

**PUBLIC
MONEY,
POLICY
& P3s**

GOVERNING

GUIDE TO

FINANCIAL LITERACY

Volume 3

**Understanding the Risks & Rewards
of Public-Private Partnerships**

Permeable pavement absorbs stormwater and reduces polluted runoff in Prince George's County, Md.

PUTTING CITIZENS FIRST WITH AN Innovative Approach to P3s

Next-generation public-private partnerships (P3s) will focus on goals citizens want to support — especially projects that inspire them, such as ensuring access to safe water supply or quality affordable housing.

Corvias Group, a leader in forward-thinking P3s, tackles large-scale public infrastructure challenges through trusted partnerships that also help organizations achieve their public policy and socioeconomic goals. The private firm puts clients first to produce sustainable, long-term solutions that focus more on performance than profit.

Working together for the public good

Case in point: In 2015, Prince George's County, Md., engaged Corvias as lead partner in its "Clean Water Partnership," a 30-year, \$100 million commitment for financing coordination, planning, design, construction and maintenance of green stormwater infrastructure. The ambitious effort will update needed water works, and also help the fast-growing region accommodate accelerating demand for new sidewalks, pavement

and rooftops that create more permeable surfaces. By employing rooftop vegetation, rain gardens and other fresh approaches to capture rainwater, the initiative can also help beautify neighborhoods.

The P3 arrangement is unusual in that it places the onus of performance and maintenance on Corvias, which gets full payment only if it meets targets related to water runoff quality and amounts — and related socioeconomic goals. For example, the agreement requires that 35 percent of labor hired for design, construction and maintenance come from local disadvantaged minority- and women-owned businesses. Corvias earns its full, capped fee only if it exceeds these targets. Additionally, the agreement automatically reinvests any savings directly back into the project for true risk sharing.

Prince George's County oversees program goals and compliance, provides revenue for the program from water utility fees, and still owns all the infrastructure and real estate. For more information, visit www.thecleanwaterpartnership.com

Corvias®

To learn more about how Corvias works within next-generation P3s to remedy some of America's most challenging infrastructure and facilities deficiencies, visit <http://www.corvias.com>



CONTENTS

4 Introduction

6 What Are Public-Private Partnerships?

16 Risk Allocation and Risk Management in P3s

24 Policymakers' Role in P3s

28 Conclusion

When you see **highlighted words**, check the glossary on Page 30 to learn more.

GOVERNING

© 2016 e.Republic. All Rights Reserved
1100 Connecticut Ave. N.W., Suite 1300,
Washington, D.C. 20036
governing.com

A division of e.Republic

INTRODUCTION

The Continental Army certainly had General Washington – and the French. But after the disaster at Valley Forge, it also had something much more mundane: maintenance and operations seen to by private contractors.

In December 1777, General George Washington led the **Continental Army** into its first permanent camp at Valley Forge, Pa. Spirits were low. They had just surrendered Philadelphia, and a long, punishing winter lay ahead. In the months that followed, thousands of troops died from starvation and disease. At his darkest moment, Washington wrote a friend to express his admiration for the “incomparable patience and fidelity” of his troops as they suffered with “little less than a famine.”¹

In late 1783, those same troops defeated the mighty British army. How did they go from starvation to success? Historians point to Washington’s leadership, American ingenuity and some help from the French. But the Continental Army also won because of careful attention to something much more mundane: maintenance and operations. After the disaster at Valley Forge, the Continental Congress reorganized and centralized the army’s procurement, transportation, logistics, payroll and other essential support functions. Perhaps most important, it hired private contractors to manage those functions, and gave those contractors wide latitude to manage as they saw fit. The result was a far more capable, efficient and effective army.

Nearly 250 years later, governments continue to find new ways to leverage private sector money, expertise, innovation and flexibility. This is especially true for states and localities, which in the past 20 years have rapidly expanded the scope, scale and stakes of that leverage. This practice of deeper private sector involvement in public services is broadly known as public-private partnerships, or P3s.



P3s are now a permanent part of state and local governments' service delivery toolkit. For proof, look no further than Florida's \$2.3 billion "I-4 Ultimate" highway project; the \$200 million civic center in Long Beach, Calif.; the recently approved \$4 billion rebuild of the main terminal at New York's LaGuardia Airport; and dozens of other major infrastructure projects set in motion by P3s.²

Expanding interest in P3s has a lot to do with financial necessity. The American Society of Civil Engineers (ASCE) recently highlighted \$3.6 trillion worth of pressing state and local infrastructure investment needs.³ Add to that: A 2015 Governing Institute survey⁴ found half of state and local public officials believe lack of infrastructure investment is their most significant financial problem. P3s can help address this spending gap by, among other things, using private sector money to jump-start projects that might not happen otherwise. That's also why this guide focuses on P3 infrastructure projects, with some special emphasis on emerging applications for areas such as stormwater management, broadband and public buildings.

But P3s are more than just a financing tool. They can introduce innovative designs and technologies. They can connect vital services and infrastructure to other policy goals such as economic development, community revitalization and workforce development. They can also help free up badly needed capital spending and borrowing capacity for other projects. The potential rewards are numerous.

So are the risks. A poorly designed or executed P3 can cost taxpayers more than what they'd pay under traditional public sector procurement. Moreover, governments must actively monitor and enforce the terms of their P3s. This demands considerable resources and technical expertise that many governments simply do not have.⁵ Skeptics also point out that many taxpayers and policymakers mistake P3s for "free money." As you'll see throughout this guide,

P3s might change who pays for a project at first, but in the long run, taxpayers and those who use infrastructure always cover the bill. In other words, P3s are a financing tool, not a funding mechanism. As long as P3s offer the allure of easy money, policymakers and taxpayers will want to learn more.⁶ For these and many other reasons, it's essential for policymakers to understand what P3s are, how they work and when they're right for a community.

50% of state and local public officials say lack of infrastructure investment is their most significant financial problem.



This guide answers three main questions:

1 What are P3s?

We'll unpack this term and focus on the P3s state and local policymakers typically encounter.

2 What role should policymakers play in P3s?

In short, your role is to "build the skillset, and build the mindset" to prepare your jurisdiction for the challenging work of carefully considering P3 opportunities. We'll describe what that means.

3 How can governments share the risks and rewards of P3s?

Once you've determined a P3 might be appropriate for a particular policy objective or project, there are many ways to structure that P3 to maximize its chances of success.

Our goal is to help you "know what you don't know."

After reading this guide, you'll know the basics and where to go to learn more. That's why throughout you'll see questions you can and should ask as you're considering P3s.

WHAT ARE **PUBLIC-PRIVATE PARTNERSHIPS?**

Many things have been called “public-private partnerships.” Consider the following:

✓ **On Oct. 3, 2008**, Hank Paulson and Tim Geithner, secretary of the Treasury and president of the Federal Reserve Bank of New York, respectively, unveiled the Troubled Asset Relief Program (TARP). TARP was the federal government’s \$700 billion plan to address the growing sub-prime mortgage crisis. The plan was to, in effect, buy up many of the “toxic” assets that were hurting investors. Treasury officials hailed the plan as a “public-private partnership” to restore financial stability.

✓ **In 2010**, the city of Overland Park, Kan., approved a financing package to attract a major sporting goods store to its Corbin Park Shopping Center. That financing package included public tax money generated by a new transportation development district and community improvement district authorized to support the project. City leaders lauded the plan as an aggressive, innovative “public-private partnership.”

✓ **In February 2016**, 12 countries — including the U.S., Canada and Japan — signed the Trans-Pacific Partnership, a multi-year trade agreement designed to promote economic growth throughout the Pacific Rim region. Leaders across the signatory countries hailed the agreement as a groundbreaking “public-private partnership.”

✓ **In August 2013**, The Trump Organization finalized a long-term lease with the General Services Administration to redevelop the Old Post Office building in Washington, D.C. Donald Trump plans to invest at least \$200 million to convert the former government building into a luxury hotel. He has called the deal a terrific “public-private partnership.”

These are all stories of strong cooperation between governments and the private sector, but cooperation alone does not equal a P3. In fact, most P3 experts agree on a much narrower definition that we’ll use throughout this guide:

A public-private partnership is a long-term agreement between a government and the private sector to share the risks and rewards of delivering an essential public service.

FIGURE 1:

Traditional Procurement vs. Public-Private Partnerships vs. Privatization

TRADITIONAL PUBLIC SECTOR PROCUREMENT

Manage Project			
Design	Build	Operate	Maintain
Finance Project			
Own Project			

DESIGN-BUILD-OPERATE-MAINTAIN (DBOM) P3

Manage Project			
Design	Build	Operate	Maintain
Finance Project			
Own Project			

JOINT VENTURE P3

Manage Project			
Design	Build	Operate	Maintain
Finance Project		Own Project	
Own Project			

BROWNFIELD PRIVATIZATION

Manage Project			
Design	Build	Operate	Maintain
Finance Project			
Own Project			

Public Sector Private Sector

With that definition in mind, it's clear how the previously cited examples are not really P3s. The TARP was not a service, but rather a way to quickly stabilize financial markets by shifting financial risk from banks to the federal government. Governments support private development through a variety of financing tools like transportation development districts and community improvement districts, but that support is designed to promote economic development, not directly provide a public service. Trade partnerships don't produce a service; they change the rules of the game for how countries trade with each other. Leasing a government building to a private developer for luxury lodging is not a public service. Government can be a meaningful participant in these types of deals, but that doesn't make them a P3.

