Do Unexploited Economic Development Opportunities Exist within the Indiana Toll Road Corridor?
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The Indiana Toll Road passes through three Regional Development Districts, three Indiana Economic Development regions, three workforce investment regions – all without contiguous borders. In addition, the Indiana Toll Road (ITR) crosses seven counties, seven enterprise zones and dozens of cities and towns. This highway corridor is 157 miles long and has 22 exits serving a population of more than 1.2 million. The infrastructure of the ITR links these communities and people across a large trade flow area including greater Chicago. Chicago is the third largest container handling port in the world and is in the top 20 for rail, water and air transport. The Chicago National Transportation Analysis Area (NTAR) ships and receives more than 1.5 billion tons of goods and more than one-third of the nation’s rail and overland truck traffic. The freight volume of the Chicago area exceeds major trade centers such as Los Angeles. As the international trade will continue to grow, this will fuel the growth of containerized intermodal shipping. This region holds national importance with respect to commodity flows and is host to a large share of several manufacturing sectors, large research universities and broad agricultural resources.

Recognizing the importance of this region to the performance of the national and state economy and as a home to more than half a million Hoosier families, the Indiana Toll Road Economic Development Corridor Study initiative (ITREDCS) commissioned this study. Presented here is an incremental analysis of a much larger benchmarking and strategic delineation effort outlined in the study scope of work. The purpose of this first analytical process is simply to evaluate whether or not economic development opportunities exist along the corridor that could be furthered by future economic development efforts.

Estimating the Experience of Highway Corridors

Estimating the effect of transportation infrastructure has a long history. Evaluating the efficacy of economic development efforts has likewise been approached from several different research traditions. To date, no combined study of both infrastructure and economic development efforts has been seriously considered. In a previous study, Hicks (2006) provided an estimate of the effect of new road construction in Indiana. In order to estimate the aggregate effect of these investments, we use historical evidence of the impact of completing interstate highway networks in Indiana. Hicks [2006] details the expansion of highways and their effect on retail trade in Indiana. We use data on Indiana interstates from 1969 through 2004. We match the presence of a completed highway section during that period with economic data available from the Bureau of Labor Statistics, Regional Economic Information System. From this we create a model which measures the exposure of a county to a completed of economic activity in Indiana. The model takes the form:

\[ Y_{i,t} = \alpha + \beta I_{i,t} + \epsilon_i + \epsilon_t + \epsilon \]

where the economic variable \( Y \), in each of Indiana’s 92 counties over the 35 year period is affected by a constant term, the opening of a completed interstate highway in the county, and year and county error terms as well as the normal white noise error term. We test this model on tax receipts gathered within each county and total county employment in each year. The model enjoys very high levels of explanatory power (with an R-squared of greater than .80) and p-values for the interstate better than .01 in both estimates.

1. Data from the Bureau of Transportation Statistics.
2. Data on household and industrial mix from the Department of Labor’s Bureau of Labor Statistics, the Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System and the Department of the Census.
3. See: Conducting Benchmark Research on other Similar Corridors Nationally Concept “We propose to perform a series of benchmarking studies which together will provide a comprehensive view of the region. Our intent is to understand the Indiana Toll Road Corridor within the context of other corridor focused economic development efforts, both in the U.S. and Internationally. Within this process we will develop an understanding of the success and failures of other corridor initiatives, integrate opportunities in existing commercial economic activity and infrastructure to leverage those successes and identify potential new or emerging commercial opportunities for the region.” (Ball State University research team, Response to RFQ).
4. While this is an unusually narrow research question, an early answer to the pressing question as to whether the Indiana Toll Road Region had exhausted all potential economic development efforts was an important consideration to one member of the ITREDCS steering committee.
The result of this treatment model suggests that highways have a non-transient and large impact on tax revenues and employment. In particular, tax revenues from a county which has an interstate highway rise by $74,000 (in 2004 dollars) the year the highway opens, and continue to experience larger tax collections throughout the remainder of the sampled period. This represents roughly 5% of collections. Counties with interstate highway enjoy more than 4,400 additional employees as a result of the opening of an interstate. However, the increase in employment from a new interstate opening takes longer to materialize than does tax revenues (perhaps three additional years). This is due, in part, to a decline in the transient construction work on the interstate highway itself.

