



# Indianapolis Metropolitan Planning Organization Mass Transit Funding Study

August 6, 2007





## Table of Contents

<b>Table of Contents</b> .....	<b>1</b>
<b>Purpose of the Study</b> .....	<b>2</b>
<b>Analysis of the Tax Base and Potential Revenues</b> .....	<b>4</b>
Taxable Income .....	4
Salaries and Wages.....	5
Tax Increment Areas .....	6
Public-Private Partnership Development.....	7
Retail Sales.....	9
Food and Beverage Sales .....	11
Motor Fuel Tax.....	11
Vehicle Mileage Tax .....	12
Motor Vehicle Wheel Tax and Excise Surtax .....	14
<b>Issues Related to Variation Between Estimated and Actual Revenues</b> .....	<b>15</b>
Volatility Due to Economic Trends and Conditions .....	15
Volatility Due to State, Regional and County-Level Inequities .....	16
Short-Term and Long-Term Sensitivities due to Rate Changes.....	17
<b>Other Systems Research</b> .....	<b>18</b>
<b>Appendices</b> .....	<b>22</b>
Appendix A: Local Option Income Tax Revenue Model.....	22
Appendix B: Salaries and Wages Revenue Model.....	23
Appendix C: Retail Sales Tax Revenue Model .....	24
Appendix D: Food and Beverage Tax Revenue Model .....	25
Appendix E: Motor Fuel Sales Tax Revenue Model.....	26
Appendix F: Vehicle Mileage Tax Revenue Model.....	27
Appendix G: Wheel Tax Revenue Model - Minimum Fee .....	28
Appendix H: Wheel Tax Revenue Model - Median Fee .....	29
Appendix I: Wheel Tax Revenue Model - Maximum Fee .....	30
Appendix J: Excise Surtax Revenue Model - Minimum Fee .....	31
Appendix K: Excise Surtax Revenue Model - Median Fee.....	32
Appendix L: Excise Surtax Revenue Model - Maximum Fee .....	33
Appendix M: Estimated Total Incremental Revenue Model .....	34
Appendix N: How to Use the Revenue Models .....	35



Crowe Chizek and Company LLC  
Member Horwath International

10 West Market Street, Suite 2000  
Indianapolis, Indiana 46204-2975  
Tel 317.632.1100  
Fax 317.635.6127  
www.crowechizek.com

August 6, 2007

Ms. Amy Inman  
Indianapolis Metropolitan Planning Organization  
200 East Washington Street  
Suite 1821  
Indianapolis, Indiana 46224

Dear Amy:

Per your request, Crowe Chizek and Company LLC ("Crowe") has performed a Mass Transit Funding Study (the "Funding Study") to identify and provide information regarding potential sources of revenue which may be used to develop capital and operating funds necessary to meet the future mass transit needs of Indianapolis and the nine-county area which surrounds it (collectively, the "Metropolitan Area"). The Funding Study includes an analysis of tax bases and potential revenues, analysis of issues related to variation between estimated and actual revenues, and an assessment of existing funding strategies for other systems. The results of this Funding Study are contained in the enclosed document, dated July 23, 2007.

This Funding Study is based on estimates, assumptions and other data developed by us from knowledge of, and participation in, other tax revenue analyses and studies, general industry data, reports and data supplied by and in consultation with the MPO, and other sources believed to be reliable.

In the course of preparing this Funding Study, we have not conducted an audit, review or compilation of any financial or supplemental data used in the accompanying Appendices. We have made certain projections of revenues which may vary from actual results because events and circumstances frequently do not occur as expected and such variances may be material. We have no responsibility to update this Report for events and circumstances occurring after the date of this Funding Study.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael A. Claytor".

Michael A. Claytor



## Purpose of the Funding Study

The purpose of this Mass Transit Funding Study (the “Funding Study”) is to provide information regarding potential sources of revenue which may be used to develop capital and operating funds necessary to meet the future mass transit needs of Indianapolis and the nine-county area which surrounds it (collectively, the “Metropolitan Area”). In particular, future transit systems will be needed to address growing demand for commuter transportation between Indianapolis and the remainder of the Metropolitan Area. For many years, Indianapolis has served as an employment and social hub for central Indiana, with commuting patterns exhibiting a large differential between the number of residents who come to the Metropolitan Area for employment, entertainment, healthcare, and many other reasons, versus those who commute to counties outside of the Metropolitan Area.

As the Metropolitan Area continues to grow, and as more suburban communities are developed, the demands on traditional forms of transportation, such as automobile transportation, will increase to an unsustainable point, resulting in insufficient highway infrastructure, higher costs of transportation, lost productivity and stress on the environment.

The Metropolitan Planning Organization (MPO) is charged with the responsibility of analyzing and planning for the long range strategic transportation needs of the Metropolitan area. The MPO is responsible for transportation planning in an area known as the Metropolitan Planning Area (MPA). The present MPA is based on the 2000 Census and includes all of Marion County and portions of the surrounding counties of Boone, Hamilton, Hancock, Hendricks, Johnson , Morgan and Shelby, where suburban growth has occurred. Although Madison County is not included in the MPA, commuting patterns, plus the presence of Interstate 69 in the County provide a basis for including it with the MPA in this Funding Study (collectively, the “Study Area”).

As a part of the MPO's Funding Study, a comprehensive funding analysis must be undertaken to determine how major investments in public transportation can be supported with a dedicated, reliable source of funding. This Funding Study comprises but one phase of the overall planning for the future transportation needs of the Study Area.

We have identified three major tasks as part of this Funding Study. The major tasks are:

- Analysis of Tax Base and Potential Revenues
- Identify Issues Related to Variation Between Estimated and Actual Revenues
- Assessment of Existing Funding Strategies for Other Systems



## Analysis of the Tax Base and Potential Revenues

The largest single task is the Analysis of Tax Base and Potential Revenues. We have analyzed on a county by county basis the nine (9) counties in the Study Area with results reported in total and by county when possible. Tax bases that we have examined include:

- Taxable Income
- Salaries and Wages
- Tax Increment Areas
- Retail Sales
- Food and Beverage Sales
- Motor Fuel Tax
- Commuter Mileage

Using these bases, we have created estimates of potential revenues and a spreadsheet model to assist with “what-if” analyses to project future revenues by source and in combinations of various sources.

As a final part of this section, we present an analysis of the variables which may affect each revenue source and the stability of each funding mechanism. Some of these may be broadly categorized as:

- Volatility Due to Economic Trends and Conditions
- Volatility Due to State, Regional and County-level Inequities
- Short-term and Long-term Sensitivities Due to Rate Changes

## Alternative Revenue Sources

For the analysis of alternative tax or revenue bases to be considered, the project team and appropriate persons selected by the MPO participated in a brainstorming session to discuss various alternatives to those laid out in the current plan. We analyzed these potential revenue sources for the ability to generate sufficient revenue for the project and an assessment of public and political willingness to direct such sources to the project. Where appropriate, the tax or revenue base for these sources were estimated and included in the spreadsheet model outlined above so that they can be analyzed along with the traditional revenue sources.

## Funding Strategies for Other Systems

We performed the research necessary to assess how other proposed mass transit systems are expected to be funded for Charlotte, North Carolina; Denver, Colorado; and Portland, Oregon as subjects for research. This Funding Study includes data on the funding scheme for these systems as well as information on unique funding sources used by other systems that arose during the course of this research.



## ANALYSIS OF THE TAX BASE AND POTENTIAL REVENUES

### Taxable Income

The analysis of potential revenues which may be derived from the imposition of income taxes is a relatively straightforward process. For this part of the analysis, the most recent tax return data (Tax Year 2005) was obtained from the Indiana Department of Revenue for Indiana and the Study Area. Indiana taxable income is based on federal adjusted gross income (AGI) reported on the taxpayer's federal income tax return. Indiana AGI is determined by making certain adjustments to the federal AGI (e.g., renter's deduction). After Indiana AGI is established, the taxpayer may further reduce income subject to taxes by deducting items such as the personal exemption amount and personal deductions. The result is taxable income, to which state and local income tax rates are applied.

Indiana Income Tax, is imposed at a rate of 3.4% on the adjusted gross income of a taxpayer that is earned in the state after all exemptions and deductions ("taxable income"), but before credits are applied. In addition, counties have the option of imposing local option income taxes (LOIT) for general government, property tax relief and economic development purposes. The three taxes available under Indiana law include the County Option Income Tax (COIT), the County Adjusted Gross Income Tax (CAGIT) and the County Economic Development Income Tax (CEDIT). Both COIT and CAGIT are mutually exclusive taxes with individual maximum rates of 1%. CEDIT has a maximum individual rate limitation of .5%. Counties, however, may impose combinations of COIT and CEDIT, or CAGIT and CEDIT, at rates up to 1% or 1.25%, respectively. LOITs are collected at the same time state income tax is collected. Taxpayers will determine and pay their local income tax on the same tax return form as their state taxes.

Because the data used in this Funding Study is derived from actual tax returns submitted by individual taxpayers, any analysis of the effects of imposing an additional dedicated income tax may be derived directly from this data set without further need to analyze additional data. For purposes of estimating revenue from the imposition of an additional tax rate, we have selected calendar (tax year) 2005 data because it is the most recent year for which tax return data is currently available and because the current statutory method for the distribution of LOITs provides that the certified distribution of LOITs to local units of government is based on tax returns processed for the tax year which precedes the calendar year in which a county's certified distribution is made. Certified distributions are mailed to the County Auditor's office in August or September of the year before the County receives its certified distribution. Thus, the LOIT revenue to be received by a County in 2007 is based on certified distribution given to the County in 2006. Therefore, the amount to be received by a County is based on tax returns processed for tax year 2005.

### ***Local Option Income Tax (LOIT) Revenue Model***

The tax base for the LOIT revenue model is tax year 2005 state taxable income. The model projects that, for every .10% increase in the LOIT rate, \$37,245,000 in annual revenue is created. From this model, it could be projected that a 1%, or 10 times .10%, increase in the LOIT rate would create \$372,450,000 in revenue.

The LOIT Revenue Model output is located in Appendix A.



## **Salaries and Wages**

Although many may regard salary and wage data as being equivalent to taxable income, they are defined differently and have distinctly different uses. The easiest way to view salary and wage data is that it is a significant component of taxable income, but usually results in lower amounts reported than taxable income. Even agencies which specialize in the collection of salary and wage data will use different subsets of data in their public reports.

