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EXECUTIVE SUMMARY

Congestion now costs Indianapolis residents $362 million each year and means they waste 21 million hours in congested traffic and consume 14 million more gallons of fuel than necessary annually.

OUR TRANSPORTATION POLICY IS AT A CROSSROAD

By now, just about everyone in Indiana has heard about the state government's $3.85 billion lease for the Indiana Toll Road. Signed earlier this year, the agreement gives Macquarie-Cintra, a Spanish-Australian consortium, the right to manage, operate and upgrade the 157-mile toll road for 75 years. The state enabling legislation also allows the state to build a missing link of I-69 that would finally connect Evansville to Indianapolis using the same type of arrangement, although it doesn't commit to using Macquarie-Cintra. The deal made international headlines.

Signing the lease as scheduled on June 30, 2006, put Indiana in an uncharacteristically enviable position. Just last fall, the state faced a two-and-a-half billion dollar transportation spending deficit for its 10-year transportation plan. The state department of transportation (INDOT) had identified 237 highway construction projects in its plan totaling $5.2 billion in state funding commitments. Less than half of these projects, 46 percent, were funded. Toll revenues would have accounted for just nine percent of the funding base. Clearly, this funding shortfall jeopardized the basic transportation network of the state.

Now, because of the willingness of the private sector to see value in an under-performing state asset — the Indiana Toll Road — Indiana has a fully funded transportation plan. The toll road will be upgraded, a new section of I-69 will be built linking Evansville and Indianapolis 10 years ahead of schedule (probably through a public-private partnership), and dozens of other projects will be completed and accelerated as a result.

Indiana's work is not finished. This funding deals only with a current challenge. The long-term challenge is determining how Indiana's future transportation network should look, how it gets built, and how it should be managed. Even with the transportation plan fully funded, urban congestion is increasing and public transit remains an ineffective and inefficient alternative to the automobile. Congestion in the Indianapolis urban area has increased 20 percent since 1982 according to the Texas Transportation Institute at Texas A&M University. Congestion now costs Indianapolis residents $362 million each year and means they waste 21 million hours in congested traffic and consume 14 million more gallons of fuel than necessary annually. As households and jobs continue to decentralize, Hoosiers need to re-think transportation policy and the investments that will be necessary to make them competitive in a global economy.

The privatization of the Indiana Toll Road presents a unique opportunity to ask fundamental questions and present alternate, innovative ideas as solutions. With the reality of a fully funded 10-year investment plan on the horizon the time to ask and answer these questions is now.

The articles in this special edition begin to address these issues as well as the debate surrounding Indiana's controversial steps toward privatizing key elements of its transportation network.

In the following pages, international transportation policy consultant Wendell Cox provides an overview of travel trends in Indiana to set the stage for transportation policy reform. Transportation policy analyst Ted Balaker then explores the potential role and limitations of mass transit for improving mobility and serving the needs of Hoosiers. Bob Poole and Peter Samuel, both nationally recognized experts on transportation privatization, give an overview of the role the private sector is playing in filling huge gaps in the nation's transportation network. A privatization expert, Geoffrey Segal, then takes a hard look at the lease of the Indiana Toll Road to a consortium of private companies while a Ball State University economist, Norman Van Cott, examines concerns about giving foreign companies control over major investments like roads. A Purdue University researcher, Konstantina Gkritza, outlines lines some of the potential economic development impacts of investments in Indiana's roads. Sam Staley then takes a look at how foreign countries are using the private sector to improve their transportation infrastructure.

Finally, we conclude with a brief analysis of what the future holds for transportation policy and economic competitiveness in Indiana given national and international trends.

TRANSPORTATION IN INDIANA

'Smart Growth' Turns Out Not To Be So Smart

by WENDELL COX

Indiana depends on cars for nearly all of its mobility. This is unlikely to change, even if regional transportation planners get their wish of higher investments in public transit. It's simple logic and an inevitable conclusion from an objective look at the data.

In Indiana's largest metropolitan area, Indianapolis, more than 99 percent of motorized travel is by car. Transit use — mostly bus — accounts for just 0.7 percent of all travel. Indiana's no different from most other places in the U.S. In fact, it's representative of the rest of the nation and the high-income world.

The automobile provides nearly all surface travel throughout North America and Europe and accounts for virtually all travel growth. Few U.S. metropolitan areas have less than 98 percent of travel by car. Only one, New York at 92 percent, has less than 95 percent. The market share for cars is somewhat less in Europe, ranging between 75 percent and 95 percent. In Europe's vast suburbs (as in America's), transit travel is limited to households without cars and travel to historic cores, which represents a declining share of commercial activity. The point is that both North America and Europe depend principally on cars. This pattern is typical of high-income nations.

The spread of automobile use has also been associated with unprecedented economic growth. Data from the Organization for Economic Cooperation and Development (OECD) indicates that most wealthy nations today, measured by gross domestic product per person, lived below today's U.S. poverty level before World War II. Since World War II, prosperity has been democratized — everyone has become wealthier. This would not have occurred without cars and suburbanization, trends well-documented by architectural historian Robert Bruegmann in Sprawl: A Compact History.

More households were able to buy their own homes as they were built on less-expensive land on the fringes of urban areas that have become today's suburbs. The automobile made it possible for women to take their place as equals in the work force by giving them unprecedented mobility. This would not have been possible if working mothers had been forced to deal with childcare, school and other errands on transit. One of the great efficiencies of automobile use is "trip chaining," linking different destinations together as a part of one big trip.

Despite rising traffic congestion in recent years, cars still mean faster work-trip travel times. Even more importantly, the automobile greatly expanded the number of jobs that could be reached within a normal commute time. This is because the car places virtually all jobs in an urban area within reasonable access, about 30 minutes, while transit systems rarely make one-third of jobs accessible. For all the condemnation of our heavy reliance on cars, average work-trip travel times are 22.6 minutes in Indianapolis, compared to the

Indianapolis gained 31,000 domestic migrants (non-international) between 2000 and 2005, while perennial Midwestern growth champion Minneapolis, with its stringent land-use regulation, lost 11,000.

Wendell Cox is principal of Wendell Cox Consultancy dba Demographia, a public-policy firm in metropolitan St. Louis. He is a visiting professor of transport at the Conservatoie National des Arts et Metiers in Paris (a national university) and served on the Los Angeles County Transportation Commission and the Amtrak Reform Council. The above essay was written for the foundation.

The reality is that virtually all of the high-income world's long-term regional plans assume that nearly all future travel growth will be by car.

national average of 24.7 minutes, according to the 2005 American Community Survey published by the U.S. Bureau of the Census. In comparably sized European urban areas, travel times are typically 30 percent greater.

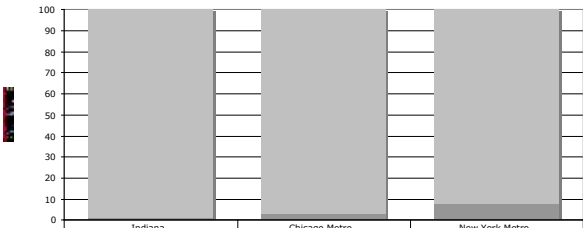
Even before the automobile, transit was never able to provide mobility to many jobs. This is not understood by the planning community. One of the more popular U.S. planning doctrines is called the "jobs-housing" balance, which presumes that planners can place jobs and residences closer together, reducing travel times and automobile use. The problem, of course, is that people, not planners, decide where they are going to live and work. It is thus not surprising that U.S. Census surveys show that only one-fifth of people who move to new neighborhoods do so to get closer to work.

As automobile use has given families and workers more mobility, labor markets have become very large. If Hoosiers travel at the same speed as the national average, for example, work trips are almost as long in Indiana's smaller urban areas as in Indianapolis (more than 10 miles). Indeed, among Indiana's nearly 100 urban areas with less than 20,000 people, the average work-trip length is more than two times the diameter of the urban area. That is to say that people are traveling, on average, more than twice as far from one side of the urban area to the other to go to work. The "jobs-housing" balance would be more accurately called "jobs-housing Balkanization." In fact, this kind of planning has failed around the world, from London and Stockholm to Cairo.

The planners have nothing to back up their pious indictments of cars and highways. They offer light or commuter rail lines as an alternative, but their computer simulations still don't forecast a material reduction in automobile use. Nowhere in the world is there a plausible vision that could replace material amounts of car use with transit use. What transit cannot do in Paris, Tokyo or Toronto, it surely cannot do in Indianapolis, Northwest Indiana or Fort Wayne.

The reality is that virtually all of the high-income world's long-term regional plans assume that nearly all future travel growth will be by car. There are thus two choices — either accommodate the growth by adding capacity or allow traffic congestion to worsen. The latter strategy can only make an urban area less competitive by increasing travel times, icosts and discouraging growth.

*Urban Travel Market Share in Passenger Miles: 2003**



** In Indiana, the South Shore Line alone represents more than 50 percent of transit ridership.*

Moreover, Indiana is becoming more competitive because of the so-called "smart growth" induced housing cost escalation that has occurred in places like Portland, California and the Northeast. Our recent international report on housing affordability (http://www.demographia.com/dhi-ix2005q3.pdf) rated Indianapolis as the third most-affordable major market out of 100. Recent data from the U.S. Bureau of the Census indicates that Indiana is doing well in attracting new residents, as people move from less -affordable to more-affordable areas (http://www.demographia.com/db-metmigramm.htm). Indianapolis gained 31,000 domestic migrants (non-international) between 2000 and 2005, while perennial Midwestern growth champion Minneapolis-St. Paul, with its stringent land-use regulation, lost 11,000. Some high-cost markets experienced serious losses. New York lost nearly 1.2 million domestic migrants, while San Francisco lost more than 500,000. High-cost San Diego, which had been one of the nation's fastest-growing metropolitan areas for more than 50 years, actually lost 2.5 times the number of domestic migrants as Pittsburgh, which has been losing population for 50 years.

What all of this says is that maintaining Indiana's already-improving competitive edge will require building the transportation facilities necessary to support growth. There is only one choice consistent with such an objective: Keep the traffic moving.

PUBLIC-PRIVATE PARTNERSHIPS

What They Are And What They Can Do For Indiana

by ROBERT POOLE and PETER SAMUEL

When Indiana's governor floated the idea of leasing the Indiana Toll Road to a private company, many Hoosiers gasped. The concept, nonetheless, is taking off around the world and in the United States. Indiana just missed playing catch-up in using innovative "public-private partnerships," at a time the state can scarcely afford to see its competitiveness erode.

Privatization is sweeping into U.S. transportation policy, with state and local transportation agencies taking the lead. In just the last 18 months, for example,

• A Spanish toll-road company proposed to invest $7.2 billion to build the first segment of theTrans-Texas Corridor;

• A global consortium (including the successful bidders for the Indiana Toll Road) paid Chicago $1.8 billion to lease the Chicago Skyway for 99 years; and

• An Australian toll-road operator closed a deal to bail out a struggling start-up toll road in Virginia.

Although the specifics of these projects differ considerably, they reflect sobering underlying realities of transportation policy in a globally competitive economy. Investment in highway capacity has lagged significantly behind traffic growth during the past two decades, and we're only now realizing the need for serious catch-up action.

Indiana's 10-year transportation plan is a good example. The Indiana Department of Transportation (INDOT) catalogued a wish list of more than 200 projects costing $5.2 billion, but state revenues could only fund half. Public and political support for increased fuel taxes — our traditional source of highway funding — is weak. Fortunately, the global capital markets have discovered the U.S. highway sector as an untapped opportunity, and Indiana is about to begin reaping the benefits.