**Case Studies of Corridor Efforts**

In addition to the effects of new highway openings, we are able to provide some insight as to the effectiveness of corridor economic development efforts. While disentangling these effects from those of the infrastructure is understandably difficult, case studies provide some insight. We begin with an analysis of the Dulles Access Road, which linked central Fairfax County (inside the Washington, D.C. Beltway) to Dulles Airport and the relatively undeveloped area around it in Loudon County, Virginia. This effort included significant economic development efforts in conjunction with partners along the Dulles Access road, which was formally opened in 1984.

To model the combined effect of the road opening and the associated economic development efforts, we use a method employed by Hicks (2004) which compares the actual performance of a county economy with a forecast of that economy. In this case we use a forecast model employing three annual lagged moving averages, an autoregressive component integrated over three periods, an intercept and an error term assumed normally distributed with a mean of zero. This is an ARMA (3,3) model used on data from 1969 through 1984 and compared to the remaining years. This graphic (see Figure 1.A) clearly illustrates the performance of the economy at the terminus of the Dulles Access Road performed far better than expected following the opening of the road and the associated economic development efforts.

The Interstate 43 corridor in Wisconsin connected Milwaukee and Green Bay through five counties. Employing a similar ARMA(3,3) model on the combined personal income of these five counties from 1969 through 1981, when the road was completed we find that the performance of the region sharply exceeded the forecast for the region. See Figure 1.B.

However, the region did not prosper uniformly, with the performance of the most rural county—Manitowac—lagging the others significantly. Indeed, this county did not share in the pros-
perity of the corridor counties for almost a decade, and continues to lag in total personal income. See Figure 1.C.

In Virginia, Interstate 73 is a planned extension of a future component of the Interstate highway system. Though as yet unbuilt, the projected deployment of this interstate is expected to add significant development and productivity increases to the region of southwest Virginia. The estimated impacts, from a recent study are outlined in Table 1.

As mentioned, it is technically challenging to estimate the impact of highway infrastructure from other economic effects influencing a region's economy. In addition, disentangling an estimate of regional impact of infrastructure from active and effective economic development efforts is even more technically challenging.

The Experience of Other Corridor Economic Development

To evaluate this question, the Ball State University research team read and examined more than 100 studies of highway corridors in over 30 states and two dozen countries (see Figure 2). From these studies, we identified broad development considerations that could be nurtured within the ITREDCS region to promote greater prosperity and quality of life for current and future residents. These findings fall into four broad categories: policy and research; planning; economic and institutional integration; and development and re-development. While the studies and recommendations we reviewed often provided significant insight into other aspects of economic and infrastructure development, these four functional areas are designed to highlight potential opportunities for the ITR region identified by existing studies.5

Preliminary Study Findings

What follows is a highly summarized list of potential economic development opportunities identified in this process. These are issues for supporting research, policy, planning, integration and development efforts identified within the existing research performed on other corridors. Altogether, this element of the study identified more than 50 potential opportunities with the potential to guide economic development efforts. It is not exhaustive. While the collection of studies reviewed for this preliminary study is as comprehensive as any we are aware of, many findings within these studies have not yet been included in this list. Moreover, contract specifications and study design criteria prevented an exhaustive analysis of activities occurring within the corridor region. That effort will follow in Phase I benchmarking efforts.6

<table>
<thead>
<tr>
<th>Table 1. I-73 Impact Simulation</th>
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<tr>
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<tr>
<td>Cost Saving (productivity)</td>
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<td>Business Services</td>
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<tr>
<td>Distribution Center</td>
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<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Policy and Research

