

**2009 Central
Employment Core Cordon
Count
of Vehicular
and Passenger Volumes**

*Presentation to Travel Forecasting
Subcommittee
Agenda Item 9
2010-07-23*

Who

- **Andrew Burke**, field management and data processing
- **Tim Canan**, program administration
- **Patrick Zilliacus**, field management, data processing and report preparation

What

- **Count of inbound vehicle and person movements entering the core of the region 5 A.M. to 10 A.M.**
- **Count of outbound vehicle and person movements leaving the core 3 P.M. to 8 P.M.**
- **One-day counts**

What was left out

- Counts of the central crossings of the Potomac River
- Count stations between Canal Road, N.W. and 15th Street, N.W.
- Counts of the two stations on the George Washington Memorial Parkway

2006 data were used for stations on the cordon line, with factors applied. Bridge crossing counts were excluded.

Where

Map of cordon count monitoring stations.

Stations crossing Potomac River excluded from this graphic.



When

Many days of rain were lost.

- April 2009
- May 2009
- June 2009

- Tuesdays
- Wednesdays
- Thursdays

- Inbound 5 A.M. - 10 A.M.
- Outbound 3 P.M. - 8 P.M.

2009 Central Employment Core Cordon Count 2006 through 2009 Estimated Change in Employment

Jurisdiction	2006 Estimated Employment	2009 Estimated Employment	'06 - '09 Absolute Change	'06 - '09 Percent Change
<i>All of D.C. and all of Arlington County, Virginia</i>				
District of Columbia	665,600	679,300	13,600	2
Arlington County, Va	157,300	157,800	500	0
Total	822,900	837,100	14,100	2
<i>Inside cordon line only - BLS data adjusted using MWCOG Draft Round 8.0 Employment Forecasts</i>				
District of Columbia	452,600	461,900	9,300	2
Arlington County, Va	78,600	78,900	300	0
Total	531,300	540,800	9,500	2

Source: Bureau of Labor Statistics county-level nonfarm employment

Adjustment factors to derive employment inside cordon line from Draft Route 8.0 Cooperative Forecasts of Employment

Data are rounded

A.M. inbound (6:30 to 9:30) highlights

- Person trips (all modes) **up** by about 20,000, from 443,000 to 463,000
- Single-occupant vehicles **down** by nearly 11,500
- Person trips by multiple-occupant vehicles **up** by almost 16,000 - most of this on I-395
- Transit ridership *in aggregate* **up** by almost 16,000
- But almost **no change** in inbound Metrorail ridership during the three hour A.M. peak
- But these changes are **small**

Table 2
2009 Central Employment Core Cordon Count
2006 - 2009 Central Employment Core Cordon Person Travel Trends
Inbound Person Trips by Mode
6:30 - 9:30 A.M.

