#### 2007/2008 Household Travel Survey

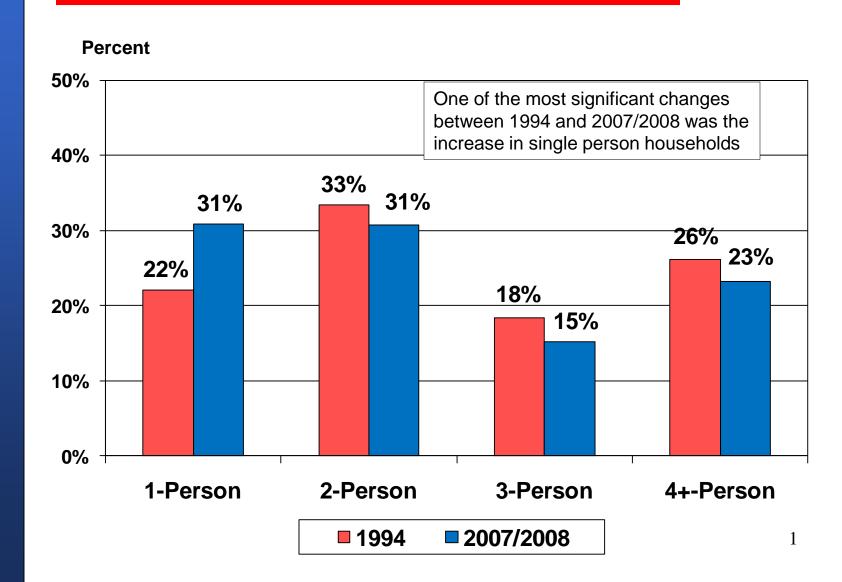
#### Changes in Daily Travel Patterns 1994 to 2007/2008

Robert E. Griffiths
Technical Services Director

National Capital Region Transportation Planning Board Metropolitan Washington Council of Governments

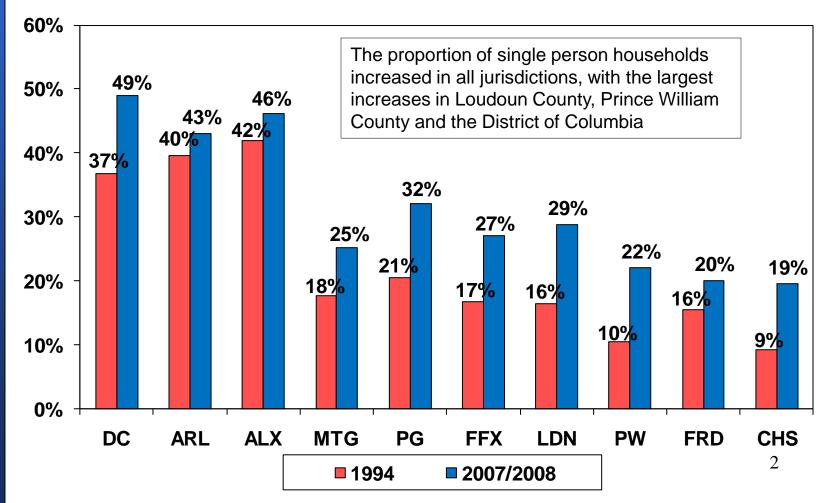
March 17, 2010

### Change in Household Size (1994 – 2007/2008)



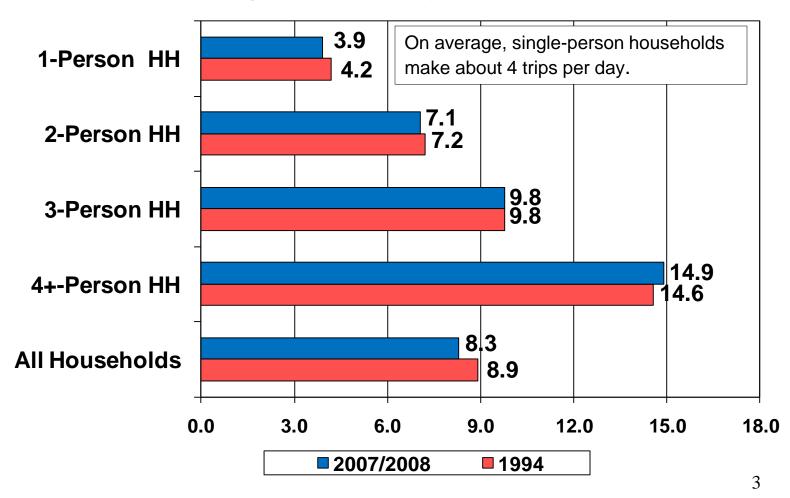
### Change in Single Person Households by Jurisdiction (1994 – 2007/2008)

