

2006 Central Employment Area Cordon Count

Update and Preliminary Findings
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Presented to
the TPB Technical Committee
Friday, February 2, 2007
Agenda Item 10

Where data collected

- The cordon line is a series of stations around the downtown areas of the District of Columbia and Arlington County, Virginia
- One day counts
- Sometimes called the *Ring 1* Cordon - formerly the *Metro Core* Cordon or *Metro Employment Core* Cordon
- This round of data collection in Spring, 2006
- Currently collected 5 A.M. to 10 A.M. inbound and 3 P.M. to 8 P.M. outbound
- Central Potomac River crossings also counted

What data were collected

- **Traffic counts (including vehicle occupancy)**
- **Transit Data**
 - **Metrorail**
 - **Metrobus, Downtown Circulator, Fairfax Connector, DASH and ART**
 - **MARC and VRE**
 - **Commuter bus (e.g. PRTC and MTA)**

Significance in statistical terms

- These are a series of one-day counts
- A.M. (3 hour) - change should be greater than 9,700
- P.M. (3 hour) - change should be greater than 9,300

Table 1
2006 Central Employment Area Cordon Count
2002 - 2006 Central Employment Area Cordon Person Travel Trends
Inbound Person Trips by Mode
6:30 - 9:30 A.M.

| MODE | YEAR - 2002 | | YEAR - 2006 | | '02 - '06 Absolute Change | '02 - '06 Percent Change |
|---|-------------|---------|-------------|---------|---------------------------------|--------------------------------|
| | Trips | Percent | Trips | Percent | | |
| Transit Bus | 27,100 | 6 | 24,400 | 6 | -2,700 | -10 |
| Metrorail | 136,100 | 29 | 143,100 | 32 | 6,900 | 5 |
| Commuter Bus | 10,600 | 2 | 8,700 | 2 | -1,900 | -18 |
| Commuter Rail | 12,400 | 3 | 15,300 | 3 | 2,900 | 24 |
| Subtotal - person trips by transit | 186,200 | 40 | 191,500 | 43 | 5,200 | 3 |
| Single Occupant Vehicle (SOV) | 184,600 | 40 | 180,900 | 41 | -3,800 | -2 |
| Multiple Occupant Vehicle (2+ persons) | 96,200 | 21 | 70,600 | 16 | -25,600 | -27 |
| Subtotal - person trips by automobile | 280,900 | 60 | 251,500 | 57 | -29,300 | -10 |
| Total - person trips by all modes | 467,100 | 100 | 443,000 | 100 | -24,100 | -5 |

Data in table are rounded

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

Table 2
2006 Central Employment Area Cordon Count
2002 - 2006 Central Employment Area Cordon Person Travel Trends
Inbound Person Trips by Mode and Section of Cordon Line
6:30 - 9:30 A.M.

| | Mode | Year - 2002 | Year - 2006 | Absolute Change | Percentage Change |
|---------------------|---------------------------|------------------------|------------------------|----------------------------|------------------------------|
| D.C. Sectors | Transit | 123,700 | 130,400 | 6,700 | 5 |
| | Auto | 154,000 | 136,000 | -17,900 | -12 |
| | Total Person Trips | <u>277,700</u> | <u>266,500</u> | -11,200 | -4 |
| Va. Sectors | Transit | 62,500 | 61,000 | -1,500 | -2 |
| | Auto | 126,900 | 115,500 | -11,400 | -9 |
| | Total Person Trips | <u>189,400</u> | <u>176,500</u> | -12,900 | -7 |
| Total | Transit | 186,200 | 191,500 | 5,200 | 3 |
| | Auto | 280,900 | 251,500 | -29,300 | -10 |
| | Total Person Trips | <u>467,100</u> | <u>443,000</u> | -24,100 | -5 |

Data in table are rounded

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

Table 3
2006 Central Employment Area Cordon Count
2002 - 2006 Central Employment Area Cordon Traffic Trends
Inbound Vehicle Trips by Type and Section of Cordon Line
6:30 - 9:30 A.M.