Understanding the history and global trends driving private-sector interest in highways is critical if Hoosiers want to take advantage of the new opportunities just now cresting the horizon. Leasing the Indiana Toll Road and using the private sector to design, build and operate new infrastructure like the I-69 southwestern link to Evansville is part of a world-wide trend. (See page 21.) The question for Hoosiers is how best to use the lessons we're learning from this trend to fashion a 21st-century transportation network.

A Practical Solution To a Major Problem

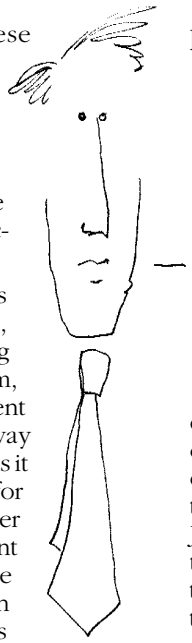
The Indiana Toll Road is not really a privatization. Nor is the construction of the I-69 expressway link between Evansville and Indianapolis. The state government

The global capital markets have discovered the U.S. highway sector as an untapped opportunity, and Indiana is about to begin reaping the benefits.

Robert W. Poole, Jr. (left) is an engineer and director of transportation studies at the Reason Foundation in Los Angeles. Peter Samuel is editor of the web site TollRoads News.com and an international authority on public and private transportation policy and investment. The above essay was written for the foundation.

Two factors, the gas tax and revenue bonds, prevented the full-fledged development of a private toll-roads industry in the 20th century, leaving states like Indiana in their current predicament.

retains ownership of these assets and sets conditions on how they will be operated. A private company manages the facility as part of a concession. These arrangements are more properly described as a public-private partnership.



Public-private partnerships are a new way of financing, managing and operating roads. In their most basic form, the state or local government owns the asset — the highway — but a private company runs it and invests in improvements for a specified period of time under a long-term lease arrangement called a "concession." Once the lease is up, just like when you lease a car, the asset goes back to the original owner. Thus, as Geoff Segal notes on page 10, the State of Indiana never relinquishes control of the highway. In exchange, the private company gets the right (as the concessionaire) to collect tolls for a long period (typically anywhere from 30 to 99 years). Indiana brokered a 75-year lease in exchange for the company's right to collect toll revenue and a commitment to expand and improve existing facilities.

Long-term concessions offer a much more robust financing approach than the typical transportation budgeting process. The concession approach makes it possible to finance a larger and more serviceable project and put it into service years, or decades, sooner than the state's pay-as-you-go approach. It is also more robust than the typical state toll-agency financing approach. Private investors, unlike buyers of state toll-agency bonds, can be described as "patient capital"; these investors are willing to wait longer for a larger return. A mix of equity and debt, as used in concession projects, is also less vulnerable to default in the early years of a new toll road, when traffic may be less than was forecast.

With 100 percent funded by debt (as is state toll-agency practice), the debt-service burden that must be met by toll revenues is higher than if only, say, 65 percent of the project is funded with debt that must be serviced in those critical early years.

History is on Our Side

Using toll revenues to finance new roads and improvements is not new. The idea originated in Great Britain in the 13th century where it was used to develop hundreds of bridges and turnpikes in the pre-auto era. It was imported to the United States where it became the principal means of developing roadways between towns and cities. Many still bear the name "turnpike" or "pike" 150 years after they collected their last toll. Some, such as the New Jersey Turnpike (achieving new fame in the opening credits of *The Sopranos)* and the Pennsylvania Turnpike, still operate in their traditional roles.

"There are a thousand roads, but only one follows reason."
(Chinese proverb)

When the far west of the U.S. was settled in the second half of the 19th century, this approach to funding new transportation infrastructure developed important mining roads and inter-city roads in Colorado, Nevada, California and other states. The concession model also saw a limited revival in the early days of the auto era, with the Long Island Motor Parkway (1911), the Ambassador Bridge in Detroit (1929), and the Detroit-Windsor Tunnel (1930) as prime examples. Some of the toll bridges on the upper Hudson and Delaware Rivers, and in the San Francisco Bay Area, were also developed using this model — but these all became insolvent during the Depression and were taken over by state agencies.

Two factors prevented the full-fledged development of a private toll-roads industry in the 20th century, leaving states like Indiana in their current predicament. The first was the invention of highway trust funds supported by dedicated motor fuels tax. Fuel taxes generated lots of money and were inexpensive to collect. Not surprisingly, this became the dominant form of highway finance in every state, thanks in no small part to the Good Roads Movement in the 1910s and 1920s.

Second, the invention of the state toll-road agency provided a way to fund large-scale projects with toll-revenue bonds, with the cost advantage of being able to issue the

bonds at tax-exempt rates. The Pennsylvania Turnpike became the model for a host of other state and later urban/regional toll authorities that have built and maintained some of America's most-important highways.

Private Capital Is Needed For Large-Scale Projects

The long-term concession model appears to fit best with large-scale highway, bridge and tunnel projects such as completing I-69 from Indianapolis to Evansville and building new bridges across the Ohio River.

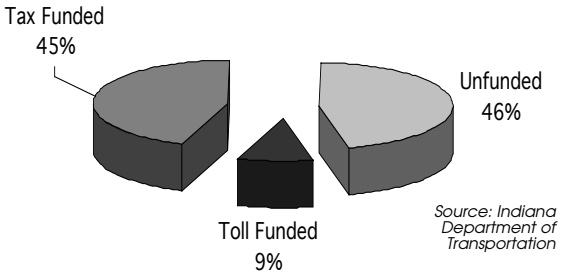
First, these projects are the most difficult to carry out using traditional highway funding. Dedicating $2 billion all at once for a single project in one location is both financially and politically very difficult, particularly when budgeting is done annually rather than over the economic life of a project. Even Indiana INDOT's 10-year plan, while well considered, depends on the legislature to approve the allocation of the funds for these projects every year, and the funding needs fell well short of projected revenues prior to the Toll Road lease. But if a predictable revenue stream is there from tolls, private companies can raise the entire $2 billion up-front and commit to the project under a long-term agreement with the state.

Second, public-private partnerships lessen the likelihood that large "mega-projects" will experience cost over-runs and traffic shortfalls. In fact, because of the superior performance of private companies in this area, a growing number of analysts recommend against putting taxpayers' funds at risk; with a properly structured long-term concession, most if not all of the financial risks can be (and often are) shifted to the private-sector partner. With the flow of toll revenues dependent on the project getting finished on time, the concessionaire has powerful incentives to ensure on-time performance by its design-build contractor. Indeed, several projects have been completed early.

More directly, the financing program for the project is based on what drivers are expected to pay. The consequences of missing an estimate or forecast are financially huge. Project costs must be kept within budget so that toll revenues will cover operating and debt-service costs. Concessionaires, experience has shown, also don't have an incentive to cut corners on design or construction since they have to operate and maintain the project for the life of the concession. Shoddy construction will come back to haunt them as they incur higher costs earlier than expected to retain traffic, or if traffic plummets because they don't keep road quality high.

Third, private firms appear more willing than public agencies to take risks and think outside the box to solve difficult problems. A private company, operating under California's pilot program for long-term concessions, pioneered the modern method of building, managing and operating roads by developing the 91 Express Lanes in Orange County, California (south of Los Angeles). The company invented the "value-priced" congestion-relief tollway that uses electronic toll collection. The price changes to regulate traffic flow to avoid congestion, maintaining a speed of 65 miles per hour while parallel "free" roads are at a standstill.

Funding Summary of Indiana's 10-Year New Construction Program (prior to lease of the Indiana Toll Road)



Source: Indiana Department of Transportation

Public-private partnerships remove the incentive to cut corners on design or construction since concessionaires have to operate and maintain the project for the life of the concession.

INDOT 10-Year Draft Major New Construction Program
INDOT Division of Planning, Sept. 23, 2005

		(Millions $)					
Year	No. of Projects	Total Annual Cost	Tax Funded	Unfunded	% Unfunded	Toll Financed	%
2006	23	$157.9	$157.9	$0.0	0.0%	$0.0	0.0%
2007	20	$241.2	$144.3	$52.6	21.8%	$44.3	18.4%
2008	30	$449.3	$220.7	$184.7	41.1%	$43.9	9.8%
2009	28	$493.4	$198.7	$201.3	40.8%	$93.4	18.9%
2010	27	$560.2	$269.0	$258.6	46.2%	$32.6	5.8%
2011	32	$582.5	$272.3	$274.0	47.0%	$36.2	6.2%
2012	17	$607.9	$264.4	$287.3	47.3%	$56.2	9.2%
2013	15	$640.4	$268.9	$321.5	50.2%	$50.0	7.8%
2014	25	$755.8	$246.4	$443.6	58.7%	$65.8	8.7%
2015	20	$737.4	$289.5	$397.9	54.0%	$50.0	6.8%
Total	237	$5,226.0	$2,332.1	$2,421.5	46.3%	$472.4	9.0%

Indiana's foray into public-private partnerships is not the first in the U.S. These partnerships are using their flexibility and access to private capital markets to radically change the face of U.S. transportation investment and highway management.

Public-Private Partnerships in Action: Innovation and Performance

Indiana's foray into public-private partnerships is not the first in the U.S. These partnerships are using their flexibility and access to private capital markets to radically change the face of U.S. transportation investment and highway management.

In southern California, no one in the public sector thought of variably priced express lanes in the middle of the Riverside Freeway. It took a law (AB 680) inviting investor proposals to produce the idea for the 91 Express Lanes. More importantly, a public agency could not have implemented such a radical, untried scheme, and done the intense marketing and customer relations needed to make it work. Public agencies don't reward risk-taking, at least not to the extent the private sector does with stock options and bonuses for those who succeed and dismissal for those who fail.

Similarly the toll lanes currently being negotiated on the Washington Beltway in northern Virginia (I-495) rescued a traditional road-widening project collapsing under a barrage of local opposition. Fluor Corporation came up with a proposal that nearly eliminated the need to acquire extra right-of-way for the road, saving hundreds of homes from eminent domain condemnations, and reduced the project cost from about $3 billion to $700 million. Fluor proposed the same amount of lane additions as the state department of transportation, but eliminated a pair of breakdown lanes and substituted delineator posts for concrete barriers, and proposed deferral of some interchange improvements. Kate Hanley, then-chair of the Fairfax County Board of Supervisors, said the Fluor proposal saved the project and hailed it as the "citizens' alternative."

In a subsequent Virginia effort, two private teams proposed expanding the High Occupancy Vehicle lanes and giving access to the lanes to single-occupant drivers willing to pay a toll. The project would follow the Shirley Highway (I-395) and I-95 from the Beltway out to the Fredericksburg area and involve adding a third lane of about 28 miles on the existing facility, plus 20-mile extensions southward and new entry and access points and ramps at the big Springfield interchange. Both involve improvements to park-and-ride and bus facilities. The Virginia Department of Transportaion picked the Fluor-Transurban team and is working out the details of a $999 million long-term concession.

The Texas Department of Transportation now requires all major new projects forwarded from its regional offices to be assessed for toll feasibility. And new regional mobility authorities in most urban areas may act as toll authorities. It is unclear how many of these will use the traditional public toll authority model versus entering into concession agreements. The term "comprehensive development agreement" (CDA) used in Texas covers both models.