#### 1-Person Households as % of All Households



#### Change in Average Number of Daily Trips Per Household (1994 – 2007/2008)

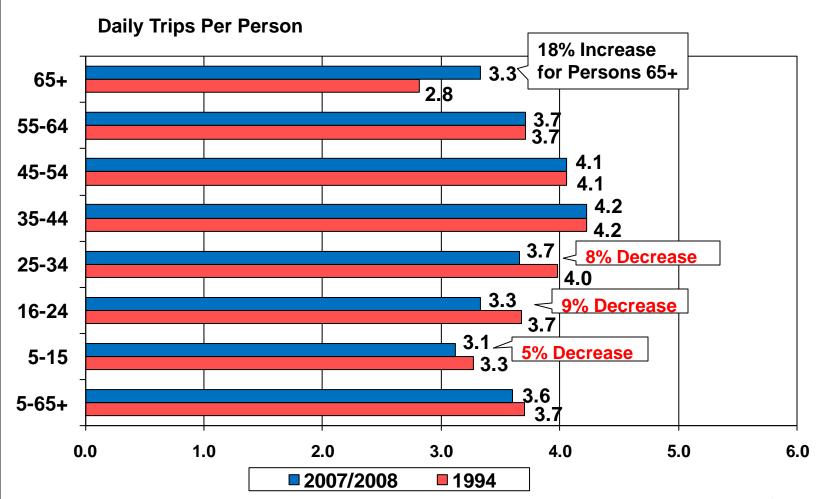
#### **Average Number of Daily Trips**



# Effect of the Change in Household Size on Daily Trips Per Household

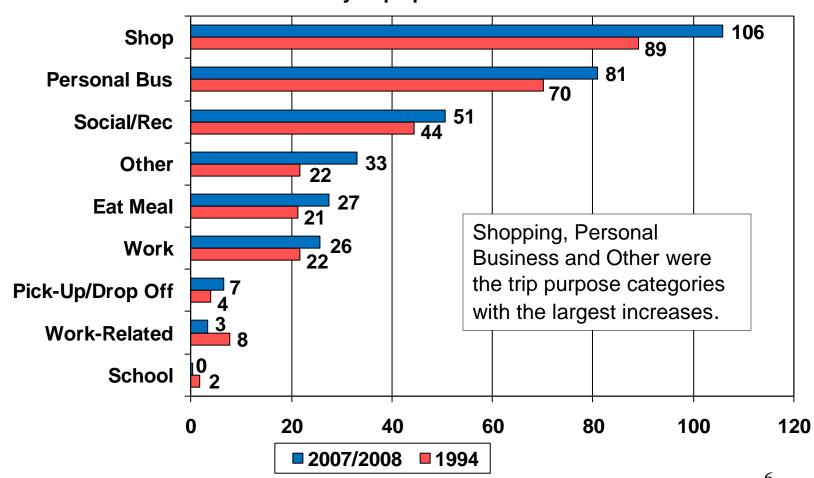
 Because of the significant increase in the proportion of single person households the overall average number of daily trips per household dropped by about 7% between 1994 and 2007/2008.