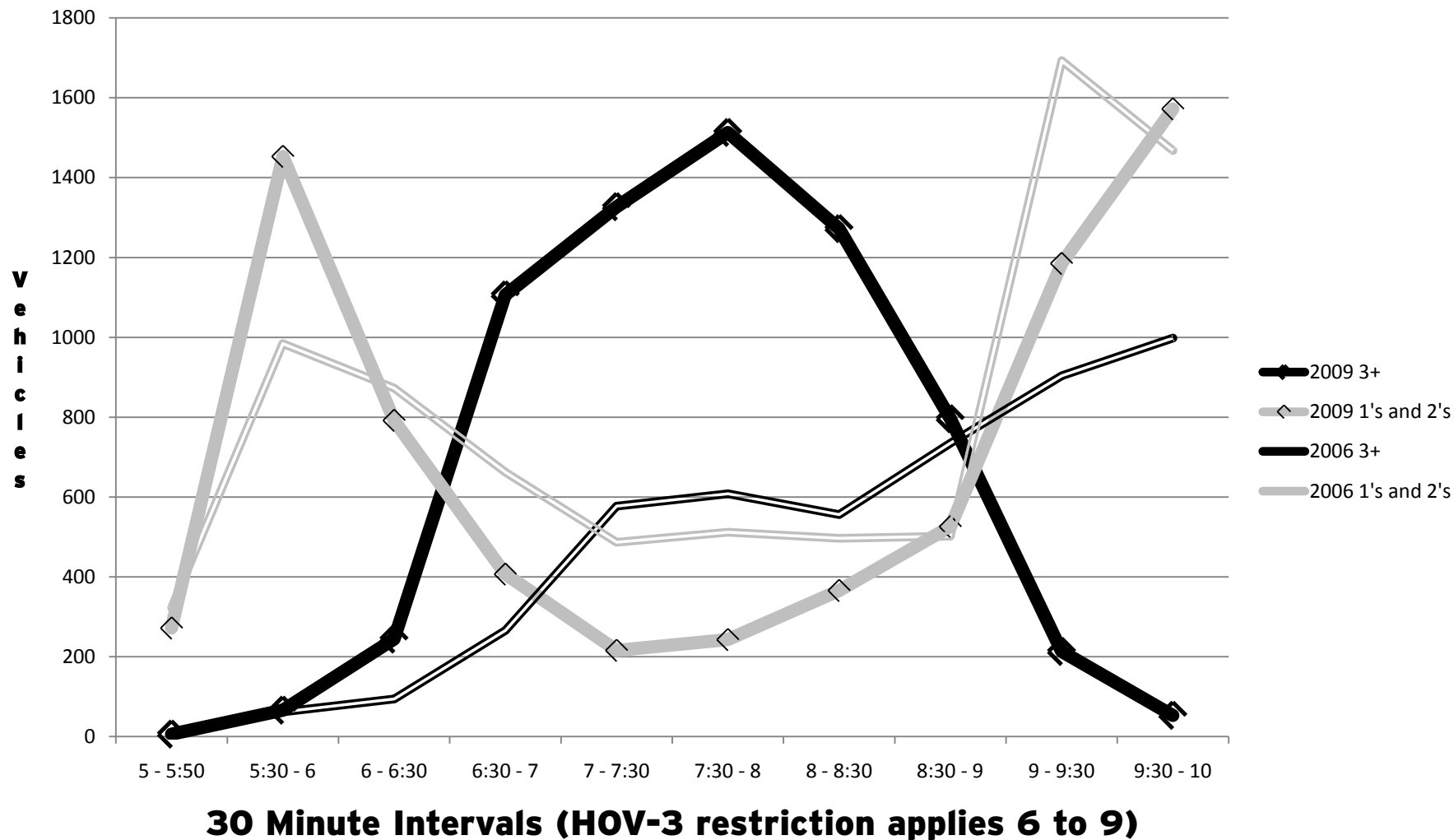
MODE	YEAR - 2006		YEAR - 2009		'06 - '09 Absolute Change	'06 - '09 Percent Change
	Trips	Percent	Trips	Percent		
Transit Bus	24,400	6	27,600	6	3,200	13
Metrorail	143,100	32	143,500	31	400	0
Commuter Bus	8,700	2	15,700	3	6,900	79
Commuter Rail	15,300	3	20,500	4	5,200	34
Subtotal - person trips by transit	191,500	43	207,200	45	15,700	8
Single Occupant Vehicle (SOV)	180,900	41	169,300	37	-11,600	-6
Multiple Occupant Vehicle (2+ persons)	70,600	16	86,500	19	15,900	22
Subtotal - person trips by automobile	251,500	57	255,900	55	4,300	2
Total - person trips by all modes	443,000	100	463,000	100	20,000	5

Data in table are rounded

Some year 2009 cells in this table include data factored from 2006 counts

Trips and absolute changes to nearest multiple of 100, percentages to nearest percent

2009 Central Employment Core Cordon Count I-395 Restricted Lanes Performance 5:00 A.M. to 10:00 A.M. 2006 and 2009



P.M. outbound (3:30 to 6:30) highlights

- Person trips (all modes) **up** by over 17,000, from almost 428,000 to about 444,500
- Single-occupant vehicles **down** by over 8,000
- Transit ridership *in aggregate* **up** by almost 20,000 person trips
- Metrorail ridership **increased** by over 10,000 person trips
- These changes are also **small**

Table 8
2009 Central Employment Core Cordon Count
2006 - 2009 Central Area Cordon Person Travel Trends
Outbound Person Trips by Mode
3:30 - 6:30 P.M.

