#### CHAPTER 6

# Things Fall Apart

IN THE FALL OF 2004, before the name "Katrina" evoked grief and anger, Beth LeBlanc and her neighbors on Bellaire Drive in New Orleans had a problem. Their back yards had become wading pools, and they worried that this had something to do with the contiguous 17th Street Canal levee—which helped contain the waters of nearby Lake Pontchartrain.

"We called the Sewerage and Water Board, and one of their guys tested the water and said it was coming from the canal," LeBlanc told reporters. "They sent repair crews out. They tore up sidewalks and driveways. Things got better, but it never got dry. So I keep wondering why no one ever came out to ask about it. No one from the Corps of Engineers. No one from the Levee Board. The Sewerage and Water Board never came back."

Many months too late, Jerry Colletti, New Orleans operations manager for the U.S. Army Corps of Engineers, admitted a catastrophic failure to communicate: "If someone had told us there was lake water on the outside of that levee—or any levee—it would have been a red flag to us, and we would have been out there, without question. [But] we have nothing on that, nothing at all. That's something we should have been told about." The half-foot of lake water in Beth LeBlanc's yard was a sign that the levee might be fatally undermined. The agencies responsible for maintaining the levee system were supposed to share such information and take quick action to remedy problems. But in this case, said Mr. Colletti, one or more of them "dropped the ball."

Then came Katrina on the morning of August 29, 2005. The eye of the Category Five hurricane—the third-strongest ever to make landfall in the United States—missed the heart of New Orleans by twenty miles, and initially the city seemed to have survived with limited damage and flooding. But the worst was yet to come. Storm surge from the Gulf of Mexico and pressure from the elevated waters of the Mississippi River and Lakes Borgne and Pontchartrain tested the city's defenses against flooding. The

17th Street Canal levee and many other crucial pieces of its flood control system failed the test. By the evening of August 30, floodwaters covered 80 percent of the city's land area. All told, Katrina and its aftermath caused over eighteen-hundred deaths and property damage of as much as \$100 billion. By most measures, Katrina tops the list of the most destructive storms in American history, and the failure of New Orleans' levee system has been called the worst civil engineering disaster in U.S. history.

Investigations by professional engineers, government officials, and the insurance industry later documented a complex array of problems that contributed to Katrina's horrific toll.<sup>2</sup> There were over fifty major breaks in the city's levees and floodwalls. Some were caused by "overtopping," in which water levels rose above barriers and produced erosion that subsequently led to breaches; others were caused by design flaws and poor construction or maintenance that led to failure below specified capabilities. The bottom line is that the physical capital on which New Orleans depended for its citizens' safety was not up to its assigned task—and all those who were responsible for the condition of that capital had a lot to answer for.

Beth LeBlanc's experience showed that those charged with maintaining New Orleans's 101 miles of levees sometimes failed to address reported problems, but it's more shocking how little they did to detect weaknesses in this crucial infrastructure. The *Times-Picayune* reported how nonchalantly officials inspected the city's defenses against flooding—which, shockingly, they did but once a year: "Records of the annual Levee Board and [Army Corps] inspections show that they are fairly hasty affairs, with dozens of officials piling onto a convoy of vehicles to drive along the levees, stopping at various points for visits of 15 to 30 minutes. They review areas between stops from the cars." These drive-by inspections generally took under five hours so that those involved could enjoy lunch before adjourning until next year. After assessing the safety of over twenty miles of levees per hour, they doubtless had healthy appetites.

Every public official of every agency linked to the Katrina disaster has vowed to do better in the future, of course. Avoidable deaths, incalculable suffering, and widespread devastation tend to focus the mind and energize even the most indolent of bureaucracies. But how could the entities charged with building and maintaining New Orleans' defenses against nature have

become so dysfunctional in the first place? How could a city whose very existence depends on a fail-safe system of levees, floodwalls, canals, and pumps have managed that capital so poorly? The answer, it turns out, can be found in the pages of history and the immutable laws of political economy.

