

## **APPENDIX D**

### **Quarterly Reports - 2008**

# The New I-64 Economic and Regional Mobility Study

## Quarterly Report # 1

January – February 2008



**Before the Closure**

Please indicate how much time it takes you to make certain trips now compared to how long it took you before the closure.

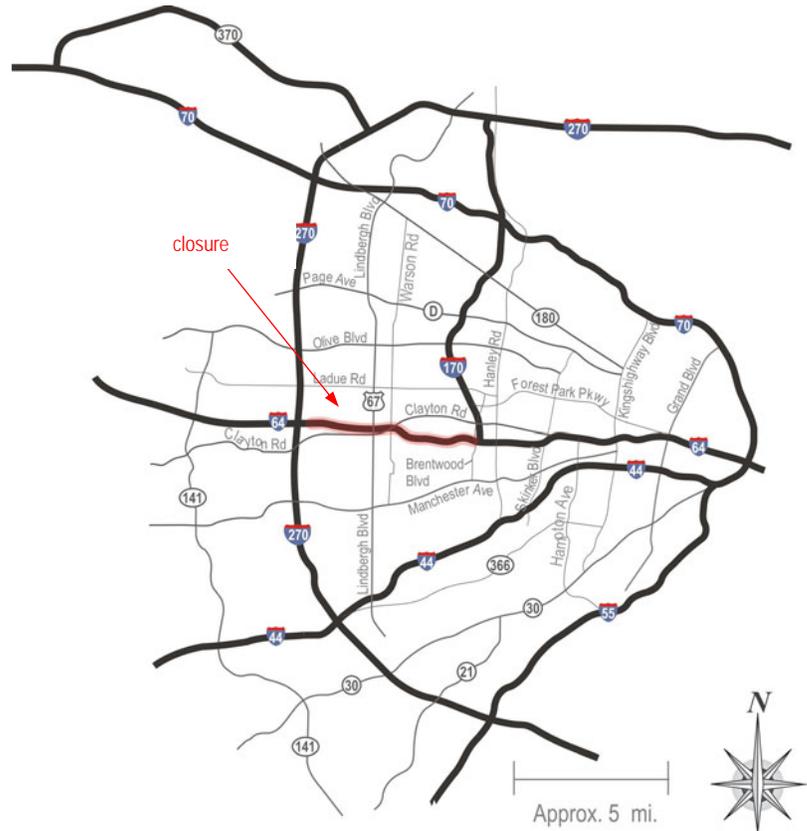
	Not at all (0 to 15 min) longer	16 to 30 min longer	31 to 45 min longer	46 to 60 min longer	61 to 75 min longer	76 to 90 min longer	More than 90 min longer
Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workplaces of work/travel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Reasons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping, errands, school, recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traveling (Transit, Bus, Train, Air, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>




# 1. Executive Summary

On January 2, 2008, the section of I-64 from Ballas Road to I-170 (see map) was completely closed for construction. The closure is planned to last through the end of 2008, at which time a section to the east will be closed for construction for the bulk of 2009.

This quarterly report assesses the first two months of the western closure, evaluating the three key areas of **Communications** (how MoDOT and others provide information to the public, and the public’s response to the project), **Mobility** (the effects of the closure on travel behavior, choices, and flow), and **Economics** (the effects of the closure on businesses within the corridor as well as the economic health of the region). Two months has not been enough time for the immediate effects of the closure to stabilize, nor for the longer-term effects to materialize, but the research team has been able to obtain some initial findings that will be of interest to MoDOT and the general public. To date, the research team has found:



**Communications (pp. 2-9)**

**Over 1,700 members of the public** have given feedback through web surveys, mail surveys, personal interviews, and surveys administered by Motorist Assist.

The public is generally **satisfied** with the closure, how information has been communicated, and how they are managing to move around the region.

The closure has had varying effects on the public’s travel habits, with nearly 3/4 indicating their **travel frequency has changed** for certain trips. A shift to an **earlier morning commute** was cited by many.

People’s reported **travel times are lengthening** (approximately 1/3 to 1/4 of them by 15 minutes or more), although many trip times are relatively unchanged.

**Mobility (pp. 10-18)**

The closure has **re-routed approximately 140,000 to 150,000 vehicles per day**; travelers have taken alternative routes, altered their travel schedules, and considered alternate modes.

Transit has experienced a **9 percent jump** in comparison to the beginning of last year, but this appears to be a continuation of a longer-term trend in the region.

The RideFinders rideshare program experienced a **32 percent jump** in comparison to the beginning of last year, which appears to be an effect of the closure.

**Weather**, particularly in February, affected travel times and congestion. As spring approaches, traffic conditions should stabilize and allow a more complete assessment.

**Economics (pp. 19-23)**

A business survey distributed to over 6,000 area business has so far received very positive responses, **with 97% expressing satisfaction** with MoDOT’s execution of the project.

The research team and the business community have been collaborating on the **best economic measurements** to evaluate the closure’s effects. Economic reporting tends to lag behind causal events, so future reports will begin evaluating these measures.

Economic **data sources** have been identified and the data collection process has begun.

## 2. Communications

### Communications Highlights

The citizens of the St. Louis region are providing input to this research through online surveys, mailed surveys, handouts by Motorist Assist operators, and personal interviews. Highlights gleaned from these surveys include:

- **Awareness.** From the responses to date, it appears that MoDOT effectively communicated the upcoming closure to the affected population in 2007; pre-closure awareness was reported as very high.
- **Satisfaction.** Respondents are largely satisfied with their ability to travel around the region, and with the level of information that has been communicated by MoDOT and others regarding the closure.
- **Information Sources.** TV News appears to be the best way to reach the majority of the respondents, with radio news, newspapers, and road signs also being effective methods. For those who use the internet, online information sources are almost as effective as TV news. However, a large portion of the general population does not obtain their information via the internet and other methods should continue to be used to reach them.
- **Alternative Routes.** I-44 was the most recommended alternative route. Two nearby parallel arterials, Ladue Road and Clayton Road, received more negative recommendations than positive (with Ladue receiving over 1.6 times as many negatives as positives).
- **Travel Time.** The majority of respondents are indicating that their travel time for basic trips has increased; although many have indicated no change or even an improvement in travel times.
- **Travel Mode.** Initial responses on how the closure has changed people's mode of travel are somewhat inconclusive. It is clear that the dominant mode of travel by the respondents has been, and continues to be, the automobile.
- **Personal Impact.** The closure is affecting people's trip choices. Survey respondents are indicating changes in basic trip destinations such as shopping and eating out. Overall, almost three quarters of respondents are indicating that their frequency of travel to certain areas has been affected by the closure. Some residents have shifted their work hours, especially the respondents to the Web survey, who indicated a shift to earlier morning commutes.

To date, the responses have been fairly consistent over the various survey methods. This general agreement across surveys is important because it appears to demonstrate that one can generalize from the surveys to the general population (other than issues related to online access, which is by definition skewed in the Web survey responses).

## Communication Assessment Objectives and Methods

### Major Goals – Communication Assessment

- Develop and implement survey instruments
- Determine effectiveness of pre-closure notification
  - Assess communication methods
- Measure participant satisfaction for key issues
  - Estimate changes in behavior
    - Hear everyone's voice  
(obtain generalized sample)

### Total Surveys this Period

Web	801
Mail	700
In-person	100
Motorist Assist	
MoDOT	98
County	38
<b>TOTAL</b>	<b>1,737</b>

### Web Surveys Completed Weekly

Jan 6 - 12	500
Jan 13 - 19	116
Jan 20 - 26	76
Jan 27 - Feb 2	27
Feb 3 - 9	29
Feb 10 - 16	10
Feb 17 - 23	19
Feb 24 - Mar 1	24

Four classes of survey instruments (included in Appendix A) were developed to assess the communication aspects of this project:

- (1) A detailed online survey was developed; participants had the option to complete a brief, medium, or detailed survey. Surprisingly, 62.4 percent of the respondents were interested enough in sharing their opinion that they elected to complete the detailed survey. Links to the survey were placed on MoDOT's main website as well as the New I-64 Project site; also, the survey was highly promoted by MoDOT's public relations team.
- (2) To help obtain a representative sample, a physical survey was developed and mailed to 10,000 respondents in twenty-eight zip codes near the I-64 project.
- (3) In-person surveys were utilized to assess public opinions at two major shopping locations in the immediate area of the closure (the St. Louis Galleria near I-64/I-170, and Schnuck's grocery store at Lindbergh Boulevard and Clayton Road).
- (4) Two project satisfaction measures were also added to the Motorist Assist surveys that are distributed to people serviced by Motorist Assist operators.

In order to facilitate better comparisons of changes across survey types and from time to time, the statistics used in the project assessment usually do not include the "not sure" or "no opinion" percentages. This eliminates a major source of random variability and allows a more accurate observation of change over time. In addition, this methodology is consistent with how MoDOT calculates similar Tracker measures.

## Communications Results

### Use of I-64, Knowledge of the Closure

The survey results indicate that the public was very aware of the closure well before it occurred. 98.1 percent of the on-line respondents were aware of the upcoming closure in 2007, and since 96.6 percent of the online respondents traveled on the affected section of I-64 at least once per week before the closure, it appears that the target population received the needed advance information.

### Usage of I-64 before Closure (Web Only)

Almost every day	33 %
Very rarely	20 %
Two to three times a week	16 %
Once a week	15 %
Most weekdays	13 %
Never	3 %

### Knowledge of Closure (Web Only)

Aware of closure before survey:	98 %
Learned about closure:	
Before Dec '07	94 %
Dec '07	4 %
Jan '08	2 %

## Satisfaction

The charts at right summarize survey respondents' opinions in the area of satisfaction. As the graphs indicate, 69 percent or more of the respondents expressed satisfaction in response to each question in each forum, and responses were fairly consistent across the different survey types.

Satisfaction was highest with "how well the public has been kept informed" (91 to 95 percent) and "the timeliness of information" (90 to 94 percent). The least amount of satisfaction was expressed for "how traffic is flowing in work zones" (69 to 76 percent) and "accuracy and understandability of construction zone signs" (75 to 77 percent).

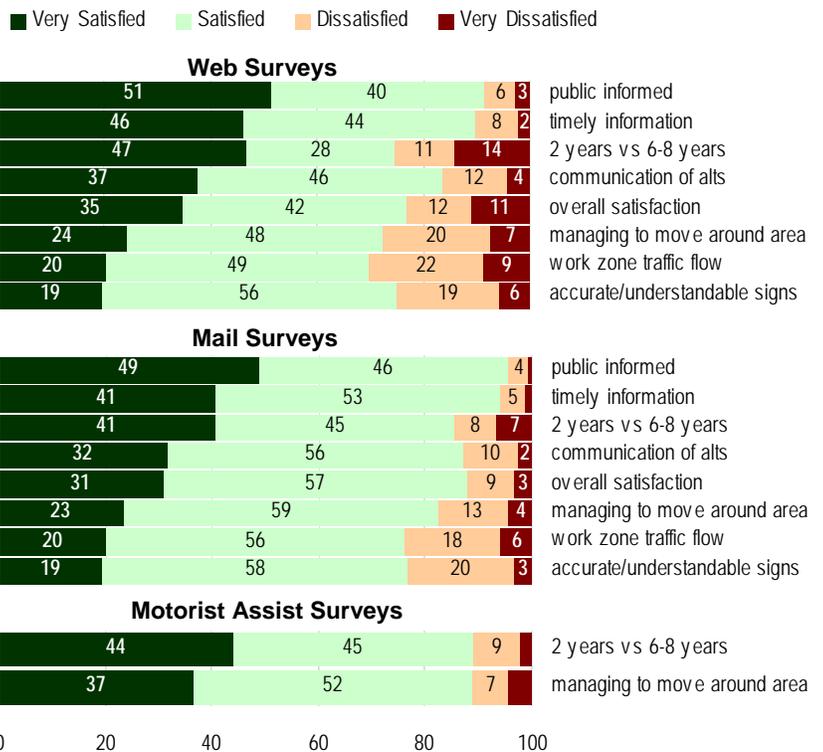
Based on an initial review of the interview surveys that were recently completed at two shopping locations near the closed section of I-64, it appears they are generally in agreement with the above results. For most measures, over 80 percent of the interview respondents were either satisfied or very satisfied. This included opinions regarding both the decision to close I-64 and overall satisfaction with how the I-64 closure has been handled.

Note that written responses to the surveys are still being processed, but one notable item is that respondents have expressed satisfaction regarding the regional collaboration on signal timing that has facilitated arterial flow during construction; the public has also expressed a desire to see these timing improvements continued after the project is complete.

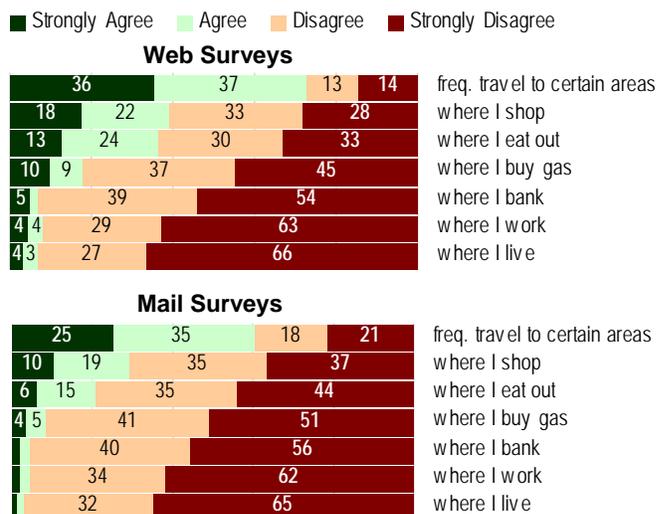
## Personal Impact of the Closure

As the graphs at right indicate, respondents much more often modified their frequency of travel to certain areas than the location of their basic trip destinations. The most affected destinations were shopping (29 to 40 percent) and eating out (21 to 37 percent).

### Respondent Satisfaction (% of respondents)



### The Closure Has Changed... (% of respondents)



Most respondents indicated that they have continued to work the same hours in the same location since the closure. The online respondents, including residents more distant from the closure than the mailed survey, were much more likely to have shifted hours in response to the closure compared to those who completed the mailed survey.

**Spatial/Temporal Effect on Job**

	Mail	Web
Same hours, same location	87 %	70 %
Shifted hours	8 %	23 %
Different location more often	4 %	5 %
Quit job	1 %	2 %

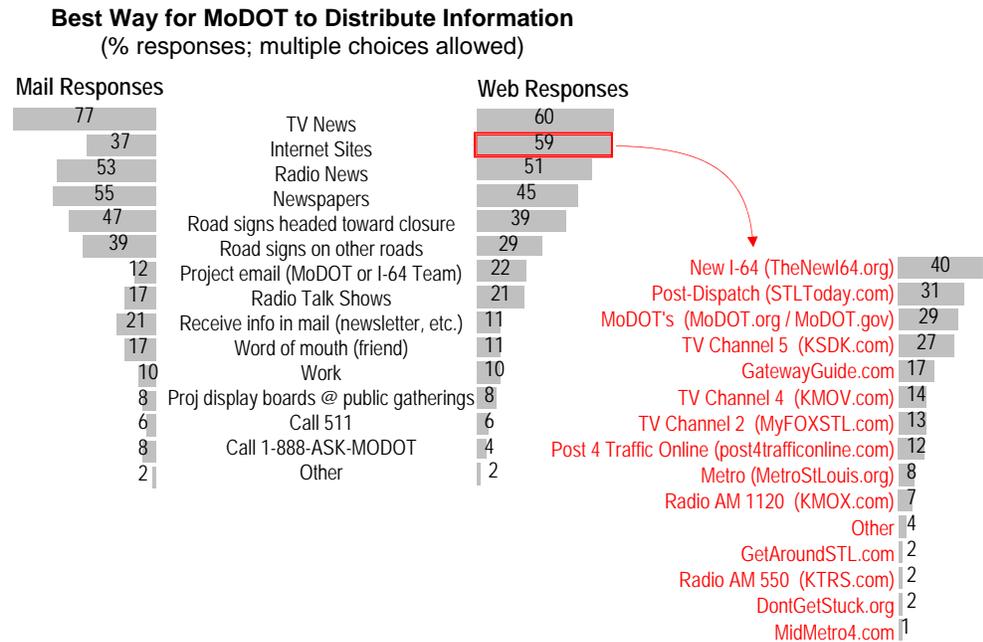
**Typical Period of Commute (or Other Travel) Web only**

	before	after
before 7 am	20 %	28 %
7 - 9 am	41 %	32 %
9 am - 3 pm	10 %	10 %
3 - 6 pm	37 %	38 %
after 6 pm	12 %	13 %

The web survey revealed a stated shift to earlier morning commute/travel hours, but no significant shift in the evening hours. It should be noted that anecdotal information, and other observations, indicate that this shift was high initially, but has lessened over time as conditions begin to stabilize. The high number of web survey responses in the early weeks of the closure may therefore skew this data; future reports will further examine time trends to explore this effect.

**Information Sources and Communication Methods**

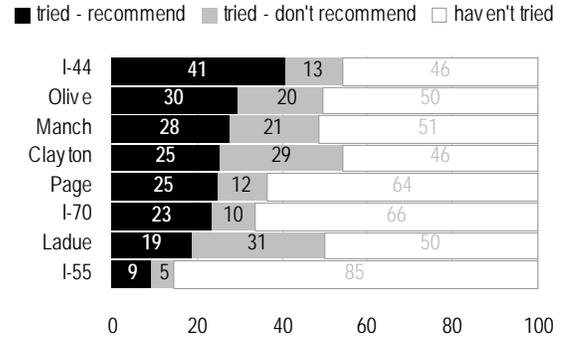
TV News was considered to be the best method for MoDOT to distribute information to the public by the respondents of both the online and physical surveys. As expected, there was much variance in the perceived effectiveness of internet communications between the two survey types. Online respondents, who had to have access to the internet to even complete the survey, thought the internet was the second best way for MoDOT to provide information to them. However, those who returned the physical surveys were not as likely to use the internet to obtain their information (only 37 percent of these respondents thought the internet was a good way for MoDOT to provide them with information). Radio news and newspapers were also considered very good methods of communication, followed by road signs.



### Alternate Routes (% responses)

### Alternative Routes

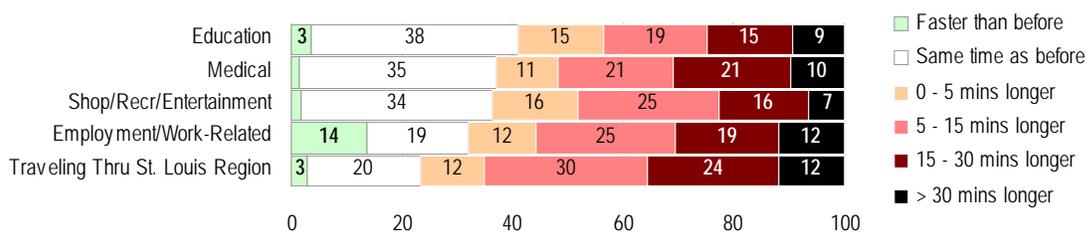
Respondents were also asked to provide input about eight alternative routes. I-44 was the most recommended route, with 41 percent of the respondents recommending it. Clayton Road and Ladue Road were the least recommended routes, in the sense that more respondents recommended against their usage than for them.



### Travel Time

As indicated by the graph below, the majority of Web survey respondents (58 to 78 percent) indicated that various trips had gotten longer since the closure, with a total of 9 to 12 percent responding that their trips had increased by 30 minutes or more. Notably, when asked specifically about work trips, 14 percent of respondents indicated that their work trips were actually faster than before.

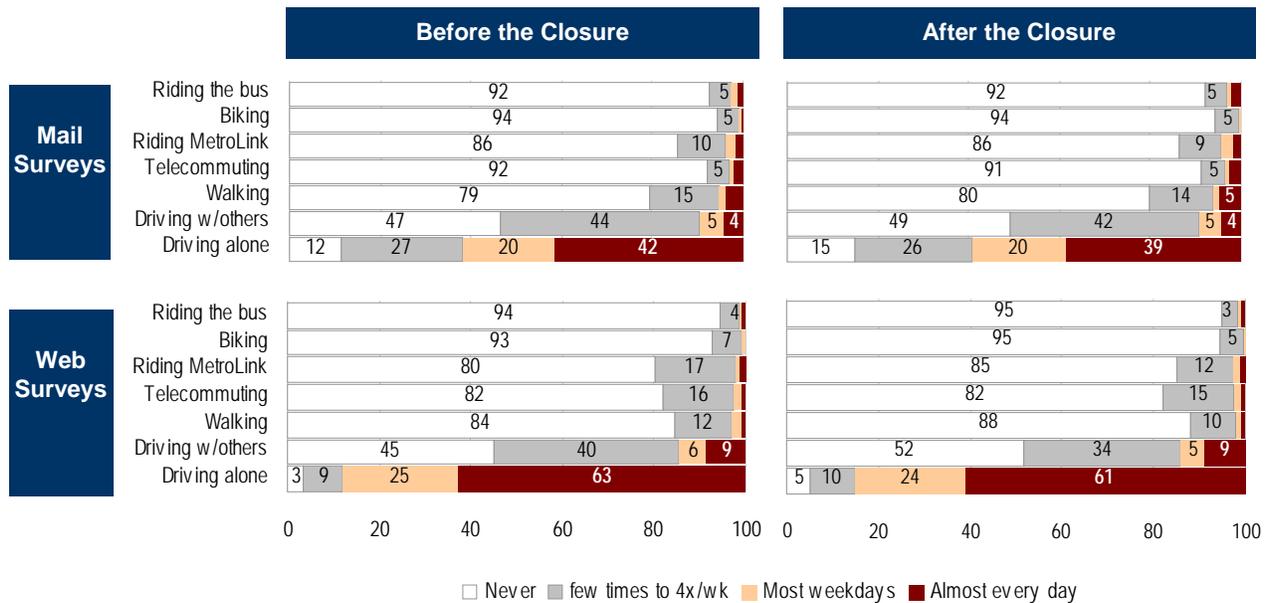
Travel Time Difference by Purpose (% responses, Web survey only)



### Travel Modes

To date, the surveys have revealed only slight changes in reported travel mode since the closure, as illustrated below. Single-occupant driving has apparently slightly decreased by 2 to 3 percent, and carpooling also appears to have decreased. For other modes, the fluctuations are not stark, but there appears to have been some change in each. Further study of these results, in comparison with mobility results, may shed additional light on commute options.

Travel Mode (% of respondents)



## Demographics

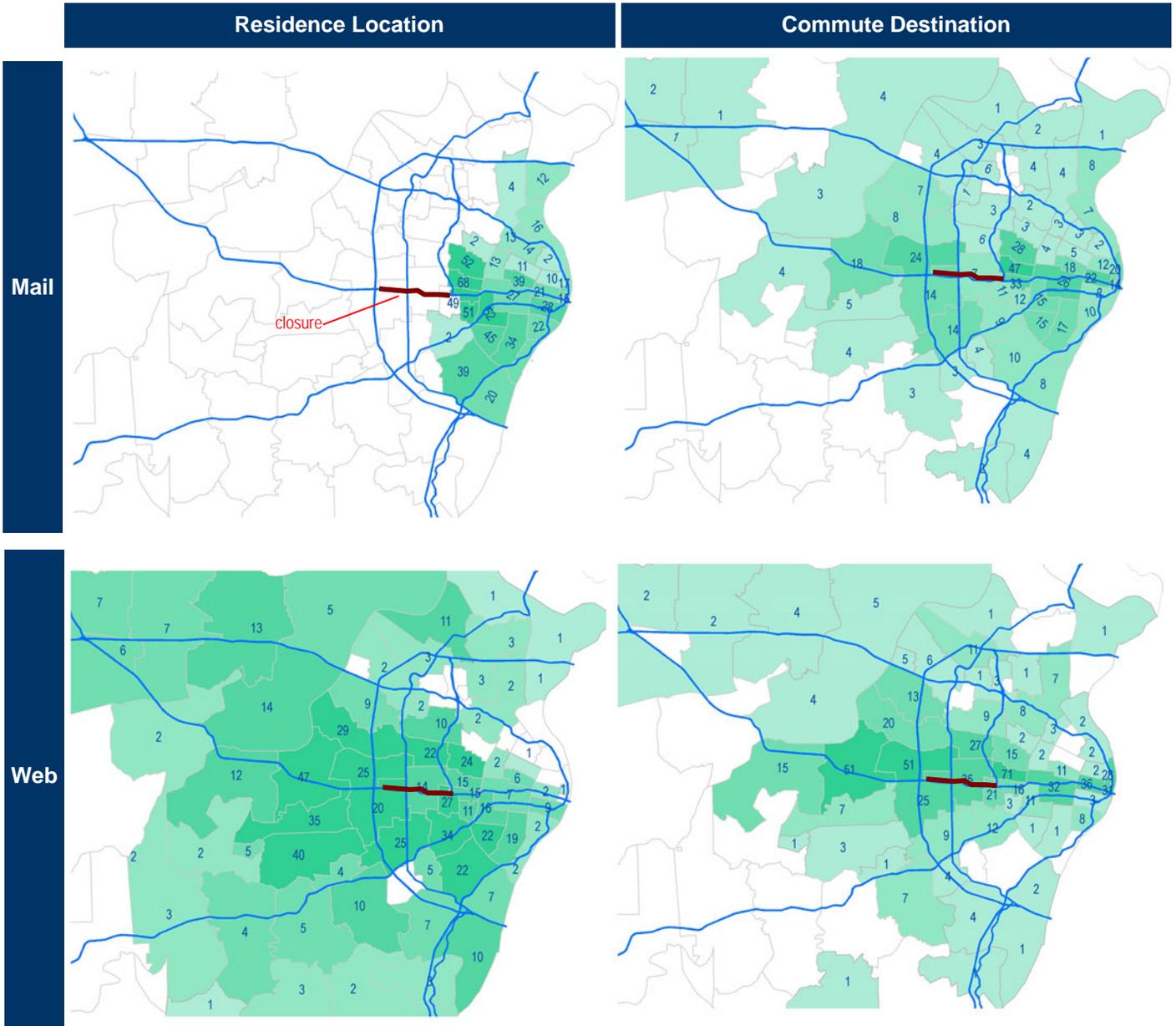
The table at right summarizes the responses to demographic questions from the respective surveys. One of the purposes of supplementing the Web survey with a mail survey was to reach populations without internet access, in order to ensure the research considered the input of as many groups as possible – a representative sample. By targeting the mail survey at many of the zip codes near the closure, the research team succeeded in its objective of reaching a more diverse population, especially in reaching more minorities and more females.

**Demographics of Survey Respondents**

Age			Gender		
	Mail	Web		Mail	Web
under 25	5 %	11 %	Male	41 %	54 %
26 to 40	20 %	35 %	Female	59 %	46 %
41 to 65	57 %	52 %			
Over 65	19 %	3 %			
Race			Income		
	Mail	Web		Mail	Web
American Indian	1 %	1 %	Less than \$20,000	-	2 %
Asian	1 %	2 %	\$20,000 to \$40,000	-	11 %
Black/African-American	15 %	2 %	\$40,001 to \$60,000	-	17 %
Hispanic/Latino	1 %	1 %	\$60,001 to \$90,000	-	21 %
White/Caucasian	79 %	92 %	\$90,001 to \$120,000	-	24 %
Other	2 %	2 %	\$120,001 to \$150,000	-	9 %
			\$150,001 to \$200,000	-	9 %
			More than \$200,000	-	7 %

The maps on the following page illustrate the zip codes of survey respondents within Missouri (a small portion of the responses – around 2 percent – were from outside the state). These results are preliminary; future reports will likely aggregate zip codes into larger geographic units with more statistical robustness.

**Survey Respondents' Residence, Commute Destination (by zip code)**



## 3. Mobility

### Mobility Highlights

The most significant highlight of this quarter, from a process standpoint, was the development of a series of systems to automate the collection, processing, and display of the enormous stream of available data. Key initial findings are listed below:

- Approximately 140,000 to 150,000 daily vehicles used the segment of I-64 between Ballas Road and I-170 before its closure. The assessment of where those vehicles have gone is still underway; it appears that 25,000 have shifted to I-44; traffic on I-55 may have increased by 5,000 vehicles per day. Volume data is still being evaluated for I-70, I-270, and the many parallel facilities that have been impacted by the closure.
- Travel speeds and times are also still under evaluation, but it appears that travel speeds have dropped at least slightly during the peak periods on many key regional facilities, in conjunction with volume increases.
- Transit usage is up by 9 percent over a year ago; however, this trend is not far out of alignment with the growth of the past two years.
- The RideFinders Rideshare program experienced a 32 percent jump in rides compared to January 2007; this increase, plus smaller but noteworthy increases over the past six months appears to have been in response to (and anticipation of) the I-64 closure.

### Mobility Assessment Objectives and Methods

#### Major Goals – Mobility Assessment

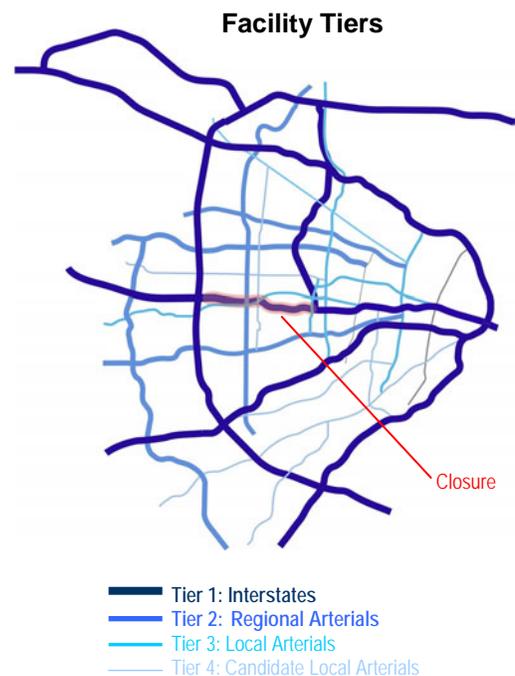
Assess the shifts (temporal, spatial, and modal) in travel demand throughout the region

Assess congestion effects of the closure

Assess closure effects on transit, ride-sharing, and park-and-ride demand.

This assessment uses a variety of tools to measure the region's mobility before, during, and after the closure period. The assessment examines traveler shifts and their effects, using a multitude of data sources of varying resolution. The complexity and sheer size of the data set requires examinations at several levels, and future reports will continue to hone and refine the assessment.

The initial analysis of the region's roadways and highways is focused on facilities in four Tiers, as illustrated at right. Tier 4 facilities are being assessed to see whether they should be included in the Tier 3 grouping, or excluded from further analysis. For each of these facilities, relevant mobility data (traffic volumes, travel times, incidents) are being gathered throughout the duration of the closure to measure its regional impacts.



Mobility data is being obtained through numerous sources:

- MoDOT is providing historical traffic counts through its count program, as well as archived traffic data from the Gateway Guide system. In addition, MoDOT forces have conducted travel-time runs on key segments of Tier 2/3/4 facilities multiple times since the I-64 closure. MoDOT also maintains statistics for its park-and-ride facilities across the state, and is providing monthly count data for its facilities in the region. Finally, MoDOT has produced a series of e-mail updates (initially daily, now weekly) that provide area residents (and the study team) with important mobility information.
- Traffic.com is a commercial Web site that provides, for highways in metropolitan areas across the U.S., real-time traffic congestion, travel-time, and incident data. These data are based primarily on sensors placed throughout the area. Traffic.com archives traffic volume, travel speed, and incident data – in 1-minute intervals – and has an agreement to share this information with MoDOT. The research team developed customized software routines to download, organize, prune, and analyze this data.
- St. Louis County has conducted traffic counts and travel-time studies on regional arterials periodically since the closure.
- Metro collects ridership information on MetroLink, MetroBus, Call-A-Ride, and special services, and is providing statistics aggregated on a monthly basis. In addition, Metro collects parking data at its stations with park-and-ride facilities.
- RideFinders, sponsored by Madison County Transit, is the St. Louis regional rideshare program. Rideshare data is provided on a monthly basis.
- The research team is supplementing data collection where necessary, including travel-time runs, traffic counts, and field observations.

## Mobility Results

### Pre-closure Capacity Improvements

It is important to note that regional mobility began to be affected by The New I-64 project even before the closure. Perhaps most notably, several highway/roadway capacity improvements were implemented by MoDOT and St. Louis County on parallel and complementary facilities, as listed at right.

In addition, Metro improved its transit system capacity in anticipation of the closure by increasing service frequency and adding new routes. The research team has recently received a complete list of these improvements, and they will be incorporated into future reports.

#### Key Improvements to Regional Highways/Roadways

**I-70** Restripe from I-170 to I-270 (add lane in each direction)

**I-44** Restripe from I-270 to I-55/I-70 (add lane in each direction)

**I-270/I-64** Restripe interchange ramps to improve traffic flow

**I-270/I-44** Restripe interchange ramps to improve traffic flow

**Clayton Road** Restripe from Mason Road to Lindbergh Blvd; upgrade various traffic signals; new traffic signals at Topping Road and Bopp Road

**Ladue Road** Upgrade various traffic signals; various new left/right-turn lanes; new traffic signals at Graeser Road/Warson Road

**Improved Signal Timing** along Page Avenue, Olive Boulevard, Manchester Road, Lindbergh Boulevard, Clayton Road, Brentwood Boulevard, Hanley Road, Big Bend Boulevard, Kingshighway Boulevard, Grand Boulevard, and Forest Park Parkway

## Traffic Volumes

Prior to the closure, in baseline 2006, I-64 carried approximately 107,000 vehicles per day (vpd) on a typical weekday – this is Annual Average Daily Traffic, or AADT (excluding “outlier” days). In January-February of 2007, one year before the closure, this section of I-64 carried approximately 143,000 vpd on a typical weekday. 100 percent of this traffic was necessarily displaced (temporally and/or spatially) as a result of the closure.

One primary question of interest is, “where did all the traffic go?” Several sources can be used at this stage to answer that question - including before/after volumes (from MoDOT, Traffic.com, and St. Louis County), responses to the various public surveys developed, and selected aggregated data reported by MoDOT in its frequent e-mail briefings. The table at right summarizes the information MoDOT has reported in the briefings, and shows that the most change has occurred during the a.m. peak hour.

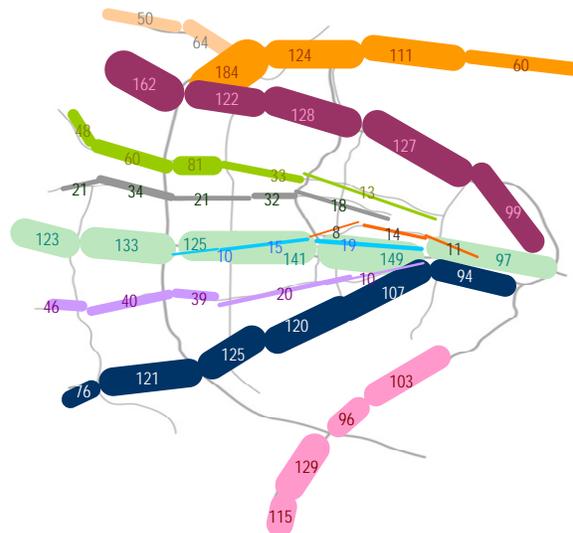
**MoDOT-Reported Volume Increases**  
(Compared to Pre-Closure Volumes)

	Jan 14	Jan 21	Feb 4	Feb 11	Feb 18
<b>AM Peak Hour</b>					
Rt 141 @ I-44	10%	4%	5%	5%	0%
Page	10%	15%	15%	15%	15%
Olive @ Fee Fee	-	5%	5%	5%	
Olive e/o Ballas	5%	40%	60%	55%	55%
Manchester	10%	10%	25%	30%	20%
Lindbergh SB	-	270%	200%	200%	200%
Lindbergh NB	-	(-50%)	(-40%)	(-40%)	(-40%)
<b>PM Peak Hour</b>					
Rt 141	5%	(-5%)	5%	0%	(-5%)
Page	10%	15%	15%	15%	20%
Olive @ Fee Fee	-	(-10%)	10%	-	(-10%)
Olive @ Ballas	(-10%)	15%	15%	20%	15%
Manchester	20%	15%	15%	15%	15%
Lindbergh SB/NB @ Manchester	-	(-50%)	(-50%)	(-50%)	(-50%)

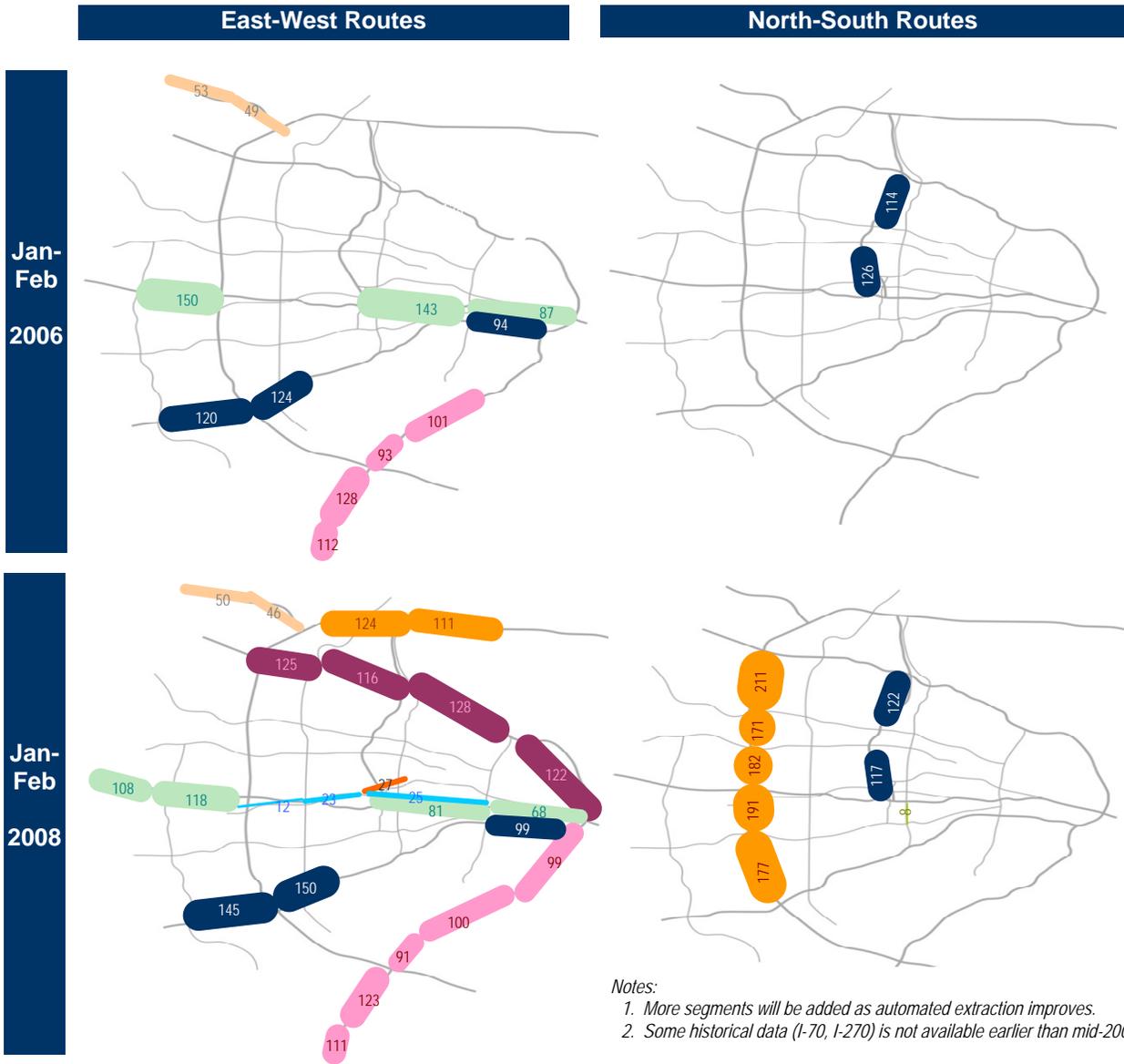
The graph at right, extracted from Traffic.com, MoDOT, and St. Louis County data, shows east-west daily traffic volumes for many of the key study facilities for the baseline year of 2006. Similar data has been extracted for the key north-south facilities (I-270, I-170, Lindbergh Boulevard, etc.) It is important to note that this information averages every non-holiday, non-“outlier” weekday from 2006, and therefore is not a good base against which to compare the effects of the closure in the first two months of 2008.

The maps on the next page show a more fair initial comparison for selected segments. They compare weekday January-February 2008 volumes with the January-February 2006 volumes. (Weekend volumes are also being assessed.) Future reports will likely extract further data at more locations, now that an automated process has been established for working with these enormous data sets. However, continuous archived baseline data for some routes, such as I-70 and I-270, is not available for time periods before mid-2007.

**Baseline Daily Weekday Traffic (000's)**  
**East-West Corridors (2006, full year)**



## Daily Traffic Volume Comparison (000's) on Selected Segments, 2008 vs. 2006 Baseline (PRELIMINARY)

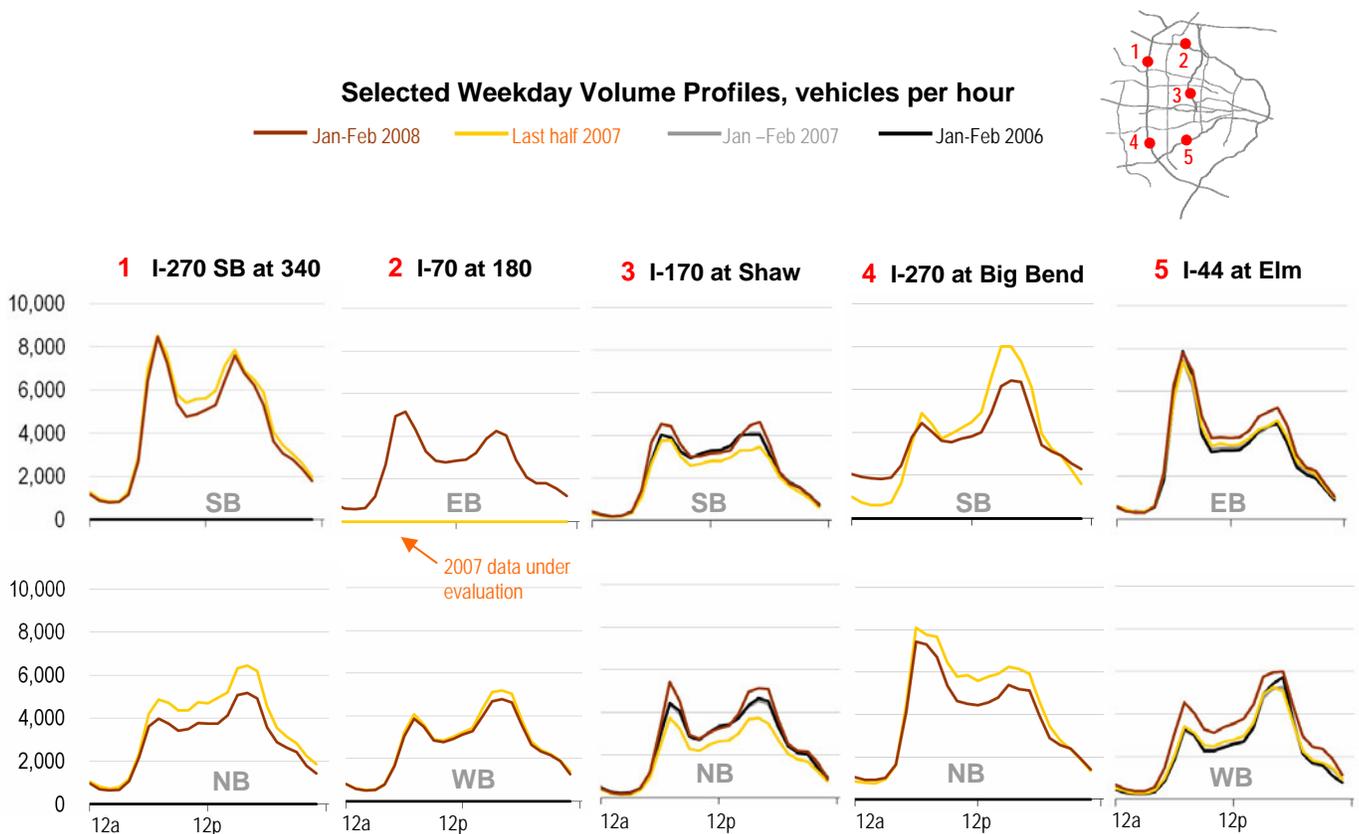


*Notes:*  
 1. More segments will be added as automated extraction improves.  
 2. Some historical data (I-70, I-270) is not available earlier than mid-2007.

Based on these maps, the following preliminary conclusions can be gleaned:

- Traffic volumes on I-64 immediately west of the closure have decreased by approximately 32,000 vpd; immediately east of the closure, they have decreased by approximately 62,000 vpd.
- Volumes on I-44 east of Kingshighway have increased on the order of 5,000 vpd; near I-270 (on both sides), they have increased by approximately 25,000 vpd.
- Volumes on I-170 north of I-64 have decreased by approximately 9,000 vpd, while volumes further north near I-70 have increased by approximately 8,000 vpd.
- Volumes on I-55 do not appear to have changed substantially, with no increase over 5,000 vpd shown in the current analysis.

The Traffic.com data can be examined at more refined resolutions, from hourly totals all the way down to five-minute volumes. The graphs below give some initial indications of the effects of the closure, but also hint at other ways the data is being examined. Future reports will discuss the effect of the closure on the **duration of the peak period**, informed by hourly and sub-hourly time-increment data. Initially, it can be seen that locations with 2006 data have experienced volume increases between January-February 2006 and January-February 2008, and some peak periods may have lengthened.



## Travel Times

MoDOT has been reporting travel time information in its e-mail updates, largely on key interstate segments. The table at right summarizes these updates for the first quarter. Several segments have shown substantial variability in travel time over this period. Active winter weather has certainly played a major role in these variations, as February especially was notable for an abnormally high amount of snow events. To supplement this reported information, the research team will be using Traffic.com's archived speed data to calculate travel times on freeway segments throughout the region. The graphs below illustrate a sample of the data that can be obtained from this source, and show that, where comparable 2006 baseline data are available, speeds (especially congested speeds) appear to have dropped slightly in several areas comparing January-February 2008 to January-February 2006. As more data become available and conditions stabilize, these averages will become more statistically relevant, allowing more refined conclusions to be drawn.

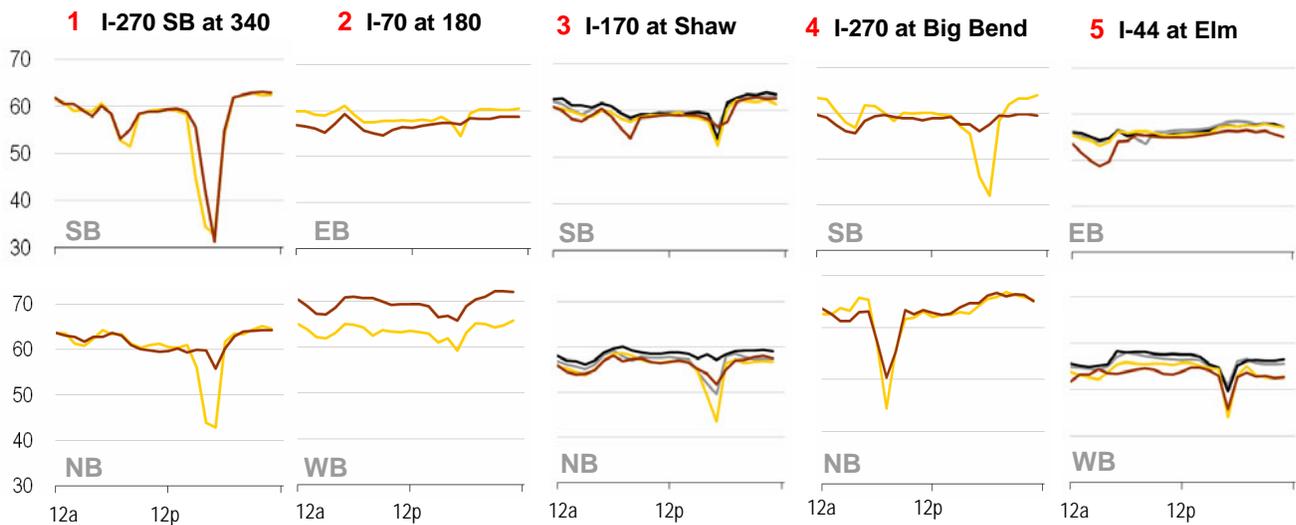
## MoDOT-Reported Travel Times (minutes)

	Jan 21-27	Feb 4-10	Feb 11-17	Feb 18-25
<b>AM Peak Hour</b>				
I-270 WB @ Chain of Rocks	9-11	10 -12	9 - 12	9 - 15
I-270 NB from I-55 to I-44	6	6 - 26	6 - 7	6 -18
I-270 NB from I-44 to I-64	7-8	7 - 10	7 - 10	7 - 10
I-255 @ Jefferson Barracks	4	4	4	4
I-170 EB/WB from I-70 to I-64	-	-	7 - 8	7 - 8
I-70 EB from I-270 to I-170	4	4	4 - 7	4
I-70 EB from I-270 to downtown	11-15	11 - 17	11 - 20	11 - 40
I-44 EB from I-270 to downtown	14-16	14 - 16	14 - 15	14 - 15
<b>PM Peak Hour</b>				
I-270 EB @ Chain of Rocks	12-20	12 - 28	9 - 34	12 - 21
I-270 SB from I-70 to I-64	15 - 47	15 - 57	15 - 68	8 - 27
I-270 SB from I-64 to I-44	-	-	-	7 - 22
I-255 @ Jefferson Barracks	4	4	4	4
I-170 SB from I-70 to I-64	-	-	7 - 8	7 - 8
I-170 NB from I-64 to I-70	-	-	7-16	7 - 8
I-70 WB from downtown to I-170	11-15	11 - 29	11 - 22	11 - 14
I-70 WB from I-170 to I-270	4	4 - 6	4 - 8	4
I-44 WB from I-270 to downtown	14-15	14 - 16	14 - 20	14

The graphs below illustrate a sample of the data that can be obtained from this source, and show that, where comparable 2006 baseline data are available, speeds (especially congested speeds) appear to have dropped slightly in several areas comparing January-February 2008 to January-February 2006. As more data become available and conditions stabilize, these averages will become more statistically relevant, allowing more refined conclusions to be drawn.

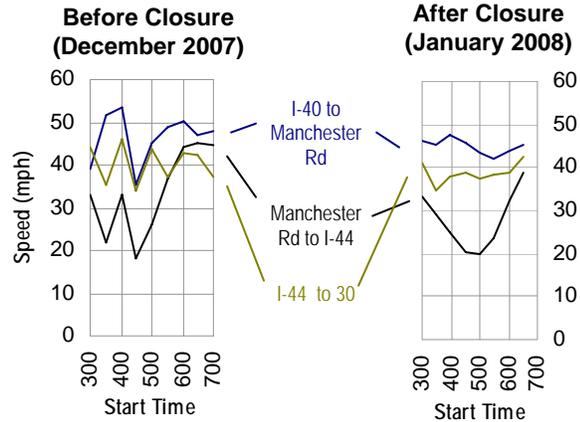
## Selected Weekday Speed Profiles, miles per hour

— Jan-Feb 2008 — Last half 2007 — Jan -Feb 2007 — Jan-Feb 2006



In the initial weeks of the closure, MoDOT has conducted travel-time runs on many of the local arterials (Tier 2, 3 and 4). This data set is complex, and is still under evaluation. However, the graphs at right are provided to indicate selected results. The graphs illustrate “before-and-after” travel speeds on three segments of Route 141. The southernmost segment appears to have the least change in speed, while the two northern segments may have experienced some overall speed decreases. The research team will be analyzing the data for each facility to aid in the assessment of the closure’s effects on travel speeds.

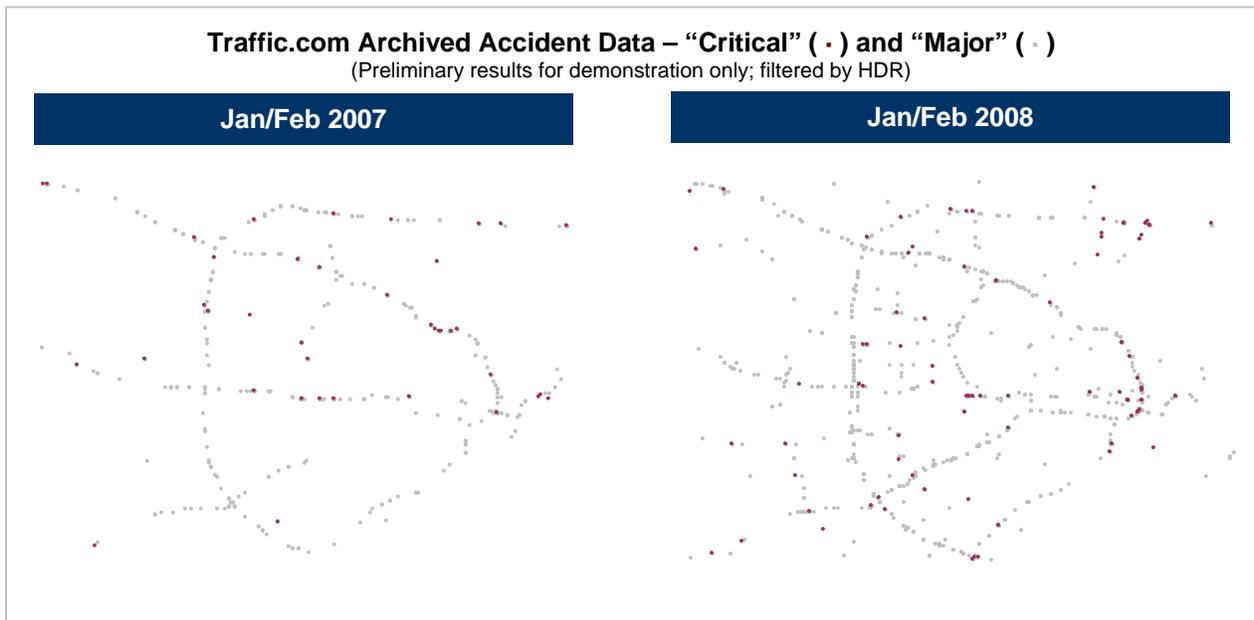
**Route 141 Travel Speeds (PM Peak Hour)**



**Incidents/Weather**

As MoDOT’s February I-64 briefing stated, “weather played a significant factor in traffic during February with snow events on February 5, 6, 11, 12, 18, 21 and 22.” January also had a number of snow events. The research team will be identifying weather days and at least high-level correlations with travel conditions.

The maps below compare Traffic.com’s archived “critical” and “major” accident data for January/February 2008 to January/February 2007 (stored by latitude/longitude). The methodology for extracting these data still needs refinement – Traffic.com often reports a single incident multiple times, and there are other potential duplications that need to be examined. The intent of the figure is primarily to illustrate the data available, because the data itself needs further investigation. If, as the figure seems to indicate, the number of accidents increased this year in comparison to last year, it is doubtful that the closure has played a major role; a far more likely contributor is the high number of weather events. Traffic.com reporting practices may also have changed; this data will continue to be refined.



## Park-and-Ride

The table below summarizes one year's worth of quarterly parking counts at MoDOT's Park-and-Ride lots in St. Louis County and neighboring counties. As the table indicates, only the aggregated Jefferson County lots have experienced a net increase in parked vehicles in February 2008 compared to February 2007. Future reports will continue to examine these trends, and will also include data from the numerous Metro transit park-and-ride lots throughout the St. Louis metropolitan area.