P3s vs. Traditional Procurement

At the outset it's useful to compare P3s to traditional public sector procurement. We'll focus on infrastructure since that's where much of today's P3 activity is focused. Figure 1 shows the various stages of an infrastructure project. Governments are traditionally responsible for the parts of the project shaded green. Private partners are traditionally involved with the parts shaded blue.

Let's apply this in the context of a new wastewater treatment facility. With traditional procurement, a government — usually a local utility or city/county public works department — borrows money to pay for the project, acquires or repurposes land for the project, and does some preliminary design work. With that preliminary work complete, the government develops a request for qualifications (RFQ) from private design/engineering firms. That RFQ will usually call for the private partner to finalize the design, obtain required permits from state and federal regulators, and attend to any other preliminary design concerns. Private firms respond to that request, and the government awards a contract to the best qualified firm. Once the design work is complete, the government requests bids from construction companies to build the facility according to the finalized plan. It then awards a contract to the selected construction company and monitors the construction process. Once the facility is built, the government will own, operate and maintain that facility for the rest of its useful life.

The middle panel of Figure 1 shows how this same procurement could happen through a common P3 structure known as a

Social Impact Bonds as P3s?

Many recent high-profile public-private collaborations have actually been government partnerships with nonprofits organized around social impact bonds. Like P3s, social impact bonds are focused on outcomes. A nonprofit agrees to try out a new service delivery approach, and if that approach works, the government agrees to share a portion of the public money saved. Financing to launch

that new approach comes from private sector investors.

Most social impact bonds also engage a charitable foundation(s) that agrees to remunerate the private investors if the new approach fails. Social impact bond enthusiasts believe this approach can bring innovative new solutions to bear

on challenging social problems such as homelessness and juvenile recidivism.

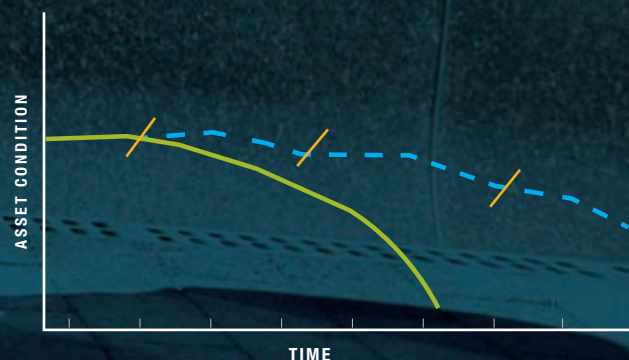
Social impact bonds are an exciting and important development. However, from the government's vantage, the risks are neither shared nor manageable, and therefore a social impact bond is not a P3.



Preventive Maintenance and Life Cycle Costs

Maintenance is an essential but often overlooked part of public infrastructure. By some estimates, for every dollar a government spends to design a piece of infrastructure, it will spend \$10 to build it and \$100 to maintain it. The figure below illustrates why the timing of maintenance spending matters. The solid line shows how the condition of a typical road, bridge or other asset deteriorates over time if not maintained. The key point here is that the decline is not linear. At some point, the asset quickly deteriorates to an unusable state. The dashed line shows that same condition if the asset is properly maintained, with periodic spending on preventive maintenance shown in the diagonal orange lines. Proper maintenance equates to a much longer useful life.

The challenge is that preventive maintenance needs must compete with capital spending on newer, more visible projects. And it often loses. P3s with an operations and maintenance component can help address this problem. If the private partner's payment depends on the asset's condition, it is far more likely to make those periodic investments in maintenance. Unlike most governments, that private partner will have the financial, operational and political flexibility to make those investments when needed.



By some estimates, for every dollar a government spends to design a piece of infrastructure, it will spend \$10 to build it and \$100 to maintain it.

“design-build-operate-maintain,” or **DBOM**. Here, the government selects a single private partner to design the facility, build it, and then operate and maintain it (O&M) for several years. The private partner staffs the facility, performs routine inspections and repairs, updates the facility’s technology and manages compliance with Environmental Protection Agency (EPA) rules and other mandates. In most DBOMs, the O&M includes routine maintenance such as cleaning and inspections, but also financing and carrying out capital maintenance such as replacing pipes, filters and other expensive, long-lived components of the facility.

In exchange, the government pays the private partner a fee to operate that facility on its behalf. For some P3s, that fee is a percentage of the fees paid by the end users of the facility. Under a different model, the government makes fixed payments, known as **availability payments**, that are not directly related to the revenue the facility generates. Many P3s blend elements of both.

Why Would a Government Prefer a DBOM to Traditional Procurement?

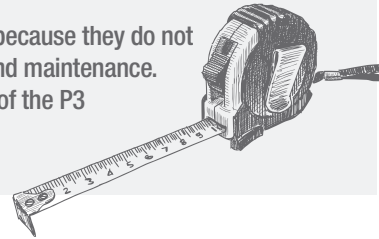
Lower transaction costs. Working with a single private partner across all stages of the project eliminates the costs of developing, awarding and monitoring separate contracts at each stage. In other words, a P3 can reduce the transaction costs of bringing the private sector into the project.

Synergy across the phases. There’s an old saying that if mechanics designed cars, then every hose and valve would be much easier to reach. Cars might not be beautiful, but they’d be easy to maintain and, in turn, much cheaper to own. That concept applies just as well

Design-Build

What we call P3s today began with the **design-build** approach to public infrastructure. Under this structure, the government engages the same private partner(s) for both the design and build phases. This model has been used extensively for highways, bridges, ports and other projects where matching the proposed design to the best available construction techniques can save time and money.

Design-build contracts are not P3s because they do not involve shared risk for operations and maintenance. They are, however, a building block of the P3 approaches described herein.



to major public infrastructure. If the private partner is responsible for O&M, it has a powerful incentive to design the facility to minimize the long-term costs to staff, operate and maintain it.

Expedited delivery. By some estimates, construction costs increase 3 percent each year. Prices on commodities like cement and steel can rise quickly. Interest rates can increase unexpectedly, driving up financing costs. Labor costs rise when local market conditions improve and unionized employees negotiate new contracts. With these and other factors at work, it’s difficult to know what the design and build phases might cost through traditional procurement. However, it’s not difficult to see that completing the design

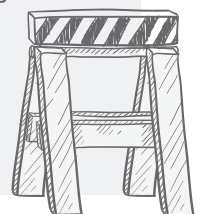


Pennsylvania’s Rapid Bridge Replacement Project

In 2015, the Pennsylvania Department of Transportation (Penn DOT) launched its Rapid Bridge Replacement Project. The project is a DBOM designed to expedite the replacement of 558 bridges across the commonwealth in just 3 years. Plenary Walsh Keystone Partners — a consortium of Pennsylvania investment banks and construction companies — is the private partner. Under this P3, Plenary Walsh is responsible for construction and O&M of all bridges in the project for 25 years. Penn DOT will make availability payments contingent on metrics such as bridge pavement condition and minimal traffic disruptions during construction. Plenary Walsh also plans to engage dozens of local sub-contractors, mainly at the build phase. The project is financed entirely with public money, including **private activity bonds** and periodic state appropriations.

Most of the bridges slated for replacement are simple, rural, low-volume structures with similar design characteristics. That’s why this project lends itself well to the high-performance infrastructure procurement approach. Penn DOT can develop a simple but flexible master design, standardized procurement and contracting documents, and clear procedures to measure contract performance.

For more information, visit the project’s website at <http://parapidbridges.com>.



and build phases quickly will almost certainly save money. Most research on P3s shows that DBOMs are almost always completed faster than traditional procurements.

Cost certainty. Once the design and build phases are complete, it's just as difficult to know what it might cost to operate and maintain the facility over time. A well-executed P3 with a transparent long-term payment schedule can address this problem. Certainty about the long-term costs to build and operate a facility — known as its life cycle costs — can bring about substantial financial and political benefits.

Before going further it's crucial to understand another defining characteristic of P3s: an emphasis on outcomes. To illustrate, let's return to the wastewater treatment example. In a traditional procurement, the government tells the design and build contractors what to design, how the facility should look, what materials should be used to build it and so forth. This approach is popular and timeless because we know how to hold it accountable. It's clear if the contractor meets the public's expectations.

P3s demand a different approach. If the wastewater example were a P3, the government would specify what it wants the facility to do. Presumably, it should have the capacity to treat several million gallons of water each day to levels of cleanliness that meet or exceed EPA water quality standards. But how the facility looks and works would be up to the private partner. To know if the private partner is performing, the government must shift its focus of accountability. Instead of tracking where money is spent, the government must now test water quality levels, monitor the facility's condition and performance, and enforce the other contract provisions.

