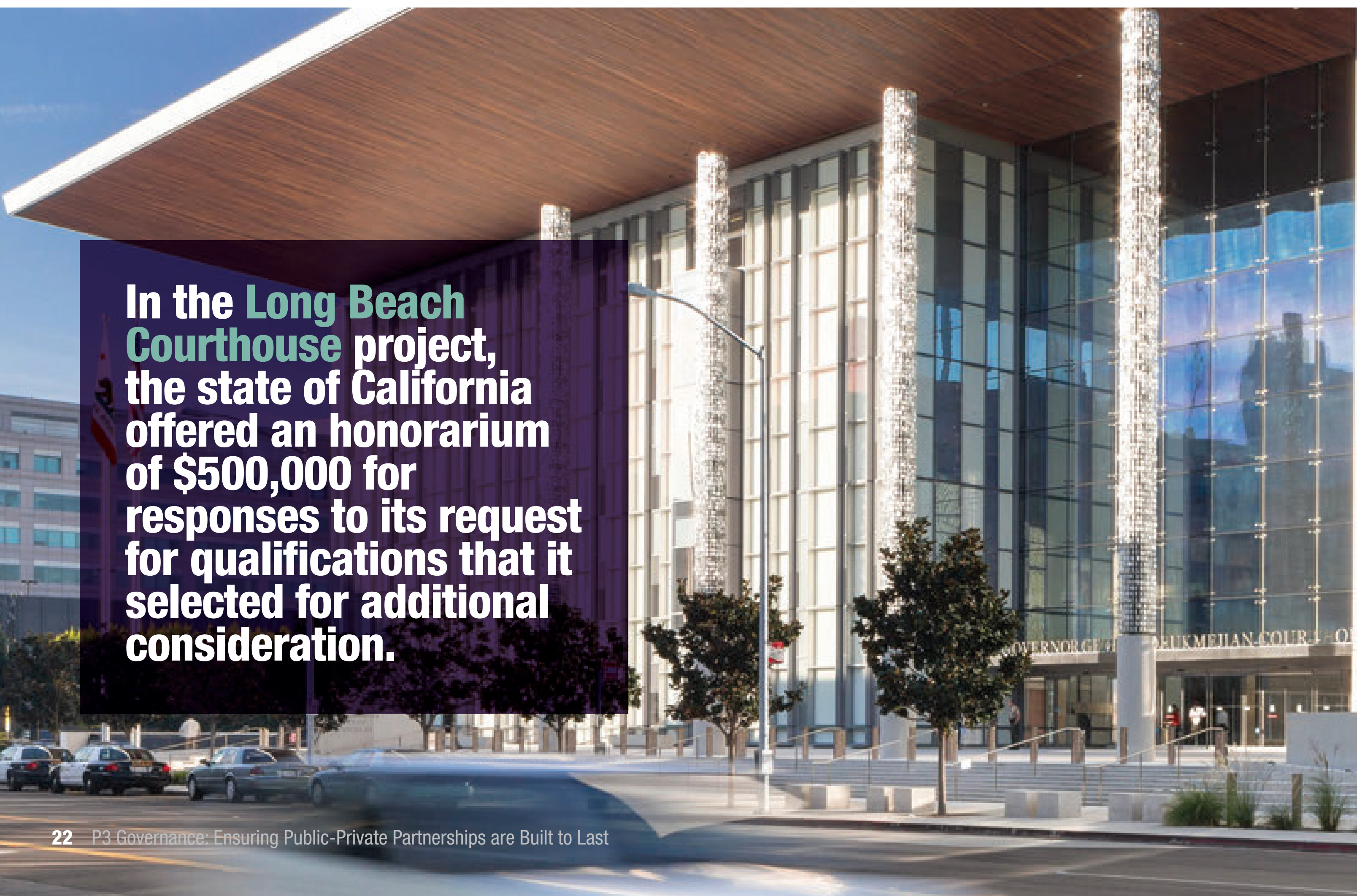
To address this concern, some governments will pay potential partners to prepare bids on P3s. In the Long Beach Courthouse project, for example, the state of California offered an honorarium of $500,000 for responses to its request for qualifications that it selected for additional consideration. In other words, if a private partner's proposal was good enough to make the "short list," that private partner was paid at least enough to cover the costs of developing its proposal. In this specific case, two proposals reached that stage.