**MoDOT Park-and-Ride Volumes**

County	Lots	Total spaces	Vehicles Parked in Lot				Change Feb 07-08	
			Feb07	May07	Aug07	Nov07		
Franklin	6	413	295	205	189	175	168	- 43 %
Jefferson	11	962	321	337	379	386	367	+ 14 %
St. Charles	12	1110	427	403	283	315	301	- 30 %
St. Louis	6	792	519	540	582	451	493	- 5 %
<b>Total</b>	<b>35</b>	<b>3277</b>	<b>1562</b>	<b>1485</b>	<b>1433</b>	<b>1327</b>	<b>1329</b>	<b>- 15 %</b>

## Transit

At the time of this report, Metro statistics are only available through January 2008. The table and graphs at right summarize some key statistics regarding Metro usage. Ridership on the total Metro system in January 2008 (the first month of the I-64 closure) was over 9 percent higher than ridership in January 2007. However, as the graphs indicate, Metro ridership has been steadily increasing since at least mid-2005, and the increase seen in comparing January 2008/2007 data does not appear to substantially deviate from this trend.

Statistics from the coming quarter will shed additional light on any closure-related transit trends. Future quarterly reports will examine more specifics regarding individual routes affected by the closure.

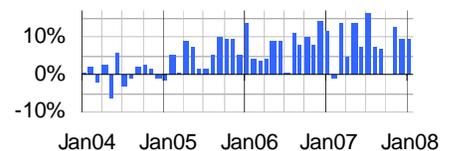
## Key Transit Statistics

	Jan '08 ridership	Increase over Jan '07
MetroBus (fixed route)	2,723,970	9.1%
MetroLink (passenger rail)	1,944,205	9.4%
Call-a-Ride (paratransit)	60,167	8.4%
Total Metro system (includes services not listed)	4,733,423	9.3%

Total Metro system – equivalent daily riders per month



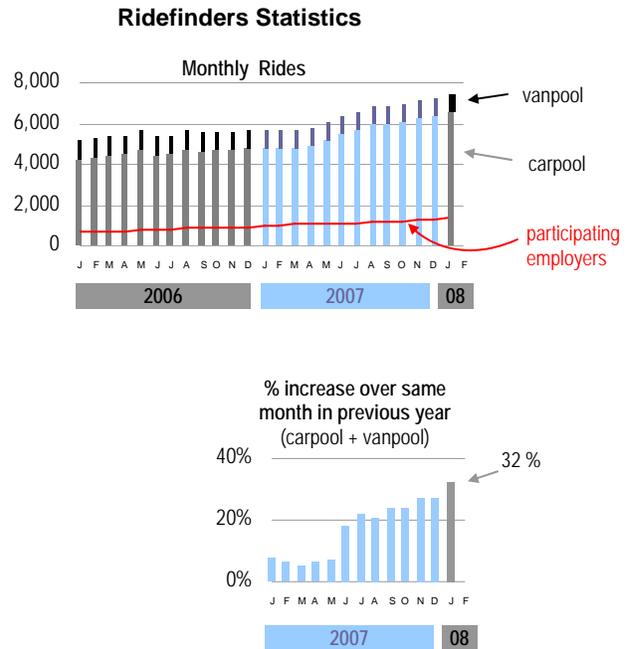
Month's increase over previous year



## Rideshare

RideFinders, sponsored by Madison County Transit, is the St. Louis regional rideshare program. The graph at right shows historical ridership for RideFinders, and indicates a general upward trend since the second half of 2007. The lower portion of the figure further illustrates this jump in ridership by indicating, for each month, the percentage increase over the previous year. As the graph indicates, January 2008 had the highest one-year increase (32 percent) for the time period tracked.

The research team is working with RideFinders to obtain more details to help correlate rideshare activities with I-64 closure statistics.



## 4. Economics

### Economics Highlights

The main highlight for this quarter was the development and distribution of the first business survey. The Survey was finalized and available online as of February 18<sup>th</sup>. It was distributed to over 6,000 local business sites by multiple local and regional economic development organizations; to date, 101 responses have been received. The business survey will remain active until March 13<sup>th</sup> with a second business survey planned for later in 2008. Additionally, the published economic data collection and research has identified ten major economic and demographic metrics, and catalogued the available sources. These metrics will be used to create a consistent set of economic and fiscal indicators of corridor and regional economic conditions before, during and after I-64 reconstruction. Given the time lag in available economic data indicators, this quarterly report does not include economic results for the first few months of the I-64 closure, but future reports will.

### Economic Analysis Objectives and Methods

#### Major Goals – Economic Analysis

- Measure economic conditions before and throughout the completion of I-64
- Determine the effectiveness of the reconstruction and traffic management strategies
- Identify the strategies that are the most appropriate for near-term and long-term economic vitality

Actively tracking the economic conditions over time will permit a greater ability to communicate with local businesses and commuters throughout the reconstruction project. The level of detail the research team is pursuing will allow verification of how the closures are impacting both groups and measure these effects to inform future transportation construction projects that involve lane closures. This economic evaluation and the information obtained will help to develop strategies that sustain the regional economy as

the I-64 project concludes. Finally, these findings will help to shape national transportation policy regarding reconstruction strategies – namely, whether full closures for shorter periods are economically viable.

For this first quarter, the research team began the collection and analysis of economic data in order to create a baseline of economic conditions, and developed and distributed the first business survey of initial I-64 closure conditions. The survey will help track business indicators such as retail spending patterns, visitation, and business growth or retraction.

The major elements for the three key components of this economic assessment include:

#### *Business Survey:*

- Develop a survey instrument for both general and focused survey approaches.
- Obtain feedback; revise and finalize the survey to ensure the relevant economic indicators are included.
- Distribute the survey and follow up with partners to ensure that the survey is completed by a reasonable number of firms.
- Collect, process, interpret and present survey results.

#### *Published Data:*

- Develop an inventory of data sources, variables, frequency (monthly, quarterly, annual), and time lag.
- Meet with economic data experts at MoDOT, Department of Economic Development (DED) Missouri Economic Research & Information Center (MERIC), and other state and local agencies to discuss data availability.
- Develop a recommended set of metrics and data sources to use throughout the I-64 evaluation study.
- Develop reporting and presentation methods (tables, graphs, maps) to best track economic data indicators over time and compare to pre-construction conditions.

#### *Benefits and costs of I-64 reconstruction and mitigation strategies:*

- Estimation of highway user costs stemming from the mobility findings. Highway user costs include travel time, cost, accidents, and emissions due to changes in vehicle hours of travel (VHT), vehicle miles of travel (VMT), and variability of travel time.
- Develop methodologies to measure the effectiveness of mitigation strategies to manage traffic flow conditions during the course of the project such as estimating the difference between “predicted” highway user costs of I-64 without mitigation strategies compared to “actual” highway user costs.
- Assessment of changes in the distribution of economic activity related (directly or indirectly) to I-64 reconstruction.
- Evaluation of MoDOT’s efforts to alleviate potential impacts on local businesses through programs like Project Get Around and Mid-Metro 4. These programs encourage businesses within the affected areas to reach out to new and existing customers while providing information, including directions and promotional offers. The participation and effectiveness of these programs will be monitored periodically through the current and subsequent business surveys.

## **Economic Results**

The following lists the current activities to date:

- Presented to MoDOT Connections Committee regarding the approach for the economic assessment, the draft business survey, and data collection plan.
- Inventoried published economic, demographic and fiscal data sources.
- Collected available published economic and demographic data.
- Met with MERIC for special zip-code-level industry employment, wage and establishment data tabulations, and have agreed upon a data-sharing agreement.
- Created the Business Survey and posted the Survey on-line.
- Worked with local and regional economic development/business organizations to distribute survey.
- Began identifying specific firms and organizations for focused, in-depth longitudinal surveys and interviews.

The next two sub-sections describe the key results of this quarter in more detail.

### **Business Survey**

The Online Business Survey was reviewed by MoDOT, the Connections Committee, RCGA, Heartland Market Research, and others before being finalized and activated on Monday February 18<sup>th</sup>. The three distinct focus areas of the first business survey were commuting, transportation/shipping costs, and

**Business Survey –  
Selected Preliminary Results  
(as of 2/28/08)**

visitation. The survey’s questions were directed at the conditions just prior to the closure and the changes following the initial closure of the Western portion of I-64. Arrangements were made with local organizations to facilitate a greater number of responses. The survey was distributed to over 6,000 member business establishments via e-mail and newsletters with reminder notices urging members to participate in the online business survey. The contributing organizations are: St. Louis Regional Chamber & Growth Association (RCGA), Regional Business Council (RBC), Downtown St. Louis Partnership, Civic Progress, the St. Louis County Economic Council (SLCEC), and assorted local chambers of commerce.

Total Distributed	6,000+
Total Responses	101
<b>Respondent location</b> (based on zip code, reported by 75%)	
City of St. Louis	50%
St. Louis County	33%
Immediate I-64 region	17%
<b>Satisfaction w/ MoDOT execution of project</b>	
Very satisfied	60%
Satisfied	37%
Dissatisfied	3%
Very dissatisfied	0%

The table at right summarizes some key initial statistics related to the business survey. As the table indicates 97 percent of respondents with an opinion were either satisfied or very satisfied thus far with the closure of the western portion of I-64. The current closing date for this first business survey is Thursday March 13<sup>th</sup>, 2008. A copy of the current on-line survey can be found in Appendix C.

*Business Survey Next Steps:*

Hard copies of the Business Survey will soon be distributed to the Forest Park Chamber so that smaller businesses will have an opportunity to participate in the survey and their responses will be entered into the survey database. Full survey response results will be assessed after March 14 and presented in upcoming progress reports. To the extent possible, the results will be compared to published economic and fiscal data indicators.

**Economic and Fiscal Data Analysis**

The purpose of the published data collection is to track economic indicators over the course of the I-64 Reconstruction Project and establish an economic baseline of current conditions in a manner consistent with the previous MERIC April 2006 Pre-Construction Analysis<sup>1</sup>. The starting point for data collection was to review the data sources from the 2006 Pre-Construction analysis, and catalogue other Federal, State, County, City, and private-sector data resources. The core economic and demographic concepts selected are: employment, labor force, population, real estate trends for commercial and retail, taxable sales, and other related metrics. The main selection criteria for each data series was the frequency of publication, time lag, availability, and level of detail. The industrial and geographic detail were considered crucial as businesses will respond differently to changes in the road network based on their proximity to I-64 and the industry reliance on transportation. Based on a thorough inventory analysis of available data resources and feedback from MoDOT and MERIC, the data indicators shown in the table below have been selected to measure economic conditions before, during and after I-64 reconstruction:

**Summary of Proposed Economic Statistics**

Statistic	Source	Reported Interval	Reporting Lag	Geographical Unit	Level Of Detail
Employment, Wages, Establishments	MERIC	quarterly, monthly	3 mos	Zip Code, County, City	2-digit NAICS
Unemployment Rate	MERIC LAUS	monthly	3 mos	County, City	Aggregate
Population	Census	annual	2006 data	County, MSA, Census Tract	Aggregate
Taxable Sales	MoDOR	quarterly	3 mos	Zip Code, City, County	Zip Code, SIC code
Property Assessment & Tax Paid	St. Louis County MoDOR	annual	3 mos	County	Res, Non-Res, & parcel
Property Value	Assessor's office (City of SIL)	odd yrs	2 yrs	City	Res & Commercial
Building Permit Volume	NAHB	annual	1 yr	MSA	Single family, multifamily
Household Information	FFIEC	annual	3 yrs+	Census Tract	Median inc, Owner Occp,
Real Estate: Comm'l and Retail	TWR	quarterly	3 - 6 mos	Corridor, Zip Code	Industrial, Office, Comm'l

<sup>1</sup> “Interstate 64 Business Climate Report Pre-Construction Analysis”

To gauge the impacts from I-64 reconstruction, comparisons will be made based on: a) time series trends (before, during, after); b) county-level economic trends; and c) metropolitan area and U.S.-level macroeconomic conditions. Wherever possible, the data is collected at the zip code level and aggregated to create the following regions: the impacted sections of the I-64 corridor, St. Louis County, and St. Louis City. Detailed descriptions of each series are discussed below:

#### *Employment, Wage, and Establishment Statistics*

The “Quarterly Census of Employment and Wages” (QCEW) dataset is compiled by MERIC covering employment, wages, and the number of establishments by industry. It is publicly available at the county level. Specific to this evaluation study and the need to track sub-county corridor-level conditions, the research team has reached agreement with MERIC to create custom tabulations of the QCEW at the zip-code level for the two-digit NAICS industries. The standard QCEW has few data suppressions at both the City and County level. The most recent release for both St. Louis County and St. Louis City is the Second Quarter of 2007.

#### *Unemployment Rate, Labor Force*

MERIC’s Local Area Unemployment Statistics (LAUS) covers labor force and subsequent unemployment rates for each county, city, and MSA within the state. These estimates are derived from historical data, the CES program, and the Unemployment Insurance System (UI). The data is reported monthly for all geographical areas including the U.S. as a whole. The last reported month was November 2007. The LAUS dataset is preferred to National data sources, as MERIC reports this information directly to the Bureau of Labor Statistics (BLS) for their unemployment estimates.

#### *Population*

The population estimates program by the U.S. Census Bureau publishes demographic data for the nation, state, cities, and towns. Estimates for the total population are available for both the City and County up to 2006; these estimates were released in March 2007. The reference date for all census estimates is always July 1<sup>st</sup>. Census population data and estimates are the most commonly cited and available demographic data for the US. With each new July 1<sup>st</sup> release, the Census Bureau revises previous historical estimates. The population data to date has been collected.

#### *Taxable Sales*

Missouri Department of Revenue (MoDOR) reports Quarterly Taxable Sales by zip code (currently available up to and including the third quarter of 2007) and is a particularly good data source to track consumer/retail spending and overall economic activity at a detailed geographic level. The Taxable Sales by City dataset also separates taxable sales for each individual industry via the Standard Industrial Codes (SIC). Since 1997, most have adopted the North American Industrial Classification System (NAICS) classifications for reporting business related economic data, which will present a minor challenge as MoDOR’s data is still tabulated using the older SIC classifications. Comparing the taxable sales data by zip code with the geographic detail will allow us to see the direct sales impacts on the I-64 Corridor.

#### *Real Estate: Property Assessment, and Taxes*

The “I-64 Business Climate Report: Pre-Construction Analysis” used a custom tabulation provided by the Torto Wheaton Research Group (TWR). TWR data included annual estimates for industrial building gross rental asking, availability, net absorption, and stock for St. Louis City, St. Louis County, and the I-64 Corridor. The TWR data is a fee-based service and HDR is determining the number of custom data updates that will be required. Alternative and supplemental data sources start with the City of St. Louis Assessor’s office, which assesses city property every other year. At the national level, the National Association of Homebuilders (NAHB) reports the volume of building permits for single and multi family units. Additionally, the City and County Department of Revenue (DOR) respond to specialized data

requests. Lastly, the St. Louis County Department of Revenue and Assessor's office reports and collects property assessments by each individual parcel.

*Household information:*

Timely data to track housing sales and prices at the county and sub-county level is not readily available. The following data sources could be used but all present limitations:

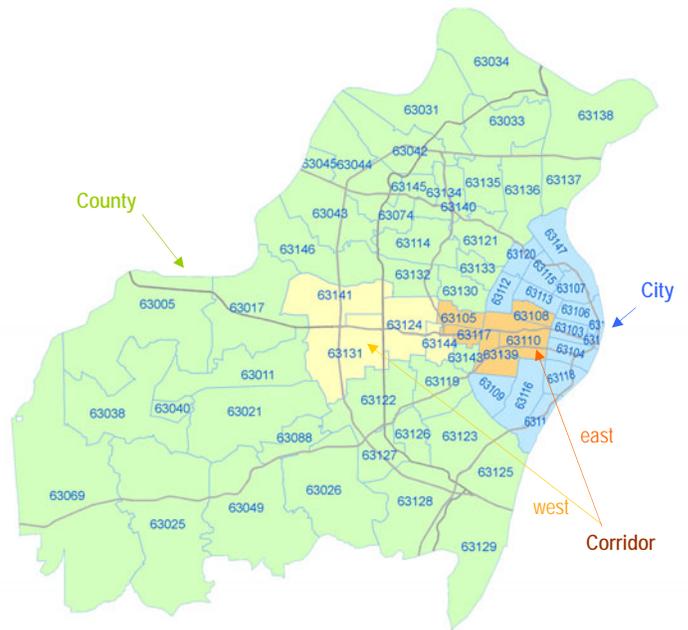
- The Federal Financial Institutions Examination Council (FFIEC) collects and reports general information on median family income and population by census tract for each MSA. The data for 2007 is estimated from 2003 data and is reported once every three years; thus, the major disadvantage of this dataset is the reporting lag and the lag period for the underlying data that drives these estimates.
- The Census Bureau's American Community Survey (ACS) has similar demographic and household data estimates for 2006, but at the county and city level. The ACS data can supplement intermittent releases of the FFIEC.
- The National Association of Realtors provides more frequent data on median home prices, but at the metropolitan statistical area level (for St. Louis that means multiple counties in Missouri and Illinois) and are thus not particularly useful for this evaluation.

*Geographic Area:*

Once the index of available data sources was created, the geographic study area was defined. Based on the available data, the research team determined that the analysis will be from the "bottom up" using detailed zip-code-level data to create the I-64 corridor. The map at right illustrates the zip code definitions for each region, including those composing the I-64 Corridor.

*Economic and Fiscal Data Analysis, Next Steps:* Starting this summer, MERIC will provide the zip code level economic data and thus the baseline will be constructed from the point where MERIC's Pre-Construction analysis left off (the first quarter of 2005), continuing forward throughout the reconstruction period. The economic indicators will be standardized to create periodic quarterly updates tracking conditions from pre-construction through completion.

**Zip Code Definitions for Study Regions**



**Conclusion**

The Business survey was successful in soliciting responses from the local community and interim results verify that a majority of businesses are satisfied with MoDOT's initial performance during the I-64 closure. In addition, the sources of published economic data have been determined for collection throughout the project along with the necessary agreements with MERIC to produce a custom data set at the zip code level for the economic analysis. Future reports will include a detailed analysis of the first business survey and preliminary analysis of the published economic data.

## 5. I-64 Traffic Response

### I-64 Traffic Response Highlights

#### Major Goals – I-64 Traffic Response Assessment

Assess benefit/cost of the current I-64 Traffic Response deployment (arterials)

Assess value of continuing future arterial highway service patrol efforts

Develop white paper that provides a sustainable approach to consideration of future arterial highway service patrols

The main highlight for this quarter was the development and distribution of the I-64 Traffic Response survey instrument (see Appendix A) that is provided during each assist performed. This survey instrument will provide information from motorists receiving these services, including information on location, response/wait time, services provided, the professionalism with which services were provided, and the user opinion on the value of

the services. Additional questions on the I-64 project were also included to help gauge users' opinions on the I-64 project and to connect these services with the I-64 project. The survey form identifies the sponsors, and provides information on the regional traveler information systems (511 and Gateway Guide). Thirty-eight (38) completed surveys were received during the first two months.

### I-64 Traffic Response Objectives and Methods

This assessment will utilize information collected from transportation users, I-64 Traffic Response/Motorist Assist staff, previous research/study efforts, and the mobility assessment component to establish the benefit/cost of the program. This information will then be used to forecast future value of continuing regional arterial highway service patrol efforts. The assessment will explore the following potential expanded arterial highway service patrol alternatives:

- Expanded services only during major or roadway closure construction activities
- Continuous services along major regional arterial corridors
- Limited-response services along major arterial corridors by expanding the region's Motorist Assist Program and the utilization of the region's integrated management and operation system

A white paper will be developed by June 2009 that will outline a sustainable approach regarding when regional arterial highway patrol services should be considered. This deliverable will provide the region the time necessary to fund and implement desired recommendations.

### I-64 Traffic Response Results

MoDOT performs service patrol activities where operators travel busy highways and provide assistance at incident sites for stranded motorists and crashes. By quickly helping to resolve problems, this program increases the safety and mobility of all motorists in the area. MoDOT's Motorist Assist program concentrates on the interstates, and I-64 Traffic Response sponsored by St. Louis County covers major arterial roads such as Manchester Road and Olive Boulevard. Starting on January 2, 2008 – the day of the closure – these programs' operators began distributing surveys to those they assisted to obtain feedback about operator performance, and as another method to learn how the closure is impacting motorists. Responses indicate that motorists are very satisfied with operator performance, and their closure responses were similar to those obtained in the web and mail studies. Specifically, 89 percent were satisfied with the decision to close parts of I-64 for two years instead of taking six to eight years to otherwise finish reconstruction. Likewise, 89 percent of the respondents were also satisfied with how well they were managing to move around the St. Louis area since the closure. The distribution and receipt of surveys will continue throughout the study period with monthly and quarterly updates being made.

# **Appendix**

## **Table of Contents**

**Appendix A    Project Communication**

**Appendix B    Mobility (future)**

**Appendix C    Economics**

**Appendix D    I-64 Traffic Response (future)**

## **Appendix A: Project Communication**

A1 Mail Out Survey

A2 Online Survey

A3 Interview Survey

A4 Freeway Motorist Assist Survey

A5 I-64 Traffic Response Survey

## A1 Mail Out Survey

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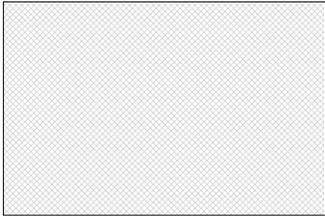
Dear Resident,  
Please help us. Heartland Market Research LLC has been hired by MoDOT to survey the general public about your opinions regarding the New I-64 Project. Most of the questions on this survey specifically relate to the project closure of I-64 (Highway 40) between Ballas Road and I-170 for construction improvements.

Our only interest in the project is to provide accurate information about what you think, so please respond as accurately and completely as possible. The survey should take less than 5 minutes to complete, and you can return the survey to us in the enclosed postage paid envelope.

If you have any questions about the survey, please call me directly at (573) 578-5423. If you have any questions about the New I-64 Project you may call MoDOT at (888) ASK-MODOT or visit www.thenewi64.org.

Thank you,

Lance Gentry  
Principal Investigator, Heartland Market Research LLC



**MARKING INSTRUCTIONS**

- Use pencil or a blue or black ink pen.
  - Make no stray marks on this form.
  - Completely fill in the appropriate ovals.
- CORRECT:** ● **INCORRECT:**

**Customer Survey about the New I-64 Project**

**1. Please indicate your agreement (or disagreement) with the following statements about how the New I-64 (Highway 40) Project closure between Ballas Road and I-170 has impacted you.**

	strongly agree	agree	disagree	strongly disagree	no opinion
the closure has changed where I shop	++	+	-	--	?
the closure has changed where I buy gas	++	+	-	--	?
the closure has changed where I bank	++	+	-	--	?
the closure has changed where I eat out	++	+	-	--	?
the closure has changed how often I travel to certain areas	++	+	-	--	?
the closure has changed where I work	++	+	-	--	?
the closure has changed where I live	++	+	-	--	?

**2. Has the project closure of this section of I-64 changed your work habits? (Mark all that apply)**

- No - I still work the same hours in the same location as I did before the closure
- Yes - My hours have shifted
- Yes - I now work from another location (home, another office, etc.) more often
- Yes - I quit my job and accepted one somewhere else
- Yes - Other

**3. Please indicate your level of satisfaction with:**

	very satisfied	satisfied	dissatisfied	very dissatisfied	no opinion
How well the public has been kept informed about the New I-64 Project?	++	+	-	--	?
The timeliness of the New I-64 Project information being made available?	++	+	-	--	?
How alternative travel options have been communicated?	++	+	-	--	?
The traffic flow within construction work zones (other construction where you may travel)?	++	+	-	--	?
How understandable and accurate are the construction work zone signs?	++	+	-	--	?
How well you are managing to move around the St. Louis area with the New I-64 Project closure?	++	+	-	--	?
The decision to complete the work by closing I-64 for 2 years instead of taking 6 to 8 years with lane closures?	++	+	-	--	?
Your overall level of satisfaction with how the New I-64 Project closure has been handled?	++	+	-	--	?

Please complete both sides of the survey.



4. What are the best ways for MoDOT to get information to you about road improvements and other road and bridge information? (Mark all that apply to you)

- TV News
- Radio News
- Radio Talk Shows
- Newspapers
- Internet sites
- Receive information in mail (newsletter, etc.)
- Project email from MoDOT or I-64 Team
- Project display boards at public gatherings
- Road signs on other roads
- Road signs when I head toward the closed highway
- Word of Mouth (a friend tells me)
- Work
- Call 1-888-ASK-MODOT
- Call 511
- Other

5. In a typical week before the New I-64 Project closure (before January 2, 2008), how often did you commute in the following ways? (Count round trips twice)

	never	1 to 2 times per week	3 to 4 times per week	most weekdays	almost every day
Driving alone	<input type="checkbox"/>				
Driving with multiple people	<input type="checkbox"/>				
Riding the bus	<input type="checkbox"/>				
Riding MetroLink (light rail)	<input type="checkbox"/>				
Biking	<input type="checkbox"/>				
Walking	<input type="checkbox"/>				
Telecommuting	<input type="checkbox"/>				

6. In a typical week after the New I-64 Project closure (after January 2, 2008), how often do you commute in the following ways? (Count round trips twice)

	never	1 to 2 times per week	3 to 4 times per week	most weekdays	almost every day
Driving alone	<input type="checkbox"/>				
Driving with multiple people	<input type="checkbox"/>				
Riding the bus	<input type="checkbox"/>				
Riding MetroLink (light rail)	<input type="checkbox"/>				
Biking	<input type="checkbox"/>				
Walking	<input type="checkbox"/>				
Telecommuting	<input type="checkbox"/>				

7. In a typical week before the New I-64 Project closure (before January 2, 2008), how often did you travel on the closed section of I-64 (Highway 40)? Please count round trips twice.

- Never
- Very rarely
- Once a week
- Two to three times a week
- Most weekdays
- Almost every day

8. Please indicate how long it takes you to make most trips now compared to how long it took you before the New I-64 Project closure (compared to before January 2, 2008).

- At least 10 minutes faster
- 5 to 10 minutes faster
- I have not noticed much difference
- 5 to 10 minutes longer
- At least 10 minutes longer

The following questions are asked because we need to make sure we are not missing any groups of people from our survey. Feel free to skip any questions that make you uncomfortable.

Demographic Questions

9. Are you male or female?  Male  Female

10. To which ethnic group(s) do you belong? (Mark all that apply)

- American Indian
- Asian
- Black or African American
- Hispanic or Latino
- White or Caucasian
- Other

11. Fill in the zip code of where you most frequently drive other than where you live. For most people this will be your work zip code.

Zip Code

0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

12. How old are you?

- Under 18
- 18 to 25
- 26 to 40
- 41 to 65
- Over 65

PLEASE DO NOT WRITE IN THIS AREA



[SERIAL]

## A2 Online Survey

## Welcome to the I-64 Survey

We appreciate your time and interest in sharing your opinion. This information is being collected, summarized, and reported to the Missouri Department of Transportation (MoDOT) to help them serve you better. We (Heartland Market Research LLC and HDR Inc) are independent contractors who have been hired to collect this information and provide it to MoDOT. Our only interest in this project is to provide accurate information about what you think, so please respond as accurately and completely as possible.

Most of the questions in this survey relate to the closure of I-64 (Highway 40) and how this impacts you. On January 2, 2008, I-64 was closed in both directions between Ballas Road and I-170 for construction improvements.

Survey. **In consideration of both your time and interest in the subject, you can choose the length of your survey.**

- Brief Survey (2 to 5 minutes)
- Medium Survey (4 to 8 minutes)
- Detailed Survey (6 to 10 minutes)

The questions on this survey will change periodically. Right now we are on our first set of questions. You are welcome to return and take the survey again when we change the questions (approximately every other month).

Repeat. **Have you taken this survey before?**

- No
- Yes
- I'm not sure

---

## Personal Impact of Closure

Impact1. **Please indicate your agreement (or disagreement) with the following statements about how the closure of I-64 (Highway 40) between Ballas Road and I-170 has impacted you?**

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
The closure has changed where I shop	<input type="checkbox"/>				
The closure has changed where I buy gas	<input type="checkbox"/>				
The closure has changed where I bank	<input type="checkbox"/>				
The closure has changed where I eat out	<input type="checkbox"/>				
The closure has changed how often I travel to certain areas	<input type="checkbox"/>				
The closure has changed where I work	<input type="checkbox"/>				
The closure has changed where I live	<input type="checkbox"/>				

Impact2. **Has the closure of this section of I-64 changed your work habits?**

**(Mark all that apply)**

- No - I still work the same hours in the same location as I did before the closure
- Yes - My hours have shifted
- Yes - I now work from another location (home, another office, etc.) more often
- Yes - I quit my job and accepted one somewhere else
- Yes - other

Impact3. **If you answered other above and/or if you want to provide more details about how the closure has affected you, please do so here.**



## Alternative Routes

Alt1. For those who wish to travel near the closed part of I-64 (Highway 40), a recent newspaper article mentioned five alternative routes in addition to the two interstate options. Please provide your thoughts about each one.

	I have not tried this alternative yet	I have tried this alternative and would recommend it to others	I have tried this alternative and would <i>not</i> recommend it to others
Manchester Road	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clayton Road	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ladue Road	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Olive Boulevard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Page Avenue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I-44	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I-70	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Alt2. If you have tried other alternatives, please describe them along with any suggestions that might improve them.

---

## Your Opinion

Satisfaction1. Please indicate your level of satisfaction with the following:

	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied
How well the public has been kept informed about the New I-64 Project?	<input type="radio"/>				
The timeliness of the information being made available?	<input type="radio"/>				
How alternative travel options have been communicated?	<input type="radio"/>				
The traffic flow within construction work zones (other construction where you may travel)?	<input type="radio"/>				
How understandable and accurate are the construction work zone signs?	<input type="radio"/>				
How well you are managing to move around the St. Louis area with the closure of I-64?	<input type="radio"/>				
The decision to complete the work by closing I-64 for 2 years instead of taking 6-8 years to finish otherwise?	<input type="radio"/>				
Your overall level of satisfaction with how the I-64 closure has been handled?	<input type="radio"/>				

***[NOTE: Brief Survey skips to last page after this question]***

---

## Closure

Awareness1. **Before coming to this survey, did you know that the section of I-64 (Highway 40) between Ballas Road and I-170 would be completely closed for 2008?**

- Yes
- No

Awareness2. **When did you learn that I-64 was going to be closed between Ballas Road and I-170?**

- January 2008
- December 2007
- Before December 2007
- I'm not sure

SatCheck. **The alternative to closing parts of I-64 (Highway 40) for two years was to have ongoing construction for 6 to 8 years. This would have resulted in having various lanes closed to traffic until at least 2014 and possibly through 2016. This alternative would have also cost many million dollars more. Considering the alternative, how satisfied are you with the decision to complete the work by closing I-64 for 2 years instead of taking 6-8 years to finish otherwise?**

- Very Satisfied
- Satisfied
- No Opinion
- Dissatisfied
- Very Dissatisfied

---

## Feedback

Feedback. **What is the best way for MoDOT to get information to you about road improvements and other road and bridge information? (Mark all that apply)**

- TV News
- Radio News
- Radio Talk Shows
- Newspapers
- Internet Sites
- Receive information in mail (newsletter, etc.)
- Project email from MoDOT or I-64 Team
- Project display boards at public gatherings
- Road signs when I was headed toward the closed highway
- Road signs on other roads
- Word of Mouth (a friend tells me)
- Work
- Call 1-888-ASK-MODOT
- Call 511
- Other

Feedback2. **Please use this space to provide additional detail about how MoDOT could best provide you with information.**

---

**Internet**     *[Only Seen if Internet Completed on Previous Page]*

Internet1. **On the previous page, you indicated that the internet was a good way to get information to you. Please indicate which site(s) that you visit.**

**(Mark all that apply)**

- GatewayGuide.com
- MoDOT's website (MoDOT.org and/or MoDOT.gov)
- The New I-64 site (TheNewI64.org)
- Metro (MetroStLouis.org)
- Post 4 Traffic Online (post4trafficonline.com)
- DontGetStuck.org
- KMOV.com (Channel 4)
- KDSK.com (Channel 5)
- KTRS.com (AM 550)
- STLToday.com (Post-Dispatch)
- Other

InternetOther. **If you heard about the closure through one or more sites not listed above, please tell us which site(s).**

---

**The New I-64 Site (TheNewI64.org)** *[Only seen if site chosen on Previous Page]*

I64Site1. **What information on the I-64 Project website do you find most useful?**

- Construction Zone (Ongoing Closures)
- Traffic Impacts (Today's Closures)
- Newsroom
- Project Overview
- Web cams and/or Photo Gallery
- Commuter Alternatives (Transit/Carpooling Options)
- None of the Above

I64Site2. **What information would you like to see on the I-64 Project website?**



**Before the Closure**

*[Only seen by detailed survey respondents]*

Before1. Please indicate how much time it takes you to make certain trips now compared to how long it took you before the closure.

	Not applicable or I don't know	Faster than before	Same time as before	0 to 5 minutes longer than before	5 to 15 minutes longer than before	15 to 30 minutes longer than before	More than 30 minutes longer than before
Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employment or Work Related	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Reasons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping, Recreation, and/or Entertainment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traveling Through the St. Louis Region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Before2. In a typical month before the closure, how often did you travel on this section of I-64 (Highway 40) in the following ways?

	Never	A few times	Once a week	Twice a week	Most weekdays	Almost every day
Driving alone	<input type="checkbox"/>					
Driving with multiple people	<input type="checkbox"/>					
Riding the bus	<input type="checkbox"/>					

*[If all three "Never"s are selected, skip to page 1 of Demographics]*

---

## Before the Closure, Page 2

Before3. In a typical month before the closure, what times did you travel on this section of I-64 (Highway 40)?

If this was part of a round trip, please includes both parts of the trip.

- Before 7:00 AM
- Between 7:00 AM and 9:00 AM
- Between 9:00 AM and 3:00 PM
- Between 3:00 PM and 6:00 PM
- After 6:00 PM

## After the Closure

After1. In a typical month after the closure, how often did you travel to the same destinations that you previously reached via the closed section of I-64 (Highway 40) in the following ways?

	Never	A few times	Once a week	Twice a week	Most weekdays	Almost every day
Driving alone	<input type="checkbox"/>					
Driving with multiple people	<input type="checkbox"/>					
Riding the bus	<input type="checkbox"/>					
Riding MetroLink (light rail)	<input type="checkbox"/>					
Walking	<input type="checkbox"/>					
Biking	<input type="checkbox"/>					

After2. In a typical month after the closure, what times did you travel to the same destinations that you previously reached via the closed section of I-64 (Highway 40)?

If this was part of a round trip, please includes both parts of the trip.

- Before 7:00 AM
- Between 7:00 AM and 9:00 AM
- Between 9:00 AM and 3:00 PM
- Between 3:00 PM and 6:00 PM
- After 6:00 PM

---

**Demographics**    *[Page 1 of Demographics not seen by Brief Respondents]*

*These questions are asked because we need to make sure that we are not missing any groups of people from our survey.* Feel free to skip any questions that make you uncomfortable.

Gender. **Are you male or female?**

- Male
- Female

AgeGroup. **Please choose your age group**

- Under 16
- 16 to 25
- 26 to 40
- 41 to 65
- Over 65

Income. **What was your approximate *household* income in 2007?**

- Less than \$20,000
- \$20,000 to \$40,000
- \$40,001 to \$60,000
- \$60,001 to \$90,000
- \$90,001 to \$120,000
- \$120,001 to \$150,000
- \$150,001 to \$200,000
- More than \$200,000
- I do not know

*These questions are asked only to make sure we are not missing any groups of people from our survey.* Feel free to skip any questions that make you uncomfortable.

Zip. **We are interested in traffic flows. It would help us a lot if you could tell us two zip codes. If you are not sure, just leave them blank.**

What is your home zip code? (where you are currently living)

What is your work zip code? (if you go to school, please enter your school zip code. If you do not otherwise work, please leave blank).

Ethnic. **To what ethnic groups do you belong? (Mark all that apply)**

- American Indian
- Asian
- Black or African-American
- Hispanic or Latino
- White or Caucasian
- Other

Submit Survey

---

## A3 Interview Survey

**Draft Interview Survey Questions**

2/5/2008

Good morning/afternoon, my name is \_\_\_\_\_. I am part of a team conducting an independent assessment of the New I-64 project. Do you have time for me to ask you a few short questions?

1. In a typical week before the closure, how often did you travel on the closed section of I-64 (Highway 40)?

- \_\_\_ Never
- \_\_\_ Very rarely
- \_\_\_ Once a week
- \_\_\_ Two to three times a week
- \_\_\_ Most weekdays
- \_\_\_ Almost every day

2. Has the closure caused you to use new routes? If so, which ones?

Manchester Road (100)		I-44		I-170	
Clayton Road		I-55		I-270	
Ladue Road		I-70			
Olive Boulevard (340)		Other:			
Page Avenue (D)		Other:			

Now please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statements.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
3. The closure has changed how often I travel to certain areas					
4. The closure has changed how often I travel overall					
5. The closure has caused me to combine my trips more often					
6. The closure has changed where I spend my money					
7. The closure has changed my work schedule, location, or habits					

If strongly agree on 6 or 7 above, ask how? (see ✓ boxes on next pg)

8	Shop closer to home
	Spend less money
	Shop less often
	Shop in _____
	Other: _____

9	Flextime
	Other changed hours: _____
	Work from another location
	Telecommute / Work from home
	Changed job: Explain _____
	Other: _____

Great! Now I have a series of satisfaction questions for you. For each, please tell me if you are very satisfied, satisfied, dissatisfied, very dissatisfied, or if you don't have an opinion.

How satisfied are you with ...	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied
10. How well the public has been kept informed about the New I-64 Project?					
11. The timeliness of information on the project?					
12. How alternative travel options have been communicated?					
13. How well you are managing to move around the St. Louis area with the closure of I-64 / Highway 40?					
14. The decision to complete the work by closing I-64 for 2 years with cost savings instead of taking 6-8 years with lane closures?					
15. Your overall level of satisfaction with how the I-64 closure has been handled?					

16. Now I have a travel related question. Please tell me what types of trips you make most often and about how much longer or shorter they are compared to before the closure. (Give example if necessary)

	N/A or I don't know	Shorter	Same	Somewhat Longer 0 to 20 min	Much Longer > 20 min
Commute					
Other Work Related Trips					
Education					
Medical					
Shopping					
Recreation or Entertainment					
Traveling to Downtown					
Other:					

Now I have a few questions where I would like you to compare how you traveled before and after the closure. Please tell me if the closure has increased, decreased or not affected how often you ...

	Increased	Decreased	No Change
17. Drive with multiple people			
18. Ride the bus			
19. Ride MetroLink (light rail)			
20. Walk or Bike			
21. Telecommute			

22. What is the best way for MoDOT to get information to you about road improvements and other road and bridge information?

- (Mark all that they list)
- TV News
  - Radio News
  - Radio Talk Shows
  - Newspapers
  - Internet Sites (list specific sites if give) \_\_\_\_\_
  - Receive information in mail (newsletter, etc.)
  - Project email from MoDOT or I-64 Team
  - Road Signs
  - Dynamic (variable) message signs
  - Billboards
  - Word of Mouth (a friend tells me)
  - Work Sources
  - Call 1-888-ASK-MODOT
  - Call 511
  - Other: \_\_\_\_\_

In order to make sure we get adequate geographic representation and because we are interested in traffic flows, it would be very helpful if you could provide us with your home zip code and your work or school zip code.

23. \_\_\_\_\_ home zip code 24. \_\_\_\_\_ work / school zip code

25. Do you have any other comments you would like to convey to MoDOT or the I-64 Team? (Write comments on comment sheet.)

**Date, Time & Demographics (DO NOT ASK – interviewer to fill out)**

26. Date: \_\_\_\_/\_\_\_\_/2008 27. Time: \_\_\_\_:\_\_\_\_\_

28. \_\_\_ Male \_\_\_ Female

Observer's opinion regarding:

29. Age group  
 \_\_\_ 15 to 25      \_\_\_ 26 to 40      \_\_\_ 41 to 65      \_\_\_ Over 65

30. Ethnicity

- American Indian
- Asian
- Black or African-American
- Hispanic or Latino
- White or Caucasian
- Other
- Unknown

## A4 Freeway Motorist Assist Survey



## Motorist Assist Missouri Department of Transportation

This Motorist Assist service was provided to you because of your fuel and license tax contributions. **The driver will not accept cash or gratuity.**

Anyone wishing to provide a donation for this service may do so by check or money order made payable to:

**Director of Revenue Credit State Road Fund**

**PLEASE DO NOT SEND CASH!!**

A huge contribution to our Motorist Assist program would simply be your opinions and comments. Please answer the questionnaire on the reverse side and mail it in the self-addressed stamped envelope. Each and every questionnaire is read, documented and used to improve this service for you and your community.

**Your feedback is crucial for the continued existence of the Motorist Assist program!**

**Thank you!!**

**[www.MoDOT.gov](http://www.MoDOT.gov)**



# Motorist Assist Customer Survey

To help us serve you better, please complete and return this survey

or

please complete the survey at [www.HMRLLC.US/assist.htm](http://www.HMRLLC.US/assist.htm)

## MARKING INSTRUCTIONS

- Use a No. 2 pencil or a blue or black ink pen only.
- Do not use pens with ink that soaks through the paper.
- **Make solid marks that fill the response completely.**
- Make no stray marks on this form.

**CORRECT:** ●      **INCORRECT:** ✓ ✗ ○ ●

### 1. Location

- I-44       I-55  
 I-64       I-70  
 I-170       I-255  
 I-270  
 Other: \_\_\_\_\_

### 2. Operator

- 0    0    0  
 1    1    1  
 2    2    2  
 3    3    3  
 4    4    4  
 5    5    5  
 6    6    6  
 7    7    7  
 8    8    8  
 9    9    9

### 3. How long were you pulled over before Motorist Assist arrived (in minutes)?

- Less than 5       5-10       10-20       20-30       30-40       More than 40

### 4. Was this wait time acceptable?    Yes      No      No opinion

### 5. What kind of service was provided? (Mark all that apply)

- Tire       Mechanical       Fuel/Fluid       Transported       Phone       Other

### 6. Please rate your satisfaction with your Motorist Assist operator on the following items, using the scale provided.

	Very Satisfied	Satisfied	Neither	Dissatisfied	Very Dissatisfied
a. Safe procedures	++	+	N	-	--
b. Professionalism	++	+	N	-	--
c. Courtesy	++	+	N	-	--
d. Knowledge	++	+	N	-	--
e. Overall effectiveness	++	+	N	-	--

### 7. Do you believe the Motorist Assist service is valuable?

- Definitely       Probably       Probably Not       Definitely Not

### 8. Additional comments about the Motorist Assist program or operator (Please only write within the thick lines)

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### 9. This question concerns the New I-64 improvement project. For each part, please say whether you are very satisfied, satisfied, dissatisfied, or very dissatisfied?

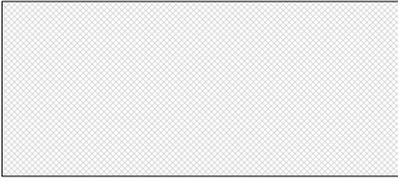
#### How satisfied are you with...

- ...how well you are managing to move around the St. Louis area with the closure of I-64.
- ...the decision to close I-64 to allow construction to be completed in 2 years instead of 7 years.

	very satisfied	satisfied	dissatisfied	very dissatisfied	no opinion
...how well you are managing to move around the St. Louis area with the closure of I-64.	++	+	-	--	?
...the decision to close I-64 to allow construction to be completed in 2 years instead of 7 years.	++	+	-	--	?

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## A5 I-64 Traffic Response Survey

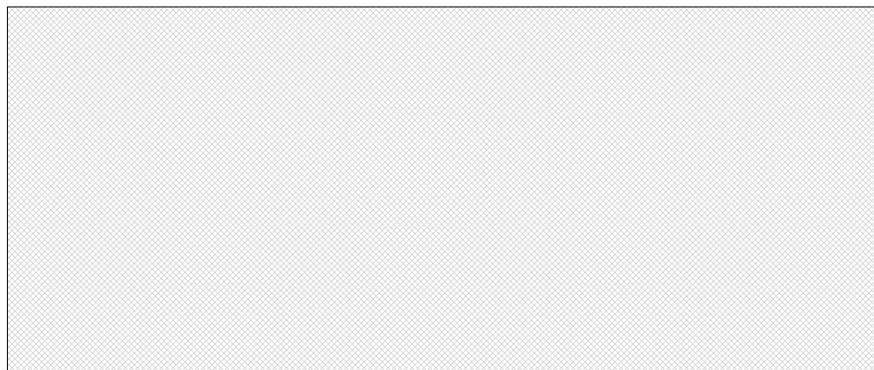


## I-64 Traffic Response Missouri Department of Transportation

The New I-64 Traffic Response service is provided to you in efforts to relieve congestion during the I-64 Project. **The driver will not accept cash or gratuity.**

**For assistance or in case of emergency dial 911**

A huge contribution to our Traffic Response program would simply be your opinions and comments. Please answer the questionnaire on the reverse side and mail it in the self-addressed stamped envelope. Each and every questionnaire is read, documented and used to improve this service for you and your community.



For Travel Information

Thank you!  
**[www.GatewayGuide.com](http://www.GatewayGuide.com)**



# I-64 Traffic Response Survey

To help us serve you better, please complete and return this survey

or

please complete the survey at [www.HMRLLC.US/traffic.htm](http://www.HMRLLC.US/traffic.htm)

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## MARKING INSTRUCTIONS

- Use a blue/black pen or pencil.
- Fill the response completely.
- Make no stray marks on this form.

**CORRECT:** ●  
**INCORRECT:** ✓ ✗ ○ ●

### 1. Location

- |  |   |
|--|---|
| <input type="radio"/> Lindbergh (US-61/67)     | <input type="radio"/> Brentwood Blvd    |
| <input type="radio"/> Manchester (MO 100)      | <input type="radio"/> Clayton Blvd      |
| <input type="radio"/> MO Route 141             | <input type="radio"/> Forest Park Pkwy  |
| <input type="radio"/> Olive (MO 340)           | <input type="radio"/> Hanley Road       |
| <input type="radio"/> Page (MO 364)/MO Route D | <input type="radio"/> Kingshighway Blvd |
| <input type="radio"/> Other: _____             |   |

### 2. Operator

- |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|
| <input type="radio"/> 0 | <input type="radio"/> 0 | <input type="radio"/> 0 |
| <input type="radio"/> 1 | <input type="radio"/> 1 | <input type="radio"/> 1 |
| <input type="radio"/> 2 | <input type="radio"/> 2 | <input type="radio"/> 2 |
| <input type="radio"/> 3 | <input type="radio"/> 3 | <input type="radio"/> 3 |
| <input type="radio"/> 4 | <input type="radio"/> 4 | <input type="radio"/> 4 |
| <input type="radio"/> 5 | <input type="radio"/> 5 | <input type="radio"/> 5 |
| <input type="radio"/> 6 | <input type="radio"/> 6 | <input type="radio"/> 6 |
| <input type="radio"/> 7 | <input type="radio"/> 7 | <input type="radio"/> 7 |
| <input type="radio"/> 8 | <input type="radio"/> 8 | <input type="radio"/> 8 |
| <input type="radio"/> 9 | <input type="radio"/> 9 | <input type="radio"/> 9 |

### 3. How long were you pulled over before Motorist Assist arrived (in minutes)?

- Less than 5     5-10     10-20     20-30     30-40     More than 40

### 4. Was this wait time acceptable? Yes    No    No opinion

### 5. What kind of service was provided? (Mark all that apply)

- Tire     Mechanical     Fuel/Fluid     Transported     Phone     Other

### 6. Please rate your satisfaction with your Motorist Assist operator on the following items, using the scale provided.

	Very Satisfied	Satisfied	Neither	Dissatisfied	Very Dissatisfied
a. Safe procedures	++	+	N	-	--
b. Professionalism	++	+	N	-	--
c. Courtesy	++	+	N	-	--
d. Knowledge	++	+	N	-	--
e. Overall effectiveness	++	+	N	-	--

### 7. Do you believe the Motorist Assist service is valuable?

- Definitely     Probably     Probably Not     Definitely Not

### 8. Additional comments about the Motorist Assist program or operator (Please only write within the thick lines)

---



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---

### 9. This question concerns the New I-64 improvement project. For each part, please say whether you are very satisfied, satisfied, dissatisfied, or very dissatisfied?

#### How satisfied are you with...

- ...how well you are managing to move around the St. Louis area with the closure of I-64.
- ...the decision to close I-64 to allow construction to be completed in 2 years instead of 7 years.

	very satisfied	satisfied	dissatisfied	very dissatisfied	no opinion
...how well you are managing to move around the St. Louis area with the closure of I-64.	++	+	-	--	?
...the decision to close I-64 to allow construction to be completed in 2 years instead of 7 years.	++	+	-	--	?

## **Appendix B: Mobility**

Reserved for Quarter Mobility Data  
No Data This Quarter

## **Appendix C: Economics**

### C1 Business Survey

## BUSINESS STUDY: NEW I-64 ECONOMIC AND REGIONAL MOBILITY

Welcome! This business survey is part of an *independent* evaluation study commissioned by the Missouri Department of Transportation. There are three focus areas – commuting, transportation & shipping costs, and sales & visitation. This survey is intended to obtain important information about the economic implications of the full-closure of I-64 on the local and regional economy.

Thank you for agreeing to participate. **The overall survey results will be summarized in a public report, but your individual data will not be released.**

At the end of the survey, you will have the opportunity to ask for a free copy of our report.

---

### Satisfaction

**How would you rate your organization's overall satisfaction with MoDOT's execution and delivery of the New I-64 Reconstruction Project?**

- Very Satisfied
- Satisfied
- No Opinion (neither satisfied nor dissatisfied)
- Dissatisfied
- Very Dissatisfied

---

## Organization Background

Please select the industry that best fits your organization.

How many years has your organization been at its current location?

- Less than 2 years
- Between 2 and 5 years
- Between 5 and 10 years
- More than 10 years

How many people are employed by your business at your location?

- 10 or fewer
- 11 to 25
- 26 to 100
- 101 to 250
- More than 250

Please estimate what percent of the employees at your location commuted on the closed section of I-64 before January 2008.

- 0% - 25%
- 26% - 50%
- 51% - 75%
- 76% - 100%

## Commuting

Since the closure of I-64: how frequently do your EMPLOYEES use the following alternative routes?

	Frequently	Sometimes	Never
Manchester Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forest Park Parkway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clayton Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ladue Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Olive Boulevard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Page Avenue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-44	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-70	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-270	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please tell us approximately how close your organization is located to the closed sections of I-64.

in miles (0 to 99)

---

## Commuting, Part II

Please indicate your agreement (or disagreement) that the alternate routes provide reasonable access compared to before the closure of I-64.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

How has the closure of I-64 affected employee behavior for your organization?  
(select all that apply)

- Noticeably Earlier Commute Times
- Noticeably Later Commute Times
- Shorter Total Working Hours
- Longer Total Working Hours
- No Noticeable Changes
- Increased Employee Turnover

Since the closure of I-64, has your organization offered any new benefits to accommodate changes in commuting?  
(select all that apply)

- Flextime
- Encouraged Car/Van Pools
- Private Shuttles to Public Transit Access Points
- Subsidized Public Transit Passes: (Bus, Lightrail)
- Alternate Work Locations
- Telecommuting
- Other

---

## Transportation and Shipping Costs

Choose the one(s) that best describes the relationship of your business use of I-64 prior to the closure:

- Shipped and Received Products on I-64
- Employees Used I-64 to Commute
- Patients Used I-64 to Reach Your Location
- Clients Used I-64 to Reach Your Location
- Customers Used to Reach Your Location
- Visitors Used to Reach Your Location

If you ship or receive goods, what percent of shipments travel on I-64?

Before I-64 Closure (0 to 100)

Currently (After) I-64 Closure (0 to 100)

Have transportation costs, excluding fuel costs, increased since I-64's closure?

- Strongly Agree
- Agree
- Disagree [\[Goto question Sales11\]](#)
- Strongly Disagree [\[Goto question Sales11\]](#)

---

## Increased Transportation and Shipping Costs

You indicated that transportation costs have increased since the closure of I-64. Have any of the following factors helped raise your transportation costs?

	Significant Increase in Cost	Minor Increase in Cost	No Change	Minor Decrease in Cost	Significant Decrease in Cost
Freight Shipping Cost	<input type="checkbox"/>				
Increased Travel Time and Delay	<input checked="" type="checkbox"/>				
Less Reliable Shipments and Travel Time	<input type="checkbox"/>				
Fuel Costs	<input checked="" type="checkbox"/>				
Other	<input type="checkbox"/>				

If you answered other, please explain.

---

## Sales and Visitation

Since the closure of I-64: how frequently do your VISITORS, CLIENTS, or PATIENTS use the following alternative routes?

	Frequently	Sometimes	Never
Manchester Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forest Park Parkway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clayton Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ladue Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Olive Boulevard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Page Avenue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-44	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-70	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-270	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

## Weekly Volume of People

Has there been a noticeable change in the weekly volume of visitors, customers, or patients to your organization since the closure of sections of I-64?

- Yes: Lower volume than before the closure
- Yes: Higher volume than before the closure
- No
- Not relevant for my organization

If you replied yes above, please estimate the *weekly* change in visitors, customers, or patients seen by your organization since the closure.

Weekly Number Change (please provide your best estimate **as a number**)

Weekly Percentage Change (please provide your best estimate **as a percentage**)

Have traffic disruptions attributable to I-64's closure impacted your business in any other way?

---

## Weekly Sales Volume

Has there been a noticeable change in weekly business sales (for this time of year) since the closure of sections of I-64?

- Yes: Lower volume than before the closure
- Yes: Higher volume than before the closure
- No
- Not relevant for my organization

If you replied yes above, please estimate the weekly change in sales seen by your organization since the closure.

Weekly Sales Change (please provide your best estimate **as a number**)

Weekly Sales Change (please provide your best estimate **as a percentage**)

---

## Promotional Programs

MoDOT has issued nearly \$1 million in business outreach grants to help local businesses during I-64 reconstruction. Has your organization participated in these business access promotional programs?

- Yes
- No

If yes, please describe the effectiveness of these efforts.

↑

↓

▼

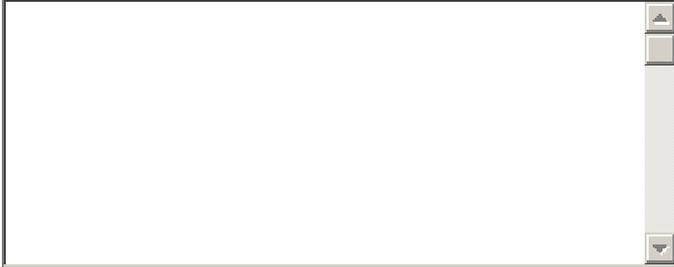
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## Location

Has the location of your facilities and operations changed due to the closure of I-64?

- Yes  
 No

If yes, please elaborate.



---

## Future Decisions

Will your future decisions about new investment, expansion or location of your facilities and operations be impacted by the closure of I-64?

- Yes  
 No

If yes, please elaborate.



---

## Data Collection

**Do you collect employee or client/patient/customer travel origin data?**

- Yes  
 No

**If you answered yes above, may we contact you about potentially sharing travel origin data?**

- Yes  
 No

**Would you be willing to respond to semi-annual surveys or interviews to help support the economic assessment of I-64's reconstruction?**

- Yes  
 No

**If you are willing to help, how should we contact you?  
(select all that are acceptable to you)**

- Email  
 Mailed Survey  
 Telephone

On the next page, you will be given the opportunity to provide your contact information.

---

## Last Page of Questions

This information is vital toward helping us understand the economic impact of the New I-64 project in specific areas. Your individual information will remain confidential; only summary statistics and findings will be published in the report. We especially need the information that is in bold.

Name	<input type="text"/>
Email	<input type="text"/>
<b>Organization Name</b>	<input type="text"/>
Address	<input type="text"/>
<b>Zip Code</b>	<input type="text"/>
Phone	<input type="text"/>

Would you like us to email you a copy of our report? (In order to receive the report, you must answer yes to this question and provide your email address in the previous question).



Yes



No

## **Appendix D: Traffic Response**

Reserved for Quarter Traffic Response Data

No Data This Quarter

# The New I-64 Economic and Regional Mobility Study

## Quarterly Report # 2

March – May 2008



**Before the Closure**

Please indicate how much time it takes you to make certain trips now compared to how long it took you before the closure.

