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Infrastructurist.com is a news site that will be focusing on infrastructure-related issues. Founders of both Huffington Post and Treehugger (a big environmental news site) are both involved they hope and expect that the site will prove popular and influential in the national debate about how we should be making the enormous investment to upgrade our national infrastructure for the 21st century.

Trillion Dollar Barry: One Man’s Quest to Keep America Solvent

Posted on Thursday January 29th by Jebediah Reed

Give us a break

Barry LePatner is convinced he can save us a trillion bucks. In general, there aren’t many ways to find that much money in one place, short of going back in time to undo an ill-conceived war or enact oversight on a financial industry that no longer wants to play by the rules of reality. But there is another massive and tragically flawed industry out there, LePatner says. It’s construction, and it’s about put another sizable hole in America’s balance sheet as the country starts to invest heavily in rebuilding its infrastructure.

LePatner is the founding partner of LePatner and Associates, a bustling law midtown Manhattan firm that represents clients who build things. Over the course of his thirty-year practice, spurred by his own curiosities and experiences, he has established himself as a leading expert on the construction industry. Among his credentials is authorship of the tome *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry*, published in 2007 by the University of Chicago Press. The well-regarded study has turned him into a guru of sorts for many public officials and real estate developers who are convinced by his argument that construction is a broken industry and constitutes a calamitous drain on the U.S. economy. Among other praise, the *New Republic* recently described the book as a "devastating diagnosis."

There is some powerful statistical evidence backing up LePatner's contention. Construction, which employs ten million Americans, is the least efficient major industry in the economy as a whole. And for years now, the situation has been only getting worse. Every other industry has gotten more productive in the past half century – by about 22 percent on average. Construction has seen productivity fall by 25 percent. Not unrelatedly, a 2005 study out of the University of Pennsylvania found that 50 percent of a construction worker's time spent on a job site is spent idle, often waiting for deliveries or other logistical necessities. All the wasted time seems to be a natural result of a complex industry with low management standards.

"When we start applying $60 billion, $100 billion, $500 billion to infrastructure spending, we're going to get our heads handed to us," LePatner, an energetic man in a blue pinstriped suit and glass, tells me when I visit him in the offices of his law firm. "Because the construction industry doesn't know how to produce anything on time or on budget, even now." To illustrate the point, he recites a litany of recent major projects–from the new Jets/Giants stadium (estimated to cost $800 million, now $1.7 billion) to the Dan Ryan Expressway in Chicago (doubling in price to $550 million)–that have blown through their their original budgets. This is the norm, he says, and raises the specter of a nation bled dry by a thousand Big Digs. "The American Society of Civil Engineers says we face a backlog of $2.2 trillion in infrastructure spending," he says. "Can we really afford for that number to go to $3.2 trillion or more? Because it will." Even at present spending levels, he estimates that the inefficiencies of the industry represent a $120 billion a year loss to the economy–the equivalent of an annual $2,000 tax on a family of four. "Everyone from the Obama administration down to the state and local governments who are going to give out these contracts have to have a fresh understanding of what we face," he says solemnly. "We can't do it the way we've been doing it."

How could such a large industry in such a competitive economy managed to buck tide of technology in the past fifty years and become continuously less and less productive? While in his book LePatner frames the problem in the academic terms of economics, I ask him to explain it for a layman. "The construction industry is unique in a few key respects," he says, after pausing to think for a moment. "First, when you buy something from any other industry there is a fixed price tag. The construction industry doesn't provide this. The cost of a project is always subject to change." Like, say, Jets/Giants stadium, he offers. Or an average road or school construction project. But why? "The problem is that to deliver a product at a fixed price involves taking on risk, and for the most part contractors can't or won't do that. The reason for *that* is related to the second key thing about the industry: Of the 10 million people who work in construction, 92 percent work at firms of less than 20 employees. It's a trillion-dollar business of mom-and-pop shops."

In a practical sense this means that even the largest construction jobs–massive public works jobs–are divvied up among dozens or hundreds of smaller firms. “But the small contractors–which is everyone–don’t have deep pockets or access to capital markets,” LePatner continues. “They live project to project, and therefore don’t want to take on the risk involved in offering a fixed price.”