For example, the United States Bureau of Labor Statistics (BLS) collects information on covered employment and wages and is considered an authoritative, accurate source on this data. This data is used as baseline data for the United States Bureau of Economic Analysis's (BEA) total wage and salary disbursements data. Both data sets use the same basic definition of salary and wages, but a major difference is what entities report the data and adjustments that are made in subsequent uses. BLS requires employers who are subject to state unemployment laws and federal employees unemployment compensation program to report covered wage data, but will not include wages that are exempt from unemployment insurance requirements. The BEA makes adjustments to this data based on federal tax returns (e.g., unreported tip income) and data from other sources to calculate a more comprehensive report on wages and salary disbursements; therefore, BEA data will report a higher amount of wage and salary data than BLS.

For purposes of this analysis, however, a key question to be answered is which is the most appropriate tax base for estimating the impact of an employment tax. Generally, employment taxes are applied to the wages paid to workers by employers in the taxing jurisdiction. These taxes are usually applied to a defined wage base that follows the BLS definition of covered wages. For example, the employer tax imposed in the State of Oregon's Tri-county Metropolitan Transportation District (TriMet) is based on gross payroll, including salaries, commissions, bonuses, fees, payments to deferred compensation plans and other items of value. Exempt payroll includes federal credit unions, public school districts, 501(c)(3) and other tax-exempt institutions, insurance companies, and domestic service in a private home. These exclusions are very similar to the types of exclusions found in BLS covered wages.

We believe, based on our research of available data, the best data to use in estimating an employment tax will be BLS covered employment and wage data. In addition to its established use for a similar purpose as this Funding Study, this data has the advantage of being updated in a more timely fashion than other reports; therefore, we believe that this data is best suited for an analysis of the impact of a possible employment tax.

### ***Salaries and Wages Revenue Model***

The tax base for the salaries and wages revenue model is total 2005 salaries and wages paid to covered employees. A salaries and wages tax would be a new tax; therefore, all revenue created by the tax would be incremental. The model projects that, for a .10% tax rate, \$34,390,000 of annual revenue is created. From this model, it could be projected that a 1%, or 10 times .10%, salaries and wages tax rate would create \$343,900,000 in revenue.

The Salaries and Wages Revenue Model output is located in Appendix B.



## Tax Increment Areas

It is well understood and documented that economic development tracks directly to transportation corridors. Businesses with a logistics component require well-developed transportation systems whether road, rail, port or inter-modal to move goods, and all businesses rely on the movement of people. Although all transportation projects drive economic development, roads, rail and ports primarily drive the development of new manufacturing and distribution jobs, while mass transit generally drives more service related jobs.

The primary method used by governmental entities in Indiana to capture the value of economic development, and use that value to provide incentives to assist development, is tax increment financing. Tax increment financing (“TIF”) is available to Indiana counties and cities and towns to provide incentives or infrastructure assistance for economic development projects.

Tax increment allocation areas (“TIF areas”) operate by allowing new incremental assessed valuation to be carved out from the taxing district and the tax dollars on that development diverted to purposes other than general governmental expenditures. In the Study Area, there are numerous TIF areas used by various underlying units of government ranging from small one-employer TIF areas to large areas of retail development like the Circle City Mall TIF in downtown Indianapolis. A regional entity overlaid where TIF areas already exist would have to work through conflict issues if the opportunity to capture incremental growth presented itself. For example, under Indiana statutes, if a County TIF area is annexed by a City, the County continues to collect incremental taxes (on all but the City portion of the tax rate) only as long as there is outstanding debt service to be paid from the TIF area at which point the TIF is required to end. There are no current provisions that would allow the allocation of TIF among overlapping jurisdictions.

In addition, Indiana TIF statutes generally do not allow the capture of tax increment from residential properties. Since mass transit projects often drive residential development as much as light commercial development, a prohibition against capturing residential TIF eliminates a great deal of the potential for capturing the type of new development that might be generated by mass transit projects.

With two factors that could limit the ability to apply TIF to the Indiana mass transit model (existing TIF areas and residential prohibition), a new approach could be developed to use TIF financing to support mass transit projects. Since residential TIF is not available to the potential competing jurisdictions, it could be carved out as available to the mass transit entity.

One of the primary issues with residential TIF is school corporations perceive that the development is creating a financial drain on the corporation by bringing more students into the district without paying school property taxes. An example of how to address this issue comes from the Illinois TIF model. Generally, in Illinois TIF areas, if the residential development brings new students into the district, the first revenues from tax increment must be used to pay an amount to the school district equal to its per pupil cost. If residential development does not generate any students, no tax increment revenues are paid to the school corporations. Since many mass transit oriented residential developments are geared toward people without children, the impact of paying school corporations for tax increment revenues may be minimal, allowing this type of development to generate funds for transit projects.

The value of TIF is based on new development times the tax rate of property with the area. Property tax rates vary greatly within the area under study. As illustrated by the chart below, the average tax increment across the Study Area that could be generated by an investment of \$1 million in real property is approximately \$16,000 per year. Over a 20-year period using a discount rate of 6%, that would equate to a financing value of approximately \$184,000. Using the same methodology, an assumption could be made that, for every \$1 million investment in real property, \$184,000 of financing value is created. For example, a \$10 million investment in real property could create a financing of \$1.84 million.



**Average Tax Rate and Revenue Generation**

Per \$1 Million Investment by County (Pay 2006)

<u>County</u>	<u>Average Gross Tax Rate (1)</u>	<u>Average Net Tax Rate Real and Other Personal (1)</u>	<u>Average Net Tax Rate BPP (1)</u>	<u>Average Real Property Tax on \$1 Million (2)</u>	<u>Average Personal Property Tax on \$1 Million (3)</u>
Boone	2.1299	1.6152	1.7738	\$ 13,729	\$ 7,095
Hamilton	2.3221	1.7821	1.9753	15,148	7,901
Hancock	2.2546	1.6805	1.9015	14,284	7,606
Hendricks	2.4604	1.8822	2.0838	15,999	8,335
Johnson	2.4790	1.8840	2.0906	16,014	8,362
Madison	3.1484	2.3824	2.7270	20,250	10,908
Marion	3.3757	2.5951	2.9624	22,058	11,850
Morgan	2.0109	1.4183	1.6241	12,056	6,496
Shelby	2.4065	1.7065	1.9868	<u>14,505</u>	<u>7,947</u>
Average (000)				<u>16,000</u>	<u>9,000</u>
Average (000) Net Present Value over 20 Years at 6%				<u>\$ 184,000</u>	<u>\$ 103,000</u>

(1) Average tax rates represent the average among all taxing districts in that county for the 2005 Pay 2006 tax year.

(2) Real property tax on \$1 million investment assumes the property is assessed at 85% of cost.

(3) Personal property tax on \$1 million investment assumes pool 2 depreciable property first year assessment of 40% of cost.

**Public Private Partnership Development**

Another option open to the development of mass transit is the use of a public private partnership (“3P”) model. This type of model is in the early development stages in the United States and is being examined in several contexts, including public transportation.

While 3P arrangements have received substantial publicity with the Chicago Skyway and Indiana Toll Road privatizations where large up-front payments were made in order to receive the concessionaire contract, there are 3P models other than the up-front payment model that could be used in the development of a mass transit system.

In the 3P model, the governmental entity contracts with a company to provide the service desired in return for a share of the revenues of the project. Because of the private contractual arrangement involved and the Federal tax law limitations regarding exclusive private use of governmental property that is financed with tax-exempt bonds, 3P project financing has specific limitations. There are three different 3P financing models that can be considered for the development of a new transportation project.



- Tax-exempt Qualified Management Agreement Model
- Long-term 3P Agreement (with or without an “up-front” payment)
- Tax-exempt Long-term 3P Transportation Projects using Federal Transportation Volume Cap

The tax-exempt qualified management agreement model is used in many 3P projects where the underlying financing and ownership of the project stays with the governmental entity and only operational management of some or all of the project is contracted out to the private entity. An example of this type of 3P project is the City of Indianapolis Department of Waterworks. The qualified management agreement is limited as to term and how compensation is calculated in order to maintain the tax exemption on the bonds that finance the project.

The long-term 3P agreement model does not fit within the qualified management agreement rules, and, therefore, the underlying financing for the project cannot be done using tax-exempt bonds. Because of the long-term nature of the agreement, the private manager is willing to make a substantial up-front payment in order to win the concession. That up-front payment is recovered over the term of the agreement. An example of this type of 3P project is the Indiana Toll Road concession.

In order to provide incentives for the use of 3P project financing, Congress has allocated \$14 billion of Volume Cap for tax-exempt financing of new 3P projects that would not otherwise qualify for tax-exempt financing due to the limitations in the qualified management agreement rules. Volume Cap is a Federally created program that allows for certain amounts of tax-exempt financing to be used for projects that would otherwise require taxable financing. Most volume cap programs are administered by allocations among the states; however, this allocation is administered on a national basis. Qualifying projects apply to the U.S. Department of Transportation (DOT) for allocations of volume cap.

If some type of 3P project were to be considered in order to establish a mass transit system, the following considerations should be kept in mind.

Shifting the “Up-Front Payment” Privatization Model to “Provision of Needed Assets” Privatization of long-term assets by governmental entities is often pursued in order to take advantage of up-front payments that may be offered in the negotiation or bidding process. An alternative to the up-front payment is a commitment on the part of the private operator to construct specific capital investments in addition to the normal operation, maintenance, repair and capital investment required in the contract. A private contractor may be able to construct certain assets more efficiently in particular situations, allowing the governmental entity to realize more net assets for the same dollar value. In addition, shifting the requirement to construct assets to particular specifications rather than required payments, shifts the risk of construction inflation and other capital risks to the private company as a part of the transaction.

Tax-Exempt Privatization Either through a not-for-profit organization, or by using its own bonding capacity, the regional transportation entity could privatize the new service through the use of a qualified management agreement. The use of a qualified management agreement allows the continued use of tax-exempt financing even though the service is run by a private company. This approach may reduce the amount of any up-front payment in a transaction and may require any such payments to occur at specified points in the future, but this approach will assure more value over the long term due to the reduced cost of capital in the transaction.

Volume Cap Qualification Because the service proposed is a new service, it may qualify for a grant of tax-exempt volume cap by the U.S. DOT. US DOT has been authorized to grant up to \$14 billion in volume cap to qualifying projects that are considered new public-private partnership projects, not merely privatizations of existing long-term assets. The grant of volume cap allows the privatization to proceed using tax-exempt financing rather than the taxable financing that must be used for existing privatizations. This approach, if qualified, mixes the positive aspects of the tax-exempt approach in cost of capital with the ability to generate a larger up-front payment in the privatization since the tax-exemption is not dependent on the contract term.