- Encourage mixed use within nodes to enhance population potential of transportation nodes.
- Discourage retail sprawl, so as to concentrate public services within a lower cost region.
- Further research the effect of interchange location on industrial structure and its implications for land use planning and economic development strategy.
- Improve human capital matching for new employees leading to new infrastructure and educational program development for continual retraining of IT workers for the regional workforce.
- Identify state and national policy support for high priority efforts, link funding streams, policy and marketing support to these efforts.
- Identify agglomeration activities and features along the highway and track fiscal and programmatic support for clusters.
- Increase integration of public transport systems with roadways.
- Focus economic development efforts on enhancing network effects (removal of leakages, promotion of agglomeration benefits).
- Identify systematically the benefits of key infrastructure and improvements to residents, commuters and shippers.
- Property values at nodes alter urbanization/industrialization gradient, so consideration of these changes is needed.
- “The success of such projects [corridors] depends on the efficient allocation of responsibilities between public and private sector participants” (Fishbein and Babber 1996). So, analysis of the potential for public/private partnerships is needed.
- “[T]he development of industry, creation and expansion of residential and environmental improvements were especially notable in toll road areas . . . stimulated socioeconomic and regional development” (Parasabaiu 2005) Thus a regional

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5. See also Ball State University Response to RFQ: “Comparative Analysis of this Corridor region with others: Using the framework for evaluating other Corridor Initiatives, we will also perform direct quasi-experimental comparisons of the Indiana Toll Road region with other similar leased highways.”

6. See June, 2010 ITREDCS team meeting minutes.
Figure 2. Global Study of Tollways and Highway Corridors

Illinois/Indiana: Tollway and Corridor Studies

Texas: Toll Roads in Study Area

California: Orange County’s Toll Roads

Florida: US Route 1 and Interstate 4

Illinois/Indiana: Tollway and Corridor Studies

Texas: Toll Roads in Study Area

California: Orange County’s Toll Roads

Florida: US Route 1 and Interstate 4
model of economic activity should be maintained to assess growth in the corridor.

• “[T]here will have to be local marketing, supporting infrastructure and services and land development controls and assistance mechanisms to insure that these investments [in corridors] succeed and are better off as a result” (Rychanowski et. al. 2005)

• An inventory of business service providers (e.g. angel investors, SCORE, SBDC, etc.) is required across the region.

• Grant feasibility studies and regional prioritization should guide investment decisions, both regionally and locally.

• Share resource availability as a tool for leveraging larger sets of developable site options within the region.

• Broad Tax Increment Financing (TIF) districts would ease development costs.

• Shared property tax receipts for large scale regional developments would facilitate regional cooperation on projects with truly regional impacts.

• “Regional response to toll roads is affected by the enumerated differences determining the real character of impacts on a region’s aspects such as traffic, land use economic structure and residents welfare” (Clower & Weinstein 2006)

• Extended benefit/cost analysis for public private partnerships would provide a clearer picture of appropriate uses for this growing area of service provision.

• Creation of utility districts would offer significant benefits to development efforts.

• Identify high value air shipment products to region and target development opportunities and infrastructure improvements that leverage these commodity flows to wealth creating activities within the region.

• Demand summary by household income with projections offers a key input to many business location decisions, infrastructure plans and economic development strategies and can be completed regionally.

Planning

• “A major challenge facing the development of this region is that there is no regional coordinating organization” (Hicks and Puttaiah 2004)

• Regions lacking a plan for a transition to high tech growth fail to integrate available public services.

• Strategic Highway Corridor Concept to improve, protect and maximize the capacity of existing corridors is critical to statewide mobility and regional connectivity.

• Long range multi-modal statewide transportation plans are needed to prioritize key investments.

• Moderate incompatible land uses to preserve high valued options.

• Craft IT standards for new construction so that inevitable vacancies reduce subsequent redevelopment costs.

• Develop small area planning recommendations such as urban commercial design zones.

• Design standards for ITR to provide a common recognizable look.

• Develop design guidelines for certain areas including access control, landscape, signage, wayfinding, lighting, parking, pedestrian and non-traditional vehicles

• Capital improvement plans/strategies should be integrated across region.

