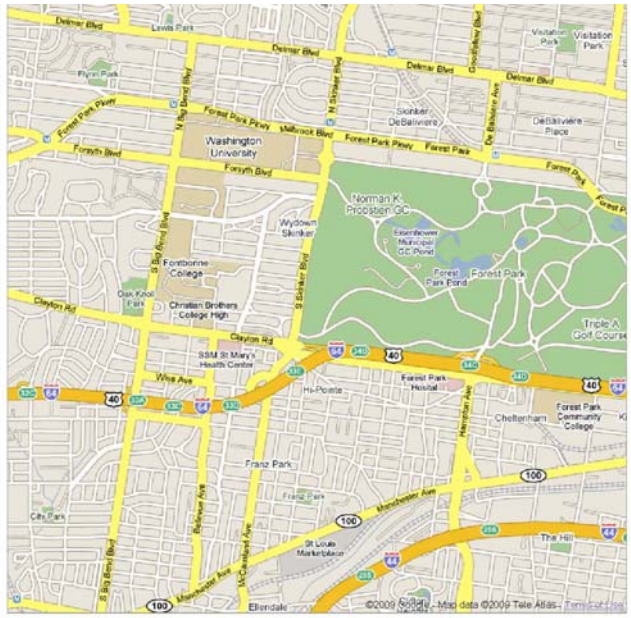
# The New I-64 Economic and Regional Mobility Study

## Quarterly Report #5

**December 2008- February 2009**


# 1. Executive Summary




On December 14, 2008, the eastern closure began with the closure of I-64 between I-170 and Kingshighway Boulevard. On December 15, 2008, the western closure of the New I-64 was opened to traffic. Partners again implemented their regional command center operations to ensure that any traffic flow conditions were addressed and responded to as the public adjusted to the change in closure along I-64.

This quarterly report assesses the period December 2008 through February 2009 that includes the 12th, 13th and 14th months of the I-64 closure, evaluating the three key areas of **Project Communications** (MoDOT's provision of information to the public, and the public's response to the project), **Mobility** (the effects of the closure on travel behavior, choices, and traffic flow), and **Economics** (the effects of the closure on businesses within the corridor as well as the economic health of the region). With the eastern closure now place; the study will begin to focus attention on potential differences in the eastern closure. To date, the research team has found:

| **Communications (pp. 2-6)** | **Mobility (pp. 7-12)** | **Economics (pp. 13-25)** |
|---|---|---|
| 169 online surveys since the east closure – satisfaction with how well managing to move around the St. Louis area with the closure is down. This fact was also noticed in the survey information received from motorist assist and the I-64 Traffic Response surveys.<br><br>All other key public indications are similar to the west closure survey information.<br><br>The best way to reach the public for both the east closure and west closure are similar.<br><br>The mail-in survey response was up to 11.6% return with minority participation also up.<br><br>The mail-in surveys also reflect a change satisfaction with how well managing to move around the St. Louis area with the closure similar to the online survey. All other key public indications were the same when comparing west and east closures. | Traffic flow, travel times and average speed continue to be similar as reported previously.<br><br>Travel patterns have changed as commuters adjusted the opening of the western section and the closure of the eastern section.<br><br>Annual report is being developed and will provide more in-depth analysis of mobility and safety issues. | Taxable sales are down for the region when compared to 2007. St. Louis like the rest of the nation is experiencing impacts from the current recession.<br><br>Residential and non-residential construction taxable sales are still below the 2005 level. This fact is characteristic of our nation in general.<br><br>The second business survey's major findings are included in this quarterly report. Satisfaction with MoDOT's execution of the project is 96%.<br><br>The initial survey had 169 responses compared to the 84 responses received in the second survey. This fact might be an indicator of perception of the business community on the impact of the I-64 project.<br><br>Survey participates still mentioned an increase in transportation cost. |

## 2. Communications

In this quarter, we obtained respondent input via a new online survey, recipients of Motorist Assistance, and from responses to our second mailed survey. In this report, the project team compared the results of previous surveys, which measured respondent perspectives on the Western Closure, with the new surveys which measure respondent perspectives on the Eastern Closure. **All three methods indicate that overall satisfaction remains high even though the Eastern Closure appears to be having more of an impact on behavior than the Western Closure did.**

**Online Survey**

Based on the online data, the Eastern Closure is having a greater impact on respondent behavior than that of the Western Closure. "Satisfaction with how well managing to move around the St. Louis area with the closure" is noticeably different. Despite this reported increased impact, overall satisfaction with MoDOT remains very high – almost identical to the results from the Eastern Closure as shown in table below.

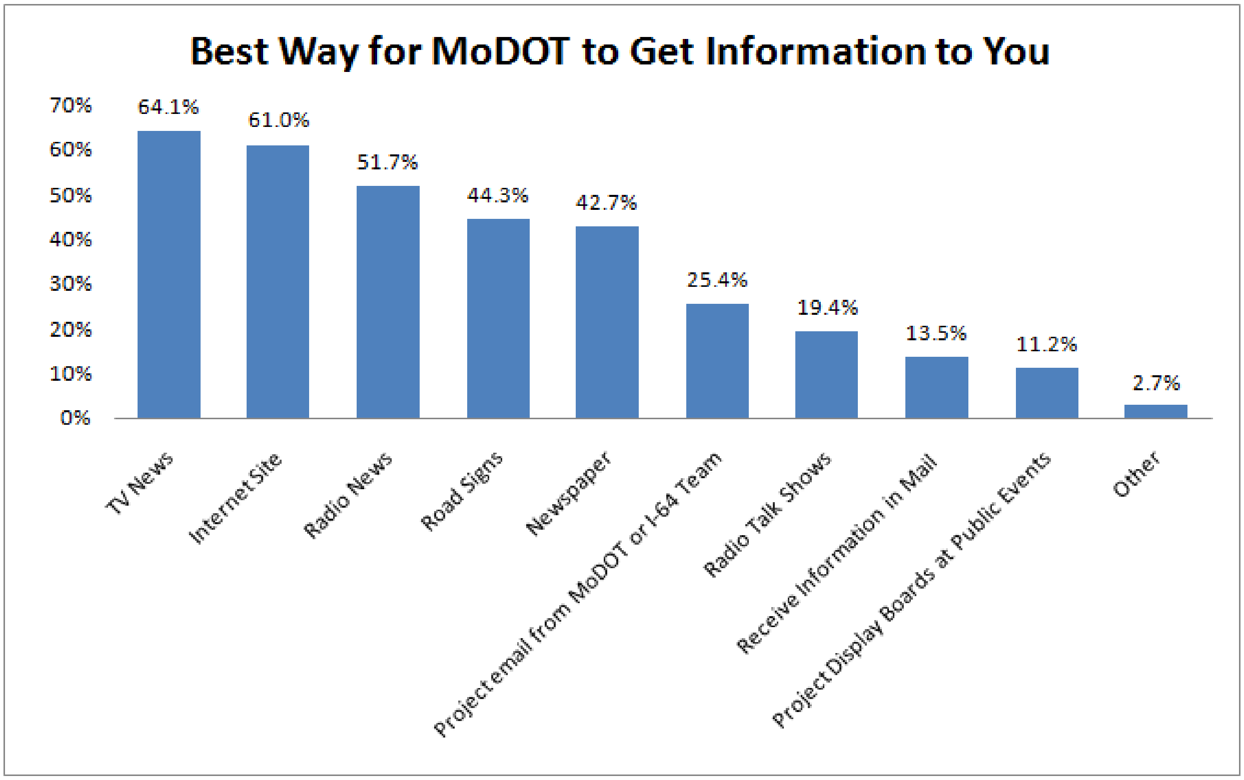
| **Key Public Indicators - Online Comparison of Both Closures** | Western Closure | Eastern Closure | Total |
|---|---|---|---|
| Overall level of satisfaction with how the I-64 closure has been handled | 76.7% | 75.8% | 76.6% |
| Satisfaction with how well the public kept informed about the new I-64 project | 88.7% | 89.8% | 88.9% |
| Satisfaction with how well managing to move around the St. Louis area w/ the closure | 69.7% | 58.1% | 68.4% |
| Satisfaction with timeliness of information being made available | 87.5% | 89.7% | 87.8% |
| Agreement with "the closure has changed where I shop" | 41.5% | 45.8% | 41.9% |
| Agreement with "the closure has changed how often I travel to certain areas" | 73.3% | 76.7% | 73.7% |
| Satisfaction with decision to complete the work by closing I-64 for 2 years instead of 6-8 years w/ lane closures | 76.5% | 80.5% | 77.0% |
| *Survey responses* | *1,362* | *169* | *1,531* |

Respondents are less satisfied with their ability to move around the St. Louis area and more likely to state that the Eastern Closure has changed where they shop and how often they travel to certain areas was noticed. The project team will monitor this trend in upcoming monthly and quarterly reports.

The best ways to reach online respondents is unchanged from last year as recorded in the following table:

| Best Way for MoDOT to Get Information to You | Western Closure | Eastern Closure | Total |
|---|---|---|---|
| TV News | 62.4% | 77.5% | 64.1% |
| Internet Site | 60.2% | 67.5% | 61.0% |
| Radio News | 51.2% | 55.6% | 51.7% |
| Road Signs | 43.2% | 52.7% | 44.3% |
| Newspaper | 43.0% | 40.2% | 42.7% |
| Project email from MoDOT or I-64 Team | 24.2% | 34.9% | 25.4% |
| Radio Talk Shows | 19.8% | 16.6% | 19.4% |
| Receive Information in Mail | 13.1% | 16.6% | 13.5% |
| Project Display Boards at Public Events | 10.8% | 14.8% | 11.2% |
| Other | 2.6% | 3.6% | 2.7% |

The following chart presents the total column to graphically indicate the best way to reach these respondents based on the on-line survey tool.




Throughout the online survey, respondents were given multiple opportunities to comment and many people did so. A supplement to this report has been provided that contains all of the recipient comments.