High-Performance Procurement vs. Innovating Early

From the government's vantage, there are two types of DBOMs. The first is a standardized DBOM. With these projects, the government can reliably predict the long-term O&M strategy and costs related to the infrastructure in question. Small bridges in rural areas are a good example. These bridges must be built to accommodate predictable types of traffic patterns through terrain that's not likely to change. If the government can standardize its bridge design specifications and performance standards, then it can use the DBOM model to expedite new bridge construction. Private partners simply make small adaptations to a basic design, carry out the build and, later, the O&M.

Governments have deployed this standardized DBOM approach — also known as **high-performance procurement** or performance-based procurement — for many different types of infrastructure, including schools, hospitals and more recently, “net zero” energy-efficient public buildings. In fact, some have suggested that governments can capture most or all of the potential value of P3s by simply adapting their existing infrastructure procurement processes to better reflect P3-type dynamics. Newer approaches to procurement such as managed competition and vested outsourcing are designed to that effect, and may be a better choice than P3s for many projects.

The second type of DBOM is what we might call an early innovation DBOM. In this case, the government cannot reliably estimate a project's O&M strategy and costs. In fact, many innovation-led



Stormwater Infrastructure in Prince George's County, Md.

Like many jurisdictions near the Chesapeake Bay, Prince George's County, Md., must comply with strict EPA rules about stormwater runoff and discharge. It's also one of the fastest-growing counties in the U.S. and is rapidly redeveloping much of its urban infill. These two trends together created a unique P3 opportunity.

In 2014, the county entered into a DBOM with Corvias Solutions for a 30-year, \$100 million partnership to develop countywide stormwater infrastructure to treat more than 15,000 acres of impervious surfaces. Corvias will design and build more than 46,000 individual pieces of stormwater infrastructure such as rain gardens, “green” roofs and bioswales. By necessity, much of that infrastructure will be located on land controlled by schools, homeowners' associations, religious organizations and other local interests. It follows that Corvias' success will depend in large part on its ability to successfully engage community stakeholders. Financing is 100 percent public, mostly through municipal bonds backed by stormwater utility fees.

This is a good example of an early innovation P3. Stormwater is a dynamic policy environment. Federal and state clean water rules change regularly, and stormwater infrastructure technology is evolving quickly. Moreover, from the outset the county made clear that it wanted this P3 to drive community and economic development, especially in some of the county's most blighted areas. The county engaged Corvias early and often, and Corvias developed a variety of designs that county officials had not considered prior to the partnership. In pursuit of the economic and community development goals, Corvias also plans to engage dozens of local sub-contractors in both the design-build and O&M phases.

DBOMs begin with a set of policy goals, but without any expectation of what type of project should be built to meet those goals. With this approach, private partners are brought into projects much sooner. They participate in the early design discussions and identify a variety of potential design options, often with careful attention to the later O&M costs. See the Prince George's County, Md., case study on page 11 for a good illustration of an early innovation DBOM.

Advocates argue this approach can unlock private sector innovation. Private partners are much more attuned to the cutting-edge technologies and design features that can be brought to bear on a P3. By bringing private partners into a project early, the argument goes, governments can arrive at an innovative, customized solution to their particular infrastructure need sooner. Critics argue governments should never engage the private sector without clear ideas about what they want from the engagement.

This distinction in DBOM types is important because governments need to prepare differently for each. With standardized DBOMs, the government role is more compliance-focused. The main tasks are to streamline and standardize request for proposal documents, contracts, performance and audit standards, and many other processes. With early innovation DBOMs, the goal is to ensure the process is transparent and accountable. Government staff working in this space tend to focus more on ensuring adequate public input and participation, evaluating life cycle costs and verifying other key project assumptions.

States — including Virginia, Florida and Texas — have established P3 agencies within state government tasked with promoting and evaluating P3 opportunities. Most do analytical work related to both types of DBOMs. As their work progresses, they are building a stronger pipeline of P3 projects to their respective states and becoming more adept at vetting projects long before those projects reach citizens or policymakers.

Joint Ventures

With traditional procurement and with many DBOMs, most or all of the money comes from the government. Most governments finance projects “pay as you go” from current resources, or they borrow

KentuckyWired

KentuckyWired is a DBFOM that will build a 3,400-mile high-speed broadband network to serve rural Kentucky. Macquarie Capital, an Australian investment bank, is the private partner. The \$324 million project is financed with a blend of public sources, including municipal bonds, state appropriations and a grant from the federal Connect America Fund. Macquarie also contributed nearly \$25 million of equity. In exchange, Macquarie was granted the right to sell high-speed Internet service for 20 years in the communities served by the network once it's completed.



money. In fact, access to tax-exempt financing through the municipal bond market is one of the central and unique features of U.S. state and local public finance. When it's available, it's considerably cheaper than other forms of infrastructure financing. One of the simple rules of thumb in infrastructure finance is that if a project is a priority, and if you can finance that project with long-term debt, then debt is almost certainly a better option than a P3.

But this is changing. Many state and local governments could borrow money for new projects, but they can't be certain they'll have the revenue to pay that money back. Others simply cannot borrow more money because they have reached their statutory and other restrictions on the amount of debt they can carry.

Meanwhile, private investors are hungry for opportunities to invest in public infrastructure. By some estimates, the top 30 infrastructure funds have raised \$180 billion.⁷ Major international investment banks such as Macquarie have dedicated units of investment bankers looking for deals. Many large public pension funds, desperate for better returns on their own assets, are looking for investments that offer a strong rate of return. Under the right conditions, state and local infrastructure is precisely that kind of investment.

When private investment comes into a P3 it's usually through a joint venture. In this arrangement, the government and private partner(s) together form a new corporation — known as a **special purpose vehicle** (SPV) or project company — that builds, owns and operates the facility. With these additional components in place, a DBOM can become a DBFOM.

SPVs are special because they can take equity investments. To invest in a company's equity is to own a share or piece of it. Equity investors in joint ventures expect to be paid some portion of the revenues the venture generates. They also expect to get their investment back when the P3 ends or when they sell their equity to the government or another investor. But unlike bonds and other fixed income investments, the potential return on an equity investment is not always clear. In fact, in most joint ventures, equity holders are the first to lose their investment if the project fails. That's why equity investment is much riskier to investors, and in turn much more expensive to the government than traditional bond financing. This style of financing P3s is known as **project finance**. See the Long Beach Courthouse example on page 13 for a good illustration of a recent joint venture.

Privatization

It's also useful to briefly contrast P3s with **privatization**. Privatization is among the most controversial and widely discussed topics in state and local government today. It's different from P3s in one crucial respect: ownership. In a P3, the government continues to own the facility even though the private partner operates and maintains it. As far as citizens are concerned, the government still owns and is directly accountable for delivering the service.

With privatization, the government relinquishes ownership. In the U.S. this most often means the government grants a private operator — called a concessionaire — an exclusive right



Long Beach Courthouse DBFOM

In 2010, the California Judicial Council entered into a 35-year DBFOM arrangement with Long Beach Judicial Partners, Inc., (LBJP) to develop a new \$490 million state courthouse in Long Beach. LBJP is a special purpose vehicle created by Meridiam Infrastructure, a global infrastructure investment fund. Meridiam financed the entire project with equity, and LBJP later sold more than \$500 million in bonds to refinance the project once finished. LBJP sub-contracted with Clark Construction and AECOM for the design and build, and with Johnson Controls for much of the O&M.

The Judicial Council will make annual availability payments, which are contingent on satisfactory performance in areas such as availability of courtrooms, holding cell and audio/visual technology. This project has generated considerable controversy due mostly to major differences between the project costs estimated by the council's value for money analysis and the actual project costs.

Source: Adapted from AECOM, "Public-Private Partnerships for Public Buildings," www.performancebasedbuildingcoalition.com

© ROBB WILLIAMSON / AECOM

The **Chicago Skyway** is a good example of privatization. The private partners have the exclusive right to operate and collect tolls on the Skyway for the next 99 years. After that, they will hand back the Skyway to the city.



to operate the facility for a set period. This concession has the same effect as transferring ownership. This is shown in the bottom panel of Figure 1.

The Chicago Skyway is a good recent example. In 2004, the city of Chicago granted a team of foreign partners led by Cintra, a Spanish construction and logistics firm, and the Macquarie Group the exclusive right to operate and collect tolls on the Skyway for the next 99 years. After that, Cintra-Macquarie will hand back the Skyway to the city. In exchange, Cintra-Macquarie gave the city an upfront payment of \$1.8 billion. Other high-profile recent privatizations include the Indiana Toll Road and the I-495 Capital Beltway in greater Washington, D.C., among others.

Privatizations have contributed much to the misconception that P3s are “free money.” After all, many state and local elected officials would not hesitate to take a large upfront payment from a private partner in exchange for the chance to give away the political, financial and technical challenges of running a major piece of infrastructure. The problem is that they are not free. Taxpayers ultimately pay for the O&M on a privatized public asset, usually through steady increases in tolls and user charges. Critics have also shown that in many privatizations the government does not have adequate oversight or recourse to hold the private partner accountable. For these and many other reasons, most privatizations are not organized around genuinely shared risk between the public and private partners, and are therefore not P3s for our purposes.