When a government must choose between an unsolicited bid on a badly needed project and no project, it's difficult to choose the latter. But choosing the former assumes that partner was the right partner for that project, and that may not be the case. Proposals from a range of qualified private partners can help to address this concern and keep the eventual partnership in alignment over time.

3. Partnership Development Plans

P3s are long-term engagements that will evolve over time. New technologies and partners will emerge, and the P3 will demand new skills and innovations from the public and private partners.

Some of the most innovative P3s today plan for this evolution. They include in the service agreement the ability for the private partner to develop partnerships that can offer skills and innovations in the future. Private partners call this process a "partnership development plan," a "community-based partnership plan" or a "partnership management plan." These plans have a clear



In the Long Beach Courthouse project, the state of California offered an honorarium of $500,000 for responses to its request for qualifications that it selected for additional consideration.

strategy and KPIs that capture how the partnership will engage local businesses, nonprofits, community organizations and other stakeholders to develop those needed capacities.

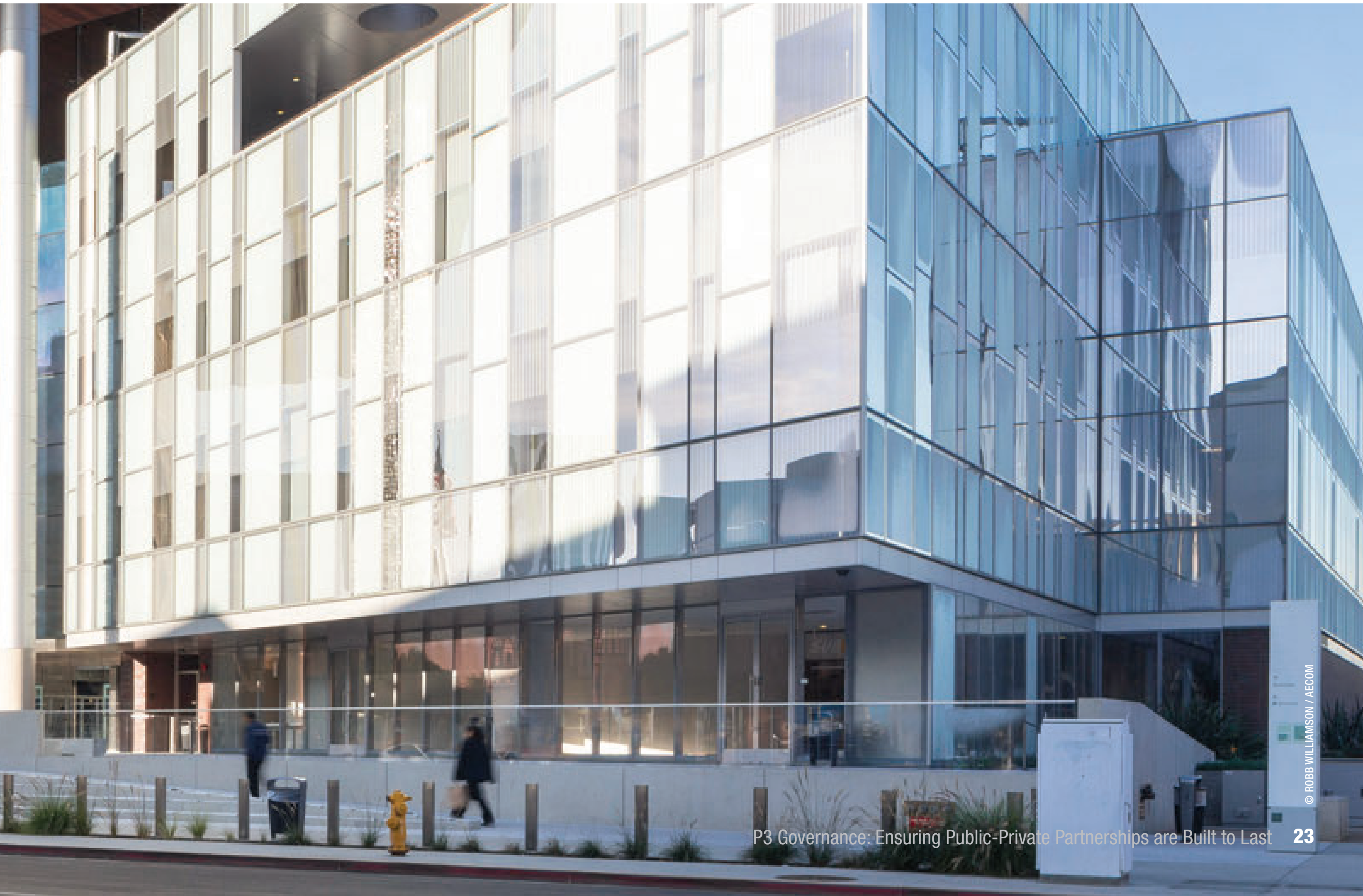
4. Life Cycle Cost Analysis

P3s are attractive because they allow governments to pay a fixed rate that ensures a piece of infrastructure will be maintained over time. That careful attention to maintenance can yield big savings. Life cycle cost analysis (LCCA) is a foundational tool to evaluate those long-term costs. The American Society for Civil Engineers defines LCCA as "a data-driven tool that provides a detailed account of the total costs of a project over its expected life."[19] It's a robust framework that incorporates costs for upfront development, capital and financing, operations, maintenance and disposal of a piece of infrastructure.

LCCA is especially important in the context of P3s, and in particular DBOMs where the government agrees to an availability payment for long-term performance on a piece of infrastructure. Most private partners that routinely participate in P3s do sophisticated LCCA as part of their planning and evaluation work. P3s offer governments the opportunity to access and incorporate that knowledge into their own capital planning and analysis.