### PUBLIC GOODS AND PUBLIC CHOICE

The urbanites of antiquity (and their rulers) considered protective walls to be the most valuable and important type of civic asset. A city with nothing to keep out plundering hordes would have been inconceivable to them. During China's Zhou dynasty, in fact, the written character for wall was the same as that for city.<sup>4</sup> These days, of course, people's well-being depends on a vast array of such assets—not just walls or levees, but streets and highways, subways, water and sewer systems, and myriad other physical capital often referred to as infrastructure or public works.

It is commonly—and erroneously—assumed that public (or governmental) ownership of such assets is a necessity, either because creating or maintaining them would be too expensive for a private firm or individual to afford, or because such an owner could not be trusted to serve the public interest. Down through history, however, there have been many examples of privately produced public works—even when it was clearly difficult to make a buck in the bargain.

One example dates from America's earliest days, when private companies built and operated turnpikes (toll roads) connecting urban centers. The first opened in 1794 and linked Philadelphia, Lancaster, and points in between. Wherever such roads were built, the costs of transporting goods fell significantly, trade flourished, and land values and workers' wages rose. It soon became clear, however, that these turnpikes weren't making any money for the capitalists who had paid to build them: toll revenues were almost always far below promised levels because it was so easy to, literally, free ride. Commercial travelers often circumvented toll booths via short detours ("shunpikes"), and the charters granted to the turnpike companies usually specified many toll exemptions for noncommercial uses (such as travel to worship) that were easy to claim and hard to refute.

Despite their lack of profitability, however, private tollways continued to be built into the 1830s, and many operated until the turn of the twen-

tieth century. In the early 1800s, New England had 3,750 miles of private roads managed by 238 companies, and New York had 4,000 miles, New Jersey 550, and Pennsylvania 2,400—most yielding very low returns for their shareholders. But investors continued to fund these projects because people well understood the aforementioned indirect benefits of the toll roads and because these early capitalists seemed to have a cooperative spirit. And if they didn't, they were encouraged to buy stock in these companies by social pressure. Governments can toss you in jail if you don't pay your taxes, but your neighbors can shun you if you don't subscribe to a stock issue that will help increase the value of their land or labor.<sup>5</sup>

Over time, however, it became common to assume that *only* government could successfully finance, produce, and operate these sorts of facilities. In part this reflected the fact that the power to tax (and penalize nonpayers) seems a much more efficient way of solving the problem of free riding than any methods available to private firms. But it also jibes neatly with economists' notion that *not* charging for certain things—called pure public goods—will enhance social welfare. These goods have the unique characteristic of "nondepletability": a levee, for example, can protect me from floods without reducing the amount of protection available to you (assuming, of course, our area is not too crowded); the cost of protecting an additional person is zero.

In such cases, we actually *don't want to exclude anybody* from consuming the public good—as might happen if any price is charged at all, since some might be unable to afford to pay—because that would withhold from them a valuable benefit that can be delivered without any additional social cost. Only the government, it is commonly argued, has the wherewithal to supply public goods and allow people to enjoy them for free—though, again, there are many contrary examples (such as television broadcasters who give their programs away to viewers while recovering their costs from advertising sales). But even if we grant to government a special role in securing provision of such goods, two major challenges remain.

## How Much Is Enough?

The first problem to solve is determining which public goods are worth producing and which are not. It's true that *once public goods exist* added

people can consume their services at zero added cost, but building them costs money—usually, a lot of it. There has to be a limit on use of tax-payer dollars to those projects for which up-front production costs are exceeded by ultimate benefits, and there are questions about whether the democratic process is up to this task.

We can't just rely on majority voting to make these weighty decisions, because "one person, one vote" means we can't express the *intensity* of our preferences for a particular public good or infrastructure investment. You may value an expansion of our city's flood-control capacity ten times more than me, but my casual "no" vote on the ballot question cancels out your enthusiastic "yes."