Select a “Program Co-Developer” Instead of a straight privatization of a project that has already been designed, there can also be an opportunity to bring a program co-developer into the process early rather than set bids for a fully-developed program. A program co-developer can be selected as a design-build-operate contractor to assist in all phases of the program, not just in the operations. Two issues will make a privatization of the proposed transit service more difficult than the types of privatizations that have been recently done for tollways and other established projects. First, transit programs do not generally fully support themselves with farebox revenue. Most transit systems receive some subsidies for all or portions of their routes. Because of this, some privately operated transit systems require availability payments from a non-farebox source to allow the operator to fully recover costs and generate funds for capital improvements. Secondly, this project is a “Greenfield.” In other words, it is a new service that does not have an established track record. Not having established historical data introduces a higher degree of risk in establishing an appropriate privatization bid for the service offering, and will, therefore, potentially result in lower bids. These two factors can compress the range that may be offered in a straight bid scenario. If, however, a private operator is selected to assist early in the process, prior to the full development of the new program, work can be done with the private entity to design the process in a way that will maximize return and minimize risk. This can be accomplished by using an RFQ process and having the bidders commit to a payment of the net present value of some measurable factor (for example, a percentage of gross revenues or of total operating expenses) that will be determined during the development, rather than a fixed bid of a specific dollar amount after the project is designed. The second step of a straight bid would be replaced with a negotiated fee based on the measurement process identified during the RFQ award.

## Retail Sales

The Indiana Gross Retail Tax (“sales tax”) is imposed on taxable retail sales at a rate of 6%. Each retailer that collects sales tax is generally entitled to retain .83% of the tax collected as compensation for collection and remittance costs.<sup>(1)</sup> The remainder is remitted to the Indiana Department of Revenue (DOR) to be allocated to various funds of the state, but primarily to the State’s General Fund and Property Tax Replacement Fund. Minor amounts of state sales taxes are deposited in the State’s Mass Transit (.76%), Industrial Rail (.033%) and Commuter Rail (.14%) Funds.

Sales tax is imposed on the gross retail income derived from a retail transaction which generally includes money (or equivalent value) from the sale, lease or rental of tangible personal property. Sales tax is not the same as use tax, which is commonly, albeit not exclusively, paid by the purchaser on out-of-state purchases of tangible personal property in cases where the purchaser does not pay sales tax to the state or locality where the property was purchased. Use tax is collected on a voluntary compliance basis, which requires purchasers to self-report purchases on their annual income tax return. There are several types of personal property which are exempt from sales tax. Some of the more common items include equipment used in direct farming or manufacturing production; medicines and medically necessary equipment; food for human consumption if it is sold without utensils, or in an unheated state, or bakery items. The definition of food for human consumption does not include candy, alcoholic drinks, soft drinks, food sold in a vending machine, food sold in a heated state, prepared food (unless sold in a state that requires cooking), food sold with eating utensils, and tobacco.

Indiana collects sales tax from retail merchants on a monthly basis, unless the merchant meets certain threshold sales requirements, in which case the remittance can be made on either an annual or quarterly basis, depending on the amounts to be remitted. One of the more complicating factors in determining an appropriate sales tax base is retail merchants are permitted to remit sales tax to the state using

(1) SEA 500 changed the collection allowance percentage based on the amount of state gross retail and use tax liability accrued during the state fiscal year ending on June 30 of the immediately preceding calendar year. If remittance was greater than \$60,000 but less than \$600,000, the applicable collection allowance is 0.6%. If remittance was greater than \$600,000, the applicable collection allowance is 0.3%.



consolidated returns for their business locations. A consolidated return means that the merchant may use one return to remit sales tax collected from multiple merchant locations.

Current data from the DOR suggests that approximately 24% of Indiana's sales and use tax collections are derived from the Study Area, based on sales tax return data submitted to the DOR. Because retailers may submit consolidated returns, however, estimating the base from which a dedicated sales tax may be derived cannot be done with great precision, nor can there be confidence in determining the base revenue to be collected in the first full year. However, once a full year base is established, there are many data sources that may be used to forecast changes in revenue in subsequent years. Moreover, other data sources indicate that the percent of taxable sales and sales tax from the Study Area appears to be growing, indicative of growing incomes and consumption relative to the remainder of the state.

If we assume the Study Area will generate approximately 24% of the net tax collections remitted to the state, then the initial base of revenue for determining the amount of dedicated sales tax revenue from the area is estimated to be \$21.4 billion. Therefore, a given percent increase in dedicated sales tax revenue may be calculated as a proportionate increase to this existing base. However, it must be noted that taxable sales, in general, will exhibit significant demand elasticity with respect to prices. That is, as prices for a given commodity or service increases, demand for that good will decrease, depending upon available alternatives. Studies have shown that sales of taxable goods in central cities may decrease from 1.7% to 11% for every 1% increase in sales taxes.<sup>(2)</sup> However, if a uniform sales tax were applied to the Study Area, the alternatives for price-sensitive consumers are likely to be much less than if the tax were applied only in Marion County. Therefore, we would recommend adjusting any starting revenue base by approximately 5% to account for price elasticity.

With respect to forecasting future revenue increases, changes in the consumption of goods and services are almost exclusively dependent upon changes in non-farm personal income. The BEA defines personal income, generally, as income that is received by all persons from all sources. It is calculated as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance. Non-farm personal income however, excludes income derived from the production of agricultural products. The State's revenue forecasting model relies upon non-farm personal income as its only independent variable, and with various adjustment factors, uses growth in non-farm personal income to forecast increases in sales tax revenue. Every two years, in December, the State's Revenue Forecast Technical Committee produces an estimate of sales taxes to be collected over each of the next two state fiscal years. In addition to forecasting revenue, the Committee's report also includes an estimate of Indiana non-farm personal income. Although the data is not tailored to the economy of the Study Area, the size of the revenue and high correlation exhibited between changes in taxable sales with changes in the monthly report of net tax collections, a reasonably good estimate of future revenue growth in the Study Area may be estimated using this data.

### ***Retail Sales Tax Revenue Model***

The tax base for retail sales was derived by calculating taxable sales using the December 2006 Indiana Department of Revenue Monthly Report of Net Tax Collections state year-to-date sales tax collections, then applying the estimated percentage of the Study Area's sales to state sales identified above (24%). This estimated was then adjusted downward by 5 percent to account for an estimated decrease in demand due to higher sales tax. The model projects that, for every .10% increase in the sales tax rate, \$20,141,000 in net estimated annual incremental revenue is generated. From this model, it could be projected that a 1%, or 10 times .10%, increase in the sales tax rate would create \$201,410,000 in revenue.

The Retail Sales Tax Revenue Model output is located in Appendix C.

(2) "Central Cities and Sales Tax Differentials: The Border City Problem," National Tax Journal XXIII, Mikesell, John (June 1970).



## **Food and Beverage Sales**

Taxes on prepared foods and beverages (F&B) are in effect in a limited number of counties in the state and are permitted only with specific legislation. Authority for the imposition of an F&B tax must be authorized by the Indiana General Assembly. Frequently, revenues derived from F&B taxes must be used for specific purposes, usually to support convention and tourism activities, but may be designated in accordance with the laws which authorize the tax. Most of the counties within the Study Area have already implemented F&B taxes with the proceeds used for funding local services as well as a limited, dedicated contribution to the new professional football stadium in Indianapolis for the Indianapolis Colts. F&B taxes may be considered an add-on sales tax, with the same collection rules applied as are applied to retail sales tax. The rate currently is applied in increments of 1%. With the exception of Marion County, counties in the Study Area have implemented their F & B taxes at a rate of 1%; thus, for taxable food and beverage sales the total sales tax will be 7%. Marion County currently has a 2% F&B tax; thus, the total current sales tax rate on food and beverage purchases is 8%.

The collection and reporting procedures for F&B taxes, with the exception of Johnson County, are the same as for state sales taxes. Because the collection procedures are similar, the same challenges in determining the appropriate tax base applies to F&B as it does to taxable retail sales. Johnson County collects, retains and transmits required shares of F&B sales tax receipts through its county offices.

As was discussed above with retail sales, F&B sales taxes also will exhibit significant demand elasticity if an additional tax is imposed. Given the highly discretionary nature of sales subject to F&B, and ready alternatives (i.e., other restaurants in border counties not imposing a F&B tax, as well as non-prepared foods not subject to sales tax and which can be prepared at home) it would not be a stretch to hypothesize that the decrease in food and beverage sales after the imposition of an additional tax would be at least equal to, if not greater, than the loss of retail sales if a general sales tax were increased.

### ***Food and Beverage Tax Revenue Model***

The tax base for the food and beverage sales tax is 2006 total taxable food and beverage sales adjusted downward by 5 percent to account for an estimated decrease in demand due to a higher food and beverage tax. Total taxable food and beverage sales were derived from food and beverage sales tax collections reported in the 2006 Indiana Legislative Services Agency Handbook of Taxes, Revenue and Appropriations. The model projects that, for every .10% increase in the food and beverage sales tax rate, \$3,828,000 in net estimated annual incremental revenue would be generated. From this model, it could be projected that a 1%, or 10 times .10%, increase in the sales tax rate would create \$38,280,000 in revenue.

The Food and Beverage Tax Revenue Model output is located in Appendix D.

## **Motor Fuel Tax**

Motor vehicle fuel taxes are based on consumption of gasoline, diesel fuel and other special fuels such as ethanol blends or liquefied petroleum gas. Taxes are imposed at a specified amount per gallon. In Indiana, the taxes are assessed at the wholesale level rather than added as prices at the pump, with the cost then passed on through the retailers to the ultimate consumers at the pump. For Fiscal Year 2006, Indiana collected approximately \$570.5 million in gasoline taxes (at \$.18 per gallon), which was a decrease of approximately 1.6% from 2005.

With regard to the imposition of a motor fuel tax, Indiana is no different from any other state in the nation. Every state imposes a motor fuel tax on the consumption of gasoline and diesel fuel. Not all states, however, impose what are regarded as special fuels taxes. Special fuels taxes do not usually refer to a special type of fuel, but rather the purpose for which the fuel is used. Like most other states, Indiana's rates



are fixed and can only be changed with legislation, but 10 States now have variable rate motor fuel taxes. These taxes are adjusted at specified intervals-annually, semiannually, or quarterly based on different factors, ranging from wholesale prices in prior years to changes in the consumer price index. Some states, notably, Florida, also permit the imposition of local motor fuel taxes which are dedicated to transportation projects in the area which generated the tax revenue.