Economic and Institutional Integration

• “Economic development along interstate corridors appears to be mediated by contextual factors including regional location, inherited industrial structure and degree of urbanization” (Lakshmanan et. al.)

• Identify probable occupational mix changes to inform type of development (office vs. industrial use for example).

• Detailed labor force environmental scan, close understanding of labor shed and forecast of occupation and human capital changes are needed to align economic and community development efforts with workforce and higher education goals.

• Economic development is preceded by actions other than solely the pursuit of economic opportunity (planning, infrastructure, site and building availability, for example) and should be communicated to stakeholders effectively.

• Diversification of industrial mix is influenced by both tax structure and infrastructure development and should be considered along with human capital planning.

• Understand infrastructure capacity as part of intermodal plans, to guide long range investment.

• Craft a strong marketing plan that produces newsletters, provides material and a common look; conduct outreach, organize public safety training, produce a map and business directory, publicize incentives, awards for support and maintenance of new media presence.

• Unify marketing plans, increase deployment of radio, emerging media and wayfinding.

• Commercial corridor overlay as part of an integrated approach to economic and community development planning.

• Integrate plans into policy (fiscal, regulatory, regional).

• Encourage joint planning for business parks.

• Support efforts to secure additional rail access to key rail sites.

• Pool incubators and regional incubator network to gain efficiency and improve effectiveness.

• Unify brownfield prioritization
Significantly increase communication and coordination between business attraction and retention efforts.

Develop grant stacking strategies targeting priority activities across region.

Funding source access and sharing to complete regional priorities.

Match congestion projections to land use plans at the regional level.

Economic positioning strategy, with a supra-regional or national focus, aids in marketing efforts.

### Development and Re-Development

- Four lane extensions (to connections on interstates) promote economic development.
- Focus on developing gathering places with mixed high density nodes at key locations.
- Support transit-oriented development, with prioritization in mostly densely populated areas.
- Encourage a wide variety of business types along the corridor.
- Support housing development to attract human capital.
- Support small business as a key provider of job creation.
- Improve identity of corridor to support industries with quality of place focus.
- Develop a physical plan that integrates key infrastructure across the region.
- Protect environmental resources throughout the corridor beginning with a review of zoning ordinances.
- Explore low cost options for civic and community use of brownfields.
- Aesthetic design criterion to support quality of place.

### The Path to Strategic Planning and Integration

The findings listed in this study provide only highly summarized results from a review of existing studies of transportation corridors. A much more extensive process that includes heavy regional involvement is needed to evaluate, test and prioritize these and the nearly infinite range of additional opportunities available to the community. However, we extract examples of opportunities and outline potential actions that develop these opportunities in the region.

### Policy and Research

Focus economic development efforts on enhancing network effects (removal of leakages, promotion of agglomeration benefits). The development of regional efforts to bolster economic activity often includes public private partnerships to reduce supply chain leakages and promote agglomeration economies. A truth of regional modeling is that the broader the region the greater the opportunity to reduce leakages, hence the greater the economic benefit of efforts to link businesses with suppliers and customers. One potential approach is the construction of a regional supplier database which promotes individual local businesses. In addition, the careful nurturing of public private partnerships within the region, that support existing industries through shared marketing and networking efforts is a key element of efforts to promote agglomeration economies.

### Planning

**Design**

*Design standards for Indiana Toll Road to provide a common recognizable look.* Marketing and promotion of the ITR, to craft a recognizable branding around this key infrastructure requires considerable coordination of efforts. These efforts may include common informational architecture (digital and signage), the introduction of a common look to promotional and wayfinding information, the development of online trip planning and web based GIS mapping of sites and broadcast and smart signage along the corridor region.