## Motorist Assist

Two key questions are asked via MoDOT's Motorist Assist program as another way of obtaining information. The change measured since the Eastern Closure has been minor, but in accordance with that of the other methods. People are finding it slightly more difficult to move around, but are still quite satisfied, especially with the decision to close I-64 for two years instead of six to eight years with lane closures. The following table shows the percentage comparison:

| **Key Public Indicators - Motorist Assist Comparison of Both Closures** | Western Closure | Eastern Closure | Total |
|---|---|---|---|
| Satisfaction with how well managing to move around the St. Louis area w/ the closure | 90.0% | 88.5% | 89.7% |
| Satisfaction with decision to complete the work by closing I-64 for 2 years instead of 6-8 years w/ lane closures | 93.8% | 95.1% | 94.1% |
| *Survey responses* | *3,837* | *816* | *4,653* |

**Mailed Survey**

As was done the previous year, 10,000 residents in the St. Louis Metropolitan area were mailed surveys in January. This year's response rate of 11.6% was significantly higher than that of last year. This greater response can probably be attributed to the additional year of publicity concerning the New I-64 Project. The following shows the comparison between the first and second mailed survey:

| | Western Closure | Eastern Closure |
|---|---|---|
| Number Mailed | 10,000 | 10,000 |
| Responses | 776 | 1,156 |
| Response Rate | 7.8% | 11.6% |

Minority participation increased to 22.9% of all respondents this year. All of the increase was due to a significant increase in the number of African American respondents. The percentages for the ethnic representation in the following table do not equal 100% because many respondents omitted this information.

| Ethnic Representation | Western Closure | Eastern Closure |
|---|---|---|
| American Indian | 1.5% | 0.6% |
| Asian | 0.9% | 0.7% |
| Black or African American | 16.0% | 19.9% |
| Hispanic or Latino | 1.2% | 0.6% |
| White or Caucasian | 76.8% | 73.4% |
| Other | 1.7% | 1.1% |

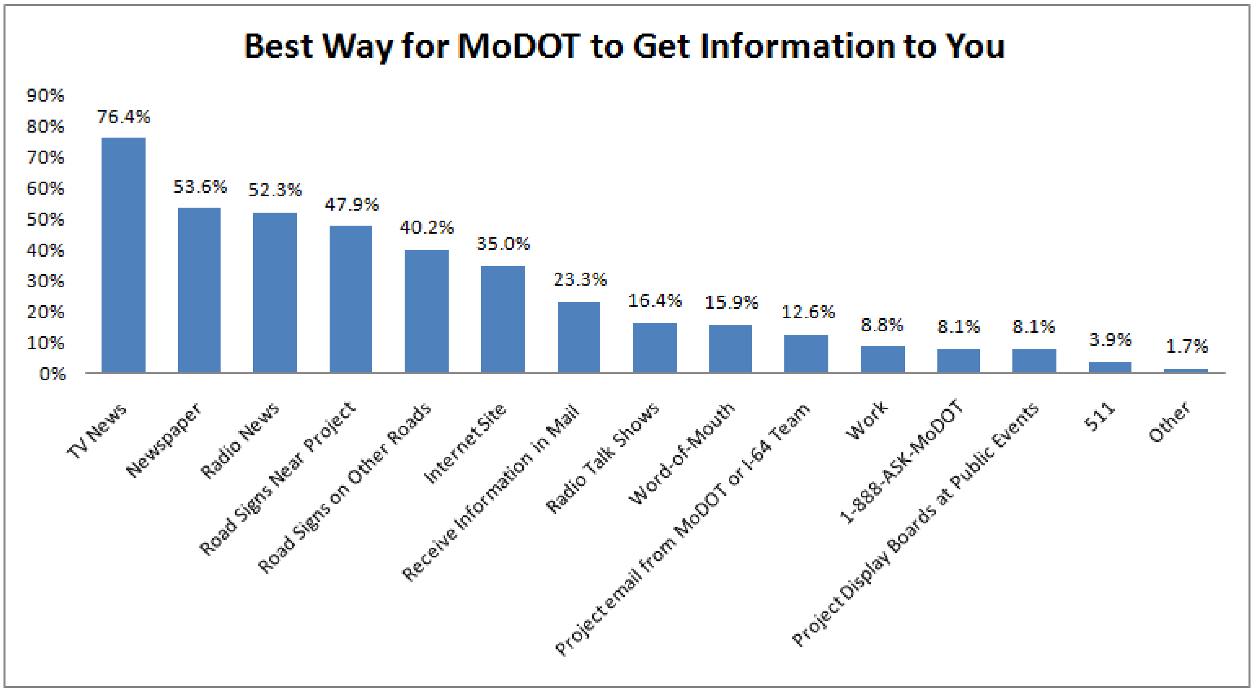
The Eastern Closure is having a greater impact on respondent behavior than that of the Western Closure. Despite this increased impact, satisfaction with MoDOT remains very high – almost identical to the results from the first mailing. The following table demonstrates the comparison between the Eastern and Western Closures:

| Key Public Indicators - Comparison of Two Mailings | Western Closure | Eastern Closure | Total |
|---|---|---|---|
| Overall level of satisfaction with how the I-64 closure has been handled | 87.8% | 89.4% | 88.8% |
| Satisfaction with how well the public kept informed about the new I-64 project | 94.9% | 94.7% | 94.8% |
| Satisfaction with how well managing to move around the St. Louis area w/ the closure | 82.6% | 73.7% | 77.3% |
| Satisfaction with timeliness of information being made available | 93.8% | 93.3% | 93.5% |
| Agreement with "the closure has changed where I shop" | 29.3% | 38.0% | 34.5% |
| Agreement with "the closure has changed how often I travel to certain areas" | 60.1% | 67.5% | 64.6% |
| Satisfaction with decision to complete the work by closing I-64 for 2 years instead of 6-8 years w/ lane closures | 85.1% | 90.8% | 88.5% |
| *Survey responses* | *776* | *1,156* | *1,932* |

The top seven ways for MoDOT to reach these respondents is unchanged from the previous results.

| Best Way for MoDOT to Get Information to You | Western Closure | Eastern Closure | Total |
|---|---|---|---|
| TV News | 76.0% | 76.6% | 76.4% |
| Newspaper | 55.2% | 52.5% | 53.6% |
| Radio News | 53.1% | 51.7% | 52.3% |
| Road Signs Near Project | 47.3% | 48.4% | 47.9% |
| Road Signs on Other Roads | 39.3% | 40.7% | 40.2% |
| Internet Site | 37.6% | 33.2% | 35.0% |
| Receive Information in Mail | 21.3% | 24.7% | 23.3% |
| Radio Talk Shows | 17.4% | 15.7% | 16.4% |
| Word-of-Mouth | 17.7% | 14.8% | 15.9% |
| Project email from MoDOT or I-64 Team | 11.3% | 13.5% | 12.6% |
| Work | 10.1% | 8.0% | 8.8% |
| 1-888-ASK-MoDOT | 8.2% | 8.0% | 8.1% |
| Project Display Boards at Public Events | 8.1% | 8.1% | 8.1% |
| 511 | 5.8% | 2.7% | 3.9% |
| Other | 1.8% | 1.6% | 1.7% |

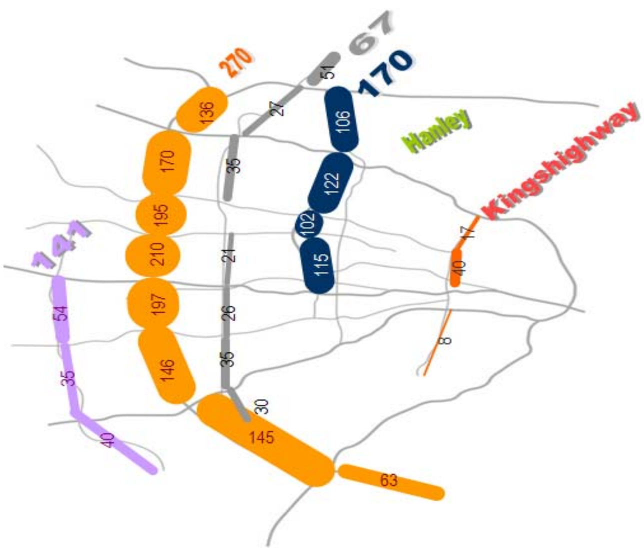
The following chart presents the total column to graphically indicate the best way to reach these respondents from mailed survey.


Best Way for MoDOT to Get Information to You
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
76.4%
53.6%
52.3%
47.9%
40.2%
35.0%
23.3%
16.4%
15.9%
12.6%
8.8%
8.1%
8.1%
3.9%
1.7%
TV News
Newspaper
Radio News
Road Signs Near Project
Road Signs on Other Roads
Internet Site
Receive Information in Mail
Radio Talk Shows
Word-of-Mouth
Project email from MoDOT or I-64 Team
Work
1-888-ASK-MoDOT
Project Display Boards at Public Events
511
Other

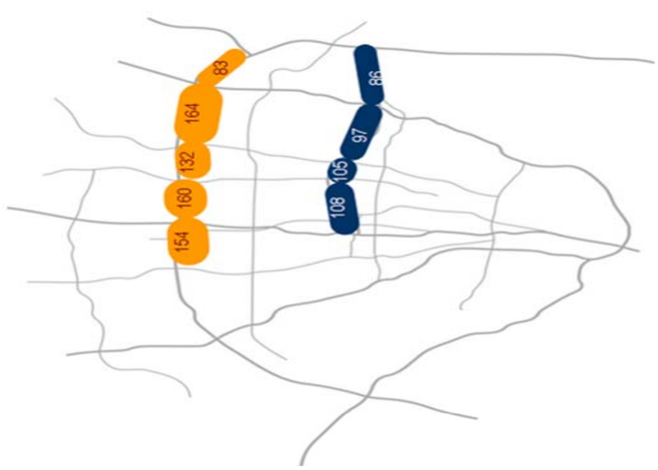
## 3. Mobility

The annual report will provide more detailed information and assessment on mobility impacts. Limited corridor comparisons are presented in this quarterly report as we prepare for the annual report when more detail information will be presented. The eastern closure continues to shifted traffic normally using the I-64 corridor to adjacent arterial and freeway corridors. The following provides baseline and quarter information for the freeway monitoring locations:

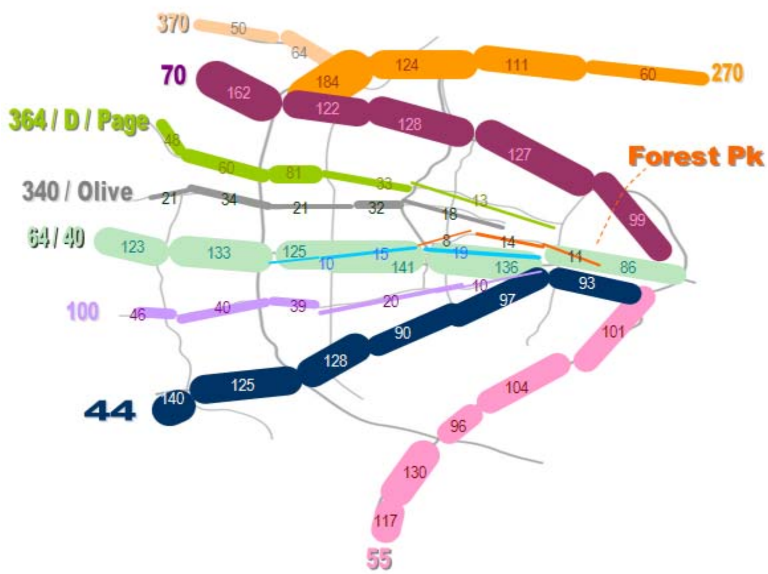
NS Baseline



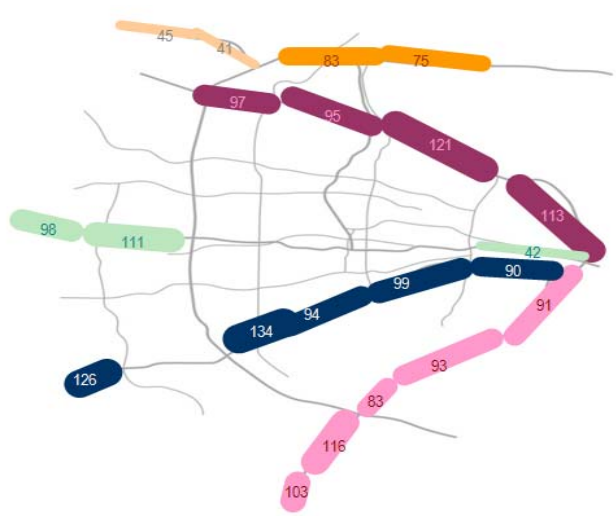

NS 2009



# EW Baseline

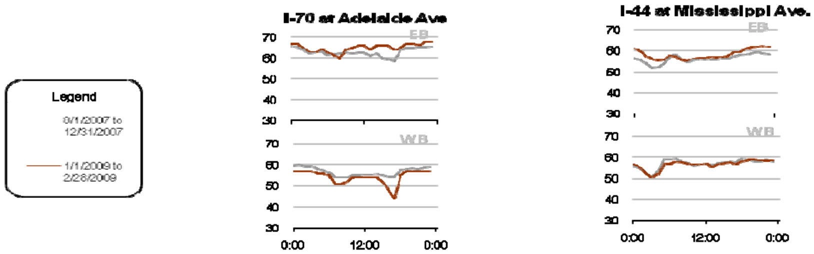



# EW 2009

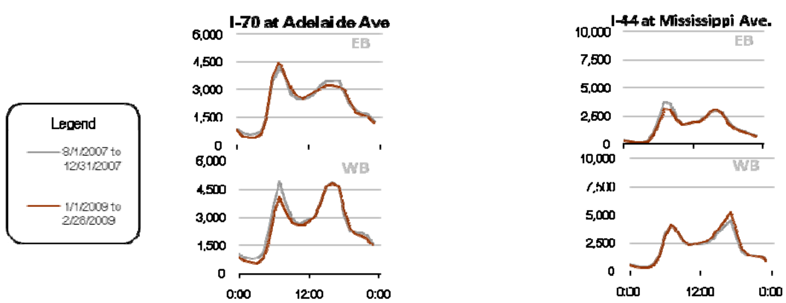


The following provides a sample of speed and traffic volume comparisons for the same quarter in the baseline and 2009.

# Speed



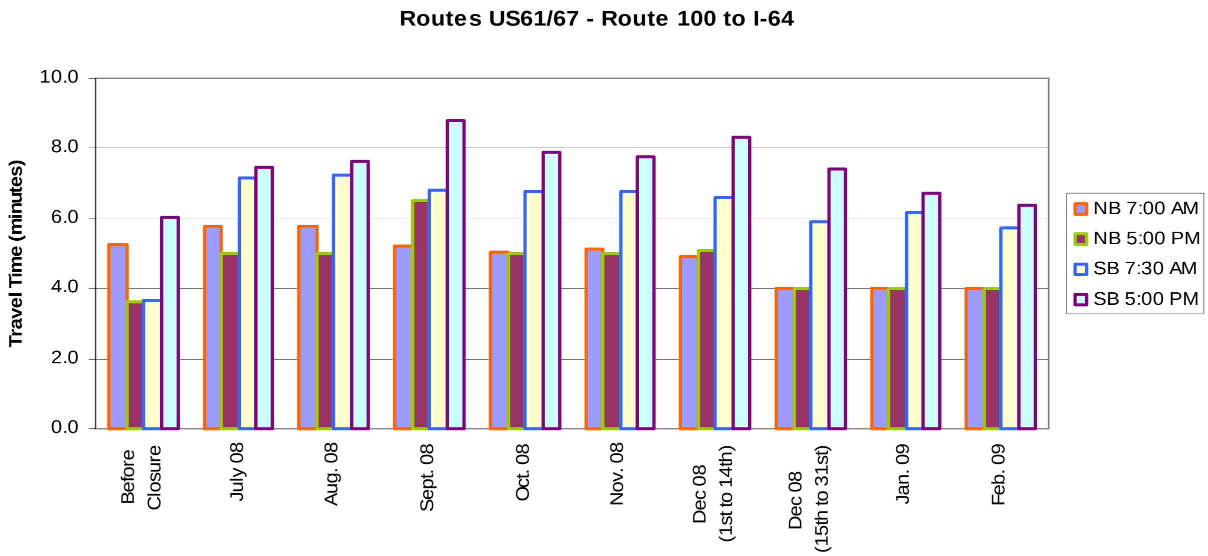

# Volume

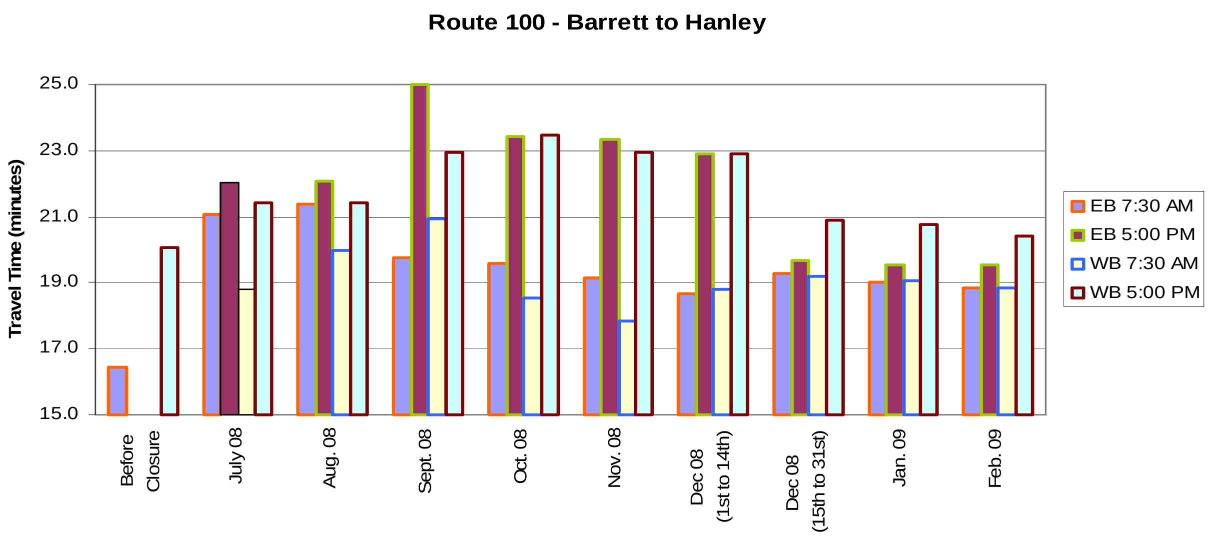


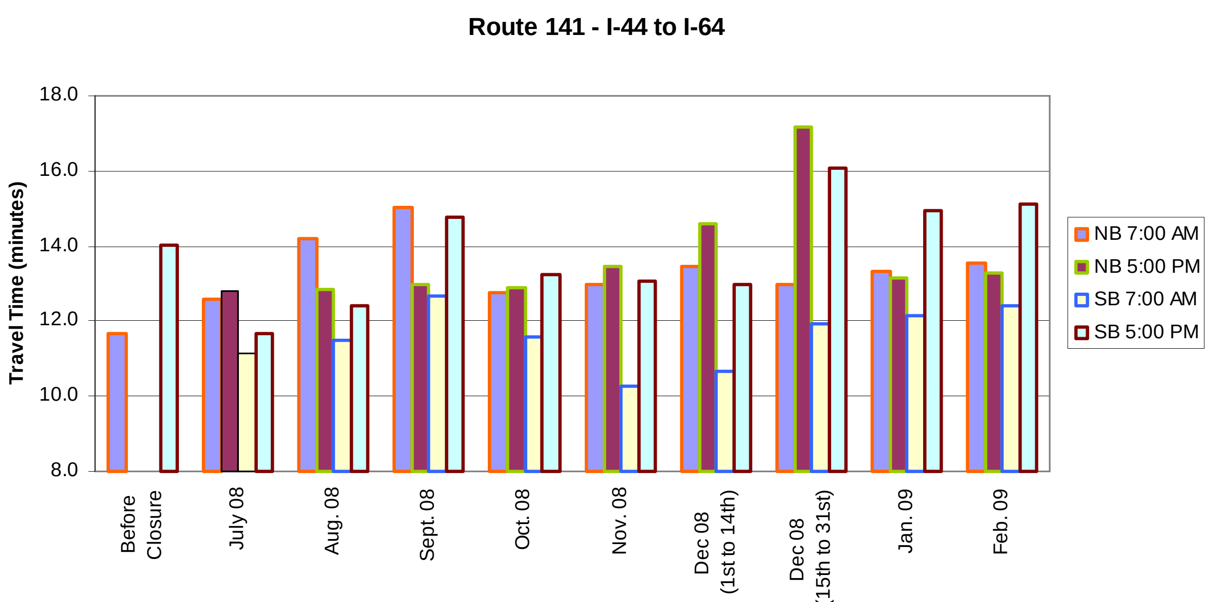
The following chart and graphs shows the travel times along monitored arterial corridors.

| Route | Segment | Direction | Peak Period | Travel Time (Min) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Before Closure | July 08 | Aug. 08 | Sept. 08 | Oct. 08 | Nov. 08 | Dec 08 (1st to 14th) | Dec 08 (15th to 31st) | Jan. 09 | Feb. 09 |
| US 61/67 | 100 to I-64 | NB | 7:00 AM | 5.3 | 5.8 | 5.8 | 5.2 | 5.1 | 5.2 | 4.9 | 4.0 | 4.0 | 4.0 |
| | | | 5:00 PM | 3.6 | 5.0 | 5.0 | 6.5 | 5.0 | 5.0 | 5.1 | 4.0 | 4.0 | 4.0 |
| | | SB | 7:30 AM | 3.7 | 7.2 | 7.2 | 6.8 | 6.8 | 6.8 | 6.6 | 5.9 | 6.2 | 5.8 |
| | | | 5:00 PM | 6.1 | 7.5 | 7.6 | 8.8 | 7.9 | 7.8 | 8.3 | 7.4 | 6.7 | 6.4 |
| 100 | Barrett to Hanley | EB | 7:30 AM | 16.5 | 21.1 | 21.4 | 19.8 | 19.6 | 19.2 | 18.7 | 19.3 | 19.0 | 18.9 |
| | | | 5:00 PM | -- | 22.0 | 22.1 | 25.0 | 23.4 | 23.4 | 22.9 | 19.7 | 19.5 | 19.6 |
| | | WB | 7:30 AM | -- | 18.8 | 20.0 | 21.0 | 18.5 | 17.9 | 18.8 | 19.2 | 19.0 | 18.9 |
| | | | 5:00 PM | 20.1 | 21.4 | 21.4 | 23.0 | 23.5 | 23.0 | 22.9 | 20.9 | 20.8 | 20.4 |
| MO141 | I-44 to I-64 | NB | 7:00 AM | 11.7 | 12.6 | 14.2 | 15.0 | 12.7 | 13.0 | 13.4 | 13.0 | 13.3 | 13.6 |
| | | | 5:00 PM | -- | 12.8 | 12.9 | 13.0 | 12.9 | 13.5 | 14.6 | 17.2 | 13.1 | 13.3 |
| | | SB | 7:00 AM | -- | 11.1 | 11.5 | 12.7 | 11.6 | 10.3 | 10.7 | 11.9 | 12.1 | 12.4 |
| | | | 5:00 PM | 14.0 | 11.7 | 12.4 | 14.8 | 13.2 | 13.1 | 13.0 | 16.1 | 15.0 | 15.1 |
| D (Page) | I-270 to I-170 | EB | 7:30 AM | 9.8 | 9.1 | 10.1 | 7.6 | 8.2 | 8.1 | 8.4 | 8.3 | 7.9 | 7.9 |
| | | | 5:00 PM | -- | 8.7 | 10.1 | 9.3 | 8.9 | 9.3 | 8.8 | 9.4 | 9.0 | 9.0 |
| | | WB | 7:30 AM | -- | 11.3 | 11.7 | 8.6 | 7.6 | 7.9 | 7.8 | 7.4 | 7.2 | 7.0 |
| | | | 5:00 PM | 10.6 | 11.2 | 11.6 | 8.5 | 8.7 | 8.4 | 8.9 | 9.3 | 8.0 | 7.9 |
| D (Page) | I-170 to Grand Ave. | EB | 7:30 AM | -- | | | | | | | | | 17.0 |
| | | | 5:00 PM | -- | | | | | | | | | 19.4 |
| | | WB | 7:30 AM | -- | | | | | | | | | |
| | | | 5:00 PM | -- | | | | | | | | | |