Many infrastructure projects promise broad, indirect benefits at modest cost, yet are deep-sixed by NIMBY-ism (for "not in my back yard"). In other cases, extravagantly expensive projects sometimes win approval because they deliver small but concentrated benefits to well-connected special interests. There is simply no consensus among economists about whether the political marketplace generally overproduces public works (that is, government is "too big"), underproduces them ("too small"), or delivers the optimal amount ("just right").

## Good Enough for Government Work

Even setting aside such abstractions, though, there are questions about how efficiently the government will *operate* any facilities in which it chooses to invest tax dollars. The problem, again, relates to property rights. Once we have installed a socially beneficial civic asset, we now own it collectively, through our government. We taxpayer-owners would like the politicians and bureaucrats we hire to manage these assets to do so very efficiently, since resulting savings might flow to us as tax relief or fund service improvements. But there are so many collective owners that any such individual benefits would be small, so we don't have much incentive to closely monitor these managers or organize effectively to modify their behavior even if it seems obvious they're wasting our money or otherwise "dropping the ball." And their incentives to be efficient are unfortunately weak, too.

It's widely credited that placing ownership of key assets in the hands of government is wise and good because a public enterprise "doesn't need to make a profit." This makes economists grumble, because the pursuit of profit in private enterprises often leads to substantial cost savings, superior quality, and higher rates of innovation. But it's also not quite correct to say that those managing public enterprises don't pursue "profit": rather, they are simply constrained in what they can do with any gains they might realize by exercising their managerial discretion. True, they can't get rich by improving the bottom line, raising share prices, and cashing bonus checks from happy shareholders. This does not mean, however, that they'll ignore other opportunities to feather their nests. Bureaucrats might find it rewarding to augment their staffs and enjoy more power or leisure. Politicians might use the revenues flowing to public enterprises as piggy banks they can use to buy the votes of key interest groups. Making an enterprise "nonprofit" does not necessarily make it, and those who run it, virtuous. Again, the failure of New Orleans' flood control infrastructure provides some lessons.

### POLITICAL MYOPIA

With an average elevation one to two feet below sea level, the Gulf a mere hundred miles away, the Mississippi flowing through its center, and Lake Pontchartrain on its northern border, New Orleans has always faced the threat of catastrophic flooding. Before Katrina, the greatest test of its defenses against nature was the Great Mississippi Flood of 1927. In the summer of 1926, heavy rains throughout the Midwest had inundated over twenty-seven thousand square miles, causing 246 deaths across seven states. On April 15, 1927, with the Mississippi already at dangerously high levels along New Orleans's riverfront levees, the city was hit by fifteen inches of rain in nineteen hours. Unfortunately, its pumps were electric, and the power grid went down early in the storm. Rainwater flooded much of the city inside its protective walls, and the river threatened to top those walls at any moment. Desperate to head off complete disaster, officials dynamited a levee upriver, sacrificing some rural areas to flooding. In combination with unintentional levee breaks which dispersed floodwaters elsewhere, that was enough to keep the Big Muddy on the proper side of the city's levees.

Their narrow escape taught New Orleanians a lesson—and created a political opportunity. It was now obvious to all how much their lives and property were in the hands of the Orleans Levee Board, which had been created in 1890 and made "primarily responsible for the operation and maintenance of levees . . . and other hurricane and flood protection improvements surrounding the City of New Orleans." The public's willingness to grant the board power and money were at an all-time high, so its structure and mission were altered radically via an amendment to the state's constitution, called Act 292. But, remarkably, instead of the board being given greater focus and accountability, its duties were broadened: in addition to looking after levees, it could "dedicate, construct, operate, and maintain public parks, beaches, marinas, aviation fields, and other like facilities." Why spread the board's resources more thinly? Why tell it to mow grass at parks and operate yacht clubs in addition to—or instead of—protecting the city from floods?