Essential Questions

- How do we currently fund (or not fund) our capital budget?
- What are our major revenue sources for capital investment?
- Are these sources expected to grow?
- What is the local experience with similar P3s?
- Which new technologies or processes could P3s help us access?

Building Strong Communities

with Carbon Neutral Buildings

Once the stuff of science fiction, carbon neutral buildings — or buildings that produce as much energy as they consume — now have potential to become mainstream.

Carbon neutral buildings combine efficiency and technology to minimize energy consumption. Because they use less energy, carbon neutral buildings lower greenhouse gas emissions and overall operational costs. Complementary strategies such as rainwater harvesting and re-use can further reduce a building's environmental footprint.

Thanks to processes and innovations developed and implemented with AIA architects, even existing buildings can be cost effectively retrofitted to become carbon neutral.

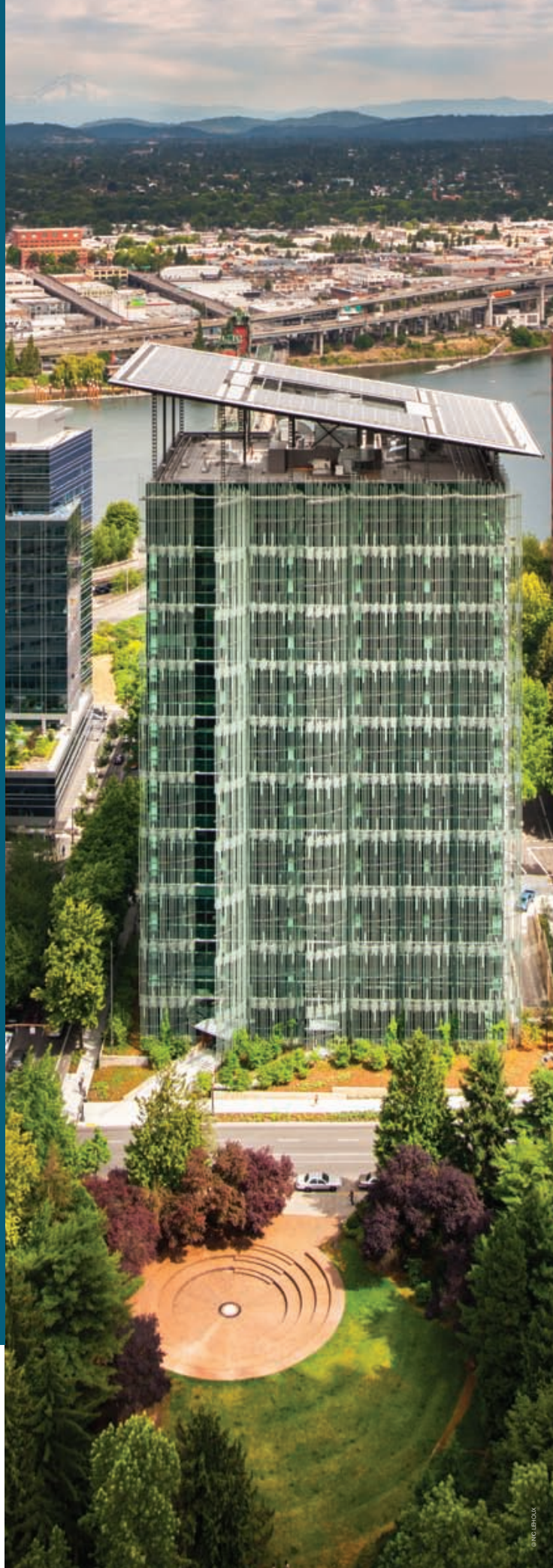
Communities that design and retrofit carbon neutral public buildings demonstrate energy leadership, technological innovation and commitment to a sustainable future. By investing in energy best practices and technologies, these communities become more sustainable and resilient to overcome economic and environmental challenges. And with lower energy expenses, businesses and taxpayers have more money to put back into their communities.

The more efficient use of natural resources is just one way architects help governments build local sustainability and resiliency. With a rich history of developing and supporting better communities, AIA and its members have long worked with governments to promote environmental leadership, economic development and design innovation.

For more information, visit: www.aia.org



**The American
Institute
of Architects**



RISK ALLOCATION AND RISK MANAGEMENT IN P3S

DAVID KIDD

All public infrastructure projects have risks. Cost overruns, traffic delays and angry taxpayers come to mind. With traditional procurement, a state or local government bears almost all that risk.

With P3s, a government can allocate (i.e., shift) some or all of that risk to the private partner(s). But keep in mind that risk allocation is not free. Private partners will accept risk, but only in exchange for higher payments, more control over setting fees or tolls, or some other concession. For governments, the central challenge in P3s is knowing which risks to keep, which risks to allocate and which risks to share. That's the focus of this section.

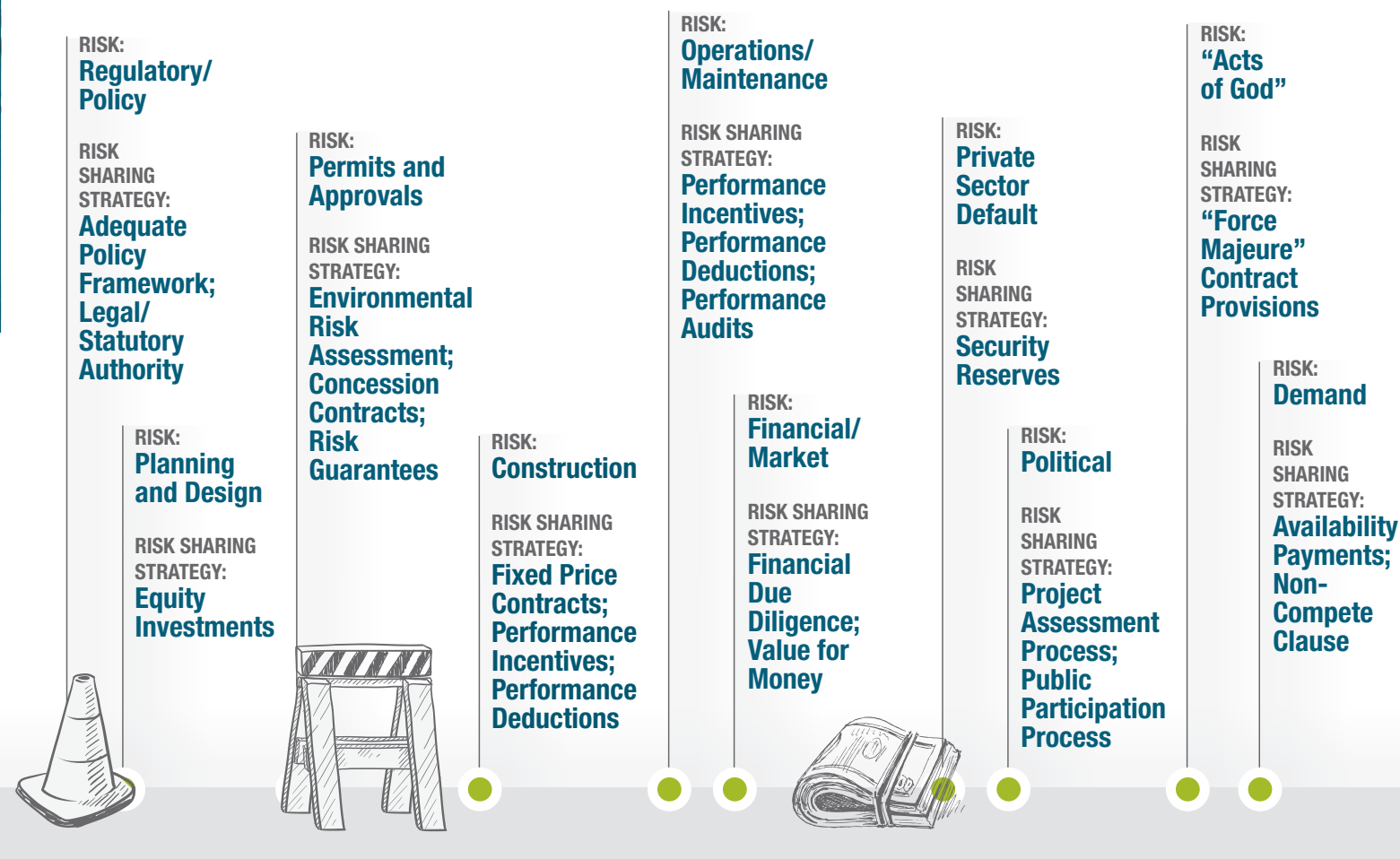
Figure 2 shows the P3 risk matrix — or the risks inherent to most P3s — and which party is typically best able to manage those risks. There are many types of regulatory/policy risks. First and foremost is the question of whether the P3 is legal under state law and other applicable laws. Specifically, does the government have the authority to finance a project with private investment, or must it use traditional municipal bonds? Is the government allowed to levy tolls or other charges if that's what the P3 financing requires? Is it allowed to receive unsolicited bids for projects, or must all projects be competitively bid? Is it required to compare the estimated costs of a P3 to some estimate of the cost for a traditional procurement? Many P3s have failed because the answers to these questions were ambiguous. Some states have robust legal frameworks that answer these questions definitively. Most do not. P3s are all but impossible to develop and manage without that framework. Since only the government can change its own policies, these risks cannot be shifted to the private partner.