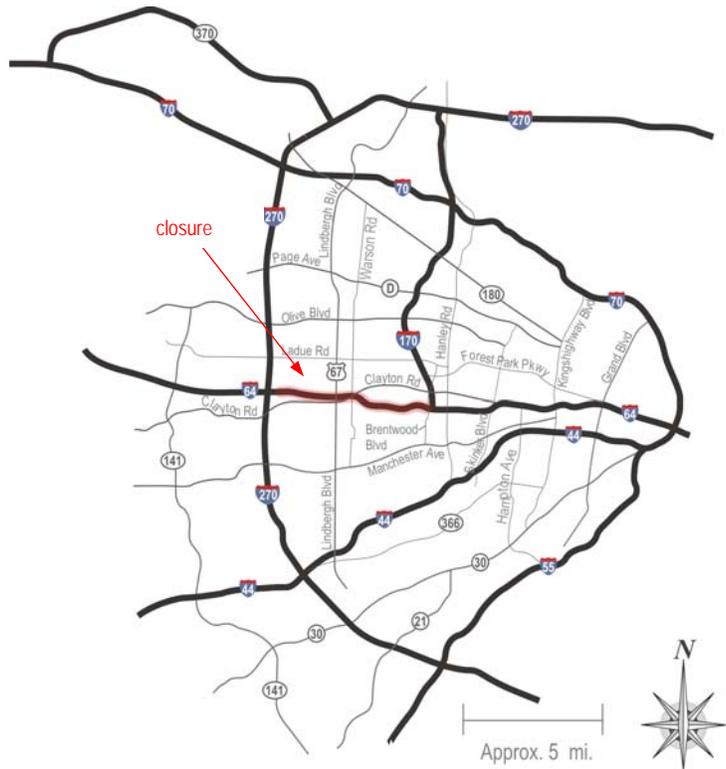
	Has not changed or is shorter	Went from 10 to 15 minutes	Went from 15 to 20 minutes	Went from 20 to 30 minutes	Went from 30 to 45 minutes	Went from 45 to 60 minutes	More than 60 minutes
Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workplaces of work or school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping, recreation, and entertainment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traveling throughout the Louisville Region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# 1. Executive Summary

On January 2, 2008, the section of I-64 from Ballas Road to I-170 (see map) was completely closed for construction. The closure is planned to last through the end of 2008, at which time a section to the east will be closed for construction for the bulk of 2009. Construction is proceeding well in the west closure section.

This quarterly report assesses the period March through May 2008 that includes the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> months of the western 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 western closure now five months old, findings are beginning to emerge that will be of interest to MoDOT and the general public. To date, the research team has found:



Communications (pp. 2-10)	Mobility (pp. 11-21)	Economics (pp. 22-24)
<p>Over <b>2,950 members of the public</b> have given feedback through web surveys, mail surveys, personal interviews, and surveys administered by Motorist Assist.</p> <p>The public is fairly <b>satisfied</b> with the closure, how information has been communicated, and how they are managing to move around the region.</p> <p>The closure has had varying effects on the public’s travel habits, with nearly 3/4 indicating their <b>travel frequency has changed</b> for certain trips and <b>earlier morning commute times</b>.</p> <p>People’s reported <b>travel times are lengthening</b> (travel times greater than 15 minutes was approximately 29%), although many trip times are relatively unchanged.</p>	<p>The closure has <b>re-routed approximately 140,000 to 150,000 vehicles per day</b>; travelers have taken alternative routes, altered their travel schedules, and considered alternate modes.</p> <p>Freeway travel times are <b>similar to the previous year</b> and there is a noticeable <b>peak spread</b> and <b>increased traffic volumes</b> on some freeways.</p> <p>The RideFinders rideshare program experienced a <b>37 percent jump</b> in comparison to the last year and during the month of May, <b>500 new participants</b> signed up. Gas prices have probably contributed to the demand for these services.</p> <p>Arterial traffic volumes generally have increased between <b>3 and 50 percent</b> (see page 16) except Lindbergh Boulevard, where traffic patterns have changed because of the closure.</p>	<p>A <b>draft major findings report</b> was developed on the first regional business survey. <b>369 respondents</b> provided information for inclusion to this report.</p> <p>MERIC supplied <b>special ZIP-code-level data for the first quarter of 2006 and all four quarters of 2007</b>. This information along with the previous completed economic study for serve as baseline data.</p> <p>Specific <b>transportation-dependent local firms and organizations</b> were identified for detailed follow-up interviews. These firms include catering, parcel shippers, utilities, hospitals, hotels and lodging, agricultural research and museums. To date, <b>12 firms and organizations have been interviewed</b>.</p>

## 2. Communications

### Communications Highlights

The citizens of the St. Louis region are providing input to this research through online surveys, mailed surveys, handouts by Motorist Assist operators, and personal interviews. Highlights gleaned from these surveys include:

- **Awareness.** From the responses to date, it appears that MoDOT effectively communicated the upcoming closure to the affected population in 2007; pre-closure awareness was reported as very high.
- **Satisfaction.** Respondents are largely satisfied with their ability to travel around the region and with the level of information that has been communicated by MoDOT and others regarding the closure.
- **Information Sources.** TV News appears to be the best way to reach the majority of the respondents, with radio news, newspapers, and road signs also being effective methods. For those who use the internet, online information sources are almost as effective as TV news. However, a large portion of the general population does not obtain their information via the internet and other methods should continue to be used to reach them.
- **Alternative Routes.** I-44 was the most recommended alternative route. Two nearby parallel arterials, Ladue Road and Clayton Road, received more negative recommendations than positive (with Ladue receiving over 1.6 times as many negatives as positives).
- **Travel Time.** The majority of respondents are indicating that their travel time for basic trips has increased; although many have indicated no change or even an improvement in travel times.
- **Travel Mode.** Initial responses on how the closure has changed people's mode of travel are somewhat inconclusive. It is clear that the dominant mode of travel by the respondents has been, and continues to be, the automobile.
- **Personal Impact.** The closure is affecting people's trip choices. Survey respondents are indicating changes in basic trip destinations such as shopping and eating out. Overall, almost three quarters of respondents are indicating that their frequency of travel to certain areas has been affected by the closure. Some residents have shifted their work hours, especially the respondents to the Web survey, who indicated a shift to earlier morning commutes. However, the web survey received a heavy early response when impact uncertainty to the closure was high. This issue will be explored in more detail as progress is made on the I-64 study.

To date, the responses have been fairly consistent over the various survey methods (with the exception of some of the interview results as can be seen in the travel-time responses presented later). This general agreement across surveys is important because it appears to demonstrate that one can generalize from the surveys to the general population (other than issues related to online access, which is by definition skewed in the Web survey responses).

## Communication Assessment Objectives and Methods

Major Goals – Communication Assessment
Develop and implement survey instruments
Determine effectiveness of pre-closure notification
Measure participant satisfaction for key issues
Estimate changes in behavior
Hear everyone’s voice (obtain generalized sample)

### Total Collected Surveys by Method

Web	1,040
Mail	700
In-person	100
Motorist Assist	
MoDOT	749
I-64 Traffic Response	362
<b>TOTAL</b>	<b>2951</b>

Four classes of survey instruments were developed to assess the communication aspects of this project:

- A detailed online survey was developed; participants had the option to complete a brief, medium, or detailed survey. Surprisingly, 61 percent of the respondents were interested enough in sharing their opinion that they elected to complete the detailed survey. Links to the survey were placed on both MoDOT’s main website and the New I-64 Project site. MoDOT, through its project public outreach efforts, continues to encourage and promote public input via this survey method. Beginning in the 3<sup>rd</sup> quarter (June 1, 2008), enhancements were made to the online survey instrument to gain additional information and insight on the I-64 project. A copy of the enhanced online survey is contained in Appendix A.
- To help obtain a representative sample, a physical survey was developed and mailed to 10,000 respondents in twenty-eight zip codes near the I-64 project. This work was completed during the first quarter and summarized in the 1<sup>st</sup> quarterly report. This mailed survey was successful in helping achieve a better cross-sectional representation of the region’s population. This survey will be administered again early in 2009 and after the I-64 project is completed.
- In-person surveys were utilized to assess public opinions at two major shopping locations in the immediate area of the closure (the St. Louis Galleria near I-64/I-170, and Schnuck’s grocery store at Lindbergh Boulevard and Clayton Road). These interviews were conducted late in the 1<sup>st</sup> quarter and are summarized in this report, with the final summary report contained in Appendix A.
- Project satisfaction measures were also added to the Motorist Assist and I-64 Traffic Response service surveys that are distributed to people serviced by Motorist Assist and I-64 Traffic Response operators. During the second quarter period, 650 - Motorist Assist and 324 - I-64 Traffic Response were received. This significant increase in survey information received is a direct result of operators’ encouragement to those they serve to complete the survey, to help strengthen both programs with public input received.

In order to facilitate comparisons of changes across survey types and from time to time, the statistics used in the project assessment usually do not include the “not sure” or “no opinion” percentages. This eliminates a major source of random variability and allows a more accurate observation of change over time. In addition, this methodology is consistent with how MoDOT calculates similar Tracker measures.

## Communications Results

### Use of I-64, Knowledge of the Closure

The survey results indicate that the public was very aware of the closure well before it occurred. 98.4 percent of the online respondents were aware of the upcoming closure in 2007, and since 97.2 percent of the online respondents traveled on the affected section of I-64 at least once per week before the closure, it appears that the target population received the needed advance information. The changes between the first quarter and second quarter report measurements were generally less than 1 percent. The entire five months of online survey data is included in this report to give a more complete picture of perceptions regarding the roadway closure to-date for readers of this report.

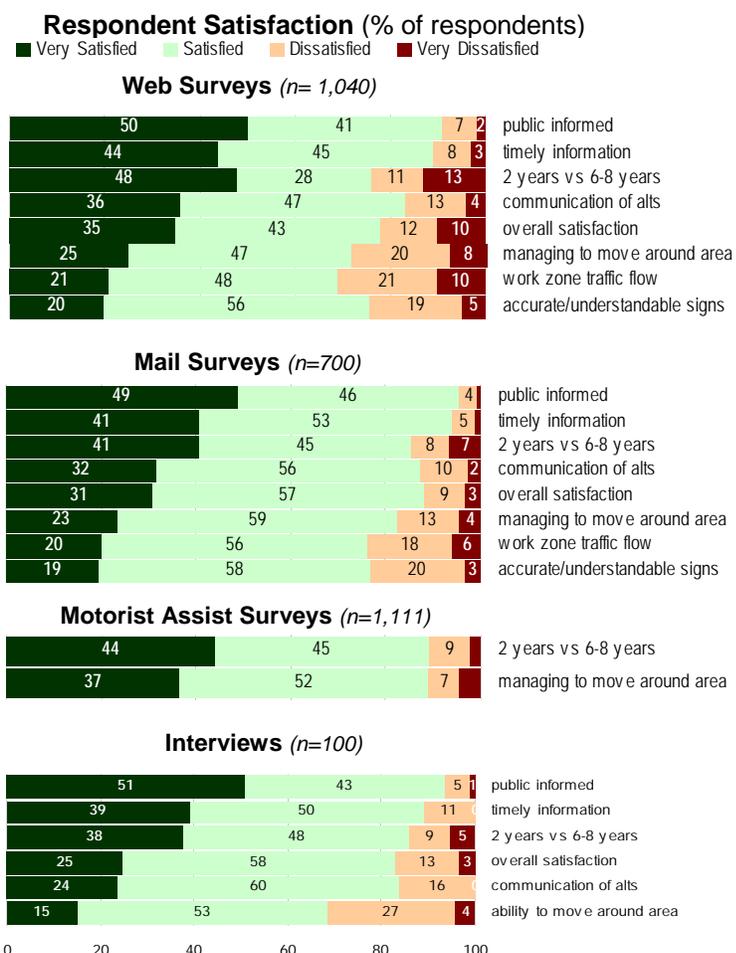
Usage of I-64 before Closure (Web Only)		Knowledge of Closure (Web Only)	
Almost every day	32%	Aware of closure before survey:	98 %
Very rarely	20%	Learned about closure:	
Two to three times a week	16%	Before Dec '07	94 %
Once a week	15%	Dec '07	4 %
Most weekdays	14%	Jan '08	2 %
Never	3%		

### Satisfaction

The charts at right summarize survey respondents' opinions in the area of satisfaction. As the graphs indicate, 69 to 95 percent of the respondents expressed satisfaction in response to each question in each forum, and responses were fairly consistent across the different survey types.

Satisfaction was highest with "how well the public has been kept informed" (91 to 95 percent) and "the timeliness of information" (89 to 94 percent). The least amount of satisfaction was expressed for "how traffic is flowing in work zones" (69 to 76 percent) and "accuracy and understandability of construction zone signs" (76 to 77 percent).

The in-person interviews, conducted late in the first quarter at two major shopping locations near the closed section of I-64, showed general agreement with other survey results. Conducting surveys at shopping locations provides a potential correlation link with the economic component of this study. Consistency in data across all survey efforts helps validate that true public opinion is being gained.



Note: written and verbal responses to the surveys are still being processed, but one notable item is that respondents have expressed satisfaction regarding the regional collaboration on signal timing that has facilitated arterial flow during construction; the public has also expressed a desire to see these timing improvements continued after the project is complete.

### Personal Impact of the Closure

As the graphs at right indicate, respondents much more often modified their frequency of travel to certain areas than the location of their basic trip destinations. The most affected destination types were shopping (29 to 39 percent) and eating out (21 to 37 percent).

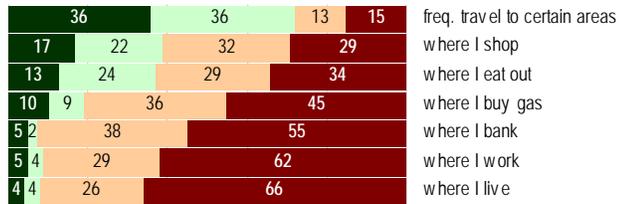
Most respondents indicated that they have continued to work the same hours in the same locations since the closure. The online respondents, including residents more distant from the closure than the mailed survey, were much more likely to have shifted hours in response to the closure compared to those who completed the mailed survey.

The web survey revealed a stated shift to earlier morning commute/travel hours (192 before to 277 after), but no significant shift in the evening hours. It should be noted that anecdotal information, and other observations, indicate that this shift was high initially, but has lessened over time as conditions have begun to stabilize. The high number of web survey responses in the early weeks of the closure may therefore skew this data; future reports will further examine time trends to explore this effect.

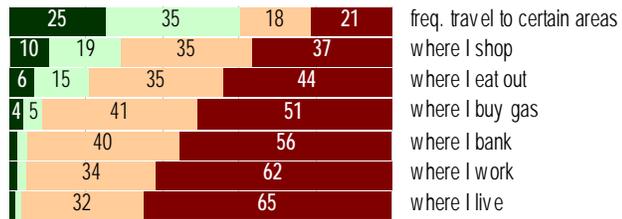
### The Closure Has Changed... (% of respondents)

Strongly Agree Agree Disagree Strongly Disagree

#### Web Surveys (n= 1,040)



#### Interviews (n=100)



#### Mail Surveys (n=700)



#### Spatial/Temporal Effect on Job

	Mail	Web
Same hours, same location	87 %	69 %
Shifted hours	8 %	22 %
Shift location more often	4 %	6 %
Quit job	1 %	3 %

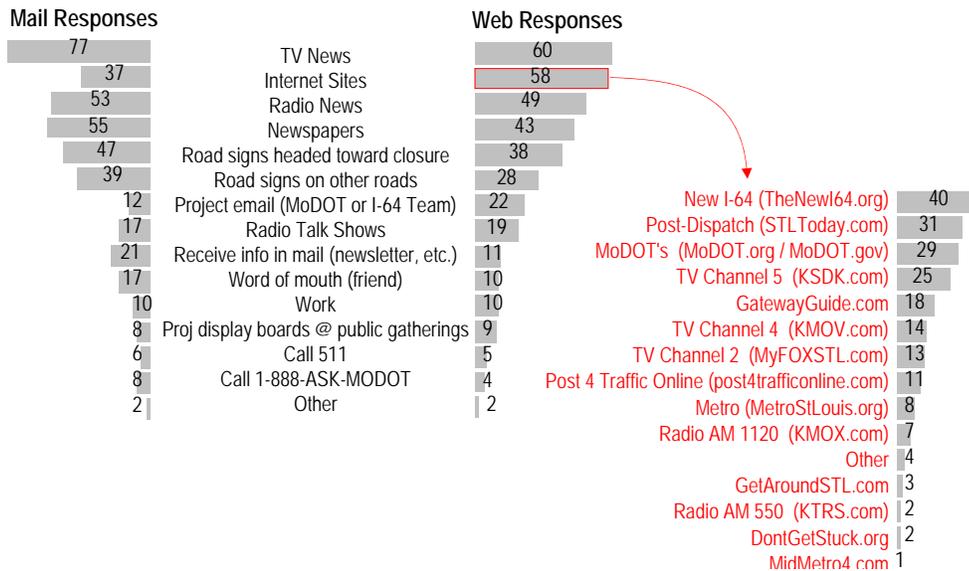
#### Commute or Other Travel Period Demonstrates Shift

	Web only	
	before	after
before 7 am	192	277
7 - 9 am	419	334
9 am - 3 pm	93	103
3 - 6 pm	370	376
after 6 pm	125	145

## Information Sources and Communication Methods

TV News was considered to be the best method for MoDOT to distribute information to the public by the respondents of both the online and physical surveys. As expected, there was much variance in the perceived effectiveness of internet communications between the two survey types. Online respondents, who had to have access to the internet to even complete the survey, thought the internet was the second best way for MoDOT to provide information to them. However, those who returned the physical surveys were not as likely to use the internet to obtain their information (only 37 percent of these respondents thought the internet was a good way for MoDOT to provide them with information). Radio news and newspapers were also considered very good methods of communication, followed by road signs.

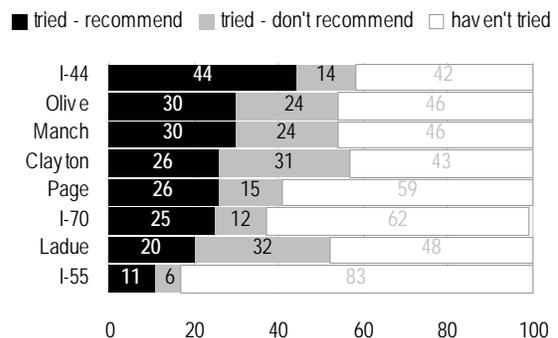
**Best Way for MoDOT to Distribute Information**  
(% responses; multiple choices allowed)



## Alternative Routes

Respondents were also asked to provide input about eight alternative routes. I-44 was the most recommended route, with 44 percent of the respondents recommending it (just over three-fourths of those who had tried the route). Clayton Road and Ladue Road were the least recommended routes, in the sense that more respondents recommended against their usage than for them.

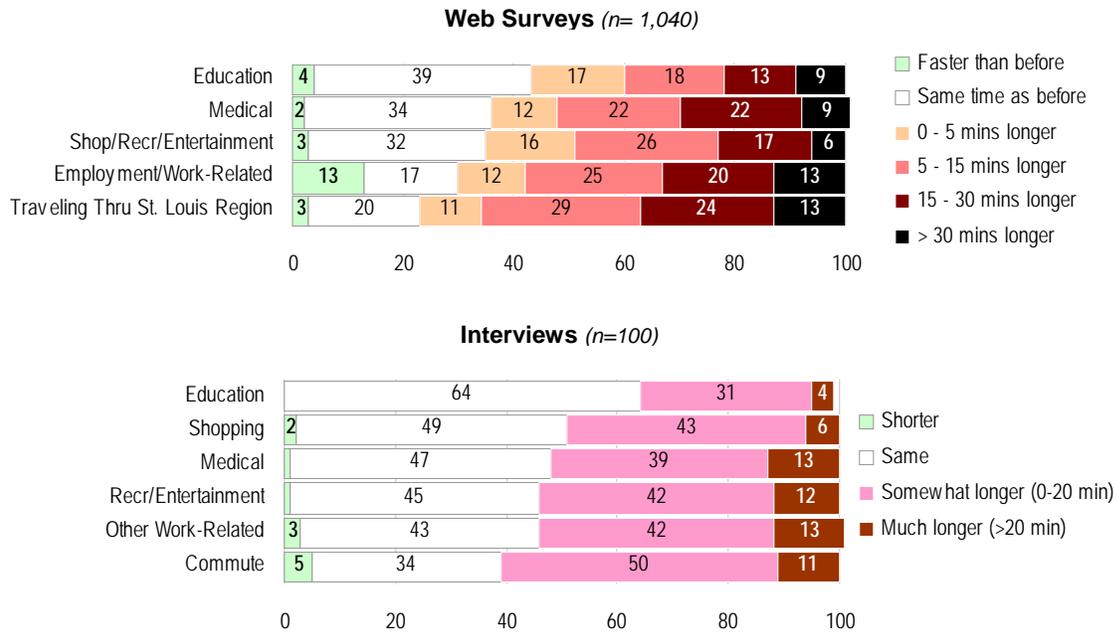
**Alternate Routes (% responses)**



## Travel Time

As indicated by the graph below, the majority of Web survey respondents (57 to 77 percent) and Interview survey respondents (36 to 61 percent) indicated that various trips had gotten longer since the closure. A total of 9 to 13 percent of respondents (web survey) stated that their trips had increased by 30 minutes or more, and 4 to 13 percent of respondents (interviews) stated that their trip had increased by 20 minutes or more. Notably, when asked specifically about work trips, 13 percent of web respondents (and 8 percent of interviewees) indicated that their work trips were actually faster than before.

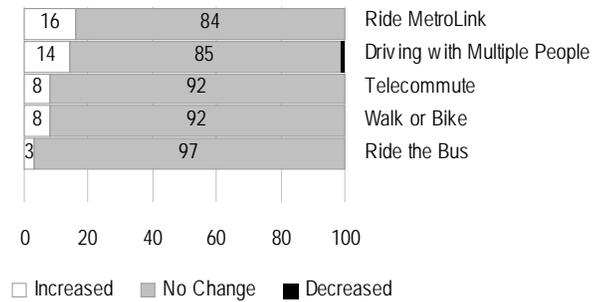
**Travel Time Difference by Purpose (% responses)**



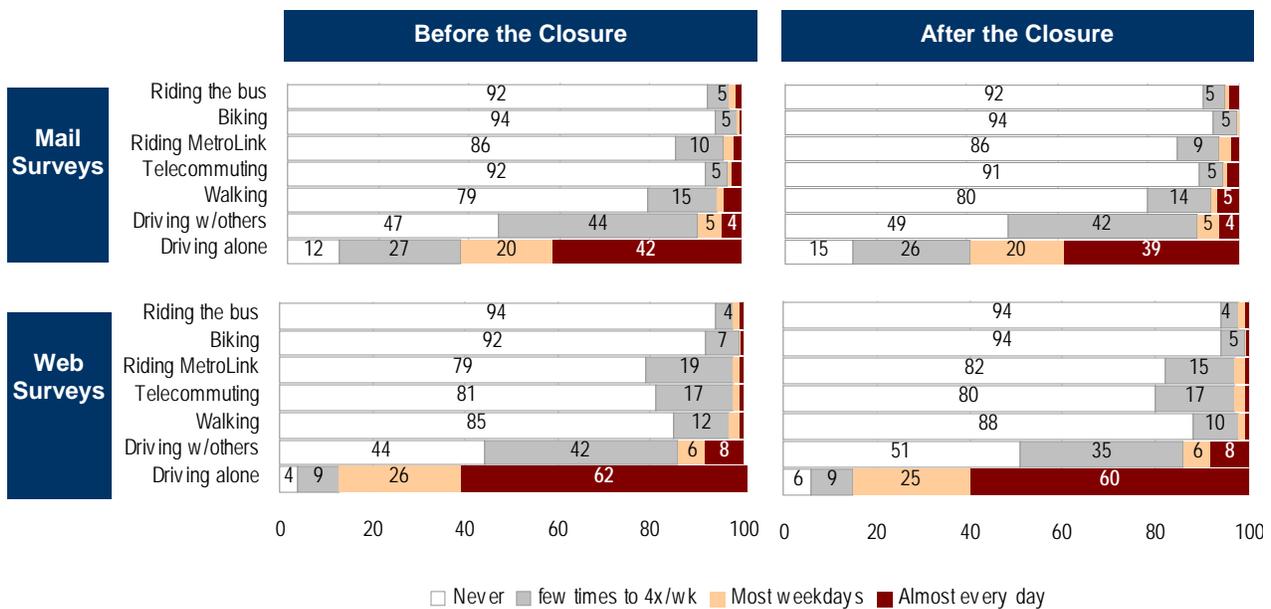
## Travel Modes

To date, the surveys have revealed only slight changes in reported travel mode since the closure, as illustrated below and at right. Single-occupant driving has apparently slightly decreased by 2 to 3 percent, and carpooling also appears to have decreased. For other modes, the fluctuations are not stark, but there appears to have been some increase in each. Further study of these results, in comparison with mobility results, may shed additional light on commute options. The interview survey travel mode question was more direct in nature regarding travel mode shift; however, the sample size of 100 respondents and sample location near the closure may require correlating this information with future interviews along the corridor. Also, the increased carpooling shown in the figures below appears to correlate to the increasing matches reported by RideFinders.

**Change in Travel Mode**  
(% of respondents, interview)



**Travel Mode (% of respondents, mail and Web)**



## Demographics

The table below summarizes the responses to demographic questions from the respective surveys. One of the purposes of supplementing the Web survey with a mail survey was to reach populations without internet access, in order to ensure the research considered the input of as many groups as possible – a representative sample. By targeting the mail survey at many of the zip codes near the closure, the research team succeeded in its objective of reaching a more diverse population, especially in reaching more minorities and more females.

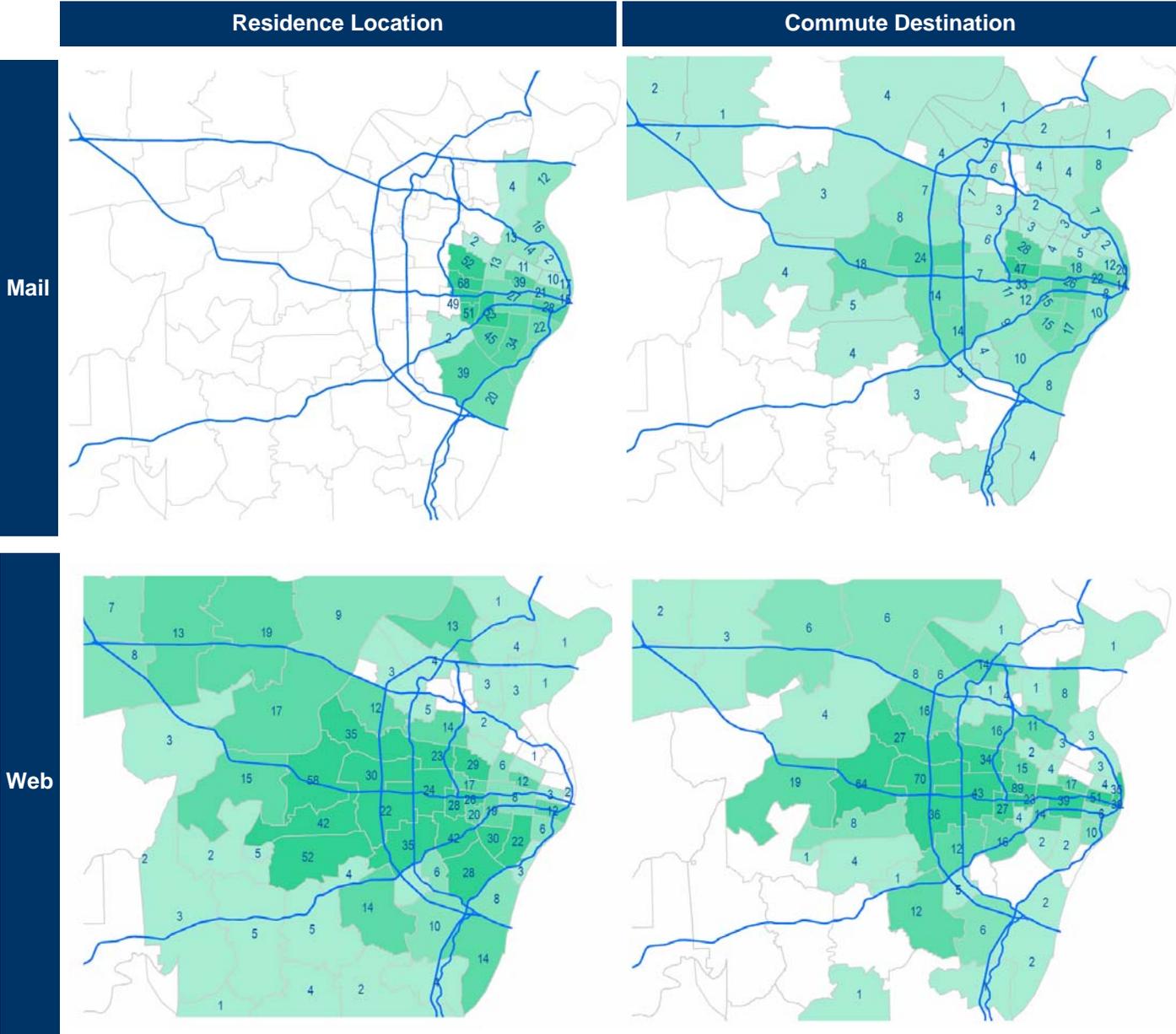
### Demographics of Survey Respondents

Age				Gender			
	Mail	Web	Interview		Mail	Web	Interview
under 25	5 %	11 %	7%	Male	41 %	55 %	34%
26 to 40	20 %	37 %	41%	Female	59 %	45 %	66%
41 to 65	57 %	50 %	32%				
Over 65	19 %	2 %	20%				
Race				Income			
	Mail	Web			Mail	Web	
American Indian	1 %	1 %	0%	Less than \$20,000	*	2 %	*
Asian	1 %	2 %	1%	\$20,000 to \$40,000	*	11 %	*
Black/African-American	15 %	2 %	12%	\$40,001 to \$60,000	*	17 %	*
Hispanic/Latino	1 %	1 %	1%	\$60,001 to \$90,000	*	21 %	*
White/Caucasian	79 %	92 %	86%	\$90,001 to \$120,000	*	23 %	*
Other	2 %	2 %	0%	\$120,001 to \$150,000	*	9 %	*
				\$150,001 to \$200,000	*	9 %	*
				More than \$200,000	*	8 %	*

\* Based on the sensitivity of question, it was not asked in these surveys

The maps on the following page illustrate the zip codes of survey respondents within Missouri (a small portion of the responses – around 2 percent – were from outside the state). These results are preliminary; future reports will likely aggregate zip codes into larger geographic units with more statistical robustness.

Survey Respondents' Residence, Commute Destination (by zip code)



## 3. Mobility

### Mobility Highlights

The study team continued the development of a series of systems to automate the collection, processing, and display of the enormous stream of available data. Key findings to date are listed below:

- Approximately 140,000 to 150,000 daily vehicles used the segment of I-64 between Ballas Road and I-170 before its closure. The assessment of where those vehicles have gone is still underway; based on the data in this report, the only large traffic increase seen with available data is on I-170. Volume data is still being evaluated for I-70, I-270, and the many parallel facilities that have been impacted by the closure. More data will be available next quarter, when year-old archive data from some of these facilities first comes on-line.
- Initial analysis of Traffic.com travel-time data has not indicated a significant variation in peak-hour travel times on key freeways in the region; however, additional study is needed before any conclusions can be reached.
- Transit usage is up by 9 percent over a year ago; however, this trend is not far out of alignment with the growth of the past two years.
- The RideFinders Rideshare program continued to experience increasing growth rates, with a 37-percent jump in monthly rides in the year between April 2007 and April 2008; this increase, plus smaller but noteworthy increases over the past six months appears to have been in response to (and anticipation of) the I-64 closure.

### Mobility Assessment Objectives and Methods

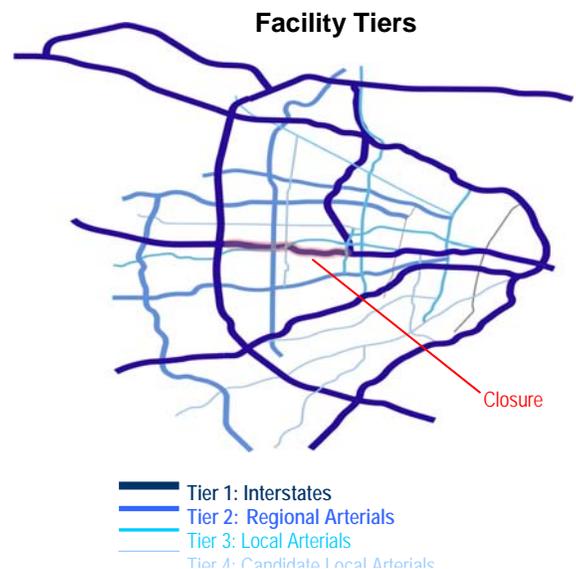
This assessment uses a variety of tools to measure the region's mobility before, during, and after the closure period. The assessment examines traveler shifts and their effects, using a

#### Major Goals – Mobility Assessment

- Assess the shifts (temporal, spatial, and modal) in travel demand throughout the region
- Assess congestion effects of the closure
- Assess closure effects on transit, ride-sharing, and park-and-ride demand.

multitude of data sources of varying resolution. The complexity and sheer size of the data set requires examinations at several levels, and future reports will continue to hone and refine the assessment.

The initial analysis of the region's roadways and highways is focused on facilities in four Tiers, as illustrated at right. Tier 4 facilities are being assessed to see whether they should be included in the Tier 3 grouping, or excluded from further analysis. For each of these facilities, relevant mobility data (traffic volumes, travel times, incidents) are being gathered



throughout the duration of the closure to measure its regional impacts.

Mobility data is being obtained through numerous sources:

- MoDOT is providing historical traffic counts through its count program, as well as archived traffic data from the Gateway Guide system. In addition, MoDOT forces have conducted travel-time runs on key segments of Tier 2/3/4 facilities multiple times since the I-64 closure. MoDOT also maintains statistics for its park-and-ride facilities across the state, and is providing monthly count data for its facilities in the region. Finally, MoDOT has produced a series of e-mail updates (initially daily, now weekly) that provide area residents (and the study team) with important mobility information.
- Traffic.com is a commercial Web site that provides, for highways in metropolitan areas across the U.S., real-time traffic congestion, travel-time, and incident data. These data are based primarily on sensors placed throughout the area. Traffic.com archives traffic volume, travel speed, and incident data – in 1-minute intervals – and has an agreement to share this information with MoDOT. The research team developed customized software routines to download, organize, prune, and analyze this data.
- St. Louis County has conducted traffic counts and travel-time studies on regional arterials periodically since the closure.
- Metro collects ridership information on MetroLink, MetroBus, Call-A-Ride, and special services, and is providing statistics aggregated on a monthly basis. In addition, Metro collects parking data at its stations with park-and-ride facilities.
- RideFinders, sponsored by Madison County Transit, is the St. Louis regional rideshare program. Rideshare data is provided on a monthly basis.
- The research team is supplementing data collection where necessary, including travel-time runs, traffic counts, and field observations.

## Mobility Results

### Pre-closure Capacity Improvements

It is important to note that regional mobility began to be affected by The New I-64 project even before the closure. Perhaps most notably, several highway/roadway capacity improvements were implemented by MoDOT and St. Louis County on parallel and complementary facilities, as listed at right. As the list indicates, one change has been reversed in recent months.

In addition, Metro improved its transit system capacity in anticipation of the closure by increasing service frequency and adding new routes. The research team has recently received a complete list of these improvements, and they will be

### Key Improvements to Regional Highways/Roadways

**I-70** Restripe from I-170 to I-270 (add lane in each direction)

**I-44** Restripe from I-270 to I-55/I-70 (add lane in each direction)

**I-270/I-64** ~~Restripe interchange ramps to improve traffic flow~~ now returned to original configuration

**I-270/I-44** Restripe interchange ramps to improve traffic flow

**Clayton Road** Restripe from Mason Road to Lindbergh Blvd; upgrade various traffic signals; new traffic signals at Topping Road and Bopp Road

**Ladue Road** Upgrade various traffic signals; various new left/right-turn lanes; new traffic signals at Graeser Road/Warson Road

**Improved Signal Timing** along Page Avenue, Olive Boulevard, Manchester Road, Lindbergh Boulevard, Clayton Road, Brentwood Boulevard, Hanley Road, Big Bend Boulevard, Kingshighway Boulevard, Grand Boulevard, and Forest Park Parkway

incorporated into future reports.

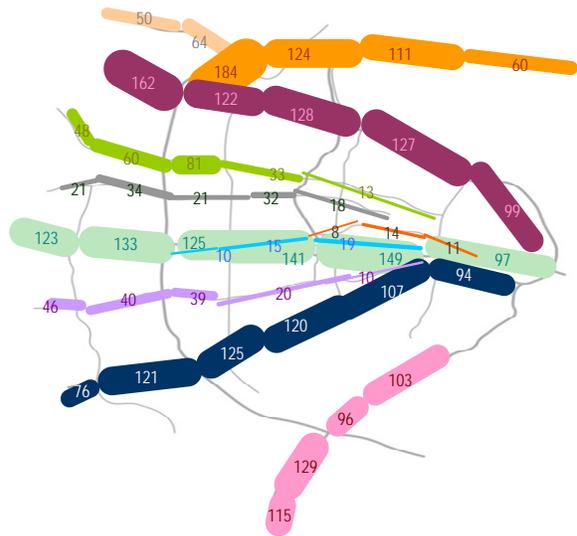
## Traffic Volumes

### Freeways

Prior to the closure, in baseline 2006, I-64 carried approximately 107,000 vehicles per day (vpd) on a typical weekday – this is Annual Average Daily Traffic, or AADT (excluding “outlier” days). 100 percent of this traffic was necessarily displaced (temporally and/or spatially) as a result of the closure.

Several sources are being used to evaluate the closure’s effects on traffic volumes - including before/after volumes (from MoDOT, Traffic.com, and St. Louis County), responses to the various public surveys developed, and selected aggregated data reported by MoDOT in its frequent e-mail briefings. The map at right, extracted from Traffic.com and MoDOT data, shows east-west daily traffic volumes for many of the key study facilities for the baseline year of 2006. Similar data has been extracted for the key north-south facilities (I-270, I-170, Lindbergh Boulevard, etc.) It is important to note that this information averages every non-holiday, non-“outlier” weekday from 2006, and therefore is not a good base against which to compare the effects of the closure for smaller periods (such as the current quarter under evaluation). However, it is useful for illustrating order-of-magnitude baseline conditions.

**Baseline Daily Weekday Traffic (000's)  
East-West Corridors (2006, full year)**



The maps on the next page show a more fair initial comparison for selected segments. They compare weekday March-May 2008 volumes with the March-May 2007 volumes. (Weekend volumes are also being assessed.)

Based on these maps, the following preliminary conclusions can be gleaned:

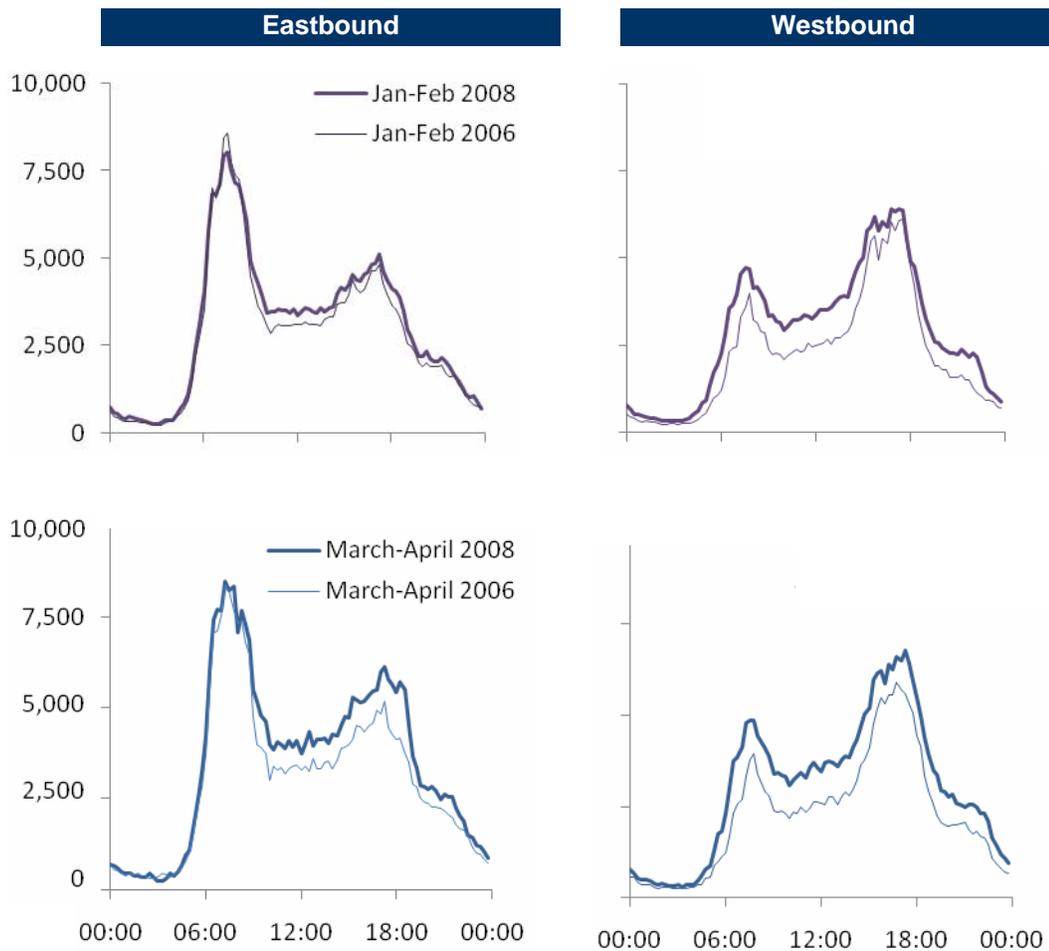
- Daily traffic volumes on I-64 immediately east of the closure have decreased by approximately 15,000 vpd.
- Daily volumes on I-44 and I-55 appear to be roughly equivalent to those before the closure.
- Volumes on I-170 between I-64 and I-270 have increased by approximately 12,000 to 16,000 vpd compared to the previous year.

Daily Traffic Volume Comparison (000's) on Selected Segments, 2008 vs. 2007 (PRELIMINARY)



The Traffic.com data is also being examined at more refined resolutions, from hourly totals all the way down to five-minute volumes. The graphs below illustrate how the effect of the closure on the **duration of the peak period** is being examined. As the graphs indicate, overall volumes on this segment have generally increased, but the peak periods have spread as well. Further analysis of this spread will be undertaken in subsequent reports.

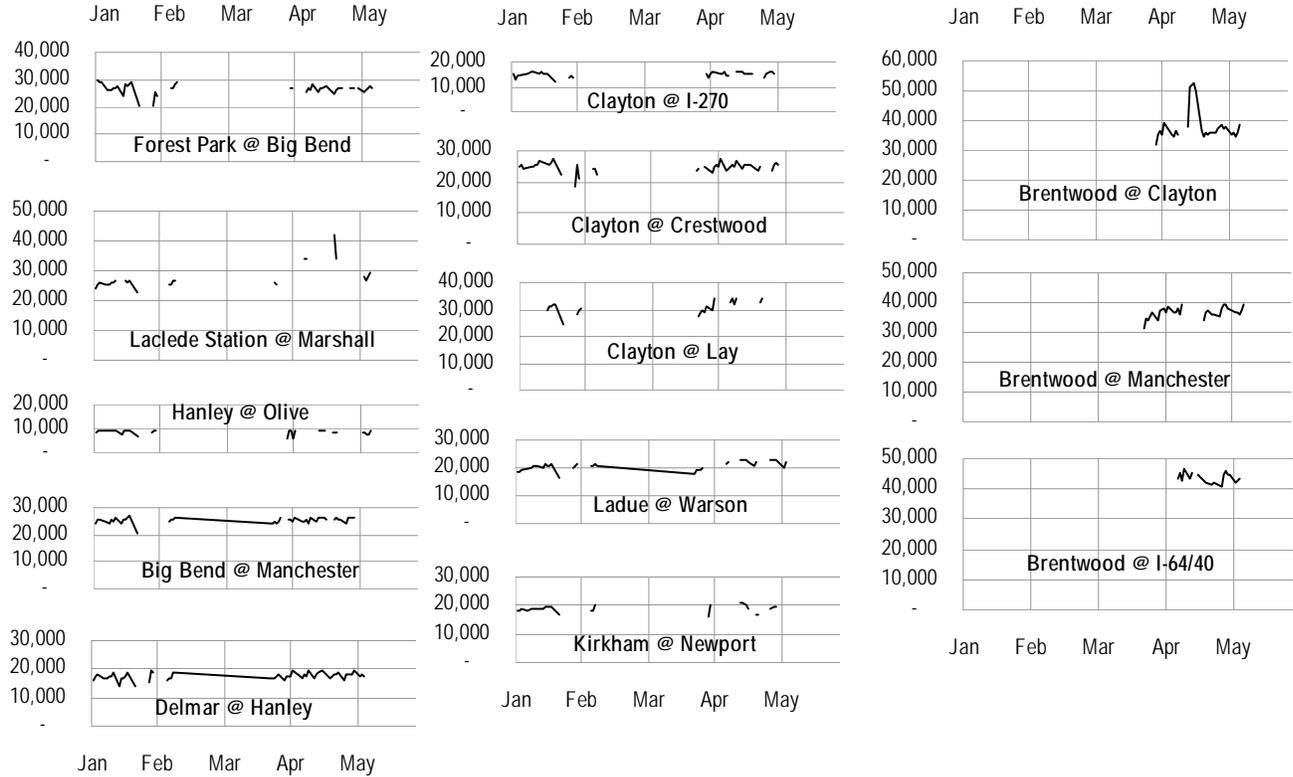
### Example 15-Minute Traffic Volume Profiles I-44 at Elm Avenue



*Arterials*

St. Louis County has been tracking arterial volumes since the I-64 closure. The graphs below illustrate ADT data available from the County and are under study to extract trend information. For many days on which data are not plotted, volumes are only available for one direction. No significant conclusions can yet be drawn from these data, but they will continue to be a resource as the study progresses.

**Average Daily Traffic Volumes Recorded by St. Louis County, 2008**



MoDOT also collects volume data from many of the arterials in the region using its ACTRA system tied into signalized intersections. The graphs on the following pages examine volume trends on many of the key arterials during both peak hours on a monthly basis since the closure, including a comparison to a pre-closure baseline. The table below summarizes the data. Several limitations of the data should be noted:

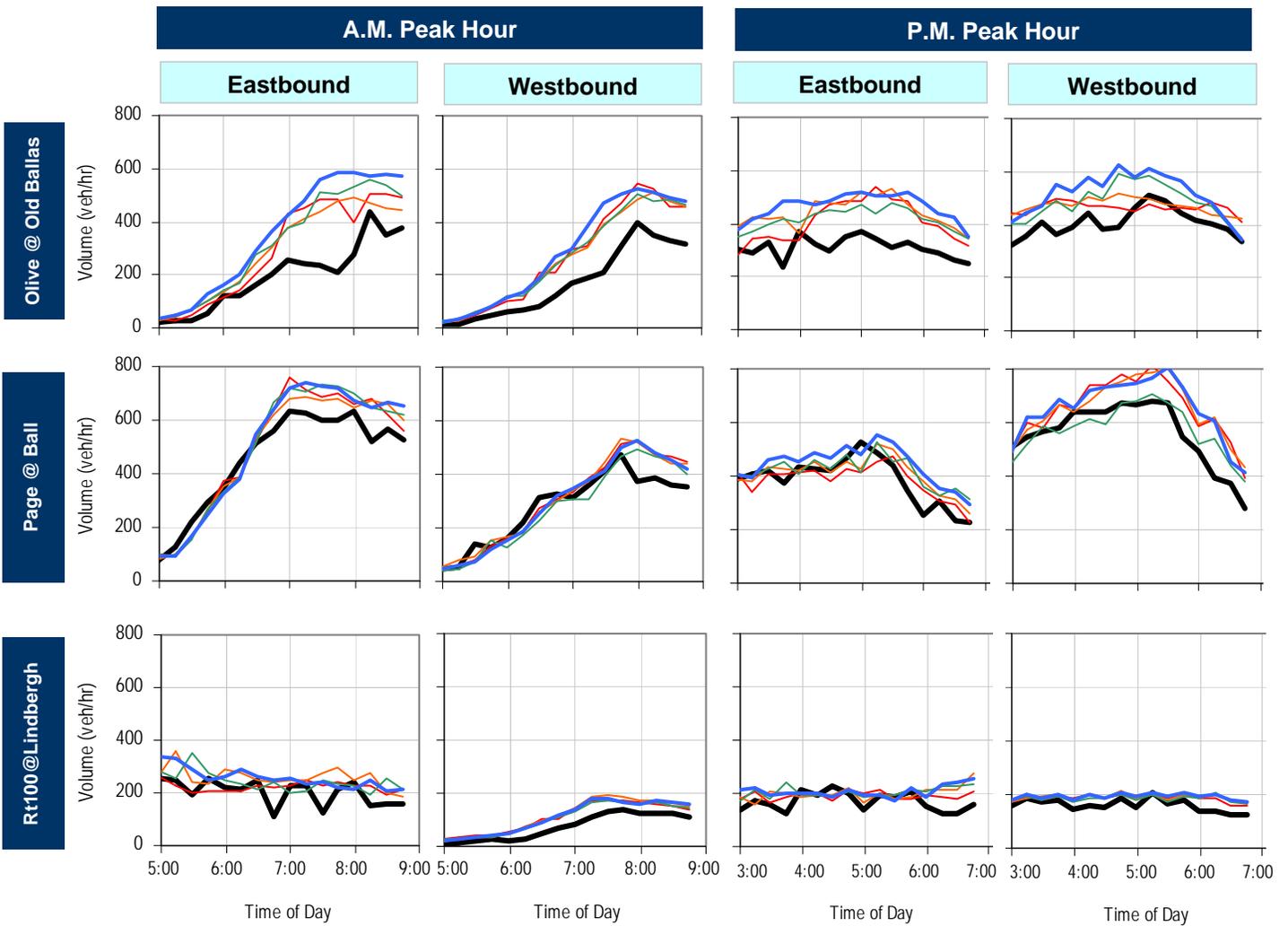
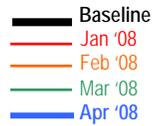
- The pre-closure data is from a single day, in most cases collected in November or December 2007.
- During the closure, not all days had available or usable data.
- This data reflects only through volumes approaching intersections; hence, right- and left-turning traffic is not included.

In spite of these limitations, the data reveals some anticipated patterns, such as volume increases on Page and Olive, which run parallel to the closure. Archiving and studying these data beyond the closure will help in understanding the closure's effects.

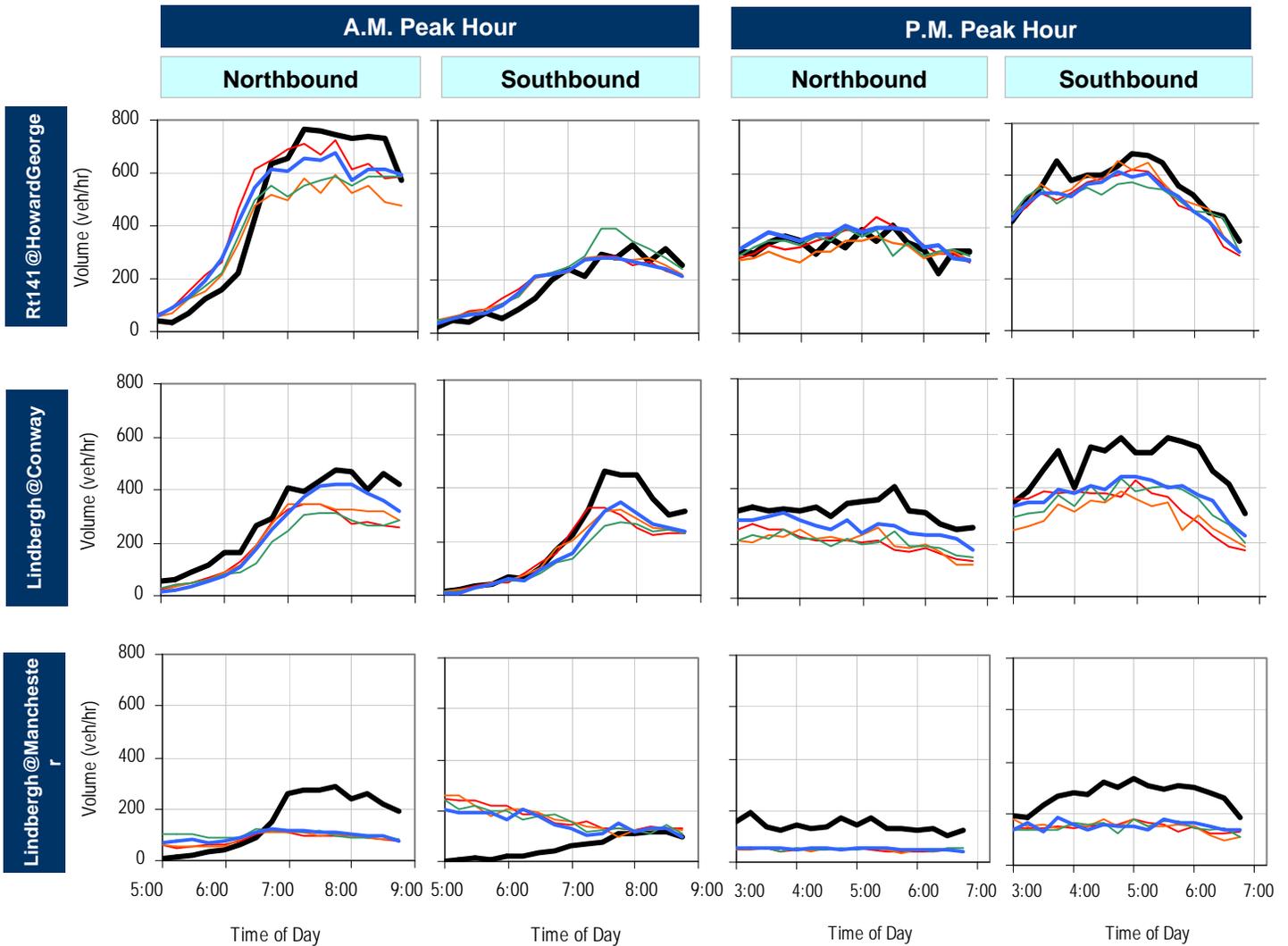
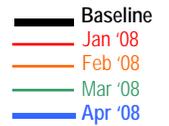
### Summary of ACTRA Volume Reporting Since Closure, Key Arterials

	A.M. Peak Period	P.M. Peak Period
<b>Olive</b>	<b>Eastbound and Westbound:</b> 50% to 80% increase at Old Ballas	<b>Eastbound:</b> 30% to 50% increase <b>Westbound:</b> 14% to 27% increase. (p.m. volumes higher than a.m.)
<b>Page</b>	<b>Eastbound:</b> 7% to 11% increase. <b>Westbound:</b> up to 10% increase (a.m. volumes higher than p.m.)	<b>Eastbound:</b> 15% increase (after initial slight dip of -0.6%) <b>Westbound:</b> 3% to 17% increase
<b>Manchester at Braeshire</b>	<b>Eastbound and Westbound:</b> 4% to 17% increase	<b>Eastbound:</b> 6% reduction (after initial January dip of 20%) <b>Westbound:</b> 9% increase (after initial dip of 7%)
<b>Manchester at Lindbergh</b>	<b>Eastbound:</b> 10 to 27% increase <b>Westbound:</b> 44% to 53% increase	<b>Eastbound and Westbound:</b> 12% to 22% increase
<b>Rte. 141 at Howard George</b>	<b>Southbound:</b> 4% to 20% increase <b>Northbound:</b> dip below pre-closure (after January increase)	<b>Southbound:</b> 5 to 10% decrease <b>Northbound:</b> 4 to 7% increase (except February dip of 7%)
<b>Lindbergh at Conway</b>	<b>Northbound and Southbound:</b> 20% to 40 % decrease	<b>Northbound and Southbound:</b> 20% to 40 % decrease
<b>Lindbergh at Manchester</b>	<b>Southbound:</b> 200% average increase <b>Northbound:</b> 40 to 65% reduction	<b>Northbound and Southbound:</b> 40 to 65% reduction

## Arterial Trends, 15-minute Volumes during Peak Periods – MoDOT Actra System, 2008 East – West Routes



## Arterial Trends, 15-minute Volumes during Peak Periods – MoDOT Actra System, 2008 North - South Routes



**Travel Times (min),  
Selected Freeway Segments  
(Preliminary)**

**Travel Times**

The research team has begun using Traffic.com's archived speed data to calculate travel times on freeway segments throughout the region. The table at right contains some of the data extracted. P.M. peak-period data are averaged over the current quarter, and compared with the last three months of 2007. In the next quarterly report, a more direct comparison of identical periods from 2007 and 2008 will be possible because Traffic.com data is available after June of 2007. The travel times in general do not show major variations from the pre-closure data, and also generally indicated faster travel times. The causes of these results will continue to be investigated, and could be attributable to a combination of peak-spreading, re-routing due to the closure, increased fuel costs, and other factors.