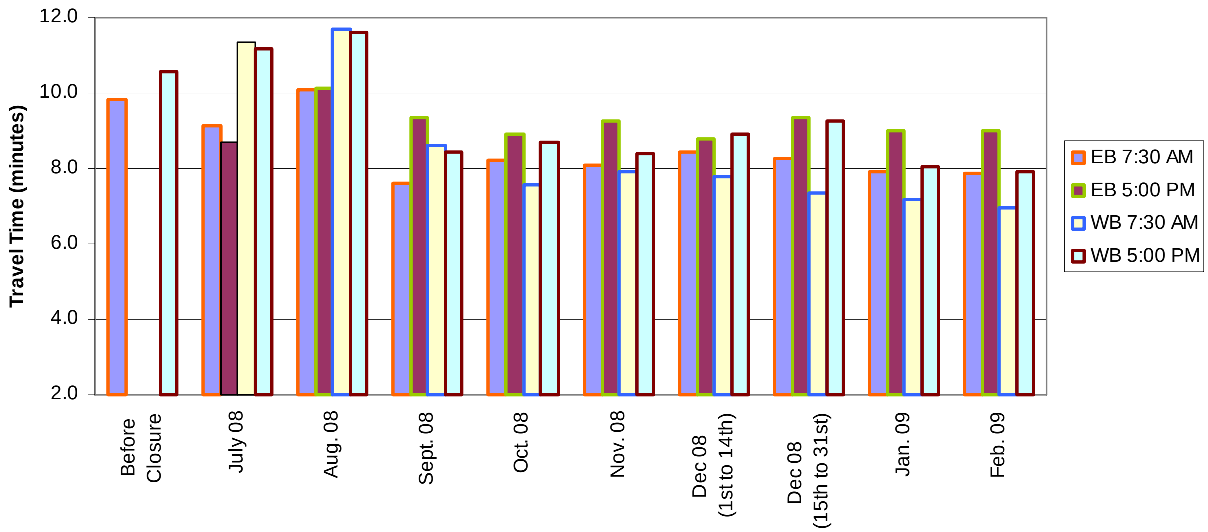
With East closure now in place, we have selected an additional section along Page east of I-170 to monitor. This additional section will be added in future reports to reflect traffic flow along arterials.


Routes US61/67 - Route 100 to I-64
Travel Time (minutes)
10.0
8.0
6.0
4.0
2.0
0.0
Before Closure
July 08
Aug. 08
Sept. 08
Oct. 08
Nov. 08
Dec 08 (1st to 14th)
Dec 08 (15th to 31st)
Jan. 09
Feb. 09
NB 7:00 AM
NB 5:00 PM
SB 7:30 AM
SB 5:00 PM

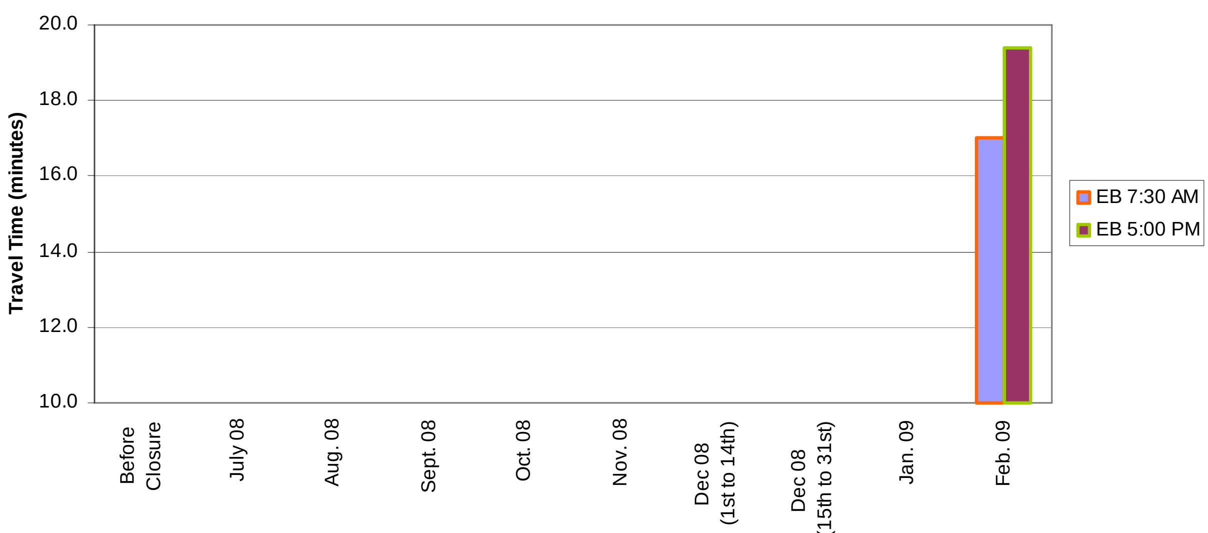

Route 100 - Barrett to Hanley
Travel Time (minutes)
25.0
23.0
21.0
19.0
17.0
15.0
Before Closure
July 08
Aug. 08
Sept. 08
Oct. 08
Nov. 08
Dec 08 (1st to 14th)
Dec 08 (15th to 31st)
Jan. 09
Feb. 09
EB 7:30 AM
EB 5:00 PM
WB 7:30 AM
WB 5:00 PM


Route 141 - I-44 to I-64
Travel Time (minutes)
18.0
16.0
14.0
12.0
10.0
8.0
Before Closure
July 08
Aug. 08
Sept. 08
Oct. 08
Nov. 08
Dec 08 (1st to 14th)
Dec 08 (15th to 31st)
Jan. 09
Feb. 09
NB 7:00 AM
NB 5:00 PM
SB 7:00 AM
SB 5:00 PM

## Route D (Page) - I-270 to I-170




## Route D (Page) - I-170 to Grand Ave.



# 4. Economics

The major highlight for this past quarter was the detailed analysis of taxable sales by industry type, and the analysis of the second business survey which is covered in the next section. In addition to the taxable sales data, the third quarter 2008 MERIC QCEW industry employment data was released. Below is an overview of economic indicators for the first three quarters of 2008 by region. Although the third quarter of 2008 does show a dip in employment for both the corridor and non-corridor, this drop in employment is consistent with historical trends. Looming large in any analysis of economic trends in 2008 is the economic slowdown as the nation officially began its current recession in December 2007, according to the National Bureau of Economic Research.

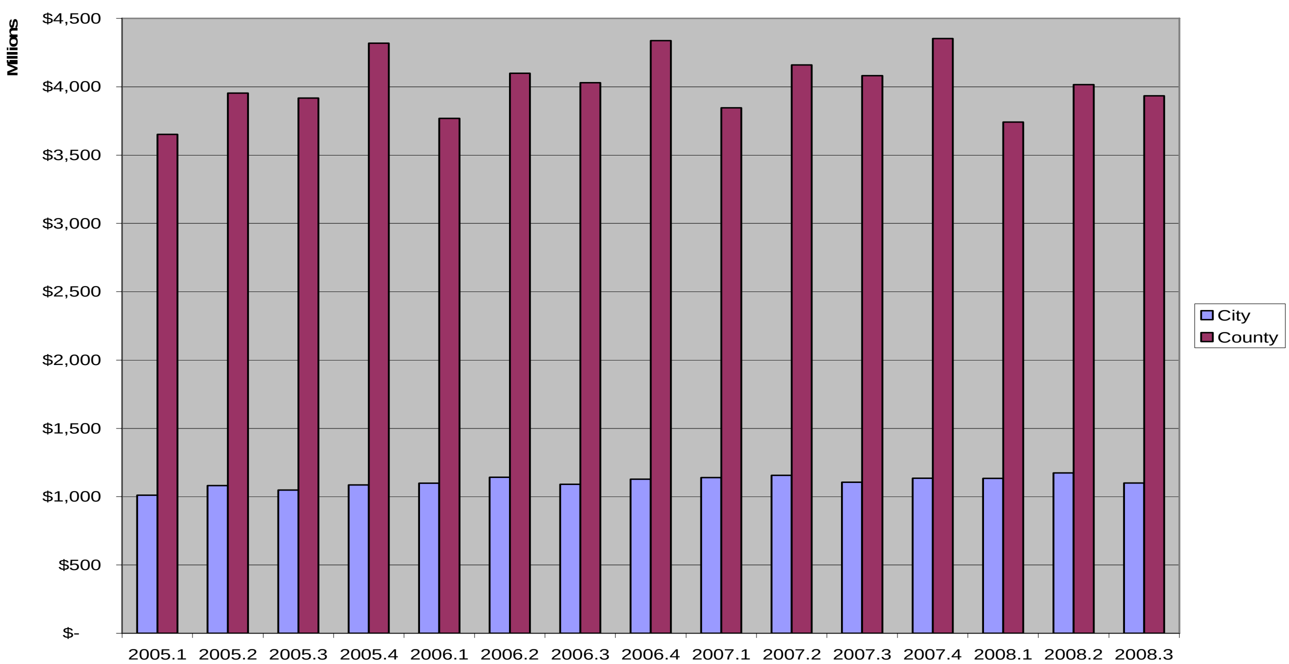
**Table 1- Economic Indicators for 2008 Corridor and Non-Corridor Regions**

| | 1st Quarter 2008 | | 2nd Quarter 2008 | | 3rd Quarter 2008 | |
|---|---|---|---|---|---|---|
| | Corridor | Non-Corridor | Corridor | Non-Corridor | Corridor | Non-Corridor |
| Jobs | 200,772 | 616,400 | 201,577 | 631,271 | 200,533 | 627,295 |
| Number of Establishments | 9,232 | 31,155 | 9,197 | 31,131 | 9,178 | 31,256 |
| Wages ( $ Millions) | $ 2,705 | $ 7,413 | $ 2,555 | $ 7,193 | $ 2,453 | $ 7,028 |
| Total Taxable Sales ($ Millions) | $ 833 | $ 3,977 | $ 914 | $ 4,226 | $ 888 | $ 4,096 |

## *Taxable Sales*

The graph below shows the total taxable sales for each quarter from first quarter 2005 to third quarter 2008 in millions of dollars. As Figure 1 indicates, the taxable sales for St. Louis County are roughly three and a half times larger than the taxable sales for St. Louis City. For the third quarter of 2008, the combined taxable sales for the City and County of St. Louis were just over $5 billion. When compared on a year-on-year basis the third quarter 2008 taxable sales revenues dropped $151.8 million dollars from the third quarter of 2007.