To a calculating politician—and there have been few more calculating and corrupt pols in history than the man behind Act 292, Louisiana governor Huey Long, "the Kingfish"—there was a simple reason. Long knew that the unquestioned need to rebuild and improve New Orleans's levees guaranteed that the board's budget would soar. Allowing it to get into other lines of business meant these dollars could be doled out in many more politically advantageous ways than previously possible. Votes could be bought by delivering public works projects to new jurisdictions. Kickbacks could be solicited from vendors other than those few involved in levee construction or maintenance. More patronage employees could be hired once the board took on its new, more labor-intensive pursuits.

Long did all of the above. He seized control of the Levee Board shortly after the 1927 flood, installing as president one Abraham Shushan, a loyal minion experienced at using the government procurement process to enrich himself and deliver the votes of key constituencies to his boss. Though skilled at draining cash from the board, Shushan wasn't quite smart enough to keep himself out of jail in the process. In 1939 he was sentenced to thirty months for arranging kickbacks while refinancing the board's debt.

Over the years, stories of Levee Board malfeasance became legendary. In 2005, NBC summarized "a pattern of what critics call questionable spending practices by the Levee Board—which, at one point, was accused by a state inspector general of 'a long-standing and continuing disregard

of the public interest." Former board member Peggy Wilson recalled that at one meeting, "I raised my hand and I said, 'Excuse me, I'd like to ask a question. When are we going to talk about levees?' And they told me that that was not on the agenda." A former president, Billy Nungesser, described the board as a "cesspool of politics, that's all it was. [Its purpose was to] provide jobs for people."

But the key thing to observe here is not just that corruption happened. We fallible humans may be tempted to do fraudulent things as long as we live and breathe—and in both the public and private sectors. The issue here is deeper and more subtle than lawbreaking, and has to do with the nature of durable but depreciable assets such as levees, streets, bridges, water systems, and other key elements of a city's infrastructure. Let us refer to it as the Magoo Principle, in honor of the venerable cartoon character who is so profoundly nearsighted that he is constantly on the brink of disaster—though always luckily escapes harm. It can arise in the public sector as a result of electoral uncertainty. And it can cause problems even when no laws are broken.

Think of your house. You know the roof might leak at some point. If you're smart, you'll schedule periodic inspections and perform repairs promptly before small problems turn into big ones; you'll put money aside for such tasks and to prepare for the roof's eventual replacement. You call it a rainy day fund, but in accounting jargon it's your capital maintenance budget, and it's a key part of proper asset management. You know that if you raid that fund for, say, a trip to Vegas and there's no money left on the rainy day, you'll have only yourself to blame—and far more costly damage to cope with than if you'd kept up with needed maintenance in a timely manner. So you resist the temptation to be shortsighted.

If you're running City Hall, different logic applies. Failure of some city infrastructure may be years away, but in the meantime you face an election. You might lose, and you know how the laws of politics operate: when stuff happens, whoever is in office at the time usually gets credit or blame. You determine, therefore, to make good stuff happen on your watch even when it carries risk of big future problems. If polls say your reelection bid is a coin flip, you will heavily discount the possible political cost of those future problems as you make policy decisions today. After

all, there's a 50 percent chance *your successor* will be the target of tough questions about why something wasn't done to prevent the problems when they arrive. If you win—well, you'll cross that bridge when you come to it. So even if there's a maintenance budget for City Hall's roof, you might raid it for things that buy votes *now*. Are public employee unions offering support in exchange for a wage increase or more generous pension benefits? Done. Just "defer maintenance" on the roof, or the levees, or the water system. Or raid the maintenance budget to build new infrastructure while ignoring the old. Owners of construction companies will show their gratitude with campaign contributions; their workers will support you at the polls.