	Miles	Travel Time (min), P.M. Peak Hour	
		Aug-Dec '07	Mar-May '08
<b>I-70 from I-270 to I-170</b>			
EB	3.7	5.6	5.6
WB	3.6	6.3	5.8
<b>I-170 from I-270 to I-64/US 40</b>			
NB	3.7	7.9	7.8
SB	3.8	7.9	7.8
<b>I-270 from I-70 to I-64</b>			
NB	3.5	9.2	8.1
SB	3.5	9.8	8.9
<b>I-270 from I-64 to I-44</b>			
NB	6.5	7.3	6.8
SB	6.6	12.7	10.6
<b>I-44 from Rte 141 to Kingshighway</b>			
EB	3.0	13.6	13.0
WB	3.0	12.0	11.9
<b>I-64 from Rte 141 to I-270</b>			
EB	3.3	3.5	3.5
WB	3.3	2.9	2.9

**Park-and-Ride**

The table below summarizes one year's worth of quarterly parking counts at MoDOT's Park-and-Ride lots in St. Louis County and neighboring counties. Updates to this table will be made as information becomes available.

**MoDOT Park-and-Ride Volumes**

County	Lots	Total spaces	Vehicles Parked in Lot				
			Feb07	May07	Aug07	Nov07	Feb08
Franklin	6	413	295	205	189	175	168
Jefferson	11	962	321	337	379	386	367
St. Charles	12	1110	427	403	283	315	301
St. Louis	6	792	519	540	582	451	493
<b>Total</b>	<b>35</b>	<b>3277</b>	<b>1562</b>	<b>1485</b>	<b>1433</b>	<b>1327</b>	<b>1329</b>

## Transit

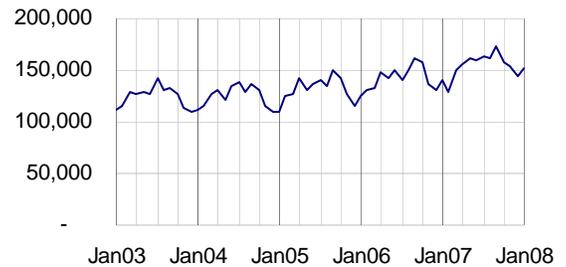
At the time of this report, Metro statistics are only available through January 2008. The table and graphs at right summarize some key statistics regarding Metro usage. Ridership on the total Metro system in January 2008 (the first month of the I-64 closure) was over 9 percent higher than ridership in January 2007. However, as the graphs indicate, Metro ridership has been steadily increasing since at least mid-2005, and the increase seen in comparing January 2008/2007 data does not appear to substantially deviate from this trend.

Anticipated statistics from Metro will shed additional light on any closure-related transit trends. Future quarterly reports will examine more specifics regarding individual routes affected by the closure.

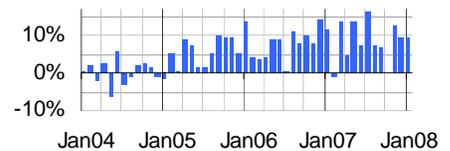
## Key Transit Statistics

	Jan '08 ridership	Increase over Jan '07
MetroBus (fixed route)	2,723,970	9.1%
MetroLink (passenger rail)	1,944,205	9.4%
Call-a-Ride (paratransit)	60,167	8.4%
Total Metro system (includes services not listed)	4,733,423	9.3%

Total Metro system – equivalent daily riders per month



Month's increase over previous year

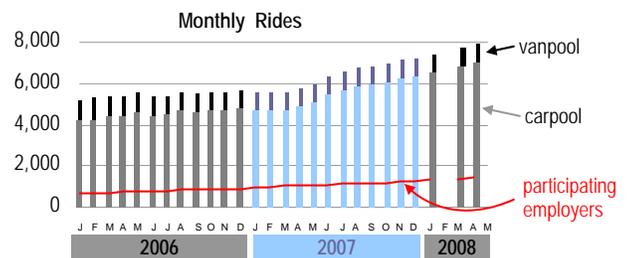


## Rideshare

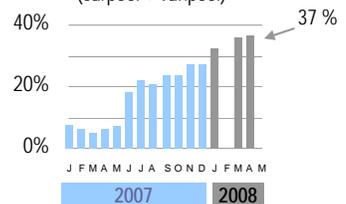
RideFinders, sponsored by Madison County Transit, is the St. Louis regional rideshare program. The graph at right shows historical ridership for RideFinders, and indicates a general upward trend since the second half of 2007. The lower portion of the figure further illustrates this jump in ridership by indicating, for each month, the percentage increase over the previous year. As the graph indicates, one-year increases in 2008 have been over 30 percent, much higher than in 2007. Obviously, some portion of these increases can be attributed to rising fuel costs, but the I-64 closure also has been a likely contributor.

The research team is working with RideFinders to obtain more details to help correlate rideshare activities with I-64 closure statistics.

## Ridefinders Statistics



% increase over same month in previous year (carpool + vanpool)



## 4. Economics

### Economics Highlights

#### Major Components of Economic Analysis

Analysis of pre-closure and current conditions

Determine the effectiveness of the reconstruction and traffic management strategies on the local economy

Identify the strategies that are the most appropriate for near-term and long-term economic vitality based on special data tabulations, survey results, and individual

The primary highlight for this quarter is the analysis of the first business survey's results. Three hundred sixty-nine survey responses from St. Louis businesses were collected during the period from February 18<sup>th</sup> through March 13<sup>th</sup>, 2008. The collection of published economic data is ongoing, and the analysis of the first package of custom ZIP code level data from the Missouri Economic Research and Information Center (MERIC) has begun. To date, MERIC has provided HDR with economic data for first quarter 2006 and all four quarters of 2007. Given the time lag in available

economic data indicators, this quarterly report will only focus on preliminary economic conditions from before the I-64 closure, while future reports will include analysis of economic conditions and impacts after and related to the I-64 closure.

### Economic Analysis Progress

Current activities to date include:

- Presented to the MoDOT Connections Committee regarding the approach for the economic assessment, the draft business survey, and data collection plan.
- Inventoried and collected available published economic, demographic, and fiscal data.
- Received from MERIC special ZIP-code-level data for the first quarter of 2006 and all four quarters of 2007. The economic data included: industry employment, wage, and establishment data tabulations.
- Created and distributed the online Business Survey. Feedback was provided from MoDOT prior to distribution. The survey was distributed with help from local and regional economic development/business organizations. The results of the business survey have been submitted to MoDOT for review and will be available shortly.
- Specific transportation-dependent local firms and organizations were identified for detailed follow-up interviews. To date, 12 firms and organizations have been interviewed.

### Business Survey

The first business survey results were collected and analyzed resulting in a Major Findings document (Appendix C) that has been submitted to MoDOT for comments. The survey's combined distribution list included 6,000 contacts from the five economic development organizations that included 3,600 different businesses; for this round of business surveys, 369 separate responses were received. The three distinct focus areas of the first business survey were commuting, transportation/shipping costs, and sales/visitation. The survey's questions were directed at the conditions just prior to the closure and the changes following the closure of the Western portion of I-64. The survey has provided insight regarding how business performance is being impacted based

#### Business Survey – Selected Preliminary Results

Total Distributed	6,000+
Total Responses	369
Respondent location (based on zip code, reported by 73%)	
Immediate I-64 region	23%
Satisfaction w/ MoDOT execution of project	
Very satisfied	46%
Satisfied	40%
Dissatisfied	3%
Very dissatisfied	1%

on the business type, size, and proximity to western closure of I-64. Some of the business performance indicators included retail spending patterns, visitation, and transportation costs.

#### Major Findings:

- **Satisfaction:** 86 percent were satisfied or very satisfied with MoDOT's delivery and execution of the I-64 Project, and 91 percent were satisfied with the performance of alternative routes.
- **Proximity:** 86 percent of the businesses that completed the survey are located within 10 miles of the I-64 Reconstruction Project.
- **Future Planning:** 13 percent of total survey respondents said future decisions on expansion, new investment, or location of facilities will be impacted by I-64's closure.
- **Commuting:** To help manage during I-64's reconstruction, 38 percent of respondents noted the use of flex time programs while 16 percent encouraged car/van pools and 21 percent allowed increased telecommuting.
- **Transportation Costs:** 94 percent of businesses located within the impacted areas of the I-64 corridor have experienced a significant or minor change in cost due to travel time delays.
- **Sales and Visitation:** 12 percent of all businesses surveyed confirm a lower volume of visitors and customers each week<sup>1</sup>.

#### Interviews

As a supplement to the business survey, HDR has conducted follow-up, in-depth interviews with transportation-dependent businesses in and near the I-64 corridor. The interview process is nearly complete for this stage of the evaluation as representatives from 12 separate businesses and organizations have been interviewed via telephone. Different industry groups were targeted, with significant help from the St. Louis Regional Chamber and Growth Association (RCGA), to provide a detailed and in-depth understanding of how a range of private sector businesses are being impacted adversely by the I-64 closure and the steps businesses are taking to cope with the closure. Representatives from the following local businesses and organizations have been interviewed: catering, parcel shippers, utilities, network hospitals, hotels and lodging, agricultural research firm, and museums. The overall consensus is that businesses expected the worst before the closure, but the conditions for the first quarter have not been nearly as bad as they anticipated. To cope, some businesses have offered new flex hours and telecommuting options, and all have encouraged carpooling or public transit. These interview findings have been consistent with the results of the business survey.

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<sup>1</sup> Please note the survey questions were worded "For this time of year" to account for seasonal customer, visitor, and sales swings.



## 5. I-64 Traffic Response

### I-64 Traffic Response Highlights

#### Major Goals – I-64 Traffic Response Assessment

- Assess benefit/cost of the current I-64 Traffic Response deployment (arterials)
- Assess value of continuing future arterial highway service patrol efforts
- Develop white paper that provides a sustainable approach to consideration of future arterial

The main highlight for this quarter was the collection of the I-64 Traffic Response surveys. These surveys are provided during each assist performed. This survey is providing information from motorists receiving these services, including information on location, response/wait time, services provided, the professionalism with which services were provided, and the user opinion on the value of the services. Additional questions on the I-64

project were also included to help gauge users' opinions on the I-64 project and to connect these services with the I-64 project. The survey form identifies the sponsors, and provides information on the regional traveler information systems (511 and Gateway Guide). 362 surveys have been completed and received during the first five months for the I-64 Traffic Response with 749 from Motorist Assist. In the third quarter, the study team plans to conduct interviews with staff involved with this operation and start the evaluation of responses made by the I-64 Traffic Response team.

### I-64 Traffic Response Objectives and Methods

This assessment will utilize information collected from transportation users, I-64 Traffic Response/Motorist Assist staff, previous research/study efforts, and the mobility assessment component to establish the benefit/cost of the program. This information will then be used to forecast the future value of continuing regional arterial highway service patrol efforts. The assessment will explore the following potential expanded arterial highway service patrol alternatives:

- Expanded services only during major or roadway closure construction activities
- Continuous services along major regional arterial corridors
- Limited-response services along major arterial corridors by expanding the region's Motorist Assist Program and the utilization of the region's integrated management and operation system

A white paper will be developed by June 2009 that will outline a sustainable approach regarding when regional arterial highway patrol services should be considered. This deliverable will provide the region the time necessary to fund and implement desired recommendations.

## I-64 Traffic Response Results

MoDOT performs service patrol activities where operators travel busy highways and provide assistance at incident sites for stranded motorists and crashes. By quickly helping to resolve problems, this program increases the safety and mobility of all motorists in the area. MoDOT's Motorist Assist program concentrates on the interstates, and I-64 Traffic Response sponsored by St. Louis County covers major arterial roads such as Manchester Road and Olive Boulevard. Starting on January 2, 2008 – the day of the closure – these programs' operators began distributing surveys to those they assisted to obtain feedback about operator performance, and as another method to learn how the closure is impacting motorists.

Responses indicate that motorists are very satisfied with operator performance, and their closure responses were similar to those obtained in the web and mail studies. The table at right summarizes some of these satisfaction measures. The 2<sup>nd</sup> quarter showed an increase in satisfaction compared to the first quarter, and represented input from 974 (650 - Motorist Assist and 328 - I-64 Traffic Response) respondents. The total of 1,111 surveys (compared to 1,040 online surveys) received indicates that this could be considered the most effective survey method to-date for gaining public input. The distribution and receipt of surveys will continue throughout the study period, with quarterly updates being made.

**Percent Repondents Expressing Satisfaction**  
Motorist Assist and I-64 Traffic Response Surveys

	Decision to close for 2 years vs. 6-8		Ability to move around the St. Louis area	
	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter
Motorist Assist survey respondents	59 %	67 %	56 %	67 %
I-64 Traffic Response survey respondents	63 %	74 %	67 %	64 %

**Appendix A: Communications Data – “Final 1<sup>st</sup> Quarter Interview Report” and Revision Online Survey**

**Appendix B: Mobility Data**

**Appendix C: Economic Data – “Major Findings of First Business Survey”**

**Appendix D: Traffic Response Data**

# Summary of Initial Online Comments to Eastern Closure

A supplement to the March 2009 Quarterly Report

Respondents were given multiple opportunities to provide comments in the online survey. Each opportunity corresponded to a different part of the survey.

## **Contents**

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Alternative Route Comments .....	13
How to Contact Comments .....	16
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I-64 Project Website Comments .....	19

## Impact of Closure Comments

The following comments were left in response to the statement *If you want to provide more details about how the closure has affected you, please do so here.* The comments are presented as they were received.

*This part of the closure hardly affects me at all. The other part significantly affected me.*

*I think the workmen did a great job , the only thing I do not like I can't see 40 from my window at WORK .*

*During the eastern closure, I will be using the Forest Parkway route, as I live by the Mall at Brentwood and Eager Road. Unfortunately, Highway 44 is too far out of the way south of me to use for commute to work.*

*I am a Muny season ticket holder, and I'm concerned about the eastern half construction will effect my commute to the Muny from the Chesterfield area.*

*Takes a few minutes longer to get from HiPointe to the Richmond Heights P.O. or Sam's Club. Not that big a deal yet.*

*We live near 270 and Ballas and work near 40 and Kingshighway in the CWE. Before, we traveled East on Olive and took 170 South to 40 East to the CWE. Now, we plan on traveling South on Lindbergh to 40 and taking Forest Park Parkway to the Clayton Metrolink station, toward the CWE. Even though the travel time may not change, enjoying the new highway will be a treat!*

*I go to work later to avoid the traffic and work later to avoid the home traffic. I will also limit greatly going out with my friends in St. Charles/West county. I have rescheduled business meetings in West/North county to make them closer to my home in South City. I am also going to travel by train to KC & CHI so that I can park in the city and not drive to the airport. North STL driving at night when I am a single woman is not a smart idea with inclement weather.*

*today 12/16/08 they changed the time of the lights at forest park parkway and skinker and traffic on skinker was horrible. There was bumper to bumper traffic from 1/2 mile south of wydown until you crossed the parkway. And southbound was backed up past Olive. I understand that you need to improve the traffic flow on forest park parkway, but do not cripple the north and south bound routes. What is going to happen on roads like Skinker when Hanley is closed?*

*At MODOT's suggestion took Page this morning (coming from St. Charles) all of the way to Kingshighway. The street was not plowed past I-170. So to get to WU I should go N on 170 and get off where? FPP is past capacity. If a road is going to be recommended as an alternate route then it should be maintained*

*I think MoDot attempts to spin that drivers shouldnt take the Parkway are a waste of energy. The fact is that most believe the sit time there is less than the sit time to get to all of the alternates you suggest. It will be the headache until the east side is completed. As we have all ready the county to the city is like a funnel and with the amount of business community traffic along with heavy residential there is simply no way it cant be more of a headache than the west side was.*

*I still have not found a safe route all the streets are closed or way out of my way of the places I need to go, it really hurt that Oakland also closed to skinker. Today was awful and had car trouble sitting in the long traffic lines. I had to cut off onto a side street and then that street didn't go thru had to turn around, ended up on Big Bend and tons of traffic...there was no safe clean streets to go.*

*Up until the eastern half closure, my job was terminated, so I no longer commute east of I-170.*

*The eastern closure has killed St. Louis traffic. The first few days were worse than the worst day of the western closure ever was. There is no path from East of 270 to downtown. With the western you could drive Clayton all the way down and it took less time than driving out to 270 and around to 44. Now there is just no path. There are no roads that go all the way down town. Manchester is a joke as you cannot get by Hanley without a 20 minute delay at Hanley. Once by it you are again stuck in 2 places. Forest Park Parkway cannot handle the load Clayton did and is a mess. There is just no path. This brings up the question of why Clayton to Kingshighway in front of the zoo is closed. All you are going to do is repave it. This can be done with it open. 200% of your effort should be in getting this short eastern most section of phase 2 open. In fact you should open 1 lane east and west that would stay open during the entire project. This would solve your current crippling of St. Louis!!!!!! With this section closed Clayton is lost as a means to get downtown. With this open you gain 2 lanes all the way.*

*It is more like 40 mins earlier but you don't have an option for that.*

*Highway 70 traffic has been negatively impacted - the reversible lanes need to be utilized the way they were intended - eastbound in the morning and westbound in the afternoon.*

*Unable to shift commute times due to children's school schedule.*

*There are NO main thoroughfares from the south/east direction on I-64 all we have are city streets and Forest Park Parkway, which is a disaster and we were told not to take after the first day that 30% (your calculations) went that way. I have yet to spend less than 1 hour 30 minutes one way in my commute to work when it typically took 35-40 minutes. I went several ways in an effort to find the best way before the closure, and NO WAY came close to my normal travel time. MODOT stating that all is going good is far from the truth!! Why don't you survey some of the actual drivers on the road. I work with 10 others and all have the same opinion and travel time added to their day. The north/east at least had Page, Olive, Lindbergh we have city streets with tons of lights!!*

*I take Forest Park Parkway to I-170 in the am, I commute opposite the main flow (west bound), so not many issues except at FP Pkwy and Big Bend.*

*It's ridiculous that drivers are advised to change their work hours; "shift your commute time." Most employers are not that flexible or can't allow workers to change their hours. I work in the health care industry and have patients who*

would be negatively impacted by such a change. MODOT is so out of touch with the day to day reality of workers, it's insulting!

I'm a real estate agent, so I work at all hours, travel most roads. I have to schedule longer drive times to be sure I'm on time.

We travel from Zip 62062 to School in 63131 and then I travel to work in 63103. No matter how you slice it ... it is a bab commute everyday.

I live downtown and I am still trying to find a good route to Westport. Page is good, but I do not feel safe, especially in the evening. The number of open businesses, not counting liquor stores, is minimal, the traffic lights are not synced, and I find myself sitting at red lights with no cross traffic. Why aren't those lights flashing? Also, when using the Forest park Parkway, there are no signs for where the next gas station is. The first half was bad, but this closure seems to be MUCH WORSE. I wonder if the spokespeople for this project really know how/where St Louisans live and work, also do they understand why Page Ave is under utilized? Mr Waelterman should take this route and see how safe he feels, and consider whether he would like his wife to take that route at 7 pm.

it seems that everywhere you go the stop lights are always red, and the people who don't go the speed limit in the left hand lane block the road. (they are usually on the phone)

I feel it was a poor choice to close Oakland at the same time that the highway closed. Surely, this could have stayed open until the highway was back up and functioning. This only caused more headaches and travel problems. I do not feel this project was well planned at all.

Although we live in the county, we did a lot downtown. The only things we do now are things we have to do for the kids--Upper limits, but other than that, we're avoiding it. The biggest impact has been McKnight Rd. It has always been congested going North getting to highway 40, but now is worse than ever. There is a stop sign at a neighborhood right before you get to the highway that seems to really slow things down. For the last few days it has been backed up well past Litzinger. It's unfortunate because I just need to get to the interbelt and I was really looking forward to getting to it from McKnight.

I can now travel on the new section of 40 to get to work instead of up and down Clayton Road.

The closure may affect my social life to a degree, but I know it's temporary. Keep up the good work

I have always taken I-70 to commute to work. Traffic on 70 did not seem to be effected in the first closure, but the recent closure has effected traffic. I have a hard time understanding why the express lanes are not opened eastbound on 70 in the mornings and westbound in the evenings?

you have cut out all my "short cuts" and "secret ways", i.e. oakland to mackland to weise (thank you!!!!!!!!!!). It is very difficult to get about, and just recently you stopped people being able to travel both ways on Berthold! I am still able to get

to the areas I need to go to or want to go to, but what would take approximately 10-15 minutes, is now taking 1/2 hour to an hour.

visit the area 2 times a month. difficult finding routes when not entirely familiar with area. Would like to see a mapquest type program to assist.

I now do not leave my house until 8:15 to 8:30 because of the tie ups on southbound I-170

Because I travel North in the morning and cross I 64 somewhere between Big Bend and Hampton, I must route around the street closures. Not a real big deal until Hanley AND Big bend close at the same time.

I now have to leave about 30-45 minutes earlier than before. Now that the second half of 40 has shut down, things are EVEN WORSE than 2008. Did anyone think this project all the way through? Also - Why did you stop showing the accident stats in your Quarterly Reports? The only reason I can imagine is that accidents are WAY up since the closure. You can't restripe lanes, making them too narrow, then re-route thousands of cars and semi's, and not expect an increase in accidents. Why is no one tracking the personal stress factor? Does it not matter to MODOT?

Having to leave 2 hours earlier & getting home 2-3 hours latter because of the closure is insane. IT SHOULD HAVE NEVER BEEN DONE!!!!!!!!!!!!!!!

backup on southbound 170 exiting at Hanley is bad, even hazardous. Need to adjust the light at Hanley to let more traffic exit the highway. Not sure why this has recently gotten so bad unless they changed some signals as it hasn't been that bad since the first week of the 40 flip. It shouldn't take 20 minutes to get from Forest Park exit to Hanley. I have tried leaving work earlier (as much as an hour), same problem.

**ACCESS TO HWY 40 WEST OF I-170 IS IMPOSSIBLE BECAUSE MCKNIGHT AND BRENTWOOD TRAFFIC TO THE HIGHWAY IS BACKED UP AT RUSH. THE TRAFFIC LIGHTS DO NOT SEEM CAPABLE OF FLOWING TRAFFIC EFFICIENTLY. THEREFORE, I STAY MORE ON SIDE ROADS AS IF THE HIGHWAY IS STILL UNDER CONSTRUCTION.**

I travel to and from work from the Metro East (O'Fallon, Illinois) to Chesterfield, Missouri and travel either 255/270 or 44 which adds around 10 extra miles to my commute and an extra 20-30 minutes commute time and more money in gas.

I must now take manchester to hanley to 170

The closure of the road negatively impacted the amount of business done at my job, and I had been laid off because of it.

This project has been a real pain. MODot is the most incompetent branch of this state government.

I don't need the freeway to commute to work, thankfully.

I can get onto 170 Northbound much more quickly! Takes me a little longer to get to the west end areas

*The closure has only prevented me from visiting a restaurants during my lunch breaks that are slightly far from downtown.*

*I have relegated to the expressway and the intersection at Skinker needs some tweeking and soooooon*

*Honestly, I expected this half to be worse. It isn't the most convenient process in the world, but my drive to work isn't as bad as I thought. Fortunately, I'm not required to be in the office at any certain time. Also, the "back way" (beside the Best Buy in Richmond Heights) around Hanley/Eager is nice. That said, I am looking forward to the new Big Bend exits opening up...hopefully they make the same good time as they did on the western half.*

*I live on the eastern end of the closure but instead of going to the Brentwood/Hanley area to shop/eat, I go to Illinois.*

*The major problem I've encountered is the lack of left turn lights along Dale Avenue. It would be helpful, especially at rush hour, to have left turn arrows at Hanley and at McCausland. It is nearly impossible to make a left onto Hanley from westbound Dale Avenue.*

*I'm retired and do not have a regular commute. I take pains to do my errands between 10 AM and 4 pm when possible. In ant case , I try very hard to avoid being out at rush hour. I used to use Forest park park way a lot; now I use it as little as possible, using a Delmar or Vernon route east to Skinker, and Waterman or Lindell to get to my final destination or crossing point to St. Louis city destinations. This isn't good at rush hours but works well for my chosen travel times. I always plan my errand schedule to achieve several errands at once, for example, gas, post office and grocery store, or a trip to 3 or 4 destinations along Brentwood, like PetsMart, Trader Joe's and or/Whole Foods, Target and/or hardware needs at any of the three stores in that area. This saves time, trouble and gas. I rarely drive more than 2 times a week unless I have volunteer work to do, which I can't usually schedule myself, and sometimes I do errands in conjunction with that to save time and travel.*

## Satisfaction Comments

The following comments were left in response by those who wanted to leave additional input after the satisfaction questions (for example, *Please indicate your level of satisfaction with how well the public has been kept informed about the New I-64 Project*). The comments are presented as they were received.

*I live slightly west of Manchester and McKnight. The traffic has been horrendous on Manchester Rd, especially since I have to make a left out of my street. I know lots of people are using Manchester as an alternative (I know I am). I am looking forward to the traffic lightening up on Manchester now. My family lives in St. Peters so we already (today) have taken advantage of the opening. Great job. It's amazing how quickly it was done. I've enjoyed tracking the progress on your website. It's been educational for my kids too. None of us knew just how much went into demo and construction.*

*Population of the City is more dense than in a 5-mile stretch of highway in the county -- you didn't take that into consideration. Parking on Lindell along Forest Park should be prohibited 24/7 during construction.*

*Over the weekend I was traveling west on Oakland and tried to turn left (south) onto Hampton to get to Manchester; however, there was a "No Left Turn" sign posted at Hampton and Oakland. So I proceeded west and -- like everyone else -- hit the barricades at the Oakland Ave. overpass and had to u-turn. I am angry that it was stated in the Post that drivers "ignored" the "Road Closed Ahead" signs -- there weren't any! If I was able to see a small "No Left Turn" sign, I would have seen a Road Closed Ahead sign. Furthermore, how did dozens if not hundreds of other drivers also "miss" this sign. I'm not nearly as angry about that overpass being closed early as I am about you claiming there were signs when there weren't any.*

*US61 signage was lacking. Effects on bicycle commuting appear to have been ignored for a year. I feel I was not told the truth about: - When work in my back yard would happen and be done. - What was sprayed on the foliage in my yard and what I could do about it.*

*I am glad the decision to complete the work in 2 yrs vs 6 yrs was made. Now, half of the highway is completed. Also, the coverage on local news has been good in keeping me informed of the progress.*

*The local media and Dan Galvin have been doing a superb job keeping us informed,*

*While the new section just opened, we could tell travel East and West via Olive has lightened substantially.*

*I wish all government-sponsored activities ran this well. Excellent communication and media relations.*

*While the job, as designed, has been managed well, I question the value of doing all this work to end up with a product no better than what was there before. It's shocking to see new bridges going in no wider than the old bridges, and the elimination of secondary access points (Galleria Parkway, Laclede Station Rd, etc.), that previously allowed us to avoid the horribly congested ones. Also, it's hard to understand why this job takes so long and why there aren't more crews and why they aren't working 24x7.*

*I think it overall was handled well until now, but I am concerned with the north / south routes coming up.*

*It's unreasonable to have Oakland Avenue closed to through traffic when there are so few alternatives for city dwellers to travel west into Clayton. It's a perfectly good stretch of road that is not being utilized.*

*I respond satisfied because obviously the 6-8 years would not have been a piece of cake but the east side is going to be ugly--you have Wash U right at a busy corner of an alternate and you have Forest Park sitting right where 10K people attend the Muny....you had non of those things on the west side.....*

*I hate that this starts in the dead of winter and bad streets its dangerous*

*Outstanding management, planning, and implementation. I can only feel disappointed that the additional sound walls were not already in place in this time since it is apparent that beyond the roadway, the project actually was NOT completed earlier than normal in whole.*

*The western closure was not as impacting as we all feared. I would give you an A+ on this. The eastern closure has crippled the center of the city. I would give you a F--- on this. All efforts must be given to getting 40 in front of the zoo open so that traffic on clayton can flow. This is a high high high priority section of the project.*

*A bunch of money was spent on the project completion count-down calendars for the highways - they have been turned on for a few days, but not regularly. Why was so much money wasted to not be used?*

*I take 70 in and the directional lanes need to change to Eastbond in the morning and west in the evening.*

*When I was a kid, I-294 around Chicago was completed one mile per week. They had to build bridges, move homes and started from scratch. They had almost unlimited labor resources and was quite a project. One Monday they were behind my house moving our neighbor's homes out of the way and grading the roadbed, by Friday they were pouring concrete, and on Sunday the road was stripped, signed, and it was done. Amazing. I assume blending the old and new takes longer.*

*Closure of Eastern half has impacted me so badly that the quality of my life has been doing down.*

*The ramps connecting west bound 64 and 170 have work zone speed limit signs of 40 mph but when I travel these I am the only one going this speed and have noticed other drivers upset that I am going this slow. Is this the correct speed or are the other drivers just not paying attention to the posted limits?*

*The Oakland closure and Dale Ave is a perfect example of the poor communication. I was traveling east on Eager on Jan 2nd and saw the signs for Dale Ave. My mom even pointed it out to me as I was heading to Dale Ave. Well, I ignored the signs because I knew that I could turn at Dale off Hanley...WRONG. I heard about this for the first time today...kinda late. Also, I think the alternative routes should've been better explored. Example, why is Jefferson Ave still not open southbound??? Also, closing Hanley and shifting the traffic to Brentwood was simply a ridiculous thought. Why didn't someone test these routes out on normal people before they just knock down overpasses and expect us to figure a way around it.*

*I think the western half of I-64 is beautiful!!! I hope all of the new plantings survive and look great for years to come. Thanks for making I-64 (west) beautiful!!!*

*Sometimes the signs don't make sense or they don't warn you until you're right there. I don't have any specifics examples, but I do remember a couple of times thinking I wish I knew this about 1 mile ago. I do really enjoy the new Western side of the highway.*

*The opening party was nice to go to, but there should have been people there with info about the carriage rides. We were there looking all over for where they were going to start, waited a very long time, along with many others, asked several people, who ended up giving conflicting info...we finally gave up just in time to see the 2 carriages arrive. 2 carriages for that amount of people? Not nearly enough. And they were small carriages at that. Other than that, we did enjoy being able to walk on the highway before it opened and look forward to doing so on the east part of the highway. Hopefully any activities (other than the bike rides, which were fun to watch) will be better planned and executed.*

*You have done a GREAT job communicating and getting everything done. My only complaint is the concrete lifeless jungle you have created on hwy 40. I understand home owners may have wanted them (but why did they live there to start with and I question the tactics used to get an agreement), but you have taken away all the charm and life out of the highway. You have even blocked business that I am sure relied on drive-by traffic. PLEASE reconsider creating the concrete vacuum on the other half. It's not that loud, I use to live by it. If it is too loud, move. PLEASE keep the charm and warmth that is St. Louis and don't block it out.*

*continued problems of grid lock at skinker and forest park continue. Police need to patrol southbound skinker for cars who block private streets and do not keep intersections open. signs are not sufficient and grid locked cars disobey. tickets by the gross are in order till behaviors improve.*

*While the traffic impacts aren't as bad as I thought they would be, I do not believe that doing this project with the highway open would have taken 6 to 8 years.*

*This project could have been done one side at a time as many other interstate projects are done without too much of an impact to the timeline.*

*There are enough people and construction workers unemployed that you could have doubled up on the crews and completed the project in less than two years with the total closure concept and maybe even saved some money as completion of the project sooner would have less of an inflation factor. Marsha marshab80@gmail.com*

*Obviously the Parkway is a mess. I do not understand why Big Band was not rebuilt at the same or almost the same time as Boland Place and Highland Terrace. That way it would be done now and the Hanley overflow would have a reasonable alternative.*

*The overhead signs, telling us how long the travel time is to a certain highway, are ALWAYS WRONG during peak times. The changeable speed limit signs on 270 are a joke. If I could possibly do 40 mph at 5pm on 270 southbound, I would take back every nasty thing I have ever said about MODOT. By the way, how much did those "Countdown To Completion" signs cost? Those have worked about 10 days over the past 13 months. Another huge waste by MODOT!*

*The east closure I don't take to get to work - but I travel that exact stretch for church and MANY other activities. Lots of friends live over there. It is INCREDIBLY inconvenient as all the alt routes are heavily trafficked and MUCH longer. Wish a better plan could have been made for the east close down. The west closure was much easier to find an alt route. But having the whole east stretch closed is killing me!*

*MODOT deserves credit for how relatively smoothly things have gone so far.*

*Who ever arranged it had better have been fired for this stupid idea.*

*you could have done this without shutting down the highway and in far less than 6 years. you can say six years but that is the party line bull crap to get what you wanted. I can NOT believe it would have taken to 2014 to get the job done.*

*While I realize it would have taken more planning and cost a few more dollars, I do not believe it was as much as you are saying. Also, the region has suffered because of the shutdown. I go to St Louis for work because I have to. I did not purchase my seats for the Cardinals, Rams or the Symphony this year or last. I will consider it again in 2010 after the highway re-opens.*

*Mo Dot should have completely closed the highway for a yr*

*Gee, the world didn't come to an end, did it???*

*I can't wait for this project to be finished. It is sapping our city of people, economic activity and vibrancy. I hope that measures are being tackled to bring people back into the city once this is all over.*

*I am really tired of hearing from the people who nitpick and whine about everything! Some of the questions asked in the newspaper about the project are so picky!*

*Very smart to close only for 2 years. The impact has not been as severe as many predicted, and the benefit will be great.*

*you have caused massive traffic jams on streets and roads not equipped to handle the volume of traffic. this traffic has caused destruction of road surfaces with no thought as to upkeep and repair of the destroyed surfaces. the waste of time daily in my commutes during the first section closure caused me to alter my life significantly for one year when the project could have been done nearly as fast by performing the work sequentially on westbound lanes and then east bound lanes with total closure for the times needed to destroy and rebuild bridges. i hope that the surface is better built than the deteriorating surface of I-170 which has large holes in it already.*

*MODOT should insist that StL news agencies refer to the interstate by its true name, I-64. 40 is not the name of the interstate, so it's not I-64/40. If anything, it should be I-64/US 40. But no one in St Louis refers to it by anything other than 40 or Highway 40. The superseding name is Interstate 64. Signs, news updates, and other information should refer to it as such.*

*Just never heard of an interstate/freeway being closed in the middle of a major city; traffic in a city is to be expected...I'm just sayin.*

*I live right by the intersection of Forest Park Pkwy and Skinker (I live on Waterman). Traffic in the morning, since the Eastern portion of 64 closed, has been a NIGHTMARE! I never take Forest Park Pkwy North, to get to work anymore, and I certainly do not take it coming home. The changing of the stoplight timers has made the situation worse. If you don't want people to take Forest Park Pkwy, the timers never should have been changed--this would have made alot more people take alternative routes instead of majorly clogging Skinker. Again, the second half has become a nightmare. I want to commit an act of road rage every single day. Oh, I forgot to mention, since the 2nd half of the closure, and everyone and their brother taking FPP, I have never heard so much horn honking in my life. Even after I finally make it home, it's honk, honk, honk for at least an hour.*

*I am strongly dissatisfied that Hanley, Hampton and Big bend overpasses will be closed at the same time. Is this a conspiracy to keep the north and south side residents of Clayton road from getting anywhere. On any given day, Brentwood is a mess and then next nearest route would be kingshighway!!!*

1) Screwed up on Lindberg to west bound I64. Right lane goes straight, left lane ends. You have it confusingly marked with the right lane ending and the left lane going straight. Really mixed up here? Accidents waiting to happen. (It needs to be consistent and it's done both ways all over town) 2) East bound I 64 @ I 270 ONLY TWO LANES GOING EAST???? That's nuts!!!! What a mess you have created. You have eliminated a lane and caused a backup & accident zone for out of towners. I thought we were trying to make things better? 2 Lanes on east bound I 64 is going to be a mess for years to come. 3) Spoede both exits suck. East bound exit. Mound of dirt blocks view as you approach intersection at Spoede & Outer Road, Fence totally blocks view of oncoming south bound Spoede traffic, another accident waiting to happen. 4) West bound Spoede entering I 64 has a sharp turn and no barrier. Cars will end up down there and the entrance ramp is too short. I thought you were going to improve it? It's shorter?

I don't understand why the streets in the "Dogtown" were blocked. It is difficult to drive the routes in the area.

AS I have said before, more attention could be paid to routes north and south across the closure. I live north of it near Delmar in U. City and do the bulk of my shopping south of it, mostly in Maplewood and Brentwood. So far, if I follow the precautions and routes described above, I do pretty well, but I really dread the Big Bend closure, which will considerably lengthen my route for my most frequent errands, especially if Hanley Road is still closed.

## Alternative Route Comments

The following comments were left in response by those who wanted to leave additional input after the questions about alternative routes. The comments are presented as they were received.

*The light at McKnight and Litzsinger was my most favorite improvement. It had been needed for so long and I HOPE it never goes away!*

*The light at Warson and Ladue serves to slow down traffic quite effectively. You did not ask about the added center turn lane on Clayton. It obliterated the bike lanes so well that I feel my life is in jeopardy riding my bike on Clayton when it used to be a most preferred bike route.*

*I am VERY unhappy, and feel we were deceived that the sound wall would be complete before the re-opening of the western half. As a taxpayer, why does the contractor deserve a bonus payment when procurement of critical materials was not completed on time? I feel the overall project was successful, but I feel this aspect was not at all addressed.*

*Traffic signals on Union Blvd northbound to I-70, I leave at non peak hour before 6 am, and usually hit 6-7 red lights in less than 3 mile stretch. I find the same with Kingshighway and Forest Park Pkwy.*

*The S I 270 to W I 64 dedicated entry lane was excellent and I am dissatisfied that it is no longer used. It relieved a cumbersome bottleneck.*

*It seems that there is no sense of urgency in clearing accidents. Out east, they just push vehicles out of the way and out of the drivers view as quick as possible and then deal with the collision.*

*the traffic signs on 44 do not ever change - if there is an accident or slow down it rarely tells you about it*

*Remove or shorten (on the Forest Park Parkway) all of the stoplights on Forest Park Parkway from Euclid to Big Bend - these traffic lights are causing terrible delays on FPP.*

*I-70 and I-270 the extra lane helped, but on I-44 it made the road to narrow*

*The extra lanes on the highways probably help but are extremely dangerous!!!! They must be removed immediately upon completion!*

*The Temporary Lanes are very difficult to drive on. You basically drive on the rough pavement that used to be the shoulder.*

*During the second half of the project, the congestion on Forest Park Pkwy. has been awful. Much more traffic could be moved through quickly if the traffic lights were timed better. This could be the best alternate route in place of Hwy. 40/64 while it's closed, but instead it has been a parking lot.*

*Pavement on west bound FP Pkwy between Grand and Kingshighway is pretty rough along the right shoulder.*

*why isn't there temporary lane addition in shoulder area on I-270 east of I-170? Illinois commuters have been completely ignored by MODOT - to suggest that I-70 is a viable alternative to I-64 as a means to get to Clayton is completely ridiculous.*

*Traffic light timing changes to support the western half of the construction, now need to be changed back!*

*From what i see on the morning news, 270 IS HORRIBLE!*

*I don't have an opinion on this, but I do for the commuting. You have to keep in mind working parents. Believe me, I would LOVE to leave for work earlier or carpool, however, I have two school age children. I have to have a car for emergencies. The kids schedule stayed the same, so does mine. However, now I have to work later to make up for my new start time. I am lucky because my husband picks them up. I can't imagine if I was a single parent trying to accomodate this. Plus, I checked out the bus routes. It takes way too long to get around.*

*variable speed signs were often not accurate. 511 didn't provide info on alternates to Clayton Road which was my main alternate while the west part was closed.*

*The addition of an extra exit lane on southbound 270 to 44east has made an extremely positive impact on the traffic flow at that internchange. I hope this will be considered a permanant change after 164 opens.*

*Trucks still speed on interstates but have narrower lanes. They can be pretty threatening.*

*metro link needs to handout free "try me"passes with a ridefinder link to single passenger cars lined up at lights at big bend, skinker and debalivere to induce using the metrolink next to them and reduce forest park traffic. I'm sure Wash U students would be ready activist volunteers. Be much more proactive to change st louis attitudes to use light rail and bus. Get more employers to incent the cost of commuting with green methods, carpools and light rail, especially those with parking problems.*

*The temporary lane additions in I44 and I70 should remain as permanent at the conclusion of the project. Marsha marshab80@gmail.com*

*Restriping was very dangerous - no shoulders!! Trucks and busses are not staying in their lanes, and wander into mine way too often. The Traffic Response guys seem to be doing a good job, but the incidents are reported on the radio/overhead signs too late to pick an alternate route. And - usually the info is wrong. Wrong lane reported closed, wrong direction on the highway, etc.*

*I-44 LINE PATCH PULLS MY CAR ALL OVER THE PLACE. IT'S HORRIBLE. NOW I STAY OFF 44 ALSO.*

*The temporary lanes on 270 and 44 shouls me made permanent after the I64 project is done. They ae more important to traffic flow rather than ahving the empty shoulders.*

*Since I didn't frequently travel my alternate route before construction, I don't know if impacts were better or worse.*

*i do not believe the statements that 6-8 years would have been required to accomplish the task if a different method of construction had been chosen. i think that extra time would have been measured in months.*

*The message boards are awesome through the metro :-) Keep those working...its awesome! The St Louis City Streets Director is completely ineffective...he is totally out of his league.*

*The signal timing on Forest Park Parkway is a joke. If you wanted people to stay off of it, you should have never timed the lights shorter to accomodate the idiots who continue to use it. This has caused severe backups on intersecting streets (aka Skinker). Common sense was definitely not utilized in this decision the extra lane on 44 makes it bumpy and uneven, i think its dangerous*

*I don't reccomend travel on those hwys as the lanes are too narrow and dangerous. The improvements on the wester half do not justify the cost and problems caused. It won't handle more traffic if it narrows down to 2 lanes at any point. We should have left it alone or built a better and larger highway. Improvements that move traffic are minimal. Hay it looks great !*

*Westbound Dale Avenue at Hanley is a NIGHTMARE at rush hour.*

*I've not used or experienced the 3rd and 4th services. I have found your on-line service very useful. The signal timing efforts have helped with traffic involving the Parkway, but I'm VERY GLAD that I retired a couple years before this work took place (I worked at the Washington U. Medical School, and I'm pretty sure my commute time would have doubled or tripled. The city of St. Louis has planned especially badly for this trip, with the work on the Jefferson and Delmar Station bridges being done at the same time. It's especially interesting that the work on both of these bridges has taken them at least twice as long as it has taken the state to replace any bridge. I've felt that their notification about these projects to be pretty abject as well. The way I found out that the Jefferson bridge was down almost three years ago has when I started to turn off Chouteau coming west o use it; there wasn't even a warning sign on Chouteau as I recall, just a sudden absence of any street where Jefferson used to be. I assume no one landed in the void below, thought at night it would have been a real hazard.*

## How to Contact Comments

The following comments were left in response by those who wanted to leave additional input about how MoDOT could best provide them with information. The comments are presented as they were received.

*I like the MoDot Emails sent out on a weekly basis*

*I like receiving email updates on the I-64 project.*

*Local television news and morning radio has helped us the most.*

*I tried to map my ride and it isnt working for me.I need to find sites that truly are working with the closings.*

*The regular emails from MoDOT have been by far the most helpful for me and my family.*

*our office on Big Bend had a representative on MoDot come to our office with information, hand outs, answered all our questions!*

*email, email, email road closures BEFORE they are closed.*

*it doesn't really matter how you notify the public about changes they don't notice them or read them.*

*It's a shame the countdown signs aren't always "on" and functioning.*

*I like the flyers that I have seen at my gas station at dale and hanley that have been published and distributed by MoDOT*

*More display boards on alternate routes*

*I don't have a TV, get a newspaper and rarely listen to the radio. So I would go look for info online as I heard about it. But it would have been wonderful if perhaps you all would have partnered up with the various business/companies/organizations around the metroplex to equip them with info and alt route suggestions to communicate to their employees (or to at least give them the info/option to sign up for any newsletters/emails that you all might have provided). With the west closure, I did move from the city to west county since 64/40 was what I took every day to work. The people running my company didn't know any more about the project than I did.*

*I get frequent update information from the Richmond Heights e-mail alerts*

*See previous comment about calling I-64 only I-64 rather than mentioning Highway 40*

*The message boards are awesome...they're great :-)*

*Placed on the road to receive the work one week prior to construction.*

*I no longer take the daily paper, so that is less useful to me. TV news and on-line notices are most effective for me, though I think that radio is probably useful for many people, who listen while they drive, and the signage about closure on the feeder routes are also very good, because they allow drivers to plan alternate routes on the go, and avoid the centers of real congestion. I'd still like to see more information about north-south routes about the closure, and I think that on future projects the highway department would do well to remember that the St. Louis region goes a very long way north and south, and many people commute or have necessary contacts which require them to use mid-area east west roads on a regular, frequently daily, basis. They could also try to see that St. Louis and other towns near such projects work harder at having their road projects near such construction in better order, that is, finished, before a major route is taken down. The Delmar Project is a prime example of such a misjudgment, even at the times of day I travel, I've seen two block long lines of traffic creeping across the bridge in the single lane traffic. I can only shudder to think what it must be like at rush hour.*

## **Alternative Website Comments**

The following comments were left in response by those who responded to *If you heard about the closure through one or more sites not listed above, please tell us which site(s)*. The comments are presented as they were received.

*TheNew164.org*

*I will add these sites to my favorites and check them out.*

*KWMU*

*stltoday.com*

*i watch info on thenewi64 and am active follower of the changes, i'm not at all standard commuter.*

*msn.com*

*Fox News FNN.com, Google.com, Googlemaps.com*

*mapquest.com and maps.google.com*

*tv 11*

*Richmond Heights citizen e-mails*

## **I-64 Project Website Comments**

The following comments were left in response by those who responded to *What additional information would you like to see on the I-64 Project website?*. The comments are presented as they were received.

*Keep us informed on what "leftover" work you are doing on the western half of the closure (I noticed today that soundwalls are not done yet)*

*When closed areas (eg crossroads, bridges) will reopen.*

*I love the maps. Very interesting.*

*Clear maps showing alternative routes across the closure.*

## Welcome to the I-64 Survey

We appreciate your time and interest in sharing your opinion. This information is being collected, summarized, and reported to the Missouri Department of Transportation (MoDOT) to help them serve you better. We (Heartland Market Research LLC and HDR Inc) are independent contractors who have been hired to collect this information and provide it to MoDOT. Our only interest in this project is to provide accurate information about what you think, so please respond as accurately and completely as possible.

Most of the questions in this survey relate to the I-64 (Highway 40) project and how this impacts you. In 2008, I-64 will be closed in both directions between Ballas Road and I-170 for construction improvements and re-opened in 2009. In 2009, I-64 will be closed in both directions between I-170 and Kingshighway Boulevard.

We are interested in your opinion over time. We invite you to return and take our survey every month.

### Have you taken this survey before?

- No
  - Yes
  - I'm not sure
- 

## Travel

In a typical week before the closure, how often did you travel on the closed section of I-64 (Highway 40)?

- Never
- Very rarely
- Once a week
- Two to three times a week
- Most weekdays
- Almost every day

In which of the following times do you *routinely commute* in the St. Louis area?  
(Select all that apply)

- Morning: Before 7:00 AM
  - Morning: Between 7:00 AM and 9:00 AM (peak morning traffic)
  - Morning: Between 9:00 AM and noon
  - Afternoon: Between noon and 3:00 PM
  - Afternoon: Between 3:00 PM and 6:00 PM (peak afternoon traffic)
  - Evening: After 6:00 PM
-

Please indicate your agreement (or disagreement) with the following statements about how the closure of I-64 (Highway 40) between Ballas Road and I-170 has impacted you?

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
The closure has changed where I shop	<input type="radio"/>				
The closure has changed where I buy gas	<input checked="" type="radio"/>				
The closure has changed my attendance to events like a baseball game, Forrest Park attractions, and similar activities near the closed section.	<input type="radio"/>				
The closure has changed where I eat out	<input checked="" type="radio"/>				
The closure has changed how often I travel to certain areas	<input type="radio"/>				
The closure has changed where I work	<input checked="" type="radio"/>				
The closure has changed where I live	<input type="radio"/>				

Has the closure of this section of I-64 changed your work habits?  
(Mark all that apply)

- No - I still work the same hours in the same location as I did before the closure
- Yes - My hours have shifted
- Yes - I now work from another location (home, another office, etc.) more often
- Yes - I quit my job and accepted one somewhere else
- Yes - other

---

## Personal Impact of Closure, Page II

Now that I-64 construction is underway, have you shifted your commute time to work and/or school?

- Yes - I now leave a little earlier (1 to 10 minutes earlier)
- Yes - I now leave earlier (more than 10 minutes earlier)
- Yes - I now leave a little later (1 to 10 minutes later)
- Yes - I now leave latter (more than 10 minutes later)
- No - I have not changed my commuting schedule to work and/or school
- No - This question is not applicable to me

If you want to provide more details about how the closure has affected you, please do so here.

---

## Your Opinion, Page I

Please indicate your level of satisfaction with the following:

	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied
How well the public has been kept informed about the New I-64 Project?	<input type="radio"/>				
The timeliness of the information being made available?	<input type="radio"/>				
How alternative travel options have been communicated?	<input type="radio"/>				
The traffic flow within construction work zones (other construction where you may travel)?	<input type="radio"/>				
How understandable and accurate are the construction work zone signs?	<input type="radio"/>				
How well are you managing to move around the St. Louis area with the closure of I-64?	<input type="radio"/>				
The decision to complete the work by closing I-64 for 2 years instead of taking 6-8 years with lane closures?	<input type="radio"/>				
Your overall level of satisfaction with how the I-64 closure has been handled?	<input type="radio"/>				

If you want to provide more details about any of the issues listed above, please do so here.



---

## Alternative Routes

Improvements were made to designated alternative routes to help address potential traffic congestion. Please provide your opinion on how effective these improvements have been.

	Very Effective	Slightly Effective	No Difference	Slightly Ineffective (Worse)	Very Ineffective (Worse)	I Have Not Noticed	No Idea
Temporary lane addition in shoulder area along I-44, I-70, I-270 and Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Permanent traffic signal timing and interconnection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traveler's information displayed on interstates and available on 511.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I-64 Traffic Response services on non-interstate roads to assist motorists and emergency response staff in early clearance of incidents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you would like to provide additional feedback on how effective (or ineffective) these improvements have been, please do so below:

---

## Feedback

What is the best way for MoDOT to get information to you about road improvements and other road and bridge information?

(Mark all that apply)

- TV News
- Radio News
- Radio Talk Shows
- Newspapers
- Internet Sites [If selected, the respondent goes to next page; else the respondent goes to the Demographics page.]
- Receive information in mail (newsletter, etc.)
- Project email from MoDOT or I-64 Team
- Project display boards at public gatherings
- Road signs providing information on construction work
- Other

Please use this space to provide additional detail about how MoDOT could best provide you with information.

---

## Internet

On the previous page, you indicated that the internet was a good way to get information to you. Please indicate which site(s) that you visit.

(Mark all that apply)

- GatewayGuide.com
- MoDOT's website (MoDOT.org and/or MoDOT.gov)
- The New I-64 site (TheNewI64.org) [If selected, the respondent goes to next page; else the respondent goes to the Demographics page.]
  
- Metro (MetroStLouis.org)
- DontGetStuck.org
- GetAroundSTL.com
- MidMetro4.com
- Post-Dispatch website (STLToday.com)
- Post 4 Traffic Online (post4trafficonline.com)
- Radio AM 550 website (KTRS.com)
- Radio AM 1120 website (KMOX.com)
- TV Channel 2 website (MyFOXSTL.com)
- TV Channel 4 website (KMOV.com)
- TV Channel 5 website (KSDK.com)
- Other

If you heard about the closure through one or more sites not listed above, please tell us which site(s).

---

**The New I-64 Site ([TheNewI64.org](http://TheNewI64.org))**

**What information on the I-64 Project website do you find most useful?**

- Commuter Alternatives (Transit/Carpooling Options)
- Construction Zone (Ongoing Closures)
- Map My Trip
- Newsroom
- Project Overview
- Traffic Impacts (Today's Closures)
- Web cams and/or Photo Gallery
- None of the Above

**What additional information would you like to see on the I-64 Project website?**

---

## Demographics

*These questions are asked because we need to make sure that we are not missing any groups of people from our survey.* Feel free to skip any questions that make you uncomfortable.

Are you male or female?

- Male
- Female

Please choose your age group

- Under 16
- 16 to 25
- 26 to 40
- 41 to 65
- Over 65

What was your approximate *household* income in 2007?

- Less than \$20,000
- \$20,000 to \$40,000
- \$40,001 to \$60,000
- \$60,001 to \$90,000
- \$90,001 to \$120,000
- \$120,001 to \$150,000
- \$150,001 to \$200,000
- More than \$200,000
- I do not know

---

## Demographics - Last Page

*These questions are asked only to make sure we are not missing any groups of people from our survey.* Feel free to skip any questions that make you uncomfortable.

**We are interested in traffic flows. It would help us a lot if you could tell us two zip codes. If you are not sure, just leave them blank.**

What is your home zip code? (where you are currently living)

What is your work zip code? (if you go to school, please enter your school zip code. If you do not otherwise work, please leave blank).

**To what ethnic groups do you belong? (Mark all that apply)**

- American Indian
- Asian
- Black or African-American
- Hispanic or Latino
- White or Caucasian
- Other

## BUSINESS STUDY: NEW I-64 ECONOMIC AND REGIONAL MOBILITY

Welcome! This business survey is part of an *independent* evaluation study commissioned by the Missouri Department of Transportation. There are three focus areas – commuting, transportation & shipping costs, and sales & visitation. This survey is intended to obtain important information about the economic implications of the full-closure of I-64 on the local and regional economy.

Thank you for agreeing to participate. **The overall survey results will be summarized in a public report, but your individual data will not be released.**

At the end of the survey, you will have the opportunity to ask for a free copy of our report.

---

### Satisfaction

**How would you rate your organization's overall satisfaction with MoDOT's execution and delivery of the New I-64 Reconstruction Project?**

Very Satisfied

Satisfied

No Opinion (neither satisfied nor dissatisfied)

Dissatisfied

Very Dissatisfied

---

## Organization Background

Please select the industry that best fits your organization.

How many years has your organization been at its current location?

- Less than 2 years
- Between 2 and 5 years
- Between 5 and 10 years
- More than 10 years

How many people are employed by your business at your location?

- 10 or fewer
- 11 to 25
- 26 to 100
- 101 to 250
- More than 250

Please estimate what percent of the employees at your location commuted on the closed section of I-64 before January 2008.

- 0% - 25%
- 26% - 50%
- 51% - 75%
- 76% - 100%

## Commuting

Since the closure of I-64: how frequently do your EMPLOYEES use the following alternative routes?