Texas authorities seem to be deciding on a case-by-case basis how far they use the CDA process to privatize by including traffic and revenue risk among the items in effect contracted out to the private sector. So far they seem to be maintaining the public-sector model and hope to use toll revenues to sustain a revolving

Getting What You Expect from Public-Private Partnerships

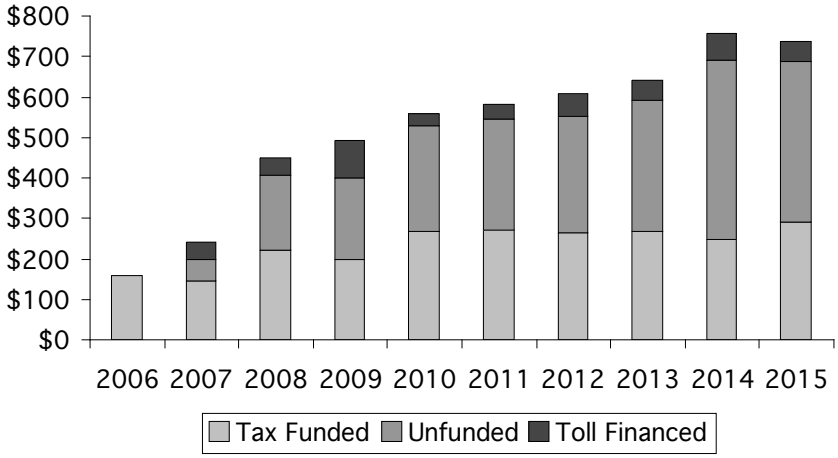
Typical steps in a responsible and well-managed concession process:

- Select qualified outside legal and financial consultants to advise the state on all aspects of the process.
- Appoint a qualified and respected selection and negotiating panel.
- Publish a timetable for the selection process.
- Prepare informational materials on the history and present state of the facility plus commission a professional traffic and revenue study.
- Release a formal Request for Expressions of Interest (to "potential proposers").
- Release informational materials to potential proposers and the public.
- Make available traffic and revenue study results to potential proposers (although independent assessments by bidders should also be encouraged).
- Issue Requests for Conceptual Proposals and Qualifications to potential proposers.
- Select the best three to five potential proposers (a short-list) and formally ask them for detailed proposals.
- Review proposals by selection panel.

fund which they can use to provide seed money for new public-toll authorities at the local level. But the first Trans-Texas project, TTC-35, may mark the start of using the full-fledged concession model. The $7.2 billion winning proposal, from Cintra/Zachry, was for a 50-year concession.

In Colorado and Georgia, state legislation allows private toll operations alongside two existing state toll authorities, for E-47 and GA-400 respectively. There and in North Carolina, where there are no toll facilities as yet, the concession model may be used almost exclusively to build new toll roads.

Source of Funding for Indiana's $5.2-Billion 10-Year New Construction Program 2005-2015 (prior to lease of Indiana Toll Road)



In New York, the state Thruway Authority is looking at a concession approach to rebuild the Tappan Zee Bridge, and the Port Authority of New York and New Jersey may go to a concession for its biggest upcoming capital project – replacement of the Goethals Bridge, the nearly 80-year old structure that links the Staten Island Expressway and the New Jersey Turnpike. These will both be new constructs but within the bounds of an existing public toll agency.

Guidelines for Long-Term Toll Concessions

Like anything else, however, privatizing toll roads can be done well or badly. What should Hoosiers watch for as Indiana embarks on this new approach to rebuilding its transportation network?

When Chicago leased the Skyway for 99 years, for $1.8 billion, it made a handsome return on its investment. By contrast, under the status quo conditions, their annual return on the (now-revealed) value of the Skyway had been just 0.4 percent. So one way to determine if taxpayers would be better off holding onto a toll road or selling it is to compare the relative rates of return.

A second consideration is what use will be made of the proceeds. To spend the proceeds of a major capital asset such as a toll road on covering near-term budget deficits or miscellaneous government operations would be "selling one's birthright for a mess of pottage." But if the proceeds are dedicated to other needed infrastructure investments, as is the case in Indiana, the transaction has clearer and more direct benefits.

All of this, of course, presumes that the state can find a buyer experienced in owning and operating toll roads, with the experience and capabilities needed to manage such an asset and deliver good service to its customers. Additionally, adequate protections for the public interest should be included in the terms of the concession agreement.

Conclusion

Public-private partnerships in transportation policy are a new approach to providing and managing highway infrastructure. They hold the promise of filling in important needs and gaps in Indiana's transportation investment agenda.

Some citizens and elected officials will approach these partnerships reluctantly and with a sense of foreboding, but to ignore their role in the new transportation policy environment risks delaying needed improvements and undercutting Indiana's economic competitiveness.

Properly managed and structured, public-private partnerships can play a productive and instrumental role in bringing Indiana's transportation network up to 21st-century standards and performance. Business as usual in transportation policy is no longer a viable option for Indiana or any other state.

To spend the proceeds of a major capital asset such as a toll road on covering near-term budget deficits or miscellaneous government operations would be "selling one's birthright for a mess of pottage."

THE INDIANA TOLL ROAD PRIVATIZATION: A BOTTOM-LINE ASSESSMENT

Could it Mean Getting an I-69 Extension Built by 2015 Rather than 2035?

Even assuming the Indiana Toll Road had turned a profit, its return on investment would have been less than one percent, while debt obligations were paid at much higher percentages.

by GEOFFREY SEGAL

When the dust settles on the controversial lease of the Indiana Toll Road (ITR), Hoosiers should be all smiles. To put it simply, Indiana probably got a great deal.

The day Macquarie-Cintra took over the toll road, they handed the state a check for $3.85 billion. If nothing else, this will fully fund an ambitious 10-year transportation investment plan. Nearly half of the projects that otherwise would have been left on the drawing room table will now be completed. In all, more than 200 vital transportation projects will now be fully funded.

In addition, the deal results in direct cost avoidance for the state, and on multiple fronts:

First, the state was expending millions of dollars in operating and maintaining the road each year. While these costs were generally offset by toll revenue, debt obligations and capital costs often exceeded available revenues. Those costs, and associated risks, have now been transferred to the contractor. That cost avoidance allows those resources to be shifted to other priority projects around the state.

Second, the ITR faced a significant maintenance and capital backlog due to a lack of investment. This too has been shifted to the contractor and should be viewed as a direct savings to the state of Indiana. Indeed, the contractor has pledged to spend more than $200 million on capital upgrades in the first three years of the deal and upwards of $4.4 billion during the life of the lease, bringing the total value of the lease to more than $8 billion.

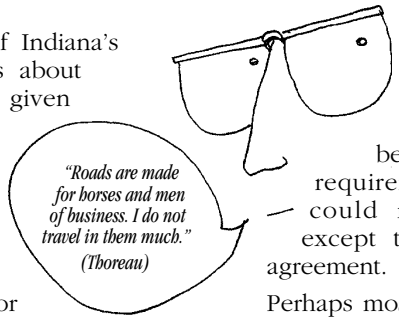
Further, the large cash payment enables the state to earn interest, increasing the value of the lease even more. Indeed, the state will retire more than $225 million in debt and stop paying interest, but they'll begin earning interest on the cash payment while it is spent down on other transportation projects.

This is significant because the ITR rarely, if ever, turned a real profit when capital expenditures were included. Assuming ITR did turn a profit, its return on investment would have been less than one percent, while debt obligations were paid at much higher percentages. Clearly the state is better off with the cash, earning interest rather than paying it. In fact, Indiana can expect to earn upwards of $800 million in interest, bringing the value of the lease to around $9 billion.

Beyond the obvious fiscal implications, there are significant benefits to the Indiana commuter as well. The deal enables new capacity to be put in place many years faster. It means getting I-69 financed and built by 2015 rather than 2035. Countless other projects will not have to wait for funding to become available — it will already be there. Projects to strategically connect the state, enabling greater mobility of goods and people, will become realities. Safety will also increase as improvements

Geoffrey Segal is director of government reform at the Reason Foundation in Los Angeles and has worked extensively with Indiana public officials, state legislators and local elected officials. The above essay was written for the Indiana Policy Review Foundation.

will be made to many of Indiana's rural highways. Concerns about risk are understandable given the newness of the deal; however, Hoosiers should rest assured that the state is fully protected.



First, all of the money was paid up front. Even if there are cost overruns or inadequate revenues to justify the $3.85 billion, the concessionaire is on the hook for any losses, not the state. Taxpayers are not at risk.

Second, a detailed 263-page concession agreement protects other public interests. In it, toll rates and possible increases are established as well as limits on the return on investment for the concessionaire. Further, it has spelled out all kinds of "what-ifs" and established well-defined performance levels that the contractor is legally required to meet or face penalty. Dead animals, for example, need to be cleared off the road within eight hours and potholes need to be filled within 24 hours. These standards often go beyond traditional INDOT requirements, something that could not have been done except through a private-lease agreement.

Perhaps most important, the state of Indiana can revoke the contract at any time. The concession agreement and lease sets the conditions for the state to cancel the contract and resume operations of the road should the contractor fail to perform. In any event the state keeps the $3.85-billion payment. All risk is assigned to the contractor.

All told, the lease of ITR and the state's 10-year investment program will produce a windfall of benefits to Hoosiers. Indiana has become a leader on transportation policy. Other states have already taken notice and will begin to emulate many of the strategies outlined here.

Indiana can expect to earn upwards of $800 million in interest, bringing the value of the lease to around $9 billion.

Making Public Highways Private

The federal government has a collection of pilot programs that allow states to add tolls to free federal highways, including special lanes that run alongside the free highways and cost extra because they move more quickly. Technology that allows for electronic collection of fees has made toll roads more attractive to government and drivers, too.The moves have appeal as Washington and states face long-term budget deficits and as raising gasoline taxes — a tempting step to generate revenue for road spending — becomes nearly impossible with pump prices stuck well above $2 a gallon. A federal panel convened by the National Research Council suggested that someday tolling may replace the fuel tax as the primary source of highway funding. "There's clearly quite a bit of interest in this issue across the country," said Matt Sundeen, an expert in transportation at the National Conference of State Legislatures. "It's not going to go away." Some analysts say the shift toward private ownership of what largely has been a public infrastructure has huge risks for the quality of the nation's roads. An analysis published last month by Fitch Ratings, a credit-ratings company, concluded that "toll roads are good candidates for privatization," but cautioned that adding a profit motive to the operation of roads could lead to tolls that are so high that drivers migrate to free highways, increasing pressure on those roads. It added that use of profits to fill a budget gap or other operational needs could lead to deficits down the line. "Ultimately, this is a one-time resource," it concludes. Private toll roads have sustained some failures. In Orange County, California, a private tollway prompted a storm of criticism because in signing the original agreement, the state had promised not to improve any of the free roads that competed for drivers. Ultimately, Orange County had to buy out private investors.

— Laura Meckler in the April 18 Wall Street Journal

ROADS AND XENOPHOBIA

The Nationality of the Road Builder Is Irrelevant to the Value of the Road

If Hoosiers let the nationality of the firms administering the roads trump thinking, they'll be consigning themselves to lower living standards.

by T. NORMAN VAN COTT

Dictionaries define xenophobia as fear or hatred of things strange and foreign, including people. In the economic realm, xenophobia manifests itself in animosity toward imports and immigrants. Foreign investors are two-headed monsters for economic xenophobes. Not only are foreign investors the source of capital imports (ugh), the foreign managerial/entrepreneurial skills that often accompany capital imports mean immigrants (ugh) lurk behind the investment.

This double-edged xenophobia fuels much of the opposition to Indiana's recently-enacted 10-year transportation investment plan. The plan involves, among other things, the state leasing its toll road in northern Indiana to a Spanish-Austrialian group for 75 years, and the state receiving $3.85 billion in up-front cash. The legislation also authorizes future road privatization projects, with no restrictions on the nationality of the road-management organizations.

A legal challenge to the lease occurred almost before the ink was dry on the legislation and other challenges can be expected. That, along with the prospect of future road privatization, means the issue is likely to be a continuing one for Hoosiers. If Hoosiers follow the lead of the xenophobes, letting the nationality of the firms administering the roads trump thinking, they'll be consigning themselves to lower living standards.