That said, P3s typically shift most of the risks related to construction and operations to the private partner. Figure 3 lists some of the tools used to manage those risks. Private partners take on planning and design risk at the early stages of a P3 while developing the engineering, architecture, site planning and basic financial structure. Mistakes at that stage

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			○

FIGURE 3:
Typical P3 Risk-Sharing Strategies



will cascade through the project's life cycle costs. This risk is managed in most joint ventures through an equity investment. The private partner puts equity into the project early on. Planning and design problems that increase overall project costs will decrease the value of that investment, and in turn, the value of the private partner's equity. For the government, this means the private partner has an additional incentive to get the planning and design correct. For the private partner, it means the government is more likely to see the project through despite any planning or design challenges.

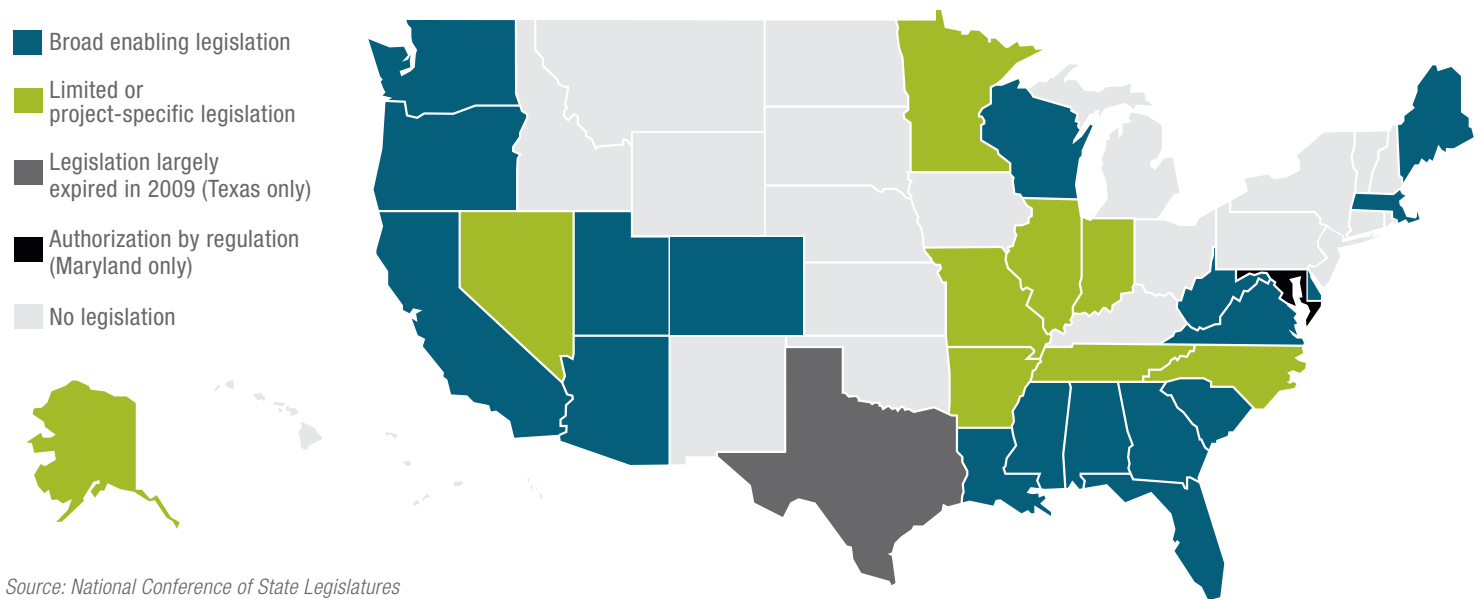
Private partners typically bear the risk for permits and approvals. Most P3s are operated by the private partner and are therefore permitted by the government as private entities. Sometimes this means negotiating directly with the government on the other side of the P3. More often it means working with higher levels of

With P3s, a government can allocate (i.e., shift) some or all of the risk associated with public infrastructure projects to the private partner(s). But keep in mind that risk allocation is not free.



Statutory Authority for P3s

Different states have different legal and policy frameworks that set the rules of the game for P3s. This map shows that variation in one area — transportation P3s.



government such as state water quality regulators, the federal EPA or the Federal Highway Administration. Permitting processes like environmental impact studies help mitigate this risk by making the project's potential environmental impacts clear to the public. Some P3s also call for the private partner to pay the government a concession payment if a permitting or approval issue delays the project delivery or impairs its operations.

Construction risk can take many forms. If geological reports are wrong, and crews have to dig through harder than expected soils, then excavation costs will increase. If costs of concrete, steel or wood increase, then overall construction costs will increase. If local union construction laborers strike, the project will be delayed and labor costs will increase. In most P3s, the private partner is responsible for these risks, but the government can encourage delivery on time and under budget by offering bonus payments to that effect. It can also use fixed price contracts where the price paid for construction is the same even if actual costs exceed expected costs. Once the asset is built, many of these same concerns become risks to operations and maintenance, and governments can manage those risks much like they do construction risks.

If the cost to finance the construction or ongoing maintenance increases, the private partner must also bear financial/market risk. This can happen in volatile interest rate environments where the cost to borrow money can increase quickly and unexpectedly. Private partners are uniquely positioned to manage this risk through insurance contracts, and through options, swaps and other financial management tools. For government, the best

defense against financial risk is to properly evaluate the private partner's assumed financing costs, usually through a **value for money** or comparable approach.

There is also a chance the private partner could fail to make its required contributions to the project. This is known as default risk, and happened in several P3s following the 2008 financial crisis. A common strategy to manage default risk is to require the private partner to set aside some of its own money in security reserves

Value for Money

Value for Money (VfM) is a formal process to compare the life cycle costs of a P3 to the hypothetical life cycle costs of a similar project through traditional public sector procurement. Some VfM processes are quite complex, requiring the government to prepare a "shadow bid" for public sector procurement based on sophisticated but hypothetical revenue and expense forecasts. The criticism of these formal approaches is that they require too many assumptions and arbitrary inputs. That's why many jurisdictions use VfM, but rely instead on expert opinions and other information to draw those same comparisons. There is no correct or incorrect VfM methodology. A VfM is effective if it's transparent, logical and provides useful information to policymakers when considering a P3.





**P3s typically
shift most of the
risks related to
construction and
operations to the
private partner.**

at the start of the project. If the private partner defaults or goes bankrupt, the government can use those security reserves to pay bondholders or other creditors.

Certain risks are also best shared rather than shifted to the private partner(s). The most potent political risk is that taxpayer sentiment turns against a project, especially when the project requires new taxes or fees. Both the government and the private partners can play a role in managing the unique blend of political and financial risk inherent in P3s. We'll go into more detail on this in the next section.

"Acts of God" include any unforeseeable and unavoidable development that makes it impossible for one party to fulfill its obligation to the partnership. This includes natural disasters such as floods or earthquakes that damage the project, but also wars, terrorism and other incidents that make the project unsafe for operators or users. Most P3s include a **force majeure** (i.e., "act of God") provision that dictates how both parties will work together to keep the project working, or how one party will remunerate the other in the event of such a development.

The most important shared risk is the risk the project will not generate its expected revenues, also known as demand risk. In the case of the wastewater treatment plant, this is the risk that the new facility does not generate enough new wastewater utility revenue. This could happen because the revenue forecasts were too optimistic, or because customers cut back their use in response to the new fees required by the P3.

Private partners bear demand risk because if the project does not meet their revenue expectations, they do not receive their expected return on investment. Governments share this risk two ways. One is to agree to a non-compete clause. In the previous example, this means the government would agree to not build a similar wastewater treatment plant to serve the same customer base. This built-in monopoly ensures enough demand for the P3. Governments can also share this risk by agreeing to additional availability payments in the event that revenues do not meet expectations. More on this in the next section.

Political Risk and P3 Funding

Taxpayers won't support a P3 if they don't understand it. They need to know how it works, how it's different from the status quo, and most important, what it will cost them. Oddly enough, policymakers often lament that much of the taxpayer opposition to P3s is rooted in misinformation and misunderstanding — sometimes cultivated by P3 opponents — about where the money comes from.⁸ As a policymaker, it's imperative you understand how choices about where to get the money for a P3 can make it more or less politically feasible.