	Frequently	Sometimes	Never
Manchester Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forest Park Parkway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clayton Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ladue Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Olive Boulevard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Page Avenue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-44	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-70	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-270	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please tell us approximately how close your organization is located to the closed sections of I-64.

in miles (0 to 99)

---

## Commuting, Part II

Please indicate your agreement (or disagreement) that the alternate routes provide reasonable access compared to before the closure of I-64.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

How has the closure of I-64 affected employee behavior for your organization?  
(select all that apply)

- Noticeably Earlier Commute Times
- Noticeably Later Commute Times
- Shorter Total Working Hours
- Longer Total Working Hours
- No Noticeable Changes
- Increased Employee Turnover

Since the closure of I-64, has your organization offered any new benefits to accommodate changes in commuting?  
(select all that apply)

- Flextime
- Encouraged Car/Van Pools
- Private Shuttles to Public Transit Access Points
- Subsidized Public Transit Passes: (Bus, Lightrail)
- Alternate Work Locations
- Telecommuting
- Other

---

## Transportation and Shipping Costs

Choose the one(s) that best describes the relationship of your business use of I-64 prior to the closure:

- Shipped and Received Products on I-64
- Employees Used I-64 to Commute
- Patients Used I-64 to Reach Your Location
- Clients Used I-64 to Reach Your Location
- Customers Used to Reach Your Location
- Visitors Used to Reach Your Location

If you ship or receive goods, what percent of shipments travel on I-64?

Before I-64 Closure (0 to 100)

Currently (After) I-64 Closure (0 to 100)

Have transportation costs, excluding fuel costs, increased since I-64's closure?

- Strongly Agree
- Agree
- Disagree [\[Goto question Sales11\]](#)
- Strongly Disagree [\[Goto question Sales11\]](#)

---

## Increased Transportation and Shipping Costs

You indicated that transportation costs have increased since the closure of I-64. Have any of the following factors helped raise your transportation costs?

	Significant Increase in Cost	Minor Increase in Cost	No Change	Minor Decrease in Cost	Significant Decrease in Cost
Freight Shipping Cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increased Travel Time and Delay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Less Reliable Shipments and Travel Time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fuel Costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you answered other, please explain.

---

## Sales and Visitation

Since the closure of I-64: how frequently do your VISITORS, CLIENTS, or PATIENTS use the following alternative routes?

	Frequently	Sometimes	Never
Manchester Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forest Park Parkway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clayton Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ladue Road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Olive Boulevard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Page Avenue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-44	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-70	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I-270	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

## Weekly Volume of People

Has there been a noticeable change in the weekly volume of visitors, customers, or patients to your organization since the closure of sections of I-64?

- Yes: Lower volume than before the closure
- Yes: Higher volume than before the closure
- No
- Not relevant for my organization

If you replied yes above, please estimate the *weekly* change in visitors, customers, or patients seen by your organization since the closure.

Weekly Number Change (please provide your best estimate **as a number**)

Weekly Percentage Change (please provide your best estimate **as a percentage**)

Have traffic disruptions attributable to I-64's closure impacted your business in any other way?

↑

↓

▼

---

## Weekly Sales Volume

Has there been a noticeable change in weekly business sales (for this time of year) since the closure of sections of I-64?

- Yes: Lower volume than before the closure
- Yes: Higher volume than before the closure
- No
- Not relevant for my organization

If you replied yes above, please estimate the weekly change in sales seen by your organization since the closure.

Weekly Sales Change (please provide your best estimate **as a number**)

Weekly Sales Change (please provide your best estimate **as a percentage**)

---

## Promotional Programs

MoDOT has issued nearly \$1 million in business outreach grants to help local businesses during I-64 reconstruction. Has your organization participated in these business access promotional programs?

- Yes
- No

If yes, please describe the effectiveness of these efforts.

↑

↓

▼

---

## Location

Has the location of your facilities and operations changed due to the closure of I-64?

- Yes  
 No

If yes, please elaborate.

---

## Future Decisions

Will your future decisions about new investment, expansion or location of your facilities and operations be impacted by the closure of I-64?

- Yes  
 No

If yes, please elaborate.

---

## Data Collection

**Do you collect employee or client/patient/customer travel origin data?**

- Yes  
 No

**If you answered yes above, may we contact you about potentially sharing travel origin data?**

- Yes  
 No

**Would you be willing to respond to semi-annual surveys or interviews to help support the economic assessment of I-64's reconstruction?**

- Yes  
 No

**If you are willing to help, how should we contact you?  
(select all that are acceptable to you)**

- Email  
 Mailed Survey  
 Telephone

On the next page, you will be given the opportunity to provide your contact information.

---

## Last Page of Questions

This information is vital toward helping us understand the economic impact of the New I-64 project in specific areas. Your individual information will remain confidential; only summary statistics and findings will be published in the report. We especially need the information that is in bold.

Name	<input type="text"/>
Email	<input type="text"/>
<b>Organization Name</b>	<input type="text"/>
Address	<input type="text"/>
<b>Zip Code</b>	<input type="text"/>
Phone	<input type="text"/>

Would you like us to email you a copy of our report? (In order to receive the report, you must answer yes to this question and provide your email address in the previous question).



Yes



No

# MoDOT I-64 St. Louis Economic and Regional Mobility Study Business Survey Major Findings

## 1. Background

The New I-64 project began in 2007. On January 2, 2008, the western section of I-64 from Ballas Road to I-170 was completely closed for reconstruction. The closure is planned to last through the end of 2008, at which time a section to the east will be closed for construction for the bulk of 2009. The project is anticipated to finish in July of 2010. The purpose of this report is to focus on initial business and economic impacts as assessed through the first on-line business survey. This report is an analysis of the survey responses collected from the period beginning February 18<sup>th</sup> and closing on March 13<sup>th</sup>, 2008. 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. Additional surveys will be released approximately every 8 to 10 months, to track these trends over the entire project period. This first survey focused on the conditions prior to the western closure of I-64 and changes occurring immediately after.

The focus areas of analysis from the business survey 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

While two months worth of business survey responses are not sufficient to comprehensively capture the near-term effects of the closure, or to extrapolate to longer-term effects. The 369 responses to this online business survey have provided a broad-based response to assess the most immediate reactions from and impacts to the St. Louis business community. The remainder of Section 1 provides a summary of business survey results with greater detail provided in the remainder of the document.

### 1.1. Summary of Respondents and Overall Satisfaction

- Based upon these survey results, 85 businesses (23%) are located within the I-64 corridor<sup>1</sup>.
- 86% of the businesses that completed the survey are located within 10 miles of the I-64 Reconstruction Project.
- An overwhelming 93% of all respondents were satisfied or very satisfied thus far with the performance of the alternative routes to I-64.
- 88% 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	369
Respondent location (based on zip code, reported by 73%)	
Immediate I-64 region	23%
Satisfaction w/ MoDOT execution of project	
Very satisfied	46%
Satisfied	40%
Dissatisfied	3%
Very dissatisfied	1%

<sup>1</sup> 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**
  - A majority of businesses surveyed reported no major changes to employee commuting behavior. 63% of businesses surveyed within and outside of the corridor area responded they did not see a change.
  - Approximately 19% of the total businesses surveyed are seeing later commutes and 21% are experiencing earlier commute times.
  - To help manage during I-64's reconstruction, 38% of respondents noted the use of flex time programs while 16% encouraged car/van pools and 21% allowed increased telecommuting.
- **Transportation Costs**
  - Although 52% of the total respondents indicated transportation costs were not rising, 44% of businesses inside the corridor experienced a minor increase in freight shipping costs.
  - Not surprisingly, the major cost changes for corridor based businesses can be attributed to travel time delays as 94% have realized a significant or minor change in cost.
  - Another 43% of corridor businesses report an increase in cost due to reduced reliability of travel time.
- **Sales, Visitation and Economic Activity**
  - 20% of Corridor based businesses confirm a lower volume of visitors and customers each week, while 10% of businesses outside of the corridor report a weekly decrease in the volume of visitors and customers<sup>2</sup>.
  - 14% of Corridor based businesses reported a reduction in weekly sales, while 8% of Non-corridor businesses cited a reduction in sales.
  - 13% of total survey respondents said future decisions on expansion, new investment, or location of facilities will be impacted by I-64's closure.
  - 16.5% of businesses along the corridor indicated that future decisions will be impacted by the closure, while another 7% inside the corridor have already re-located some aspect of economic activity.

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<sup>2</sup> Please note the survey questions were worded "For this time of year" to account for seasonal customer, visitor, and sales swings.

## 2. Profile of Businesses Responding

The survey was targeted at businesses within St. Louis City and St. Louis County. The Western portion of I-64 that is currently closed stretches from Ballas Road all the way to I-170 which marks the distinction between the Western and Eastern portions. The point of this analysis is to track the economic impacts of each closure (Western and Eastern) as they will affect businesses differently over time. Each closure will alter route choices and potentially impact shipments, commuters, and sales/customers. I-64 is the major bisecting east-west highway in St. Louis and provides access to significant employment centers in the County and City. Therefore 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.

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<sup>3</sup>. 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)

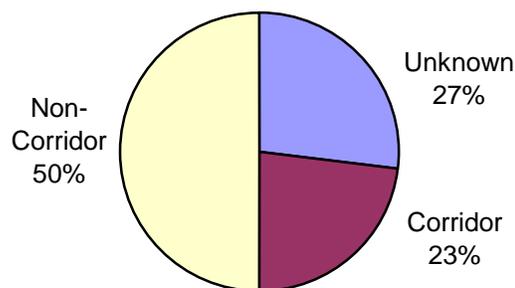
369 separate and complete responses to the survey were submitted. Although this is less than 10% of the total distribution list, we must keep in mind there were additional obstacles that inhibited participation and completion of this web based survey including: e-mail address spelling precision, spam filters, and internet content blockers.

**Figure 1: I-64 Corridor and Major Highways**



MoDOT <http://www.thenewi64.org/ProjectOverview.do>

**Figure 2: Businesses by Location, determined by ZIP Code**

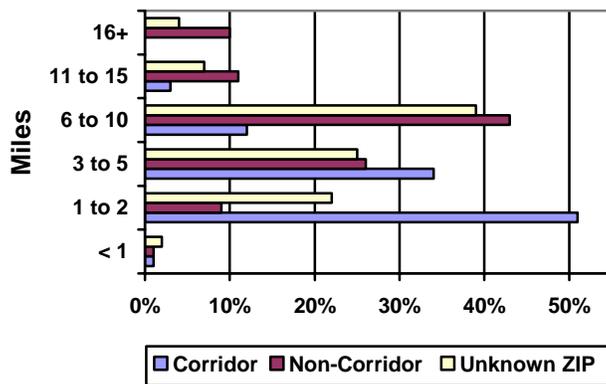


<sup>3</sup> Manfreda, Katja Lozar & Vehovar, Vasja "Survey Design Features Influencing Response Rates in Web Surveys" University of Ljubljana

## 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. Figure 2 shows the majority of businesses responding to the survey are located outside of the corridor area, while 27% of respondents did not indicate their location (ZIP code). The “corridor” has been defined as the 9 ZIP codes that the impacted sections of I-64 either touch or intersect. Coincidentally 23 percent of the total establishments within St. Louis County and St. Louis City are located within the impacted 9 ZIP code corridor area. The relatively high representation of Corridor based businesses taking the 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. Over 40% of total businesses responding were within 6 to 10 miles of the Western closure. This means that just over 70% of the total businesses responding are within 10 miles of the Western Closure. At the corridor level, 50% of the businesses are within 1 to 2 miles of the closure.

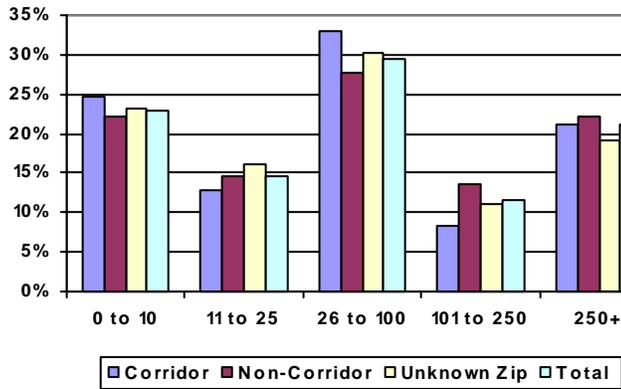
**Figure 3: Business Distance to Western Closure of I-64 by Region**



## 2.2. Business Composition

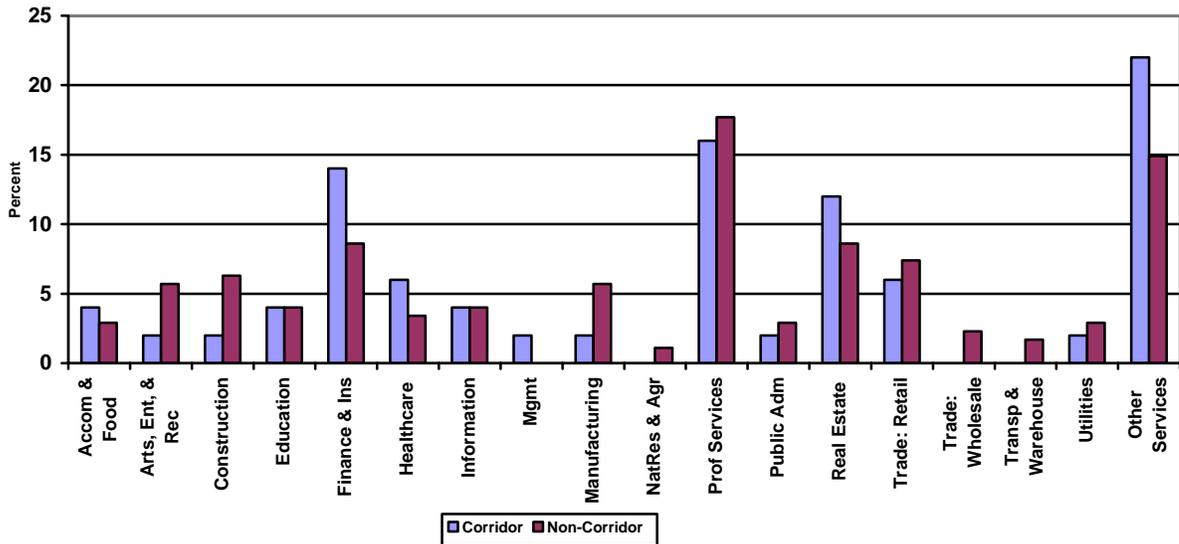
The businesses responding share fairly uniform characteristics in terms of business size, type of business, and employee behavior. Figure 4 below shows businesses within the corridor, not in the corridor, and those not identifying their location share a similar distribution of firms by establishment size (employees per establishment). 30% of all businesses reported having 26 to 100 employees. While 20% of all businesses responding within the St. Louis area reported over 250 employees. 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 38% of the total respondents. To place these results in context, the businesses located within the corridor provide 24% of all the jobs in St. Louis City and St. Louis County. The total number of jobs within the corridor as of third quarter 2007 was 201,240.

**Figure 4 Business Workforce Size by Region**



The industry mix of business respondents was predominantly professional, technical, and other services. The majority of 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 47,760 jobs. 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.

**Figure 5 Percent Businesses by Industry and Region Responding**



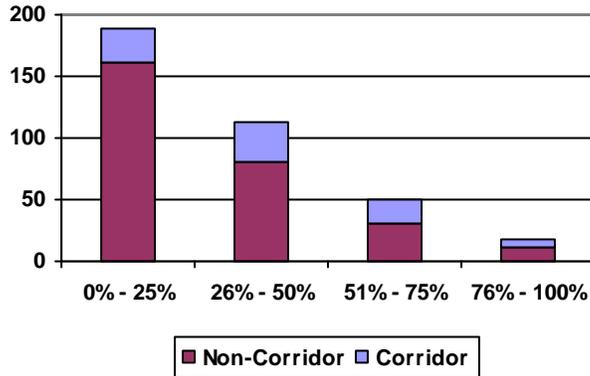
### 3. Impacts of I-64 Closure

#### 3.1. Previous Use of I-64

Over half the businesses 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 has a

greater number of businesses reporting that 26%-75% of their labor force use I-64 for commuting. Somewhat surprisingly, only 12 businesses within the corridor responded that 76%-100% of their employees use I-64 for commuting.

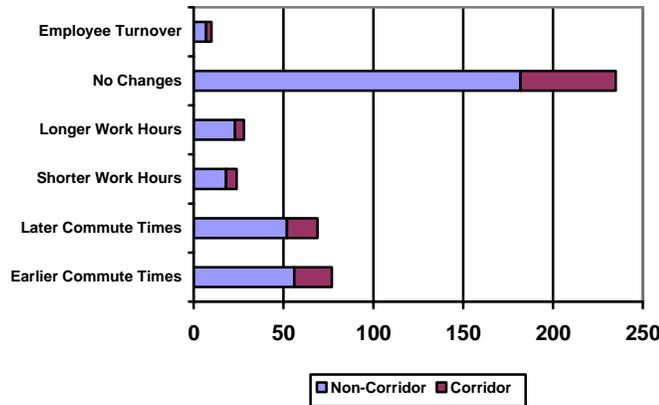
**Figure 6: Businesses Reporting Percent of Employees Using I-64 Before Closure**



### 3.2. Post Closure Commute

Respondents were asked exactly how employee commute behavior has changed since January (Western section closed), both corridor and non-corridor businesses responses were similar as 253 businesses out of the total 369 respondents found no major changes (Figure 7). Although there were some minor shifts in the length of the work day (longer and shorter), the most frequently noted change was employees shifting their commute times to either earlier or later in the day. Coinciding with this trend, 38% of businesses offered flextime arrangements for employees with another 21% offering telecommute options to mitigate the effects of I-64 reconstruction. Comparatively modest, employee turn-over was 2.7% for all respondents and 3.5% in the Corridor. Since this was for a period of just under 2.5 months, this effect will need to be monitored over the coming months with similar attention to the upcoming Eastern closure.

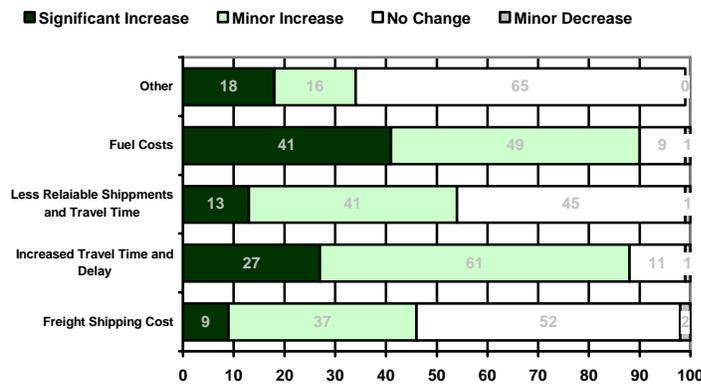
**Figure 7 Western Closure Impact on Employee Behavior**



### 3.3. Transportation Costs

Although the measurable commuter impacts to business respondents were relatively minor, respondents consistently noticed an increase in transportation costs. Figure 8 shows a majority of respondents experienced a significant or minor increase in costs related to time travel and delay. Not surprisingly, 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 Western 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 only exception was a 6 percentage point difference between respondents within the corridor experienced a minor to significant increase in cost due to travel time delay.

**Figure 8: Respondents feel the following transportation costs have...**



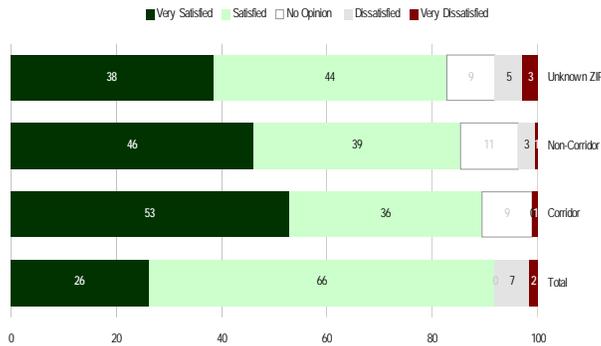
Businesses from the Manufacturing, Wholesale Trade, Transportation & Warehousing, and Utilities industries were assessed separately as they tend to have a greater reliance on freight shipments. Of the 36 responding shipper-based businesses, only four were located within the corridor. Like the total businesses, just over half the shippers agreed that costs were increasing<sup>4</sup>. Travel time costs were cited as the most significant cost increase for shippers. Freight costs for the corridor only showed signs of a minor cost increase so far.

### 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 90% or more felt that the alternative routes for the Western Closure provided reasonable access (Figure 9). Respondents from inside the I-64 corridor expressed the highest levels of satisfaction with alternative routes and 53% were very satisfied with I-64 project performance.

<sup>4</sup> These results should be considered carefully as isolating this group of businesses significantly reduces the number of observations.

**Figure 9: Satisfaction with I-64 Performance**

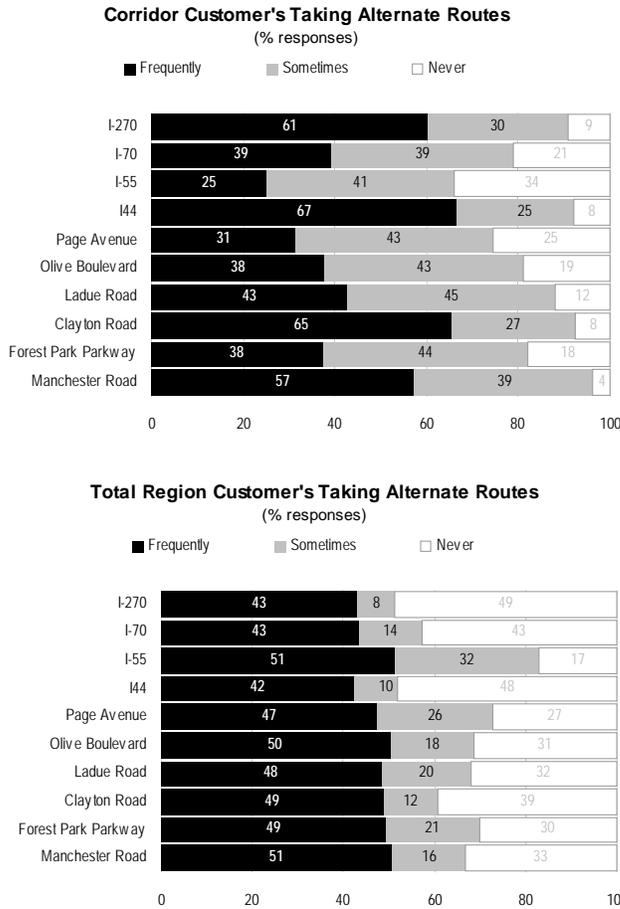


The results indicate (Figure 8) that despite a rise in cost, attributable to an increase in travel time, businesses are coping with the closure and to a large extent satisfied with the project delivery and mitigation thus far. Although there have been proactive steps made by MoDOT and many of the local 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 may be consistent with the finding that only 10% of total businesses (18% of the corridor businesses) surveyed enrolled in MoDOT sponsored outreach programs.

### 3.5. Sales and Visitors

Route choice for customers, visitors, and patients showed some substantial variation between the corridor and non-corridor businesses. 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 the corridor predominantly used I-44 and Manchester Road to the South 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 10 Comparison of Customer Routes: Total and Corridor**



Eighty percent of businesses reported the change in customers, visitors, and patients were either not relevant or not noticeable. However, 20% of responding businesses (corridor and non-corridor) did report a decline in visitor, patient, and customer volumes compared to previous seasons. Overall the impacts reported by the non-corridor based businesses were not as extreme as those inside the corridor, as seen in Figure 11. The change in sales volume is following the same trends as the visitors, patients, and customers. Where the majority of businesses, 52 percent of the corridor and 58 percent outside of the corridor, are seeing no noticeable decline in sales, compared to previous seasons. Considering the major transportation related (and reliant) industries surveyed are located outside of the corridor, this change in sales might be consistent with the business mix of each area.

Despite the majority of businesses reporting no change in customers or sales, the level of awareness and preparation appears to be high. Where 4 percent of total businesses surveyed have confirmed that the location of their operations and facilities has moved because of the I-64 closure. Looking ahead, 14 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. Considering these results are from the first quarter (3 months) of a two year project, the 14 percent is deserving of future research and attention throughout the project. Therefore the decline in sales and business activities will be researched further, and accompanying analysis will focus on the

quarterly and seasonal changes impacting businesses, especially service based industries, in St. Louis. Lastly, the future considerations will have to address the overall economic conditions impacting St. Louis and Missouri beyond I-64's improvements.

**Figure 11** Changes to Visitors and Sales



#### 4. Future Steps

Interviews of local businesses are in progress and will supplement the survey data. Thus far interviews have been conducted with representatives from the local convention centers, stadiums, utilities, research centers, shippers, and museums. The interviews will give more insight into business implemented processes, and establish other metrics for measuring I-64's impacts on businesses. Future integration of the pre-closure published economic data with the survey results and interviews will help build a comprehensive understanding of the economic impacts. Future surveys over the next 1.5 years will emphasize questions related to:

- Travel time delay
- Employee turnover
- Sales volumes
- Customer/patient/visitor volumes

#### 5. Conclusions

The overall economic impacts thus far appear too modest, with a few exceptions, and the overall level of satisfaction with the I-64 reconstruction project is high thus far. Businesses are coping with higher transport costs mostly attributable to travel time delays. Specifically, the corridor is seeing greater delays and one-fifth of those businesses are seeing a noticeable reduction in sales and visits. Businesses interviewed thus far have cited some noticeable loss in sales but most

attribute that to the economic conditions affecting the broader U.S. economy. In the coming months, economic data and future surveys will help to better understand preliminary negative 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;
- d) the relatively significant number of firms that mentioned I-64's reconstruction could impact future investment and location decisions; and
- e) how transportation and economic impacts will change during the eastern closure of I-64.

# The New I-64 Economic and Regional Mobility Study

## Quarterly Report # 3

June – August 2008



**Before the Closure**

Please indicate how much time it takes you to make certain trips now compared to how long it took you before the closure.

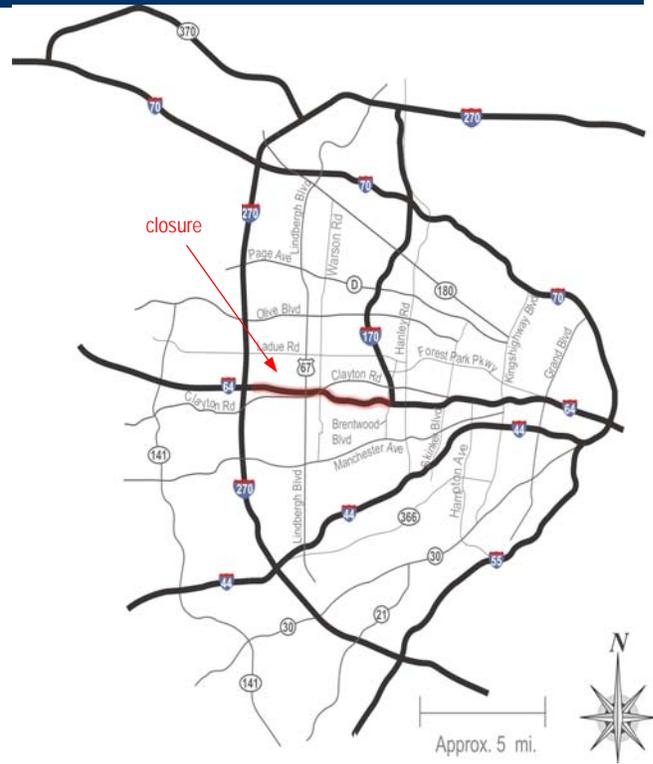
	Has not changed or is shorter	Went from 10 to 15 minutes	Went from 15 to 20 minutes	Went from 20 to 30 minutes	Went from 30 to 45 minutes	Went from 45 to 60 minutes	More than 60 minutes
Commuting to work or school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Visitation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping, errands, and other errands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traveling throughout the Louisville Region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# 1. Executive Summary

On January 2, 2008, the section of I-64 from Ballas Road to I-170 (see map) was completely closed for construction. The closure is planned to last through the end of 2008, at which time a section to the east will be closed for construction for the bulk of 2009. Construction is proceeding well in the west closure section.

This quarterly report assesses the period June through August 2008 that includes the 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> months of the western 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 western closure now eight months old, findings are beginning to emerge that will be of interest to MoDOT, the St. Louis region and the general public. To date, the research team has found:



Communications (pp. 2-7)	Mobility (pp. 8-20)	Economics (pp. 21-24)
<p><b>Almost 5,000 participants</b> have given feedback through web surveys, mail surveys, personal interviews, and surveys administered by Motorist Assist and I-64 Traffic Response crews.</p> <p>The public is fairly <b>satisfied</b> with the closure, how information has been communicated, and how they are managing to move around the region.</p> <p>The closure has had varying effects on the public’s travel habits, with nearly 3/4 indicating their <b>travel frequency has changed</b> for certain trips and <b>earlier morning commute times</b>.</p> <p>The public reported they are leaving 10 minutes plus earlier (26%) on their commute to work or home, although many trip times are relatively unchanged.</p>	<p>The closure has <b>re-routed approximately 140,000 to 150,000 vehicles per day</b>; travelers have taken alternative routes, altered their travel schedules, and considered alternate modes.</p> <p>Freeway travel times are <b>similar to the previous year</b> and there is a noticeable <b>peak spread and increased traffic volumes</b> on some freeways.</p> <p>The RideFinders rideshare program experienced over a <b>40 percent jump</b> in comparison to the last year and during the month of July, <b>9,408 participated in the program</b>. Gas prices have probably contributed to the demand for these services.</p> <p>Users at regional park-and-ride lots have an increased almost <b>600 vehicles</b> between February 2008 and August 2008.</p>	<p>For both corridor and non-corridor, the taxable sales have declined from the first and second quarters of 2008 when compared to the first and second quarter of 2007. However, the change in taxable sales is not consistent for both regions as the corridor region slightly improves from <b>-6.6% to -4.4%</b>, while the non-corridor sees a further decline in sales for the second quarter of 2008.</p> <p>The taxable sales for wholesale trade are showing positive growth compared to previous years, despite the <b>total taxable sales for the county declining</b>. This could be explained by a shift in consumer spending away from general merchandise stores towards wholesale.</p> <p>The <b>second business survey</b> is currently being drafted and will be sent to the business community working group for comments. The anticipated release of the second online business survey will be in the month of October.</p>

## 2. Communications

### Communications Highlights

The citizens of the St. Louis region are providing input to this research through online surveys, mailed surveys, handouts by Motorist Assist operators, and personal interviews. Highlights gleaned from these various surveys include:

- **Awareness.** From the responses to date, it appears that MoDOT effectively communicated the upcoming closure to the affected population in 2007; pre-closure awareness was reported as very high.
- **Satisfaction.** Respondents are largely satisfied with their ability to travel around the region and with the level of information that has been communicated by MoDOT and others regarding the closure.
- **Information Sources.** TV News appears to be the best way to reach the majority of the respondents, with radio news, newspapers, and road signs also being effective methods. For those who use the internet, online information sources are almost as effective as TV news. However, a portion of the general population does not obtain their information via the internet and other methods should continue to be used to reach them.
- **Traffic Congestion Migration Strategies.** These strategies effectiveness level ranges from 45% to 63% with the ineffective level ranging from 7% to 17%. The lane widening strategy received the highest level of effectiveness while also receiving the highest level ineffectiveness. The other noticeable fact was that 22% reported “No Idea” that the Motorist Assist and I-64 Traffic Response programs were used.
- **Commuter’s Time of Travel.** The shift to earlier commute times is 39% and a shift to later commute times is 13%. No change of time was 30% with 18% reporting not applicable. Almost 50% are not leaving earlier or staying later.
- **Travel Mode.** Initial responses on how the closure has changed people’s mode of travel are somewhat inconclusive. It is clear that the dominant mode of travel by the respondents has been, and continues to be, the automobile.
- **Personal Impact.** The closure is affecting people’s trip choices. Survey respondents are indicating changes in basic trip destinations such as shopping, eating out and attending recreational activities. Overall, almost three quarters of respondents are indicating that their frequency of travel to certain areas has been affected by the closure. Some residents have shifted their work hours, especially the respondents to the Web survey, who indicated a shift to earlier morning commutes. However, the web survey received a heavy early response when impact uncertainty to the closure was high. This issue will be explored in more detail as progress is made on the I-64 study.

To date, the responses have been fairly consistent over the various survey methods. This general agreement across surveys is important because it appears to demonstrate that one can generalize from the surveys to the general population (other than issues related to online access, which is by definition skewed in the Web survey responses).

## Communication Assessment Objectives and Methods

Major Goals – Communication Assessment	Total Collected Surveys by Method
Develop and implement survey instruments	Web 1135
Determine effectiveness of pre-closure notification	Mail 700
Measure participant satisfaction for key issues	In-person 100
Estimate changes in behavior	Motorist Assist
Hear everyone’s voice (obtain generalized sample)	MoDOT 2312
	I-64 Traffic Response 596
	<b>TOTAL 4843</b>

Four classes of survey instruments were developed to assess the communication aspects of this project:

- A detailed online survey was developed; participants had the option to complete a brief, medium, or detailed survey in the first five months. Surprisingly, 61 percent of the respondents were interested enough in sharing their opinion that they elected to complete the detailed survey. Links to the survey were placed on both MoDOT’s main website and the New I-64 Project site. MoDOT, through its project public outreach efforts, continues to encourage and promote public input via this survey method. Beginning in the 3<sup>rd</sup> quarter (June 1, 2008), enhancements were made to the online survey instrument to gain additional information and insight on the I-64 project.
- To help obtain a representative sample, a physical survey was developed and mailed to 10,000 respondents in twenty-eight zip codes near the I-64 project. This work was completed during the first quarter and summarized in the 1<sup>st</sup> quarterly report. This mailed survey was successful in helping achieve a better cross-sectional representation of the region’s population. No additional surveys were received during this quarter, so information gained will be reported further in the future annual report. This survey will be administered again early in 2009 and after the I-64 project is completed.
- In-person surveys were utilized to assess public opinions at two major shopping locations in the immediate area of the closure (the St. Louis Galleria near I-64/I-170, and Schnuck’s grocery store at Lindbergh Boulevard and Clayton Road). Public Official survey is ongoing with both one-on-one interviews and future contacts through email survey questions. We have conducted interviews at the Zoo on September 20, 2008. Detailed information will be provided in the next quarterly report.
- Project satisfaction measures were also added to the Motorist Assist and I-64 Traffic Response service surveys that are distributed to people serviced by Motorist Assist and I-64 Traffic Response operators. During the third quarter period, 967 - Motorist Assist and 234 - I-64 Traffic Response were received. This source continues to provide a good flow of information.

In order to facilitate comparisons of changes across survey types and from time to time, the statistics used in the project assessment usually do not include the “not sure” or “no opinion” percentages. This eliminates a major source of random variability and allows a more accurate observation of change over time. In addition, this methodology is consistent with how MoDOT calculates similar Tracker measures.

## Communications Results

### Use of I-64, Knowledge of the Closure

The survey results indicate that the public was very aware of the closure well before it occurred. 98.4 percent of the online respondents were aware of the upcoming closure in 2007, and since 97.2 percent of the online respondents traveled on the affected section of I-64 at least once per week before the closure, it appears that the target population received the needed advance information. The changes between the first quarter and second quarter report measurements were generally less than 1 percent. This information was reported in the second quarter. On June 1, 2008, the web survey was enhanced to gain additional information about the I-64 project. These enhancements were made to further explore potential impacts from the roadway closure.

### Satisfaction

The chart at the right summarizes survey respondents' opinions in the area of satisfaction in the 3<sup>rd</sup> quarter and compares them to the first 2 quarters. As the chart indicates, the satisfaction level is down from the first two quarters based on information from the web survey. However, the information received from Motorist Assist and I-64 Traffic Response surveys is fairly consistent. This could be explained based on the sample sizes (95 compared to 1436) of the two survey instruments. Work zone traffic flow might be a concern since it has fallen below 50%. The other areas still range in the area 60 to 70%. The research team will continue to monitor these public opinions to see if a trend is forming or if the small sample size has impacted the outcome.

Satisfaction Level (Web Survey n=95)	Percent	1 <sup>st</sup> & 2 <sup>nd</sup>
Public informed	73	91
Timely information	73	89
2 years vs. 6 to 8 years	71	76
Communication of alternatives	58	83
Overall satisfaction	69	78
Managing to move around area	60	72
Work zone traffic flow	46	69
Accurate/understandable signs	65	76
Satisfaction Level (MA Survey n=1436)		
2 years vs. 6 to 8 years	93	89
Managing to move around area	88	89

The in-person interviews, conducted late in the first quarter at two major shopping locations near the closed section of I-64, showed general agreement with other survey results. Conducting surveys at shopping locations provides a potential correlation link with the economic component of this study. Consistency in data across all survey efforts helps validate that true public opinion is being gained. This information will be compared with the future in-person interviews at the zoo to assess the consistency across different survey instruments.

### Personal Impact of the Closure

The table below shows the 3<sup>rd</sup> quarter responses regarding the closure impact on travel. The travel destination of "attending recreational activities" was added when the web survey was enhanced at the beginning of this quarter. This activity will be monitored as the I-64 project prepares for the East closure, since a number of regional recreational facilities are located along I-64 near this closure. This "attending recreational activities", "where I eat" and "where I shop" are somewhat split in their opinions of impacts to them. The research team will continue to monitor the survey responses on these travel destinations.

**Survey Question – “The closure has changed .....**

Travel destinations	Strongly Agree	Agree	Disagree	Strongly Disagree
Travel to certain areas	41%	34%	14%	11%
Where I shop	23%	28%	29%	20%
Where I eat out	19%	24%	30%	27%
Where I buy gas	13%	12%	33%	42%
Where I work	6%	6%	30%	58%
Where I live	7%	6%	28%	59%
Attending recreational activities (i.e. games, parks, etc.)	24%	10%	34%	32%

**“When do you routinely commute in St. Louis” 3<sup>rd</sup> Quarter compared to 1<sup>st</sup> and 2<sup>nd</sup> Quarters Responses**

Time of Day	3 <sup>rd</sup> Quarter	1 <sup>st</sup> and 2 <sup>nd</sup> Quarters
Before 7 am	23 (12%)	277 (22%)
7 to 9 am	53 (27%)	334 (27%)
9 am to Noon*	16 (8%)	103 (8%)
Noon to 3 pm	18 (9%)	
3 pm to 6 pm	63 (32%)	376 ((31%)
After 6 pm	23 (12%)	145 (12%)

\*First two quarters asked 9 am to 3 pm

**Information Sources and Communication Methods**

TV News still continues to be best method of distributing information with Radio News, Internet and road signs running a close second. TV News and Internet are more pre-trip information sources while Radio news and road signs are more en-route information sources. It is noticeable that MoDOT’s three web sites are listed as 1<sup>st</sup>, 2<sup>nd</sup>, and 6<sup>th</sup> as sources of information.

**Best Way to Distribute Information**

Source	Responses
TV News	72
Radio News	60
Internet	58
Road Signs	54
Newspaper	42
Email from I-64/MoDOT	21
Radio Talk	20
Mail from I-64/MoDOT	18
Project Display Boards	16
Others	3

**Internet Sources**

Source	Responses
New I-64 Web Site	48
MoDOT’s Web Site	42
Post-Dispatch (STLToday.com)	28
TV 5 (KSDK.com)	25
TV 4 (KMOV.com)	20
Gateway Guide	19
TV 2 (MyFOXSTL.com)	17
Metro (MetroStLouis.org)	14
Post 4 Traffic Online	11
Radio 1120 AM	8
GetAroundSTL.com	5
Other	4
Radio 550 AM	3
DontGetStuck.org	3
MidMetro4.com	3

## Traffic Congestion Strategies

Various traffic congestion strategies were implemented to reduce regional traffic congestion potentially caused by the displacement of 140,000 to 170,000 vehicles per day during the roadway closure. Public information is being sought on four of these strategies to evaluate to their impact in reducing the traffic congestion. The enhancement made at the beginning of this quarter to the web survey will assist in this evaluation. The effectiveness level ranges from 45% to 63% with the ineffective level ranging from 7% to 17%. The lane widening strategy received the highest level of effectiveness while also receiving the highest level ineffectiveness. The other noticeable fact was that 22% reported “No Idea” that the Motorist Assist and I-64 Traffic Response programs were used.

Effectiveness/Strategies	Lane widening along I-44, I-70 and I-270	Improve Signal Timing and Interconnection	Traveler Information on DMS and 511	Motorist Assist and I-64 Traffic Response Programs
Very Effective	30%	37%	28%	29%
Slightly effective	33%	20%	32%	16%
No difference	12%	9%	22%	15%
Slightly ineffective	7%	11%	3%	4%
Very ineffective	10%	5%	4%	3%
Have not noticed	2%	10%	3%	11%
No idea	6%	8%	8%	22%

## Commuters' Time of Travel

As indicated in this report, the 3<sup>rd</sup> Quarter web survey was revised on June 1, 2008 that presented different questions to gain additional in-sight and understanding of the public's opinion on the I-64 project. A time shift in beginning their commute to work or home does shift demand placed on the transportation network during peak period of travel. The following was a new question presented to the web survey participants to help evaluate commuter time of travel:

Shift in Commute Time	Percentage
Little earlier < 10 minutes	13
Earlier > 10 minutes	26
Little Later < 10 minutes	2
Later > 10 minutes	11
No Change Time	30
Not applicable	18

The shift to earlier commute times is 39% and a shift to later commute times is 13%. No change of time was 30% with 18% reporting not applicable. Almost 50% are not be leaving earlier or staying later.

## Travel Modes

While the 3<sup>rd</sup> quarter web surveys are a small sample, it does indicate some mode shifts towards carpooling, walking, biking, telecommuting and transit. Also, the increased carpooling shown in the figures below appears to correlate to the increasing matches reported by RideFinders.

### Travel Mode (1<sup>st</sup> and 2<sup>nd</sup> Quarters\* vs. 3<sup>rd</sup> Quarter\*\* Web Respondents Only)

Mode / Frequency	Never*	Never**	Few times a week*	Few times a week**	Almost Every Day*	Almost Every Day**
Riding the Bus	94%	89%	4%	10%	2%	1%
Biking	94%	87%	5%	12%	0%	1%
Riding MetroLink	82%	78%	15%	19%	3%	3%
Telecommuting	80%	75%	17%	20%	3%	5%
Walking	88%	77%	10%	20%	2%	3%
Driving with Others	51%	27%	35%	50%	14%	23%
Driving Alone	6%	5%	9%	19%	85%	76%

## Demographics

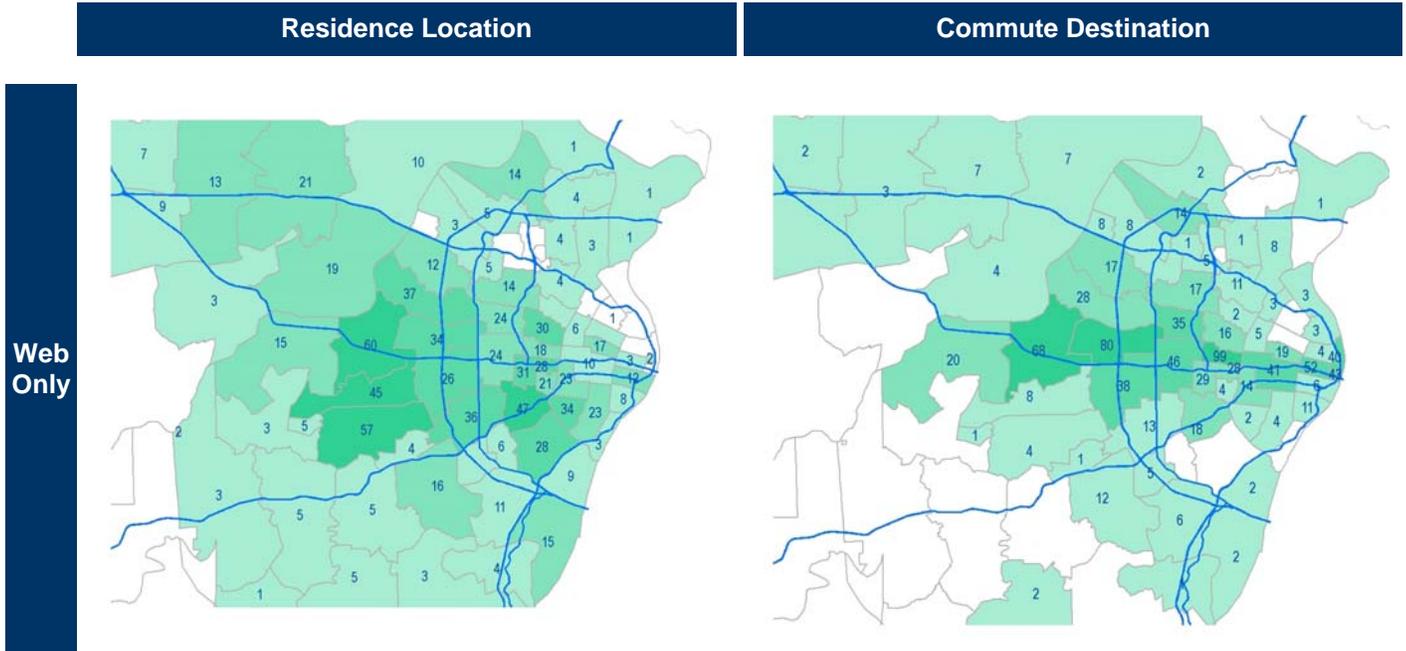
The table below summarizes the responses to demographic questions from the web site only for the 3<sup>rd</sup> quarter. Previous quarterly reports showed the mail-out survey and the 1<sup>st</sup> interview data. The entire information will be included in the 1<sup>st</sup> Annual report. The purposes of supplementing the Web survey with a mail survey was to reach populations without internet access, in order to ensure the research considered the input of as many groups as possible – a representative sample. By targeting these other methods of surveys, the research team continues to ensure a research objective of reaching a more diverse population, especially in reaching more minorities and more females. The next mail survey will be in the first quarter of 2009 and the 4<sup>th</sup> quarter will have detail information on the scheduled Zoo interviews.

The maps on the following page illustrate the zip codes of survey respondents within Missouri (a small portion of the responses – around 2 percent – were from outside the state). These results are preliminary; future reports will likely aggregate zip codes into larger geographic units with more statistical robustness.

### Demographics of Survey Respondents

Age		Web	Gender		Web
under 25		17 %	Male		61 %
26 to 40		38 %	Female		39 %
41 to 65		42 %			
Over 65		3 %			
Race		Web	Income		Web
American Indian		2 %	Less than \$20,000		2 %
Asian		3 %	\$20,000 to \$40,000		15 %
Black/African-American		5 %	\$40,001 to \$60,000		15 %
Hispanic/Latino		1 %	\$60,001 to \$90,000		25 %
White/Caucasian		85 %	\$90,001 to \$120,000		19 %
Other		4 %	\$120,001 to \$150,000		9 %
			\$150,001 to \$200,000		10 %
			More than \$200,000		5 %

### Survey Respondents' Residence, Commute Destination (by zip code)



## 3. Mobility

### Mobility Highlights

The study team continued the development of a series of systems to automate the collection, processing, and display of the enormous stream of available data. Key findings to date are listed below:

- Approximately 140,000 to 150,000 daily vehicles used the segment of I-64 between Ballas Road and I-170 before its closure. The assessment of where those vehicles have gone is still underway; based on the data in this report, the only large traffic increase seen with available data is on I-44. Volume data is still being evaluated for I-70, I-270, and the many parallel facilities that have been impacted by the closure. More data will be available next quarter, when year-old archive data from some of these facilities first comes on-line.
- Initial analysis of Traffic.com travel-time data has not indicated a significant variation in peak-hour travel times on key freeways in the region; however, additional study is needed before any conclusions can be reached.
- The RideFinders Rideshare program continued to experience increasing growth rates, with a 41+ percent jump in monthly rides in the year between August 2007 and August 2008. I-64 closure is a partial reason for this increase; however, the significant gas price increase has also contributed to people choosing to carpool or vanpool.

### Mobility Assessment Objectives and Methods

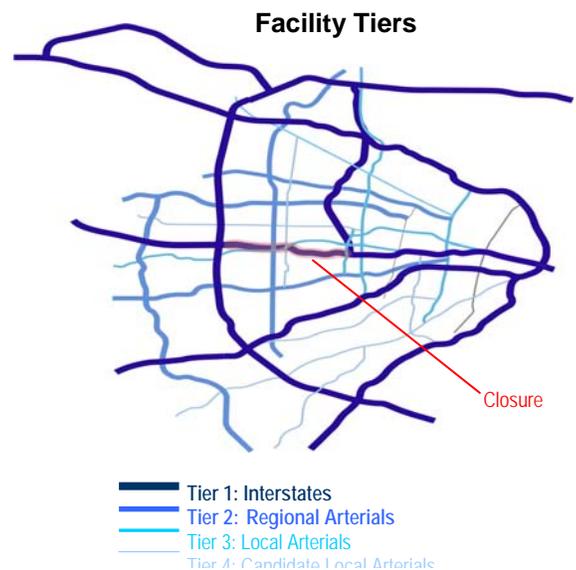
This assessment uses a variety of tools to measure the region's mobility before, during, and after the closure period. The assessment examines traveler shifts and their effects, using a

#### Major Goals – Mobility Assessment

- Assess the shifts (temporal, spatial, and modal) in travel demand throughout the region
- Assess congestion effects of the closure
- Assess closure effects on transit, ride-sharing, and park-and-ride demand.

multitude of data sources of varying resolution. The complexity and sheer size of the data set requires examinations at several levels, and future reports will continue to hone and refine the assessment.

The initial analysis of the region's roadways and highways is focused on facilities in four Tiers, as illustrated at right. Tier 4 facilities are being assessed to see whether they should be included in the Tier 3 grouping, or excluded from further analysis. For each of these facilities, relevant mobility data (traffic volumes, travel times, incidents) are being gathered throughout the duration of the closure to measure its regional impacts.



Mobility data is being obtained through numerous sources:

- MoDOT is providing historical traffic counts through its count program, as well as archived traffic data from the Gateway Guide system. In addition, MoDOT forces have conducted travel-time runs on key segments of Tier 2/3/4 facilities multiple times since the I-64 closure. MoDOT also maintains statistics for its park-and-ride facilities across the state, and is providing monthly count data for its facilities in the region.
- Traffic.com is a commercial Web site that provides, for highways in metropolitan areas across the U.S., real-time traffic congestion, travel-time, and incident data. These data are based primarily on sensors placed throughout the area. Traffic.com archives traffic volume, travel speed, and incident data – in 1-minute intervals – and has an agreement to share this information with MoDOT. The research team developed customized software routines to download, organize, prune, and analyze this data. They also provide travel times on limited arterials in the study’s impacted area that are being collected.
- St. Louis County has conducted traffic counts and travel-time studies on regional arterials periodically since the closure.
- Metro collects ridership information on MetroLink, MetroBus, Call-A-Ride, and special services, and is providing statistics aggregated on a monthly basis. In addition, Metro collects parking data at its stations with park-and-ride facilities. The research team continues to work with them on gaining access to this information.
- RideFinders, sponsored by Madison County Transit, is the St. Louis regional rideshare program. Rideshare data is provided on a monthly basis.
- The research team is supplementing data collection where necessary, including travel-time runs, traffic counts, and field observations.

## Mobility Results

### Pre-closure Capacity Improvements

It is important to note that regional mobility began to be affected by The New I-64 project even before the closure. Perhaps most notably, several highway/roadway capacity improvements were implemented by MoDOT and St. Louis County on parallel and complementary facilities, as listed at right. As the list indicates, one change has been reversed after monitoring field traffic flow operations.

In addition, Metro improved its transit system capacity in anticipation of the closure by increasing service frequency and adding new routes. The research team has recently received a complete list of these improvements, and they will be incorporated into the future annual reports.

### Key Improvements to Regional Highways/Roadways

- I-70** Re-stripe from I-170 to I-270 (add lane in each direction)
- I-44** Re-stripe from I-270 to I-55/I-70 (add lane in each direction)
- I-270/I-64** Re-stripe I-270 North of I-64 to Route 340 (add lane in each direction) and re-stripe I-64 Eastbound ramp to I-270 Northbound
- I-270/I-44** Re-stripe interchange’s ramps to improve traffic flow
- Clayton Road** Re-stripe from Mason Road to Lindbergh Blvd; upgrade various traffic signals; new traffic signals at Topping Road and Bopp Road
- Ladue Road** Upgrade various traffic signals; various new left/right-turn lanes; new traffic signals at Graeser Road/Warson Road
- Improved Signal Timing** along Page Avenue, Olive Boulevard, Manchester Road, Lindbergh Boulevard, Clayton Road, Brentwood Boulevard, Hanley Road, Big Bend Boulevard, Kingshighway Boulevard, Grand Boulevard, and Forest Park

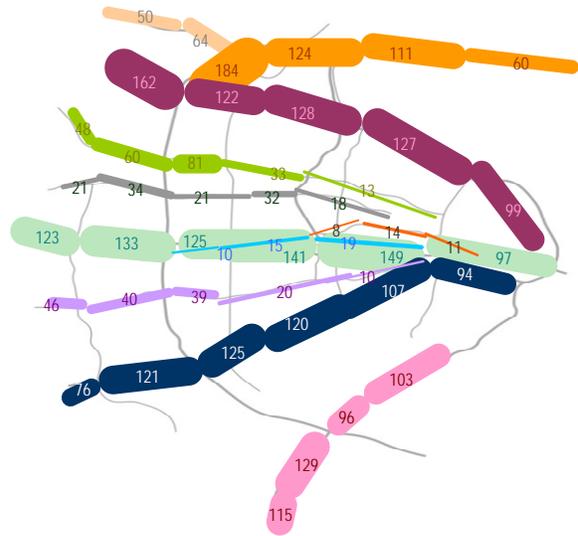
## Traffic Volumes

### Freeways

Prior to the closure, in baseline 2006, I-64 carried approximately 170,000 vehicles per day (vpd) on a typical weekday – this is Annual Average Daily Traffic, or AADT (excluding “outlier” days). 100 percent of this traffic was necessarily displaced (temporally and/or spatially) as a result of the closure.

Several sources are being used to evaluate the closure’s effects on traffic volumes - including before/after volumes (from MoDOT, Traffic.com, and St. Louis County), responses to the various public surveys developed, and selected aggregated data reported by MoDOT in its frequent e-mail briefings. The map at right, extracted from Traffic.com and MoDOT data, shows east-west daily traffic volumes for many of the key study facilities for the baseline year of 2006. Similar data has been extracted for the key north-south facilities (I-270, I-170, Lindbergh Boulevard, etc.) It is important to note that this information averages every non-holiday, non-“outlier” weekday from 2006, and therefore is not a good base against which to compare the effects of the closure for smaller periods (such as the current quarter under evaluation). However, it is useful for illustrating order-of-magnitude baseline conditions.