A good way to avoid the xenophobes' rabbit trail is to ask a simple question. Namely, why was the Spanish-Austrialian consortium, known as Macquarie-Cintra(MC), able to submit the high bid for the toll road? The consortium, a profit-seeking entity, is obviously not in business to squander its wealth. Like it or not, MC's management procedures must be superior to its counterparts, foreign or domestic, when it comes to increasing the road's value to drivers relative to its operating costs.

Though the company expects to gain as a result of its bid for the road, does that mean Hoosier living standards are undermined? Not at all. Hoosiers benefit in multiple ways. First, don't forget that the state of Indiana is the recipient of MC's bid. Accepting the highest bid means the state has more funds with which to reduce taxes, expand state government services or retire debt. Were Indiana limited to accepting bids only from Indiana road management firms, or only U.S. road management firms, and these firms are well down the list of bidders, that would mean taxes could not be reduced as much; government services could not be expanded as much; nor could as much state debt be retired.

Benefits to Hoosiers go far beyond bid differentials, however. To the extent MC's added profitability owes to its ability to make the road more attractive to toll-road users, these drivers gain. Successful business

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ventures never capture all the gains arising from their product innovations. Indeed, sellers must offer buyers terms of sale that benefit buyers. Otherwise, buyers don't buy.

Bill Gates, for example, didn't become the world's richest person appropriating all the social gains from his software. Quite the contrary, he became wealthy by conferring benefits, vast benefits, on his customers. It's no different with MC. The latter's foreign origin is a red-herring as far as drivers benefiting from the company is concerned.

Less apparent, perhaps, is that Hoosiers gain in yet another way by being open to MC's high bid for the toll road. To wit, Hoosier living standards will also be higher when the company's higher profitability traces to its ability to operate the road at lower cost. Costs always represent sacrificed alternatives — that is, things given up.

MC's lower cost means it requires fewer inputs — labor, capital, managerial and entrepreneurial — to operate the road. Those inputs released from road operation have alternative production capabilities. Opting for MC's operation of the road enables Hoosiers to have the road along with more of other things. Were Hoosiers constrained to choosing among higher-cost Indiana (or U.S.) road-management firms, they'd be cutting themselves off from this source of higher living standards.

So is MC offering Hoosiers a "free lunch?" No, just bigger helpings. Victory in the economic race goes to societies open to innovation and cost-reducing change. Economic xenophobia hinders access to these sources of economic progress. The xenophobes' instincts, be it with roads or anything else, are bad for Indiana.

The consortium isn't offering Hoosiers a free lunch but it is providing bigger helpings.

Foreign Investment in Indiana

The role foreign companies play in Indiana's economy was buried in the debate over the toll-road lease to a consortium led by a Spanish firm (the world leader in toll-road management) and an Australian firm. Yet, Indiana's economy is already thoroughly embedded in the global economy. In 2003, foreign-controlled companies employed 134,200 workers here according to the U.S. Department of Commerce. Sixty-one percent of these jobs were in the manufacturing sector, the largest share among the 50 U.S. states.

Source: Bureau of Economic Analysis, as reported on http://www.ita.doc.gov/td/industry/otea/state_reports/indiana.html#Global

Take the Money Before They Wise Up

In Indiana, the annual interest tab on the $3.3 billion of debt raised by the Macquarie-Cintra group will run at about double the road's annual revenue. To make the deal work, no interest will be paid for several years, but instead will be added to the principal during that span. By then, the investors believe, revenue will have risen enough to allow paying down the combined sum. The good news for the Macquarie-Cintra group is that it didn't have to guarantee the Chicago and Indiana debt; the lenders accepted the road lease as collateral. Moreover, the group already has cut its exposure to the Chicago Skyway by refinancing that debt, allowing it to remove about 40 percent of its equity investment. Financial Security Assurance, the financial guarantee company, is now on the hook for $1.4 billion of debt, backed only by the Skyway lease. The Indiana deal hasn't won a great reception from Australian investors. Macquarie Infrastructure Group shares are flat this year. The group is managed by Macquarie Bank, Australia's largest investment bank. An analyst at Goldman Sachs/JB Were, Alison Booth, has been critical of the deal. In a January research note, she said, 'it's difficult to see how this transaction is going to be value-accretive to MIG security holders.' Her concern is that 'increasing competition for new toll-road projects is resulting in monopolistic returns being competed away.' As Tony Soprano might advise: Take the money before they wise up. — *Andrew Bary in the May 8, 2006, Barron's*

CAN TRANSIT REDUCE CONGESTION?

Suburbanization Is Global But There Is Promise in Virtual Exclusive Busways

Outside a handful of our nation's largest metropolitan areas, public transit is unlikely to have much impact on congestion because it takes so few cars off the road.

by **TED BALAKER**

Hoosiers might legitimately question whether their state and local governments should be investing so much money in new highway infrastructure. Are new roads the only, or even the best answer? In a state where urban traffic congestion is increasing — by 20 percent since 1982 according to the Texas Transportation Institute — this is an important question. Congestion in Indianapolis alone may cost Hoosiers $362 million each year.

Many turn instinctively to public transit. In theory, as economist Adam Zaretsky notes, transit has certain advantages that would seem to make it an effective way to reduce congestion:

"One full 40-foot bus (about 70 passengers including standees) is the equivalent of 58 cars with an average of 1.2 passengers per car. This one bus is the equivalent of a line of autos that stretches six city blocks for traffic moving at 25 miles per hour. Comparing autos and heavy rail, where one full heavy rail car can accommodate about 180 people including standees, a train of six rail cars, holding about 1,080 passengers, is the equivalent of 900 automobiles. Thus, one full six-car heavy rail train is the same as a line of moving cars that stretches 95 city blocks for traffic operating at 25 miles per hour."

Unfortunately, this isn't the whole story. Theory doesn't always translate into practice. Transit may have the potential to reduce congestion, but only if buses and trains are filled with passengers. Operating nearly empty buses and trains will do little to take cars off the road, says Clifford Winston, an economist at the Brookings Institution:

During the mid-1990s, rail filled roughly 18 percent of its seats with paying customers, while buses filled roughly 14 percent. In contrast, about one-third of automobiles' carrying capacity is typically filled. These differences in capacity utilization have clear implications for mass transit's cost competitiveness with autos. While transit's average operating costs per seat mile is lower than automobiles', this potential cost advantage is never realized in practice because empty seats drive its operating costs per passenger mile much higher than that of automobiles.

Transit Realism

This is more than just conjecture for Hoosiers. Transit ridership in Indiana's largest cities — Evansville, Fort Wayne, Gary, South Bend and Indianapolis — fell 8.7 percent between 2000 and 2004 based on data provided through the National Transit Database. Most of this decline came from dramatic reductions in use in Indianapolis. While Fort Wayne and South Bend saw increases in transit use, they still make

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Europe *vs.* America: More Alike Than Different?

Suburbanization is far too ubiquitous to tie to any particular regulatory scheme. And, generally speaking, increasing auto use and decreasing transit use are natural parts of suburbanization and urban decentralization. This is the case even in Europe, where $3 per gallon gas would be regarded as a bargain and where transit service intensity is much greater than in the states. In America automobiles account for about 88 percent of travel, but, at 78 percent, Europe isn't far behind. And the Europeans are gaining on us. Their per capita driving has been increasing more than twice as fast as in the states. Like the United States, transit is sliding in Europe: transit accounted for 25 percent of travel in 1970 and only 16 percent in 2000. From 1980 to 1995, transit fell by 14 percent in London, 24 percent in Paris, 19 percent in Stockholm and 60 percent in Frankfurt. — *tb*

up a tiny fraction of all trips and travel in those cities.

In fact, outside a handful of our nation's largest metropolitan areas, public transit is unlikely to have much impact on congestion because it takes so few cars off the road. To begin to understand why, we can examine commuter trips. Such trips are important because they are concentrated during the morning and afternoon and it is this concentration of work trips that drags many roads into gridlock.

Nationwide just 4.7 percent of commuters get to work by transit. Even that statistic overstates transit's real contribution because it includes the transit anomaly of New York, home to nearly 40 percent of our nation's transit commuters. In New York, transit accounts for 25 percent of work trips and the figure for Chicago is 11 percent. No other urban area even breaks double digits. In most large metro areas, transit accounts for only a sliver of all commuting. In Cleveland it's 4.5 percent and in Detroit it's 2.2 percent. Indianapolis can claim only a 1.9 percent share of commuting trips. Not only is transit's impact on the work commute rather small, it is also shrinking. From 1960 to 2000 our nation added about 63 million workers and yet the total number of workers using transit actually declined by nearly two million.

In fact in 27 of our nation's 50 largest areas, telecommuters outnumber transit commuters. In Indianapolis there are more than two telecommuters for every transit commuter.

Even so, more than six million Americans get to work by transit. Imagine if transit systems were shut down. Wouldn't all those stranded transit riders take to the roads and exacerbate congestion even more? Some argue that this scenario proves that transit does indeed reduce congestion and during recent transit strikes congestion did increase somewhat. But few people suggest shutting down transit systems. Even if public transit did shut down, private entrepreneurs would likely step in and give transit customers less reason to drive cars. And even if transit systems were shut and private transit were forbidden, the streets wouldn't necessarily be overrun with former transit riders. Most transit patrons use transit because they do not have access to cars; 70 percent of transit riders do not have either a car or a driver's license. So if transit disappeared, most former transit users would carpool with a friend, walk more or simply take fewer trips.

If we examine all trips (not just work trips), transit's impact shrinks even more. Nationwide it accounts for only 1.5 percent of trips, which means that slightly more trips are taken by school bus. Although most people might not consider them as such, trips by school bus are actually a form of transit.

When Transit Works

The school bus example reveals that a large concentration of jobs in a "downtown" area is a feature that must be present for transit to make a sizeable contribution to commuter transportation and thus to congestion relief. Although school children are not headed to work, the school acts as a sort of high-employment downtown area. Students who live in the same general area are gathered by buses and taken to a central location. The areas that come closest to approximating

Our nation's urban areas are less and less likely to exhibit hub-and-spoke features. With the rise of suburbanization has come a dispersal of housing and jobs.

Even if New York's transit system could somehow be superimposed on Indianapolis, it is unlikely Indianapolis' transit market share would bear any resemblance to New York's.

this arrangement tend to have the highest transit market shares. Manhattan's central business district contains roughly 20 percent of area jobs, making it far and away our nation's largest employment center. With so many workers headed to the same area, it is not surprising that most people who work in downtown Manhattan take transit. Yet our nation's urban areas are less and less likely to exhibit such hub-and-spoke features. With the rise of suburbanization has come a dispersal of housing and jobs. Traditional commuter patterns that included large flows to and from a central business district are being replaced by freewheeling commuting in which workers travel from nearly every imaginable origin to nearly every imaginable destination. Even New York has not been immune from this effect as its central business district is also losing ground to the suburbs.

Researchers also point to the importance of population density. Transit works best in areas of high population density, where it is relatively easy to walk to and from transit stops. However, the average suburban neighborhood has roughly 2,500 to 3,000 people per square mile and transit market share generally reaches the 20-percent mark only at densities five and six times this figure. At 2,200 people per square mile the Indianapolis area exhibits rather low population density.

Perhaps transit's market share is so small simply because few metro areas have built systems anywhere near as extensive as can be found in places like New York and Chicago. Naturally, service intensity plays a role in transit ridership. If there is little service, one can expect low ridership. Imagine if we could not only reverse transit's long slide, but also triple the size of our nation's transit system and fill it up with riders? A Brookings Institution economist, Anthony Downs, notes that even this enormous feat would not "notably reduce" rush-hour congestion. It would also be "extremely costly."