### Economic and Institutional Integration

**Pool incubators and regional incubator network to gain efficiency and improve effectiveness.** Among the more insightful opportunities revealed in this review of studies is the creation of incubator networks. Since incubators and other entrepreneurship related activities possess both network effects and economies of scale, a centralized management of regional incubators could reduce both the cost of operations and the cost of acquiring information. These observations naturally clarify the real opportunity for regional collaboration and significant opportunities within the toll road region. An example of an incubator network would be to centralize the focus, management and information exchange of the ITR regional incubators—most likely proximal to a university commercialization center—and rely upon satellite incubators to offer lower cost business development services.

### Development and Redevelopment

**Explore low cost options for civic and community use of brownfields.** Both the Economic Development Administration and the Environmental Protection Administration focus re-development efforts on brownfields. Both organizations provide significant funding and analytical support to these efforts. However, in many communities, commercial redevelopment of brownfields is unlikely. An alternative, especially in more densely populated urban areas is the use of brownfields for civic or community development opportunities.
### Table 2. Comparisons with Other Economic Development Corridors

<table>
<thead>
<tr>
<th>Focus</th>
<th>I-39</th>
<th>I-43</th>
<th>Central Texas Economic Corridor</th>
<th>Indiana Toll Road</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics</td>
<td>Logistics</td>
<td>Logistics</td>
<td>Providing site location assistance to companies considering a relocation or expansion to Central Texas.</td>
<td>Determine the feasibility of creating common economic development objectives and initiatives serve seven Indiana counties along the Indiana Toll Road.</td>
</tr>
</tbody>
</table>
| Length of Corridor | • 323 miles from Janesville, WI to Bloomington, IL  
• 141 miles within Illinois  
• 182 miles within Wisconsin | 192 miles from Beloit, WI to Green Bay, WI | 37 miles from Copperas Cove to Temple | 157 miles connecting the Chicago Skyway to Ohio Turnpike |
| Counties           | LaSalle, IL  
Lee, IL  
Marshall, IL  
McLean, IL  
Ogle, IL  
Winnebego, IL  
Woodford, IL | Columbia, WI  
Dane, WI  
Marathon, WI  
Marquette, WI  
Portage, WI  
Rock, WI  
Waushara, WI | Bell  
Coryell | Elkhart  
LaGrange  
Lake  
LaPorte  
Portage  
Steuben  
St. Joseph |
| Major Cities       | Janesville, WI  
Beloit, WI  
Rockford, IL  
Bloomington, IL  
Normal, IL | Beloit  
Green Bay  
Greenfield  
Manitowoc  
Milwaukee  
Sheboygan | Belton  
Copperas Cove  
Killeen  
Temple | Elkhart  
Gary  
La Porte  
Portage  
South Bend |
| Numbered Exits     | 75 | 61 | 26 (I-35 in Bell County) | Road: US 85; I-90 |
| Airports           | • 8 in corridor  
• proximity to O'Hare and Midway in Chicago  
• Country's fastest growing airport  
• UPS's 2nd largest Air Hub for cargo and express delivery | • 9 in corridor  
• General Mitchell International Airport (Milwaukee) is the biggest in the state (over 3 million enplanements in 2008)  
• 4 public in corridor  
• Killeen/Fort Hood Regional Airport (military/commercial joint use)  
• 5 public in corridor  
• South Bend Regional Airport- largest in corridor; 2nd largest in the state | |
| Rail               | 7 major transcontinental rail systems provide access to Chicago:  
• CP Rail System  
• Iowa Interstate  
• Iowa, Chicago & Eastern  
• Illinois Midland  
• Lincoln & Southern  
• Union Pacific  
• Wisconsin & Southern | 4 major transcontinental systems:  
• Canadian National  
• Canadian Pacific Railway  
• Union Pacific  
• Wisconsin & Southern RR | 2 major transcontinental rail systems traverse in Bell County:  
• Union Pacific  
• Burlington Northern Santa Fe  
9 major rail systems:  
• Chicago, Ft. Wayne & Eastern  
• Elgin, Joliet, & Eastern  
• Indiana Harbor Belt  
• Chicago, Southshore & South Bend  
• Norfolk Southern  
• Canadian National/Grand Trunk  
• Elkhart & Western  
• Grand Elk  
• Indiana Northeastern | |
| Waterways/Ports    | Barge terminals along the Illinois River connect to Great Lakes, St. Lawrence Seaway, Atlantic Ocean, Mississippi River, and the Gulf of Mexico.  
• Port of Green Bay: the western-most port of Lake Michigan; 2 million tons of cargo each year.  
• Ports at Manitowoc, Sheboygan, Milwaukee, and the Port of Washington on Lake Michigan |  
• Leon River  
• Lampasas River |  
St. Joseph River  
Kankakee River  
Indiana-Burns Harbor: 30 miles from Chicago; enables shippers to transport products efficiently by truck, rail, barge, ship or container to and from manufacturing and agricultural markets of IN, IL, MI and OH. | |
| Corridor Associations | I-39 Logistics Corridor Association | Central Texas Economic Corridor (CTEC) | Owned by Indiana Finance Authority and the Indiana Toll Road Concession Company |
| Database           | Site and Building | | | |
| Marketing          | Found in the following publications:  
Illinois Real Estate Journal  
Chicago Industrial Properties  
Northern Illinois Real Estate | | | |
These four examples are not recommendations, nor are they clearly important options for the region. They instead represent the type of unrealized economic development opportunities which exist along the Indiana Toll Road.