**Figure 1- Taxable Sales for St. Louis City and County in Millions of Dollars**



The following is an analysis of the taxable sales for select major industry categories.

Retail

Each year, retail sales follow a quarterly cycle where the lowest sales take place in the first quarter of the calendar year, the second and third quarter show some degree of recovery, and then the final quarter of the year has the largest sales which are traditionally boosted by holiday spending. Total retail sales for the third quarter of 2008 are slightly down from the second quarter of 2008 for both St. Louis County and St. Louis City, consistent with retail sales trends. Figure 2 and Figure 3 show the growth of various key retail industries. The most notable is the sustained growth in taxable sales for General Merchandise stores for St. Louis City, whereas the County shows much more dramatic variation and actually has negative growth for the first quarter of 2008. In addition, the miscellaneous retail stores show the most dramatic decline for the City starting in early 2007, followed by the County in the first quarter of 2008. As expected, the taxable sales for food stores remained steady and showed positive growth throughout the entire period. Eating and drinking establishment sales continued to grow between the first quarter 2008 and the second quarter 2008, but declined in the third quarter. At the same time the taxable sales for food stores increased for both, suggesting a possible shifting of consumer spending away from eating out at restaurants towards purchasing groceries.

**Figure 2 City Retail Taxable Sales Index**

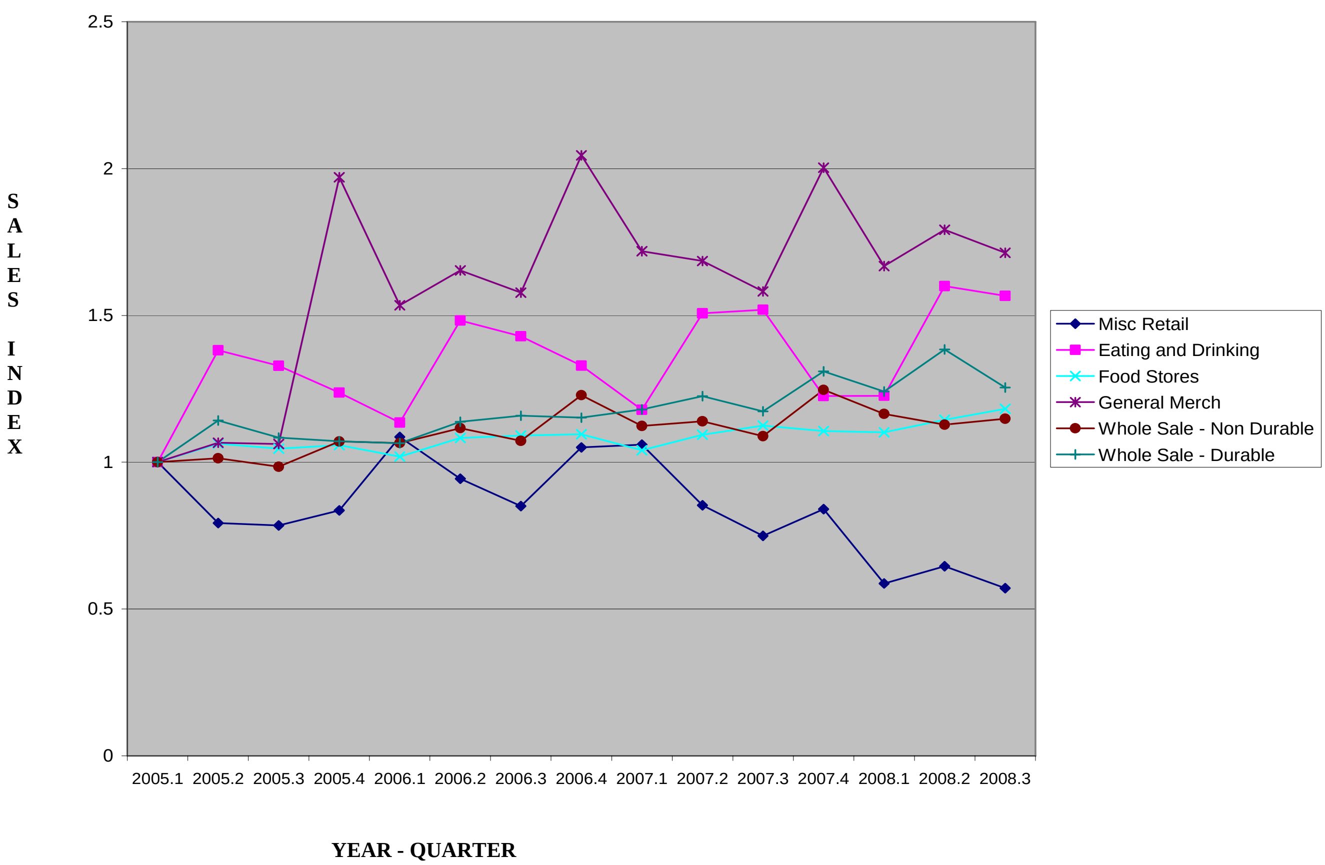
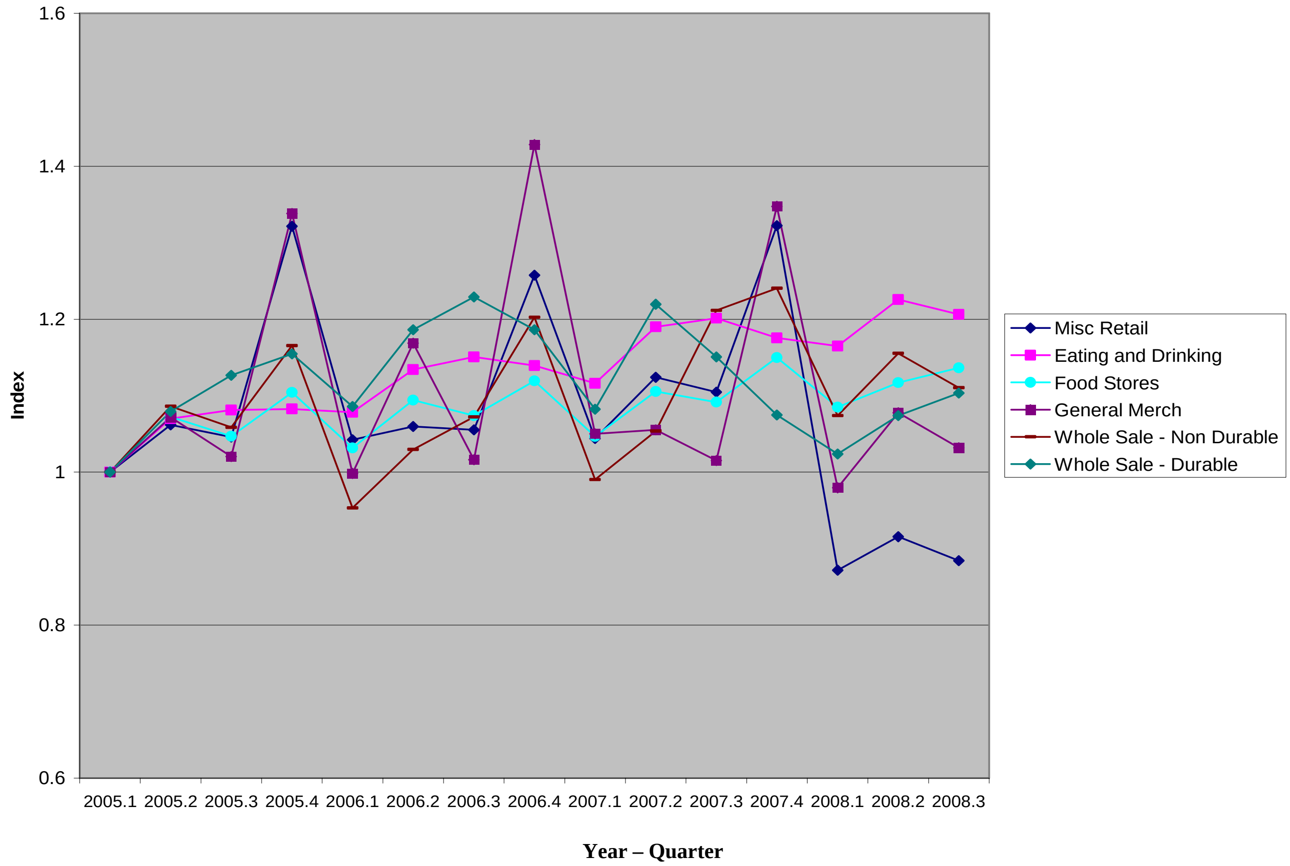


**Figure 3 County Retail Taxable Sales Index**




Construction and Real Estate:

Like the rest of the nation, St. Louis City and County exhibited high levels of growth in residential and non-residential construction from 2006 through most of 2007. Although residential and non-residential construction sales and growth are tapering off, they still have not returned to levels below those in 2005.

Figure 4 and Figure 5 below represent the taxable sales growth from first quarter 2005 through third quarter 2008 for construction and real estate related industries. As the figures show, the residential and non-residential construction taxable sales for St. Louis City grew at an accelerated rate when compared to the County. While residential and nonresidential construction has seen rapid growth through most of 2007, specialized construction has exhibited more stable slow growth. In terms of direct dollar amounts, specialized construction total taxable sales were roughly ten times greater than residential and non-residential construction, which accounts for some of the variation when comparing the City and County. St. Louis County's real estate growth, also consistent with national trends, demonstrated periods of growth up to early 2007 and has remained relatively flat as shown by Figure 5. St. Louis City's real estate sales have demonstrated negative growth since second quarter 2005.