The likelihood that you'll pay any political price for your cynical application of the Magoo Principle goes down as the life expectancy of the infrastructure on which you are deferring maintenance goes up. Which is why New Orleans's levees were perfect for such exploitation: in most cases, they're simply huge piles of earth, depreciating very slowly. And the probability of a Hundred Year Storm arriving to test those levees is, for a near-sighted pol, too small to worry about.

In the blame game that played out in the weeks and months after Katrina, fingers pointed everywhere and nowhere. There was minimal discussion of the generations of Louisiana politicians who had turned the Orleans Levee Board into a "cesspool of politics" rather than a bulwark against disaster—and no way to make them pay a political price in any case, since most were retired or, like Long and Shushan, dead. Surveys aimed at gauging public sentiment about who or what was responsible for the disaster never identified any political decision makers other than those unlucky enough to hold office when the storm hit. Most polls focused on the response to the storm by various officials and entities (which was, by all accounts, disastrous in itself) rather than causes of, or preparedness for, the flooding. When attention was turned to the latter, it is remarkable how diffuse—even forgiving—sentiment turned out to be. Yes, President George W. Bush's job approval took a hit, as did that of some local officials, but in one major poll a surprising 38 percent of respondents blamed "no one" for the storm's awful toll, with the remainder pointing to various officials and multiple levels of government. 10 That is the awful appeal of the Magoo Principle: when the consequences of bad political behavior are long deferred and others will be blamed when those consequences arrive, we should expect a lot of bad behavior.

And we've gotten it—all across America. There are eighty-four thousand dams in the United States, and the Association of State Dam Safety Officials rates four thousand of them "deficient." The Environmental Protection Agency has identified four hundred thousand brownfields sites that await cleanup and redevelopment. The Federal Highway Administration estimates that two hundred million trips are taken daily across deficient bridges in the nation's cities, and traffic congestion wastes roughly \$101 billion in time and fuel annually. The National Education Association estimates the cost of bringing our crumbling public schools into good repair at \$270 billion. The American Water Works Association claims that public water systems will require more than \$1 trillion in funding over the next twenty-five years to bring them up to acceptable standards. And so it goes. The American Society of Civil Engineers (ASCE) issues a national infrastructure report card and totals up the cost of catching up on all the deferred maintenance we've been engaging in for many years. Most recently, they assigned a grade of "D+" to the overall condition of our collectively owned capital and asserted that we need to spend \$3.6 trillion by 2020 to bring these assets up to "satisfactory" condition. 11 Even allowing for some inflation of this estimate (engineers, after all, stand to benefit from such spending), we've got a lot of work to do. Clearly, the infrastructure failure in New Orleans is not an isolated case—just the most dramatic and tragic example of what can happen when our public officials exploit the Magoo Principle. The question is how to stop them.

### TOWARD A CAPITALIST INFRASTRUCTURE

An idealist might observe that the simplest way to keep public capital in good shape is with far-sighted, disciplined budgetary practices. Local governments just need to set up the aforementioned capital maintenance budgets and use them only for their proper, assigned purposes. Those budgets should be sacrosanct and infrastructure moneys kept in a "lock box" that opportunistic politicians can't treat like an ATM every time there's a budget crisis or a key interest group demands new spending.

Sometimes this approach actually works. Just not often enough, as the ASCE report card documents and as anyone with a discerning eye can see. When the head of China's sovereign wealth fund visited the United States in 2010 to evaluate investment possibilities, he told a gathering of bigcity mayors that America appears to have a "socialist infrastructure." It was not a compliment, but a straightforward observation that we behave as if too poor to upgrade our rickety bridges, potholed streets, and aged subways. Far too frequently, our elected officials raid their capital budgets and borrow from the future in order to pursue short-term political goals. We might *try* to make these budget lines off limits; we might speak of "sequesters" or "trust funds" designated for specific purposes. But the temptation to circumvent such limitations is always strong, and where there's a political will there's usually a way. Perhaps it's best not to hope politicians will leave the lock box alone, but simply to take it away from them entirely.

