

## 1. Introduction

The Milton Madison Bridge is slated for reconstruction between CY2010 and CY2012 and is scheduled to be completely closed to traffic in CY2011. The purpose herein is to present the methodology employed and results derived for the economic analysis of that reconstruction on the combined regional economy of Jefferson Co., IN, Trimble Co., KY, and Carroll Co., KY. Two separate components are assessed in this analysis: the positive economic impact from construction expenditures on the new span; and, the adverse regional economic impact to businesses and industries in CY2011, during the bridge closure.

## 2. Analysis Methodology

Separate methodological approaches are adopted for the two components, as outlined in the subsections below; however, the impact estimations for both components are calculated utilizing the same economic impact model: IMPLAN<sup>®</sup> Professional v2.0, with 2007 data. A general IMPLAN<sup>®</sup> model description is provided in the **Appendix**.

All estimated economic impacts presented herein pertain to a tri-county study area, comprised of Jefferson Co., IN, Trimble Co., KY, and Carroll Co., KY. Results are presented annually, in terms of full-time equivalent (FTE) employment and economic output impacts. Additionally, a distinction in direct, indirect, induced, and total impacts is presented for each impact measure.

### 2.1. Impact Measures

Impacts are measured in terms of economic output and employment.

*Economic output*, or gross regional product<sup>1</sup>, is the monetary measure of the final goods and services produced within the regional economy (presented annually herein, except where cumulatively aggregated across a multi-year analysis horizon). Economic output impacts are presented in constant 2009 dollar terms, rounded to the nearest thousand.

*Employment* impacts measure the number of jobs occupied in the production of those final goods and services. Employment impacts are estimated and presented in job-years (i.e., a FTE employment position over one year, or 2080 hours). Cumulative job-year impacts across a multi-year analysis do not necessarily equate to the total number of employed persons over that timeframe.<sup>2</sup>

### 2.2. Impact Types

Impact types comprise the direct and indirect/induced (i.e., multiplier) impacts.

*Direct* impacts pertain only to specific industries directly affected by changes in expenditures, economic output, or employment; e.g., the direct impacts resulting from construction expenditures occur only within the construction industry.

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<sup>1</sup> Gross regional product is the regional equivalent to the national Gross Domestic Product (GDP).

<sup>2</sup> As IMPLAN<sup>®</sup> is a static model, the derived economic impacts are presented as annual snapshots; as such, the model is incapable of determining which precise employment impacts carry from one year to the next. Annually recurring employment impacts stemming from the same mechanism, as measured in job-years, may account for the same employed person over multiple years or alternatively, the same employment position with personnel turnover.

*Indirect* and *induced* impacts, synonymous with the multiplier impacts, can occur in all industries within the defined study area. Purchases of goods and services by directly impacted industries from others and the subsequent purchases by those industries, in turn, relate to the *indirect* impacts. *Induced* impacts result from the purchases by employees and proprietors with earned labor income received from the directly and indirectly impacted industries. *Total* impacts are the cumulative direct, indirect, and induced impacts.

## **2.3. Impact Components**

Two components of the economic analysis are assessed: the first is the positive impact associated with the rehabilitation of the bridge, the second is the adverse regional impact associated with businesses dependent on bridge transport for operations.

### **2.3.1. Bridge Construction Impacts**

Provided with scheduled construction expenditures over the three-year period, the relating economic impacts are estimated based on adjustments to that data and an application of the IMPLAN<sup>®</sup> model. IMPLAN<sup>®</sup> enables expenditure-based impact modeling, in that the model inputs reflect direct changes in annual industry output or employment (as directly equated to changes in industry expenditures). Regional construction expenditures for a new bridge with funding provided primarily by state and federal governments translate almost entirely into direct economic output for the construction industry in the region; i.e., the externally supplied expenditures serve as a positive exogenous economic stimulus to the region, spurring economic activity above the baseline economic conditions. If construction expenditures are drawn from local government coffers, the impacts are not incremental over the baseline as with external funding, but reflect a redistributive impact of the limited local resources. A regional redistributive impact may not necessarily be positive in aggregate.

A direct change in construction industry output is run through the structural matrix within the model (i.e., deriving the multiplier impacts), in turn, providing the total economic impact. However, in translating the scheduled expenditure amounts into direct changes in regional construction economic output, the regional ability to supply the necessary capital and labor to meet the expenditure demands must be considered.