First and foremost, it's important to distinguish financing from funding. Financing is the upfront money. It's the money that pays for project design and build. Funding is how the government pays for the project over time. It's how the initial project investors are repaid, and how the government pays for the long-term maintenance and operations. State and local governments can finance P3s through debt, equity, loans, savings, capital reserves and many other

Risk Transfer and Bankruptcy

If the private partner in a P3 defaults, is acquired by another company or encounters some other major change, will any of the allocated risks become shared risks? Put differently: Will the risk transfer stick?⁹ P3 experts tend to agree that Chapter 11 and other U.S. bankruptcy laws are effective tools to protect the public's interest in P3s. That is, if a private partner defaults or goes bankrupt, the government is generally free to close down the P3 and take the project in a new direction. This is quite different from the experience in other countries where the private partner can litigate to recover losses from the government and delay the project in the process.

sources. However, the funding for a P3 can only come from one of two sources: tolls or availability payments.

Tolls include money collected from users at toll roads or bridges. It can also refer to new fees and user charges added to utility bills or other "pay-as-you-use" structures. Tolling assumes the asset or facility built by the P3 generates discrete revenues that can be captured to repay the lenders who financed the design and build phases, and to pay the private operator for ongoing O&M. This style of finance, where a project is financed entirely through its own revenues, is known as project finance. This is quite different from traditional public finance where a government pledges to support the project with other public money as necessary.

Governments find toll-based projects attractive because they do not require much upfront investment. With enough private investors, a P3 can get to the design-build phase with little or no public money. For governments that cannot borrow additional money, either because of legal debt limits or because taxpayers will not agree to support the project through new taxes, this is an enticing proposition. The trade-off is that project finance is often two to three times more expensive than traditional public finance. Investors can't be repaid until the project begins to generate revenue, and they stand to lose some of their investment if the project's actual revenues fall short of expectations.¹⁰ Project finance investors price in this risk when negotiating the P3's terms.

Availability payments, by contrast, can come from virtually any government revenue source. Here the government pays the private partner a regular amount to make the asset in question available to the public. The money for those payments is sometimes, but not always, composed of revenues the project generates. This distinction — funding exclusively through project revenues versus funding through availability payments — is crucial.

Tolling presents some special political risks:

- **Sticker shock.** American taxpayers are used to paying for infrastructure with general revenues such as sales and income taxes. Because they pay for it indirectly through these general



Maximizing Investments and Reducing Risks with an Experienced P3 Advisor

Understanding the interconnectedness of technical performance, risk transfer, deal structure and financing options is crucial to maximizing the value of a public-private partnership (P3). Getting to that point of understanding is complex and challenging.

That's why many government sponsors are turning to Arup, a multinational professional services firm that provides design engineering, deal advisory and management consulting services, to help them successfully evaluate and deliver their P3 projects.

Arup's Transaction Advice team translates complex technical, business and other issues into financial analysis and clear recommendations that provide a solid foundation for making informed decisions on project delivery and procurement. Arup's advisors can also provide financial advice on P3 projects, prepare financial business cases, consult on contract and commercial issues, conduct technical due diligence, develop performance specifications and evaluate bids.

The firm's track record includes a number of successful global P3s, including the new Long Beach Civic Center Project. On this project, Arup was the lead advisor to the City and Port of Long Beach, assisting the government sponsors in selecting a private sector partner to develop, design, build, finance, operate and maintain a new city hall, public library and Port headquarters; revitalize a public park; and create additional downtown commercial development.

As the Lead Advisor, Arup helped the City and Port structure and negotiate the partnership and attain project approval, including:

- Recommending a procurement strategy within scheduling constraints
- Preparing an RFP with clear goals and requirements
- Framing and maintaining the City's stated affordability limit as critical to the procurement process
- Leading the bid selection process and post-bid negotiation
- Integrating financial, commercial, real estate, design, engineering and cost consulting

Under Arup's guidance the City was able to:

- Significantly reduce the project development timeline, which is typically between three and five years, to just over two years
- Attain unanimous approvals from the City Council and Board of Harbor Commissioners to both select their preferred development partner and, later, enter into negotiated contracts
- Leverage its real estate assets to cross-subsidize the P3 and stimulate economic development downtown
- Close the deal at a price the City could afford

The project recently achieved commercial and financial close in April 2016. Congratulations to the City and Port of Long Beach!

IMAGE COURTESY OF PLENNARY EDGEMOOR CIVIC PARTNERSHIP (AS DEVELOPER), SKIDMOOR OWINGS & MERRILL (AS DESIGNER), AND ARUP (AS OWNER'S ADVISOR)

ARUP

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

Ignacio Barandiaran, Principal
(415) 946-0202
Ignacio.Barandiaran@arup.com

Orion Fulton, Associate Principal
(415) 946-0599
Orion.Fulton@arup.com

sources, rather than directly through tolls or other “pay-to-play” structures, they sometimes believe public infrastructure is free. This would be true if those general revenues covered the full costs to build and maintain our state and local infrastructure network.

In fact, those sources cover only a fraction of those costs. At the same time, taxpayers have recently opposed increases to those indirect funding sources, especially transportation-specific sources such as the gas tax. In turn, the list of unfunded state and local infrastructure maintenance projects grows longer every year. Tolls change this dynamic. A private partner will agree to a performance-based, toll-based P3 only if that toll reflects at least the full cost to build, operate and maintain the asset in question. Otherwise, the investment will not be profitable, or the asset will not perform as expected. But given the huge gap between what taxpayers now pay and what it actually costs to operate major infrastructure, tolls on those types of projects are often so high that taxpayers experience sticker shock. That sticker shock can quickly morph into political opposition to a P3.

- **Double taxation.** If taxpayers believe they pay for infrastructure through general taxes, then why should they pay tolls for a P3 on top of those taxes? Once again, the answer is those general taxes

don't cover the full cost to operate and maintain that infrastructure. Concerns about double taxation were particularly salient in several P3s that had to be substantially reworked at the design phase, such as the Midtown Tunnel project in Virginia and the Presidio Parkway project in San Francisco.

- **Distributional equity.** Decades of scholarly research has shown that tolls are bad for the poor. In particular, the working poor are more likely to use tolled roads to commute to work or to pay tolls on public transit. They pay the same amount in tolls as others, but that amount is a much larger share of their income. In other words, tolls are a regressive tax. P3 detractors have successfully mobilized public opposition to several P3s around these concerns about distributional equity and the overall fairness of tolling.

Availability payments have their own political risks. In fact, critics call availability payments “shadow tolls.” These risks include:

- **Unclear incidence.** Availability payments are comprised, in part or entirely, by general revenues. As a result, all taxpayers contribute to them. But how those payments affect different types of taxpayers depends on what the government decides



Concerns about double taxation were particularly salient in several P3s that had to be substantially reworked at the design phase, including the Presidio Parkway project in San Francisco.

not to do so that it can fund those payments. The political risk is that it's not always clear who pays them, and in the absence of data, proponents and advocates alike advance their own stories, however informed or uninformed, about how availability payments affect citizens.

- **Elusive cost savings.** Availability payments on a potential P3 are often compared to current spending on the project (for existing or brownfield projects) or to current spending on similar, new projects. Current spending levels will always be less than the proposed availability payments because those levels do not reflect the full cost to operate and maintain the asset over time. In the context of those comparisons, it's difficult for taxpayers to see how paying more for the same piece of infrastructure is actually cheaper and more efficient in the long run.
- **Credible commitment.** With toll-based P3s, most or all of the project's revenues can be ring-fenced, or legally earmarked to repay the project's cost. Ring-fenced budget appropriations are far more difficult to guarantee, especially for state or local governments that might experience fiscal stress in the future. This adds additional risk that investors will price in to their expected rate of return. It can also strain ongoing relationships with investors.

Essential Questions

- What are the relevant state and local laws that speak to P3s? Do we have the legal authority to receive unsolicited P3 bids? To establish a special purpose vehicle? To impose new tolls or other fees on existing or new infrastructure?
- Do we have a VfM process or other formal method to evaluate the expected risks and benefits of P3s?
- What is our own experience, and the experience of nearby jurisdictions, with tolls and other direct user charges?
- For P3s under consideration, what is the basis for the assumptions about the projected demand for the facility/service?



POLICYMAKERS' ROLE IN P3S

By now it should be clear that P3s make us think differently about infrastructure. They bring different stakeholders to the table, and they force us to grapple with trade-offs we don't often consider with traditional infrastructure procurement.

All this begs a simple question: What role should policymakers play in P3s? The answer: As a policymaker, your job is to build a skillset and nurture a mindset.

The “skillset” is about getting the right technical expertise. To deploy P3s well, your jurisdiction must be able to evaluate project economics, negotiate contracts, anticipate unforeseen challenges, incorporate new and often untested service delivery techniques and technologies, dissect sophisticated project financing models and ruthlessly enforce long-term contracts. Most state and local governments don't have the capacity to do this type of work. But with your leadership, your government can take important steps in that direction.

Building that skillset starts with some specific steps you can help your jurisdictions take long before P3 opportunities materialize:

- **Know how much infrastructure your jurisdiction can afford.** Many state and local governments do a formal debt capacity study¹¹ or debt affordability study as part of their capital budgeting process to identify how much money they could borrow to pay for infrastructure. Your jurisdiction's level of potential P3 investment will be different than its debt limit

because not all P3s are debt, but the basic constraints on affordability still apply.