One radical way to do so is to take public capital private. Private owners try to maximize the value of their assets, and doing so usually requires taking the long view. Even if you don't plan on living in your house for more than a year or two, you'll probably consider the effects on its resale value of repairs or improvements that will endure for many years after you've sold the property. And, obviously, private owners face no risk of being voted out of office, so are less likely to discount the future costs of short-sighted decisions about maintenance in the same way office-holders often do. Humans are not perfect, of course; we all have a tendency to be short-sighted in at least some of our choices. It's just that if we will suffer the consequences of such choices rather than some unknown successor, the odds that we'll be far-sighted improve greatly.

But putting crucial infrastructure into private hands seems problematic on many fronts. First and foremost, how could we ensure that these assets will serve the broad public interest rather than line the pockets of their private owners? When "greedy corporations" (a term which, in the minds of many, is redundant) rather than public-spirited elected officials and dispassionate civil servants control such assets, surely the quality of the services these facilities provide will fall, prices will skyrocket, and access will be limited to the well-heeled.

Except—every day and all over the world, hundreds of millions of people happily consume high-quality, low-price goods often presumed to be best supplied by public entities but which are, in fact, provided by private firms. As one example, consider drinking water and the facilities with which it is produced and distributed, doubtless one of the more important elements of any area's infrastructure. To see how private water supply works in practice, we might look to a country not normally identified as being friendly to market capitalism—France, where the majority of the population obtain their tap water not from local governments but from for-profit companies.

At about the same time Americans were guilting investors into building useful but unprofitable toll roads linking the country's scattered trading centers, the French were relying on the private sector to build and operate the infrastructure to bring clean water to the residents of many cities and towns—including Paris, which granted the Perier brothers an exclusive franchise to do so in 1782. In the decades that followed, the water business was a bit of a political football. Some municipalities opted for private provision of some sort, others operated their own systems (as is common in the United States), and a few that had once encouraged private firms nationalized them. That's the fate that eventually befell the Periers. After some years of municipal operation, however, Parisians found that the price of their water had quintupled and quality had suffered, so eventually the city privatized its system once more.<sup>13</sup>

Such varied experiences gave French policymakers and voters good data about what worked and what did not, and the current popularity of private, for-profit water systems in France is eloquent testimony to their feasibility. Indeed, that country's expertise—three of the five largest water suppliers in the world are French—has fueled rapid growth in water privatization elsewhere. Just 5 percent of the world's population was served by private suppliers in 1999, but that market share doubled by 2006 and is expected to reach 20 percent by the year 2025.

This market is especially interesting because, at first blush, it appears that a central virtue of competition—the need to win customers by offering them a combination of price, quality, and convenience that is superior to

that of rivals—will simply not be present. Rivalry here seems impossible given the way this good must be produced and delivered. To bring water from some distant reservoir to your kitchen, lots of pipes and pumps must be installed. This is expensive—and would be doubly so if we wanted two firms to compete for your business via separate systems. It's much cheaper to install just one set of pipes serving everyone. But then customers would be prey to confiscatory pricing by a single seller undisciplined by competition. So it seems we are on the horns of a dilemma: we can have wasteful, duplicative capital investment in order to invite competition, or abuse by a monopoly.

The usual ways of resolving that dilemma are either public ownership and operation of the monopoly or, if private ownership is tolerated, subjecting this "public utility" to rigorous price regulation. The first approach is based on the theory that our elected representatives can be trusted not to abuse us; the second on the idea that regulators will be good at identifying and enforcing a price schedule comparable to that which would prevail under competition. Economists have been testing these theories for some time, and unfortunately neither is well supported by the evidence. But luckily, as we've seen, the French have been hard at work on a third way aimed at bringing the benefits of competitive provision of key services such as water supply without trusting elected officials to be far-sighted and disciplined about their budgets, and without devising complicated regulatory schemes that often turn out to be unsuccessful.