**Baseline Daily Weekday Traffic (000's)  
East-West Corridors (2006, full year)**

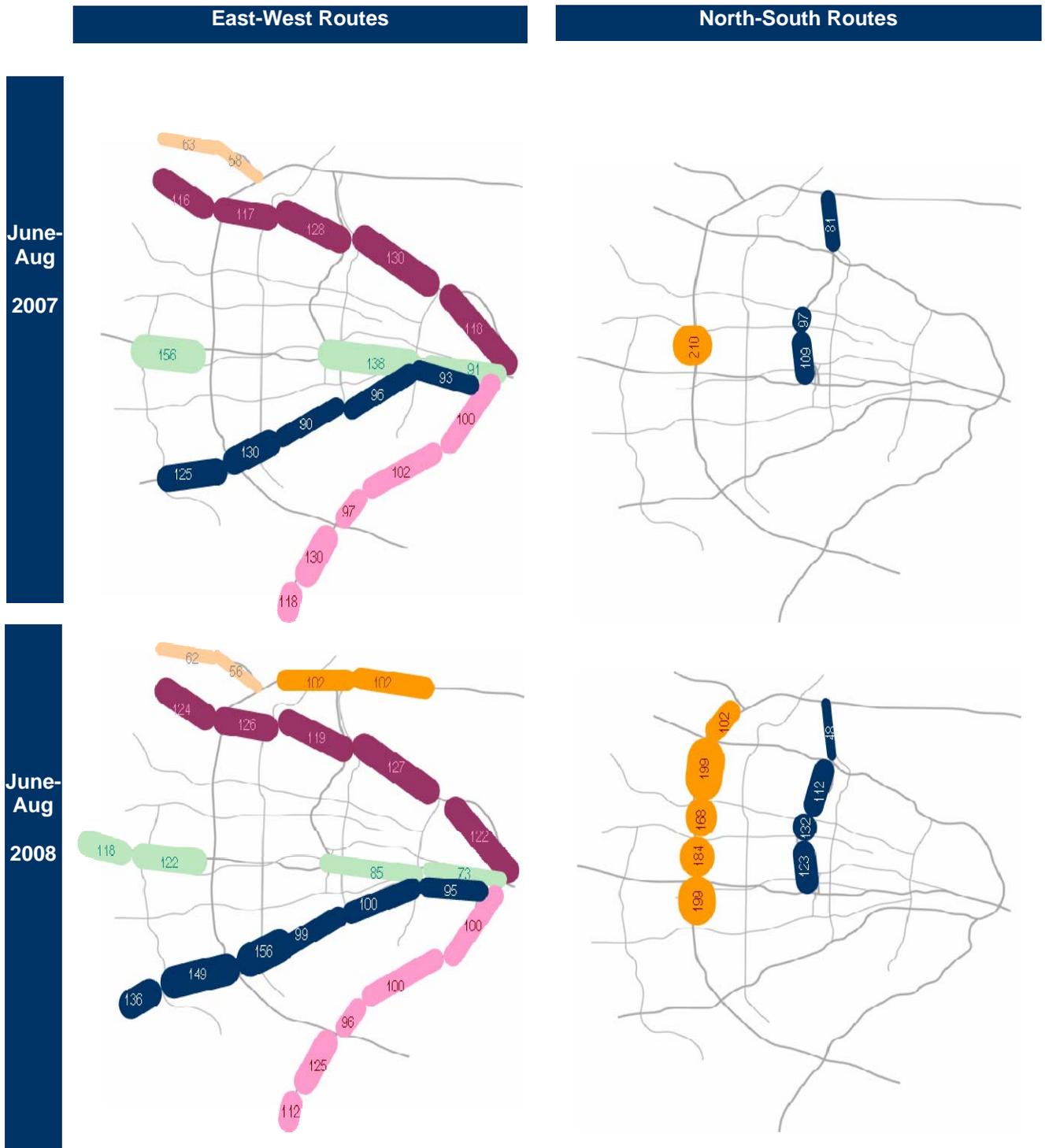


The maps on the next page show a more fair initial comparison for selected segments. They compare weekday June-August 2008 volumes with the June-August 2007 volumes. (Weekend volumes are also being assessed.)

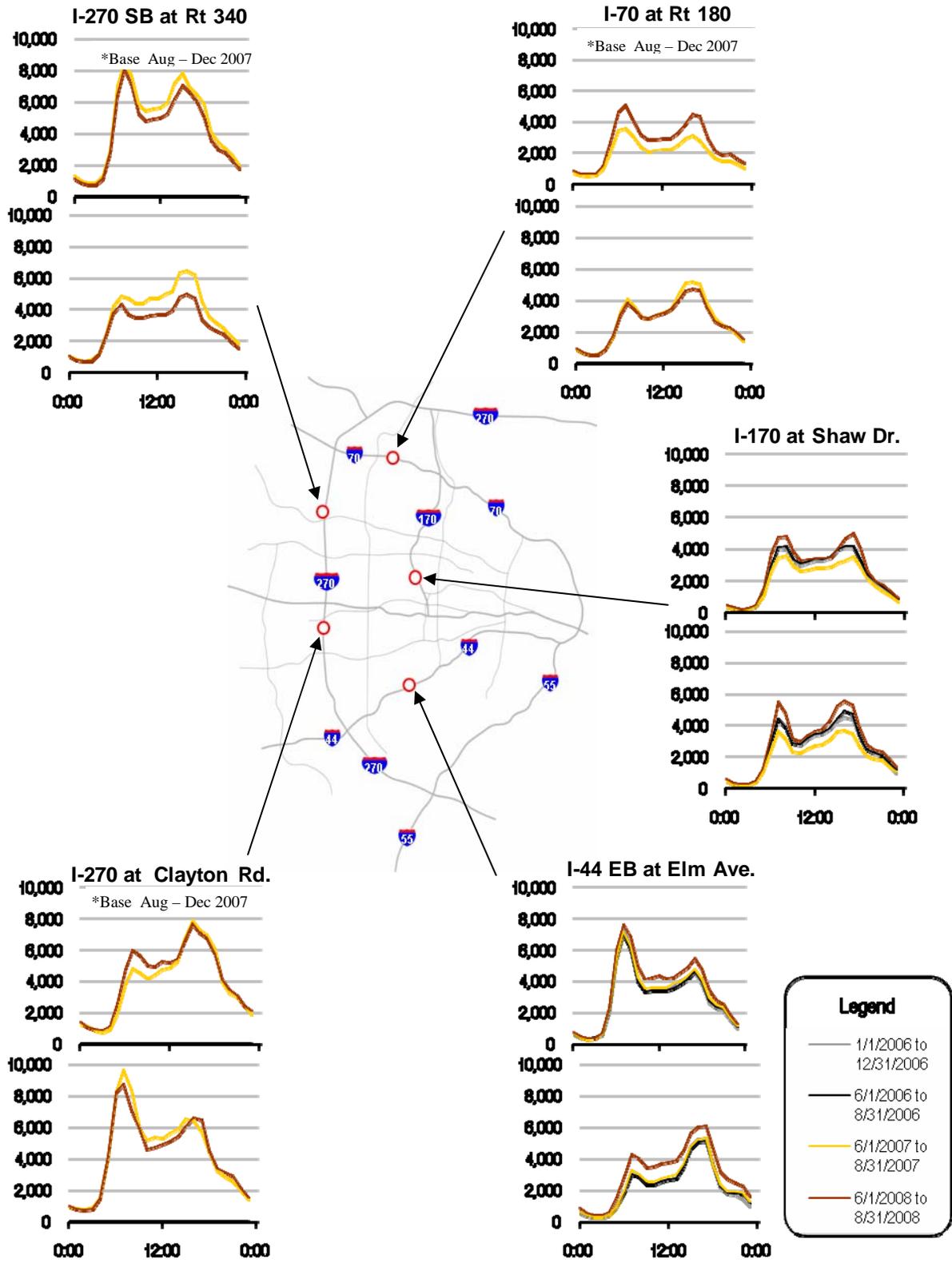
Based on these maps, the following preliminary conclusions can be gleaned:

- Daily traffic volumes on I-64 immediately east of the closure have decreased significantly since 2007 by 53,000 vpd.
- Daily volumes on I-55 appear to be roughly equivalent to those before the closure.
- Daily Volumes for I-44 just east increased by 26,000 vpd just east of I-270.
- Volumes on I-170 between I-64 and I-270 have increased by approximately 14,000 – 35,000 vpd compared to the previous year.

Daily Traffic Volume Comparison (000's) on Selected Segments, 2008 vs. 2007 (PRELIMINARY)

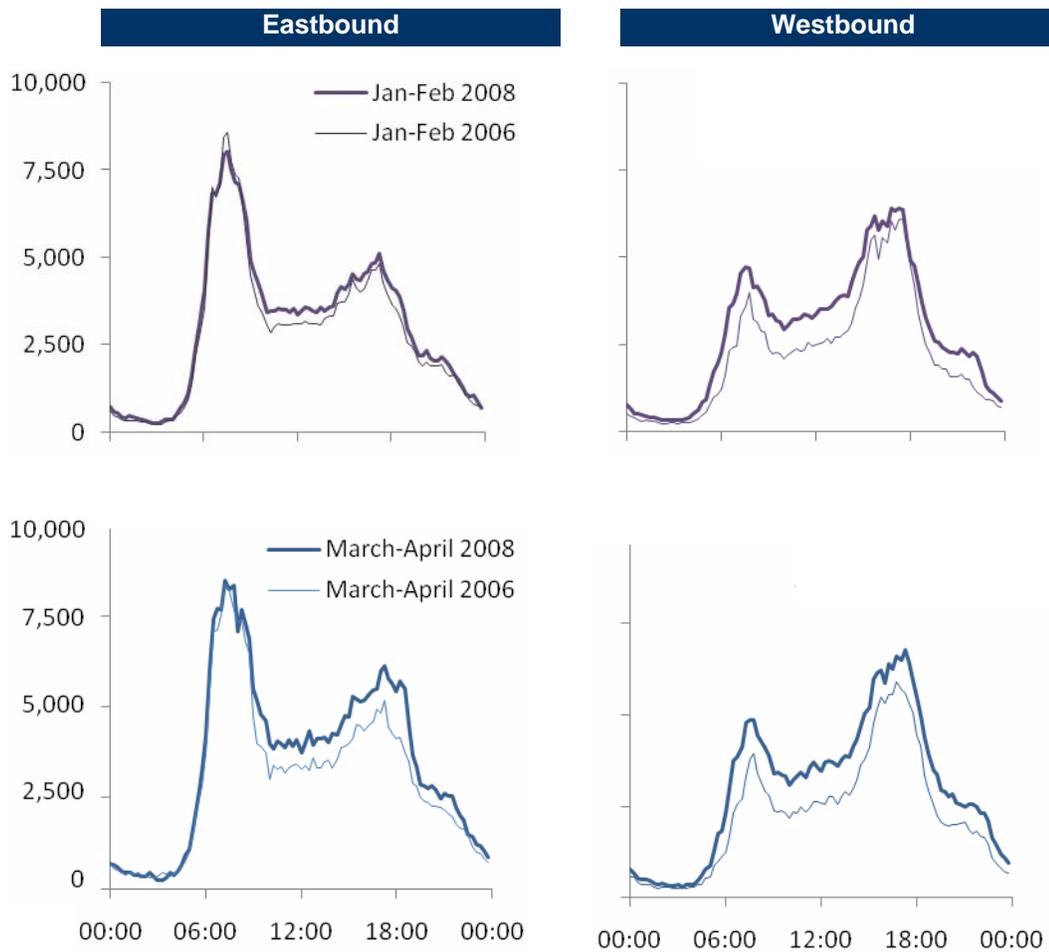


Below is the volume profile from select locations around the city. For reference, AM peak is top graph and PM peak is lower graph.



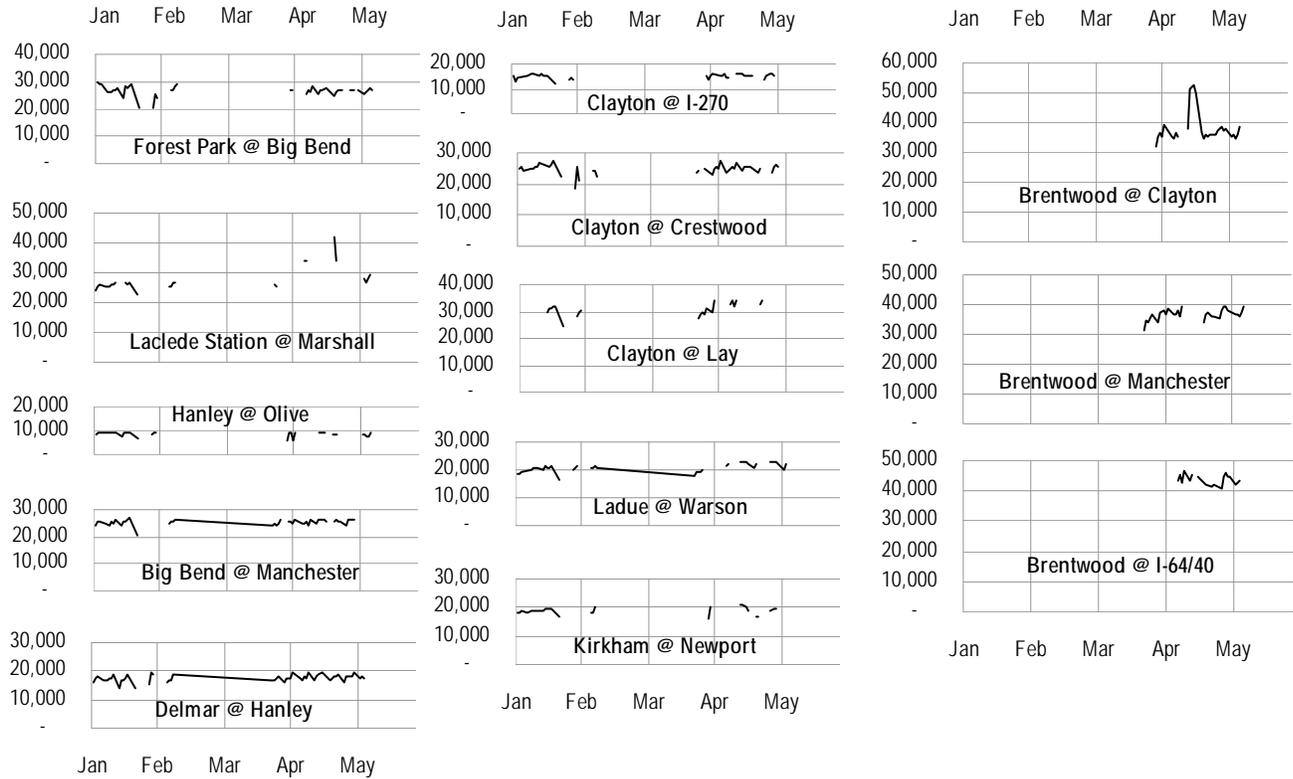
The Traffic.com data is also being examined at more refined resolutions, from hourly totals all the way down to five-minute volumes. The graphs below illustrate how the effect of the closure on the **duration of the peak period** is being examined. As the graphs indicate, overall volumes on this segment have generally increased, but the peak periods have spread as well. Data from this detection site was impacted during this quarterly reporting period, so we are just using previous information to show what data is available. Further analysis of this spread will be undertaken in the annual reports at various sites.

**Example 15-Minute Traffic Volume Profiles  
I-44 at Elm Avenue**



St. Louis County has been tracking arterial volumes since the I-64 closure. The graphs below illustrate ADT data available from the County and are under study to extract trend information. For many days on which data are not plotted, volumes are only available for one direction. No significant conclusions can yet be drawn from these data, but they will continue to be a resource as the study progresses. This information was presented in the 2<sup>nd</sup> Quarterly report and will be updated as additional information received.

### Average Daily Traffic Volumes Recorded by St. Louis County, 2008



MoDOT also collects volume data from many of the arterials in the region using its ACTRA system tied into signalized intersections. The graphs on the following pages examine volume trends on many of the key arterials during both peak hours on a monthly basis since the closure, including a comparison to a pre-closure baseline. The table and graph below presents a sample summary of data collected in the 2<sup>nd</sup> Quarter. **We continue to capture this information and will present it in more detail in the annual report with study conclusion.** Several limitations of the data should be noted:

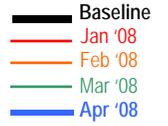
- The pre-closure data is from a single day, in most cases collected in November or December 2007.
- During the closure, not all days had available or usable data.
- This data reflects only through volumes approaching intersections; hence, right- and left-turning traffic is not included.

In spite of these limitations, the data reveals some anticipated patterns, such as volume increases on Page and Olive, which run parallel to the closure. Archiving and studying these data beyond the closure will help in understanding the closure's effects.

### Summary of ACTRA Volume Reporting Since Closure, Key Arterials

	A.M. Peak Period	P.M. Peak Period
<b>Olive</b>	<b>Eastbound and Westbound:</b> 50% to 80% increase at Old Ballas	<b>Eastbound:</b> 30% to 50% increase <b>Westbound:</b> 14% to 27% increase. (p.m. volumes higher than a.m.)
<b>Page</b>	<b>Eastbound:</b> 7% to 11% increase. <b>Westbound:</b> up to 10% increase (a.m. volumes higher than p.m.)	<b>Eastbound:</b> 15% increase (after initial slight dip of -0.6%) <b>Westbound:</b> 3% to 17% increase
<b>Manchester at Braeshire</b>	<b>Eastbound and Westbound:</b> 4% to 17% increase	<b>Eastbound:</b> 6% reduction (after initial January dip of 20%) <b>Westbound:</b> 9% increase (after initial dip of 7%)
<b>Manchester at Lindbergh</b>	<b>Eastbound:</b> 10 to 27% increase <b>Westbound:</b> 44% to 53% increase	<b>Eastbound and Westbound:</b> 12% to 22% increase
<b>Rte. 141 at Howard George</b>	<b>Southbound:</b> 4% to 20% increase <b>Northbound:</b> dip below pre-closure (after January increase)	<b>Southbound:</b> 5 to 10% decrease <b>Northbound:</b> 4 to 7% increase (except February dip of 7%)
<b>Lindbergh at Conway</b>	<b>Northbound and Southbound:</b> 20% to 40 % decrease	<b>Northbound and Southbound:</b> 20% to 40 % decrease
<b>Lindbergh at Manchester</b>	<b>Southbound:</b> 200% average increase <b>Northbound:</b> 40 to 65% reduction	<b>Northbound and Southbound:</b> 40 to 65% reduction

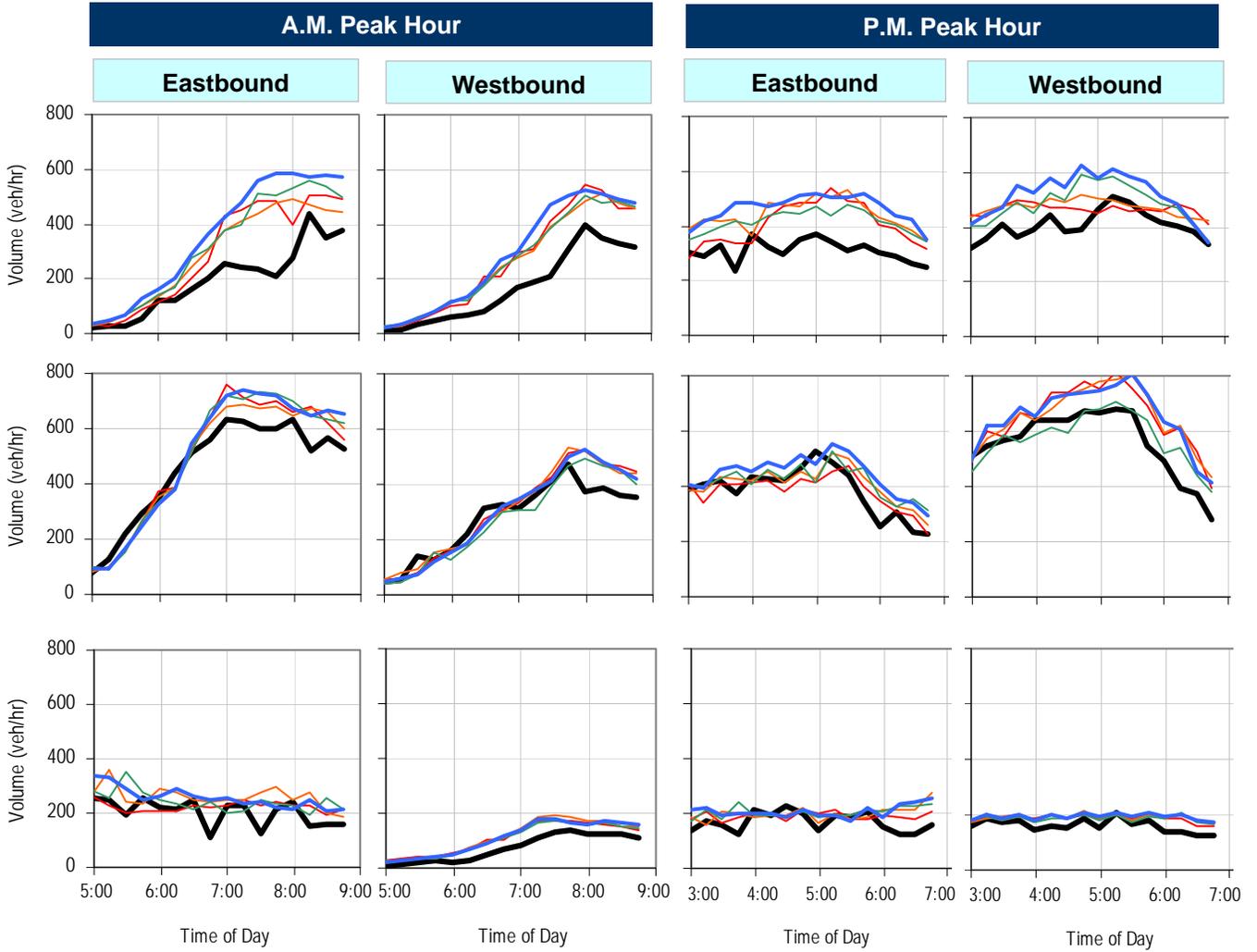
# East – West Routes



Olive @ Old Ballas

Page @ Ball

Rt100@Lindbergh



## Travel Times

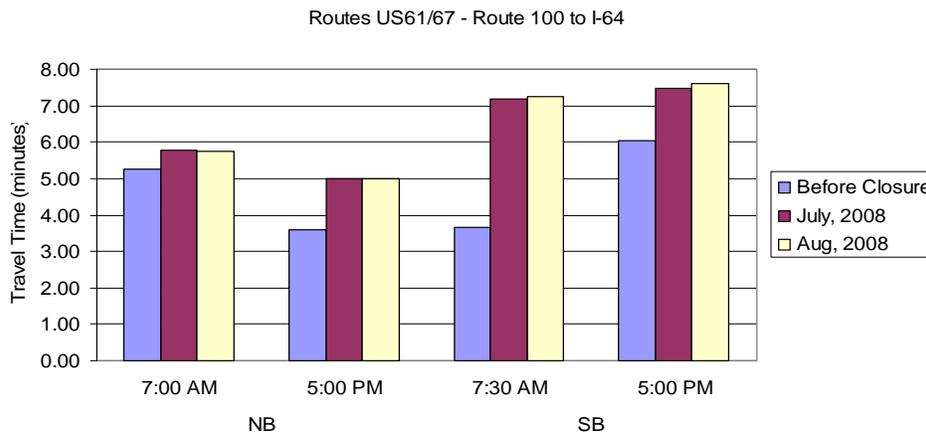
The research team is using Traffic.com's archived speed data to calculate travel times on freeway segments throughout the region. The table at right contains some of the data extracted. P.M. peak-period data are averaged over the current quarter, and compared with the last five months of 2007. The travel times in general do not show major variations from the pre-closure data, and also generally indicated faster travel times. The causes of these results will continue to be investigated, and could be attributable to a combination of peak-spreading, re-routing due to the closure, increased fuel costs, and other factors.

### Travel Times (min), Selected Freeway Segments (Preliminary)

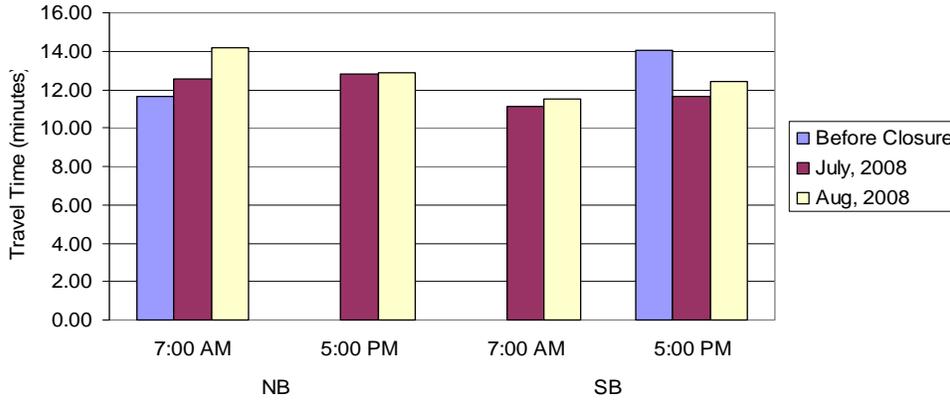
	Miles	Travel Time (min), P.M. Peak Hour	
		Aug-Dec '07	Jun-Aug '08
<b>I-70 from I-270 to I-170</b>			
EB	3.7	5.6	5.8
WB	3.6	6.3	5.7
<b>I-170 from I-270 to I-64/US 40</b>			
NB	3.7	7.9	7.1
SB	3.8	7.9	7.3
<b>I-270 from I-70 to I-64</b>			
NB	3.5	9.2	8.0
SB	3.5	9.8	7.8
<b>I-270 from I-64 to I-44</b>			
NB	6.5	7.3	6.6
SB	6.6	12.7	9.6
<b>I-44 from Rte 141 to Kingshighway</b>			
EB	3.0	13.6	12.7
WB	3.0	12.0	11.6
<b>I-64 from Rte 141 to I-270</b>			
EB	3.3	3.5	3.5
WB	3.3	2.9	3.0

## Arterials

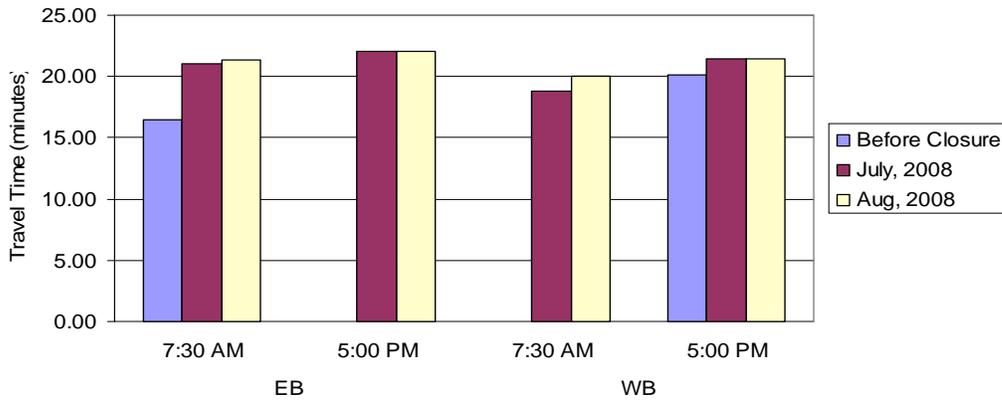
As stated above, MoDOT has produced a series of e-mail updates that provides key traffic information to drivers for use in planning their commuting trips. The information for four of the major arterial routes (available since July '08) is being supplied to MoDOT via Traffic.com and has been monitored by the research team as general indicators for arterial traffic flow near the closure area. For purposes of this quarterly report, a time period for each arterial was selected as the peak hour for comparison purposes. These charts below include the times selected for comparing the before and after closure travel times. The research team will be verifying these travel times in the field during the fourth quarter of 2008. Once more data has been collected; a more robust analysis will be completed.



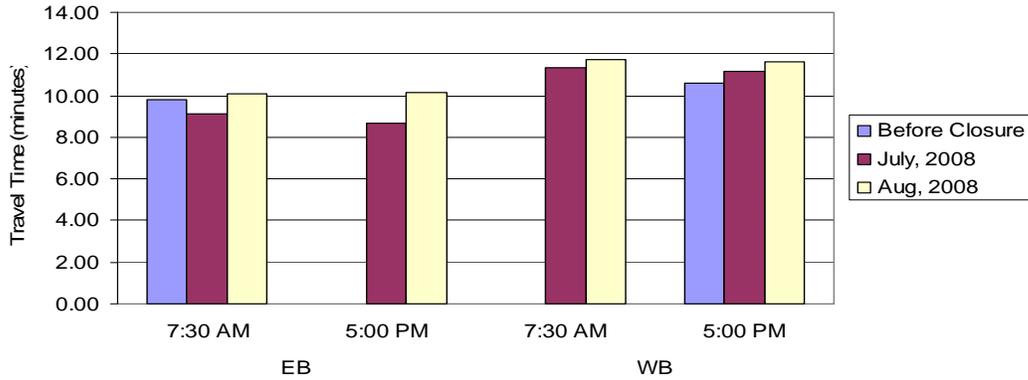
Route 141 - I-44 to I-64



Route 100 - Barrett to Hanley



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



## Park-and-Ride

The table below summarizes one year's worth of quarterly parking counts at MoDOT's Park-and-Ride lots in St. Louis County and neighboring counties. Updates to this table will be made as information becomes available. May's data was not available, but is being supplied and the quarterly report will be amended. Users at regional park-and-ride lots have an increased almost 600 vehicles between February 2008 and August 2008.

**MoDOT Park-and-Ride Volumes**

County	Lots	Total spaces	Vehicles Parked in Lot						Aug08
			Feb07	May07	Aug07	Nov07	Feb08	May08	
Franklin	6	413	295	205	189	175	168	167	202
Jefferson	11	962	321	337	379	386	367	430	448
St. Charles	12	1110	427	403	283	315	301	415	566
St. Louis	6	792	519	540	582	451	493	579	697
<b>Total</b>	<b>35</b>	<b>3277</b>	<b>1562</b>	<b>1485</b>	<b>1433</b>	<b>1327</b>	<b>1329</b>	<b>1591</b>	<b>1913</b>

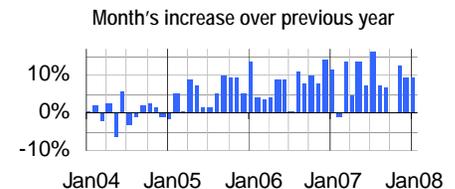
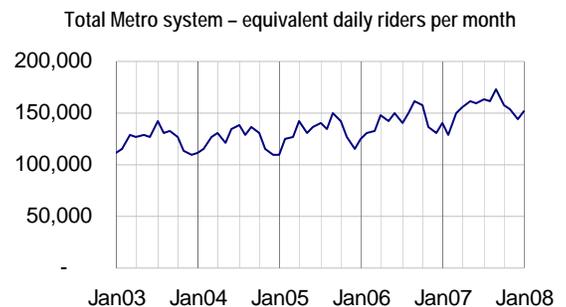
## Transit

At the time of this report, Metro statistics are only available through January 2008. The table and graphs at right summarize some key statistics regarding Metro usage. Ridership on the total Metro system in January 2008 (the first month of the I-64 closure) was over 9 percent higher than ridership in January 2007. However, as the graphs indicate, Metro ridership has been steadily increasing since at least mid-2005, and the increase seen in comparing January 2008/2007 data does not appear to substantially deviate from this trend.

Anticipated statistics from Metro will shed additional light on any closure-related transit trends. Information from Metro has not flow as desired based on the required time by Metro staff to put the information together. The research team understands the demands of Metro staff time and will make a concerted effort to gain detailed information for inclusion into the annual report. The annual report will be where most study conclusions will be made.

## Key Transit Statistics

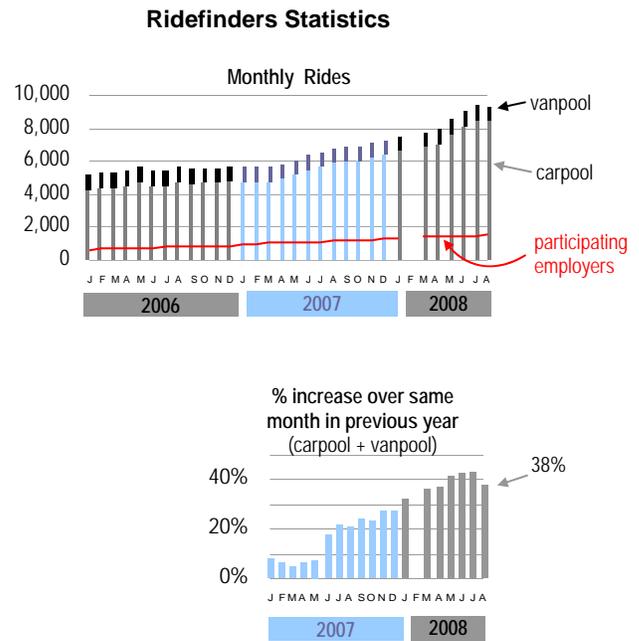
	Jan '08 ridership	Increase over Jan '07
MetroBus (fixed route)	2,723,970	9.1%
MetroLink (passenger rail)	1,944,205	9.4%
Call-a-Ride (paratransit)	60,167	8.4%
Total Metro system (includes services not listed)	4,733,423	9.3%



## Rideshare

RideFinders, sponsored by Madison County Transit, is the St. Louis regional rideshare program. The graph at right shows historical ridership for RideFinders, and indicates a general upward trend since the second half of 2007. The lower portion of the figure further illustrates this jump in ridership by indicating, for each month, the percentage increase over the previous year. As the graph indicates, one-year increases in 2008 have been over 40 percent, much higher than in 2007. Obviously, some portion of these increases can be attributed to rising fuel costs, but the I-64 closure also has been a likely contributor.

The research team is working with RideFinders to obtain more details to help correlate rideshare activities with I-64 closure statistics.



## 4. Economics

### Economics Highlights

#### Major Components of Economic Analysis

Analysis of pre-closure and current conditions

Determine the effectiveness of the reconstruction and traffic management strategies on the local economy

Identify the strategies that are the most appropriate for near-term and long-term economic vitality based on special data tabulations, survey results, and individual

The primary highlight for this quarter is collection and analysis of the special data tabulations from Missouri Economic Research and Information Center (MERIC) and other published data to quantify the economic conditions before and following the Western closure of I-64. To date, MERIC has provided HDR with economic data for first quarter 2006 and all four quarters of 2007. Given the time lag in available economic data indicators, this quarterly report will only focus on the currently available and collected data for the first two quarters of 2008.

### Economic Analysis Progress

Current activities to date include:

- Collection of the identified published economic, demographic, and fiscal data.
- Received from MERIC special ZIP-code-level data for the first quarter of 2006 and all four quarters of 2007. The economic data included: industry employment, wage, and establishment data tabulations.
- Analysis of Second Quarter 2008 Taxable Sales Data from Missouri Department of Revenue (DOR)
- Completion of the first business survey and interviews
- The final results of the survey were presented on July 17, 2008. The results were discussed with MoDOT and the attending local and regional economic development/business organizations.

### Economic and Fiscal Data Analysis

The preliminary analysis of the first custom economic dataset from MERIC has been completed. Once more recent quarterly data is available from MERIC, and other published sources, our analysis will extend the precondition analysis forward through the second quarter of 2008. The precondition analysis is complete and has established a baseline for conditions before construction. Table 1 below shows the total employment, establishments, wages, and taxable sale by region. Between the third and fourth quarter of 2007 there was positive growth in employment, wages, and subsequently sales for both the corridor and non-corridor regions of St. Louis City and St. Louis County, while there was a small decline in the number of establishments.

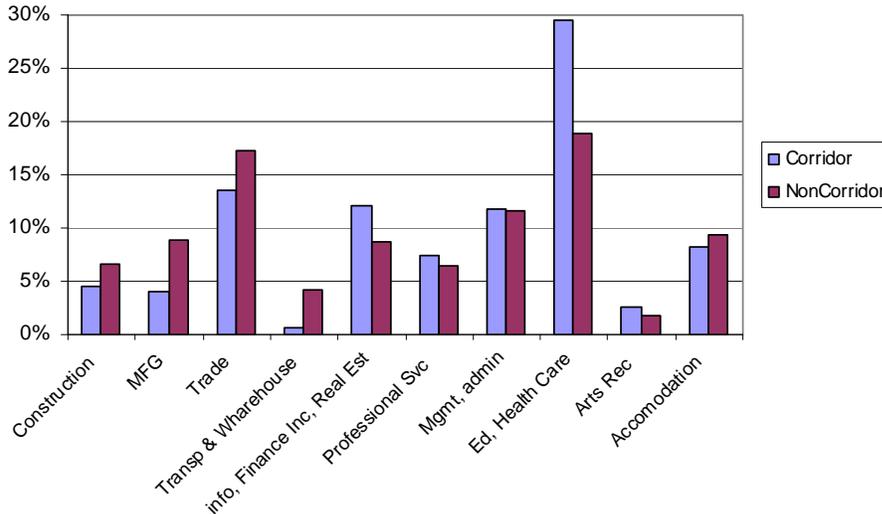
**Table 1 St. Louis I-64 Corridor and Non-Corridor Economic Profile**

	3 <sup>rd</sup> Quarter 2007		4 <sup>th</sup> Quarter 2007	
	Corridor	Non-Corridor	Corridor	Non Corridor
Jobs	201,200	628,100	205,271	632,136
Number of Establishments	9,405	31,445	9,333	31,318
Wages (\$ Millions)	\$ 2,471	\$ 6,753	2,785	7,541
Total Taxable Sales (\$ Millions)	\$ 927	\$ 4,167	1,016	4,420

Source: MERIC and Missouri Department of Revenue

Figure 1 shows the employment by industry share for each region. In terms of employment, the corridor region has a heavy concentration in finance and real estate, which will be tracked considering national trends in banking, finance, and real estate. In addition the high percentage of health care within the corridor is unique as its services are not like other commodities, and will be followed closely in the following quarters.

**Figure 1 Employment by Industry Share: Corridor and Non-corridor Regions for 4<sup>th</sup> Quarter 2007**

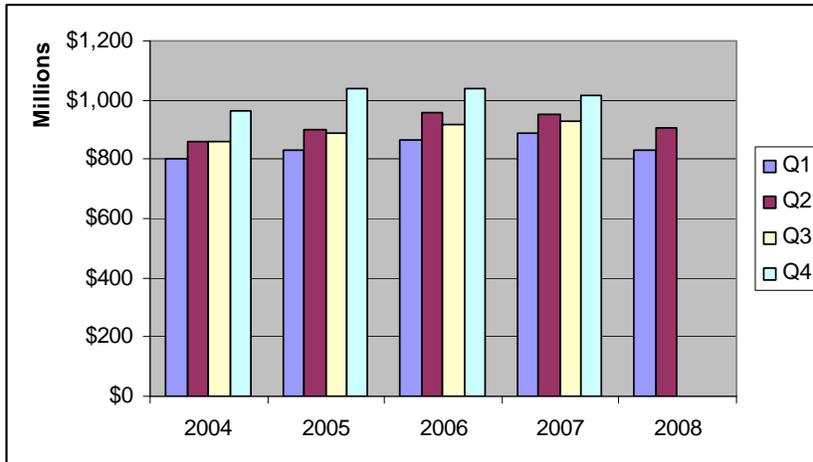


The quarterly released ZIP code level data from Missouri DOR for Taxable Sales has been processed up to the second quarter of 2008 showing the local consumer sales trends and impacts (as seen in the figures below). For both regions, the taxable sales have declined from the first and second quarters of 2008 when compared to the first and second quarter of 2007, as seen in Table 2. However, the change in taxable sales is not consistent for both regions as the corridor region slightly improves from -6.6% to -4.4%, while the non-corridor sees a further decline in sales for the second quarter of 2008. The significant changes between the first and second quarters of 2007 and 2008 suggest that the national economic slowdown is likely influencing the region. Further analysis will focus on the national economic conditions and the magnitude of its influence on the region. Figures 3 and 4 show the total taxable sales by quarter for each region, which consistently demonstrates that the second and fourth quarters of each year are the strongest.

**Table 2 Taxable Sales Growth by region and Quarter**

	1st Quarter		2nd Quarter	
	2006 to 2007	2007 to 2008	2006 to 2007	2007 to 2008
Corridor	2.8%	-6.6%	-0.6%	-4.4%
Non-Corridor	1.8%	-1.3%	1.3%	-2.9%

**Figure 2 Quarterly Taxable Sales for Corridor Region 2004 to 2008**



**Figure 3 Quarterly Taxable Sales for Non-Corridor Region 2004 to 2008**

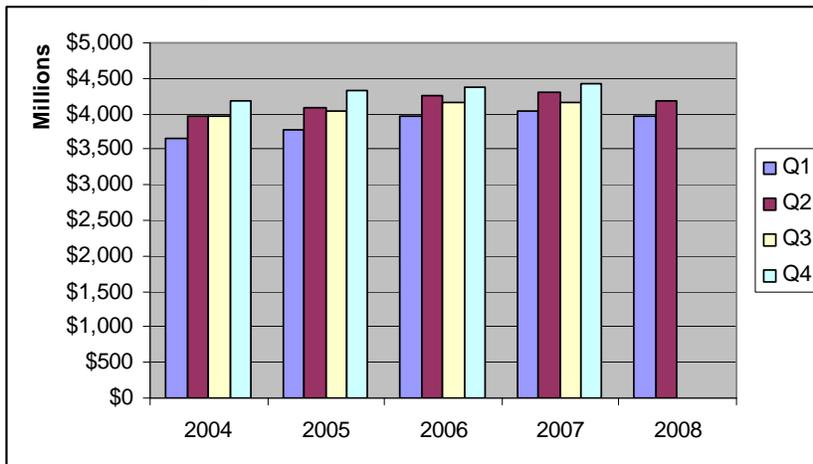


Table 3 shows the analysis of the taxable sales by major commodity group for the first quarters of 2006 through 2008. The taxable sales for wholesale trade are showing positive growth compared to previous years, despite the total taxable sales for the county declining. This could be explained by a shift in consumer spending away from general merchandise stores towards wholesale.

**Table 3 Taxable Sales by Major Commodity for St. Louis County: First Quarter; In Dollars**

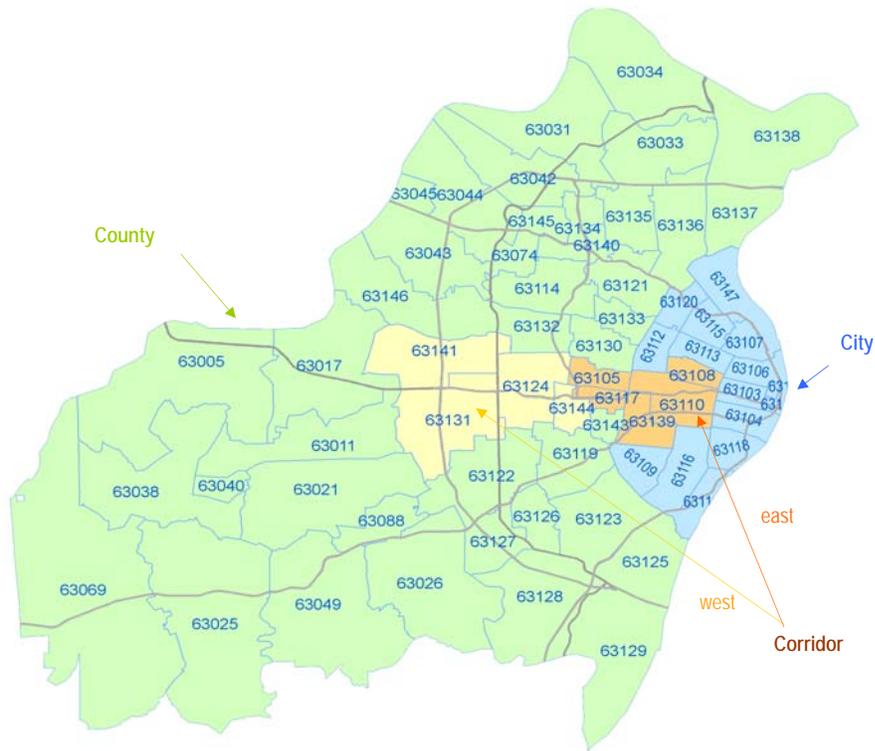
St. Louis County	2006 (1 <sup>st</sup> Q)	2007 (1 <sup>st</sup> Q)	2008 (1 <sup>st</sup> Q)
Wholesale trade – nondurable goods	115.05	119.52	128.47
General merchandizing stores	511.10	537.61	477.74
Food stores	407.08	412.96	426.21
Eating and drinking places	407.59	421.91	425.01
Personal services	24.53	23.98	24.13

### Conclusions and Future Steps

It is anticipated that the first quarter of 2008 data from MERIC will be available before the end of September 2008, and will provide more information on the initial economic impacts from I-64’s January

2008 closure. This published data is at the ZIP code level for both St. Louis County and St. Louis City. The data has been sorted by geography (corridor or non-corridor) to be consistent with the geographic units used in the Business Survey analysis. In addition, quarterly ZIP code level data from Missouri Department of Revenue for Taxable Sales is being processed to gauge local consumer sales trends and impacts. The data by ZIP code includes industry detail at the two-digit NAICS level for the number of establishments, total wages, and the number of jobs. The map below demonstrates the 9 ZIP code areas impacted by I-64 closures (corridor) and the ZIP codes that make up the remainder of St. Louis City and St. Louis County (non-corridor).

### Zip Code Definitions for Study Regions



Moving forward, the second businesses survey is currently being drafted and will be sent to the business community working group for comments. The anticipated release of the second online business survey will be in the month of October.

## 5. I-64 Traffic Response

### I-64 Traffic Response Highlights

#### Major Goals – I-64 Traffic Response Assessment

- Assess benefit/cost of the current I-64 Traffic Response deployment (arterials)
- Assess value of continuing future arterial highway service patrol efforts
- Develop white paper that provides a sustainable approach to consideration of future arterial

The main highlight for this quarter was the collection of the I-64 Traffic Response surveys. These surveys are provided during each assist performed. This survey is providing information from motorists receiving these services, including information on location, response/wait time, services provided, the professionalism with which services were provided, and the user opinion on the value of the services. Additional questions on the I-64

project were also included to help gauge users' opinions on the I-64 project and to connect these services with the I-64 project. The survey form identifies the sponsors, and provides information on the regional traveler information systems (511 and Gateway Guide). 596 surveys have been completed and received during the first five months for the I-64 Traffic Response with 2312 from Motorist Assist. This source of survey input represents 60% of total information received on the I-64 study. In the next quarter, the study team plans to conduct interviews with staff involved with this operation and start the evaluation of responses made by the I-64 Traffic Response team.

### I-64 Traffic Response Objectives and Methods

This assessment will utilize information collected from transportation users, I-64 Traffic Response staff, previous research/study efforts, and the mobility assessment component to establish the benefit/cost of the program. This information will then be used to forecast the future value of continuing regional arterial highway service patrol efforts. The assessment will explore the following potential expanded arterial highway service patrol alternatives:

- Expanded services only during major or roadway closure construction activities
- Continuous services along major regional arterial corridors
- Limited-response services along major arterial corridors by expanding the region's Motorist Assist Program and the utilization of the region's integrated management and operation system

A draft white paper will be delivered by January 2, 2009 with the final white paper delivered by February 1, 2009 that will outline a sustainable approach regarding when regional arterial highway patrol services should be considered. This deliverable will provide the region the time necessary to evaluate, determine potential funding sources and implement desired recommendations.

### I-64 Traffic Response Results

MoDOT performs service patrol activities where operators travel busy highways and provide assistance at incident sites for stranded motorists and crashes. By quickly helping to resolve problems, this program increases the safety and mobility of all motorists in the area. MoDOT's Motorist Assist program concentrates on the interstates, and I-64 Traffic Response sponsored by St. Louis County covers major arterial roads such as Manchester Road and Olive Boulevard. Starting on January 2, 2008 – the day of the closure – these programs' operators began distributing surveys to those they assisted to obtain feedback about operator performance, and as another method to learn how the closure is impacting motorists.

Responses indicate that motorists are very satisfied with operator performance, and their closure responses were similar to those obtained in the web and mail studies. The table below summarizes some of these satisfaction measures. While limited two questions, they reflect important questions on the I-64 closure on the project delivery method and regional mobility impacts. The distribution and receipt of surveys will continue throughout the study period, with quarterly updates being made.

**Percent Respondents Expressing Satisfied or Very Satisfied**  
Motorist Assist and I-64 Traffic Response Surveys

	Decision to close for 2 years vs. 6-8			Ability to move around the St. Louis area		
	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter
Motorist Assist survey respondents	89 %	94 %	93%	89 %	91%	88 %
I-64 Traffic Response survey respondents	89 %	95 %	93%	90 %	93%	93 %

**Appendix A: Communications Data**

- Enhanced Web Survey
- Open-end Question Comments from Web Survey
- Public Official Interviews

**Appendix B: Mobility Data**

**Appendix C: Economic Data**

**Appendix D: Traffic Response Data**

## Welcome to the I-64 Survey

We appreciate your time and interest in sharing your opinion. This information is being collected, summarized, and reported to the Missouri Department of Transportation (MoDOT) to help them serve you better. We (Heartland Market Research LLC and HDR Inc) are independent contractors who have been hired to collect this information and provide it to MoDOT. Our only interest in this project is to provide accurate information about what you think, so please respond as accurately and completely as possible.

Most of the questions in this survey relate to the I-64 (Highway 40) project and how this impacts you. In 2008, I-64 will be closed in both directions between Ballas Road and I-170 for construction improvements and re-opened in 2009. In 2009, I-64 will be closed in both directions between I-170 and Kingshighway Boulevard.

We are interested in your opinion over time. We invite you to return and take our survey every month.

### Have you taken this survey before?

- No
  - Yes
  - I'm not sure
- 

## Travel

In a typical week before the closure, how often did you travel on the closed section of I-64 (Highway 40)?

- Never
- Very rarely
- Once a week
- Two to three times a week
- Most weekdays
- Almost every day

In which of the following times do you *routinely commute* in the St. Louis area?  
(Select all that apply)

- Morning: Before 7:00 AM
  - Morning: Between 7:00 AM and 9:00 AM (peak morning traffic)
  - Morning: Between 9:00 AM and noon
  - Afternoon: Between noon and 3:00 PM
  - Afternoon: Between 3:00 PM and 6:00 PM (peak afternoon traffic)
  - Evening: After 6:00 PM
-

Please indicate your agreement (or disagreement) with the following statements about how the closure of I-64 (Highway 40) between Ballas Road and I-170 has impacted you?

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
The closure has changed where I shop	<input type="radio"/>				
The closure has changed where I buy gas	<input checked="" type="radio"/>				
The closure has changed my attendance to events like a baseball game, Forrest Park attractions, and similar activities near the closed section.	<input type="radio"/>				
The closure has changed where I eat out	<input checked="" type="radio"/>				
The closure has changed how often I travel to certain areas	<input type="radio"/>				
The closure has changed where I work	<input checked="" type="radio"/>				
The closure has changed where I live	<input type="radio"/>				

Has the closure of this section of I-64 changed your work habits?  
(Mark all that apply)

- No - I still work the same hours in the same location as I did before the closure
- Yes - My hours have shifted
- Yes - I now work from another location (home, another office, etc.) more often
- Yes - I quit my job and accepted one somewhere else
- Yes - other

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## Personal Impact of Closure, Page II

Now that I-64 construction is underway, have you shifted your commute time to work and/or school?

- Yes - I now leave a little earlier (1 to 10 minutes earlier)
- Yes - I now leave earlier (more than 10 minutes earlier)
- Yes - I now leave a little later (1 to 10 minutes later)
- Yes - I now leave latter (more than 10 minutes later)
- No - I have not changed my commuting schedule to work and/or school
- No - This question is not applicable to me

If you want to provide more details about how the closure has affected you, please do so here.

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## Your Opinion, Page I

Please indicate your level of satisfaction with the following:

	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied
How well the public has been kept informed about the New I-64 Project?	<input type="radio"/>				
The timeliness of the information being made available?	<input type="radio"/>				
How alternative travel options have been communicated?	<input type="radio"/>				
The traffic flow within construction work zones (other construction where you may travel)?	<input type="radio"/>				
How understandable and accurate are the construction work zone signs?	<input type="radio"/>				
How well are you managing to move around the St. Louis area with the closure of I-64?	<input type="radio"/>				
The decision to complete the work by closing I-64 for 2 years instead of taking 6-8 years with lane closures?	<input type="radio"/>				
Your overall level of satisfaction with how the I-64 closure has been handled?	<input type="radio"/>				

If you want to provide more details about any of the issues listed above, please do so here.



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## Alternative Routes

Improvements were made to designated alternative routes to help address potential traffic congestion. Please provide your opinion on how effective these improvements have been.

	Very Effective	Slightly Effective	No Difference	Slightly Ineffective (Worse)	Very Ineffective (Worse)	I Have Not Noticed	No Idea
Temporary lane addition in shoulder area along I-44, I-70, I-270 and Page.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Permanent traffic signal timing and interconnection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traveler's information displayed on interstates and available on 511.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I-64 Traffic Response services on non-interstate roads to assist motorists and emergency response staff in early clearance of incidents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you would like to provide additional feedback on how effective (or ineffective) these improvements have been, please do so below:

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## Feedback

What is the best way for MoDOT to get information to you about road improvements and other road and bridge information?

(Mark all that apply)

- TV News
- Radio News
- Radio Talk Shows
- Newspapers
- Internet Sites [If selected, the respondent goes to next page; else the respondent goes to the Demographics page.]
- Receive information in mail (newsletter, etc.)
- Project email from MoDOT or I-64 Team
- Project display boards at public gatherings
- Road signs providing information on construction work
- Other

Please use this space to provide additional detail about how MoDOT could best provide you with information.

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## Internet

On the previous page, you indicated that the internet was a good way to get information to you. Please indicate which site(s) that you visit.

(Mark all that apply)

- GatewayGuide.com
- MoDOT's website (MoDOT.org and/or MoDOT.gov)
- The New I-64 site (TheNewI64.org) [If selected, the respondent goes to next page; else the respondent goes to the Demographics page.]
  
- Metro (MetroStLouis.org)
- DontGetStuck.org
- GetAroundSTL.com
- MidMetro4.com
- Post-Dispatch website (STLToday.com)
- Post 4 Traffic Online (post4trafficonline.com)
- Radio AM 550 website (KTRS.com)
- Radio AM 1120 website (KMOX.com)
- TV Channel 2 website (MyFOXSTL.com)
- TV Channel 4 website (KMOV.com)
- TV Channel 5 website (KSDK.com)
- Other

If you heard about the closure through one or more sites not listed above, please tell us which site(s).

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**The New I-64 Site ([TheNewI64.org](http://TheNewI64.org))**

**What information on the I-64 Project website do you find most useful?**

- Commuter Alternatives (Transit/Carpooling Options)
- Construction Zone (Ongoing Closures)
- Map My Trip
- Newsroom
- Project Overview
- Traffic Impacts (Today's Closures)
- Web cams and/or Photo Gallery
- None of the Above

**What additional information would you like to see on the I-64 Project website?**

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## Demographics

*These questions are asked because we need to make sure that we are not missing any groups of people from our survey.* Feel free to skip any questions that make you uncomfortable.

Are you male or female?

- Male
- Female

Please choose your age group

- Under 16
- 16 to 25
- 26 to 40
- 41 to 65
- Over 65

What was your approximate *household* income in 2007?

- Less than \$20,000
- \$20,000 to \$40,000
- \$40,001 to \$60,000
- \$60,001 to \$90,000
- \$90,001 to \$120,000
- \$120,001 to \$150,000
- \$150,001 to \$200,000
- More than \$200,000
- I do not know

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## Demographics - Last Page

*These questions are asked only to make sure we are not missing any groups of people from our survey.* Feel free to skip any questions that make you uncomfortable.

**We are interested in traffic flows. It would help us a lot if you could tell us two zip codes. If you are not sure, just leave them blank.**

What is your home zip code? (where you are currently living)

What is your work zip code? (if you go to school, please enter your school zip code. If you do not otherwise work, please leave blank).

**To what ethnic groups do you belong? (Mark all that apply)**

- American Indian
- Asian
- Black or African-American
- Hispanic or Latino
- White or Caucasian
- Other

If you heard about the closure through one or more sites not listed above, please tell us which site(s).

Quarter	Frequency	Percent	Valid Percent	Cumulative Percent
Q3 Valid	92	96.8	96.8	96.8
97.1 FM, 89.1 FM	1	1.1	1.1	97.9
I have been very frustrated with finding specific information online. (ie, when the McKnight bridge would be open. Fortunately the McCutcheon road signs kept me informed.	1	1.1	1.1	98.9
mapquest	1	1.1	1.1	100.0
Total	95	100.0	100.0	
Q4 Valid	14	100.0	100.0	100.0

What information on the I-64 Project website do you find most useful?

Quarter	Frequency	Percent	Valid Percent	Cumulative Percent
Q3 Valid	15	15.8	32.6	32.6
Construction Zone (Ongoing Closures)	2	2.1	4.3	37.0
Map My Trip	5	5.3	10.9	47.8
Project Overview	10	10.5	21.7	69.6
Traffic Impacts (Today's Closures)	12	12.6	26.1	95.7
Web cams and/or Photo Gallery	2	2.1	4.3	100.0
None of the Above	46	48.4	100.0	
Total	49	51.6		
Missing System	95	100.0		
Total				
Q4 Valid	1	7.1	20.0	20.0
Construction Zone (Ongoing Closures)	3	21.4	60.0	80.0
Traffic Impacts (Today's Closures)	1	7.1	20.0	100.0
None of the Above	5	35.7	100.0	
Total	9	64.3		
Missing System	14	100.0		
Total				

What additional information would you like to see on the I-64 Project website?