## Change in Average Number of Daily Trips Per Person by Age (1994 – 2007/2008)



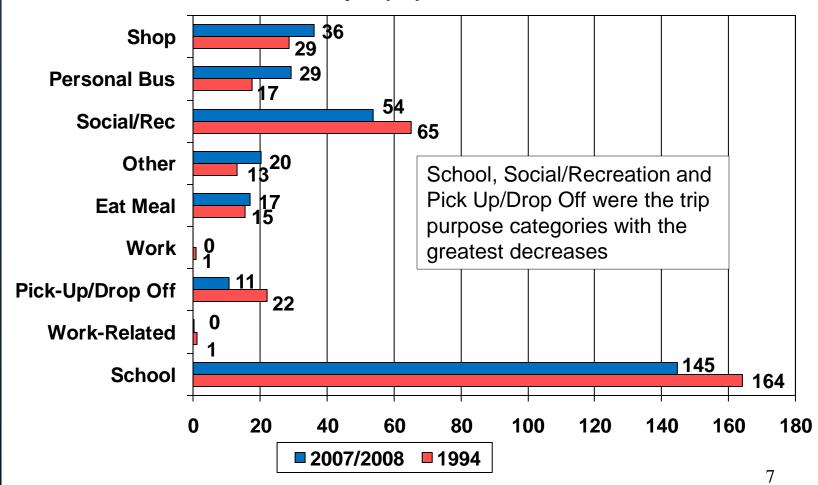
#### Change in Daily Trip Rates by Purpose for Persons 65+ (1994 – 2007/2008)





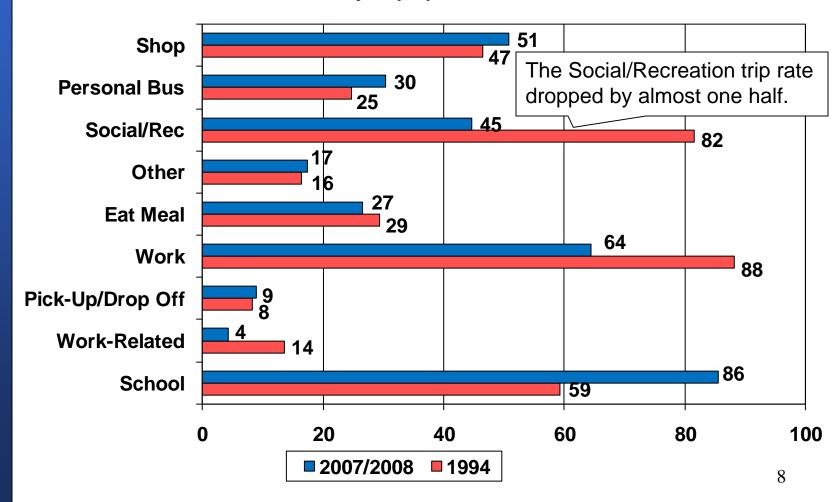
## Change in Daily Trip Rates by Purpose for Persons Age 5 to 15 (1994 – 2007/2008)

#### Number of Daily Trips per 100 Persons 5 to 15



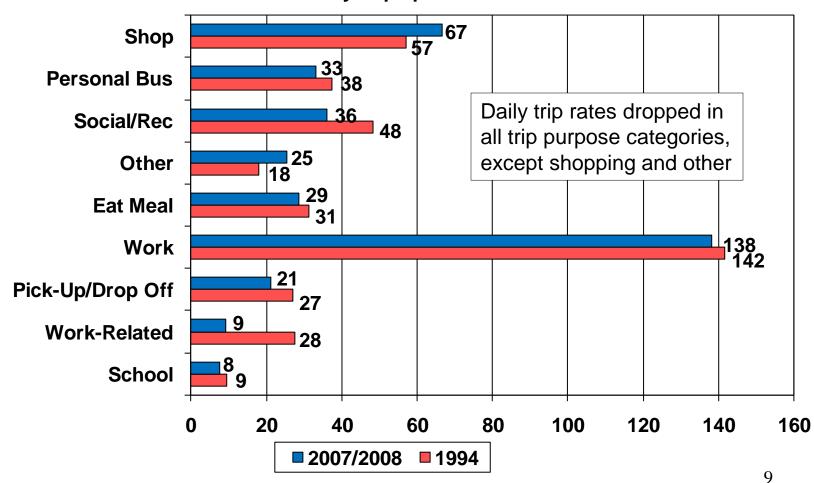
## Change in Daily Trip Rates by Purpose for Persons Age 16 to 24 (1994 – 2007/2008)