Oversight and "American Style" P3s

Nonprofits and special-purpose governments are key players in U.S. P3s. They are especially important in the "American Style" P3 model developed by the National Development Council (NDC). In that model a conduit entity like a nonprofit or special-purpose district borrows money, builds a facility, leases that facility to a government and then pays back the borrowed money with lease payments from the government. The government is usually able to appoint — or at least suggest — individuals to serve on the conduit entity's governing body. This increases the likelihood the P3 stays in alignment.



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5. Affordability Ceiling

Cost is a contentious issue in P3s. Proponents often claim that P3s can offer lower life cycle costs compared to traditional procurement. Many governments test this claim with the Public Sector Comparator (PSC) methodology. The PSC is a best attempt at an "apples to apples" comparison of a project delivered through traditional government procurement to that same project delivered through a P3.

Critics say even the most thorough PSC cannot reliably compare traditional procurement with P3s. It's difficult to estimate the value of cost savings over time and the value of risks transferred to the private partner. It's also difficult to incorporate the qualitative characteristics of a project like historical or cultural significance. For these and many other reasons, critics say PSC is not an effective tool to evaluate P3 opportunities.

However, a new version of PSC known as the "affordability ceiling" can help address these criticisms and, in turn, bolster the effectiveness of P3 ex ante governance. The affordability ceiling was developed by Partnerships British Columbia (PBC), the BC provincial government's P3 evaluation and advisory arm, and one of the leading government agencies in the world on P3s. Under the affordability ceiling approach, the government quantifies the risks it's willing to take on a P3 in advance, and then assigns a value to risks it's willing to transfer to the private partner. Those dollar values are then added to a modified LCCA and compared to the revenues the government is able to devote to the project. PBC then establishes the maximum amount the government is willing to spend on the project, and that figure is known as the affordability ceiling.