Benchmarking: Initial Findings and Conclusions

Highway transportation corridors present bona fide opportunities for successful collaboration among economic development stakeholders within the corridors.

Selected Comparisons Among Corridors

While existing corridor-focused economic development initiatives vary significantly in such areas as (1) the clarity with which they articulate strategic areas of focus, (2) the organizational structures around which they mobilize, (3) the populations and economic bases of corridor regions, (4) the resources they provide to potential investors, (5) the populations within the defined regions (6), U.S. and international regions, (7) the integration of the highway corridor with alternative transportation modes, (8) apparent levels of success, and (9) funding sources and levels as well as a other important characteristics, leveraging resources to attract investment and economic activity around transportation corridors represents an area of opportunity supported by longitudinal economic studies and scholarly published research, as well the more qualitative measures of enhanced business development resources created by collaborative endeavors, such as providing meaningful industry data to targeted business sectors.

Among the four corridors studied more intensively Figure 4 for this report, the Indiana Toll Road corridor is near the mean length at 157 miles (studied corridors ranged from 37 to 323 miles), population (1.3 million); is the lowest of the four in per capita personal income ($34,347 vs. $36,991, $37,753, and $49,480) and offers the potential for connection with the most number of railroads (nine, vs. seven, four, and two) as described in Table 2. The Toll Road also offers the fewest number of exits at 20 (vs. 26, 61, and 75). Like three of the four corridors studies, it is contained entirely within one state, but unlike any other studied, it borders three other states.

Strategic opportunity delineation

Two of the corridors under study, I-39 and I-43, were focused exclusively on the logistics sector for investment and development; the Central Texas Economic Corridor professes to provide a set of services and assistance broadly to companies considering expansion or relocation within the corridor. The Indiana Toll Road Corridor at present has not developed a strategic focus. See Table 2.

Correlations and causations

While certain findings and conclusions presented here and elsewhere within this report identify certain correlations—such as economic growth in a corridor with a clearly delineated strategic focus—this report and others of its nature suggest nor conclude any causation between these correlations. See Table 3.

Areas for additional study

This report concludes first that the Indiana Toll Road corridor is similar to other highway transportation corridors around which collaborative economic development initiatives have resulted in the development of resources that may precede economic development success.

An example is the detailed logistics support and economic data, building and site availability, and economic and demographic data and information available on the I-39 Logistics Corridor Web site (http://www.i39logistics.com/ ) might help business investors and developers make informed decisions concerning the likelihood for success of a logistics investment within the corridor.

Additionally, Indiana Toll Road corridor economic development stakeholders can be expected to benefit from collaborative endeavors with the purpose of exploring common economic development opportunities supported by targeted corridor benchmarking efforts focused on areas of common interest, and with further support of unbiased economic research.