If an additional tax were imposed on motor fuel, many studies have shown that while consumption would be adversely affected, gasoline remains a relatively inelastic commodity. Generally, one could expect to see in the short term a decrease in consumption of approximately 1.5% for every 10% increase in price. Over the longer term (several years), a 10% increase in price might yield about a 4% decrease in consumption. The response of consumers to changes in gasoline prices is dependent upon immediate alternatives which result in less consumption, such as driving the family compact car rather than the full size car, reducing driving, planning alternative routes or combined destinations to make an overall reduction in miles driven. Over the long term, consumer response to higher fuel prices may be to purchase more fuel-efficient vehicles. Another factor which may also reduce consumption further than the generally accepted elasticity noted above is whether the additional fuel tax is implemented only in the Study Area. To the extent that there are border county gas stations which provide a lower cost alternative, consumption leakage will occur, which will further decrease revenue.

As a practical matter, it may be very difficult to implement a fuel tax only for the Study Area. With great regularity legislation has been introduced in the General Assembly to provide counties with the authority to impose optional gasoline taxes for the purpose of providing additional funding for local roads and streets construction, repair and maintenance. The legislation has yet to advance beyond assignment to and hearing in committee.

With regard to establishing a base of motor fuel consumption from which a revenue estimate may be made from the imposition of an additional tax, a similar problem presents itself as for sales taxes. Because motor fuel taxes are paid at the wholesale distributor level, the final location of the gasoline consumption cannot accurately be determined from existing state data. Therefore, the determination of any revenue derived from the imposition of a motor fuel tax may not accurately reflect consumption within a given defined geographic area such as the Study Area. Nevertheless, it may be possible to consider other factors which permit the allocation of motor fuel taxes such as motor vehicle mileage, number of registered vehicles in the Study Area or by per capita estimates of gasoline consumption. The model below presents the total revenue state-wide that may be collected from an additional tax on gasoline (including ethanol blends) but excluding diesel fuel.

### ***Motor Fuel Tax Revenue Model***

The tax base for the fuel tax is estimated gallons of fuel consumed in the area. Estimated consumption was derived from 2004 consumption per capita data as reported in the U.S. Department of Energy. The model projects that, for every one-tenth of one cent (\$0.0010) increase in the fuel tax rate, \$869,000 in net estimated annual incremental revenue would be generated. From this model, it could be projected that a 1 cent (\$0.01), or 10 times \$0.0010 increase, in the sales tax rate would create \$8,690,000 in revenue.

The Fuel Tax Revenue Model output is located in Appendix E.

### **Vehicle Mileage Tax**

A Vehicle Miles Traveled (VMT) Tax is a fee per mile tax assessed against total miles traveled within a state during a certain time period. A VMT tax is a relatively new concept being explored as a type of Road User Fee. Its purpose is to provide a stable revenue alternative or supplement to fuel taxes, as fuel tax revenues are expected to flatten or decrease due to increased gas efficiency and availability of alternative fuels. The tax is considered to be an equitable alternative because drivers will be taxed proportionately according to the amount of miles they travel on roads within the state or other predefined zone. In theory, a



person who takes the bus is personally doing less damage to roadways because he is not using his vehicle on the roads as frequently as a daily automobile commuter.

Because the VMT tax is a new idea, there are many challenges to adopting and implementing the tax. Some of those challenges include technical aspects such as how to measure miles driven, collect the tax, create a remittance process, and manage phasing in the tax. There are also public policy challenges of overcoming perceived inequities related to the tax, environmental concerns over the tax not deterring use of vehicles with low fuel economy and privacy concerns.

The State of Oregon is currently conducting a test of vehicle mileage tracking. In this test, cars are equipped with an odometer with special GPS capabilities and a short-range radio frequency (RDF) transmitter. The GPS function allows the odometer to measure only miles traveled within state limits. The RDF transmitter is necessary to transmit mileage data to RDF data collectors on gas pumps located at gas stations involved in the test. The data collectors at the gas pumps transmit the odometer reading to a central computer that sends back the vehicle's last odometer reading, allowing the fee for the current miles traveled to be calculated. This transaction takes approximately the same amount of time as a credit card transaction. Therefore, whenever the test participants put gas in their vehicles, they pay a fee for the miles they have driven since their last fill-up instead of state gas tax.

The equipment used in the Oregon test study, including the GPS enhanced odometers and RDF transmitters for gas pumps, was created especially for the test. Oregon estimates that each odometer will add approximately \$225 to the purchase price of a new vehicle or would cost the owner of a newly registered vehicle \$225 to install. They have determined it would be too costly to retrofit all vehicles on the road and would instead phase in the odometers over a period of 20 years based on statistics that 5% of vehicles in Oregon turn over each year. Because the gas pump RDF transmitter will only pick up data from the VMT odometers, gas consumers who have not been fitted with a VMT odometer would pay the gas tax like normal.

In Oregon, concerns have been raised over the VMT tax because it does not give motorists an incentive to drive more fuel efficient vehicles. A motorist driving a more fuel efficient vehicle could pay more in taxes if they drive more miles than another motorist who drives a less fuel efficient vehicle. Privacy concerns have arisen from both citizens and oil companies. Citizens are concerned that, because the odometers will be equipped with GPS, they could be "tracked" by police or others with access to the data system. The concern is that citizens could be followed during a trip or their trips could be reconstructed by police. The creators of the devices contend that the GPS component simply tracks if the vehicle is in a pre-determined zone (ie. inside state limits) and does not report specific locations. Oil companies are concerned about the government having access to gas stations' computers to collect mileage data and calculate the tax.

Because of all of the complicated factors involved in adopting and implementing a VMT tax, the Oregon Road User Fee Task Force does not believe the tax could be implemented in a state the size of Oregon by itself. In order to cut costs and implement standard policies, a multi-state or Federal adoption would be necessary. However, they do believe the equipment and process they have created is effective and could be used on a larger scale.

### ***Vehicle Mileage Tax Revenue Model***

The tax base for the Vehicle Mileage Tax revenue model is estimated vehicle miles traveled within the counties that make up the Study Area. The mileage estimates are from the Indianapolis MPO's traffic model. For purposes of estimating revenue, a flat fee of one-tenth of one cent (\$0.0010) per mile was used. The model projects that, for every one-tenth of one cent increase in the fee, \$18,580,000 in revenue is created. From this model, it could be projected that a 1 cent (\$0.01), or 10 times \$0.0010 increase, in the sales tax rate would create \$185,800,000 in revenue.

The VMT Revenue Model output is located in Appendix F.



## **Motor Vehicle Wheel Tax and Excise Surtax**

### ***Wheel Tax Revenue Model***

The tax base for the Wheel Tax revenue model is the total number of vehicles registered subject to the Wheel Tax. The Wheel Tax applies to buses, recreational vehicles, semi-trailers, tractors, trailers over 3,000 pounds and trucks not subject to the Excise Surtax. Adopting counties may impose different tax rates for each particular class of vehicle, and for each weight classification within the class of vehicle. The rate must be between \$5 and \$40. The Wheel Tax and Excise Surtax must be adopted simultaneously. Revenue models were created to estimate revenue by either imposing a county-wide rate or a varied rate by vehicle class.

For purposes of estimating revenue, models were created using the minimum, median and maximum fees available. For demonstration purposes, the fees were applied to all registered vehicles subject to the Wheel Tax and not varied among vehicle classes. In addition, all counties were included in the revenue estimation regardless if the county currently imposes a Wheel Tax and their current rate.

The model projects that, for the current number of vehicles registered subject to the Wheel Tax, \$700,000, \$3,228,000 or \$5,753,000 of annual revenue would be created using the minimum, median or maximum fee, respectively.

The Motor Vehicle Wheel Tax Revenue Model outputs are located in Appendices G through I.

### ***Excise Surtax Revenue Model***

The tax base for the Excise Surtax revenue model is the total number of vehicles registered subject to the Excise Surtax. The Excise Surtax applies to passenger cars, motorcycles and trucks with a gross weight of 11,000 pounds or less. Adopting counties may impose the Surtax at rates ranging between 2 and 10 percent of the excise tax that would have been due under the pre-1996 excise tax rate table, with a minimum fee of \$7.50. Counties may also impose a flat fee per vehicle with a minimum of \$7.50 and a maximum of \$25.00.

For purposes of estimating revenue, models were created using the minimum, median and maximum flat fees available. The fee was applied to all registered vehicles subject to the Surtax. In addition, all counties were included in the revenue estimation regardless if the county currently imposes an Excise Surtax and their current rate.

The model projects that, for the current number of vehicles registered subject to the Surtax, \$10,602,000, \$23,219,000 or \$35,841,000 of annual revenue would be created using the minimum, median or maximum fee, respectively.

The Excise Surtax Revenue Model outputs are located in Appendices J through L.



## Issues Related to Variation Between Estimated and Actual Revenues

The generation of revenues from economic activity will always be influenced by independent variables outside the control of the revenue-seeking entity. For this reason, any estimates provided in this analysis will, necessarily, be qualified by the behavior of independent variables. Furthermore, systems of revenue collection introduce additional factors which may lead to adverse results.

Volatility is a term often used to characterize differences in levels of revenue received from one year to the next. Yet, volatility is a term that more appropriately describes very sharp and regular changes in conditions or results, as if the amount or timing of revenues received were largely unexpected. This is not always the case with many revenue streams used to fund governmental services. Change, for better or worse, does occur, but changes from year to year may be more subtle depending on the base of economic activity used to derive the revenue. Over the long run of several years, change may be significant, but often, changes in revenues collected from year to year will only vary by a few percent of the current base year of collections. Of course, if the revenue base is very large, e.g., retail sales, the dollar amount from a few percentage points of change can be very large. Therefore, while the term volatility will be used, changes in possible outcomes presented below for the various revenue sources we have identified will not necessarily be of the magnitude that would place any of them at great risk. Nevertheless, when assessing the imposition of a new tax or fee on economic activity with respect to providing a sustained revenue source, caution is advised, and the reader should be advised of even extreme possibilities.

### Volatility Due to Economic Trends and Conditions

All of the revenue sources discussed in this Funding Study are subject to volatility due to changes in the underlying economy and current economic conditions. Changes in the underlying economy are reflected as economic trends and measured in various ways. Changes in economic conditions can occur at both the micro (consumer) level and at the macro level, which in this case would be at the Study Area level, as well as include certain state-wide and national events. Economic conditions can be considered to be like point-in-time measurements that when aggregated may result in an economic trend.