| | Mode | Year - 2002 | Year - 2006 | Absolute Change |
|---------------------------|-----------------------|------------------------|------------------------|----------------------------|
| D.C. Sectors | Autos | 128,000 | 119,300 | -8,600 |
| | Trucks | 2,800 | 2,700 | -100 |
| | Buses | 1,700 | 1,600 | -100 |
| | Total Vehicles | <u>132,500</u> | <u>123,700</u> | -8,800 |
| Va. Sectors | Autos | 97,800 | 90,100 | -7,700 |
| | Trucks | 1,200 | 1,100 | -100 |
| | Buses | 900 | 1,300 | 400 |
| | Total Vehicles | <u>99,900</u> | <u>92,500</u> | -7,400 |
| Entire Cordon Line | Autos | 225,700 | 209,500 | -16,300 |
| | Trucks | 4,000 | 3,800 | -200 |
| | Buses | 2,600 | 2,900 | 300 |
| | Total Vehicles | <u>232,400</u> | <u>216,200</u> | -16,200 |

Data in table are rounded

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

Autos includes all vehicles with exactly four wheels and all motorcycles.

Figure 1
2006 Central Employment Area Cordon Count
Historical Timeseries, 1975 - 2006
Person Trips by Mode
Inbound 6:30 - 9:30 A.M.