Embedded in the geographically-specific IMPLAN<sup>®</sup> data is a measure that accounts for the local ability of industries to satisfy demands: the regional purchase coefficient (RPC). An RPC for each regional industry is a fractional value ranging between zero and one, measuring the extent to which every dollar demanded of a specific good or service in the regional economy is supplied by the regional economy. Regional demands unsatisfied by local supply, due to capital and labor constraints, are satisfied by regional imports (i.e., from other geographies within the United States, in this case). Spending on regional imports is an expenditure leakage, as the expenditure and recirculation of that expenditure occurs beyond the regional economy, thus resulting in no regional economic impact.

Construction of the Milton Madison Bridge is estimated to total \$131 million (in constant 2009 dollars) spanning CY2010 through CY2012. Of the \$131 million, \$8 million is proportioned for design and engineering services, which are assumed to be conducted by firms located beyond the tri-county study area. As such, only the remaining \$123 million is regionally applicable for impact modeling. After the model-specific construction industry RPC is applied to the \$123

million construction expenditure estimate, the remaining \$111.3 million, allocated over the three-year construction period (i.e., CY2010 through CY2012), serves as model inputs.

### **2.3.2. Business/Industry Impacts from the MMB Closure in CY2011**

A bridge closure is unique because it affects businesses and industries depending on a myriad of factors, including: distances to the closed bridge and alternative routes, bridge dependency (input suppliers, final goods and services movements, customers, employees, etc.), industry type, industry size, economic industry structure, locations of competition, etc. All these locally-specific and unique factors complicate the process of deriving the regional impact.

#### ***Business Surveys and Interviews –***

Given that the Milton Madison Bridge closure is unique, locally-obtained relevant information relating to the expected affect of the bridge closure on business serves as a modeling premise, rather than impact estimations based on externally culled and applied assumptions. A business survey instrument was developed and conducted to understand how the closure would affect local businesses dependent on the bridge; the survey is provided at the end of the **Appendix**. Information obtained from the surveys was applied, in conjunction with regional economic data, to estimate direct job and output losses, which serve as inputs into the IMPLAN<sup>®</sup> model.

An encompassing list of businesses located within the tri-county study area was compiled, representative of the regional economic structure, and amassed via various mechanisms (e.g., local knowledge, business references, site visits, a business database, etc.). A first round of in-person business interviews yielded approximately thirty applicable<sup>3</sup> survey responses. A second round followed, mostly via telephone, to ensure sufficient representative coverage. In total, approximately forty applicable surveys were compiled.

#### ***Direct Impact Estimates –***

Modeling assumptions based on the responses enable an estimate of the direct change in economic output and employment in the tri-county region resulting from the annual bridge closure. Direct employment and economic output measures derived from the survey responses are input into the IMPLAN<sup>®</sup> model, which calculates the multiplier and total impacts.<sup>4</sup>

Responses pertaining to the anticipated reductions in business employment and annual sales (i.e., the “Economic Impact Information” section of the survey) serve as the primary modeling basis in the estimations of direct impacts. Responses to other portions of the survey serve as check mechanisms to ensure response consistency and to supplement the impact estimation inputs. A spread estimate (i.e., low, medium, and high)<sup>5</sup> of the anticipated direct impacts is asked of the business respondents as well as baseline annual FTE employment and sales levels to determine a range of expected representative percentage impacts to the tri-county regional economy.

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<sup>3</sup> While more survey responses were compiled, some were dismissed because of model inapplicability, given those in which the information obtained was either insufficient or qualitative.

<sup>4</sup> This process is similar to the construction expenditure inputs outlined in the previous impact component.

<sup>5</sup> Not all surveys responses provide a full range of percentage estimates; however, a majority of the responses are sufficient for modeling without adjustments or assumptions. A few require assumptions to fill gaps; i.e., if only a point estimate is provided, no range (i.e., no probability distribution) is assumed, if low and high point estimates are provided, the medium assumption is the average of the two, etc.

Each business respondent is designated to an industry in the economic model and the given annual FTE employment and sales levels are compared to the base model industry data, providing a relative representation of that surveyed business/industry to the regional economy.<sup>6</sup> A calculated measure of relative representation is compared to the stated market share responses; most assumed market share responses are reasonable relative to base model data.