In the case of income and sales taxes (including F&B taxes), discussed above, the primary independent variable that affects the tax base, and therefore derived revenue, is non-farm personal income (NFPI). NFPI, as defined above under the retail sales tax model, will generally include all forms of income such as salaries and wages, proprietor's income, investment, dividend and interest income, but, by definition, exclude farm proprietary income. While not exactly the same as adjusted gross income, NFPI does exclude contributions to governmental social insurance (e.g., FICA, Medicare, etc.). Because of its attributes, NFPI is very good indicator of both taxable and disposable income.

NFPI, however, is very sensitive to changes in the economy at many levels. For example, when a major employer reduces employment the impact on regional NFPI is immediate (a change in economic conditions) and potentially long-lasting (a change in economic trend), as the loss of wages affects workers and businesses where workers spend their disposable income. At the state and national level, NFPI may be affected by changes in the mix of the economy as well as other systemic changes which can either increase or decrease economic activity. For example, when inflation increases, the immediate effect may be that salary and wage income increases and outlays for disposable income increase (both positive for income and sales tax collections), but, over the long run, the increasing cost of salaries and wages combined with the increasing cost of durable and consumer goods results in lower overall economic activity and thus, lower NFPI. The consequence of this negative trend in the economy is a negative impact on income and sales tax collections.

This phenomenon can be illustrated by looking at the State of Indiana's growth in non-farm personal income since 2000, the first year in which the national economy slipped into recession and then recovered. From 2000 to 2006, the annual change in the growth rate of Indiana non-farm personal income from the prior year was, respectively, 1.63%, 2.96%, 3.23%, 4.56%, 4.61% and 5.3%. Although this clearly shows a positive



trend, recent State Revenue Forecast Committee economic forecasts for 2007 and 2008 show a decrease in the rates of growth shown above. For 2007, the forecasted increase NFPI is 3.95% and for 2008 the increase is currently forecasted to be 4.48%, both of which are downward revisions from the Committee's forecast made in December of 2006 of 4.3% and 4.82%, respectively. As a result, forecasted growth in both state income tax and sales tax followed the same path and the Committee has revised their projections of income and sales tax revenue downward by .4% and .5% respectively for state FY 2007.

The Study Area reflects the State's economy very well and accounts for a significant portion of the economic activity in the state. If the participants of the MPA were to seek and be granted authority to impose an additional income or sales tax, collections will be sensitive to changes in economic conditions at many levels. The examples given above illustrate that changes from year-to-year can be relatively minor, but also can accumulate to very significant levels over a period of several years. Moreover, NFPI data is subject to constant revision, even after a reporting period has ended; thus, adding additional uncertainty to revenue forecasting.

With regard to motor vehicle fuel sales, most studies show that changes in prices are relatively inelastic. Consumer response to increases in fuel prices in the short run, are typically fairly small reductions in total consumption. Over the long run, however, reductions in consumption become more pronounced as consumers make adjustments to persistent increases in fuel costs. For example, sales of gasoline, and therefore, gasoline tax revenue, has declined since state FY 2004 due to a significant run-up in gasoline prices. Revenue from state FY 2004 to FY 2005 declined by .5%, and declined again from state FY 2005 to FY 2006 by another 1.6%. Current state fiscal year gasoline tax revenue is running slightly behind last year's revenue as gas prices have rebounded from relatively low levels in the first few months of 2007. Since 2004, gasoline tax revenue has declined by a little over 2% in Indiana. Although this may not seem significant, it serves as a leading indicator of consumption decreasing at an increasing rate. To the extent consumers continue to be faced with gasoline prices near or above \$3.00 per gallon, investments in more fuel efficient methods of transportation (e.g., smaller cars, car pooling, etc.) will continue to increase, and therefore, reduce the overall base of revenues.

### **Volatility Due to State, Regional and County-Level Inequities**

The discussion on elasticity presented above in the sales tax and motor fuel tax are quantifiable results of volatility (negative) due to inequities. For sales tax, the elasticity of demand with respect to prices may be anywhere from -1.7 to -11, meaning that a 1% increase in prices due to the imposition of an additional sales tax may result in a decrease in demand for taxable goods at the retail level from between 1.7% and 11%.<sup>(3)</sup> The demand loss may be greater in counties which border other counties not having the additional sales tax. Any imposition of a tax within a limited geographic area will create varying degrees of change in the tax base. The primary determining factor is the location where the inequity occurs. If an additional sales tax were imposed in the Study Area and the impacts measured in individual counties, it would not be surprising to see that the greatest relative negative impacts on the tax base occur in counties which surround Marion County and border non-imposing counties. On the other hand, in locations where consumers do not have convenient access to lower cost alternatives, price differentials caused by increased taxes may not result in significant leakage and the full impact of revenue gains from the increased tax may be realized.

With regard to income taxes, it is not likely that the imposition of an additional tax on income will yield a significant loss of the tax base in the short term. In the long run, however, such taxing differentials may influence wage earners, in particular, to live in areas outside the Study Area, but closely bordering the Study Area. However, the cost of an additional income tax must be weighed against both the tangible and intangible impacts of living closer to the Study Area, which may be the preferred living choice of wage

(3) "Central Cities and Sales Tax Differentials: The Border City Problem," National Tax Journal XXIII, Mikesell, John (June 1970).



earners in absence of the tax. Moreover, many of the counties which surround the Study Area have equivalent or higher local income tax rates. Therefore, it is reasonable to conclude that there would be very little loss of taxable income from an increased local income tax, but that over time, small reductions in the tax base may be revealed.

For example, Marion County recently increased its County Option Income Tax for income taxes distributed in FY 2007 from .8% to .9%. This was a 12.5% increase in the tax rate, but the resulting certified distribution from FY 2006 to FY 2007 increased by 13.15%. The difference in growth rate, .65%, represents approximately 5.2% of "other growth" which may include not only increases in taxable income, but estimating errors in determining the amount of revenue to be generated by the rate increase. For comparative purposes, it is worth noting that state-wide NFPI growth from 2004 to 2005, the theoretical base tax year for calculating certified COIT distributions for FY 2007, was 4.61%.

With regard to property taxes, changes in consumer behavior are likely to be the result of longer term trends such as the net tax rate paid by property owners. When tax increment financing areas are established, the effect on the net tax rate, all else remaining the same, is generally an increase. However, the taxpayer cost of reducing the increased tax burden is very high because the taxpayer must either reduce the taxable value of the property subject to tax or move to another location where the tax rate is lower. Because of these high costs of tax avoidance, most studies find that increases in property tax rates result in only very small negative changes in the tax base. However, as tax rate differentials become comparatively large between the Study Area and surrounding locales, the tax base may begin to erode significantly, or future growth may be impaired.

### **Short-term and Long-term Sensitivities Due to Rate Changes**

Changes in the rate of taxation may have the most significant impact on revenues both in the short term and over a longer term. The impacts of rate changes are highly visible and very direct. Impacts on the tax base have already been discussed above, but because of the visible and direct impact of rate changes, political and, potentially, legal issues may arise.

Political issues arise because of the very nature of taxes - a coerced payment from private wealth holders to fund government services - causes a proposed increase in taxes or user fees to be received with great skepticism. In addition, the very real prospect of placing one region or state at a competitive disadvantage with respect to economic development due to higher tax differentials adds additional concern.

Once a tax is in place, however, reducing or rescinding the tax also becomes a very difficult proposition. In addition to the obvious reasons related to immediate revenue losses and potential cutbacks in government services, revenue pledged to the payment of debt issued by local government becomes a contract which may not be impaired by state or local legislative actions. For these reasons, rate changes authorized by the state and imposed by local government are considered to be permanent changes and may be assumed to not be changeable for financial modeling and planning purposes.



## Other Systems Research

In order to seek out unique revenue sources, we researched how other cities and states fund transportation improvements. The cities and states researched include:

- Charlotte, North Carolina
- Chicago, Illinois
- Dallas, Texas
- Denver, Colorado
- Florida Department of Transportation
- Minneapolis/St. Paul, Minnesota
- Pennsylvania Public Transportation Association
- Phoenix, Arizona
- Portland, Oregon
- Sacramento, California
- Salt Lake City, Utah
- San Francisco, California
- Seattle, Washington

Following are the most common funding mechanisms identified in our research.

- Transportation-Dedicated Sales Tax
- Sales Tax Revenue Bonds
- Federal Transportation Administration (FTA) New Starts Grants
- Federal Highway Administration (FHWA) Congestion Mitigation and Air Quality (CMAQ) Program Grants

Following are more detailed examples of both standard and a combination of standard and innovative funding mechanisms for transit.

### ***Charlotte, North Carolina***

The City of Charlotte, Mecklenburg County and Charlotte Area Transit System (CATS) have created a “Centers and Corridors” transit development plan involving Light Rail Transit, Bus Rapid Transit, Commuter Rail and Streetcar Service. Approximately 50 percent of their capital funds are expected to be from Section 5309 New Starts, Section 5307 Urban Area, and Section 5309 Fixed Guideway Modernization programs. The State provides matching funds for these Federal programs. Local funding comes primarily from the CATS 0.5% sales and use tax paid by all of Mecklenburg County. Revenue from the CATS tax is used to pay debt service payments on sales and use tax-backed Certificates of Participation (COPs) issued to begin the project and will pay for revenue bonds expected to be issued at certain milestones during the project. The CATS sales and use tax revenue is also used for operating expenses for the City’s bus system. Charlotte also considered negotiating Full Funding Grant Agreements with their grant funding partners (Federal and State) to smooth out funding peaks and also to enable them to use the grant monies as collateral for grant anticipation financing.



Charlotte is currently facing financial challenges in the first phase of their transit development project. Due to cost overruns caused by rising costs of materials, design flaws and alleged poor management of the construction process. In addition, a group who opposes light-rail in Charlotte has also been petitioning citizens to put the sales tax up for revote in November. There is no level of certainty as to what the outcome of a revote would be. If the tax were to be repealed, the mayor of Charlotte has estimated it would take a 12 percent increase in property taxes to make up for the revenue loss.

### ***Denver, Colorado***

In 2004, the Denver Regional Transportation District (RTD) began FasTracks, a 12-year comprehensive plan to build and operate high-speed rail lines and expand and improve bus service and park-n-rides throughout the region. FasTracks would include 119 miles of new light rail and commuter rail, 18 miles of bus rapid transit service, 21,000 new parking spaces at rail and bus stations, and expanded bus service in all areas.