Quarter	Frequency	Percent	Valid Percent	Cumulative Percent
Q3 Valid	85	89.5	89.5	89.5
Again, more frequent photos, and maybe more web cams.	1	1.1	1.1	90.5
Also, web cams are great.	1	1.1	1.1	91.6
I would like to see the changes reflected in the four year plan and not just the road closures/openings. In other words, what will it look like in 2010.	1	1.1	1.1	92.6
I-64 and Kingshighway to Oakland just a comment-think the photos updated usually weekly are great,they give a sense of progress presented visually,since we dont actually get to see most construction areas(except in the Brentwood area) and can't see the rate at which progress is being made-the photos convey some sense of how fast work is being done	1	1.1	1.1	93.7
More detailed project plans, timelines, schedules. When are you raising girders, doing grading, what sections are being paved, etc.	1	1.1	1.1	94.7
The Map My Trip function guided me 4 miles out of the way to get to my destination. update the progress. Are you ahead of schedule, behind schedule? Are you starting some projects early? Some late? If you do finish the first half early, will you start the 2nd half early or wait?	1	1.1	1.1	96.8
updates on road openings as well as closures, and/or expected dates for temporary closed roads other than 40	1	1.1	1.1	97.9
where can I cross I-64? what roads currently cross, when will they be shut down and when will they be reopened.	1	1.1	1.1	98.9
Total	95	100.0	100.0	100.0
Q4 Valid	14	100.0	100.0	100.0

## Public Official Interview Update

Interviews with City's of Ladue, Frontenac, Richmond Heights, St. Louis County and US Representative Akin's Office completed. We are still scheduling meetings with the City of St. Louis and several state legislators.

### *Project Planning Period (Prior to Construction Award)*

#### **1. How well did MoDOT communicate with you and your constituents during the regional planning phase? What worked well and what could be enhanced?**

- Reasonably well
- Too much time wasted during design process
- Too much info for stakeholders to be involved
- Insisted on being involved throughout process and were actively engaged
- Meetings with Residents were good
- Project was evolving as time went on
- Feedback from MoDOT on why certain decisions were made between meetings would have been desired
- Good Information Sharing – Individual, Elected Official Briefings, web sites, newspaper, radio, etc. – used all sources very well in sharing project planning

#### **2. What were some of the issues or potential impacts identified during the planning stage? Were your constituents satisfied with the responses they received on these issues or impacts?**

- Number of meetings
- Well involving City Officials early in process
- Maybe not sensitive enough at local level
- Municipal league meetings should have been completed in border Cities
- Intensive number of meetings. Try to shorten process.
- Maintenance of green space
- Lighting impacts, sound walls
- ER access during DB process
- Primary transportation network for region and must be engaged
- Couldn't afford to not fix it and let it fail
- Property takings
- How would adjacent impact issues would be resolved
- Traffic impacts during construction - gridlock
- Bellevue interchange
- MoDOT didn't know how some things would occur
- Design/Build accountability to ensure public got what they paid for
- Why re-build
- Right-of-way needs identification (who is impacted)
- Additional lanes needed
- Metro Link

- Quality of construction
- Soundwalls

**3. In general, what could have been done to improve the regional planning phase?**

- St Louis County circumvented as took over roadways
- Allow Cities to review the bid process to gain perspective of options
- MoDOT went out of way to listen to public
- More specific about design elements
  - i. Sound walls (how big, where at, size of footprint)
  - ii. Condemnation properties
  - iii. Early takings identified but then did not really occur (feedback was not given back to residents to say not needed)
- Completed own study to determine the potential impacts of various construction options
- Early is good
- Seriousness of closure and what would happen
- Presentation format –displays of project followed by an overall presentation
- Public meetings good
- Soundwalls presentation was excellent

*Project Design and Construction Period (After Construction Award)*

**4. How well was the flow of project information to you and your constituents after the award of the project contract? What was the best method of sending and receiving information?**

- Went well (too many meetings at 4 a month)
  - i. Email for public officials
  - ii. TV and paper for public
- Great and actively involved
- Multiple outlets was good for controversial issues
- Excellent flow of information both MoDOT and Gateway Constructor
- Full Court Media and Information Sharing – use everything to get to as many people as possible

**5. How well has the general public been kept informed about the project since January 2 when I-64 was closed? What is the best method of sending and receiving information?**

- Overall good
- Direct presence with MoDOT
- Separate meetings with citizens was good
- Public TV, radio, website
- Newspaper not good because it's a flat medium
- Very well at first – public and news sources lost interest later
- Full court media and information sharing – all methods available

**6. What were the expectations for the I-64 project? Have these expectations been met based on you and your constituents' opinion?**

- Increase in traffic complaints; side street turning movements
- Other than increase in traffic most are accepting
- Business down 9%
- DB going well – credibility back
- So far yes and expectations have been exceeded
- Interested before to determine affect on local arterials
  - i. Inter-governmental agreements to improve traffic conditions
  - ii. Had to do to improve overall expected traffic diversions
- Increase in traffic complaints; side street turning movements
- Good, but 3<sup>rd</sup> party contractor led to multiple people to discuss issues with. This at times was confusing. Some did better at resolving issues that others
- Not thrilled by service from Contractor
- Geometrics and grade of the roadway improvements
- Capacity improvements
- Improved I-170 and I-64 Interchange
- Water drains off of the lanes
- Soundwalls are ugly
- Access during closure
- What is the future access – same as before

**7. The alternative to fully closing parts of I-64 (Highway 40) for two years was to have ongoing construction for 6 to 8 years. This later alternative would have resulted in having various lanes closed to traffic until at least 2014 and possibly through 2016. This alternative would have also cost many millions of dollars more. Considering the alternative, how satisfied are you and your constituents with the decision to complete the work by closing I-64 for 2 years instead of taking 6-8 years to finish otherwise?**

- Satisfied (Very)
- Great
- Business impact shorter
- Saving dollars

**8. What are your and your constituents' perspectives on the full construction closure approach? Have opinions changed over time?**

- Doom and Gloom has changed to good
- Yes
- Impressed. Increased MoDOT's perception
- Understand huge benefits
- Project safety
- Delivery cost
- People are changing opinions

**9. Have you and your constituents changed your perspectives about how this project is being delivered?**

- No
- Yes
- Pleased with efficiency
- Design/Build is not being communicate
- Fear of traffic gridlock
- See project being completed faster
- MoDOT District 6 is trusted and respected

**10. Have right-of-way acquisitions been done in a professional manner once right-of-way needs were identified? Were there any concerns regarding the acquisition of land?**

- Received no calls regarding
- Location of actual sound walls and height. Once constructed created parcels that appeared closed in
- Driveway access – don't contact until know for sure need
- Property value changes
- Professionally completed...maybe to much
- Buy only what need and not too much to be sure
- One complaint at I-170 and Hanley Road area

**11. Relocation of utilities is a major part of any construction project - have there been any concerns regarding the relocation of utilities?**

- Yes at various locations
- Overall good
- Too many trees taken
- Great. No comments up front or No Issues
- Utility companies not MoDOT
- Affected areas three blocks or more away from actual project
- Communicating that utilities would be torn up
- Sometimes run-around given. MoDOT take over responsibility

**12. What are the most mentioned construction impacts made by your constituents?**

- Traffic, Traffic
- Signal timing was helped
- Trees
- Lindbergh Blvd
- Timing of roundabout and Speode construction for ER access
- McKnight Bridge, other closures
- Clayton Road/Lindbergh Blvd. businesses

- Noise – night-time construction (initial concerns, but no complaints received)

**13. In general, how could the project's operations and communication have been improved?**

- None really; communication and responsive good
- Handling of emergencies occurring during construction
- Volume of day-to-day information
- Cut-through traffic issues
- Utilities
- Business information
- Interchange closures
- Full court media and information sharing

**14. What is your opinion on the design/build project delivery process?**

- Not quite clear on DB process
- Time savings
- Specifics about certain elements. (i.e. size and location of walls) Decisions slower for residents
- Thrilled
- Gateway Builders very good
- Some of the grant money didn't go to business directly affected
- Good
- Politicians say will do something but doesn't due to DB process
- Uncertainty – Final plans are not seen until they about ready to build
- If an issue came up MoDOT did a good job of discussing and resolving it
- Design/Build is not for every project

# The New I-64 Economic and Regional Mobility Study

## Quarterly Report # 4

September – November 2008



**Before the Closure**

Please indicate how much time it takes you to make certain trips now compared to how long it took you before the closure.

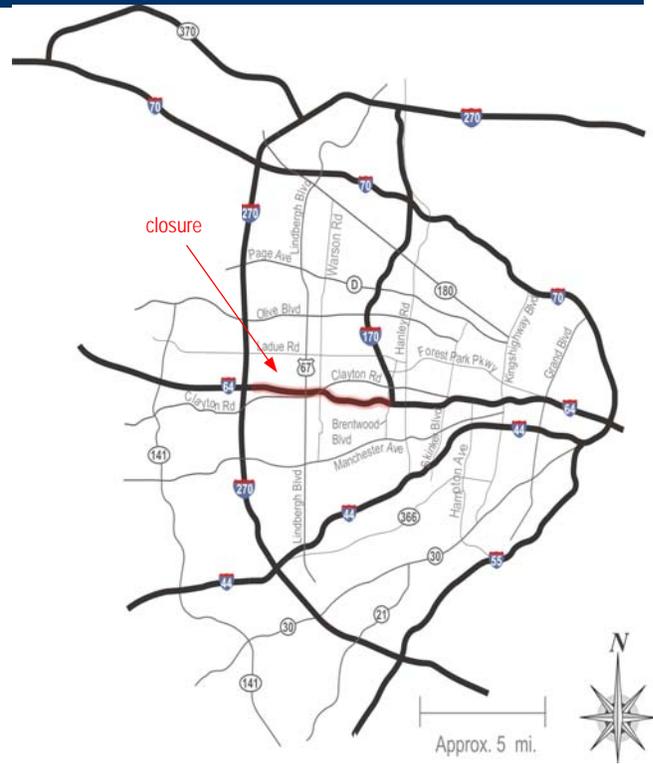
	Not at all (0 to 15 min. before)	Some (16 to 30 min. before)	0 to 5 min. (same time as before)	5 to 15 min. (longer time than before)	15 to 30 min. (longer time than before)	More than 30 min. (longer time than before)
Evacuation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preparation of work or school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Reasons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping, errands, and recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traveling (including to work)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# 1. Executive Summary

On January 2, 2008, the section of I-64 from Ballas Road to I-170 (see map) was completely closed for construction. The closure is planned to last through the December 14, 2008, at which time a section to the east will be closed for construction for the bulk of 2009. Construction proceeded well in the west closure section even with early-year rainy weather conditions that delayed some construction activities.

This quarterly report assesses the period September through November 2008 that includes the 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> months of the western 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 western closure now eleven months old, findings are beginning to emerge that will be of interest to MoDOT, the St. Louis region and the general public. To date, the research team has found:



Communications (pp. 2-8)	Mobility (pp. 9-21)	Economics (pp. 22-26)
<p><b>6,140 participants</b> have given feedback through web surveys, mail surveys, personal interviews, and surveys administered by Motorist Assist and I-64 Traffic Response crews.</p> <p>The public is fairly <b>satisfied</b> with the closure, how information has been communicated, and how they are managing to move around the region.</p> <p>The closure has had varying effects on the public’s travel habits; with 75% indicating their <b>travel frequency has changed</b> for certain trips and <b>earlier morning commute times</b>.</p> <p>The public reported they are <b>leaving 10 minutes plus earlier (40%)</b> on their commute to work or home, although many trip times are relatively unchanged.</p> <p>Lane addition strategy along I-44, I-70 and I-270 received a <b>60% effectiveness</b> rate; improved signal timing received <b>58%</b>; and traveler information, DMS and 511 received <b>53%</b></p>	<p>The closure has <b>re-routed approximately 140,000 to 150,000 vehicles per day</b>; travelers have taken alternative routes, altered their travel schedules, and considered alternate modes.</p> <p>Freeway travel times are <b>similar to the previous year</b> and there is a noticeable <b>peak spread</b> and <b>increased traffic volumes</b> on some freeways with I-44 and I-170 seeing the greatest increase in traffic</p> <p>The RideFinders rideshare program experienced over a <b>41 percent jump</b> in comparison to the last year and during the month of November, <b>9,753 participated in the program</b>.</p> <p>Gas prices have probably contributed to the demand for these services. This impact will be monitored now that gas price is going down.</p> <p>Users at regional park-and-ride lots have decreased between August and November, 2008 by <b>283 vehicles</b>.</p>	<p><b>Real estate</b> – office vacancy rate has increase since 2007 and the region <b>ranks 25<sup>th</sup></b> in vacancy rates compared other major metropolitan areas. <b>Single-family housing has fallen consistent with national trends (41%)</b>. <b>Multi-family housing has fallen significantly more than national trends (60% to 9%)</b></p> <p><b>Economics</b> – both corridor and non-corridor employment in 2008 Quarter 2<sup>nd</sup> are close to 2007 Quarter 2<sup>nd</sup>. <b>1<sup>st</sup> Quarter compared to 2<sup>nd</sup> Quarter 2008</b> saw slight movements with <b>jobs up, wages down, total taxable sales up and number establishments down</b>. <b>3<sup>rd</sup> Quarter taxable sales was less than the 2<sup>nd</sup> Quarter, but more than 1<sup>st</sup> Quarter</b>.</p> <p><b>Taxable Sales</b> – are down for both <b>corridor and non-corridor</b> with corridor down slightly more - ranging from <b>1.6% to 4.2%</b> for the first three quarters.</p> <p>The <b>second business survey</b> is currently available on-line for the business community’s response.</p>

## 2. Communications

### Communications Highlights

The citizens of the St. Louis region are providing input to this research through online surveys, mailed surveys, handouts by Motorist Assist operators, and personal interviews. Highlights gleaned from these various surveys include:

- **Awareness.** From the responses to date, it appears that MoDOT effectively communicated the upcoming closure to the affected population in 2007; pre-closure awareness was reported as very high.
- **Satisfaction.** Respondents are largely satisfied with their ability to travel around the region and with the level of information that has been communicated by MoDOT and others regarding the closure.
- **Information Sources.** TV News appears to be the best way to reach the majority of the respondents, with radio news, newspapers, and road signs also being effective methods. For those who use the internet, online information sources are almost as effective as TV news. However, a portion of the general population does not obtain their information via the internet and other methods should continue to be used to reach them.
- **Traffic Congestion Migration Strategies.** These strategies effectiveness level ranges from 36% to 60% with the ineffective level ranging from 7% to 19%. The lane widening strategy received the highest level of effectiveness while also receiving the highest level ineffectiveness. The other noticeable fact was that 25% reported “No Idea” that the Motorist Assist and I-64 Traffic Response programs were used.
- **Commuter’s Time of Travel.** The shift to earlier commute times is 45% and a shift to later commute times is 9%. No change of time was 27 % with 8% reporting not applicable. Survey indicated that 35% are not leaving earlier or staying later.
- **Travel Mode.** Initial responses on how the closure has changed people’s mode of travel are somewhat inconclusive. It is clear that the dominant mode of travel by the respondents has been, and continues to be, the automobile.
- **Personal Impact.** The closure is affecting people’s trip choices. Survey respondents are indicating changes in basic trip destinations such as shopping, eating out and attending recreational activities. Overall, 75% of respondents are indicating that their frequency of travel to certain areas has been affected by the closure. Some residents have shifted their work hours, especially the respondents to the Web survey, who indicated a shift to earlier morning commutes. However, the web survey received a heavy early response when impact uncertainty to the closure was high. This issue will be explored in more detail as progress is made on the I-64 study.

To date, the responses have been fairly consistent over the various survey methods. This general agreement across surveys is important because it appears to demonstrate that one can generalize from the surveys to the general population (other than issues related to online access, which is by definition skewed in the Web survey responses).

## Communication Assessment Objectives and Methods

Major Goals – Communication Assessment
Develop and implement survey instruments
Determine effectiveness of pre-closure notification
Measure participant satisfaction for key issues
Estimate changes in behavior
Hear everyone’s voice (obtain generalized sample)

### Total Collected Surveys by Method

Web	1293
Mail	700
In-person	180
Motorist Assist	
MoDOT	3212
I-64 Traffic Response	755
<b>TOTAL</b>	<b>6140</b>

Four classes of survey instruments were developed to assess the communication aspects of this project:

- A continuous online survey was developed and enhanced on June 1, 2008. Links to the survey were placed and have been maintained on both MoDOT’s main website and the New I-64 Project site. MoDOT, through its project public outreach efforts, continues to encourage and promote public input via this survey method. Beginning on December 15<sup>th</sup>, the online survey will again be enhanced to reflect the opening of the I-64 west section and the closing of I-64 east section. This enhancement will seek information from the public on their opinions on the delivery of the new I-64 west section and the closing impacts of the I-64 east section.
- To help obtain a representative sample, a physical survey was developed and mailed to 10,000 respondents in twenty-eight zip codes near the I-64 project. This work was completed during the first quarter and summarized in the 1<sup>st</sup> quarterly report. This mailed survey was successful in helping achieve a better cross-sectional representation of the region’s population. Plans are underway to again distribute a mailed survey in early 2009. We will again survey the same area. This survey instrument will also be done after the I-64 project is completed.
- In-person surveys were utilized to assess public opinions at two major shopping locations in the immediate area of the closure (the St. Louis Galleria near I-64/I-170, and Schnuck’s grocery store at Lindbergh Boulevard and Clayton Road) in the 1<sup>st</sup> quarter of the closure. Public Official interviews are ongoing with both one-on-one interviews and future contacts through email survey questions. We have conducted interviews at the Zoo on September 20, 2008. Detailed information is provided in this quarterly report’s Appendix A.
- Project satisfaction measures were also added to the Motorist Assist and I-64 Traffic Response service surveys that are distributed to people serviced by Motorist Assist and I-64 Traffic Response operators. During the four quarter period, 900 - Motorist Assist and 159 - I-64 Traffic Response were received. This source continues to provide a good flow of information.

In order to facilitate comparisons of changes across survey types and from time to time, the statistics used in the project assessment usually do not include the “not sure” or “no opinion” percentages. This eliminates a major source of random variability and allows a more accurate observation of change over time. In addition, this methodology is consistent with how MoDOT calculates similar Tracker measures.

## Communications Results

### Use of I-64, Knowledge of the Closure

The survey results indicate that the public was very aware of the closure well before it occurred. 98.4 percent of the online respondents were aware of the upcoming closure in 2007, and since 97.2 percent of the online respondents traveled on the affected section of I-64 at least once per week before the closure, it appears that the target population received the needed advance information. The changes between the first quarter and second quarter report measurements were generally less than 1 percent. This information was reported in the second quarter. On June 1, 2008, the web survey was enhanced to gain additional information about the I-64 project. These enhancements were made to further explore potential impacts from the roadway closure. The knowledge of closure question, based on only a slight variation in the first two quarters and a high response of closure knowledge, was removed.

### Satisfaction

The chart at the right summarizes survey respondents' opinions in the area of satisfaction in the 4<sup>th</sup> quarter and compares them to the combine 1<sup>st</sup> and 2<sup>nd</sup> quarters and 3<sup>rd</sup> quarter. As the chart indicates, the satisfaction level (in percentage of response) is still down for most response categories from the first two quarters based on information from the web survey. However, the 4<sup>th</sup> quarter is up from the 3<sup>rd</sup> quarter for most response categories.

The information received from Motorist Assist and I-64 Traffic Response surveys is higher than the online survey. This could be explained based on the

Satisfaction Level (Web Survey n=158)	4 <sup>th</sup>	3 <sup>rd</sup>	1 <sup>st</sup> & 2 <sup>nd</sup>
Public informed	79	73	91
Timely information	78	73	89
2 years vs. 6 to 8 years	74	71	76
Communication of alternatives	64	58	83
Overall satisfaction	70	69	78
Managing to move around area	60	60	72
Work zone traffic flow	55	46	69
Accurate/understandable signs	73	65	76
Satisfaction Level (MA Survey n=1059)			
2 years vs. 6 to 8 years	94	93	89
Managing to move around area	91	88	89
Satisfaction Level (Zoo Survey n=80)			
Public informed	94		
Timely information	89		
2 years vs. 6 to 8 years	86		
Communication of alternatives	88		
Overall satisfaction	90		
Managing to move around area	75		

sample sizes (158 online compared to 1059 MA) and/or how the survey was obtained. Those receiving a survey right after receiving valuable roadside services might be inclined to respond differently than someone who must seek out the online survey to input information. Work zone traffic flow rebounded from 3<sup>rd</sup> quarter low – up 9%. The other areas still range in the area 60 to 70%. The research team will continue to monitor these public opinions to see if a trend is forming or if the small sample size has impacted the outcome or is there a variation in response by different survey instruments.

The in-person interviews, conducted late in the first quarter at two major shopping locations near the closed section of I-64, showed general agreement with other survey results. Conducting surveys at shopping locations provides a potential correlation link with the economic component of this study. Consistency in data across all survey efforts helps validate that true public opinion is being gained. The Zoo survey opinions were closer the first two quarters' information and the 1<sup>st</sup> quarter interviews opinions. The information gained from all survey instruments will be compared and analyzed in the future annual and final reports to assess the consistency across different survey instruments.

### Personal Impact of the Closure

The table below shows the 3<sup>rd</sup> and 4<sup>th</sup> quarter responses regarding the closure impact on travel. The travel destination of “attending recreational activities” was added when the web survey was enhanced on June 1, 2008. This activity will be monitored as the I-64 project prepares for the East closure, since a number of regional recreational facilities are located along I-64 near this closure.

The comparison between the 3<sup>rd</sup> and 4<sup>th</sup> Quarters showed some differences in “where I eat out”, “where I buy gas” and “attending recreational activities”. The research team will continue to monitor the survey responses on these travel destinations.

### Survey Question – “The closure has changed .....” – Percentage of Agreement

Travel destinations	4 <sup>th</sup> Quarter	3 <sup>rd</sup> Quarter
Travel to certain areas	75	75
Where I shop	52	51
Where I eat out	52	43
Where I buy gas	39	25
Where I work	10	12
Where I live	10	13
Attending recreational activities (i.e. games, parks, etc.)	42	34

### Survey Question “When do you routinely commute in St. Louis” – Response and Percentage

Time of Day	4 <sup>th</sup> Quarter	3 <sup>rd</sup> Quarter	1 <sup>st</sup> and 2 <sup>nd</sup> Quarters
Before 7 am	45 (13%)	23 (12%)	277 (22%)
7 to 9 am	100(29%)	53 (27%)	334 (27%)
9 am to Noon*	21 (6%)	16 (8%)	103 (8%)
Noon to 3 pm	22(6%)	18 (9%)	
3 pm to 6 pm	108 (32%)	63 (32%)	376 ((31%)
After 6 pm	44 (13%)	23 (12%)	145 (12%)

\*First two quarters asked 9 am to 3 pm

Throughout the first 11 months, most commutes were being reported as being made between 7 and 9 am and 3 and 6 pm. The before 7 am is down when comparing 1<sup>st</sup> / 2<sup>nd</sup> Quarter’s responses to 3<sup>rd</sup> and 4<sup>th</sup> Quarter’s responses.

### Information Sources and Communication Methods

TV News still continues to be best method of distributing information with Radio News, Internet and road signs running a close second. TV News and Internet are more pre-trip information sources while Radio news and road signs are more en-route information sources. It is noticeable that MoDOT’s three web sites are listed as 1<sup>st</sup>, 2<sup>nd</sup>, and 7<sup>th</sup> as sources of information.

#### Best Way to Distribute Information

Source	Responses
Internet	113
TV News	112
Road Signs	102
Radio News	86
Email from I-64/MoDOT	62
Newspaper	61
Mail from MoDOT	32
Radio Talk Shows	29
Project Display Boards	22
Others	10

#### Internet Sources

Source	Responses
New I-64 Web Site	90
MoDOT's Web Site	66
Post-Dispatch (STLToday.com)	52
TV 5 (KSDK.com)	52
TV 2 (MyFOXSTL.com)	32
TV 4 (KMOV.com)	23
Gateway Guide	19
Metro (MetroStLouis.org)	14
Radio 1120 AM	14
Radio 550 AM	11
Post 4 Traffic Online	10
Other	7
GetAroundSTL.com	5
DontGetStuck.org	3
MidMetro4.com	2

#### Traffic Congestion Strategies

Various traffic congestion strategies were implemented to reduce regional traffic congestion potentially caused by the displacement of 140,000 to 170,000 vehicles per day during the roadway closure. Public information is being sought on four of these strategies to evaluate to their impact in reducing the traffic congestion. The enhancement made on June 1, 2008 to the web survey will assist in this evaluation. The effectiveness level ranges in the 4<sup>th</sup> Quarter from 36% to 60% with the ineffective level ranging from 7% to 19%. The lane widening strategy continues received the highest level of effectiveness while also receiving the highest level ineffectiveness. The other noticeable fact was that 25% reported “No Idea” that the Motorist Assist and I-64 Traffic Response programs were used.

Effectiveness/Strategies	Lane widening along I-44, I-70 and I-270	Improve Signal Timing and Interconnection	Traveler Information on DMS and 511	Motorist Assist and I-64 Traffic Response Programs
	3 <sup>rd</sup> to 4 <sup>th</sup> Quarter			
Very Effective	30 – 29	37 – 32	28 – 20	29 – 15
Slightly effective	33 – 31	20 – 26	32 – 33	16 – 21
No difference	12 – 6	9 – 11	22 – 14	15 – 16
Slightly ineffective	7 – 11	11 – 4	3 – 4	4 – 5
Very ineffective	10 – 8	5 – 10	4 – 9	3 – 2
Have not noticed	2 – 5	10 – 8	3 – 5	11 – 17
No idea	6 – 9	8 – 10	8 – 14	22 – 25

#### Commuters' Time of Travel

The shift in commute time question was added on June 1, 2008 to web survey. This question was added to gain additional in-sight and understanding of the public's opinion on the I-64 project. A time shift in beginning their commute to work or home does shift demand placed on the transportation system during peak period of travel. The following compares responses received in the 3<sup>rd</sup> and 4<sup>th</sup> Quarters to help in the evaluation of the commuter's time of travel:

Shift in Commute Time	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
Little earlier < 10 minutes	13%	15%
Earlier > 10 minutes	26%	40%
Little Later < 10 minutes	2%	3%
Later > 10 minutes	11%	6%
No Change Time	30%	27%
Not applicable	18%	9%

The shift to earlier commute times is 55% (up from the 3<sup>rd</sup> Quarter) and a shift to later commute times is 9% (down slightly from the 3<sup>rd</sup> Quarter). No change of time was down from 30% to 27%. About 2/3 of the web survey participants in the 4<sup>th</sup> Quarter reported leaving earlier or later for their commuter

### Travel Modes

The 4<sup>th</sup> quarter web surveys shows a trend developing in telecommuting for few times per week. Most the other 4<sup>th</sup> quarter travel mode responses moved back towards the first two quarters. Also, the increased carpooling shown in the table below appears to correlate to the increasing reported by RideFinders later in this report.

#### Travel Mode (Comparison of Travel Modes - Web Respondents Only)

Mode/Frequency	Never			Few Times a Week			Almost Every Day		
	Q4	Q3	Q1&2	Q4	Q3	Q1&2	Q4	Q3	Q1&2
Riding the Bus	95%	89%	94%	5%	10%	4%	1%	1%	2%
Biking	91%	87%	94%	9%	9%	5%	1%	4%	0%
Riding MetroLink	83%	78%	82%	14%	19%	15%	3%	3%	3%
Telecommuting	72%	75%	80%	24%	20%	17%	4%	5%	3%
Walking	86%	77%	88%	11%	16%	10%	3%	7%	2%
Driving with Others	47%	27%	51%	41%	49%	35%	12%	24%	14%
Driving Alone	3%	5%	6%	15%	18%	9%	81%	76%	85%

### Demographics

The table below summarizes the responses to demographic questions from the 4<sup>th</sup> Quarter web survey only. Information from all survey instruments are being evaluated to ensure a valid cross-sectional representation of the region is obtained.

#### Demographics of Survey Respondents

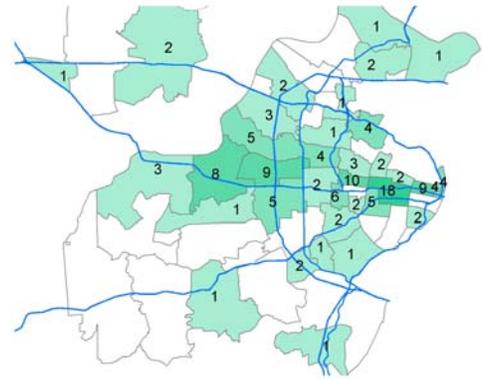
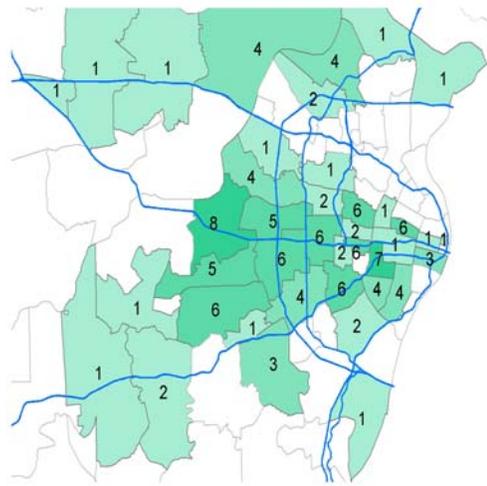
<b>Age</b>	Web	<b>Gender</b>	Web
under 25	6 %	Male	53 %
26 to 40	35 %	Female	47 %
41 to 65	56 %		
Over 65	3 %	<b>Income</b>	Web
		Less than \$20,000	1 %
<b>Race</b>	Web	\$20,000 to \$40,000	8 %
American Indian	1 %	\$40,001 to \$60,000	19 %
Asian	2 %	\$60,001 to \$90,000	20 %
Black/African-American	3 %	\$90,001 to \$120,000	24 %
Hispanic/Latino	1 %	\$120,001 to \$150,000	13 %
White/Caucasian	91 %	\$150,001 to \$200,000	7 %
Other	1 %	More than \$200,000	7 %

The map on this page illustrate the zip codes of survey respondents within Missouri (a small portion of the responses – around 2 to 3 percent – were from outside the state). These results are preliminary; future reports will likely aggregate zip codes into larger geographic units with more statistical robustness.

**Survey Respondents' Residence, 4<sup>th</sup> Quarter - Commute Destination (by zip code)**

Residence Location	Commute Destination
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Web Only



## 3. Mobility

### Mobility Highlights

The study team continued the development of a series of systems to automate the collection, processing, and display of the enormous stream of available data. Key findings to date are listed below:

- Approximately 140,000 to 150,000 daily vehicles used the segment of I-64 between Ballas Road and I-170 before its closure. The assessment of where those vehicles have gone is still underway; based on the data in this report, the only large traffic increase seen with available data was on I-44 and I-170. Volume data is still being evaluated for I-70, I-270, and the many parallel facilities that have been impacted by the closure. As more data will be available, we will be able to a more detail assessment of traffic volumes in the annual report.
- Analysis of Traffic.com travel-time data has indicated some minor variation in peak-hour travel times on key freeways in the region. However, a more detailed assessment will be made and reported in annual report.
- The RideFinders Rideshare program continued to experience increasing growth rates, with a 40+ percent jump in monthly rides in the year between November 2007 and November 2008. I-64 closure is a partial reason for this increase; however, the significant gas price increase has also contributed to people choosing to carpool or vanpool. The recent gas price decline will hopefully help in the determination of the causes for the significant increase in ridership.

### Mobility Assessment Objectives and Methods

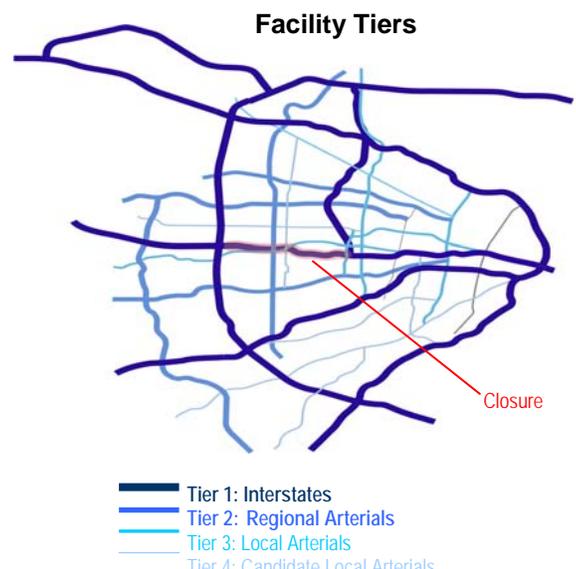
This assessment uses a variety of tools to measure the region's mobility before, during, and after the closure period. The assessment examines traveler shifts and their effects, using a

#### Major Goals – Mobility Assessment

- Assess the shifts (temporal, spatial, and modal) in travel demand throughout the region
- Assess congestion effects of the closure
- Assess closure effects on transit, ride-sharing, and park-and-ride demand.

multitude of data sources of varying resolution. The complexity and sheer size of the data set requires examinations at several levels, and future reports will continue to hone and refine the assessment.

The initial analysis of the region's roadways and highways is focused on facilities in four Tiers, as illustrated at right. Tier 4 facilities are being assessed to see whether they should be included in the Tier 3 grouping, or excluded from further analysis. For each of these facilities, relevant mobility data (traffic volumes, travel times, incidents) are being gathered throughout the duration of the closure to measure its regional impacts.



Mobility data is being obtained through numerous sources:

- MoDOT is providing historical traffic counts through its count program, as well as archived traffic data from the Gateway Guide system. In addition, MoDOT forces have conducted travel-time runs on key segments of Tier 2/3/4 facilities multiple times since the I-64 closure. MoDOT also maintains statistics for its park-and-ride facilities across the state, and is providing monthly count data for its facilities in the region.
- Traffic.com is a commercial web-based site that provides, for highways in metropolitan areas across the U.S., real-time traffic congestion, travel-time, and incident data. Traffic.com archives traffic volume, travel speed, and incident data and has an agreement to share this information with MoDOT. The research team developed customized software routines to download, organize, prune, and analyze this data. **Enhancement to this application are underway that will help better manage the large data files needed to aggregate data to a 5-minute interval.** They also provide travel times on limited arterials in the study's impacted area that are being collected.
- St. Louis County has conducted traffic counts and travel-time studies on regional arterials periodically since the closure.
- Metro collects ridership information on MetroLink, MetroBus, Call-A-Ride, and special services, and is providing statistics aggregated on a monthly basis. In addition, Metro collects parking data at its stations with park-and-ride facilities. The research team continues to work with them on gaining access to this information. This assessment will be further addressed in the annual report.
- RideFinders, sponsored by Madison County Transit, is the St. Louis regional rideshare program. Rideshare data is provided on a monthly basis.
- The research team is supplementing data collection where necessary, including travel-time runs, traffic counts, and field observations. This quarter field assessments were made on the arterial data being collected electronically daily to check the data validate.

## Mobility Results

### Pre-closure Capacity Improvements

It is important to note that regional mobility began to be affected by The New I-64 project even before the closure. Perhaps most notably, several highway/roadway capacity improvements were implemented by MoDOT and St. Louis County on parallel and complementary facilities, as listed at right. As the list indicates, one change has been reversed after monitoring field traffic flow operations.

In addition, Metro improved its transit system capacity in anticipation of the closure by increasing service frequency and adding new routes. The research team has recently received a complete list of these improvements, and they will be incorporated into the future annual reports.

### Key Improvements to Regional Highways/Roadways

- I-70** Re-stripe from I-170 to I-270 (add lane in each direction)
- I-44** Re-stripe from I-270 to I-55/I-70 (add lane in each direction)
- I-270/I-64** Re-stripe I-270 North of I-64 to Route 340 (add lane in each direction) and re-stripe I-64 Eastbound ramp to I-270 Northbound
- I-270/I-44** Re-stripe interchange's ramps to improve traffic flow
- Clayton Road** Re-stripe from Mason Road to Lindbergh Blvd; upgrade various traffic signals; new traffic signals at Topping Road and Bopp Road
- Ladue Road** Upgrade various traffic signals; various new left/right-turn lanes; new traffic signals at Graeser Road/Warson Road
- Improved Signal Timing** along Page Avenue, Olive Boulevard, Manchester Road, Lindbergh Boulevard, Clayton Road, Brentwood Boulevard, Hanley Road, Big Bend Boulevard, Kingshighway Boulevard, Grand Boulevard, and Forest Park

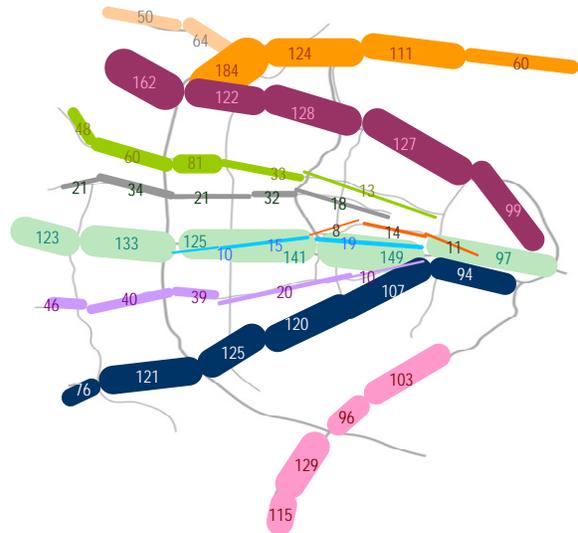
## Traffic Volumes

### Freeways

Prior to the closure, in baseline 2006, I-64 carried approximately 140,000 to 150,000 vehicles per day (vpd) on a typical weekday – this is Annual Average Daily Traffic, or AADT (excluding “outlier” days). 100 percent of this traffic was necessarily displaced (temporally and/or spatially) as a result of the closure.

Several sources are being used to evaluate the closure’s effects on traffic volumes - including before/after volumes (from MoDOT, Traffic.com, and St. Louis County), responses to the various public surveys developed, and selected aggregated data reported by MoDOT in its frequent e-mail briefings. The map at right, extracted from Traffic.com and MoDOT data, shows east-west daily traffic volumes for many of the key study facilities for the baseline year of 2006. Similar data has been extracted for the key north-south facilities (I-270, I-170, Lindbergh Boulevard, etc.) It is important to note that this information averages every non-holiday, non-“outlier” weekday from 2006, and therefore is not a good base against which to compare the effects of the closure for smaller periods (such as the current quarter under evaluation). However, it is useful for illustrating order-of-magnitude baseline conditions.

**Baseline Daily Weekday Traffic (000's)  
East-West Corridors (2006, full year)**

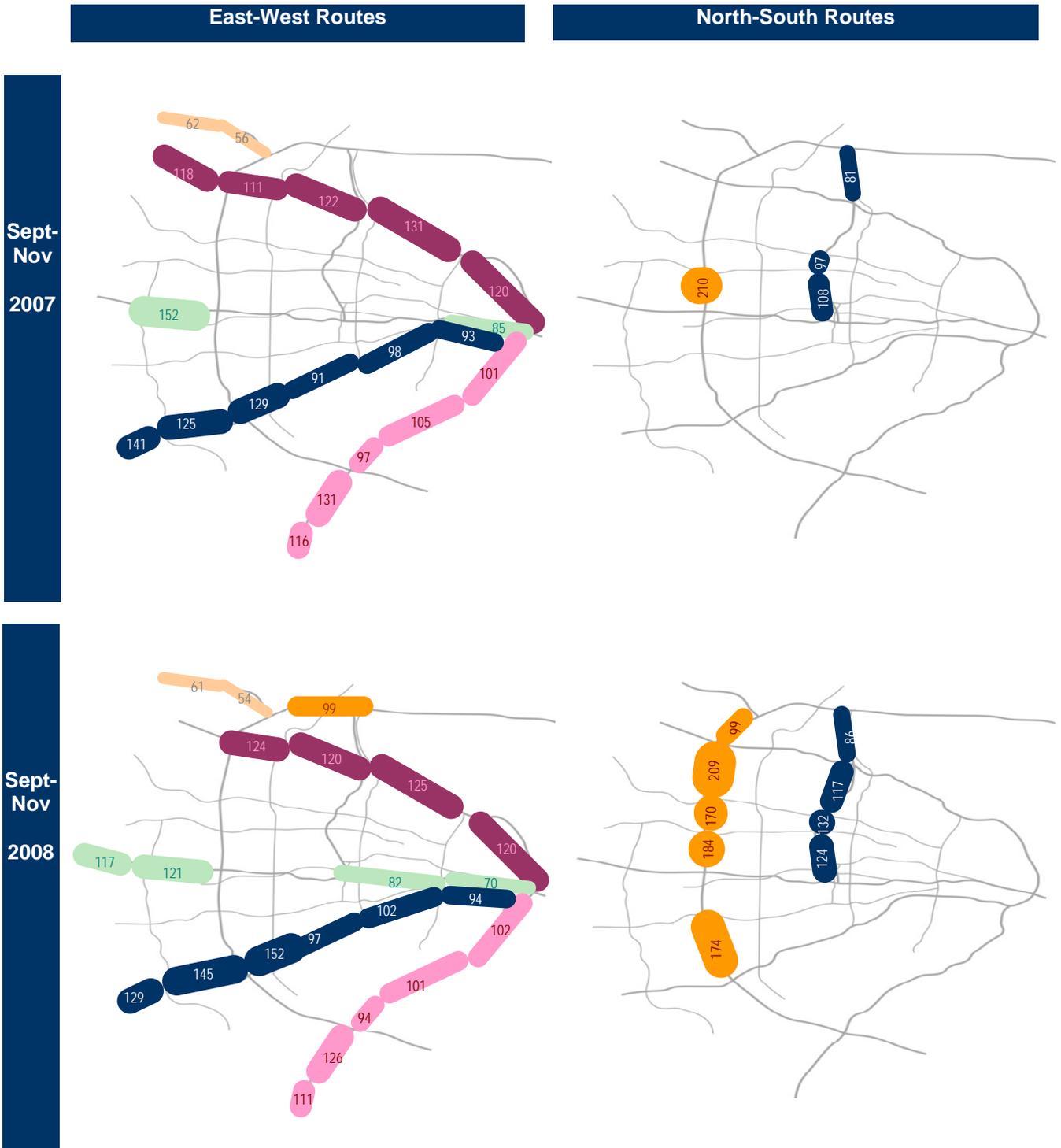


The maps on the next page show a more fair initial comparison for selected segments. They compare weekday September-November 2008 volumes with the September-November 2007 volumes. (Weekend volumes are also being assessed.)

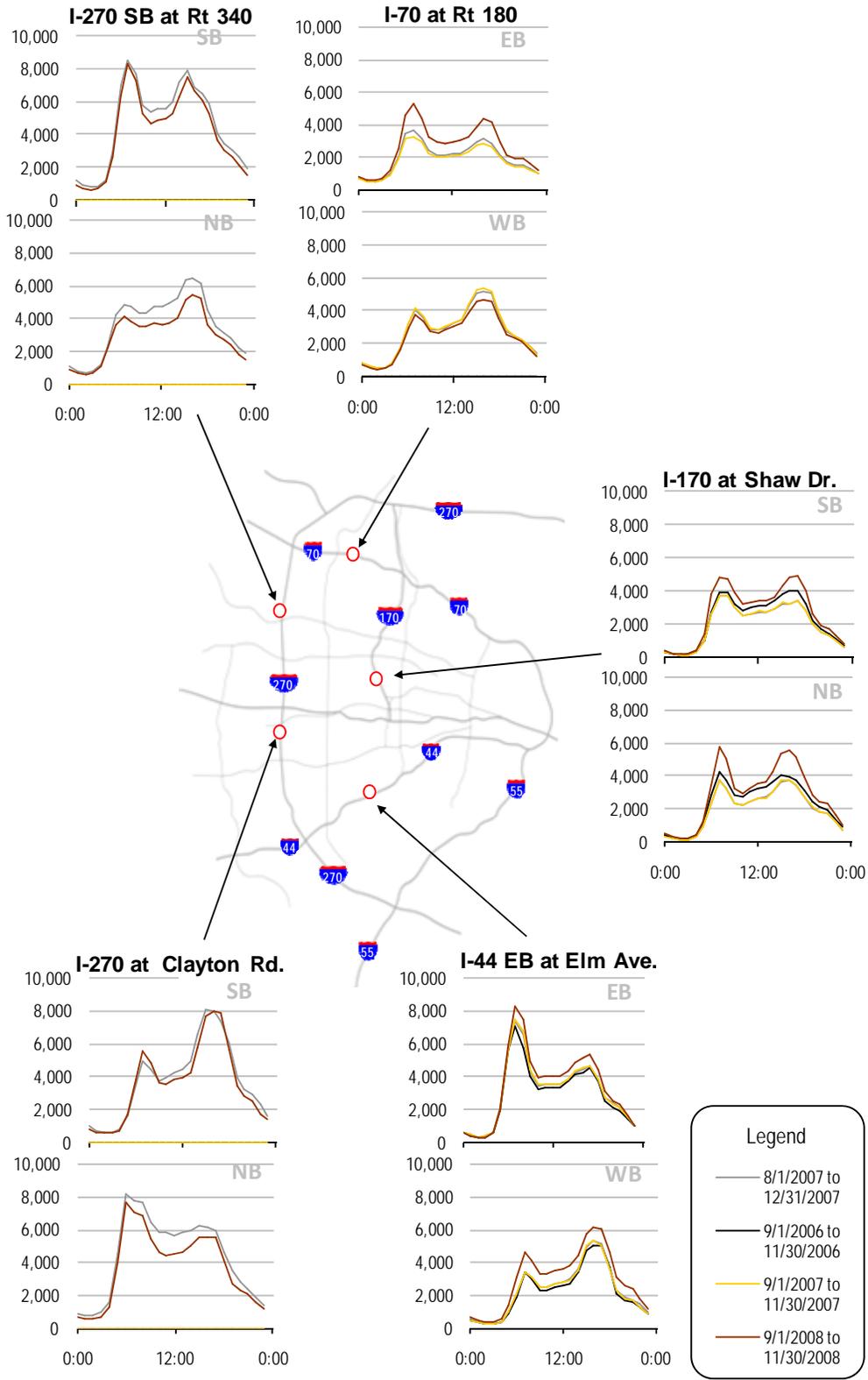
Based on these maps, the following preliminary conclusions can be gleaned:

- Daily traffic volumes on I-64 immediately east of the closure have decreased significantly since 2007 by 50,000 vpd.
- Daily volumes on I-55 appear to be roughly equivalent to those before the closure.
- Daily Volumes for I-44 just increased by 23,000 vpd just east of I-270.
- Daily Volumes for I-70 just increased by 13,000 vpd just east of I-270
- Volumes on I-170 between I-64 and I-270 have increased by approximately 16,000 – 35,000 vpd compared to the previous year.

Daily Traffic Volume Comparison (000's) on Selected Segments, 2008 vs. 2007 (PRELIMINARY)

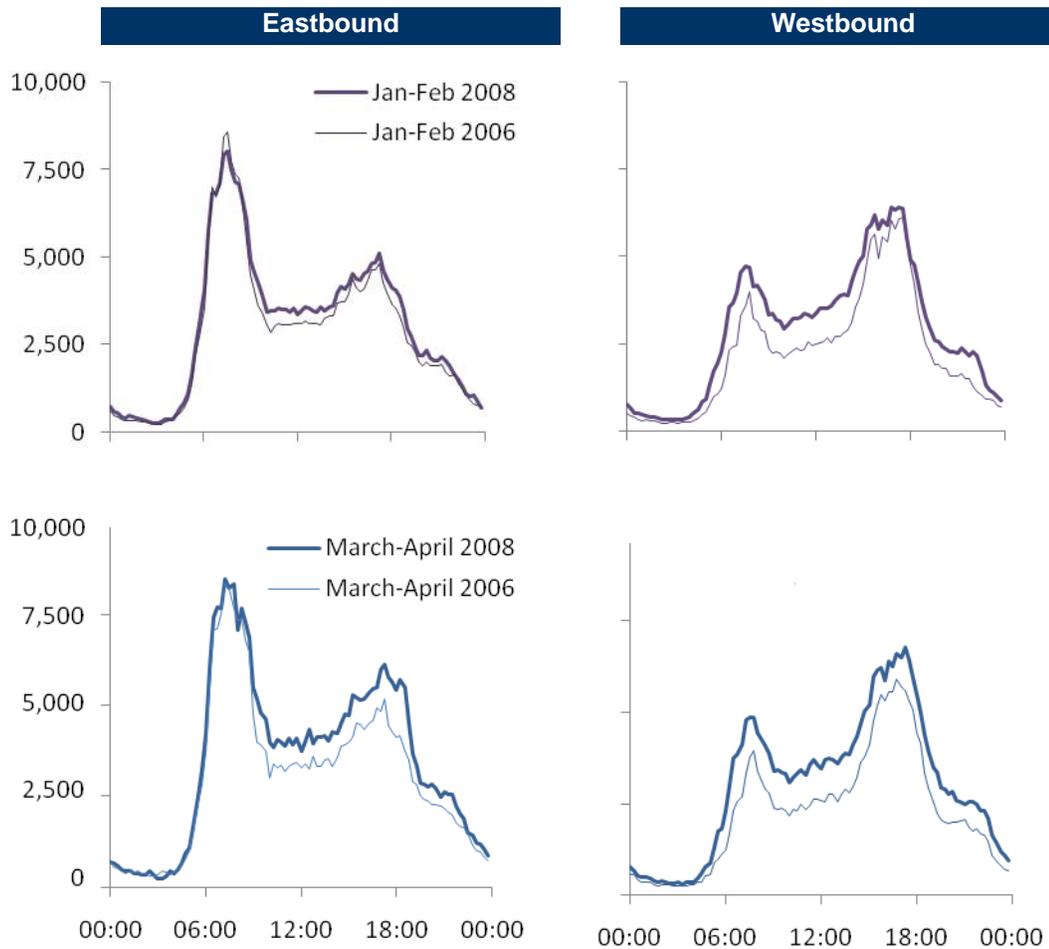


Below is the volume profile from select locations around the city. For reference, AM peak is top graph and PM peak is lower graph.



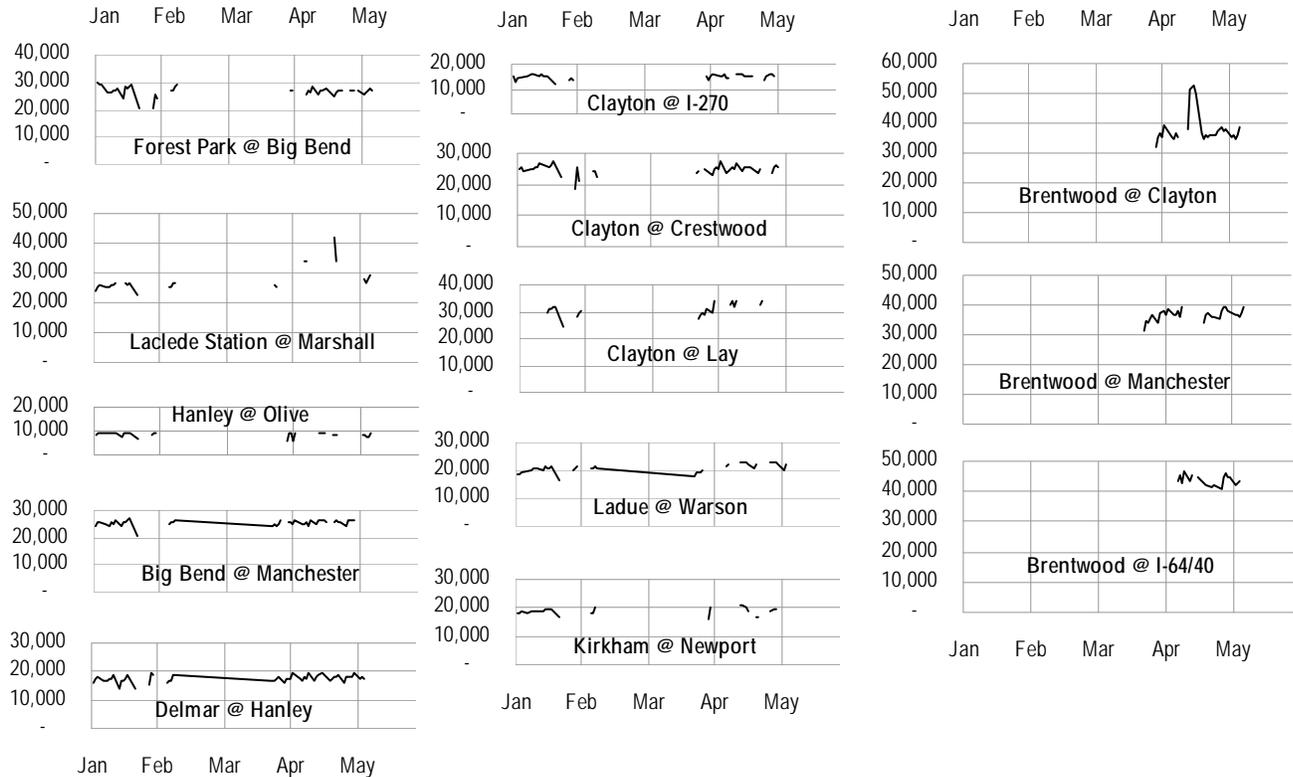
The Traffic.com data is also being examined at more refined resolutions, from hourly totals all the way down to five-minute volumes. The graphs below illustrate how the effect of the closure on the **duration of the peak period** is being examined. As the graphs indicate, overall volumes on this segment have generally increased, but the peak periods have spread as well. Five-minute data assessment requires significant data storage. We are currently developing SQL database server application that will provide better data management that will allow the team to aggregate data at a five-minute periods. This application will have a web-based access with pre-established queries developed. This application will be provide to MoDOT and East West Gateway for future usage. Further analysis of this spread will be undertaken in the annual reports at various sites.