That affordability ceiling is included in the initial request for proposals that generates responses from private partners. In their responses, potential private partners have the latitude to identify changes to the project scope, and in particular, risks the government would need to take to deliver a project within the affordability ceiling. This approach has two main advantages. First, it averts the typical criticism about the cost comparability of proposals. Private partners might propose different scopes of work, but all are within the same cost parameters. And second, it allows private partners to bring design innovation to the project much sooner. So far, PBC has used the affordability ceiling approach with 12 projects and none have experienced any substantial cost overruns, delays or performance issues.[20]

Ex Post Tools of P3 Governance

Some P3 governance tools are focused on what happens once the agreement is in place. These are called ex post tools.

1. Facility Condition Indices

A Facility Condition Index (FCI) is a facility's ratio of deferred maintenance costs to replacement costs. In effect, an FCI measures "catch up costs," or deficiencies in a facility that will require additional spending. Once again, this is a critical concern in P3s generally, but especially in social infrastructure P3s where the private partner hands back the facility at the end of the agreement.

FCIs work in tandem with KPIs. An FCI methodology assigns a dollar value to most or all of the KPIs included in a service agreement. One value is what it will cost to maintain some level of performance on that KPI. The other dollar value is for replacement, or what it will cost to replace or refurbish that part of the facility's performance. Those dollar value assignments are derived from data on the performance of thousands of similar facilities around the world. If performance on a KPI falls below expected levels, maintenance costs increase. As maintenance costs increase, the FCI increases.

FCIs are a comprehensive, informative and simple indicator of how a P3 performs over time. Policymakers, citizens and other concerned stakeholders can track FCIs and compare them across projects. For instance, the Long Beach Courthouse P3 mentioned previously requires an FCI of .15.[21] That means at any time, maintenance costs cannot exceed 15 percent of the building's total replacement cost. That .15 maximum limit is based on industry standards for "comprehensive stewardship" of public facilities.

2. Performance Audits

A government performance audit is a formal, independent evaluation of whether a program or service is meeting its objectives. City and county auditors review the full scope of local government services, and many states have a legislative auditor who carries out performance audits at the request of legislators. P3 performance audits can happen from two main perspectives. One perspective is process. Performance auditors routinely review government contracting processes, usually with an emphasis on whether a contract approval followed appropriate procurement rules and ensured appropriate internal controls. In this setting auditors ask questions about the contracting process: Were there clear criteria to evaluate competing bidders? Was the most qualified or appropriate bidder selected?

A second and more promising perspective is for performance auditors to evaluate whether P3s deliver their intended results. From that perspective, auditors might ask: Are P3 performance metrics properly defined? How does reported performance compare to actual performance? How might the government change a P3's operations to improve its effectiveness? Here performance auditors can add substantial value to P3 ex post governance.

To illustrate, in 2014 the city auditor in Portland, Ore., released a two-part audit of the Portland Streetcar (PS).[22] PS was one of the first public transit DBOMs in the nation. It's also unique in that the private partner is the nonprofit Portland Streetcar, Inc. This P3 had several performance metrics, principally around streetcars arriving safely and on time.

The Portland Streetcar P3 is unique in that the private partner is the nonprofit Portland Streetcar, Inc. This P3 had several performance metrics, principally around streetcars arriving safely and on time.

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The city auditor identified several issues with PS' performance. It found that performance metrics were often undefined, and that actual performance data was often quite different from reported performance outcomes. It also showed the city lacked a clear process to connect the streetcar's goals to the citywide strategic planning process, even though its mission called for that sort of integrated goal-setting. Finally, the auditor concluded that no real financial risk or operational risk had been transferred from the city. PS management disagreed with some of these findings, but did agree that the audit offered useful guidance for how to improve the partnership's performance going forward.