MODE	YEAR - 2006		YEAR - 2009		'06 - '09 Absolute Change	'06 - '09 Percent Change
	Trips	Percent	Trips	Percent		
Transit Bus	20,700	5	24,000	5	3,300	16
Metrorail	131,500	31	141,600	32	10,100	8
Commuter Bus	10,200	2	12,300	3	2,100	20
Commuter Rail	14,500	3	18,800	4	4,300	29
Subtotal - person trips by transit	177,000	41	196,700	44	19,800	11
Single Occupant Vehicle (SOV)	163,000	38	154,600	35	-8,400	-5
Multiple Occupant Vehicle (2+ persons)	87,600	20	93,300	21	5,700	6
Subtotal - person trips by automobile	250,600	59	247,900	56	-2,700	-1
Total - person trips by all modes	427,600	100	444,600	100	17,000	4

Data in table are rounded

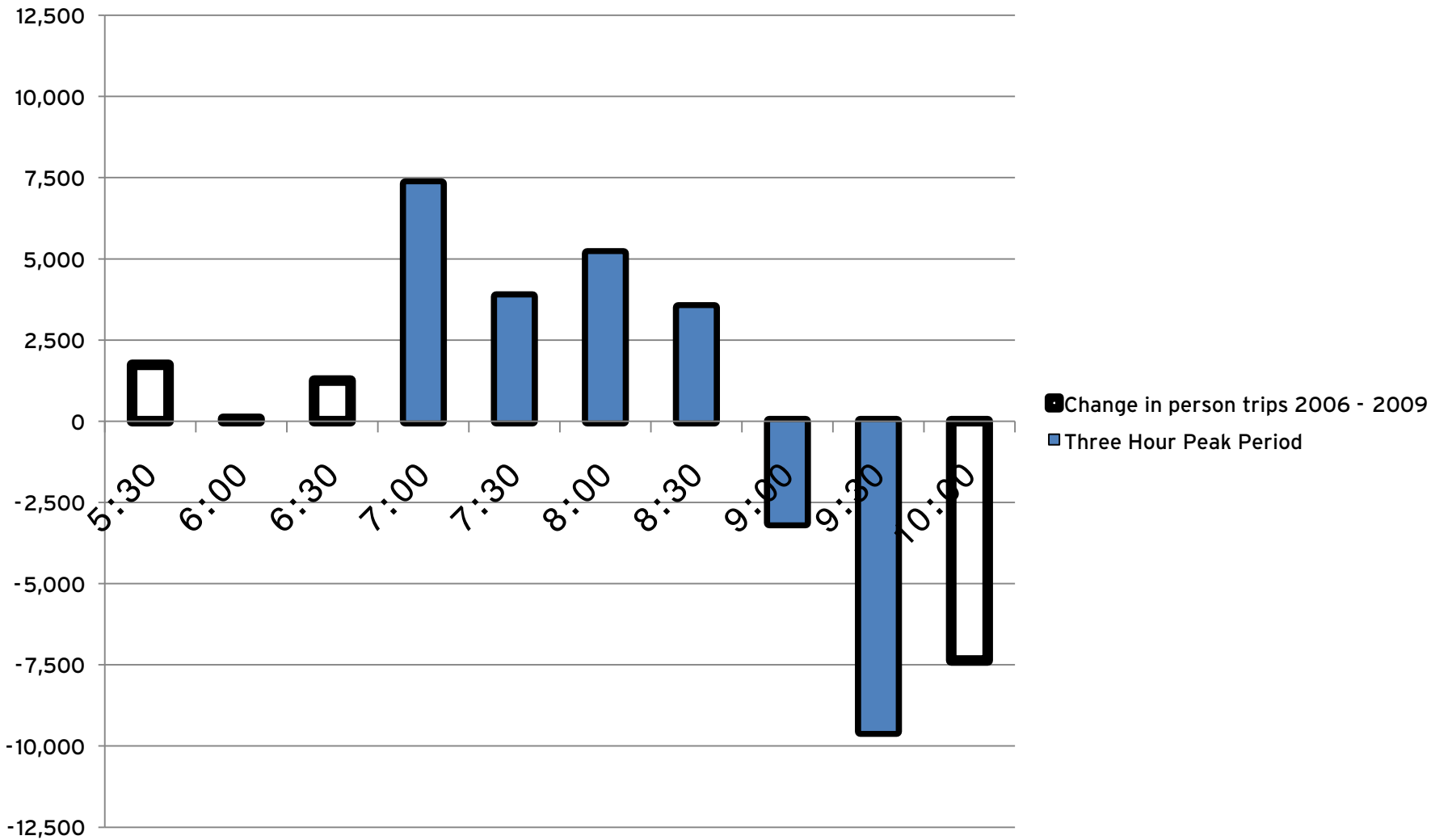
Some year 2009 cells in this table include data factored from 2006 counts