**Example 15-Minute Traffic Volume Profiles  
I-44 at Elm Avenue**



St. Louis County has been tracking arterial volumes since the I-64 closure. The graphs below illustrate ADT data available from the County and are under study to extract trend information. For many days on which data are not plotted, volumes are only available for one direction. No significant conclusions can yet be drawn from these data, but they will continue to be a resource as the study progresses. **This information was presented in the 2<sup>nd</sup> Quarterly report and will be updated in the annual report when the initial detailed evaluation and assessment will be made.**

### Average Daily Traffic Volumes Recorded by St. Louis County, 2008



MoDOT also collects volume data from many of the arterials in the region using its ACTRA signal system and field detectors. The graphs on the following pages examine volume trends on many of the key arterials during both peak hours on a monthly basis since the closure, including a comparison to a pre-closure baseline. These table and graph presents a sample summary of data collected in the 2<sup>nd</sup> Quarter. **We continue to capture this information and will present it in more detail in the annual report when a further detailed assessment is made.** Several limitations of the data should be noted:

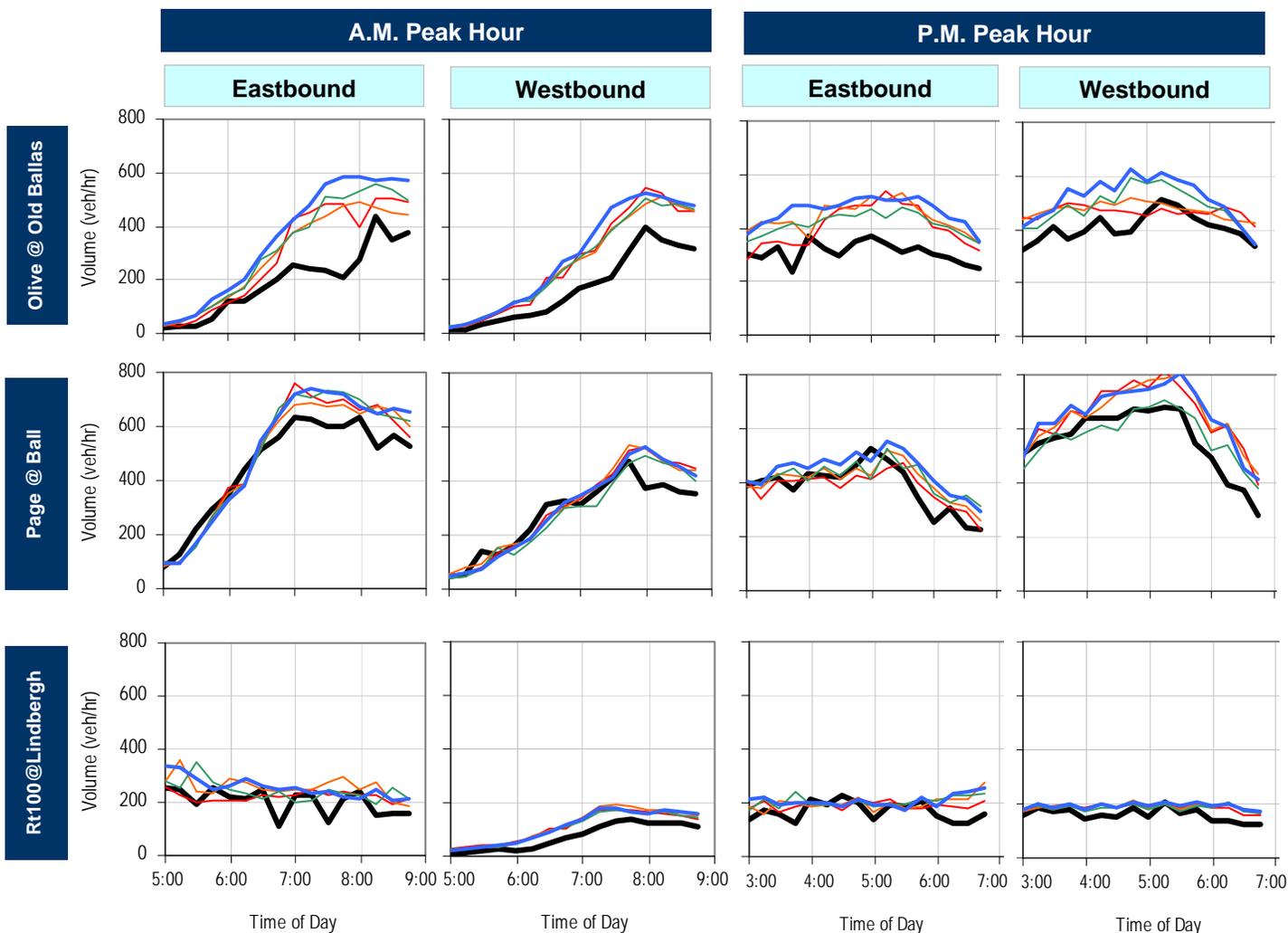
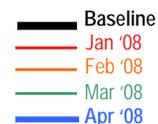
- The pre-closure data is from a single day, in most cases collected in November or December 2007.
- During the closure, not all days had available or usable data.
- This data reflects only through volumes approaching intersections; hence, right- and left-turning traffic is not included.

In spite of these limitations, the data reveals some anticipated patterns, such as volume increases on Page and Olive, which run parallel to the closure. Archiving and studying these data beyond the closure will help in understanding the closure's effects.

## Summary of 2<sup>nd</sup> Quarter ACTRA Volume Reporting Since Closure, Key Arterials

	A.M. Peak Period	P.M. Peak Period
<b>Olive</b>	<b>Eastbound and Westbound:</b> 50% to 80% increase at Old Ballas	<b>Eastbound:</b> 30% to 50% increase <b>Westbound:</b> 14% to 27% increase. (p.m. volumes higher than a.m.)
<b>Page</b>	<b>Eastbound:</b> 7% to 11% increase. <b>Westbound:</b> up to 10% increase (a.m. volumes higher than p.m.)	<b>Eastbound:</b> 15% increase (after initial slight dip of -0.6%) <b>Westbound:</b> 3% to 17% increase
<b>Manchester at Braeshire</b>	<b>Eastbound and Westbound:</b> 4% to 17% increase	<b>Eastbound:</b> 6% reduction (after initial January dip of 20%) <b>Westbound:</b> 9% increase (after initial dip of 7%)
<b>Manchester at Lindbergh</b>	<b>Eastbound:</b> 10 to 27% increase <b>Westbound:</b> 44% to 53% increase	<b>Eastbound and Westbound:</b> 12% to 22% increase
<b>Rte. 141 at Howard George</b>	<b>Southbound:</b> 4% to 20% increase <b>Northbound:</b> dip below pre-closure (after January increase)	<b>Southbound:</b> 5 to 10% decrease <b>Northbound:</b> 4 to 7% increase (except February dip of 7%)
<b>Lindbergh at Conway</b>	<b>Northbound and Southbound:</b> 20% to 40 % decrease	<b>Northbound and Southbound:</b> 20% to 40 % decrease
<b>Lindbergh at Manchester</b>	<b>Southbound:</b> 200% average increase <b>Northbound:</b> 40 to 65% reduction	<b>Northbound and Southbound:</b> 40 to 65% reduction

## East – West Routes



### Travel Times

The research team is using Traffic.com’s archived speed data to calculate travel times on freeway segments throughout the region. The table at right contains some of the data extracted. P.M. peak-period data are averaged over the current quarter, and compared with the last five months of 2007. The travel times in general do not show major variations from the pre-closure data, and also generally indicated faster travel times. The causes of these results will continue to be investigated, and could be attributable to a combination of peak-spreading, re-routing due to the closure, increased fuel costs, and other factors.

Travel Times (min.) Selected Freeway Sections - Preliminary

Peak Period (4 – 6 PM)

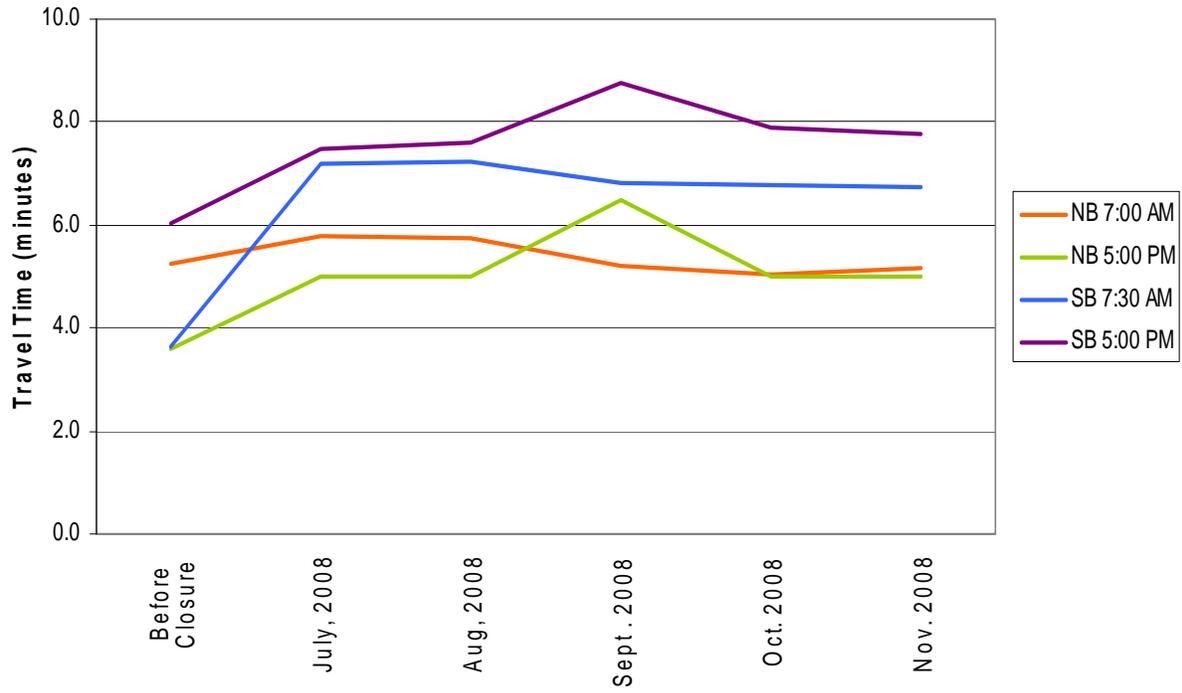
Freeway Segment Description	Distance in miles	Peak Period (4 – 6 PM)	
		8/1/2007 12/31/2007	9/1/2008 11/30/2008
I-70 EB from I-270 (Exit 232) to I-170 (Exit 238)	5.8	5.6	5.5
I-70 WB from I-270 (Exit 232) to I-170 (Exit 238)	6.1	6.3	5.7
I-170 NB from I-70 (Exit 7) to I-64/US 40 (Exit 0)	7.6	7.9	7.2
I-170 SB from I-70 (Exit 7) to I-64/US 40 (Exit 0)	7.7	7.9	7.7
I-270 NB from I-70 (Exit 20) to I-64 (Exit 12)	7.7	9.2	8.3
I-270 SB from I-70 (Exit 20) to I-64 (Exit 12)	8.8	9.8	8.8
I-270 NB from I-64 (Exit 12) to I-44 (Exit 5)	6.5	7.3	6.7
I-270 SB from I-64 (Exit 12) to I-44 (Exit 5)	6.6	12.7	9.8
I-44 EB from I-270 (Exit 276) to Kingshighway (Exit 287)	10.5	13.6	12.9
I-44 WB from I-270 (Exit 276) to Kingshighway (Exit 287)	10.5	12.0	12.2
I-64 EB from Rte 141 (Exit 22) to I-270 (Exit 25)	3.3	3.5	3.5
I-64 WB from Rte 141 (Exit 22) to I-270 (Exit 25)	3.3	2.9	3.0

Arterials

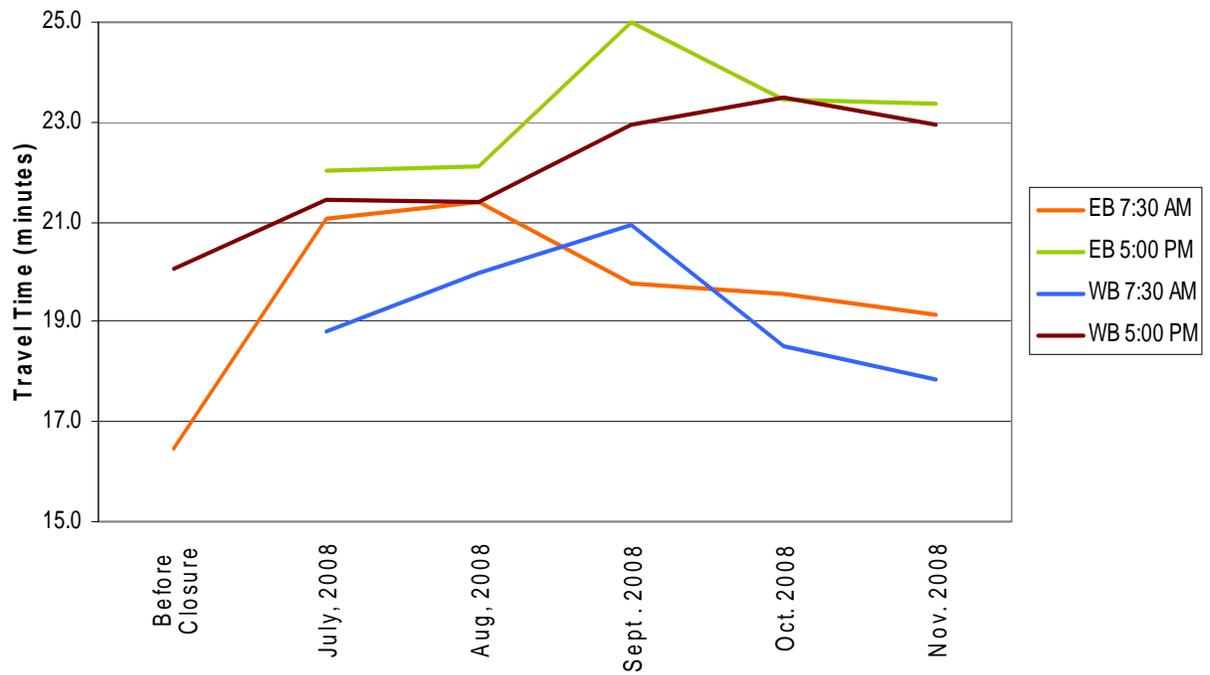
Information for four of the major arterial routes (available since July '08) is being supplied via Traffic.com and has been monitored by the research team as general indicators for arterial traffic flow near the closure area. These charts and graphs below include the times selected for comparing the before and after closure travel times. The research team has verified these travel times in the field. Once more data has been collected; a more robust analysis will be completed.

Route	Segment	Direction	Peak Period	Travel Time (Min)					
				Before Closure	July, 2008	Aug, 2008	Sept 2008	Oct. 2008	Nov. 2008
US 61/67	100 to I-64	NB	7:00 AM	5.3	5.8	5.8	5.2	5.1	5.2
			5:00 PM	3.6	5.0	5.0	6.5	5.0	5.0
		SB	7:30 AM	3.7	7.2	7.2	6.8	6.8	6.8
			5:00 PM	6.1	7.5	7.6	8.8	7.9	7.8
100	Barrett to Hanley	EB	7:30 AM	16.5	21.1	21.4	19.8	19.6	19.2
			5:00 PM	--	22.0	22.1	25.0	23.4	23.4
		WB	7:30 AM	--	18.8	20.0	21.0	18.5	17.9
			5:00 PM	20.1	21.4	21.4	23.0	23.5	23.0
MO141	I-44 to I-64	NB	7:00 AM	11.7	12.6	14.2	15.0	12.7	13.0
			5:00 PM	--	12.8	12.9	13.0	12.9	13.5
		SB	7:00 AM	--	11.1	11.5	12.7	11.6	10.3
			5:00 PM	14.0	11.7	12.4	14.8	13.2	13.1
D (Page)	I-270 to I-170	EB	7:30 AM	9.8	9.1	10.1	7.6	8.2	8.1
			5:00 PM	--	8.7	10.1	9.3	8.9	9.3
		WB	7:30 AM	--	11.3	11.7	8.6	7.6	7.9
			5:00 PM	10.6	11.2	11.6	8.5	8.7	8.4

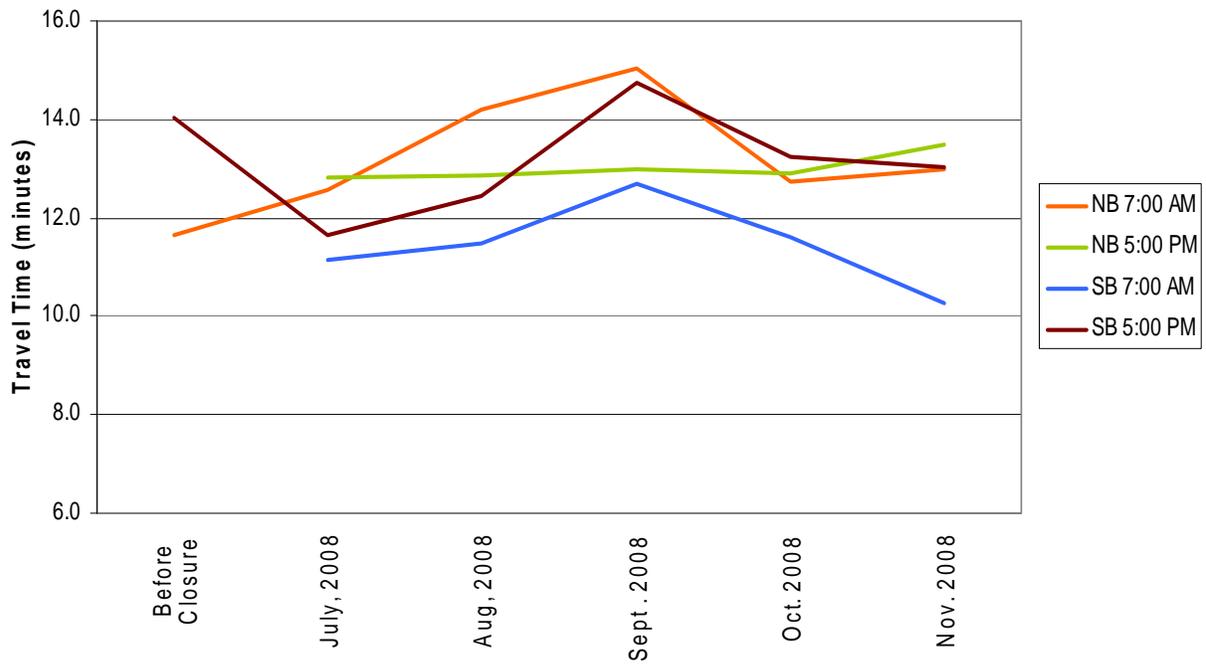
Routes US61/67 - Route 100 to I-64



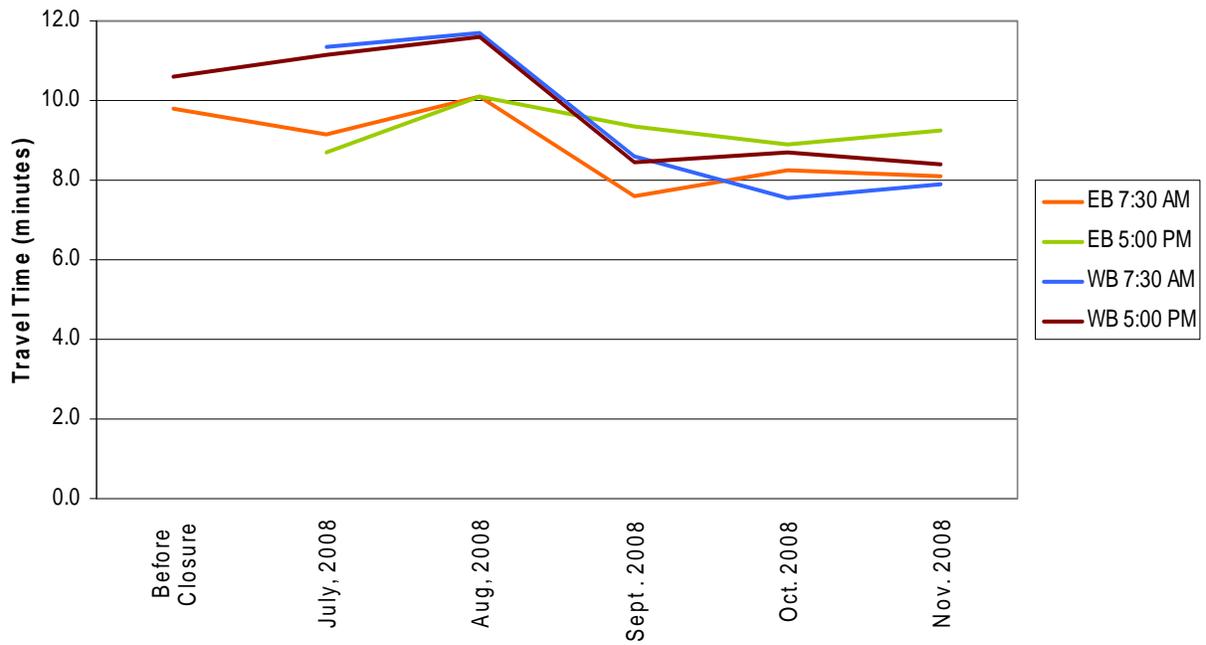
Route 100 - Barrett to Hanley



### Route 141 - I-44 to I-64



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



## Park-and-Ride

The table below summarizes pre-closure construction and closure construction quarterly parking counts at MoDOT's Park-and-Ride lots in St. Louis region (Missouri four county metro area). Users at regional park-and-ride lots have decrease in this quarter, but remains higher than pre-closure construction. This information might help provide an indicator on how the gas price fluctuation has impacted the region over the past year or so with gas prices down significantly.

**MoDOT Park-and-Ride Volumes**

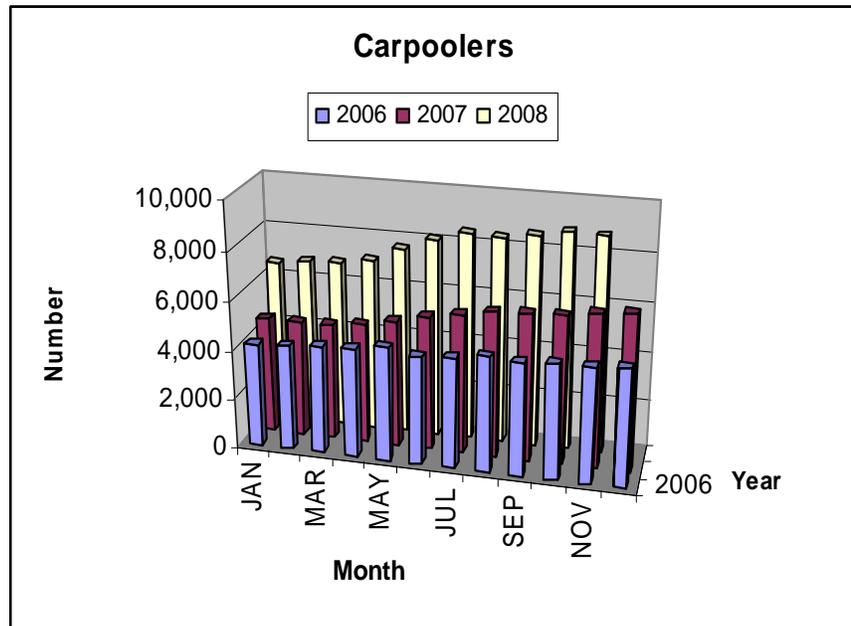
County	Lots	Total spaces	Vehicles Parked in Lot							
			Feb07	May07	Aug07	Nov07	Feb08	May08	Aug08	Nov 08
Franklin	6	413	295	205	189	175	168	167	202	193
Jefferson	11	962	321	337	379	386	367	430	448	435
St. Charles	12	1110	427	403	283	315	301	415	566	455
St. Louis	6	792	519	540	582	451	493	579	697	573
<b>Total</b>	<b>35</b>	<b>3277</b>	<b>1562</b>	<b>1485</b>	<b>1433</b>	<b>1327</b>	<b>1329</b>	<b>1591</b>	<b>1913</b>	<b>1656</b>

## Transit

We continue to work with Metro St. Louis in determining an approach to analyze the impacts experience by the transit provider during the closure and construction along I-64. The annual report will provide a more detail assessment of transit, both bus and light rail.

## Rideshare

RideFinders, sponsored by Madison County Transit, is the St. Louis regional rideshare program. The graph at right shows historical ridership for RideFinders, and indicates a general upward trend since 2006. The ridership has somewhat level out over the last 2 months to around 8800 carpools. This fact is also true with vanpoolers that are around 980 vanpoolers. This fact may also provide some indication of the regional impact experience with the reduction gas prices.



The research team is working with RideFinders to obtain more details to help correlate rideshare activities with I-64 closure statistics.

## 4. Economics

### Economics Highlights

#### Major Components of Economic Analysis

Analysis of pre-closure, western closure, and current conditions, transitioning to the eastern closure

Determine the effectiveness of the reconstruction and traffic management strategies on the local economy

Identify the strategies that are the most appropriate for near-term and long-term

The primary highlight for this quarter is collection, analysis, and tracking of economic data and financial indicators since the western closure of I-64. To date, MERIC has provided HDR with economic data from the first quarter 2006 through the second quarter of 2008. In addition residential and commercial real estate data has been collected for the St. Louis metro area. Lastly, taxable sales data has been compiled up to and including the third-quarter of 2008. Given the time lag in available economic data indicators, this quarterly report will only focus on the currently available and

collected data up to the third quarter of 2008.

### Economic Analysis Progress

Current activities to date include:

- Collection of the identified published economic, demographic, and fiscal data.
- Analysis of real estate data for the St. Louis metro and comparison to other metro areas
- Received ZIP-code-level data from MERIC for the first and second quarters of 2008. The economic data includes: industry employment, wage, and establishment data tabulations.
- Analysis of Third Quarter 2008 Taxable Sales Data from Missouri Department of Revenue (DOR)
- Finalizing, distributing, and publicizing the fall 2008 business survey

### Real Estate

The office vacancy rates in the St. Louis metropolitan area have increased since the second quarter of 2007 to 14.57% and average office lease rates have fallen to \$18.39 per square foot. St. Louis ranks 25<sup>th</sup> in terms of its office vacancy rate compared to the major metropolitan areas in the US<sup>1</sup>. As for residential housing, the number of building permits for single-family housing in the St. Louis metro has fallen, consistent with national trends, while multifamily housing permits have declined by 60% since the same period in 2007 is significant higher than the national trends.

**Table 1 Housing Building Permits, in thousands**<sup>2</sup>

	SINGLE-FAMILY			MULTIFAMILY		
	YTD Jul-08	YTD Jul-07	YTD PCT CHG	YTD Jul-08	YTD Jul-07	YTD PCT CHG
UNITED STATES	387.4	651.9	-41%	216.9	238.5	-9%
St. Louis Metro	3.19	5.42	-41%	0.63	1.57	-60%

<sup>1</sup> CB Richard Ellis

<sup>2</sup> National Association of Homebuilders

## Economic Analysis

Figure 1 displays an employment index for the I-64 corridor and non-corridor regions of St. Louis city and county. The graph depicts positive growth from first quarter of 2007 through the fourth quarter of 2007. Employment growth declines in the first quarter of 2008, for the corridor and fell below the first quarter 2007 employment level for the non-corridor region. These trends are consistent with taxable sales as discussed below with a slight recovery in second quarter 2008. Not surprisingly, taxable sales fluctuate to a greater degree than employment, which experiences less volatile seasonal variation.

**Figure 1 Employment Index by Region**

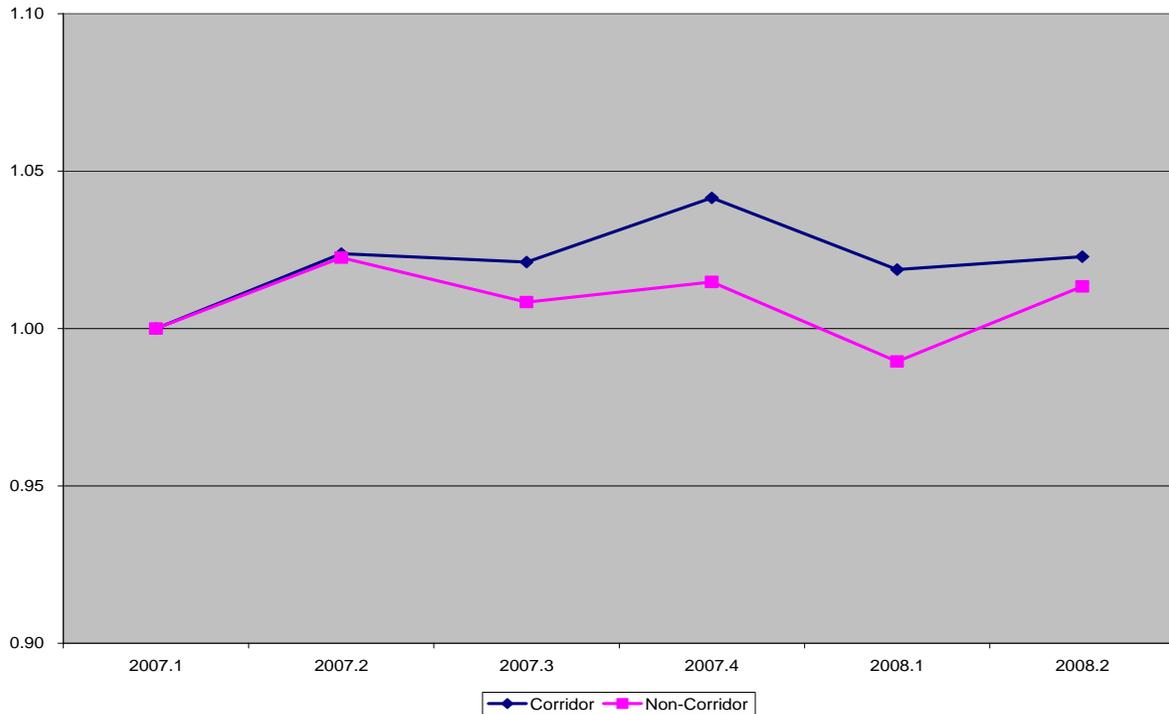


Table 2 below shows the major economic indicators for the corridor and non-corridor regions for the first two quarters of 2008. Table 2 shows that there is a modest recovery in terms of employment and total taxable sales for both regions. Despite the slight recovery in jobs and taxable sales in second quarter, there is a decline in both the number of establishments and total wages.

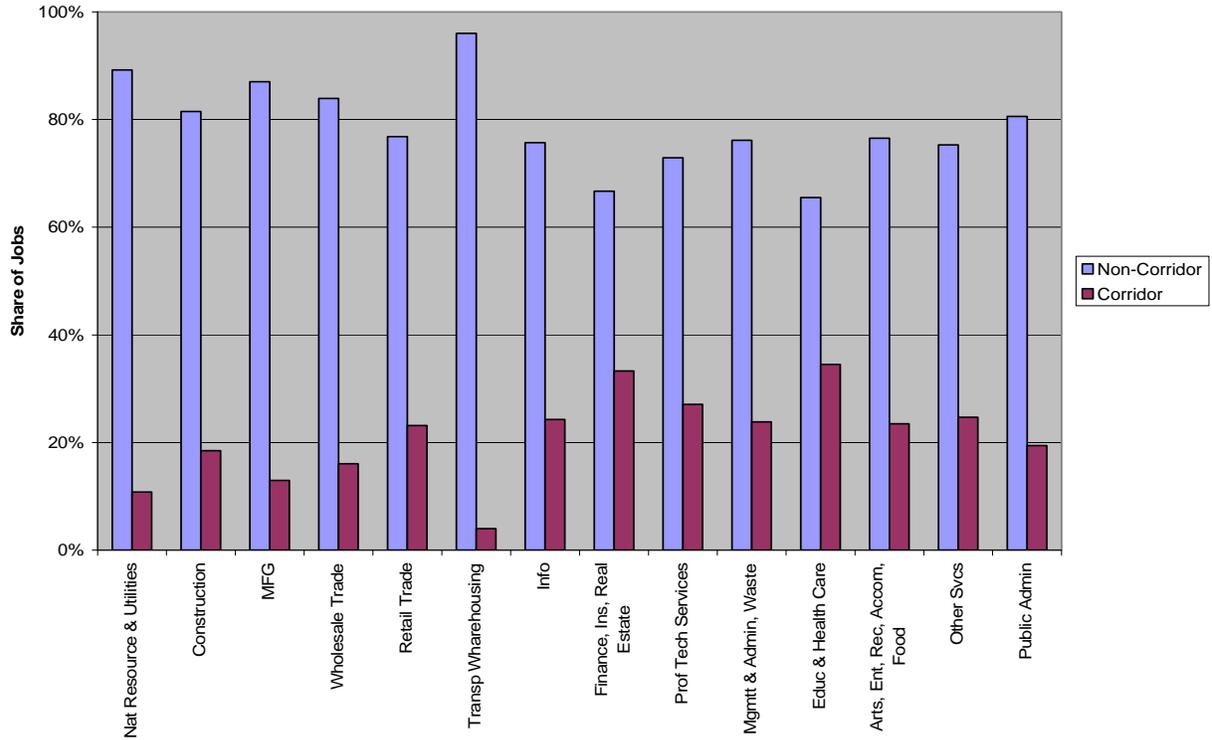
**Table 2 St. Louis I-64 Corridor and Non-Corridor Economic Profile**

	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	N/A	N/A
Number of Establishments	9,232	31,155	9,197	31,131	N/A	N/A
Wages (\$ Millions)	\$ 2,705	\$ 7,413	\$ 2,555	\$ 7,193	N/A	N/A
Total Taxable Sales (\$ Millions)	\$ 833	\$ 3,977	\$ 914	\$ 4,226	\$ 888	\$ 4,096

Source: MERIC and Missouri Department of Revenue

Figure 2 shows the share of employment by industry for each region in second quarter 2008, where the corridor region has a significant share of jobs in education and health care, finance, insurance and real estate, and professional technical services.

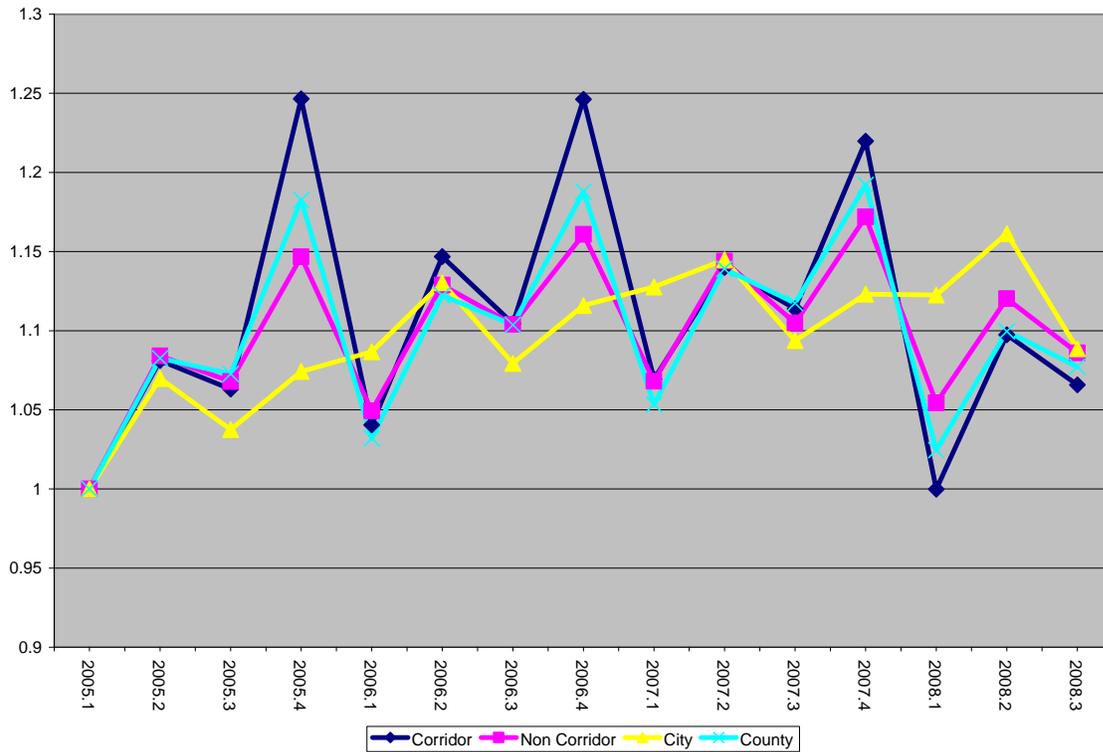
**Figure 2 Employment by Industry Share: Corridor and Non-corridor Regions for Second Quarter 2008**



### Taxable Sales

The graph (Figure 3) below is an index of quarterly taxable sales for: 1) St. Louis County; 2) City of St. Louis; 3) I-64 Corridor region; and 4) Non-corridor areas of the City and County. Taxable sales declined for the first quarter of 2008 for all four geographic areas, but experienced a modest recovery in the second quarter of 2008. As shown in Figure 3, St. Louis City’s taxable sales grew steadily from 2005 until the fourth quarter of 2007, with almost no change, or flat growth, between fourth quarter 2007 and first quarter 2008. The trend line for St. Louis County’s taxable sales shows it is far more susceptible to seasonal trends, as taxable sales peak during the fourth quarter of each year.

**Figure 3 Taxable Sales Index by Region**



Comparing the I-64 corridor and non-corridor region, the corridor is more susceptible to seasonal spikes, especially the transition from fourth quarter to first quarter of the following year. For 2008, the corridor region saw a steeper decline in taxable sales (than in previous years) from fourth quarter 2007, but rebounded during second quarter 2008. Table 3 below shows the year-on-year differences from the first and second quarters of 2007 and 2008 for each region. On a year-on-year basis the non-corridor region experiences a significant decline in taxable sales for the second quarter (\$89 million). However, on a percentage-point basis the corridor is experiencing a more dramatic decline in sales, down 6.5% for the first quarter of 2008 and down 4.3% for the third quarter of 2008.

**Table 3 Year-on-Year Difference Taxable Sales 2008 vs 2007, in millions of dollars**

	2008 Vs 2007			Percentage Change		
	1st Quarter	2nd Quarter	3rd Quarter	1st Quarter	2nd Quarter	3rd Quarter
Corridor	\$ (58.01)	\$ (35.44)	\$ (39.95)	-6.5%	-3.7%	-4.3%
Non-corridor	\$ (51.24)	\$ (89.20)	\$ (71.54)	-1.3%	-2.1%	-1.7%

These results demonstrate that overall taxable sales are declining in the study area, and indicate that the corridor region is to some degree impacted by the western closure. However, as there are only three data points, which are subject to revision, it is difficult to completely attribute these impacts to I-64, especially considering the current national economic conditions.

Yet compared on an industry basis certain industries are showing modest growth in taxable sales while the rest are in decline. Comparing detailed taxable sales by industry, first quarter 2008 taxable sales for general merchandise retail stores dropped below their 2006 level in both St. Louis City and St. Louis County, indicating that consumers are purchasing less merchandise and possibly saving more. Similar trends were found in eating and drinking places (restaurants) which saw a steep decline in taxable sales between fourth quarter 2007 and first quarter 2008. Whereas purchases from food and grocery stores for the first and second quarter of 2008 are at their highest seasonal levels since 2005. These results indicate that as consumers are shifting their spending away from eating out at restaurants, and instead purchasing food at groceries stores.

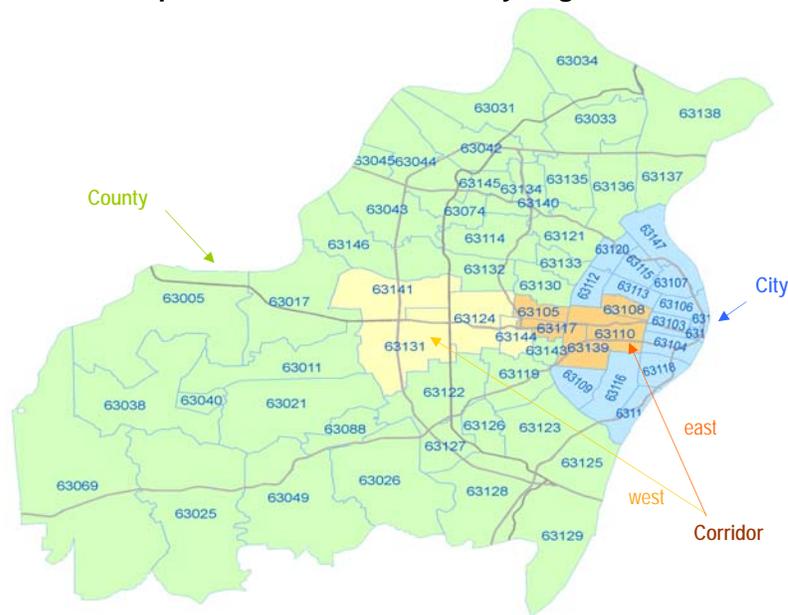
**Conclusions and Future Steps**

Thus far it is difficult to isolate the impacts of I-64 on the St. Louis economy from the larger national economic conditions. Additional economic and fiscal data will help assess the implications of the western closure and the up coming eastern closure. In addition, responses to the fall 2008 business survey will provide more ‘real time’ information on how businesses are impacted and reacting to the closures.

Future steps will include obtaining real estate data from Torto Wheaton Research (TWR). TWR real estate data was used in the original Preconditions Analysis of I-64 and will cover office occupancy, absorption rates, and residential occupancy on a quarterly basis. Lastly, the assessment of economic cost due to changes in traffic, travel delay, and vehicle miles traveled (VMT) due to the western closure of I-64 will begin.

The map below shows the 9 ZIP code areas impacted by I-64 closures (corridor) and the ZIP codes that makes up the remainder of St. Louis City and St. Louis County (non-corridor).

**Zip Code Definitions for Study Regions**



## Response

### I-64 Traffic Response Highlights

#### Major Goals – I-64 Traffic Response Assessment

- Assess benefit/cost of the current I-64 Traffic Response deployment (arterials)
- Assess value of continuing future arterial highway service patrol efforts
- Develop white paper that provides a sustainable approach to consideration of future arterial

The main highlight for this quarter was the collection of the I-64 Traffic Response surveys. These surveys are provided during each assist performed. This survey is providing information from motorists receiving these services, including information on location, response/wait time, services provided, the professionalism with which services were provided, and the user opinion on the value of the services. Additional questions on the I-64

project were also included to help gauge users' opinions on the I-64 project and to connect these services with the I-64 project. The survey form identifies the sponsors, and provides information on the regional traveler information systems (511 and Gateway Guide). 755 surveys have been completed and received during the first eleven months for the I-64 Traffic Response with 2616 from Motorist Assist. This source of survey input represents 55% of total information received on the I-64 study. In the next quarter, the study team plans to conduct interviews with staff involved with this operation and complete study evaluation the I-64 Traffic Response team.

### I-64 Traffic Response Objectives and Methods

This assessment will utilize information collected from transportation users, I-64 Traffic Response staff, previous research/study efforts, and the mobility assessment of arterial corridors to establish the benefit/cost of the program. This information will then be used to forecast the future value of continuing regional arterial highway service patrol efforts. The assessment will explore the following potential expanded arterial highway service patrol alternatives:

- Expanded services only during major or roadway closure construction activities
- Continuous services along major regional arterial corridors
- Limited-response services along major arterial corridors by expanding the region's Motorist Assist Program and the utilization of the region's integrated management and operation system

A draft white paper will be delivered by January 19, 2009 with the final white paper delivered by February 1, 2009 that will outline a sustainable approach to regional arterial highway patrol services. This deliverable will provide the region the time necessary to evaluate, determine potential funding sources and implement desired recommendations.

### I-64 Traffic Response Results

MoDOT performs service patrol activities where operators travel busy highways and provide assistance at incident sites for stranded motorists and crashes. By quickly helping to resolve problems, this program increases the safety and mobility of all motorists in the area. MoDOT's Motorist Assist program concentrates on the interstates, and I-64 Traffic Response sponsored by St. Louis County covers major arterial roads such as Manchester Road and Olive Boulevard. Starting on January 2, 2008 – the day of the closure – these programs' operators began distributing surveys to those they assisted to obtain feedback about operator performance, and as another method to learn how the closure is impacting motorists.

Responses indicate that motorists are very satisfied with operator performance, and their responses related to the closure are higher than experienced in the web surveys, mail surveys and interviews. The table below summarizes some of these satisfaction measures. While limited two questions, they reflect important questions on the I-64 closure on the project delivery method and regional mobility impacts. The distribution and receipt of surveys will continue throughout the study period, with quarterly updates being made.

**Percent Respondents Expressing Satisfied or Very Satisfied**  
 Motorist Assist (MA) and I-64 Traffic Response (TR) Surveys

**Ability to move around St. Louis area      Decision to close for 2 years vs. 6 to 8 years**

	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
<b>MA</b>	<b>89%</b>	<b>91%</b>	<b>88%</b>	<b>90%</b>	<b>89%</b>	<b>94%</b>	<b>94%</b>	<b>94%</b>
<b>I-64 TR</b>	<b>90%</b>	<b>93%</b>	<b>93%</b>	<b>95%</b>	<b>89%</b>	<b>95%</b>	<b>93%</b>	<b>96%</b>

**Appendix A: Communications Data**  
 – Zoo Interview Report Data

**Appendix B: Mobility Data**

**Appendix C: Economic Data**

**Appendix D: Traffic Response Data**

## Third Quarter Interview Question Flow Sheet

### Are you a Visitor or a Local Resident?

**Visitor or Local** (Define local as City of St. Louis, St. Louis, St. Charles, Franklin or Jefferson County on the Missouri side or Madison, St. Clair or Monroe on the Illinois side – EWGCC Region )

**When planning your travel to the Zoo, what was your greatest concern?**

**Traffic, road construction, weather, gas prices, other \_\_\_\_\_**

**How did you enter into the Zoo area from the East or West?** (Determine - impact of closure)

### East or West

If West:

**Did the I-64 closure impact your travel to the Zoo? Yes or No** (If “yes” or “local” ask questions 3-7 and 10-15)  
(If “no” and “visitor” asked questions for Visitor)

If East:

**Are you aware of the I-64 closure west of the Zoo? Yes or No** (If “yes” or “local” ask them questions 3-7 and 10-15?)  
(If “no” and “visitor” asked questions for Visitor)

### Local

Use Questions 3 through 7 on 1<sup>st</sup> quarter interview

Use Questions 10 through 15 on 1<sup>st</sup> quarter interview

### Visitor

Did the I-64 (Hwy 40) closure affect your decision to visit the zoo?

**Yes or No**

Has the I-64 project deterred you from visiting the St. Louis area?

**Yes or No**

If yes, what areas have impacted (like Clayton, City of St. Louis, West County, etc?)

**Area \_\_\_\_\_**

Will knowing the about the I-64 project impact future trips to St. Louis?

**Yes or No**

Use question 22 (cut list to TV, Radio, Newspaper, Internet, Road Signs, Other)

Question 22 (same list as for local)

Use question 23

Question 23 (revised to record city and state?)

Now please tell us if you strongly agree, just agree, disagree, or strongly disagree with the following statements.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
3. The closure has changed how often I travel to certain areas					
4. The closure has changed how often I travel overall					
5. The closure has caused me to combine my trips more often					
6. The closure has changed where I spend my money					
7. The closure has changed my work schedule, location, or habits					

How satisfied are you with ...	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied
10. How well the public has been kept informed about the New I-64 Project?					
11. The timeliness of information on the project?					
12. How alternative travel options have been communicated?					
13. How well you are able to move around the St. Louis area with the closure of I-64 / Highway 40?					
14. The decision to complete the work by closing I-64 for 2 years with cost savings instead of taking 6-8 years with lane closures?					
15. Your overall level of satisfaction with how the I-64 closure has been handled?					

22. **What is the best way for MoDOT to get information to you about road improvements and other road and bridge information?**

Media	<input type="checkbox"/> TV News <input type="checkbox"/> Radio <input type="checkbox"/> Newspapers	(Please mark all that apply)
Electronic	<input type="checkbox"/> Internet Sites (list specific sites if give) _____	
Roadway	<input type="checkbox"/> Road Signs <input type="checkbox"/> Dynamic (variable) message signs	
Other	<input type="checkbox"/> Other: _____	

**In order to make sure we get adequate geographic representation and because we are interested in traffic flows, it would be very helpful if you could provide us with your home zip code and your work or school zip code.**

23. \_\_\_\_\_ home zip code    24. \_\_\_\_\_ work / school zip code (Local)

23. \_\_\_\_\_ City and \_\_\_\_\_ State (Visitor)

**Provide information on the Hampton closure on September 22, 2008 –**

"Are you aware the Hampton I-64 interchange is closing Sept 22 from 8 months?"

Your interviewers can tell people there are 9 other entrances to Forest Park and they should become familiar with how to get there.

Specifically zoo traffic should consider I-64 to Kingshighway to Oakland to Tamm.

**If they would like to provide additional comments and information direct them to the web link to the online survey**

(<http://www.thenewi64.org/>)

**End of Questions for the interviewee**

**Have interviewer determine sex, age range and ethnicity - record information along with time of day.**

**Observer's Opinion (Do Not Ask – interviewer to fill out)**

28.  Male  Female

29. **Age group**

15 to 25       26 to 40       41 to 65       Over 65

30. **Ethnicity**

American Indian

Hispanic or Latino

Asian

White or Caucasian

Black or African-American

Other

*Thank you for your help with completing this survey!*

# The New I-64 Economic and Regional Mobility Study

Third Quarter Interview  
St. Louis Zoo

September 20, 2008



**Before the Closure**

Please indicate how much time it takes you to make certain trips now compared to how long it took you before the closure.

	Has not changed or is shorter	1 to 5 minutes longer	6 to 15 minutes longer	16 to 30 minutes longer	More than 30 minutes longer
Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping for work or school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Reasons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping for personal necessities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traveling throughout St. Louis Region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# 1. Introduction, Approach and Survey Instrument

As part of the overall evaluation study of the I-64 Project, HDR and EDSI conducted interview surveys at the St. Louis Zoo’s entrances on September 20, 2008. A survey questionnaire was developed and used to gain further in-sight on the opinions regarding the I-64 construction from people attending the zoo. The questions and the public responses are discussed in more detail in this report.

A total of 80 people agreed to be interviewed as they entered or exited the zoo by both the South and North entrances. For reference a copy of the survey questionnaire is provided in the Appendix.

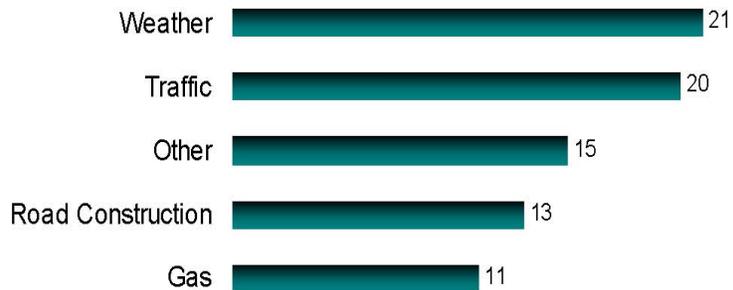
## 2. Results

### Visitor of Local

Knowing whether the zoo patrons were visitors or locals provided some information on how informed the patrons were on the I-64 construction project. There were **56 local and 24 visitor** patrons interviewed.

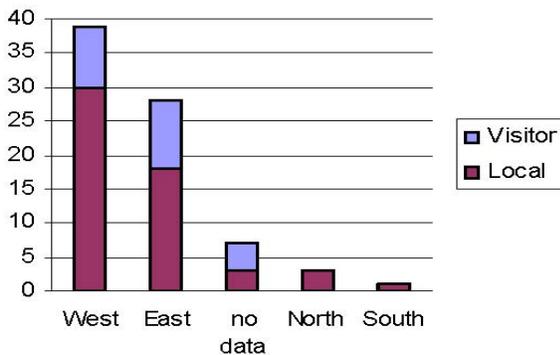
### What was the greatest concern when planning the trip to the Zoo?

Weather and traffic received the greatest responses when asked this question. ‘Other’ responses ranging from no concerns to crowds to getting lost were received. Road construction was fourth with gas being fifth. The gas concern was included to help determine the potential impact from higher gas prices on patrons’ travel decisions.



Graph 1 – Trip Planning Concerns

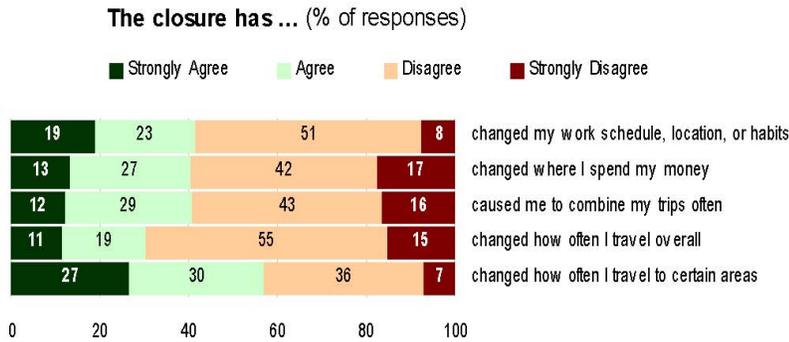
### How did they arrive at the Zoo from the West or East?



This graph shows how patrons arrived when driving to the Zoo. Thirty-nine arrived from the west and twenty-eight arrived from the east. This information will help in assessing those patrons who could have experienced the road closure located west of I-170. This information allowed the survey interview to vary in a “tree format” thereby asking only pertinent questions based on whether they were local or visitor and if they arrived from the west (potentially impacted from the closure). Based on these responses, the following summary of information was prepared.

Graph 2 – Arrival Direction to the Zoo

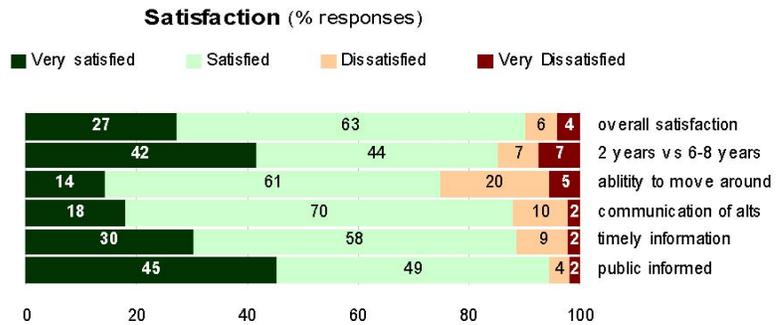
# Local Responses – Zoo Interviews



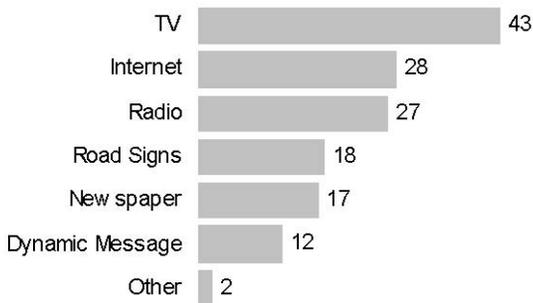
**Graph 3 – Impacts of Closure**

Responses were less (higher percentage of disagree and strongly disagree) than previous responses in other surveys. This difference could be related to the fact that this trip destination was for recreational purposes rather than daily commute or shopping trips. We will be conducting future interviews at other recreational locations and we will compare the responses to see if they are similar.

Responses to the satisfaction questions are similar to the responses in other surveys. Overall project satisfaction and project delivery in 2 years compared to 6 to 8 years are 90% and 86% respectively. Communication of alternate routes, timely project information and public informed were 88%, 89% and 94%.



**Graph 4 – I-64 Project Satisfaction**



**Graph 5 – Project Information Dissemination**

The response to the best way for MoDOT to disseminate information on the I-64 project was slightly different than the other surveys. The primary difference is the television media received more responses as the preferred method of delivery. In the previous surveys, television, internet and radio were more closely related as the top sources. Again, we will need to see if this response is received in future interviews at recreational destinations.



**Residential Location Response**



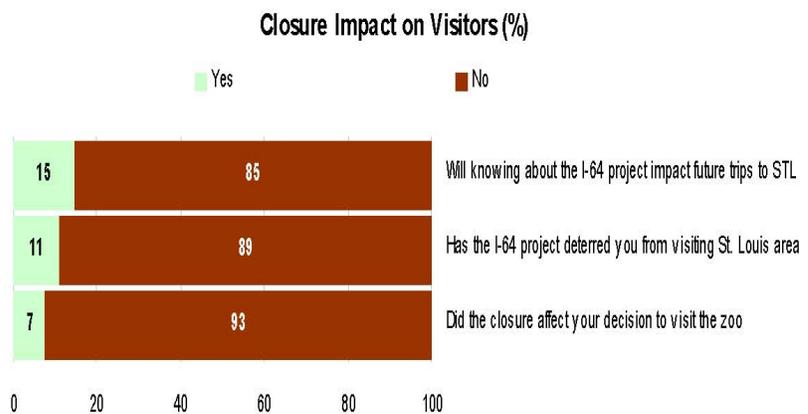
**Work Location Response**

**Figure 1: Local Zoo Patrons - Residence and Work Location**

Zip code information was obtained from 68 patrons with 19 (28%) outside the local zip code range. The information above shows residential and work location zip codes for those patrons living in the St. Louis area. Residential zip code was asked of all patrons and only local patrons were asked about their work location. A general note some participants chose not to respond to certain questions.

**Visitor Responses – Zoo Interviews**

Visitors were asked less detailed I-64 closure impact questions and focused more about traveling to St. Louis for recreational or tourist activities. The responses are shown in Graph 6. While some patrons did indicate impacts, the majority of patrons, ranging from 85% to 93%, responded that it did not impact them. We will need to compare these results to future interviews at recreational locations to determine if their responses are similar.



**Graph 6 – Visitor’s Reported Project Impacts**

**Appendix A: Zoo Interview Complete Pack  
Complete Response Spreadsheet**