Because of the expense and time involved in building a rail transit network, it is difficult to build an extensive one. Except in rare cases, rail serves only a few select corridors. This is true even for an area like Portland, Oregon, which has made a strong commitment to rail transit. Moreover, in most cases, investments in new rail lines have been unable to affect the decline in transit market share. Bus systems are typically much less costly, but as Los Angeles' 14-mile $330 million Orange Line reveals, bus transit can also be expensive, especially when separate busways are constructed.

Even if New York's transit system could somehow be superimposed on Indianapolis it is unlikely Indianapolis' transit market share would bear any resemblance to New York's. Indianapolis is typical of most U.S. metropolitan areas in that employment is dispersed.

Policy-makers often fail to appreciate just how powerful the trend toward decentralization is. It is not merely a fixture of upstart metropolitan areas like Phoenix and Orlando; from Los Angeles to New York it is occurring even in the largest and most densely populated areas. Some see suburbanization as an artificial construct, the outgrowth of American policies that supports car-based, single-family home lifestyles. But suburbanization is not an American quirk. It is happening worldwide, in Paris, London, Tokyo — nearly every major metro area in the developed world is decentralizing.

Hoosier Transit Trends

Hoosiers shouldn't be surprised at the overall decline in transit use, particularly in Indianapolis. Indinanapolis accounts for two-thirds of the transit use in Indiana's top five cities. Yet, transit use has plummeted by 16 percent since 2000. Evansville's transit system has barely held even, while transit use in Gary has followed the decline in Indianapolis. While Fort Wayne and South Bend have seen increases in transit use, their gains don't come close to making up for the declines in the other systems. Transit passenger miles per year fell by 8.6 million in Indianapolis from 2000 to 2004 while Fort Wayne and South Bend were able to expand by just 3.1 million passenger miles over the same period.

Hope for Transit's Future?

In its current form transit's congestion-relieving potential remains small. But that's

Public Transit Ridership Trends in Major Indiana Cities

		Annual Passenger Miles		
City	City Population	2000	2004	Change
Evansville	121,582	4,030,488	4,027,128	-0.10%
Fort Wayne	205,727	4,319,913	5,426,706	25.60%
Gary	102,746	4,243,150	3,516,530	-17.10%
Indianapolis	781,870	52,747,966	44,155,353	-16.30%
South Bend	107,789	6,213,861	8,236,925	32.60%
Total		71,555,378	65,362,642	-8.70%

not to say that it is impossible for transit to play a bigger role. In places as varied as Jamaica, Brazil and the Philippines transportation entrepreneurs give transit patrons a wider array of choices than can be found in America's transit monopolies.

The Virtual Exclusive Busway (VEB) concept offers one way the power of pricing can speed up travel for motorists and transit patrons alike. VEBs are lanes that run parallel to regular freeway lanes. Transit buses and vanpools use them for free and solo motorists can buy their way in by paying a toll that goes up and down with the flow of traffic. Variable pricing and electronic toll collection maintain free-flow conditions even during rush hour. The scheme also gives local policy-makers a revenue source that is free from the political vagaries that so often characterize transportation funding. VEBs may also breathe new life into vanpooling, which is perhaps our most cost-efficient and energy-efficient transit mode. With a friendlier regulatory framework, who knows what transit — both public and private — might accomplish?

Unfortunately, transit in Indiana has a long way to go before it can become a viable alternative to the automobile.

Dedicated traffic lanes may breathe new life into vanpooling, which is perhaps our most cost-efficient and energy-efficient transit mode.

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THE ECONOMIC DEVELOPMENT EFFECTS OF HIGHWAY INVESTMENT IN INDIANA

It Depends on Where, How Much and For What

Transportation appears as a necessary but insufficient condition for generating economic development.

by **KONSTANTINA GKRITZA**

As Indiana embarks on its $5.2 billion statewide transportation improvement program, primarily to improve mobility, safety and, according to the state transportation plan, enhance economic growth, an understanding of the potential impact these investments have on the state's economy is important. The preliminary results of ongoing research sponsored by the Indiana Department of Transportation through the Purdue University School of Civil Engineering might be helpful for citizens and policy-makers to evaluate these potential effects of transportation spending.

Highway Investments and Economic Development

As the nation's transportation system has matured, and competition for government funds has intensified, information on how a state department of transportation should prioritize highway dollars has become crucial. Research on the economics of highway investments suggests that there are economic consequences of either under-investing or over-investing in highway construction. If the state under-invests in a highway corridor, economic development will be inhibited because real and perceived travel costs will be greater, and competitive position will be hindered. On the other hand, if the state over-invests in the corridor, overall efficiency will suffer because those funds could have been invested more efficiently elsewhere (other highways could have been built, or existing highways could have been maintained at a higher level, etc.).

Early research on the relationship between highway transportation and economic development, which dates from the 1960s, focused largely on economic and demographic changes occurring after the construction of a section of interstate highway. Research since 1980 began to explore the link between highway transportation and economic development, not simply economic change, and introduced a number of studies which, by various methods, claimed substantial impact on growth.

Recent work on the effects of highway development has been intellectually stimulating to researchers as well as a source of debate within the transportation community. Some researchers believe highway investment is most relevant "when all of the other critical factors already exist in an area (*e.g.,* cost-effective labor, natural

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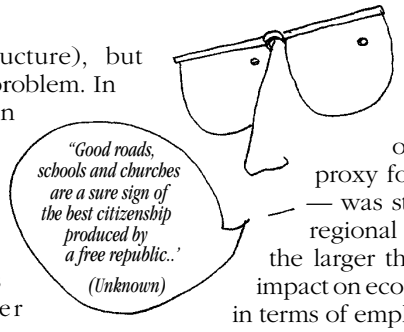
resources, other infrastructure), but transportation access is a problem. In such cases, a transportation investment amounts to adding the last critical ingredient needed to make the area viable." However, once a certain level of accessibility has been achieved, further transportation investments may have little or no additional value to a business. Thus, transportation appears as a necessary but insufficient condition for generating economic development.



Furthermore, the specific nature of the various economic development results that can be associated with new highway investment is not trivial. The effects can vary significantly from project to project depending on highway location, specific economic interests and travel markets served, and the highway project's impact on accessibility and system-wide connectivity. For example, individual highway projects, unless they are of extraordinary scale, are unable to significantly influence a national or multi-state regional economy. In addition, projects that improve local access to employment sites are inherently different from those that improve connectivity between two cities. The relative maturity of a transportation system also needs to be considered. The introduction of new transportation infrastructure into an area with a less-developed transportation system will have a larger impact than a transportation project introduced into an area with a mature system. Results will be marginal in the latter scenario.

Economic Impacts of Transportation Improvements in Indiana

Our study used data from 58 added-capacity projects programmed for the State of Indiana as part of its 25-year long-range plan. This plan provides a vision for the future development of the state transportation system with an emphasis on the state's highway network. We also considered new road construction, median construction and new interchange construction. Our preliminary analysis found that regional economic development appears to be enhanced with highway investments in added capacity. The number of lane-miles — used as a proxy for the size of the project — was strongly influential in the regional analysis: All else equal, the larger the project the greater its impact on economic activity, measured in terms of employment, income, output and Gross Regional Product (GRP).

All else equal, the larger the (road) project the greater its impact on economic activity, measured in terms of employment, income, output and Gross Regional Product.

For example, consider two projects that involve adding a lane in each direction but differ in project length by one mile. In this hypothetical case, the model would predict that the larger project would produce greater economic benefits of the following magnitude: 21 more jobs, one million dollars in additional real disposable income, six million dollars in additional output, and four million dollars in additional GRP. The net effects on the Indiana economy, however, could be higher or lower than the aforementioned values depending on the magnitude and direction of the outcomes the other factors.

Highway improvements such as adding travel lanes can generate benefits by increasing volume-to-capacity ratios, reducing travel time and logistical costs for businesses, which in turn can result in greater business cost savings. Interstate highway improvements, in particular, appeared to have a stronger potential for economic development compared to investments in other highway systems. This could be as a result of the higher dependence of some industries (i.e., manufacturing) on interstates for freight movement and those industries' greater share of economic activity in Indiana.

We found the location of the project was also significant. Adding travel lanes to a highway in rural areas with a less-developed transportation system had a larger impact than a similar project introduced into an urban area with a mature system; a finding consistent with prior research.

Our analysis found that accessibility to airports is another condition for generating economic development associated with highway investment in expanding capacity. For example, all else equal, a project in a region with high accessibility to airports

Economic development is only one dimension for evaluating the benefits of highway investments.

may increase statewide output, GRP and real disposable income by up to $64 million, $32 million and $8 million respectively compared with a project in a region with low accessibility to airports.

Conclusion

Our ultimate objective is to improve the judgment of planners and decision-makers as to whether, and to what extent, a proposed highway investment will result in economic benefits. Our preliminary results suggest that highway investments in expanded capacity can have a positive impact on the Indiana economy. We found statewide economic benefits to expanding highway capacity, especially of rural interstates in proximity to airports.

Economic development, however, is only one dimension for evaluating the benefits of highway investments. Policy-makers screen highway investments based also on economic efficiency grounds, including changes in traffic volumes and patterns. These changes and how they relate to business changes and economic effects for these types of highway investments need to be carefully assessed to make informed investment decisions.

Business attraction benefits are also difficult to predict with accuracy since highway investments are only one factor in the complexity of business location decisions. It is possible to make broad estimates about the types and sizes of businesses that may be attracted to a region as a result of a major highway project.

This should be done, however, with caution. These estimates should not include business-attraction effects that represent net transfers among regions within the study area. Nor should they include industries that do not export their goods to the rest of the country.

Ongoing research efforts include additional data collection on different types of highway improvements *(i.e.,* new road construction, median construction and new interchange construction) and other variables in a bid to address how differing types of highway investment can affect the Indiana economy.

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WHAT WE CAN LEARN FROM OTHER COUNTRIES

In the World of Toll Roads, We're Playing Catch-Up

by SAM STALEY

The Indiana Toll Road privatization may have made national news in the U.S. and thrown Hoosiers for a loop, but these public-private lease agreements have become standard operating procedure in other parts of the world. In fact, Indiana and other U.S. states, despite huge shortfalls in transportation capacity and funding, are playing catch-up by international standards.

In the 1970s, for example, Australia's major urban areas were gripped by gridlock. Decades of opposition to roads by environmentalists and other special-interest groups meant highway access to the downtowns and other central parts of the Aussie's major cities were virtually non-existent. Road infrastructure linking major suburban employment centers was also lacking. Congestion was squeezing the economic lifeblood from these areas. Yet, the Australian government was reluctant to use taxes to fund the needed road capacity improvements. The solution was found in the private sector. Rather than put taxpayer dollars at risk, the Australian national government let private companies propose, bid on, build and operate new roads using toll revenues to pay for most of the cost. In Sydney, Australia's largest city, private toll companies built surface expressways called the M4, M5 and M2 linking the outer and middle suburbs. All are financially successful.

Unfortunately, these highways still weren't enough. Sydney was hosting the 2000 Olympic Games, and it didn't have a highway that linked the suburbs to downtown and the airport. The solution was the five-mile M1 Eastern Distributor. A trip that previously could take 15 to 45 minutes was cut in half and tolling helped guarantee free-flow travel. The Eastern Distributor was important for another reason: it was a tunnel. Tunnels

Privately financed tunnels allowed one city, Sydney, Australia, to preserve the pedestrian-friendly design and neighborhood atmosphere of its streets by keeping large volumes of through-traffic underground.