The key is that there need not be competition *within* a market to serve consumers' best interests as long as there is competition *for* that market. Economists now refer to the process by which naturally monopolistic markets such as water systems can be efficiently served by private firms with minimal regulatory meddling as *franchise bidding*, but the French employed this process well before anyone used that name. To be sure, it involves cooperation between the public and private sectors.

The public sector's role is to auction off the right to serve the relevant market—creating, for example, a local water franchise or concession, as the French referred to it. In a nutshell, the municipal government specifies a contract detailing what it wishes produced, to what quality standards,

in what amount, and for how long. Then the auction is held, but the winner is *not* the party offering to pay the highest fee for the right to be the monopolistic seller, but rather the firm *offering the best price to consumers of the ultimate product* while meeting all specifications about quality contained in the contract. That is, this auction will not feature bidders offering millions for the right to sell water at extravagant prices to a captive clientele. Instead, it will be won by the *low* bidder (in terms of, say, cents per gallon it promises to charge customers while the contract is in force). In the case of water supply, the technology of production and distribution is sufficiently straightforward that such contracts can be drawn up and enforced at manageable cost, and as long as the bidding is not rigged it will produce a winner that can satisfy consumers' demands at the lowest attainable prices and costs of production.

Equally important, from our point of view, the capital maintenance budget necessary to keep the required infrastructure in good order must be part of the bidders' calculations about how much (or little) they can afford to charge for their output, or they will not be able to satisfy the terms of the contract. As a result, *this budget will be out of reach of political Magoos* and controlled by the private firm that wins the auction.

About 80 percent of Americans are served by government-owned and -operated municipal systems, but the rest obtain their water from their own wells or one of six thousand private companies, most of which get high marks for price and quality of service from customers and local public officials alike. A good sign is the frequency of repeat business. In the United States, only 10 percent of cities that have privatized the ownership or operation of their municipal systems have subsequently deprivatized. The comparable figure worldwide is about 8 percent. It seems that the efficiencies promised by competition for the market are realized in the great majority of cases. One survey of U.S. systems found reductions in operating costs ranging from 10 to 40 percent in privatized facilities. And quality improved: prior to privatization, two-fifths of sampled facilities were out of compliance with federal clean drinking water standards, while one year after entering into public-private partnerships, all were in compliance. Case studies of privatizations in Africa, Asia, and Latin America are similarly encouraging with regard to operational efficiency but also to equity, with the poor generally benefiting from greater access to network services in areas served by private concessions.<sup>14</sup>

#### INCENTIVES AND INNOVATION

Clearly then, the energy and expertise of private companies *can* be harnessed to manage key infrastructure in the public interest. A well-designed and -executed franchise bidding system has the potential to both enhance the efficiency with which some public goods are provided and protect their capital maintenance budgets from raids by short-sighted politicians.

It's gratifying also to report that many U.S. cities are embracing this approach—often in surprising ways. Tulsa's zoo, for example, was recently privatized to avoid loss of its accreditation (following the tragic deaths of two of its giraffes). Under private management, fund-raising efforts were stepped up, staffing levels increased, deferred maintenance problems corrected, and the zoo reaccredited. Thus inspired, similar concessions are (as this is written) under consideration for zoos in Los Angeles, Grand Rapids, Santa Ana, and Evansville; other cities are hiring private entities to operate their animal shelters. Seventeen municipalities employ a Maryland-based company to operate their public libraries. Many more hire concessionaires to maintain parks and operate recreational facilities such as public golf courses and youth centers.

One especially important illustration of the nature and sources of potential gains from privatization of public assets comes from Indianapolis. That city has a unique environmental problem: it discharges its wastewater into a small, non-navigable river (the White) that runs through the heart of downtown. By the early 1980s, its two water treatment plants (one built in the 1920s, the other in the 1960s) were out of date, in decay, over capacity, and technologically unable to meet the stringent standards of the 1972 Clean Water Act. The initial fix, in 1982, was over \$600 million (in today's dollars) worth of upgrades, funded in large measure by the federal and state governments.