#### Number of Daily Trips per 100 Persons 16 to 24



## Change in Daily Trip Rates by Purpose for Persons Age 25 to 34 (1994 – 2007/2008)





# Change in Average Number of Daily Trips per Person (1994 – 2007/2008)

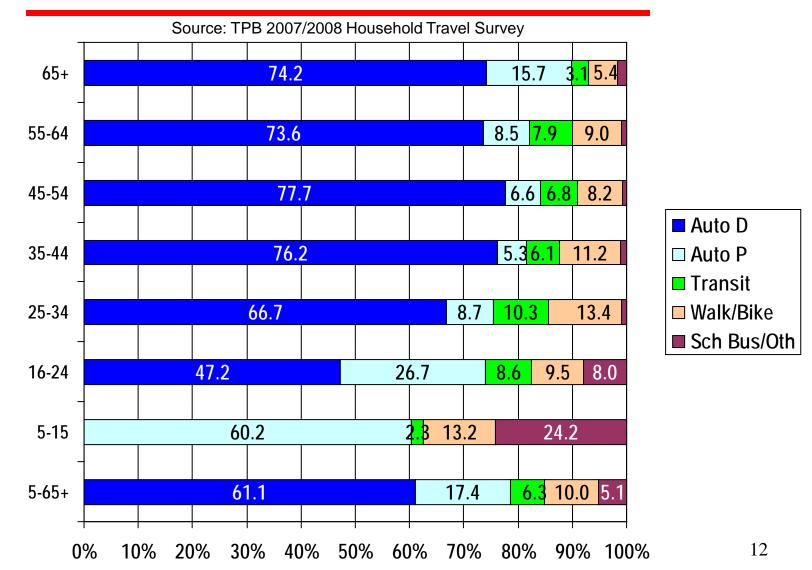
- Although the number of trips per household has dropped by 7% the number of daily trips per person showed a much smaller 2% decline.
- Nonetheless, significant changes in the average number of daily trips per person were observed for different age groups.
  - → Per person daily trip rates remained the same for persons between the ages of 35 and 64
  - → Rates decreased moderately for persons from 5 to 34
  - → Rates significantly increased for persons 65+

# Change in Modal Share of Daily Trips 1994 to 2007/2008

Age	Auto Driver	Auto Passenger	Transit	Walk	Bike	Other
5-15	0.0%	2.4%	1.0%	-0.2%	-0.3%	-2.8%
16-24	-6.9%	0.9%	2.3%	0.9%	-0.1%	2.9%
25-34	-6.4%	-0.7%	2.3%	4.6%	0.5%	-0.2%
35-44	0.9%	-3.9%	-0.2%	2.8%	0.4%	0.0%
45-54	2.5%	-3.8%	0.6%	0.8%	0.3%	-0.4%
55-64	-6.6%	-1.1%	3.8%	3.4%	○ (0.6%)	0.0%
65+	0.2%	0.0%	-0.5%	-0.4%	0.2%	0.5%
5-65+	-2.2%	-0.5%	0.7%	1.6%	0.2%	0.2%

#### Travel Mode of Daily Trips by Age

(Percent by Mode of Travel) **(2007/2008)** 



# Change in the Modal Distribution of Daily Trips by Age (1994 – 2007/2008)

#### **Region wide:**

- The auto driver vehicle trip modal share of daily trips dropped by 2.2 percentage points and auto passenger share declined by 0.5 percentage points.
- The transit share of daily trips increased by 0.7 percentage points and the walk share increased by 1.6 percentage points.
- The bike and other mode shares increased by 0.2 percentage points.

### Travel Mode of Daily Trips by Age in Core Jurisdiction Activity Centers (2007/2008)

Age	% Live in Activity Center	Auto Driver	Auto Passenger	Transit	Walk	Bike	Other
5-15	10%	0%	54%	4%	24%	0.0%	18.4%
16-24	24%	26%	10%	22%	37%	0.0%	5.3%
25-34	31%	38%	8%	19%	32%	0.7%	2.0%
35-44	21%	44%	6%	15%	32%	2.2%	0.9%
45-54	20%	42%	6%	21%	28%	2.5%	0.7%
55-64	21%	42%	10%	16%	29%	0.3%	2.1%
65+	21%	47%	7%	17%	25%	1.5%	2.7%
5-65+	22%	39%	9%	18%	30%	1.2%	2.6%