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The national highway program of toll roads in India will take a decade to build, not three as did the U.S. interstate highway system begun in the 1950s.

are much more expensive to build than surface streets. Yet, tunneling allowed Sydney to preserve the pedestrian-friendly design and neighborhood atmosphere of the surface streets by keeping large volumes of through-traffic underground. By relying on toll revenues, the toll-road authority was able to bypass traditional political objections to expensive road projects based on their huge costs. Most of the money at stake was private capital, not tax revenue.

Currently, nine authorities operate roads in Sydney, Melbourne and Brisbane using tolling to fund improvements and keep traffic flowing at highway speeds. Seven are private companies, most traded on the stock exchanges, or managed investor mutual funds. Indeed, one of the most successful Australian firms, Macquarie, was part of the consortium that successfully bid on the Indiana Toll Road lease, pumping almost $4 billion into Indiana's 10-year transportation plan. Macquarie, in fact, has been so emboldened by its success in Austrialia, it sold most of its Australian toll holdings to concentrate on North America, Europe and Asia.

Australia pioneered the modern version of the public-private partnership, but it is by no means the only one. Cofiroute is a billion-dollar private subsidiary of the French international conglomerate, VINCI, and may be the oldest fully investor-owned roadway concessionaire. Cofiroute operates 600 miles of toll roads in western France alone. Other companies operating toll roads include Autoroutes du Sud de La France, Autoroutes Paris-Rhin-Rhone and Sanef. France has recently privatized all its highways: The nation's road portfolio includes 4,877 miles of roadway under private concession agreements.

Cofiroute's most ambitious current project is the $2 billion, 6.2 mile A86 West tunnel under Versailles. It was Cofiroute's innovative tunnel design that broke a political log jam that kept Parisians on this side of the city stuck in traffic for decades. Another private firm, Compagnie Eiffage, opened the Viaduc de Millau, the world's highest and longest cable-stayed bridge in 2004. The project is also financed through tolls.

All this privatization has benefited the French government. The privatization initiatives have generated $17.8 billion to date.

Closer to home, Hoosiers might want to look north into Ontario for one of the world's most successful experiments with toll financing and road building: the 407-ETR (Express Toll Route). The road was the world's first completely boothless, "open road" toll road. Tolls are collected completely electronically by windshield-mounted transponders in the case of motorists with an established account (80 percent of the tolls) or otherwise through video recognition technology hanging from gantries over the highway lanes. Video cameras take a picture of the license plate, cross-match the plate with electronic toll subscribers and automobile registrations, and then bill users directly.

Toll roads and public-private partnerships are not just for wealthy countries in the West either. India is building 3,625 miles of highway called the Golden Quadrilateral. The highway will serve the same purpose as the U.S. Interstate highway system begun in the 1950s: It will dramatically reduce transportation costs by linking the major economic centers in India, increasing the competitiveness of the entire nation. The difference is the Indian highway program will take a decade to build, not three as in the U.S.

The Golden Quadrilateral is part of the National Highway Development Program which will build and upgrade 14,800 miles of highways overall. Much of this new infrastructure will be operated and funded by the private sector, relying on tolls to finance large chunks of the system. Transportation, it turns out, is one of the areas India's national government is encouraging foreign investment after decades of protectionism.

As part of the highway program's Phase III, public-private partnerships and concession agreements will fund most of this expansion. If all the roads currently being studied are tolled, India's toll-road mileage would be larger than the entire U.S. interstate highway system and have almost as many miles tolled as the toll roads in the U.S. Of course, all these roads will be new.

Thus, while Indiana may be seen as an innovator in the U.S., it's already playing catch-up with the rest of the world.

A TRANSPORTATION POLICY AGENDA FOR INDIANA

More Efficient Options Are Available to Legislators

by GEOFFREY SEGAL and SAM STALEY

The way we finance roads is changing, and that is prompting elected officials on all levels to rethink traditional approaches to funding and designing transportation systems. Traditional means, federal and gas taxes, are limited and increasingly failing to meet the challenges and needs of commuters. From where will the money come to fund a 21st-century transportation system?

In Indiana, traditional funding sources could only cover half the projected transportation needs in the state's 10-year $5.2 billion transportation improvement plan. If it weren't for the innovative (by U.S. standards) public-private partnership agreement for the Indiana Toll Road, Indiana would be facing a severe transportation funding gap. Its transportation network would be crumbling under their tires.

Even traditional tolling, which relies on tax-exempt bonds, is falling short. This is why the Indiana Toll Road lease is important, for Hoosiers and the nation. The concession model — using private equity, bank debt and taxable revenue bonds — is quickly becoming the model for getting the roads we need. It's less risky for start-up toll roads since they're not entirely funded with debt but it also opens up a much larger source of funding. There are literally trillions of dollars in pension funds and insurance companies starting to invest in U.S. infrastructure. Indiana's new 10-year transportation plan represents what is becoming a national shift toward innovative financing that will deliver the roads Hoosiers need faster, cheaper and without new taxes.

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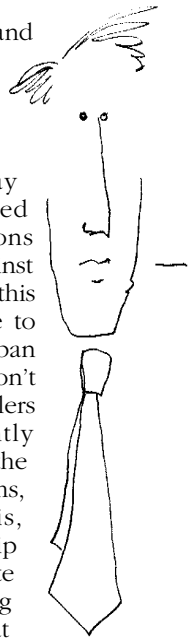
But the Toll Road lease is only the beginning, and state officials should avoid the temptation to lay back. While the new plan allows for a public-private partnership to design, build and operate the missing link of I-69 connecting Indianapolis to Evansville, the debate in the legislature over the Toll Road lease demonstrated to everyone the fickle nature of the current political environment in Indianapolis. Indiana will need to continue to leverage private-sector capital and seek additional partnerships and potential concession deals where appropriate to meet the needs of a 21st-century transportation system.

Meanwhile, the proceeds from the Toll Road lease should be dedicated to the transportation projects identified by the Indiana Department of Transportation (INDOT) as strategically important opportunities, to modernize its highway infrastructure and maintain and strengthen Indiana's claim as the "Crossroads of America." This will mean, as Wendell Cox noted in his article, reconfiguring road networks to accommodate new patterns of commuting and driving. Planners will need to abandon the hub-and-spoke approach

In Indiana, traditional funding sources could only cover half the projected transportation needs in the state's 10-year $5.2 billion transportation improvement plan.

The state could encourage private-sector initiative and innovation by enacting legislation that allows private investors to propose, build and operate large infrastructure projects — a north-south toll road, for example, paralleling I-75 would alleviate substantial automobile and truck traffic.

to transportation networks and build enough capacity to link growing urban centers outside the traditional downtown core.



While transit still may have a role to play, Ted Balaker's analysis cautions Hoosier policy-makers against putting too much stock in this approach as an alternative to automobiles. Indiana's urban transit systems simply don't carry the volume of travelers necessary to significantly reduce congestion, and the state's major transit systems, particularly Indianapolis, continue to lose ridership and market share. If the state is truly intent on designing a transportation system that improves mobility, safety and promotes economic growth, transit's role will have to be well-defined and strategically targeted toward niche markets.

Indiana should also identify and implement privatization opportunities in other INDOT lines of business. With an increase of lane miles, maintenance dollars will be further stretched to meet increased demands. Highway maintenance privatization has been successfully implemented by a number of states, most notably Florida where some 85 percent of all maintenance functions are performed by the private sector. Florida has realized improved road conditions since privatization, and saved more than $120 million annually. Privatization in Florida has enabled the state to stretch limited maintenance dollars on an ever-expanding network of roads.

At least 34 states have privatized all or portions of their highway design, engineering or architectural services generally saving at least 15 percent. Indiana may already utilize some contractors; however, given the ambitious construction plan that Indiana's new transportation plan envisions, privatization is a tool available to INDOT to effectively and cost-efficiently manage the additional workload.

Of particular importance will be ensuring the state creates an environment where innovation in transportation network design and operation flourishes. Transportation reform legislation in states such as Georgia and Texas has allowed the private sector to develop transportation investment proposals independently and pitch them to state officials. Goldman Sachs, for example, has recently proposed building a 15-mile truck-only toll road in the Atlanta area. The proposal would complement another truck-only toll road proposed by Bechtel.

These are projects that, when completed, could substantially alleviate congestion because of freight traffic but would not likely have emerged without an environment encouraging private-sector solutions to Georgia's transportation problems.

Similar projects could make a significant impact in Indiana as well. An Indiana north-south toll road, for example, that parallels I-75 could alleviate substantial automobile and truck traffic.

The state could encourage private-sector initiative and innovation by enacting legislation that allows private investors to propose, build and operate major infrastructure projects that are economically viable and self-supporting.

There is little doubt that Indiana's transportation system needs investment and improvement. Private capital markets have opened the door to making dramatic inroads into solving Indiana's infrastructure needs. The state has taken the first step in realizing the potential and addressing the challenges.

As the most recent legislative session showed, however, a governor can't do it alone. The General Assembly will be a critical partner in modernizing Indiana transportation policy. Indiana must continue down this path and seek further private-sector involvement in order to remain the "Crossroads of America" and ensure it remains competitive in an increasingly global economy.

DOWN ON THE FARM (SUBSIDIES) IN INDIANA

How Many Family Farms Are We Saving?

by ERIC SCHANSBERG

(May 17) In developed countries over the last century, relatively free markets and massive technological advances have resulted in staggering increases in productivity. However, hundred-fold increases in productivity have not been matched by hundred-fold increases in consumption — and so, fewer farmers are necessary.

This economic reality can be tough on farmers, but it is great news overall since resources can be diverted from agriculture to more productive uses. Likewise, technological advances have resulted in increasing economies of scale where large-scale production is far more efficient than production on a smaller scale.

The upshot is that we have significantly fewer and significantly larger farms than in the past. The small family farm has been replaced for the most part by the corporate farm. Even so, tens of thousands of Hoosiers receive millions in direct agricultural subsidies; that is, money taken directly from taxpayers and given directly to "farmers."

In some instances the subsidy payment is for not producing (conservation) or as compensation for an officially proclaimed disaster (rather than using private insurance). Other subsidies are indirect. In many markets, competition is squelched, allowing farmers to charge higher prices. For example, one must possess one of the few available licenses in order to grow and sell peanuts in the United States.

Trade protectionism is another common tool for restricting competition. In other markets, the government has artificially increased the market price and then dealt with the surplus by storing it, giving away or even destroying it.

Most significantly, farmers of some crops benefit from target pricing. Farmers are promised an above-market price that artificially stimulates production. This results in lower market prices, but this requires a subsidy from taxpayers to bridge the difference between the market price and the promised price.

This is good for consumers and producers but at the expense of taxpayers. Moreover, it is clearly inefficient (if you think not, try artificially increasing prices in every market).

Looking at the data from 2004, the Organization for Economic Cooperation and Development (OECD) estimated total direct subsidies from taxpayers of $46.5 billion. This represented 18 percent of total farm income — not exactly small potatoes. (Interestingly, taxpayers only paid for $27.1 billion in food stamps that year.) And the OECD estimated indirect subsidies of $16.2 billion

The small family farm has been replaced for the most part by the corporate farm. Even so, tens of thousands of Hoosiers receive millions in direct agricultural subsidies.