3. Contingent Payments and Performance Bonuses

Governments can use KPIs to align their partners' incentives with their own. In a typical P3 arrangement, KPIs are part of a "sticks" approach to ensure performance. The private partner is paid unless it fails to deliver on certain KPIs. If it fails to deliver, the P3 agreement calls for financial penalties or other punitive actions.

However, some recent P3s have shifted this arrangement toward a "carrots" approach, which calls for the government to pay a bonus if the private partner exceeds performance expectations. A growing number of private partners now prefer this performance incentive model.

In November 2014 the University System of Georgia awarded a concession to Corvias to provide campus housing to tens of thousands of students across nine system campuses. That agreement is organized around four KPIs: 1) student satisfaction; 2) facility condition assessments; 3) work order response times; and 4) occupancy rates. Half of the system's payment to Corvias is a pre-determined base management fee, and the other half is based on meeting or exceeding expectations on these four KPIs.

4. Ongoing Public Oversight

What's often overlooked in a P3 arrangement is the role of public oversight once the arrangement is in place. KPIs and other formal assessment tools are crucial indicators of a P3's success. But they don't tell the whole story. How citizens experience a P3, and whether they consider that P3 successful are just as, if not more, important indicators of success. Robust and engaged public oversight can bolster trust in P3 operations, identify emerging problems with P3 performance, and help maintain alignment between the government and its private partners.

In 2009 the Massachusetts Department of Transportation (MassDOT) formed the Public-Private Partnership Oversight Commission. This commission comprises technical experts from civil engineering, finance, logistics and other fields relevant to P3 operations. Part of its mission is "to raise the awareness of government and business stakeholders of the means by which their cooperation can cost effectively provide the public with much-needed transportation services and facilities."[23]

5. Ongoing Advice

One of the core themes throughout the Governing Guide series is "know what you don't know." Most state and local government staff are not experts on finance, procurement and the other technical areas on which P3s are based. And yet, they must engage those topics if they're to be effective in negotiating and managing P3s. The key is to know the landscape well enough to know when to ask for help.

Fortunately, the P3 advisory industry has grown over the past few years. Governments can now hire "brand name" firms like KPMG, McKinsey, Arup and others to analyze P3 finances, negotiate P3 arrangements and develop KPIs on their behalf. However, most of that advice is transactional, meaning it's focused on getting the deal to close. There's far less advice available for how to adjust, restructure or renegotiate a P3 if it's not achieving its goals.

But that's also changing. A number of firms focused on transactional advice have bolstered their advisory capacity for "partnership development." To capitalize on that trend, several states and localities have released RFPs and RFQs for P3 advisory services. Those services can include technical analysis of potential P3s, but more important, of the actual cost savings and performance of existing P3s.

Essential Questions

- Do we routinely use Life Cycle Cost Analysis (LCCA)? If not, why not? What are the technical, political or other barriers to us using LCCA?
- How do the "all in" or "life cycle costs" of a potential P3 compare to the upfront costs? If P3 financing is more expensive than traditional tax-exempt financing, what accounts for that difference?
- Have we identified the maximum amount we're willing to pay for a P3? If so, could that amount lend itself to an "affordability ceiling" approach?
- Can we effectively measure the performance of a potential P3? Can we measure our policy goals with clear key performance indicators (KPIs)?

SURETY BONDS: A CRITICAL SAFEGUARD FOR P3 PROJECTS

Most P3 projects involve construction, and construction involves risk. Research conducted between 2013 and 2015 found that contractors had a failure rate of approximately 29 percent, meaning more than 1 in 4 of these businesses will fail. Even though bonded contractors are less likely to fail, over the last 15 years, surety companies paid nearly $12 billion to complete construction contracts and pay subcontractors and suppliers what they were owed. These numbers do not include the significant money sureties spent to finance troubled contractors so they could complete contracts, protecting governments and private owners from defaults. In 2016 alone sureties paid approximately $1.4 billion to owners, subcontractors, suppliers and contractors on surety bond obligations.