Summary and Conclusions

In accordance with the scope of work and contract, the findings of this review of corridor studies offer an exceptionally terse overview of key economic opportunities available across the Indiana Toll Road corridor. Many of the recommendations contained within this study reflect activities performed by communities and economic development regions. Few, if any, are performed in a coordinated effort across the entire toll road region. This alone represents a major conclusion across the dozens of studies reviewed – a regional coordinating body, of some type, is viewed as highly important to achieving regional economic development goals. The scope and function of these groups vary greatly.

At the micro-level we find a number of activities that are not performed across the region. As one example, the research findings suggest scale economies in entrepreneurial and technology based incubators exist across regions. The presence of a large research university with internationally recognized technology
activities invites the observation that it be used to centralize key incubator activities across the region.

The leverage of state and national policy toward the region is likewise an important consideration apparent in the research. This is especially true for such a large, regionally important corridor. Thus, the synchronization of large regional development efforts from federal agencies along with statewide infrastructure planning (e.g. intermodal) offers an important and untapped opportunity.

In the end, this research was designed to answer one specific question: Do untapped economic development opportunities exist along Indiana’s toll road? Our research unambiguously tells us that they do.

### List of Selected References


Chesterfield County, Community Development Division, Office of Revitalization 2008. *Jefferson Davis Corridor: Revitalization Program and Analysis*.


Department of Planning and Community Development Bureau of Planning 2005. *Martin Luther King Jr. Drive Corridor Transportation Study*.


Ernst & Young Transaction Advisory Services Limited 2008. *The Economic Contribution of Sydney’s Toll Roads to NSW and Australia*.


Florida Gulf Coast University, Lutgert College of Business, Regional Economic Research Institute *Southwest Florida Regional Business Incubator Planning Study*.


### Table 3. Corridor Summary

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<td></td>
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<td>37,117-$42,046</td>
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*Source:* Bureau of Labor Statistics

July 2009 to August 2010.

Average wage/job.

Average wage/job.

Average wage/job.
Hodges 2007. Toll Road Leasing Programs: Ready to Roll?
Johnson et al 2007. Toll Road Privatization Transactions: The Chicago Skyway and Indiana Toll Road. School of Public and Environmental Affairs, IU.
Landform 2007. Highway 7 Corridor Study and Small Area Plan. City of Hutchinson, MN
LECG 2006. Economic Benefits of Toll Roads Operated by the Transportation Corridor Agencies. Emeryville, California
Moving Minnesota, Minnesota Department of Transportation, Dakota County, Rosemount MN 2002. Highway 52/42/55 Interchange and Highway 55 Regional Corridor Study.
NW Financial Group, LLC 2006. Then there were two…Indiana Toll Road vs. Chicago Skyway
Perry 2002. Review of Economic Development Impacts of Transportation Improvement: Two and Four Lane Corridors. MoDot Research, Development and technology transfer
Prozzi et al 2006 Guidebook for Identifying, Measuring and Mitigating Environmental Justice Impacts of Toll Roads
Raytown, Kansas City, MARC and MoDot 2007. 350 Highway Blue Parkway Corridor Plan.
RBCI and CH2M Hill 2010. Idaho Transportation Department Idaho 8 Corridor Study Stakeholder Survey Summary.
RDG Planning and Design 2008. Lincoln Highway Special Corridor Study: Story County, Iowa.
Regional Plan Association 2007 Rockland County Tappan Zee Corridor Transit-Oriented Development Study.
Suffolk County Department of Planning 2008. Sunrise Highway Corridor Study: Islip Town and Brookhaven Town, Suffolk County, New York.
The US Agency for International Development and National Tourism Organization of Serbia, Serbia Pamphlet.
U.S. 1 Corridor Master Plan, Titusville, Florida.
URS Corporation-North Carolina, Gibson Engineers, PC, Martin Alekiou Bryson, PLLC, Simon Resources, Inc. 2010 US 64 Corridor Study Wake and Chatham Counties Corridor Study Report.