**Figure 4** **City Construction Taxable Sales Index**

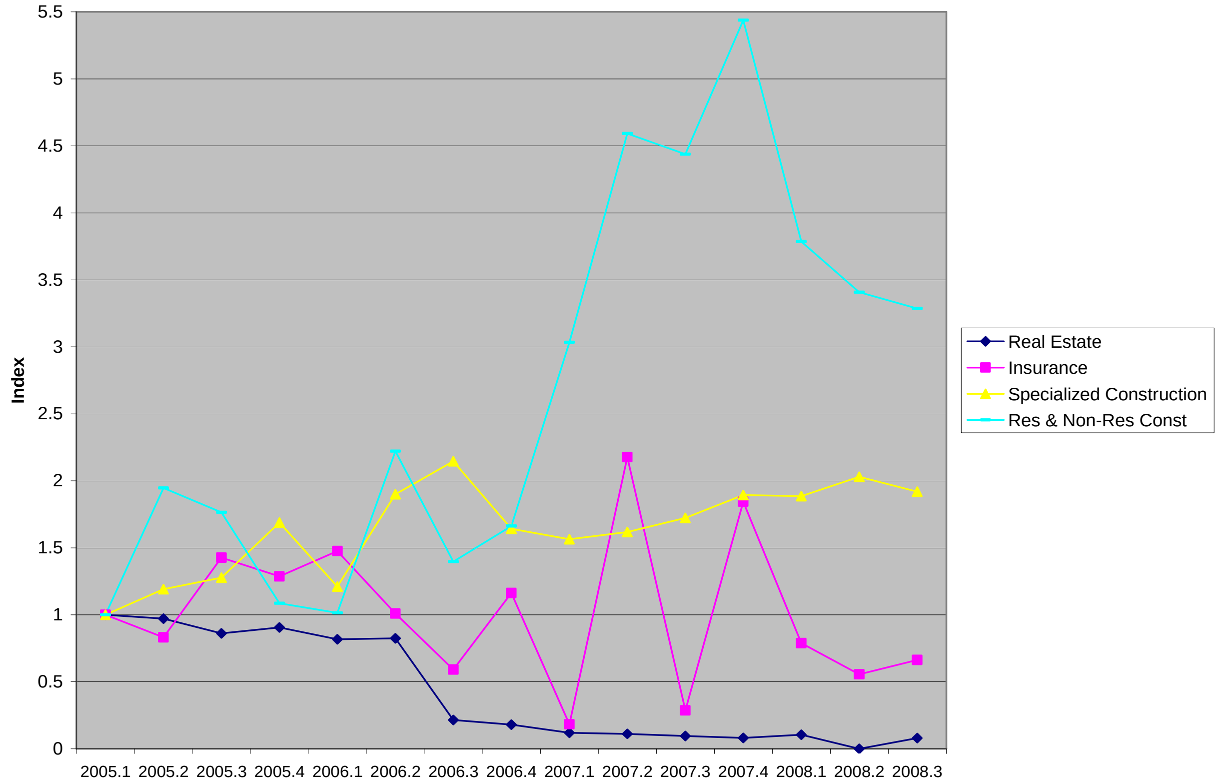
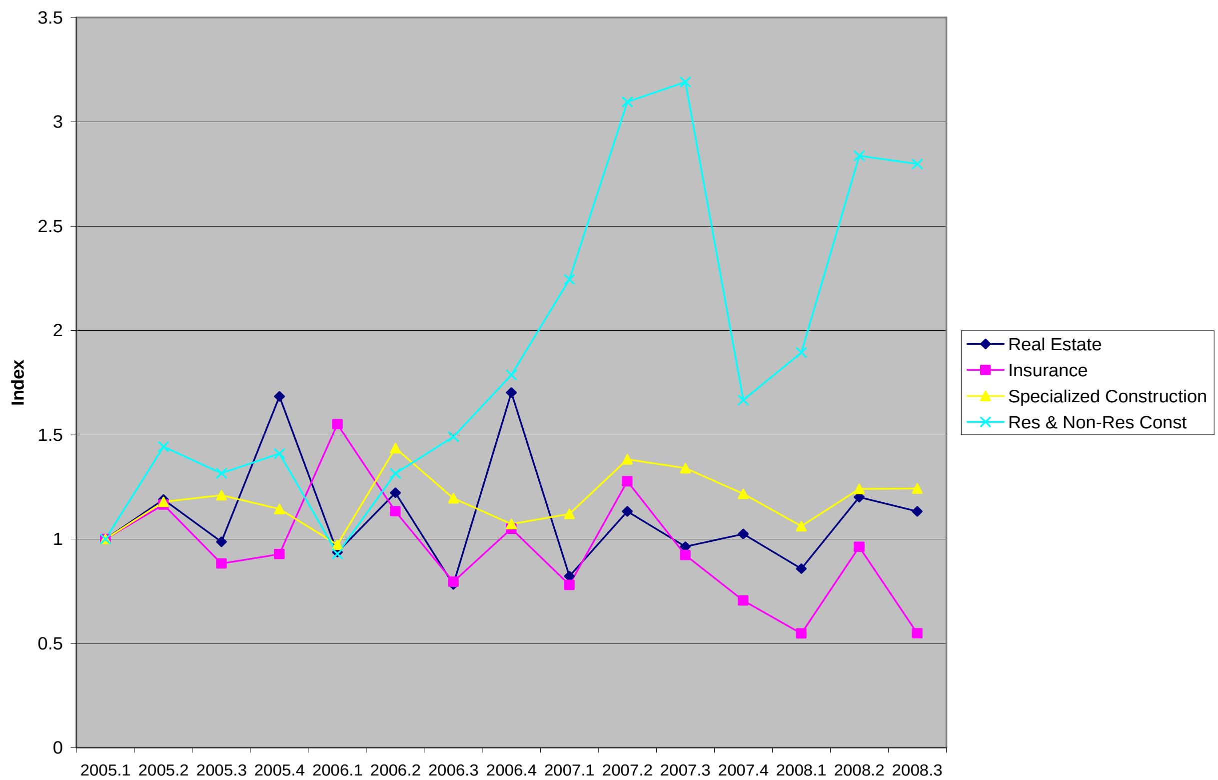



**Figure 5** **County Construction Taxable Sales Index**



## *Second Business Survey – Major Findings*

## 1. Background

On January 2, 2008 the western section of I-64 from Ballas Road to I-170 was completely closed for reconstruction and reopened December 15, 2008. Following the reopening of the western portion, the eastern section of I-64 between I-170 and Kingshighway Boulevard closed for construction for the bulk of 2009. This report is an analysis of the second business survey responses collected from the period beginning November 5, 2008 and closing on January 16, 2009 thus focusing on the transition from completing the western section of the I-64 closure and anticipating the effects of the eastern closure. The survey itself is part of an ongoing effort to periodically evaluate the economic conditions related to I-64's closures, in particular, how the closures are impacting business performance and the methods businesses are taking to cope.

The primary focus of the business surveys are:

- commuting impacts on local businesses and employees
- transportation and shipping costs on local businesses
- sales, visitation and economic activity for St. Louis County, St. Louis City, and the areas surrounding the reconstructed sections of I-64

Compared to the first business survey, the response rate for this survey was much smaller, and therefore makes some of the comparisons between surveys difficult at a more detailed corridor level. The second business survey received 84 responses compared to 169 in the first survey. The research team attributes this reduction in completed surveys to: a) business complacency/acceptance regarding I-64; and b) larger economic concerns regarding the recession. The remainder of Section 1 provides a summary of business survey results with greater detail provided in the remainder of this analysis.

### *1.1. Summary of Respondents and Overall Satisfaction*

- Based upon these survey results, 34 businesses (40%) are located within the I-64 corridor[1]. This is 41 fewer (55%) businesses than in the previous survey.
- Similarly 88% (86% previously) of the businesses that completed the survey are located within 10 miles of the I-64 Reconstruction Project.
- An overwhelming 96% of all respondents were satisfied or very satisfied thus far with the performance of the alternative routes to I-64. This is consistent with the first survey.
- 96% were satisfied or very satisfied with MoDOT's delivery and execution of the I-64 Project.

**Business Survey – Selected Preliminary Results**

| | |
|---|---|
| Total Distributed | 6,000+ |
| Total Responses | 84 |
| Respondent location *(based on zip code, reported by 100%)* | |
| Immediate I-64 region | 40% |
| Satisfaction w/ MoDOT execution of project | |
| Very satisfied | 56% |
| Satisfied | 40% |
| Dissatisfied | 4% |
| Very dissatisfied | 0% |

[1] Defined as the 9 ZIP code area containing I-64's Western and Eastern reconstruction zones

### *1.2. Summary of Survey Results from Three Key Areas*

**Commuting Impacts**

- The majority (56 percent) of businesses are experiencing limited effects on employee commuting behavior due to the closure. 32 percent of the respondents indicated noticeably earlier or noticeably later commute times.
- 81 percent of businesses surveyed are or have implemented new commuter benefit programs. Of the programs offered, flex time programs were the most popular at 36 percent, followed by 17 percent of businesses encouraging car/van pooling, and 10% of respondents subsidize employee's public transit expenses. The large number of businesses who have implemented new commuter benefit programs may be correlated to "self-selection" as the businesses who are the most actively engaged in this type of activity may also be the ones most likely to respond to a survey on I-64.
- Only 14 percent of the respondents surveyed reported a significant increase in commute time or cost. The majority (57 percent) of businesses reported a minor increase in commute time or cost.

**Transportation Costs and Business Sales/Visitation**

- Almost half of the businesses (46 percent) near the reconstruction are experiencing an increase in transportation costs. Of those businesses experiencing an increase in transportation costs, 49 percent reported an increase in freight shipping costs and another 46 percent cited an increase in travel time and delay.
- Despite 46 percent of businesses reporting an increase in transportation costs, only 1 business claimed to participate in the MoDOT outreach grant program.

**Sales, Visitation and Economic Activity**

- 17 percent of all businesses cited a lower volume of weekly sales. Interestingly, a greater number and percentage-share of the *non-corridor* businesses selected this answer.
- A slightly larger portion, 21 percent of all businesses, described a lower volume of weekly visitors or customers. Again the non-corridor respondents articulated a greater loss than the corridor businesses.

## 2. Profile of Businesses Responding

As in the previous survey, businesses within St. Louis City and St. Louis County were targeted for the survey. The objective of this analysis was to see how the business conditions have changed after the western portion of I-64 was closed. Each closure will alter route choice and potentially impact shipments, commuters, and sales/customers. The specific questions were geared towards business size, type, commuting patterns, and ZIP code to determine how proximity to the closure and other characteristics are impacting businesses.

**Figure 6: I-64 Corridor and Major Highways**


*MoDOT http://www.thenewi64.org/ProjectOverview.do*

Through arrangements with local economic development organizations, the survey was distributed to member business establishments via e-mail and newsletters with reminder notices urging members to participate in the online business survey. A combined distribution list was created including 6,000 contacts from the five economic development organizations that included 3,600 different businesses. The 6,000 entries represented the total number of individual contacts in the combined distribution list. It is important to note that the distribution list included a number of duplicate entries, which are attributable to businesses being members of multiple organizations, invalid contact information, and multiple contacts from the same business. Previous web based surveys have reported failure rates for survey invitations reaching potential respondents as low as 1% to 5% in well defined samples and as high as 7% to 17% in less than well defined samples[2]. Therefore the final number of people receiving the survey e-mail was likely less than 6,000. The following organizations contributed to the survey distribution:

- St. Louis Regional Chamber & Growth Association (RCGA)
- Regional Business Council (RBC)
- Downtown St. Louis Partnership
- Civic Progress
- St. Louis County Economic Council (SLCEC)

84 separate and complete responses to the survey were submitted. Although this is less than 10% of the total distribution list, we must keep in mind there were additional obstacles that inhibited participation and completion of this web based survey including: e-mail address spelling precision, spam filters, and internet content blockers. In addition, the strongly favorable responses in terms of the I-64 project probably contributed to reduced interest in completing the survey.