LePatner is an unabashed advocate of the idea that bigger is better where construction firms are concerned. “Unlike every other industry you can name, there are no construction companies that have a national scope,” he say. “There is no IBM, no Microsoft, no Toyota. The biggest company has projects in 13 states. What national scope would give you is efficiencies of scale. It would also teach managers how to deliver those efficiencies to customers in the form of lower prices. In construction, you don’t see that.”

To illustrate the problem, he draws an analogy to the automobile industry. In the early days, cars were built by many a plethora of tiny companies–essentially, by hand out of people’s garages. The process was inefficient and the price of the final product was prohibitively high for most people. Henry Ford figured out that scale and technology could change both those things, which gave birth to the modern form of the business. The formidable size and efficiency of Ford Motors allowed him to offer a low fixed price and not have to vary it to stay afloat when, say, the price of steel fluctuated. While construction is a more challenging case, more than a hundred years on there is ample opportunity for a similar transformation, says LePatner. But nobody has seized the opportunities for efficiency offered by technology and broad application of sound management practices. In essence, it’s still stuck in the garage stage.

The other big problem, he says, particularly for public projects, is a bidding process that is based on perverse incentives. In order to get work, which is generally assigned by governments to the lowest bidder, contractors often have to put in below-cost bids. “The contractors understand the system: you sign a below-cost contract for the right to put in change orders [requesting more money] and hopefully make a profit in the end,” says LePatner. In the end, public officials frequently accept whatever the contractors tell them them about needing to raise the cost of a project. This scenario, writes LePatner, systematically rewards the contractor for inefficient behavior “since there are typically few real consequences to deter such actions.”

Barry LePatner

All of this flies in the face of what the public perceives to be wrong with the construction business. “I’m always being asked one of two questions: ‘How much of this is corruption and payoffs?’; or, ‘How much is unions driving up the prices?’ Well, the statistics show both are non-factors. Corruption drives up prices in some cities, yes. But on a $1 trillion industry, it’s not anything material. On the union issue, the research I found shocks some people: It turns out union workers are slightly *more*efficient than non-union workers. The reason for this seems to be that unions use apprenticeship training programs.”

So how do we fix it?

LePatner’s answer is, on the surface anyway, disarmingly simple: “Owners, especially governments, [need to] insist on true fixed-price contracts.” Doing this involves, among other things, having the planning fully completed before putting the job out for bids. Once this practice starts to take root, he predicts far-reaching effects on the marketplace. “The resulting shakeout will be rapid,” he writes in *Broken Buildings, Busted Budgets*. “Many firms will fail, but remember, many fail already. Instead of being replaced by swarms of tiny new firms, however, bigger firms will form because of frenzied merger activity.” He sees within a relatively short period of time construction companies “will come to have a significant presence in the Fortune 1000.” Under a new, vertically integrated model required to meet the needs of a market that demands fair fixed prices, they “will do everything from manufacture to stockpile construction materials to maintain structures they erected years or even decades before.” These new large companies will make strategic investments in technology, education and R&D and begin to achieve the standards of productivity that apply in other industries. Given that the construction industry is in a similarly woeful state in most of the rest of the world, this offers a valuable competitive opportunity to the U.S. to become the innovator and leader in this massive industry.

“You learn to be more efficient,” he says. “You learn to do things differently in the business that you’re in. We need to help the construction industry understand that efficiency will get them more projects in the end.”

[Please see the Infrastructurist's interview with Michael Dukakis for more on this -- he makes some salient remarks on the subject of the construction industry - Ed.]

Construction Expert: Union Labor More Efficient Than Non-Union Labor

Posted on Monday February 2nd by admin

Construction industry reform guru Barry LePatner tells us that union labor is in factly “slightly more efficient” than non-union labor on construction jobs. It’s a key point to establish, because in the months and years ahead critics will certainly argue that tax dollars are being wasted to pay union wages on public works projects.

LePatner, who wrote an influential critique of the industry for the (generally conservative) University of Chicago Press, notes the existing research shows that union apprenticeship programs bump up productivity. (The bar is low though: as a whole, the construction industry is hideously inefficient.)