Trips and absolute changes to nearest multiple of 100, percentages to nearest percent

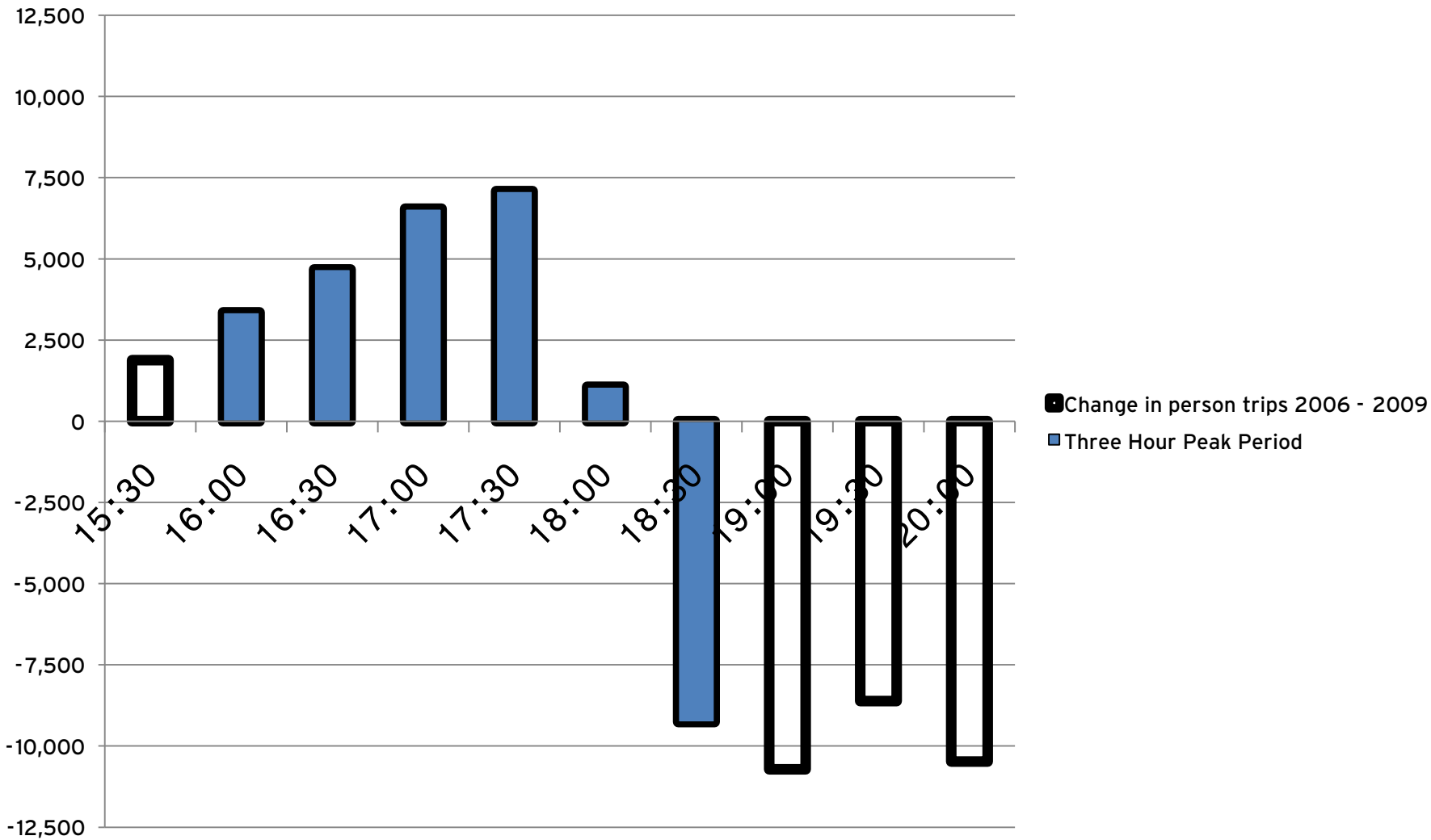
Some people may be coming in earlier and leaving earlier