Based on representation measures and direct impacts per response, percent changes in annual FTE employment and sales (i.e., economic output), given as a range, are estimated for the entire tri-county region. Converting the individual survey responses into a regional impact is conducted via an aggregation of the representative survey impacts, firstly by industries within each of the three counties and then by industries within the entire study area.

Representative percentage changes in annual FTE employment and sales for each applicable industry in the tri-county region, for only those industries with an identified assumed impact<sup>7</sup>, are applied to the base IMPLAN<sup>®</sup> model data to derive the assumed direct change in absolute FTE employment and output in CY2011. Direct absolute changes, as model inputs, are calculated for a low, medium, and high estimation scenario for conditions of both expected regular ferry services and without ferry services.<sup>8</sup>

#### ***Business Diversion Adjustments –***

In deriving industry-specific representative changes in direct regional FTE employment and output, the response estimates of assumed business/industry losses are adjusted to reflect the expected diversion and retention of business activity within the tri-county study area. If business competition located within the tri-county region is poised to capture a portion of any assumed loss in annual sales, as stated by respondents, the calculated representative study area loss is revised to account for that regional economic retention.

#### ***Additional Modeling Considerations –***

While the survey instrument inquires about the impacts from goods and services exports and production imports expected to be affected by the bridge, a majority of the respondents either did not provide quantified information, or, if quantified, indicated that those movements are not expected to be notably or insurmountably affected by the closure. As such, any information compiled relating to this facet is not incorporated into the modeling process.

## **2.4. General Modeling/Results Caveats**

Underlying the estimation process are the following general caveats and modeling assumptions:

- An economic impact assessment at the county and industry levels is not presented because of the sensitivity of information disclosure from the survey instrument results. Providing

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<sup>6</sup> In few instances, the responses (i.e., FTE employment, annual sales/output, market share, etc.) exceed the base model levels for the identified industry; however, those responses tend not to exceed the base model data appreciably in either absolute or percentage terms. Businesses with responses as such are assumed to represent the entire industry in the stated county and the base IMPLAN<sup>®</sup> model data serves as the capped threshold from which the derived representative percentage changes are applied.

<sup>7</sup> Some survey responses indicate that, for the associated industry, no direct impacts are anticipated. As such, those industries covered by the surveys were dismissed and left out from modeling the direct impacts (however, those same industries may encounter indirect and induced impacts as a result of economic interconnections with the directly impacted industries).

<sup>8</sup> Ferry services serve as a temporary substitute for the bridge closure during CY2011.

an industry-level distinction would breach the confidentiality contract for those businesses that represent the entirety (or significant majority) of an industry in the study area or specific county.

- Based on public input, the impact modeling for the business component is subject to survey response error, as no valid confirmation mechanism is available to ensure the responses are accurate and representative.<sup>9</sup>
- Directly impacted industries for the business estimation component are assumed to occur only for those responsive to the survey instrument and for those indicating as such.
- IMPLAN<sup>®</sup> is a static model and constrained by the study area definition (i.e., any impacts that could occur beyond the defined tri-county region are not assessed).
- Results pertaining to the bridge closure are conservative estimates in that they only account for the expressed adverse impacts to the regional businesses. Other economically relevant facets from the closure may occur (with either positive or negative impacts), but are not derived in the analysis herein. As an example, an individual in a critical, life-threatening condition may be hindered from obtaining emergency medical attention because of the inaccessibility of timely services with the bridge closure; the economic impact could be assessed in terms of the loss to that individual in wages, productivity, or, in the extreme case, the statistical value of life.
- Estimated results do not take into consideration exogenous and unpredictable factors, assuming only a change in the bridge, all else ceteris paribus.

### 3. Economic Impact Results

Based on the methodologies outlined above, the following economic impacts are estimated. Impacts reflect the expected change following the bridge reconstruction relative to the normal baseline economic conditions.

#### 3.1. Construction Impacts

Given the scheduled bridge construction expenditures (i.e., \$41M in CY2010, \$62M in CY2011<sup>10</sup>, and \$20M in CY2012, as measured in constant 2009 dollars), the following economic output and employment impacts may be realized, as presented in **Exhibit 1**.

Cumulatively, across CY2010 through CY2012, the expenditure-related impact component is estimated to result in 968 direct job-years, 1,382 total job-years, \$111.3M in direct economic output, and \$152.5M in total economic output. In CY2011 alone (i.e., the year of the closure), the positive impact is estimated to measure 488 direct job-years, 697 total job-years, \$56.1M in direct economic output, and \$76.9M in total economic output.