Why are performance and payment bonds, typically for 100% of the contract price, universally required on infrastructure projects in the U.S.? To provide public owners, developers and lenders the benefit of an independent third party, the surety, and to help determine that a contractor has the ability to perform the contract and meet its payment obligations. And, if something goes awry and the contractor defaults, to have the surety to provide funds to complete the contract, and to directly manage and pay claims of subcontractors and suppliers on the job. Those subcontractors and suppliers have a direct right to make a claim on the surety bond for payment rather than having to attempt payment from a bankrupt contractor or from a public entity.

Surety bonds significantly increase the likelihood that a construction contract will be completed and that subcontractors, suppliers and workers will be paid.

P3s provide a new source of financing for the public entity to procure work, not a new revenue source. A P3 is a way for public entities to access the capital market but the construction risks remain the same. High percentage performance and payment bonds remain a best practice for the design build portion of any P3 contract.

Surety bonds also empower contractors. Contractors can obtain more work when they are backed by surety bonds than by only their own balance sheet. This significantly benefits small, emerging, disadvantaged and minority contractors.

Strong businesses are bondable businesses and sureties focus on strengthening businesses, managing growth and building legacy wealth. No matter the project delivery method, bonding helps public agencies assess and minimize their risk while empowering contractors to undertake work they can deliver.

The Surety & Fidelity Association of America
Serving the Industry Since 1908

TO FIND OUT MORE, DOWNLOAD A *GOVERNMENT LEADER'S GUIDE TO BONDS* AT WWW.GOVERNING.COM/GUIDETOBONDS OR VISIT WWW.SURETY.ORG.

DAVID KIDD

CONCLUSION

A P3 BUILT TO LAST

P3s are here to stay. They're now a core part of the state and local government infrastructure toolkit. They're also becoming more complex and intricate. They're now used to move forward an enormous variety of infrastructure projects, including and especially "social infrastructure" like courthouses, affordable housing, university research facilities, stormwater management infrastructure and many others. Moreover, today's most innovative P3 models require states and localities to engage a broader group of stakeholders, including many who have not typically played a large role in infrastructure finance or operations. All of this happens in a complex, dynamic and sometimes ambiguous federal and state policy environment.

Our recent experience has shown that the biggest risks with P3s are not financial or technical. You can manage financial risks with good contracts, insurance and service agreements. You can manage technical risks with good designers and design processes. But political risks are much more difficult to manage.

One especially important threat is that policymakers can change their minds about a P3. They can decide a P3 is no longer a priority. They can try to modify its core service delivery model. They can change the criteria to evaluate a P3's success. All these changes are well within the purview of most state and local elected officials. If any of these happen, a P3 will quickly fall out of alignment and fall short of its objectives.

The tools of P3 governance described here are designed to ensure a P3 can adapt to changing circumstances. If KPIs are properly designed and life cycle costs properly evaluated, there is space for the service delivery model to change. If an independent oversight body and independent audits show it's successful, it's difficult for anyone to claim otherwise. If it's organized around availability payments based on a thorough life cycle cost analysis, it's difficult to claim there are "hidden costs" or that it's unaffordable. Using these tools effectively will set governments up for more successful and long-term P3 arrangements.

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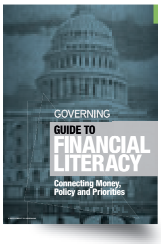

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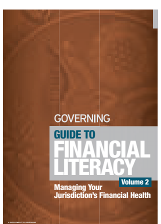

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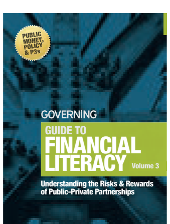

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Endnotes

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19. http://www.asce.org/life_cycle_cost_analysis_report/
20. For an example of the affordability ceiling approach, see Partnerships BC's case materials on the Okanagan Correctional Centre project at http://www.partnershipsbc.ca/projects/operational-complete/okanagan-correctional-centre-project/
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