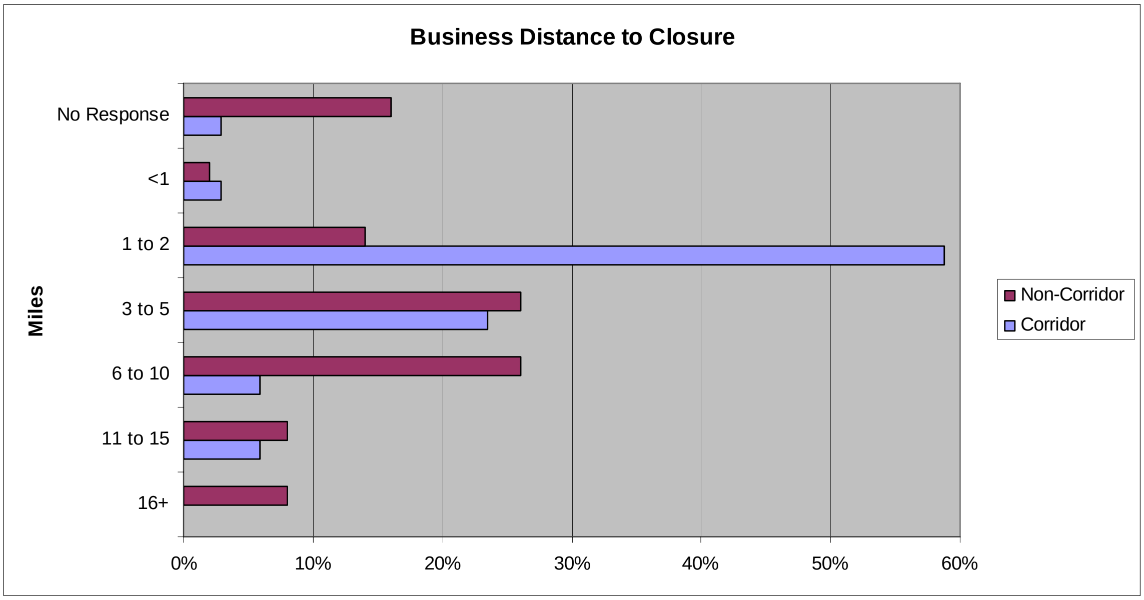
### *2.1. Distance and Location*

On a percentage basis, the businesses responding were fairly uniform in terms of the industry type and the number of employees. Of businesses responding to the survey 60 percent are located outside of the corridor area, while the remaining 40 percent are located in the corridor. The "corridor" has been defined as the 9 ZIP codes that the impacted sections of I-64 either touch or intersect. The first business survey did have a greater response rate which could be attributed to the concern from businesses and residents prior to the western closure. The relatively high representation of Corridor based businesses taking the first survey could be indicative of their close proximity and relationship with the closed sections of I-64, possibly prompting and motivating such businesses to complete a survey. Respondents were asked how close they were to the western closure in miles, and 77% of the total businesses responding are within 10 miles of the Western Closure.

Figure 7 shows the business distance from the closure by region; please note that the low response rate might be influencing distance categories.

[2] Manfreda, Katja Lozar & Vehovar, Vasja "Survey Design Features Influencing Response Rates in Web Surveys" University of Ljubljana

**Figure 7: Business Distance to Eastern Closure of I-64 by Region**



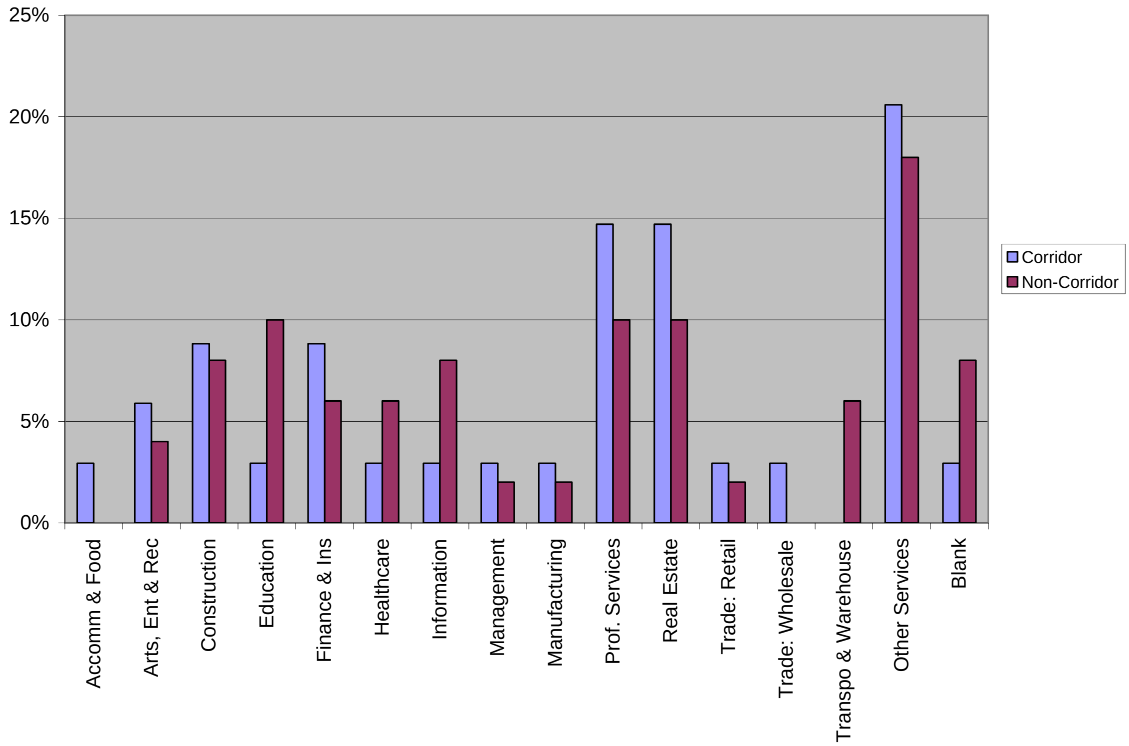

### *2.2. Business Composition*

The businesses responding share fairly uniform characteristics in terms of business size, type of business, and employee behavior. 28 percent of all businesses reported having between 26 and 100 employees; while 16% of all businesses responding within the St. Louis area reported over 250 employees, both of which are within 4 percentage-points of the first survey. The strong response from larger businesses can be attributed to some of the outreach efforts targeting large firms and the potential for larger firms to have greater resources to complete the survey. However, the response by businesses with up to 25 employees should not be ignored as they are 46 percent of the total respondents. To place these results in context, the businesses located within the corridor provide 24 percent of all the jobs in St. Louis City and St. Louis County. The total number of jobs within the corridor as of third quarter 2008 was 200,530[3].

The industry mix of business respondents was similar to the first business survey where the predominant industries were: professional, technical, and other services. All transportation, warehousing, and manufacturing businesses are located outside of the corridor. The businesses within the ZIP codes that make up the corridor have a higher concentration of service based industries relative to the rest of the region, for example: health care, finance and insurance, and real estate. Health care services for the corridor represent a large share of the total health care employment for the region, accounting for 47,980 jobs.[4] Although there was a high response rate from professional services, professional services represent less than 10% of the actual employment for the St. Louis region.

[3] MERIC special QCEW data request, third quarter 2008
[4] MERIC special QCEW data request, third quarter 2008

**Figure 8 Percent Businesses by Industry and Region Responding**




## 3. Impacts of I-64 Closure

### *3.1. Previous Use of I-64: Business Survey*

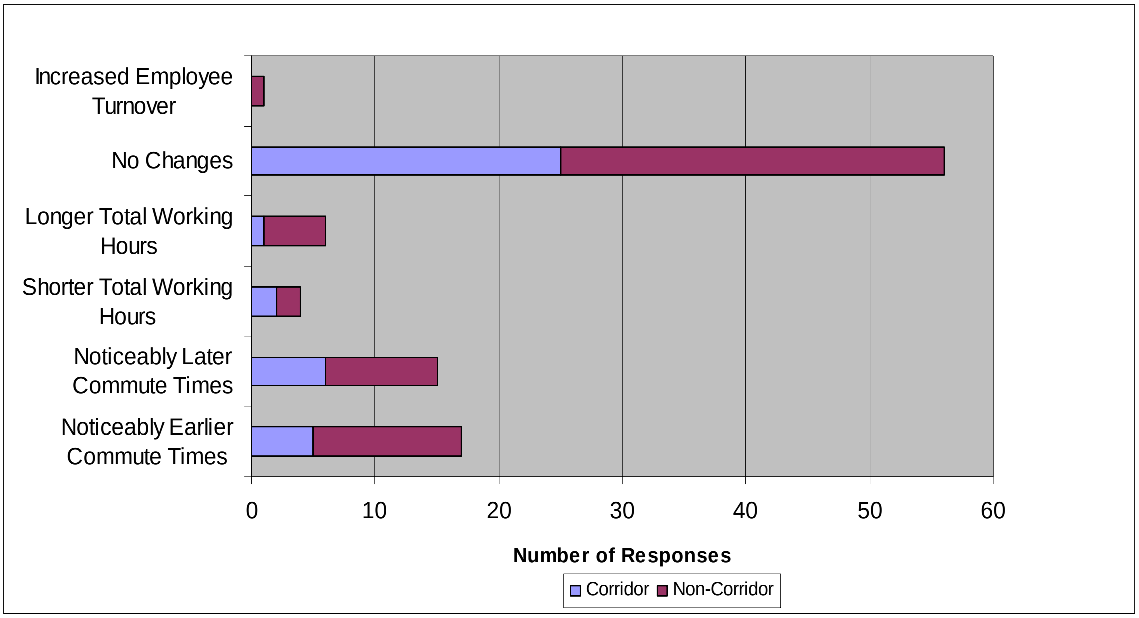
Over half of the businesses (both corridor and non-corridor) surveyed responded that a low share of their employees (0% to 25%) used I-64 as a primary route for their commute prior to closure. As anticipated, the corridor businesses reporting the greatest number of selecting the category of 26%-75% of their labor force use I-64 for commuting.

### *3.2. Post Closure Commute*

Respondents were asked exactly how employee commute behavior has changed since January of 2008 (Western section closed). The results were consistent with the first survey both corridor and non-corridor businesses responding found no major changes (see Figure 9).

Figure 9The most frequently noted change was employees shifting their commute times to either earlier or later in the day. Coinciding with this trend, 36 percent of businesses offered flextime arrangements for employees with another 7 percent offering telecommuting options to mitigate the effects of I-64 reconstruction. The most dramatic shift since the first business survey was the decline in businesses offering telecommuting. This shift could be due businesses overestimating the anticipated impacts before the closure and the perceived impacts after the closure being less disruptive. In addition, only one business reported increased employee turn-over, consistent with the previous conclusion. However, employee turn-over will continue to be monitored over the coming months, but could be difficult to isolate the direct cause given current national economic conditions.