- Inbound travel has increased from 5 A.M. to 8:30 A.M.
- Inbound travel in the hour from 9 A.M. to 10 A.M. appears to be down;
- Outbound travel has increased from 3 P.M. to 6 P.M.; and
- Outbound travel in the hours from 6 P.M. to 8 P.M. is also down.

2009 Central Employment Core Cordon Count Change in inbound person trips (all modes) 5 A.M. to 10 A.M. by 30 minute interval 2006 - 2009



2009 Central Employment Core Cordon Count Change in outbound person trips (all modes) 3 P.M. to 8 P.M. by 30 minute interval 2006 - 2009



Vehicle traffic

- Inbound traffic (6:30 to 9:30) down by about 6,000 vehicle trips
- Outbound traffic (3:30 to 6:30) down by about 11,600 vehicle trips

Figure 11
2009 Central Employment Core Cordon Count
Motor Vehicle Trips
Inbound 5:00 - 10:00 A.M.
2006 and 2009

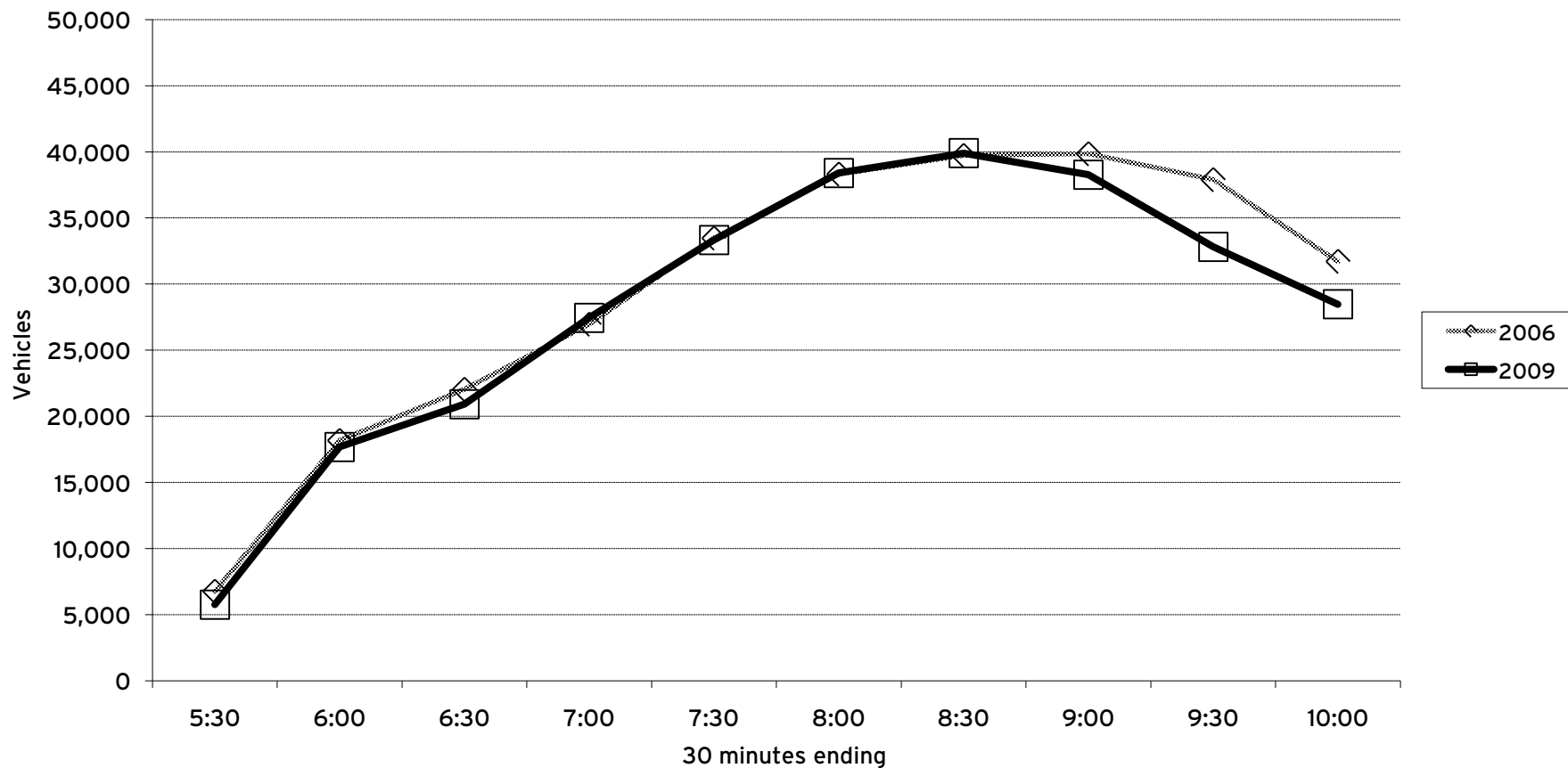
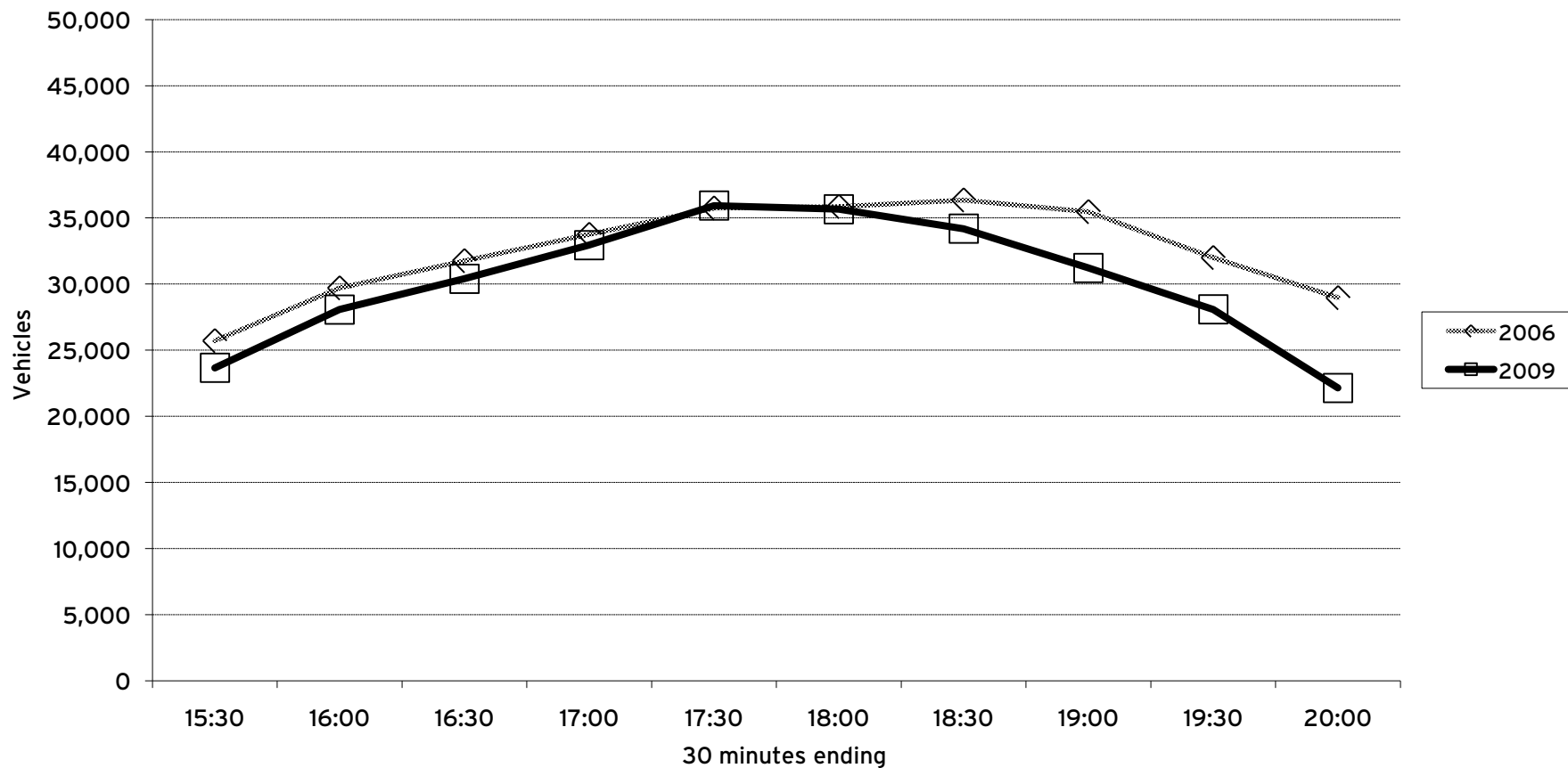
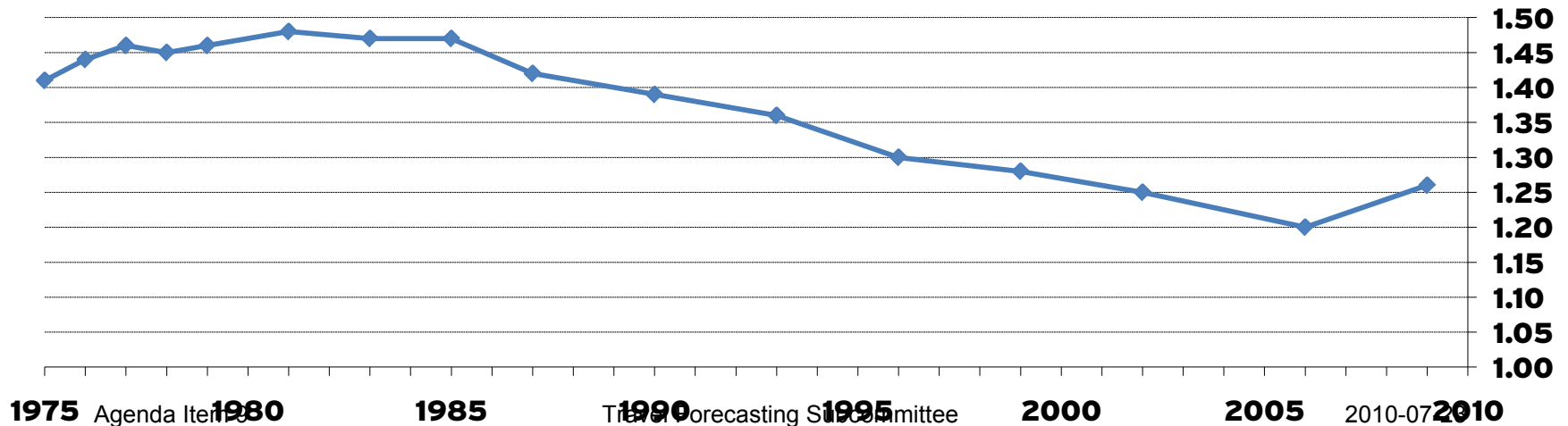


Figure 12
2009 Central Employment Core Cordon Count
Motor Vehicle Trips
Outbound 3:00 - 8:00 P.M.
2006 and 2009



Average auto occupancy has increased for the first time in many years of this cordon count program

Figure 13
2009 Central Employment Core Cordon Count
Observed Average Auto Occupancy, 1975 - 2009
Inbound A.M. Peak Period 6:30 - 9:30 A.M.



Questions?

- Comments welcome by e-mail to Zill@MWCORG.ORG
- Please submit comments by COB Monday, 2 August 2010.