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<sup>9</sup> Concerted effort is made to scrutinize the results and dismiss, address, or follow-up with respondents for clarification or elaboration on responses there seem illogical, counterintuitive, or unsubstantiated.

<sup>10</sup> Note that this amount implicitly accounts for the expenditures on the provision of ferry services in that year.

**Exhibit 1: Economic Impacts from MMB Construction**

Output Impacts (2009\$)				
Year	Direct	Indirect	Induced	Total
2010	\$ 37,097,000	\$ 6,889,000	\$ 6,863,000	\$ 50,849,000
2011	\$ 56,097,000	\$ 10,418,000	\$ 10,379,000	\$ 76,894,000
2012	\$ 18,096,000	\$ 3,361,000	\$ 3,348,000	\$ 24,805,000
Cumulative	\$ 111,290,000	\$ 20,668,000	\$ 20,590,000	\$ 152,548,000
Employment Impacts (FTE job-years)				
Year	Direct	Indirect	Induced	Total
2010	323	65	73	461
2011	488	99	110	697
2012	157	32	35	225
Cumulative	968	196	218	1,382

Source: Wilbur Smith Associates, with an application of the IMPLAN<sup>®</sup> model

**3.2. Business Impacts with Bridge Closure (CY2011)**

Based on the survey responses and an application of the calculated direct industry changes through IMPLAN<sup>®</sup>, the following plausible range of impacts are estimated, as presented in **Exhibit 2** and **Exhibit 3** for the without ferry services and with ferry services alternatives, respectively. Note that the impact numbers in parenthesis indicates a negative impact, or regional loss.

**3.2.1. Without Ferry Services**

Based on interview results and a representative scaling to capture impacts to the entire tri-county region, it is estimated (medium scenario) that approximately 479 direct job-years would be lost because of the bridge closure without any alternative ferry services in CY2011. Additionally, another 141 multiplier-related job-years (i.e., indirect and induced, combined) would be lost, for an overall total impact of 620 job-years in CY2011. A high, or worst-case, job loss estimate totals 816 job-years (combined direct and multiplier impacts); conversely, a low, or best-case, job loss estimate totals 425 job-years (combined direct and multiplier impacts).

Without alternative ferry services, \$40.1M is estimated to be directly lost in the regional economy, with a low and high range direct estimate of \$33.8M and \$46.8M, respectively. Accounting for the multiplier impacts, the total estimated loss to the regional economy in CY2011 without ferry services is estimated at \$53.7M, with a low and high range total estimate of \$45.3M and \$62.9M, respectively.

**Exhibit 2: Economic Impacts from MMB Closure without Ferry Services (CY2011)**

Output Impacts (2009\$)				
Estimate	Direct	Indirect	Induced	Total
Low	\$ (33,835,000)	\$ (5,398,000)	\$ (6,063,000)	\$ (45,294,000)
Medium	\$ (40,068,000)	\$ (6,390,000)	\$ (7,262,000)	\$ (53,720,000)
High	\$ (46,830,000)	\$ (7,452,000)	\$ (8,567,000)	\$ (62,850,000)
Employment Impacts (FTE job-years)				
Estimate	Direct	Indirect	Induced	Total
Low	(349)	(32)	(44)	(425)
Medium	(479)	(63)	(78)	(620)
High	(609)	(94)	(112)	(816)

Source: Wilbur Smith Associates, with an application of the IMPLAN<sup>®</sup> model

**3.2.2. With Ferry Services**

While the provision of regular ferry services would ameliorate the estimated regional losses relative to an alternative without ferry services, the effect is not expected to be dramatic: a 517 total job-year loss is estimated if ferry services are provided in the medium scenario, constituting 83 percent of the comparable impact estimate without ferry services. Alternatively, providing ferry services is expected to save only 103 total job-years in the medium scenario (with a low/high differential of 35 to 172 job-years, respectively). If ferry services are provided, low- and high-estimated direct losses measure 317 job-years and 500 job-years, respectively; in terms of total job losses, the low estimate is 390 job-years, the high estimate is 644 job-years.

Amelioration of economic output losses is comparable to the amelioration of employment losses if ferry services are provided. Approximately \$44.0M in total economic output is expected to be lost in the study region with the bridge closure and alternative ferry services, an economic output loss constituting 82 percent of the comparable impact estimation without ferry services.