In general, it’s a good time to be thinking about apprenticeship programs and other ways of training skilled laborers. Michael Dukakis raised raised the concern, in a recent interview, that our labor resources might be overwhelmed by a glut of stimulus money: “Do we have the skilled building trades people to do all this work [to rebuild our infrastructure]? If you’re talking billions in funding? So that’s a concern. But I don’t hear people talking about using this as an opportunity to train a lot younger skilled tradespeople – carpenters, electricians, so forth.” Rolling out more apprenticeship programs might be a good start.

Cost of Construction Materials in NYC is Invitingly Low — Labor Still Pricey

Posted on Wednesday March 4th by Jebediah Reed

Commodity prices have tanked in the last year along with every virtually every other class of financial asset, except for Krugerand rounds, market short mutual funds, and stored food.

The decline is propitious for the current round of public works spending though, as taxpayers will save money on concrete and steel for roads and bridges.

Here's what's happened to the price of various key building materials since last spring, according to recent story in *Crains New York Business*:

- Steel rebar: down 43% to $850 per ton
- Structural steel: down 17% to $4000 per ton
- Concrete: down 25% to $60 per square foot
- Drywall: down 7% (no price given)

Meanwhile, electrical and plumbing contactors, getting desperate for work, have shaved 20 percent off their quotes.

According to the story — keeping in mind the publication's firmly pro-business editorial stance — labor unions are the lone holdouts from fatter days, refusing to make any wage concessions. Why not? "Some observers say unions are skeptical of developers' claims that labor concessions will jumpstart new activity when so many factors are working against it."

On one hand, they seem to be adopting the head-in-the-sand strategy of many coop owners here in the city: "Sure, nobody's buying, but I've still got a $2 million one-bedroom apartment. Don't believe me? Just look at the asking price." In this case the asking price is $60 - 70 per hour (i.e. the typical union construction wage in Gotham).

But here's an alternative theory: The unions are expecting a pickup in business from the stimulus, in the form of school and government building renovations and public works projects. Now might not be a good time to start making pay concessions if a glut of new contracts is coming in the next six to twelve months. It would be like lowering your asking price if the government was about to start snapping up residential real estate. (The government isn't snapping up residential real estate yet, is it? One loses track these days…)

A contextualizing fact to keep in mind here though is that union labor, while more expensive, is in the aggregate a bit more cost effective than non-union labor. According to construction expert Barry LePatner, the reason for this is that union apprenticeship programs increase general productivity. Or, at least, that is the case under normal market conditions.

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Low Stimulus Bids Could Be Dangerous, Warns Construction Expert

Posted on Wednesday May 6th by Jebediah Reed

When the 2,000th stimulus project was approved last month, the White House was touting the fact that bids from contractors were coming in well below expectations — 15 to 20 percent below on average, and 30 percent or more in some places.

But this kind of steep discount is not necessarily good news, cautions an expert on the construction industry.

"When bids are coming in 25 or 30 percent under a reasonable estimate, one of two things is going to happen," says construction lawyer Barry Lepatner. "Either the contractor completes the work at prevailing wages and accepts a substantial loss, or the company runs out of money part way through."

Neither outcome is desireable, he says, but the latter would be especially disruptive. "When the contractor has lost so much that they can't go on, the government doesn't have a way to give them more money." LePatner warns that we could see a raft of partially completed projects going idle as contractors fold.

Trying to stretch an unfeasible budget might also lead to poor workmanship and understaffing–problematic on multiple fronts in a country trying to fix its infrastructure and boost employment.

Why would a firm underbid? It's a question LePatner explores in his book Broken Buildings, Busted Budgets (U. of Chicago). The industry is dysfunctional and "anti-competitive" in many respects, he argues, and there can sometimes be business advantages in making impossibly low bids.

But many stimulus projects are “fixed price” contracts, meaning that firms will have less leeway in finding ways to eventually eke out a profit.

“We want our construction industry to make a fair profit,” LePatner says. “I’m waiting to see if they can pull this off in some novel way.”

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