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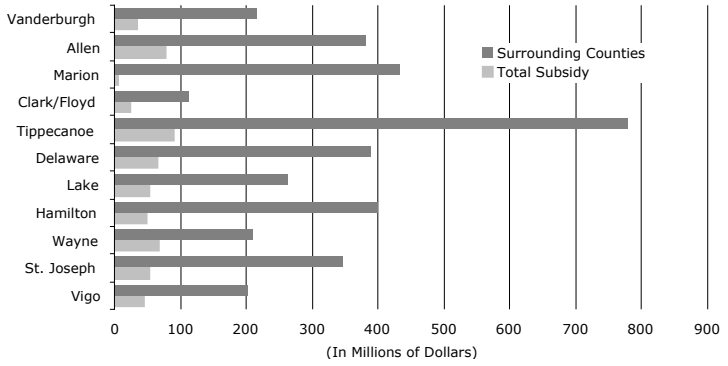
The list of heavily subsidized "farmers" includes Ted Turner, David Rockefeller, Sam Donaldson, Scottie Pippen and, in Indiana, the relatives of John Mellencamp.

from U.S. consumers — through higher product prices. Combining the impact on taxpayers and consumers, our farm programs imposed a burden of $836 on the average family of four in 2004. That's a lot of hay.

Indiana Farm Subsidies by Selected Counties



The Environmental Working Group provides a data set on direct farm subsidies from 1995 to 2004 (www.ewg.org/farm <http://www.ewg.org/farm). There you can see the monies transferred from taxpayers to the rich and famous — people like Ted Turner, David Rockefeller, Sam Donaldson, Scottie Pippen and the relatives of John Mellencamp. But you can also analyze annual farm subsidies by county, congressional district or state, and by crop and type of subsidy program.

For example, over that time period (using round numbers), 3.12 million Americans received subsidies worth $144 billion — costing the average family of four nearly $2,000 for the decade. Of that, 87 percent of the subsidies went to the top 20 percent (who averaged $201,000 apiece) and 55 percent went to the top five percent (averaging $506,000).

In Indiana, 55,000 people received subsidies worth $6.03 billion — and the distribution is nearly identical to the national numbers. Among other things, it's important to note that most of the subsidies go to relatively few family farms.

In the United States, corn dominates direct subsidies with $41.8 billion (almost 30 percent of the total) redistributed to 1.49 million people. The next highest are wheat ($19.8 billion), cotton ($15.8 billion), soybeans ($13.0 billion) and rice ($10.0 billion). Other direct subsidies include sorghum ($3.7 billion), dairy, livestock, peanuts and barley. In Indiana, corn also dominates ($3.25 billion to 101,000 people) followed by other high subsidies for soybeans ($1.15 billion to 78,000 people) and wheat (260 million to 60,000 people).

For American farmers, subsidies for conservation (being paid not to farm) totaled $16.6 billion to 700,000 people (about $220 from each family of four). And "disaster" relief amounted to $11.9 billion to 1.18 million people (about $160 from each family of four). That's a lot of disasters. In Indiana, conservation subsidies were $347 million to 28,000 people and "disaster" relief was $112 million to 23,000 people.

One should expect farmers to cultivate relationships with politicians. But allowing them to take advantage of the public as illustrated here is asking the rooster into the hen house. The outcome is clearly bad for American taxpayers and consumers as well as for farmers in less-developed countries.

In the interest of justice, it's time to end these subsidies.

Every Payday Is Tax Day

(April 16) The tax man came this week. Actually, he comes all year-round. But on April 15 he is most obvious — and most irritating. It's bad enough that he takes so much money, but why does Congress make us spend billions of hours filling out forms to pay him? (Does anyone know how many members of Congress fill out their own tax forms?)

Aside from April 15, we usually don't pay much attention to federal taxes on income for four reasons:

First, taxes are withheld from our paychecks before we ever see the money. Think how much different it would be if everyone had to write a quarterly check to the government

for his or her tax bill. Rep. John Hostettler has introduced a bill to eliminate withholding. Its chief merit would be to make the true cost of government much more obvious.

Second, the taxes on income are divided into payroll taxes and so-called income taxes. Of course, two smaller taxes are less obvious than one larger tax.

Third, some of the tax on income is hidden — under the guise of employers paying half of the payroll tax on labor. But don't be fooled. Employees bear the brunt of the employers' half as well — through lower wages. If this seems odd, ask yourself who bears the brunt of taxes on gasoline and cigarettes. Do you think the gas station picks up the tab for those taxes?

Finally, payroll taxes are ignored because they're rarely a part of our political discussion. Ironically, although income taxes are far more famous, it turns out that payroll taxes impose a larger burden on 80 to 90 percent of working Americans.

The payroll tax is used to finance Social Security and Medicare — as money is taken from current taxpayers and given to current retirees. Some workers can opt out of the system — ministers (as a matter of "conscience") as well as some public school teachers and other government employees (who have their own retirement plans). Everyone else loses 15.3 percent of every dollar earned. (There was an income cap of $90,000 in 2005 for 12.4 percent of the tax; the other 2.9 percent tax applies to all dollars earned.)

Unlike the income tax, there are no deductions or exemptions for the payroll tax. Every single dollar is taxed. As such, it is easy to imagine why payroll taxes typically impose a larger burden than income taxes. And it should be easy to see why the working poor are hit hardest of all.

Using IRS data from 2003, income taxes began to exceed payroll taxes at an average "adjusted gross income" in the $125,000-130,000 range — with an average of $110,000 in wages and $14,000 each in payroll and income taxes.

Using the 1040 tax form from 2005 (assuming the standard deduction and no other income), a married family with two children would start paying income taxes on any income earned above $41,000. Meanwhile, they were already hit up for more than $6,000 in payroll taxes ($500 per month). A working poor household with at least one child and earnings of $20,000 would be nowhere near paying any income taxes, but would already be out more than $3,000 in payroll taxes ($250 per month).

Again using the 1040, income taxes begin to exceed payroll taxes at a wage income of $55,500 for singles. For a head of household with two children, income must be nearly $100,000 before income taxes exceed payroll taxes. For a married couple with one parent working and four children, income must be nearly $150,000. It is easy to see why payroll taxes are usually more dominant in their effect than income taxes.

The wage income at which income tax on wages begins to exceed payroll taxes:

Single	$55,500
Head of Household with two children	$98,850
Married with two children, one parent working	$115,000
Married with two children, both parents earning less than $90,000	$148,200
Married with four children, one parent working	$130,900

Why do so few people talk about payroll taxes? As noted above, it is relatively difficult to see the burden of payroll taxes. But part of the answer is political.

Republicans are more interested in reducing income taxes — where the upper half of the earnings distribution pays nearly all of that tax. Meanwhile, Democrats are happy to posture in opposing income tax reductions for "the rich."

One would think Democrats — as supposed defenders of the poor and the working class — would at least talk about reducing taxes on those groups. But they don't seem to be particularly fond of any tax reduction — and they apparently gain

One would think Democrats, as supposed defenders of the poor and the working class, would at least talk about reducing taxes on those groups.

Hoosiers obtain bigger helpings of pie when immigrants work. Such immigrants may be likened to labor-saving technical innovations. Only welfare-state handouts enable immigrants to slice the pie against Americans.

too much political mileage from bashing any attempts to reform Social Security.

Wouldn't it be better to eliminate all deductions (except perhaps charity), to exempt all income below the poverty line from taxation, and then to impose a flat tax on any income earned about the poverty line? It would be much more efficient in terms of compliance. And it would be much less painful for the working poor who get hammered by payroll taxes.

Alas, such reforms seem far away. In the meantime, happy "Payroll and Income Tax Day" to you.

Immigration: Tomatoes Aren't Free

by Jim McClure and Norman Van Cott

(May 22) Do immigrants slice themselves a piece of the U.S. economic pie at the expense of Hoosiers and other Americans?

Judging from the backlash against immigrants, many Americans apparently accept this assessment. As a result, immigration now connotes U.S. international charity. Public debate focuses on whether the United States can "afford" immigrants.

Casting immigration as a test of American compassion obscures a rational appraisal of its costs and benefits. Working immigrants do not slice the economic pie against Americans. Quite the contrary, Americans obtain bigger helpings of pie when immigrants work. Such immigrants may be likened to labor-saving technical innovations.

Only welfare-state handouts enable immigrants to slice the pie against Americans. Prior to the welfare state, immigrants had to work to survive. U.S. history is replete with examples demonstrating that working immigrants benefited not only themselves, but also the Americans who employed them and the Americans who purchased what immigrants produced. Today, handouts have eliminated the necessity of immigrants benefiting Americans in order to survive.

To see the value of working immigrants, look at what happens if low-wage Mexican immigrants replace high-wage American tomato-pickers. Such a replacement can occur only to the extent Mexicans underbid Americans for the picking jobs. For example, if American pickers are earning $12 million, and if the most they can earn in other jobs is $10 million, Mexicans must be willing to pick the tomatoes for less than $10 million, say, $7 million.

Regardless of who picks the tomatoes, U.S. citizens cannot have tomatoes without foregoing other goods and services. There are no free tomatoes. Because American pickers can earn $10 million in other jobs, U.S. citizens sacrifice $10 million of other things when Americans pick. On the other hand, paying Mexicans $7 million for picking means they can lay claim to $7 million of U.S. products. Thus, U.S. citizens sacrifice only $7 million of other things when Mexicans pick. Opting for Mexican pickers enables U.S. citizens to have the tomatoes plus an extra $3 million of other things.

Not all U.S. citizens are better off when Mexicans pick the tomatoes. American pickers lose $2 million. They formerly earned $12 million, now they earn $10 million. Many people think this $2 million is part of the $7 million paid to the Mexicans — that is, Mexicans capture what the American pickers lose. Nothing could be further from the truth.

The loss to American pickers goes to other Americans. It is part of the $5-million reduction in wages paid to pickers due to the influx of Mexicans ($7 million versus $12 million). Lower costs in wages obviously help American owners of tomato farms. In turn, market forces translate lower wages into lower tomato prices for American consumers. Not a penny goes to the Mexicans.

Beyond reshuffling $2 million among American pickers, farmers and consumers, remember that the Mexicans generate a $3-million additional pie for U.S. citizens. This is also the other part of the $5-million reduction in wage costs. Just as happened with the $2-million reshuffling, market forces apportion this extra pie among American tomato farmers and consumers.

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Lower tomato prices also give Americans the opportunity of using tomatoes in ways that were uneconomical at higher prices. It follows that the benefits tomato consumers reap from these new uses make the increase in the economic pie even larger than $3 million.

If someone invents a machine that can underbid American tomato-pickers, the consequences for American pickers, farmers and consumers are identical to those brought about by low-wage Mexican-pickers. That is, the reduced harvesting costs: 1) Re-cut the pie into different pieces for pickers, farmers and consumers; and 2) enlarge the pie to the benefit of the same farmers and consumers.

Given the similarity between working immigrants and innovation, it is curious that immigrants are seen as parasites. American heroes such as Thomas Alva Edison and Alexander Graham Bell testify to the value that historians assign innovation.

Admittedly, seeing people work for lower wages does not pack the same excitement as seeing new machines roll across the fields. Nevertheless, both pack the power to increase Americans' living standards.

Hoosier Oranges: Economics Is More Than Counting Jobs

(Fictional News Flash: Purdue University professors have developed an orange-production technology for Indiana. State economic development experts lauded the news, saying hundreds of new jobs are coming. "The hemorrhage of Hoosier dollars to Florida is over," said one.)

by Norman Van Cott

(April 5) So, can Hoosiers ride oranges to the economic Promised Land? A land filled with new jobs and retained dollars? The news flash is fictional. Nevertheless, it captures what passes for "thinking" about state and local economic development these days. To wit: quick fixes, innovative technologies, lots of new jobs and buying less from others.

That Purdue professors could develop such a technology is not surprising. Purdue University is an excellent research university. Construction, monitoring and maintenance of climate-controlled facilities obviously require engineering and agricultural expertise, expertise that commands premium salaries. That is what makes the new jobs "good" in media-speak.

How good is "good?" That depends on what the skills pay in their non-citrus jobs. Jobs do not have intrinsic value. Orange producers will have to match market wages or they will not hire anyone. Will the jobs pay above-market levels? No. Employers who pay such wages end up with over-qualified or over-paid employees and non-competitive cost structures. That is a prescription for business failure.