- **Develop the right technical capacity.** As mentioned before, jurisdictions such as the commonwealth of Virginia are developing P3-focused staffs. These employees work with staff at the VA Department of Transportation and other state agencies to evaluate P3 opportunities, negotiate P3 contracts, manage public outreach processes around P3s, and monitor and enforce key P3 contract provisions. Having even some of that expertise will help your jurisdiction quickly and effectively respond to P3 opportunities.
- **Ask for help.** Resources available to facilitate state and local government P3s vary across states. Some states have P3 coordinating authorities that can offer technical and financial resources. Be prepared to supplement those public resources with independent expertise, being mindful that independent advice can be extraordinarily difficult find and cost prohibitive.
- **Optimize your current, traditional procurement process.** Is it possible to capture some of the benefits of P3s without P3s? For many, services managed competition — where government employees compete with their private sector counterparts

As a policymaker, your job is to build a skillset and nurture a mindset. The “skillset” is about getting the right technical expertise. The “mindset” is about anticipating and managing political conflict.



for public work — is an effective way to drive down costs and improve service delivery quality without a full-blown P3. The same applies to design-build, high-performance procurement and other procurement models that can impart some of the benefits of P3s without the political risks.

The “mindset” is about anticipating and managing political conflict. P3s upset the status quo. They enjoin citizens to confront the “full” or “actual” costs of infrastructure, even though those costs are often obscured in traditional state and local budgets. They bring new stakeholders into a community, and they displace the developers, contractors, bankers, government employees and other stakeholders who have vested interests in the traditional procurement process.

That said, as a policymaker, your role is to set the appropriate policy framework for P3s, engage the right stakeholders and communicate directly with the public. That’s what it means to nurture a P3 mindset, even if your jurisdiction decides to not pursue P3s. Some specific strategies to that effect include:

- **Define your jurisdiction’s objectives and priorities for P3s.** Are you considering P3s as an alternative to traditional public financing? As a tool to connect infrastructure to additional policy priorities such as economic and community development? To free up debt capacity or other capital spending capacity? To bring new, outside expertise to bear on infrastructure design questions? P3s can accomplish many of these goals, but not all of them. It’s crucial to consider in advance the trade-offs P3s present, and be willing to acknowledge or re-shape those trade-offs as necessary.
- **Understand the relevant federal, state and local policy framework.** Know how environmental impact statements, concurrence obligations, mandatory competitive bidding, and other legal requirements affect your P3 procurement options for large capital projects. If your state or local policy framework is incomplete or ambiguous, update it as much as possible to explicitly allow or prohibit the procurement mechanics of P3s.
- **Evaluate political feasibility early and often.** Unlike value for money or benefit-cost analysis, there is no formal methodology to evaluate political feasibility. It is, however, essential to have a clear sense of whether taxpayers and key stakeholders support a project long before you solicit bids or begin to negotiate with a private partner. Talk to constituents. Make sure they understand the goals and objectives you’ve defined for an infrastructure project long before discussing specific procurement methods like P3s. Where possible, listen carefully and respond to public sentiment about willingness to pay tolls and new fees. Without that willingness to pay, most P3s will fail.
- **Engage the relevant stakeholders.** Discuss with taxpayers, contractors, labor unions and others the likely impacts of a P3

on public sector jobs and contracts. Some P3s will inevitably result in fewer public sector jobs, especially in areas such as maintenance and operations. At the same time, P3s also enable a variety of projects that might not otherwise happen, and as a result create new public sector contracting and employment opportunities. Stakeholders must be aware of these trade-offs. Don’t proceed with P3 procurement without a workable consensus among the key stakeholders about the potential benefits and costs of a P3.

- **Do your homework.** Establish a formal, independent process to consider the benefits and costs of a P3 relative to some benchmark. Be clear about the assumptions behind that analysis and its drawbacks.
- **Be transparent.** Much of what we call political risk is rooted in misunderstandings, both unintentional and intentional, of the benefits and costs of P3s. Share the best available revenue forecasts, cost estimates and (where possible) bidding information. Address concerns and disagreements about the assumptions behind those forecasts and estimates. For P3s in progress, routinely audit and review the private partner’s performance and share those audit results.

It takes time, patience, effort and resources to build the right skillset and nurture a P3 mindset. These are important steps to take, even and especially if your jurisdiction agrees to not employ P3s.

Essential Questions

- Do we have a mechanism to meaningfully engage citizens and other stakeholders in P3 decisions?
- What is our current debt capacity? How much debt can we afford, both legally and financially?
- Do we have the capacity within our own professional staff to perform VfM and evaluate other dimensions of P3s? If not, do we have the authority and resources to hire independent experts to assist with that analysis?
- How might we define a successful or effective P3?

Building Out a Broadband Superhighway

How a P3 is improving access in Kentucky

The commonwealth of Kentucky has long suffered when it comes to broadband internet availability, ranking 46th in the nation. It also continues to grapple with significant job losses in the key industry of coal mining.

So in 2014, the state moved to address both issues, signing one of the biggest public-private partnerships (P3s) of its kind. Beginning this year, "KentuckyWired" will roll out as a high-speed broadband open-access network, eventually spanning 3,400 miles and connecting more than 1,100 universities, colleges and state government buildings.

Public officials believe the new digital infrastructure will help Kentucky attract more businesses, and therefore, jobs. It will lay the foundation for digital learning and support public safety, healthcare and tourism — especially in Eastern Kentucky, which has suffered the brunt of job losses. Private hospitals, service providers, schools and businesses can also benefit from using this middle-mile network.

Juniper Networks: Helping Exceed Expectations

Led by investment banking group Macquarie Capital, the

undertaking relies on private vendors to design, build and operate the network. The 30-year agreement eliminates much risk for the commonwealth, and places the burden of network performance on private partners. It sets deadlines to fix outages, requires 99.99 percent uptime and establishes other metrics for speed and redundancy.

To meet those high standards, Macquarie consortium partner Fujitsu chose industry frontrunner Juniper Networks after much vetting to provide the network building blocks. Fujitsu felt confident that Juniper's advanced edge routers and switches, along with world-leading innovation, collaboration and extensive product line, would allow them to exceed expectations.

When complete in 2018, Kentucky officials see the venture helping them go from high-speed laggard to leader much quicker than possible on their own.

And by pulling together a deal that includes private investment and the nation's most trusted vendors, Kentucky looks poised to reap all the benefits.

TO LEARN MORE, VISIT WWW.JUNIPER.NET

JUNIPER
NETWORKS

Conclusion

Experts have produced dozens of “Best Practices” and “Ten Principles” lists to help you think about P3s. Hopefully this guide has made clear that from a policymaker’s vantage, P3s are far too complex, nuanced and idiosyncratic to simplify this way.

Instead, this guide concludes with the “Proverbs of P3s.” A proverb is a piece of shared wisdom. We’ve all heard “good things come to those who wait” or “actions speak louder than words.” These sayings are useful because they simplify our complex, chaotic world. P3 experts seem to agree on a few key points about how to best evaluate, finance and structure P3s.

Here’s the catch: A good proverb has an equal and opposite counter-proverb. Good things might come to those who wait, BUT “time waits for no one.” Actions might speak louder than words, BUT “the pen is mightier than the sword.”

A core theme throughout the Guide to Financial Literacy series is that your jurisdiction’s money should follow its mission. As a policymaker, your job is to set priorities — i.e., the mission — and make certain your government’s money aligns with those priorities. That’s why it’s important to point out these proverbs. They won’t tell you whether or how to pursue a P3, but they can help you think about if and how P3s can help you better align your jurisdiction’s money with its mission.



The Five Proverbs of Public-Private Partnerships

1

“CLEAR AND MEASURABLE GOALS ARE ESSENTIAL” BUT “Innovate and adapt.” Policymakers are in charge of defining a community’s goals and priorities for P3s, and for articulating what it will mean for a P3 to succeed. And yet, some of the most successful P3s have happened when governments redefine those goals after learning about the tools, technologies and other innovations that private partners can bring to the table.

2

“P3S AREN’T FOR ROUTINE PROJECTS” BUT “Standardize and streamline.” P3s work best when they can introduce new technologies and processes to infrastructure provision. Or, put differently, they’re not for routine projects. And yet, many jurisdictions are working to standardize P3 procurement processes precisely to promote P3 innovation in a more standardized, scaled-up way.

3

“DO YOUR HOMEWORK” BUT “Beware of ‘garbage in-garbage out’ analysis.” VfM and other financial analysis is now a best practice when evaluating P3s. At the same time, VfM experts agree those techniques are far from perfect. They require a lot of assumptions. Many of those assumptions are based on arbitrary or even made up numbers. So even though VfM is essential, the results of a VfM should not be the main criterion when deciding to go with a P3.