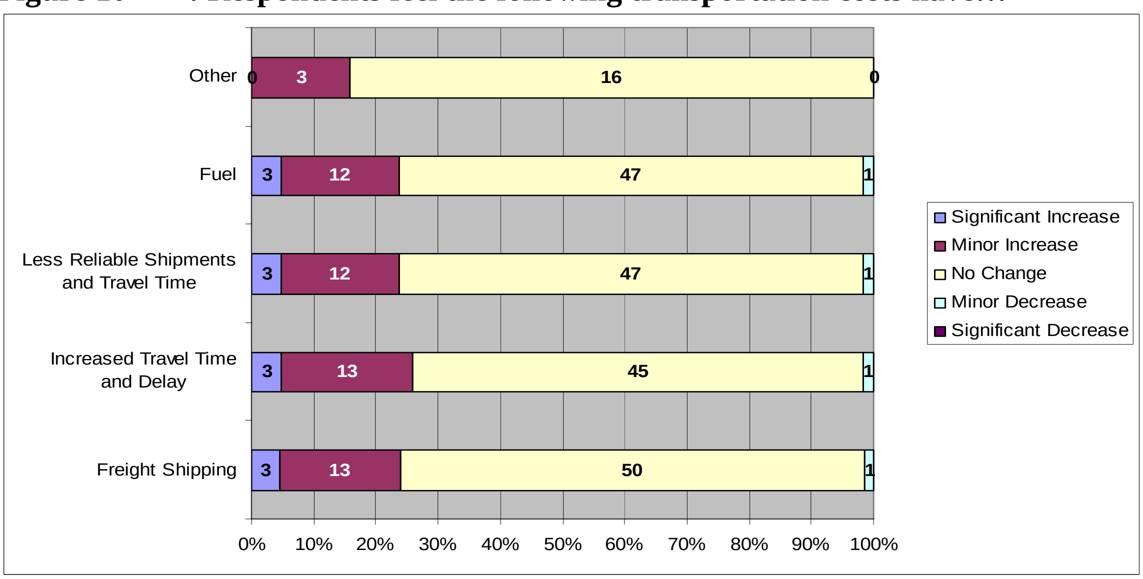
**Figure 9** **Closure Impact on Employee Behavior**




### *3.3. Transportation Costs*

Although the measurable commuter impacts to business respondents were relatively minor, respondents consistently noticed an increase in transportation costs. The first survey found a majority of respondents experienced a noticeable or minor increase in costs related to time travel and delay. Not surprisingly, the second survey respondents noted a rise in fuel costs, but this can be only indirectly related to I-64. While the rise in fuel costs per unit is apparent, the actual impacts related to I-64 are a result of longer distances traveled through detours around the closure or by an increase in stop and go traffic conditions. Reliability and travel delay are the major sources of the perceived transportation cost both exceeding the change in freight shipment costs. Corridor-based businesses reported changes consistent with businesses outside of the corridor, often to a lesser degree, especially in the case of freight costs. The industry mix is likely responsible for these differences.

**Figure 10** **: Respondents feel the following transportation costs have…**

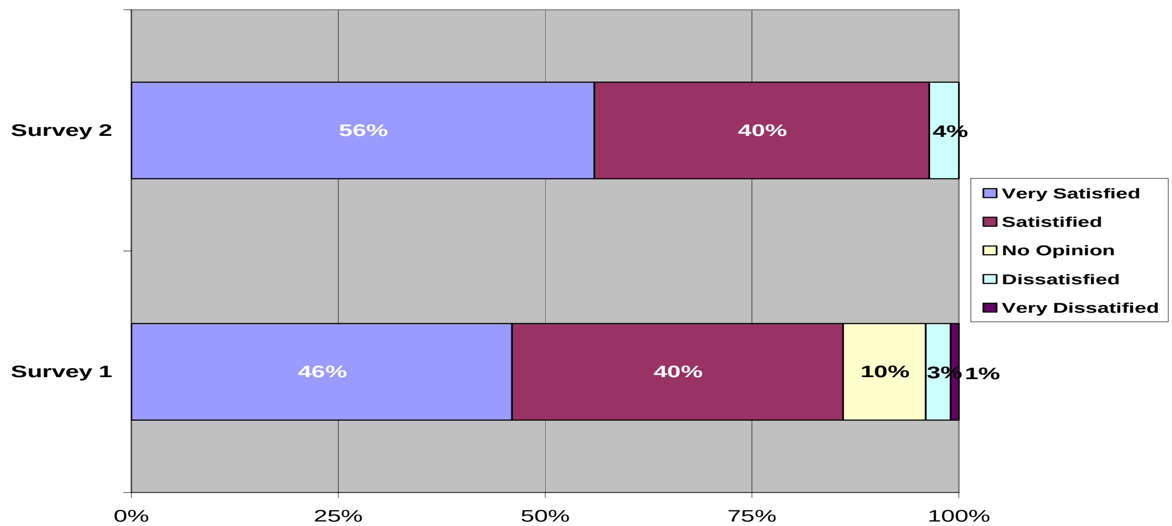


In the first business survey Manufacturing, Wholesale Trade, Transportation & Warehousing, and Utilities industries were assessed separately as they tend to have a greater reliance on freight shipments. Of the 36 responding shipper-based businesses, only four were located within the corridor. Like the total businesses, just over half the shippers agreed that costs were increasing[5]. Travel time costs were cited as the most significant cost increase for shippers. For the second business survey less than 6 businesses were from these industries and their answers were not sufficient to draw any conclusions.

### *3.4. Satisfaction*

Following the closure, the level of satisfaction with the performance of I-64's closure and alternative routes were very high, especially when considering the number of businesses experiencing at least a minor rise in transportation costs. The response was almost identical across all regions as 86% or more felt that the alternative routes for the Western Closure provided reasonable access. The second business survey found that 96% of those responding were either satisfied or very satisfied.

**Figure 11: Satisfaction with I-64 Performance**




The results indicate (Figure 11 above) that despite a rise in cost attributable to an increase in travel time, businesses are coping with the closure and to a large extent satisfied with the project delivery and mitigation thus far. Although there have been proactive steps made by MoDOT and many of the local businesses, the sentiment still seems the same: travel delays and costs are higher but not enough (at this point) to implement drastic changes or cause major impacts. This conclusion is consistent with the finding of the first businesses survey that a small percentage of total businesses surveyed enrolled in MoDOT sponsored outreach programs; with only one enrolled from the second business survey.

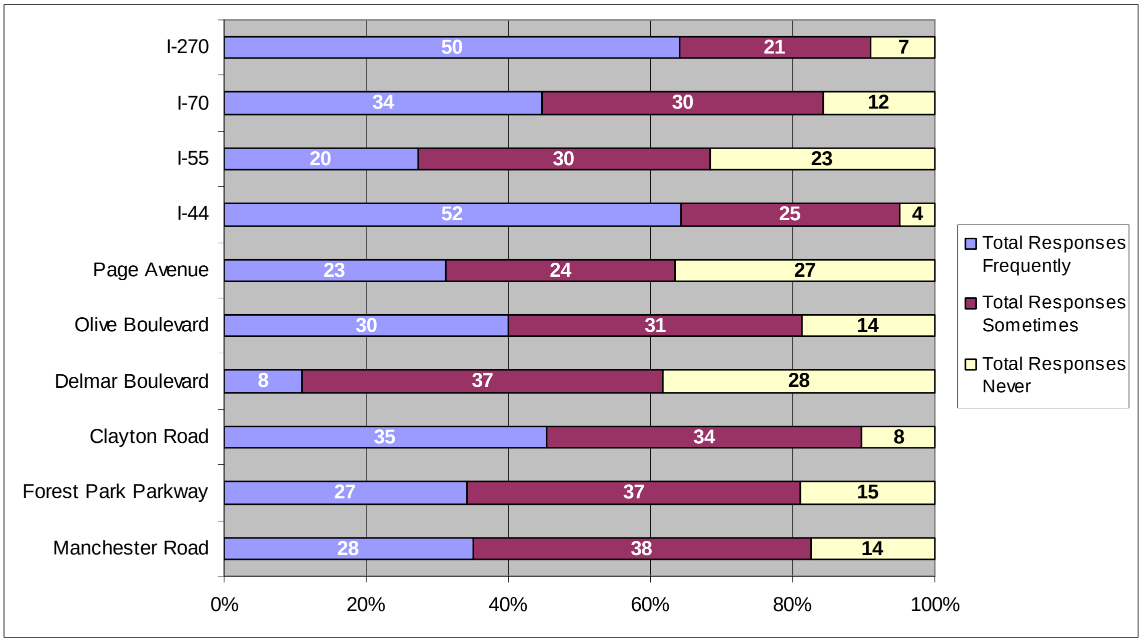
### *3.5. Sales and Visitors*

Customer's route choice was generally spread evenly between all alternative routes for the entire region. The lone exception was I-55 where users would be coming from either the east (Illinois) or the southwest, avoiding St. Louis County and the Western-most portion of St. Louis City, thereby completely bypassing I-64 and most other alternative routes. The customers traveling to

[5] These results should be considered carefully as isolating this group of businesses significantly reduces the number of observations.

the corridor predominantly used I-44 for East-West travel, Clayton Road for Northern East-West Travel, and I-270 for North-South travel at the mouth of the Western I-64 closure.

**Figure 12 Comparison of Customer Routes: Total**




Similar to the first business survey, over eighty percent of businesses reported the change in customers, visitors, and patients were either not relevant or not noticeable. However, 17% of responding businesses (down from 20%) did report a decline in visitor, patient, and customer volumes compared to previous seasons as seen in Table 2. The change in sales volume follows the same trends as the visitors, patients, and customers. The majority of businesses, 65 percent of the corridor and 40 percent outside of the corridor, are experiencing no noticeable decline in sales, compared to previous seasons. See Table 2 for a breakdown of changes in weekly sales and customers.

The level of awareness remains high despite the majority of businesses reporting no change in customers or sales. Looking ahead, 8 percent surveyed said that future decisions on investment, expansion, or location of the facilities and operations will be impacted by the closure of I-64. The decline in sales and business activities will be researched further and discussed at greater length in the future reports. Part of the future considerations will have to address the overall economic conditions impacting St. Louis and Missouri beyond I-64's improvements.

**Table 2** Change in Weekly Sales & Customers

| | **Sales** | **Customers** |
|---|---|---|
| Lower Volume | 17% | 21% |
| Higher Volume | 1% | 1% |
| No Change | 58% | 54% |
| Not Relevant | 24% | 24% |
| **Total** | **100%** | **100%** |

## 4. Conclusions

The overall economic impacts measured in terms of jobs, sales and business perceptions thus far appear to be modest, with a few exceptions, and the overall level of business satisfaction with the I-64 reconstruction project is high thus far. Businesses are coping with higher transport costs mostly attributable to travel time delays, and seem to be less concerned with the closure than in the first business survey. In the coming months, economic data and future surveys will provide a better understanding of the economic impacts in terms of:

a) the magnitude of transportation costs and its impact on productivity and competitiveness;
b) reduced volumes of retail sales, customers, and visitors especially to Corridor businesses;
c) measures businesses are taking to mitigate or cope with the I-64 closure, such as flex-time and telecommuting; and
d) the magnitude of which national economic conditions are influencing the results.

## 5. Traffic Response

The draft report is attached in Appendix D. Information will be discussed and finalized.

**Appendix A: Communications Data**
- **Online Summary of Comments**

**Appendix B: Mobility Data**

**Appendix C: Economic Data**

**Appendix D: Traffic Response Data**
- **Draft Report**