What if Hoosier orange producers were major employers of particular skills? Would that put upward pressure on wages? Sure, but the pressure would be temporary. Spikes in wages like this trigger in-migrations of people from other areas. The incentive for these in-migrations continues until the wage disparity is eliminated.

Land and housing prices rise as a consequence of the in-migrations. And contrary to wages, the land and housing price rises will be permanent. That is because new land cannot migrate to Indiana. Property tax revenues will piggyback on this rise in land values. Maybe this explains why real estate and local government interests figure so prominently in the jobs hype that surrounds development schemes. Slogans about "good jobs" divert attention away from the true beneficiaries of the schemes — landowners and local government tax coffers.

The bottom line is that the vaunted orange jobs will be good jobs only to the extent the industry employs people who already have good jobs. New employers do not magically transform workers' sows' ears skills into silk-purse skills. Skill enhancement runs the other way. It is a long process of people investing in themselves, making themselves more valuable to employers. Even on-the-job training is a time-consuming activity where workers are anything but passive.

It is important to remember that jobs are means by which we achieve ends — in this case, consumption of oranges. Jobs are not ends in themselves, except for workaholics. It follows that the smaller the amount of productive resources — that is, the fewer jobs — Hoosiers devote to getting oranges, the higher will be their living standards.

Jobs are not ends in themselves, except for workaholics. For example, the smaller the amount of productive resources (that is, the fewer jobs) that Hoosiers devote to getting oranges, the higher will be their living standards.

Some educators think that it is unfair that private schools win a disproportionate share of state championship titles. Their plan to correct that situation, however, was just plain crazy.

Fewer jobs tied up in getting oranges free up resources to produce other things. Even, it should be noted, if getting oranges involves a so-called hemorrhage of Hoosier dollars to Florida orange producers.

This latter lesson gets lost in the state and local economic development experts' jobs hoopla. Their message begins and ends with the number of jobs — the more the better. Never mind what is being produced by these jobs. Never mind whether Hoosiers are getting more for less. Never mind that any gains to workers will be at best ephemeral. And most important, never mind that hiding behind the hoopla are the true beneficiaries of the development experts' agenda — landowners and local-government tax coffers.

Another Misguided Attempt At Making all Things Equal

by Andrea Neal

(April 26) A couple of students in my class get "As" all the time and their peers are getting jealous. It's time to level the playing field. From now on, I will handicap all students who receive a 95 or higher by multiplying their scores by 90 percent. That way, a grade of 100 will actually be a 90, a 99 will be an 89, and so on.

While I'm at it, I'd like to give the "B" students a morale boost. So I will multiply all grades between 80 and 90 by 1.1. A student who receives an 88 on a test will get a 97; a score of 91 will be a perfect 100.

Sound crazy? You bet. And yet that's close to what the Indiana High School Athletic Association considered May 1 and rejected at least for now. A proposal before the IHSAA board would have multiplied the enrollment of non-public schools by 1.5 for determining class sports placement. That way, a football powerhouse such as Cathedral High School in Indianapolis would have moved from 4A to 5A; the elite Park Tudor School (a single-class tennis power but certainly no football dynasty) would have shifted from A to 2A. The reasoning for the change was about as sound as mine for handicapping straight-A students. The private schools win a disproportionate share of state championship titles and that's unfair. By making them compete in a larger-school class, it would help level the playing field.

The idea is discriminatory, perhaps unconstitutional. What amazes me is that so many educators advocated it with a straight face.

"What we're saying is non-public schools can control their enrollment where public schools must take every student in our districts, and I'm glad we do," said Janice Bergeson, principal at New Palestine High School, one of the three schools in the Hoosier Heritage Conference that introduced the plan.

Football is a case in point. In Class 4A, private schools comprise 4.8 percent of the members, but 28.6 percent of the champions. In 3A, they are 16.1 percent of the class, but 81 percent of the champions. "When you look at the discrepancy, it's so lopsided," Bergeson says.

For purposes of disclosure, I teach at a private school, but it stops at eigth grade so I have no personal interest in this fight. For me, and I suspect most Hoosiers, it's a matter of principle. Should we handicap children based on real or perceived differences, whether in natural ability, training regimens or affluence? And if we do so in sports, shouldn't we do the same with math contests and spelling bees, debates and musical competitions?

This was not a public *vs.* private school issue. It's about resources and the willingness of schools and parents to invest countless hours and dollars in elementary school and league sports, intensive training, private coaches and conditioning.

It's true that some Catholic schools — not all of them wealthy — take football more seriously than catechism. It's true that most children at inner-city schools couldn't afford to pay $40 a week for 30 minutes in a batting cage. Is the remedy to try and equalize outcomes, or does it make more sense to try to equalize opportunity? A more meaningful solution would have been to launch a foundation to raise athletic training money for schools with high poverty rates.

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At that May 1 meeting, the IHSAA board considered an alternative proposal by Fort Wayne South Side High School Principal Thomas Smith and Athletic Director Jerry Amstutz. This one came closer to addressing the resources gap. Their plan would have adjusted enrollment by different multipliers based on a school's percentage of children on free or reduced-price lunches.

Whatever the IHSAA eventually decides in coming years, it shouldn't penalize children. A multiplier that treats them differently hurts both public and non-public students who understand one fundamental sports principle, even if adults don't. A championship doesn't mean as much if you're not competing against the best.

Term Limits? Indiana Voters Are Deciding Enough Is Enough

(May 8) Lawmakers with long tenure in the Indiana General Assembly should make note of a refreshing trend. Voters are imposing term limits. It happened twice in the May 2 primary: to Senate President Pro Tempore Bob Garton of Columbus, a 36-year veteran, and to Rep. Mary Kay Budak of LaPorte, a 26-year member of the Indiana House.

Two years ago, it happened to Larry Borst of Indianapolis, the Republican who served 38 years, a quarter-century as Senate Finance Chairman. In 2002, Steve Johnson of Kokomo experienced voter rejection after 16 years in the Senate and four in the House.

Garton's loss has been blamed on his lengthy incumbency, defense of lifetime health benefits and a strong pro-life turnout for opponent Greg Walker. Budak attributed her defeat to her support of Major Moves, Gov. Mitch Daniels' controversial toll-road lease plan.

That Garton and Budak lost to fellow Republicans suggests voter desire for change was a factor. Neither candidate was enmeshed in a scandal, as was Johnson, who admitted to an affair with an intern. Both have been well-liked by voters. "This wasn't about the Toll Road; this was about time for change," Tom Dermody said of his 71 percent win over Budak. Both also were seen as old-timers too long at the public trough, a fact underscored by Garton's refusal to entertain reform of legislative retirement and health-care plans that had attracted the ire of taxpayers. And both losses were described as upsets in media reports. Any time an incumbent loses, it's an upset because of the name recognition that comes with the office.

Voter-imposed term limits are the exception, not the rule here. Many lawmakers serve decades before retiring or being retired, despite the clear intention of our framers that public service be temporary and rotated among the citizenry. In large measure, this explains why otherwise dedicated public servants such as Garton become attached to legislative perks, and are caught by surprise when voters get angry.

Fifteen states impose term limits for state legislators, ranging from six to 12 years for representatives to eight to 12 years for senators.

Hoosier citizens have no way to get a term-limit referendum on the ballot so it would be up to the legislature to propose a constitutional amendment. That's unlikely to happen without a voter groundswell.

A chief benefit of term limits is that they encourage participation of more people, including women, minorities and the young. "In most states, the absence of term limits severely limits the competition for legislative seats," according to a 2003 Cato Institute research paper.

In Indiana, there is little competition in the general election and less in the primary. Although all 100 House seats are on the ballot in 2006, only 20 incumbents faced competition on May 2. Statewide, there were only 33 contested House primaries involving either party.

In states with legislative term limits, it's a different story. In California, for example, only six of 100 legislative seats were uncontested in 2004.

Our founders left term limits out of the U.S. Constitution because they could not foresee that politics would become a career for so many. It has. The defeats of Garton and Budak were the voters' way of saying: We do not want a legislature of lifers.

In 2004, the last general election, 57 of 125 Indiana House and Senate races were uncontested; that's 46 percent, down from a 50 percent uncontested rate in 2002. In California, where legislative term limits are in effect, only six of 100 legislative seats were uncontested in 2004.

How're things going? Well, the state's more-conservative U.S. senator has voted to raise the minimum wage (don't worry, he's just running for re-election); our governor was out of state in pursuit of an ecodevo rainbow; and the Indianapolis newspaper monopoly is getting impatient with our noncompetitiveness.

Politics

This summer, Sen. Richard Lugar joined 43 Democrats, seven Republicans and an Independent in voting for Sen. Edward Kennedy's proposal to raise the federal minimum wage.

(See "Term Limits?" on previous page.)

Economics

The governor was out of the state and country at this writing, on another of his successful trips to Japan. It is there that he and other governors count coup on jobs that voters can be made to believe Honda and Kia award for political charm.

Prior to his triumph, the governor took time to report back to Mary Beth Schneider of *the Star:*

> The harder I looked at it, the more I was convinced that the best prospects for jobs in the near or intermediate term were in Japan.

This, please know, was only to flatter his Japanese hosts. What the governor meant to say was:

> The harder I looked at it, the more I was convinced that the best prospects for jobs in the long term were right here in Indiana, where our companies, especially the smaller privately held ones that create most new jobs for native Hoosiers, are constricted by thoughtless and self-defeating taxes on both their operations and their property. But I really needed to get out of town for a few days . . .

Governance

A long-time member of the foundation was troubled by the dire policy implications of our issue on "Local Governance: To Consolidate or Not," which included a survey of the most-recent research papers on municipal consolidation. He was eager to get the other side of the story.

At his first opportunity, our man asked the leader of his city's progressive consolidation movement for his own research on the issue. A few weeks later our friend got his answer — two locally published books, "Governing Metropolitan Indianapolis: The Politics of Unigov" by C. James Owen and York Willbern, 1985, and "The Politics of City-County Merger: The Lexington-Fayette County Experience" by W.E. Lyons, 1977.

Yes, the most recent of these arguments for a new way of doing things was published 21 years ago.

Society

Our man Dr. Richard McGowan, professor of philosophy at Butler University, for years has been warning readers of this journal about disparities in the treatment of boys and girls. Now comes a report from the Reason Foundation that would set off riots if it were quantifying any other characteristic.

> Nationally, about five percentage points fewer white male students and three percentage points fewer Asian male students graduate than their respective female students. While 59 percent of African-American females graduated, only 48 percent of African-American males earned a diploma. Further, the graduation rate was 58 percent for Hispanic females, compared with 49 percent for Hispanic males.

Media

An editorial in *the Indianapolis Star,* "Hoosiers Take One-Way Route Out," stumbles over this most important statistic: for the first time in recent history, more people are leaving Indiana than are coming.

The editors, however, confuse the historic cure (getting government out of the way of market incentives) with the modern cause (throwing money and regulations at every problem). There is no hint they understand the horrific drag that Indiana's ineffective government schools apply to our local economies, let alone the discouraging effect statewide of closed-shop union rules.

So the best they could do was this bit of boilerplate rah-rah:

> We desperately need better schools, better communities and better job opportunities for Indiana to compete not only with other states but also nations around the world. Faster. Now.

Well, duh . . .

Unemployment In State Hurting Kids

The above headline in the June 27 Indianapolis Star led readers to a story linking the absence of a fully employed adult in the household with the welfare of any children living there.

(A member suggests that this was accepted as news because the editors had theretofore thought children were totally in the care of their public school system.)