The funding plan for FasTracks was comprised of both local and federal sources. In 2004, voters in the eight-county metro region approved a .4% transit sales tax to be effective January 1, 2005. The sales tax increase changed the sales tax rate from .6% to 1%. Bonds backed by this sales tax make up about 50% of the total cost of the project. The two other primary sources are “Pay As You Go” cash and Federal New Starts Grants. Additional funds include Certificates of Participation (COPS) for bus purchases, a U.S. Department of Transportation Transportation Infrastructure Financing Innovation Act of 1998 (TIFIA) loan, miscellaneous Federal funding for selected portions of the project, local government participation consisting of cash, right-of-way dedication, permit fee waivers, or other in-kind donations.

Funding is comprised as follows:

- Sales Tax Bonds – 50.2%
- COPS – 4.3%
- TIFIA Loan – 3.0%
- “Pay as You Go” Cash – 20.9%
- Federal New Start Program – 17.3%
- Federal Other – 2.3%
- Local Contribution – 2.0%

Currently, FasTracks is reported to be \$1.5 billion over budget. The reasons for the estimated cost overrun have been cited as the price of construction materials have grown faster than the 2003-2006 Consumer Price Index, third parties have requested additional betterments to certain portions of the project, and scope clarification and changes. In addition to cost increases, revenue forecasts have decreased due to sales tax collections below forecast, forecasting of future revenue decrease, and a \$1 billion shortfall from original projections by 2030. RTD is in the process of updating its cost and revenue projections based on current data.

In addition to FasTracks, the RTD and the Colorado Department of Transportation partnered on a multi-modal transportation expansion plan nicknamed T-REX. T-REX included expanding their light-rail system, adding highway lanes, reconstructing interchanges, adding High Occupancy Vehicle (HOV) lanes, widening over 60 highway and light-rail bridges, and constructing transit supporting facilities such as a light-rail maintenance garage and park and ride garages.

The financial plan for T-REX was comprised of 60% Federal funding and 40% local. The Federal funds included FTA New Start Funds and a Full Funding Grant Agreement. The highway and transit elements of



T-REX were funded separately. The highway elements were financed using Transportation Revenue Anticipation Notes borrowed against anticipated Federal funds.

The transit elements were funded using FTA grants, sales tax revenue bonds, allocations from the Highway Users Tax Fund, Senate Bill 97-01 money and local matching funds from various jurisdictions. The Highway Users Tax Fund includes tax revenues from motor fuel excise tax, passenger-mile tax that applies to tourism-type buses traveling in Colorado, and vehicle registration fees. Senate Bill 97-01 allows for the transfer of sales and use taxes associated with the sale of automobiles and related accessories to CDOT with the caveat that SB 97-01 transfers must be spent on high priority state transportation projects. In addition, certain parts of the transit project received cash from private stakeholders, including the Denver Broncos, the Colorado Rockies, Six Flags/Elitch Gardens, Lower Downtown, Auraria, the Pepsi Center and Trillium.

It is also important to note that the T-REX project was constructed using the design-build method. Design-build allowed for a single contractor team to design and build the entire project for a predetermined price under the oversight of CDOT and RTD. Design-build was chosen because it can mean cost efficiency, more innovation, flexibility and creativity, and faster project completion. The contractor selected for T-REX committed upfront to complete the project 22 months ahead of the proposed schedule and 3 percent under the established budget. The project was, in fact, completed in August 2006 instead of the original target date of August 2008.

### **Portland, Oregon**

Tri-Met (Tri-County Metropolitan Transit District of Oregon) has set up a transit investment plan with a focus on creating “the total transit system.” The plan includes expanding light-rail, commuter rail, streetcars and lane transit. TriMet’s federal funding sources include federal discretionary funds, Metropolitan Transportation Improvement Program (MTIP) flex funds awarded by local MPOs, and CMAQ and Surface Transportation (STP) Programs. The State of Oregon contributes via state lottery bond proceeds. Local revenue sources include TriMet/Lane County Mass Transit District (LTD) Transit Payroll Taxes for Employers, GARVEE bonds, and small revenues such as parking meters and local improvement districts from local cities and Washington County.

Currently, Portland is the only city with payroll taxes for employers, and the tax is TriMet’s largest source of continual revenue. The tax is used for both capital and operating expenses. The tax is based on the wages paid by an employer and the net earnings from self-employment for services performed within the TriMet or LTD districts. The two transit districts do not overlap. Employers can determine if they fall into these districts based on zip code, and they report the tax quarterly on a special form and remit the tax using a payment coupon or via electronic funds transfer. As of January 1, 2007, the Transit Payroll Tax rate is .006518 and increases by .0001 each year until January 1, 2014. The annual increases will help support new services and provide capital for service increases.

Because TriMet relies so heavily on the Transit Payroll Tax, they were impacted greatly by a recession in 2001 through 2004 that resulted in a loss of 6.5% of the region’s jobs. Revenue declined for two years and then flattened before increasing by 5.8% in 2005.

Following are examples of other Cities’ and States’ innovative revenue sources.

- Florida Department of Transportation – State Comprehensive Enhanced Transportation System (SCETS) Tax
  - Gasoline excise tax with a rate of 2/3 of the total option fuel tax rate that exists in each county, not to exceed 4 cents (\$0.04) per gallon.
  - Tax rate varies by county.
  - Diesel fuel excise tax with a rate of 1 cent (\$0.01) per gallon statewide.



- All SCETS Tax proceeds must be spent in the transportation district and, to the extent feasible, in the county from which the tax was collected.
- In addition, 15 percent of all taxes collected and deposited to the State Transportation Trust Fund are distributed to mass transit funding.
- Los Angeles, California – Joint Development
  - In 1999, LA County MTA opened a 700-space parking structure located adjacent to their Metro Blue Line Willow Station in Long Beach. The parking structure is the anchor of a joint development project between MTA, the Long Beach Redevelopment Authority and private entities.
  - In addition to the parking structure, the project will include two major retailers and several smaller stores located on a former park and ride lot.
  - MTA contributed 5 of the 12 acres needed for the project. In exchange, the developer agreed to build the parking structure and will pay rent for the land.
- Miami, Florida – Joint Development
  - In the 1990s, MDTA began joint development projects at the Dadeland North and South Metrorail stations. MDTA needed land owned by a developer to proceed with the projects.
  - The developer donated the land to the transit agency in exchange for the right to develop a hotel, office complex and retail stores. The developer also financed and built a 1,650-space parking garage of which 1,000 spaces are owned by MDTA.
  - At Dadeland South, the developer leased the site for 99 years and pays the complete costs for the development's construction and maintenance. MDTA receives the greater of a minimum escalating guaranteed rent or a percentage of the gross profits.
- Minneapolis/St. Paul, Minnesota – Motor Vehicle Sales Tax
  - 30% of revenue collected from the State's 6.5% motor vehicle sales tax is directed to MnDOT for highway funding.
- Pennsylvania Public Transportation Association – PTAF and proposed new sources
  - Public Transportation Public Assistance Fund (PTAF) – Funded by car rental fee, tire purchase fee, motor vehicle lease tax, Public Utility Realty Tax, and sales and use tax.
  - Proposed tax on oil company profits.
  - Proposed leasing of turnpike.
- Seattle, Washington – Commercial Parking Tax
  - 1 percent tax on parking transactions.

In addition to transit-related project funding, funding for other large capital projects was researched. The funding mechanisms for other projects were similar to transit projects, with sales tax as the most common revenue source.



**Local Option Income Tax Revenue Model**  
Tax Paid on State Taxable Income

<u>County</u>	<u>Tax Base - State Taxable Income (1)</u>	<u>Tax Rate</u>	<u>Estimated Incremental Revenue</u>
Boone	\$ 1,669,590,000	0.1000 %	\$ 1,670,000
Hamilton	8,369,990,000	0.1000	8,370,000
Hancock	1,425,220,000	0.1000	1,425,000
Hendricks	2,815,590,000	0.1000	2,816,000
Johnson	2,767,780,000	0.1000	2,768,000
Madison	1,969,980,000	0.1000	1,970,000
Marion	16,249,570,000	0.1000	16,250,000
Morgan	1,241,830,000	0.1000	1,242,000
Shelby	734,090,000	0.1000	734,000
<b>Metro Region Total</b>	<b>\$ 37,243,640,000</b>		<b>\$ 37,245,000</b>

(1) Source: Indiana Department of Revenue - 2005 Indiana Greenbar



**Salaries and Wages Revenue Model**  
Tax Paid on Gross Covered Employee Salaries and Wages

<u>County</u>	<u>Tax Base - 2005 Gross CEW Paid (1)</u>	<u>Tax Rate</u>	<u>Estimated Incremental Revenue</u>
Boone	\$ 563,660,000	0.1000 %	\$ 560,000
Hamilton	3,887,270,000	0.1000	3,890,000
Hancock	633,660,000	0.1000	630,000
Hendricks	1,206,850,000	0.1000	1,210,000
Johnson	1,212,310,000	0.1000	1,210,000
Madison	1,332,300,000	0.1000	1,330,000
Marion	24,574,170,000	0.1000	24,570,000
Morgan	437,800,000	0.1000	440,000
Shelby	546,410,000	0.1000	550,000
<b>Metro Region Total</b>	<b>\$ 34,394,430,000</b>		<b>\$ 34,390,000</b>

(1) Source: stats.indiana.edu/Indiana Department of Workforce Development - Indiana County Covered Employment and Wages as reported by the Bureau of Labor Statistics



**Retail Sales Tax Revenue Model**

Tax Paid on Estimated Total Taxable Sales Excluding Food and Beverage Sales

<u>Area</u>	<u>Estimated Total Taxable Sales Less Food and Beverage Sales (1)</u>	<u>Estimated Taxable Sales Base Less 5% Demand Decline</u>	<u>Tax Rate</u>	<u>Estimated Gross Incremental Revenue</u>	<u>Estimated Collection Allowance (2)</u>	<u>Estimated Net Incremental Revenue</u>
Metro Region Total	\$ 21,379,220,000	\$ 20,310,260,000	0.1000 %	\$ 20,310,000	\$ 168,600	\$ 20,141,000

(1) Source: Indiana Department of Revenue Monthly Report of Net Tax Collections

(2) Retail merchants are allowed to retain a 0.83% collection allowance if remittance is timely. The collection allowance equals .83% of the tax collected.