Alternatively, ferry services could save approximately \$9.7M in total economic output in the medium case (with a low/high differential of \$9.4M to \$9.9M, respectively). If ferry services are provided, low- and high-estimated direct losses measure \$26.6M and \$39.1M, respectively; in terms of total output losses, the low estimate is \$35.9M, the high estimate is almost \$53.0M.

**Exhibit 3: Economic Impacts from MMB Closure if Ferry Services are Provided (CY2011)**

Output Impacts (2009\$)				
Estimate	Direct	Indirect	Induced	Total
Low	\$ (26,550,000)	\$ (4,462,000)	\$ (4,906,000)	\$ (35,918,000)
Medium	\$ (32,525,000)	\$ (5,419,000)	\$ (6,069,000)	\$ (44,014,000)
High	\$ (39,137,000)	\$ (6,462,000)	\$ (7,359,000)	\$ (52,957,000)
Employment Impacts (FTE job-years)				
Estimate	Direct	Indirect	Induced	Total
Low	(317)	(31)	(42)	(390)
Medium	(408)	(47)	(61)	(517)
High	(500)	(63)	(81)	(644)

Source: Wilbur Smith Associates, with an application of the IMPLAN<sup>®</sup> model

### 3.3. Impact Summary

Construction expenditures on the Milton Madison Bridge replacement are expected to result in an estimated cumulative (i.e., CY2010 through CY2012) total (i.e., direct and multiplier) positive impacts measuring 1,382 job-years and a corresponding \$152.5M in economic output. In CY2011, the year in which the bridge is scheduled for closure to the public, the adverse total (i.e., direct and multiplier) impact to regional business is estimated to amount to a loss of 620 job-years and \$53.7M in economic output in the medium scenario without the provision of alternative ferry services. With ferry services, the medium scenario total impact is estimated to amount to a loss of 517 job-years and \$44.0M in economic output. Provision of ferry services is thus estimated to save 103 job-years and \$9.7M in economic output in the regional economy under the medium scenario.

While the losses estimated for CY2011 from the bridge closure may not seem trivial, firstly, the total impacts constitute only a small percentage of the entire economic activity in the region and, secondly, the impacts losses in that year are more than offset by the cumulative impacts spanning CY2010 and CY2012 from the construction expenditures. Only in the high-estimate scenario of employment impacts to businesses/industries under the alternative without the provision of regular ferry services would the positive expenditure-related impacts in CY2011 not supersede the expected losses, resulting in a net loss in regional employment in that year. In all other alternatives and impact metrics, the positive expenditure-related impacts in CY2011 trump the estimated losses from the business impact component.

Accounting for expenditure-related impacts in CY2010 and CY2012 as well, the economic impact to the tri-county region across the cumulative analysis horizon is unequivocally net positive, despite the expected adverse impact to businesses/industries in CY2011.

It is important to note that in CY2011, while many of the multiplier impacts lost in the business component would be offset by the construction-related multiplier impact gains, the argument does not hold true for direct impacts. Directly impacted labor and capital typically is not transferable to other industries (e.g., an employee losing a job in the restaurant industry because of a reduced customer base and reduced sales cannot be directly hired and absorbed within the bridge construction industry).

According to the interviews, the anticipated business losses from the closure are temporary, with a gross majority of these jobs and output expected to return after the bridge is reopened.

## 4. Appendix

### 4.1. IMPLAN Model Description

IMPLAN<sup>®</sup> Professional v2.0, developed by the Minnesota IMPLAN Group (MIG), is an economic modeling, input-output based, social account matrix software with the capability of estimating the economic impacts to a defined geography ensuing from direct economic output or expenditures (or direct job impacts – directionally irrelevant) in an industry or group of industries. A social account matrix reflects the economic interrelationships between the various industries, households, and governments in an economy and measures the economic interdependency of each industry on others through impact multipliers. Impact multipliers are internally developed within IMPLAN<sup>®</sup>, derived from the regional purchase coefficients, production functions, and socioeconomic data for the defined economy, for each of the economic impact variables and are geographically-specific.

Although a capable model for determining the annual economic impact from expenditures within an industry or group of industries, a limitation of IMPLAN<sup>®</sup> is that it is static, since it estimates impacts only for a specific annual period – without any dynamic effects. An underlying assumption of the model is that the economic impacts will occur only in the year in which the expenditures occur and would not carry over into subsequent years, which could occur in certain instances.