4

“GET INDEPENDENT ADVICE” BUT “There’s no independent advice.” P3s are growing in scope, scale and popularity, but they’re still a “boutique” industry. Individuals with substantive experience with P3s are in demand across the public, private and nonprofit sectors. Few of them are willing to work exclusively for governments, and even fewer are willing to work within public sector resource constraints. But independent expert advice is nonetheless an essential part of solid P3 due diligence.

5

“TRUST IS KEY” BUT “Get the contract correct.” P3s are long-term agreements. They evolve and change. If the partnership is strong, the P3 will also evolve and change. But that inherent trust must be backstopped with strong contract provisions that protect both parties’ interests. This is a delicate balancing act that when mishandled can sink an otherwise promising P3.

FURTHER RESOURCES

American Association of State Highway and Transportation Officials, Build America Transportation Investment Center (BATIC) — www.financingtransportation.org

Brookings Institution, Metropolitan Policy Program, “Public Good, Private Capital: Drivers of Successful Infrastructure Public-Private Partnerships” — http://www.brookings.edu/~media/research/files/reports/2014/12/17-ppp/bmpp_privatecapitalpublicgood.pdf

Building America’s Future — www.bafuture.org

Federal Highway Administration, “Guidebook for Risk Assessment in Public-Private Partnerships” — https://www.fhwa.dot.gov/ipd/pdfs/p3/p3_guidebook_risk_assessment_030314.pdf

Government Finance Officers Association, Advisory on Public-Private Partnerships — <http://www.gfoa.org/public-private-partnerships-p3>

Impact Infrastructure — <http://www.impactinfrastructure.com/>

National Council on Public-Private Partnerships — www.ncppp.org

National Conference of State Legislatures, “Public-Private Partnerships: A Toolkit for Legislators” — <http://www.ncsl.org/research/transportation/public-private-partnerships-for-transportation.aspx>

National Governor’s Association, State Resource Center on Innovative Infrastructure Strategies — <http://www.nga.org/cms/InnovativeInfrastructure>

National League of Cities, “Paying for Local Infrastructure in a New Era of Federalism” — http://www.tml.org/p/NLC_CSAR_SML_Report_2016_webFINAL.pdf

Performance-Based Buildings Coalition — <http://www.p3buildings.org/>

Stanford University Global Projects Center, Financial Literacy in Public-Private Partnerships — <https://gpc.stanford.edu/research/p3-flips-program>

Urban Land Institute, “Ten Principles for Successful Public-Private Partnerships” — http://uli.org/wp-content/uploads/2005/01/TP_Partnerships.pdf

ACKNOWLEDGMENTS

Justin Marlowe, primary author, is the endowed professor of Public Finance and Civic Engagement at the Daniel J. Evans School of Public Policy and Governance at the University of Washington. He is a certified government financial manager and is the author of more than 70 books and articles on state and local public finance.

The **GOVERNING INSTITUTE** advances better government by focusing on improved outcomes through research, decision support and executive education to help public-sector leaders govern more effectively. With an emphasis on state and local government performance, innovation, leadership and citizen engagement, the Institute oversees Governing’s research efforts, the *Governing* Public Official of the Year Program, and a wide range of events to further advance the goals of good governance. www.governing.com

Endnotes

1. Washington Irving (1856), *Life of George Washington*, Volume 3, New York (GP Putnam), pg. 324
2. Squire Patton Boggs, “Market Update: A Review of the US Public Private Partnership (P3) Sector in 2014,” available at: <http://www.squirepattonboggs.com/insights/publications/2015/01/market-update-a-review-of-the-us-public-private-partnership-sector-in-2014>
3. American Society for Civil Engineers (2013), “Report Card for America’s Infrastructure,” available at: <http://infrastructurereportcard.org/a/#p/home>
4. *Governing* Guide to Financial Literacy: Connecting Money, Policies and Priorities (2014), available at: www.governing.com/publicfinance
5. J. Ben Watkins and Nora Wittstruck (2015), “Public-Private Partnerships: An Infrastructure Development Tool to Evaluate with Caution,” *Government Finance Review* (August), pp. 32-36, available at: www.gfoa.org/sites/default/files/GFR081532.pdf
6. For more on municipal bonds, see Volume 1 of the *Governing* Guide to Financial Literacy, available at: www.governing.com/publicfinance
7. Julie Kim, New Cities Foundation (2016), “Handbook on Urban Infrastructure Finance,” available at: www.newcitiesfoundation.org/wp-content/uploads/2016/03/PDF-Handbook-on-Urban-Infrastructure-Finance-Julie-Kim.pdf, p. 38
8. Julie Kim (2014), “Understanding and Mitigating Political Risks in Public-Private Partnerships for US Infrastructure,” Working Paper, Stanford University, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2431915, pp. 5-6
9. Interview with Jonathan Gifford, Director, Center for Transportation Public-Private Partnership Policy, George Mason University, February 11, 2016, pp. 5-6, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2431915
10. Kim, New Cities Foundation, *ibid*, pp. 42-48.
11. For more on debt affordability and debt capacity, see the *Governing* Guide to Financial Literacy, Volume 2: Managing Your Jurisdiction’s Financial Health, available at www.governing.com/finance101

GLOSSARY OF TERMS AND CONCEPTS

Term	Definition
Availability Payments	Financial feature of some public-private partnerships where a government pays a private partner to make an asset “available” for public use; also known as “shadow tolls;” different from traditional tolls, where users pay for the service directly
Design-Build	Procurement method where a single private entity designs and builds a public project; different from traditional procurement where one private entity designs and a different entity builds
DBOM	Public-private partnership where the private partner is responsible for the design, construction (i.e., “build”), long-term operations and ongoing maintenance of a project
Discount Rate	Mathematical assumption used to set a stream of future payments equal to today’s dollars (i.e., net present value); key point of contention in value for money analysis for public-private partnerships
Force Majeure	Feature of many public-private partnership contracts that outlines what happens to the project in the event of some unforeseen circumstance (literally “acts of God”) like a natural disaster or terrorist attack
High-Performance Procurement	Infrastructure procurement technique that produces standardized, routinized infrastructure projects through design-build-operate-maintain P3s; also known as “performance-based procurement”
Life Cycle Cost Analysis	Technique to estimate the total costs to build, operate and maintain an asset over its useful working life
Private Activity Bond	Bond issued by a state or local government to finance a project built by a private entity; financing tool for many public-private partnerships
Privatization	Infrastructure management process where a state or local government grants a private partner – known as a “concessionaire” – the right to collect tolls or fees from a piece of public infrastructure in exchange for a commitment to maintain that infrastructure for an extended period
Project Finance	Financing technique where a project is financed by its own cash flows rather than by a pledge from the sponsoring organization; often requires equity investments and “non-recourse” loans; common where the private partner in a public-private partnership is responsible for some or all of the financing
Public Sector Comparator	Evaluation process where a government compares the costs of a proposed public-private partnership to the costs of the same project through traditional procurement
Special Purpose Vehicle	Company formed as part of a joint venture P3; owns the assets created through the partnership, and has the power to contract with other entities to operate and maintain those assets; also known as a “project company”
Value for Money	Type of cost-benefit analysis where the benefits to the public of a P3 are compared to the benefits to the public of a traditional public sector procurement

Thoughtful. Analytical. Consistent. Transparent.



At S&P Global Ratings, we understand infrastructure. We strive to explain complexity and relative risk simply and clearly. Our ratings provide well-respected measures of credit risk, and are based on:

- More than 25 years' experience rating infrastructure companies, projects and utilities
- Nearly 300 years' cumulative senior team experience rating the global infrastructure sector

Visit [SPRatings.com/Infrastructure](https://www.spratings.com/infrastructure) to see what we're thinking now or contact:

Anne Selting
+1 415 371 5009
anne.selting@spglobal.com

Geoff Buswick
+1 617 530 8311
geoff.buswick@spglobal.com

S&P Global
Ratings

The analyses, including ratings, of S&P Global Ratings are opinions and not statements of fact or recommendations to purchase, hold, or sell securities. They do not address the suitability of any security, and should not be relied on in making any investment decision. S&P Global Ratings does not act as a fiduciary or an investment advisor except where registered as such.

www.spglobal.com/ratings

SPONSORS

The Governing Institute would like to thank the following sponsors for making this guide possible:



**The American
Institute
of Architects**

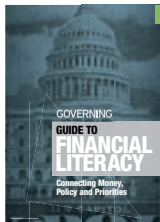
ARUP

Corvias®

JUNIPER
NETWORKS

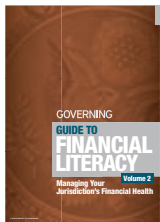
S&P Global

About this Series



Volume 1

The *Governing Guide to Financial Literacy: Connecting Money, Policy and Priorities* takes an in-depth look at budget basics, investing, legacy costs, taxes, bonds and more. For additional information on public finance and to download a complimentary copy, visit www.governing.com/finance101



Volume 2

The *Governing Guide to Financial Literacy: Managing Your Jurisdiction's Financial Health* is a resource for newly elected public officials, budget officers, government leaders and department heads. It provides relevant knowledge to public leaders, which helps them better determine their jurisdiction's financial health. Download a complimentary copy at www.governing.com/finance101.