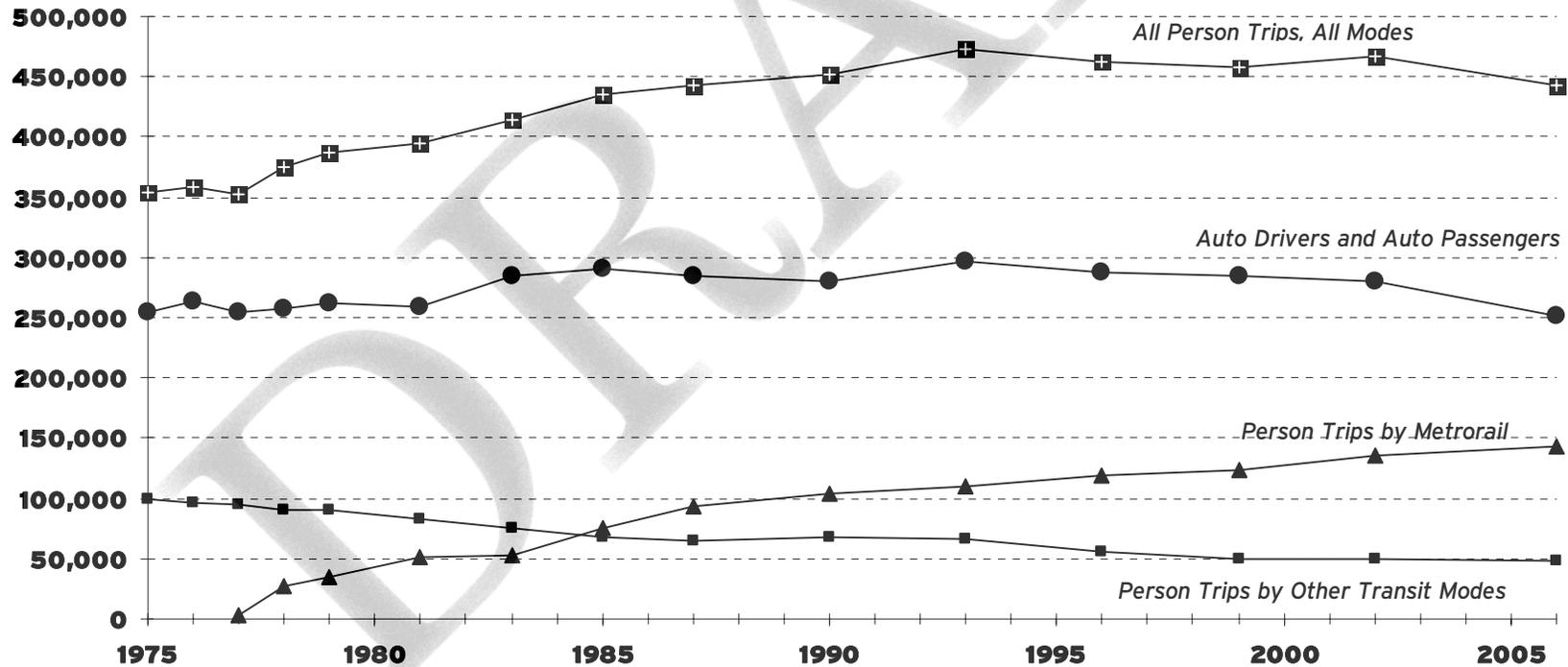
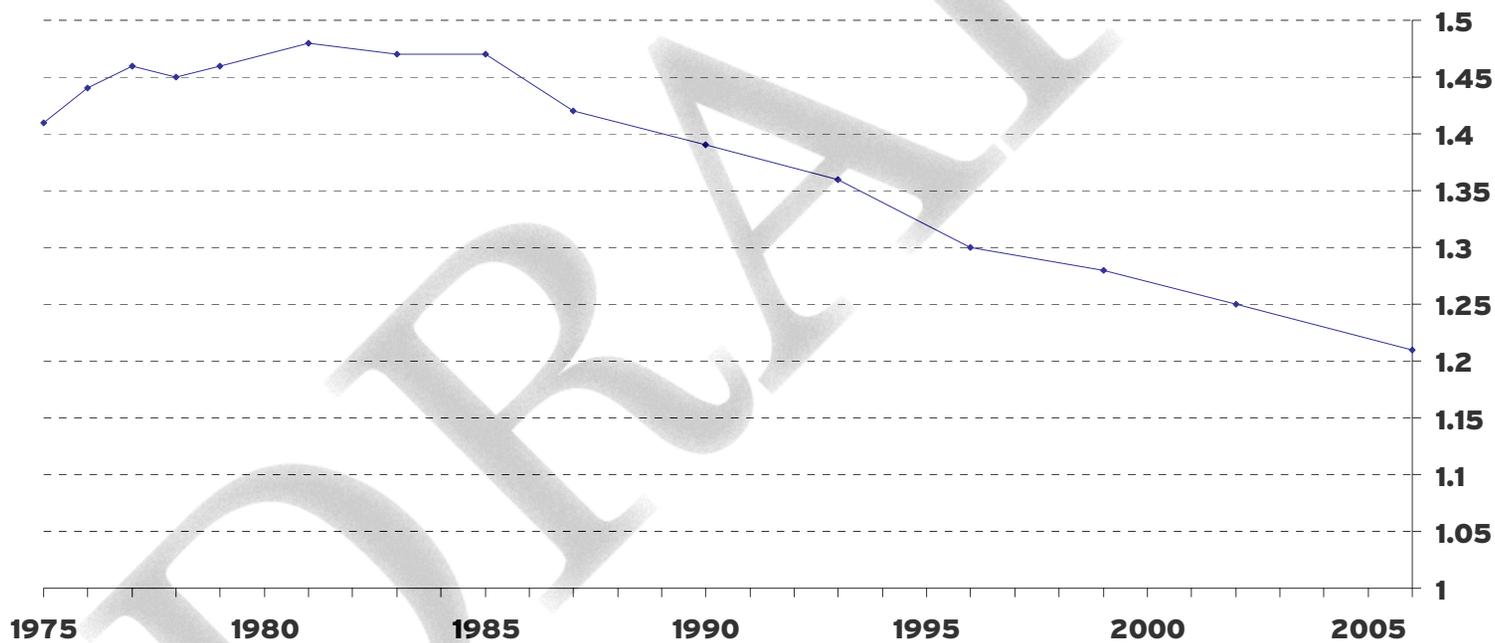


Figure 2
2006 Central Employment Area Cordon Count
Observed Average Auto Occupancy, 1975 - 2006
Inbound A.M. Peak Period 6:30 - 9:30 A.M.



Preliminary Findings

(2006 compared to 2002)

- Decline in inbound person trips
- Car-pooling - continued decline
- Single-occupant vehicles - little change
- Transit patronage up - slightly
- Vehicular traffic crossing cordon line - slight decline - **if cordon considered as a whole.**

Next Steps

- Will return to the Technical Committee in March with full draft report
- Comments welcome en route to full report
- Also Travel Forecasting Subcommittee in March

Questions?

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