Less than a decade later, however, another quarter-billion dollars were needed for Indy's wastewater collection and treatment system, which was still suffering from the long-term decay wrought by the Magoo Principle. This time, however, the city could not rely on other people's money for the improvements, and the political will to raise sewer usage rates by the amount necessary (an estimated 37 percent) was lacking. So newly elected mayor Stephen Goldsmith decided to see if privatization might provide a way out of the corner into which the city had painted itself.<sup>15</sup>

The political obstacles were formidable. Regulators feared that a private firm would sacrifice environmental quality in pursuit of profits. Public employees' unions were certain that talk of "cost reductions" and "efficiency gains" was code for wage cuts and job losses. In addition, there seemed little reason to hope that privatization would do much good. Two consultants' reports on the treatment plants concluded that they seemed reasonably well run; one estimated that private management could, at most, trim about 5 percent from operating costs.

Nevertheless, Goldsmith and the City-County Council plowed ahead. They opted not to sell the treatment plants outright, but put a five-year concession contract up for bids. The winner was the White River Environmental Partnership (WREP), a consortium that included one of the big French water companies, a Denver-based environmental management company, and the city's own (private) water supplier. WREP's winning bid was not 5 but 40 percent below the city's prior costs. Actual savings exceeded initial projections, with utility, maintenance, and capital costs all coming in well below budget. And environmental quality improved: the number of effluent violations decreased from about seven per year under city management to one. Though some of these efficiency gains did, indeed, come from a one-third reduction in operational staff (which led the union to fight the privatization tooth and nail in both the courts and media), the city provided a safety net for displaced workers by offering them a severance package or transferring them to other positions as they became available; within a year all had been placed. Those that remained actually banked higher wages, experienced fewer workplace accidents and injuries (which, in turn, cut workers' comp insurance costs), and reduced the frequency with which they lodged grievances with their union.

But Indianapolis did not realize such dramatic gains in the performance of its wastewater treatment system by merely eliminating some redundant staffers. WREP had access to the technical expertise of the best engineers in the world; more important, it had a *strong incentive to heed their advice*.

Under city management, innovative ideas—simply figuring out better ways to operate or adopting new technologies—usually went nowhere because they brought nothing back to the innovator. Any realized cost savings would revert to the city's general fund to be spent on other constituencies. With shareholders and managers operating under a long-term concession contract, however, such savings would go to the bottom line and fuel dividends, bonuses—and even the aforementioned higher wages. Indeed, once workers are freed of unions' work rules and across-the-board compensation formulae, they frequently offer up the most useful suggestions about how to get their work done better for less—and find private managers far more willing to listen than their public-sector counterparts.

A key lesson is that vesting property rights in private owners seeking profits can unlock unimagined (even by expert consultants) efficiencies in many enterprises' operations. Foes of privatization often invoke firms' "greed" as a reason to rely on public production of goods and services, but this ignores the fact that public managers and employees are human, too; self-interested behavior was just as common at Indianapolis's wastewater treatment plants (and Tulsa's zoo, and myriad other places) *before* privatization as after. This behavior just took unwholesome forms: the pursuit of ease or job security rather than efficiency, for example, or budget-rather than profit-maximization. People don't become selfless just because they work for a government agency. Creating a class of owners who may claim any residual income generated by the origination or adoption of better ideas simply rechannels the natural impulse to act in one's self-interest in more productive directions.

It's not surprising that the consultants hired to study Indianapolis's proposal to privatize operation of its wastewater plants could conceive of no great prospective gains, for they were not in a position to realize them. We work hardest to solve knotty problems when we will gain tangibly from their solution. *Incentives matter*. That is one of the bedrock principles of economics, and in the next chapter we will discuss a few more that can improve the efficiency with which cities' communally owned assets are managed and, so, enhance the quality of urban life.