**Appendix D  
Food and Beverage Tax Revenue Model Output**



**Food and Beverage Tax Revenue Model**  
Tax Paid on Estimated Taxable Food and Beverage Sales

<u>County</u>	<u>Estimated Taxable FAB Sales (2)</u>	<u>Estimated Taxable FAB Sales Less 5% Demand Decline</u>	<u>Tax Rate</u>	<u>Estimated Gross Incremental Revenue</u>	<u>Estimated Collection Allowance (3)</u>	<u>Estimated Net Incremental Revenue</u>
Boone	\$ 34,400,000	\$ 32,680,000	0.1000 %	\$ 33,000	\$ 270	\$ 33,000
Hamilton	263,990,000	250,790,000	0.1000	251,000	2,080	249,000
Hancock	47,990,000	45,590,000	0.1000	46,000	380	46,000
Hendricks	147,220,000	139,860,000	0.1000	140,000	1,160	139,000
Johnson	71,850,000	68,260,000	0.1000	68,000	560	67,000
Madison	145,330,000	138,060,000	0.1000	138,000	1,150	137,000
Marion	3,262,690,000	3,099,560,000	0.1000	3,100,000	25,730	3,074,000
Morgan (1)	55,540,000	52,760,000	0.1000	53,000	440	53,000
Shelby	32,080,000	30,480,000	0.1000	30,000	250	30,000
<b>Metro Region Total</b>	<b>\$ 4,061,090,000</b>	<b>\$ 3,858,040,000</b>		<b>\$ 3,859,000</b>	<b>\$ 32,020</b>	<b>\$ 3,828,000</b>

- (1) Morgan County's estimated sales are derived from Food and Beverage Tax collected by the Cities of Martinsville and Mooresville, while all other Counties are based on a County-specific tax excluding any cities within the County that may also have a Food and Beverage Tax.
- (2) Source: 2006 Indiana Legislative Services Agency Indiana Handbook of Taxes, Revenues and Appropriations
- (3) Retail merchants are generally entitled to retain a 0.83% collection allowance if remittance is timely. The collection allowance equals .83% of the tax collected.



**Motor Fuel Sales Tax Revenue Model**  
Tax Paid on Estimated Motor Fuel Sales

<u>Area</u>	<u>Estimated Fuel Consumption (Gallons) (1)</u>	<u>Tax Rate</u>	<u>Estimated Gross Incremental Revenue</u>	<u>Estimated Collection Allowance (2)</u>	<u>Estimated Net Incremental Revenue</u>
Metro Region Total	882,750,000	\$ 0.0010	\$ 883,000	\$ 14,000	\$ 869,000

(1) Source: US Department of Energy

(2) Licensed distributors make monthly payments based on invoiced gallons received minus a 1.6% distributor allowance to cover evaporation, shrinkage, losses and collection expense.



**Vehicle Mileage Tax Revenue Model**  
Tax Paid on Miles Driven Within the State - \$0.0010 per mile

<u>County</u>	<u>Tax Base - Annual Vehicle Miles Driven (1)</u>	<u>Tax Rate</u>	<u>Estimated Incremental Revenue</u>
Boone	864,350,000	\$ 0.001000	\$ 860,000
Hamilton	879,600,000	0.001000	880,000
Hancock	2,161,790,000	0.001000	2,160,000
Hendricks	1,077,790,000	0.001000	1,080,000
Johnson	1,256,740,000	0.001000	1,260,000
Madison	1,141,940,000	0.001000	1,140,000
Marion	9,700,680,000	0.001000	9,700,000
Morgan	770,210,000	0.001000	770,000
Shelby	730,560,000	0.001000	730,000
<b>Metro Region Total</b>	<b>18,583,660,000</b>		<b>\$ 18,580,000</b>



**Appendix G**  
**Wheel Tax Revenue Model Output – Minimum Flat Fee**



**Wheel Tax Revenue Model - Rates by County**  
 Estimated Wheel Tax Paid per Applicable Registered Vehicle  
 (Calculated using a dollars per vehicle rate between \$5.00 and \$40.00)

County	Buses (2)	Farm	Farm	Farm	Recovery	Tractors (2)	Trailers over	Trucks over	Total	Rate	Region Gross	State License	Region Net
		Trucks (2)	Trailers (2)	Tractors (2)	Vehicles (2)		3,000 lbs. (2)	11,000 lbs. (2)			Incremental Revenue	Branch Fund Allowance (3)	Incremental Revenue
Boone	-	370	130	130	40	60	5,380	1,120	7,230	\$ 5.00	\$ 36,000	\$ 1,100	\$ 35,000
Hamilton	-	330	140	70	60	80	15,730	2,770	19,180	5.00	96,000	2,900	93,000
Hancock	-	450	130	130	60	40	7,330	950	9,090	5.00	45,000	1,400	44,000
Hendricks	-	460	170	130	70	160	11,300	2,400	14,690	5.00	73,000	2,200	71,000
Johnson	-	460	140	20	70	60	10,020	1,350	12,120	5.00	61,000	1,800	59,000
Madison	-	470	120	160	50	90	12,540	1,630	15,060	5.00	75,000	2,300	73,000
Marion	210	130	40	10	490	810	34,330	12,820	48,840	5.00	244,000	7,300	237,000
Morgan	-	570	180	80	50	50	9,350	1,060	11,340	5.00	57,000	1,700	55,000
Shelby	-	460	120	140	20	70	5,110	850	6,770	5.00	34,000	1,000	33,000
<b>Region Total</b>	<b>210</b>	<b>3,700</b>	<b>1,170</b>	<b>870</b>	<b>910</b>	<b>1,420</b>	<b>111,090</b>	<b>24,950</b>	<b>144,320</b>		<b>\$ 721,000</b>	<b>\$ 21,700</b>	<b>\$ 700,000</b>

- (1) Counties may impose different tax rates for each particular class of vehicle, and for each weight classification within the class of vehicle. The rate must be between \$5 and \$40.
- (2) Source: Indiana Business Research Center Bureau of Motor Vehicle Registration Statistics for 2005
- (3) \$0.15 of the Wheel Tax collected for each transaction is deposited to the State License Branch Fund.



**Appendix H  
Wheel Tax Revenue Model Output – Median Flat Fee**



**Wheel Tax Revenue Model - Rates by County**  
 Estimated Wheel Tax Paid per Applicable Registered Vehicle  
 (Calculated using a dollars per vehicle rate between \$5.00 and \$40.00)

County	Buses (2)	Farm	Farm	Farm	Recovery	Trailers over 3,000 lbs. (2)	Trucks over 11,000 lbs. (2)	Total	Rate	Region Gross Incremental Revenue	State License Branch Fund Allowance (3)	Region Net Incremental Revenue	
		Trucks (2)	Trailers (2)	Tractors (2)	Vehicles (2)								
Boone	-	370	130	130	40	60	5,380	1,120	7,230	\$ 22.50	\$ 163,000	\$ 1,100	\$ 162,000
Hamilton	-	330	140	70	60	80	15,730	2,770	19,180	22.50	432,000	2,900	429,000
Hancock	-	450	130	130	60	40	7,330	950	9,090	22.50	205,000	1,400	204,000
Hendricks	-	460	170	130	70	160	11,300	2,400	14,690	22.50	331,000	2,200	329,000
Johnson	-	460	140	20	70	60	10,020	1,350	12,120	22.50	273,000	1,800	271,000
Madison	-	470	120	160	50	90	12,540	1,630	15,060	22.50	339,000	2,300	337,000
Marion	210	130	40	10	490	810	34,330	12,820	48,840	22.50	1,099,000	7,300	1,092,000
Morgan	-	570	180	80	50	50	9,350	1,060	11,340	22.50	255,000	1,700	253,000
Shelby	-	460	120	140	20	70	5,110	850	6,770	22.50	152,000	1,000	151,000
<b>Region Total</b>	<b>210</b>	<b>3,700</b>	<b>1,170</b>	<b>870</b>	<b>910</b>	<b>1,420</b>	<b>111,090</b>	<b>24,950</b>	<b>144,320</b>		<b>\$ 3,249,000</b>	<b>\$ 21,700</b>	<b>\$ 3,228,000</b>

(1) Counties may impose different tax rates for each particular class of vehicle, and for each weight classification within the class of vehicle. The rate must be between \$5 and \$40.

(2) Source: Indiana Business Research Center Bureau of Motor Vehicle Registration Statistics for 2005

(3) \$0.15 of the Wheel Tax collected for each transaction is deposited to the State License Branch Fund.



**Appendix I**  
**Wheel Tax Revenue Model Output - Maximum Flat Fee**



**Wheel Tax Revenue Model - Rates by County**  
 Estimated Wheel Tax Paid per Applicable Registered Vehicle  
 (Calculated using a dollars per vehicle rate between \$5.00 and \$40.00)

County	Buses (2)	Farm	Farm	Farm	Recovery	Tractors (2)	Trailers over	Trucks over	Total	Rate	Region Gross	State License	Region Net
		Trucks (2)	Trailers (2)	Tractors (2)	Vehicles (2)		3,000 lbs. (2)	11,000 lbs. (2)			Incremental Revenue	Branch Fund Allowance (3)	Incremental Revenue
Boone	-	370	130	130	40	60	5,380	1,120	7,230	\$ 40.00	\$ 289,000	\$ 1,100	\$ 288,000
Hamilton	-	330	140	70	60	80	15,730	2,770	19,180	40.00	767,000	2,900	764,000
Hancock	-	450	130	130	60	40	7,330	950	9,090	40.00	364,000	1,400	363,000
Hendricks	-	460	170	130	70	160	11,300	2,400	14,690	40.00	588,000	2,200	586,000
Johnson	-	460	140	20	70	60	10,020	1,350	12,120	40.00	485,000	1,800	483,000
Madison	-	470	120	160	50	90	12,540	1,630	15,060	40.00	602,000	2,300	600,000
Marion	210	130	40	10	490	810	34,330	12,820	48,840	40.00	1,954,000	7,300	1,947,000
Morgan	-	570	180	80	50	50	9,350	1,060	11,340	40.00	454,000	1,700	452,000
Shelby	-	460	120	140	20	70	5,110	850	6,770	40.00	271,000	1,000	270,000
<b>Region Total</b>	<b>210</b>	<b>3,700</b>	<b>1,170</b>	<b>870</b>	<b>910</b>	<b>1,420</b>	<b>111,090</b>	<b>24,950</b>	<b>144,320</b>		<b>\$ 5,774,000</b>	<b>\$ 21,700</b>	<b>\$ 5,753,000</b>

- (1) Counties may impose different tax rates for each particular class of vehicle, and for each weight classification within the class of vehicle. The rate must be between \$5 and \$40.
- (2) Source: Indiana Business Research Center Bureau of Motor Vehicle Registration Statistics for 2005
- (3) \$0.15 of the Wheel Tax collected for each transaction is deposited to the State License Branch Fund.