The IMPLAN<sup>®</sup> model does not account for economic impacts beyond the predefined study area resulting from expenditure leakages outside that study area, despite the fact that expenditure leakages outside the study area result in economic impacts there. It is assumed that the economic impacts to the defined study area resulting from expenditure leakages outside the defined area are negligible.

### 4.2. Business Survey Instrument

Provided below is the business survey instrument utilized.

# Milton Madison Bridge

## Economic Impact Resulting from the Bridge Closure

### Business Survey Instrument

**Purpose:**

- Understand the anticipated economic effect of the slated Milton Madison Bridge (MMB) closure for one year on local businesses; and,
- Determine the total economic impact of the Milton Madison Bridge closure on the local economies in Trimble and Carroll Co., KY and Jefferson Co., IN (i.e., the Study Area).

### Notice to Survey Respondents

All survey information provided will remain strictly confidential. No statements or other information will be linked directly to individual respondents without the expressed permission of the respondent. Demographic, organizational, and other individual information collected from survey respondents will be used only by members of the project team for economic modeling purposes, and data from responses would be reported only in aggregate formats with other survey responses.

Interviewer		Date	
Company Name			
Address / Location			
County		State	
Contact / Interviewee			
Title			
Phone			
e-mail			
Other			
Notes			
*note: all sections highlighted with a light blue background are absolutely critical requirements for economic modeling			

### Company Background Information (applicable only to Study Area Location)

1	Company Description <sup>1</sup> (primary business activity)				
2	NAICS <sup>1</sup> Code(s)				
3	FTE <sup>2</sup> Employees				
4	Annual Sales (Revenues)	\$			
5	Estimated Market Share (as % of total Study Area sales)	low	%	high	%
6	Distance to MMB (in mi.)				miles
7	Other				

<sup>1</sup> North American Industry Classification System: please provide primary 4-digit codes if available/known – see reference document for classification scheme (however, can be determined by interviewer from company description)

<sup>2</sup> FTE: full-time equivalent (i.e., 1 FTE = 1 person employed for 2080 hours over 1 year);  
two part-time employees = 1 FTE

Bridge Dependency Information							
7	Estimated % of customers (in terms of annual sales) from across the Ohio River (routed via the MMB and located within the Study Area)	low	%	mid	%	high	%
7.1	Estimated % of those customers foregoing sales purchases because MMB closure						%
8	Estimated % of suppliers (in terms of annual \$ value of supply inputs) from across the Ohio River (routed via the MMB and within the Study Area)	low	%	mid	%	high	%
8.1	Estimated % of those suppliers foregoing supplying inputs because MMB closure						%

Economic Impact Information							
9	Estimated % loss in annual sales (revenues) from MMB closure	low	%	mid	%	high	%
9.1	Justification:						
10	Estimated % annual reduction in FTE employment from MMB closure	low	%	mid	%	high	%
10.1	Justification:						
11	How would regular ferry services, in lieu of the closed MMB or alternative crossings up- or downriver, offset these losses?						
12	Revise previous estimate, assuming regular ferry services in lieu of the closed MMB or alternative crossings up- or downriver						
12.1	Estimated % loss in annual sales (revenues) from MMB closure	low	%	mid	%	high	%
12.2	Estimated % annual reduction in FTE employment from MMB closure	low	%	mid	%	high	%

Other Relevant Information							
13	Estimate % of annual sales that result from exporting final products to beyond the study area, if any						%
13.1	Destination of exports						
13.2	Is this expected to be affected by the MMB closure (if so, what % loss)						%
14	Estimate % of production inputs (of total \$ value of production imports) imported from beyond the study area, if any						%
14.1	Origin of imports						
14.2	Is this expected to be affected by the MMB closure (if so, what % reduction)						%
15	What and where is the closest direct business competitor, and distance from current location (in mi.)?						
15.1	On same side of Ohio River (in Study Area)					mi.	
15.2	On same side of Ohio River (without Study Area)					mi.	
15.3	Across the Ohio River (in Study Area)					mi.	
15.4	Across the Ohio River (without Study Area)					mi.	
16	Are any of those competitors poised to capture your customer base (and revenues) because of the MMB closure? Explain.						
17	Estimate % of business diverted to competitor (identify which competitor)						%
18	Would the bridge closure adversely affect your business only during the closure, or continue thereafter? If thereafter, explain.						
19	Any other pertinent information relating to reliance on MMB or impact from closure?						