**Appendix J**  
**Excise Surtax Revenue Model Output – Minimum Flat Fee**



**Excise Surtax Revenue Model - County Detail**  
 Estimated Excise Surtax Paid per Applicable Registered Vehicle  
 (Calculated using a dollars per vehicle rate between \$7.50 and \$25.00)

<u>County</u>	<u>Passenger Cars (2)</u>	<u>Motorcycles (2)</u>	<u>Trucks 11,000 lbs. or Less (2)</u>	<u>Total</u>	<u>Rate</u>	<u>Region Gross Incremental Revenue</u>	<u>State License Branch Fund Allowance (2)</u>	<u>Region Net Incremental Revenue</u>
Boone	31,100	1,400	14,200	46,700	\$ 7.50	\$ 350,000	\$ 7,000	\$ 343,000
Hamilton	151,200	5,200	39,300	195,700	7.50	1,468,000	29,000	1,439,000
Hancock	38,600	1,900	19,800	60,300	7.50	452,000	9,000	443,000
Hendricks	71,500	3,900	34,400	109,800	7.50	824,000	16,000	808,000
Johnson	75,000	3,800	33,900	112,700	7.50	845,000	17,000	828,000
Madison	70,900	3,800	35,900	110,600	7.50	830,000	17,000	813,000
Marion	510,700	15,800	173,500	700,000	7.50	5,250,000	105,000	5,145,000
Morgan	38,000	2,800	24,600	65,400	7.50	491,000	10,000	481,000
Shelby	24,200	1,500	15,300	41,000	7.50	308,000	6,000	302,000
<b>Region Total</b>	<b>1,011,200</b>	<b>40,100</b>	<b>390,900</b>	<b>1,442,200</b>		<b>\$ 10,818,000</b>	<b>\$ 216,000</b>	<b>\$ 10,602,000</b>

- (1) Counties may impose the Surtax at rates ranging between 2%-10% of the excise tax that would have been due under the pre-1996 excise tax rate table with a minimum fee of \$7.50. Counties may also impose a flate fee between \$7.50 and \$25.00.
- (2) Source: Indiana Business Research Center Bureau of Motor Vehicle Registration Statistics for 2005
- (3) \$0.15 of the Excise Surtax collected for each transaction is deposited to the State License Branch Fund.



**Appendix K  
Excise Surtax Revenue Model Output– Median Flat Fee**



**Excise Surtax Revenue Model - County Detail**  
 Estimated Excise Surtax Paid per Applicable Registered Vehicle  
 (Calculated using a dollars per vehicle rate between \$7.50 and \$25.00)

<u>County</u>	<u>Passenger Cars (2)</u>	<u>Motorcycles (2)</u>	<u>Trucks 11,000 lbs. or Less (2)</u>	<u>Total</u>	<u>Rate</u>	<u>Region Gross Incremental Revenue</u>	<u>State License Branch Fund Allowance (2)</u>	<u>Region Net Incremental Revenue</u>
Boone	31,100	1,400	14,200	46,700	\$ 16.25	\$ 759,000	\$ 7,000	\$ 752,000
Hamilton	151,200	5,200	39,300	195,700	16.25	3,180,000	29,000	3,151,000
Hancock	38,600	1,900	19,800	60,300	16.25	980,000	9,000	971,000
Hendricks	71,500	3,900	34,400	109,800	16.25	1,784,000	16,000	1,768,000
Johnson	75,000	3,800	33,900	112,700	16.25	1,831,000	17,000	1,814,000
Madison	70,900	3,800	35,900	110,600	16.25	1,797,000	17,000	1,780,000
Marion	510,700	15,800	173,500	700,000	16.25	11,375,000	105,000	11,270,000
Morgan	38,000	2,800	24,600	65,400	16.25	1,063,000	10,000	1,053,000
Shelby	24,200	1,500	15,300	41,000	16.25	666,000	6,000	660,000
<b>Region Total</b>	<b>1,011,200</b>	<b>40,100</b>	<b>390,900</b>	<b>1,442,200</b>		<b>\$ 23,435,000</b>	<b>\$ 216,000</b>	<b>\$ 23,219,000</b>

- (1) Counties may impose the Surtax at rates ranging between 2%-10% of the excise tax that would have been due under the pre-1996 excise tax rate table with a minimum fee of \$7.50. Counties may also impose a flate fee between \$7.50 and \$25.00.
- (2) Source: Indiana Business Research Center Bureau of Motor Vehicle Registration Statistics for 2005
- (3) \$0.15 of the Excise Surtax collected for each transaction is deposited to the State License Branch Fund.



**Appendix L  
Excise Surtax Revenue Model Output– Maximum Flat Fee**



**Excise Surtax Revenue Model - County Detail**  
 Estimated Excise Surtax Paid per Applicable Registered Vehicle  
 (Calculated using a dollars per vehicle rate between \$7.50 and \$25.00)

<u>County</u>	<u>Passenger Cars (2)</u>	<u>Motorcycles (2)</u>	<u>Trucks 11,000 lbs. or Less (2)</u>	<u>Total</u>	<u>Rate</u>	<u>Region Gross Incremental Revenue</u>	<u>State License Branch Fund Allowance (2)</u>	<u>Region Net Incremental Revenue</u>
Boone	31,100	1,400	14,200	46,700	\$ 25.00	\$ 1,168,000	\$ 7,000	\$ 1,161,000
Hamilton	151,200	5,200	39,300	195,700	25.00	4,893,000	29,000	4,864,000
Hancock	38,600	1,900	19,800	60,300	25.00	1,508,000	9,000	1,499,000
Hendricks	71,500	3,900	34,400	109,800	25.00	2,745,000	16,000	2,729,000
Johnson	75,000	3,800	33,900	112,700	25.00	2,818,000	17,000	2,801,000
Madison	70,900	3,800	35,900	110,600	25.00	2,765,000	17,000	2,748,000
Marion	510,700	15,800	173,500	700,000	25.00	17,500,000	105,000	17,395,000
Morgan	38,000	2,800	24,600	65,400	25.00	1,635,000	10,000	1,625,000
Shelby	24,200	1,500	15,300	41,000	25.00	1,025,000	6,000	1,019,000
<b>Region Total</b>	<b>1,011,200</b>	<b>40,100</b>	<b>390,900</b>	<b>1,442,200</b>		<b>\$ 36,057,000</b>	<b>\$ 216,000</b>	<b>\$ 35,841,000</b>

- (1) Counties may impose the Surtax at rates ranging between 2%-10% of the excise tax that would have been due under the pre-1996 excise tax rate table with a minimum fee of \$7.50. Counties may also impose a flate fee between \$7.50 and \$25.00.
- (2) Source: Indiana Business Research Center Bureau of Motor Vehicle Registration Statistics for 2005
- (3) \$0.15 of the Excise Surtax collected for each transaction is deposited to the State License Branch Fund.



**Appendix M**  
**Estimated Total Incremental Revenue Model Output**



**Total Estimated Revenue**

<u>Source</u>	<u>Estimated Revenue</u>	<u>Average Tax Rate</u>	<u>Weighted Average Tax Rate (Base)(1)</u>
Income Tax	\$ 37,245,000	0.1000 %	0.1000 %
Food and Beverage Tax	3,828,000	0.1000 %	0.1000 %
Sales Tax	20,141,000	0.1000 %	0.1000 %
Fuel Tax	869,000	\$0.0010 per gallon	\$ 0.0010 per gallon
Salaries and Wages Tax	34,390,000	0.1000 %	0.1000 %
Vehicle Mileage Tax	18,580,000	\$0.0010 per mile	\$ 0.0010 per mile
Excise Surtax	10,602,000	\$ 7.50 per vehicle	\$ 7.50 per vehicle
Wheel Tax (County Rate)	700,000	\$ 5.00 per vehicle	\$ 5.00 per vehicle
Wheel Tax (Vehicle Type)	-	\$ - per vehicle	\$ - per vehicle
<b>Total</b>	<b>\$ 126,355,000</b>		

(1) Weighted average does not apply to Sales Tax or Fuel Tax because their rates are not varied by County in the Study Area.



The purpose of the revenue models is to project incremental revenue for mass transit funding by estimating revenue from new revenue sources or increasing rates for current sources. The two variables within the revenue models are tax base and tax rate. The variable that can be adjusted to forecast revenue is tax rate.

The tax base is the resource available for taxation. The tax base is expressed either in dollars or units, depending on if the tax is a percentage of taxable value or is a fee per base unit. Using the logic outline in this study, if the tax base has been identified as sensitive to higher tax rates and would, therefore, decrease, the base has been decreased by 5 percent. The tax base cannot be changed.

The tax rate is a percentage or fee applied to the base. For existing taxes, the rate used in the models would be added to the current tax rate. For proposed new taxes, the tax rate used in the models is the total tax rate. Multiplying the tax rate by the tax base will result in the estimated incremental revenue.

In the revenue models, the tax rate can either be solved for or hard coded. To solve for the tax rate required to reach a specified revenue target, the revenue target is entered on the "Solve for Rate" tab. The calculated tax rate will then automatically populate the rate column of the model. If solving for a tax rate, values on the Rate tab should all be zero (0).

If the tax rate is pre-determined, it should be hard coded on the "Rate" tab. The tax rate can be entered as one rate for the entire region, or it can be varied by County. If using a varied rate by County, the Region rate must be zero. When entering the tax rate, do not move the decimal place to account for the number being a percentage. The formula for estimated incremental revenue will divide the rate by 100. For example, if the desired tax rate is 5%, then enter 5 as the rate. Fee per unit tax rates should be entered normally. For example, a 10 cent rate would be entered as .10.

Estimated incremental revenue is the estimated revenue created by either implementing a new tax or increasing the current tax rate. For the revenue models in the Appendices using a percentage tax rate, the models are set up to read as, for every one-tenth of one percent (.10%) increase in the tax rate, \$X of incremental revenue is created. If the tax rate is increased in multiples of .10%, then revenue can be easily projected. For revenue models in the Appendices using a fee per unit rate, the models are set up to read as, for every one-tenth of one cent (\$0.0010) increase in the tax rate, \$Y of incremental revenue is created. If the tax rate is increased in multiples of \$0.0010, then revenue can be easily projected.

To keep track of the total amount of revenue estimated by altering tax rates in the models, use the Total Estimated Revenue model. This model tracks the total revenue estimated from each model. It also provides the average tax rate use in each individual model. The average is expressed both as a pure average and a weighted average using the tax base.

Some taxes have a collection allowance, which allows the entity collecting the tax to retain a specified percentage of collections. If a revenue source has a collection allowance, the revenue model will show a calculation of gross estimated incremental revenue and net estimated incremental revenue. Net estimated incremental revenue is simply the gross estimated incremental revenue less the applicable collection allowance.