#### Travel Mode of Daily Trips by Age in Core Jurisdiction Outside of Activity Centers (2007/2008)

Age	% Live Outside Activity Center	Auto Driver	Auto Passenger	Transit	Walk	Bike	Other
5-15	90%	0%	48%	12%	28%	1.5%	10.0%
16-24	76%	34%	16%	27%	17%	0.8%	5.5%
25-34	69%	48%	6%	20%	23%	1.2%	1.6%
35-44	<b>79</b> %	56%	5%	13%	21%	2.5%	1.8%
45-54	80%	58%	8%	16%	14%	1.6%	1.3%
55-64	<b>79</b> %	60%	7%	14%	<b>17</b> %	0.7%	0.8%
65+	<b>79</b> %	65%	12%	9%	12%	0.5%	2.0%
5-65+	78%	49%	12%	15%	19%	1.4%	<b>2.6%</b>

## Travel Mode of Daily Trips by Age in Inner Suburb Activity Centers (2007/2008)

Age	% Live in Activity Center	Auto Driver	Auto Passenger	Transit	Walk	Bike	Other
5-15	4%	0%	60%	3%	9%	0.0%	27.8%
16-24	5%	49%	15%	13%	18%	1.5%	3.5%
25-34	12%	69%	11%	8%	11%	0.6%	0.0%
35-44	<b>7</b> %	74%	7%	8%	10%	0.6%	0.6%
45-54	5%	67%	7%	10%	13%	0.5%	2.5%
55-64	5%	68%	4%	12%	14%	0.3%	1.4%
65+	5%	64%	14%	6%	14%	0.0%	1.8%
5-65+	6%	61%	14%	9%	12%	0.5%	3.8%

## Travel Mode of Daily Trips by Age in Inner Suburbs Outside of Activity Centers (2007/2008)

Age	% Live Outside Activity Center	Auto Driver	Auto Passenger	Transit	Walk	Bike	Other
5-15	96%	0%	66%	1%	10%	0.9%	22.5%
16-24	95%	49%	31%	6%	6%	0.7%	7.4%
25-34	88%	75%	10%	7%	7%	0.7%	0.7%
35-44	93%	79%	6%	7%	7%	0.3%	0.6%
45-54	95%	81%	6%	7%	6%	0.3%	0.5%
55-64	95%	79%	8%	7%	5%	0.4%	0.8%
65+	95%	76%	17%	2%	4%	0.2%	0.8%
5-65+	94%	64%	19%	5%	7%	0.5%	4.6%

### Travel Mode of Daily Trips by Age in Outer Suburb Activity Centers (2007/2008)

Age	% Live in Activity Center	Auto Driver	Auto Passenger	Transit	Walk	Bike	Other
5-15	<b>5</b> %	0%	53%	0%	9%	0.0%	37.5%
16-24	7%	60%	29%	0%	8%	0.0%	3.5%
25-34	9%	86%	12%	1%	1%	0.0%	0.0%
35-44	6%	87%	3%	2%	7%	0.4%	0.0%
45-54	5%	90%	7%	2%	2%	0.0%	0.0%
55-64	4%	68%	22%	4%	7%	0.0%	0.0%
65+	6%	71%	27%	0%	2%	0.0%	0.0%
5-65+	6%	69%	19%	1%	5%	0.1%	5.4%

## Travel Mode of Daily Trips by Age in Outer Suburbs Outside of Activity Centers (2007/2008)

Age	% Live Outside Activity Center	Auto Driver	Auto Passenger	Transit	Walk	Bike	Other
5-15	95%	0%	67%	0%	6%	0.4%	26.9%
16-24	93%	60%	27%	0%	3%	0.2%	8.9%
25-34	91%	81%	12%	3%	4%	0.0%	0.5%
35-44	94%	87%	<b>7</b> %	2%	4%	0.2%	0.4%
45-54	95%	84%	9%	3%	3%	0.3%	0.8%
55-64	96%	82%	12%	2%	2%	0.1%	0.6%
65+	94%	75%	20%	1%	2%	0.0%	1.9%
5-65+	94%	68%	21%	2%	3%	0.2%	<b>5.7</b> %

#### Significant Findings

- The significant increase in the proportion of single person households in the region had a dramatic impact on the average number of daily trips per household.
- Per person daily trip rates decreased moderately for persons from 5 to 34.
- Per person daily trip rates increased significantly for persons 65+.
- The share of daily trips by auto driver vehicle trips decreased 2.2 percentage points, the walk share increased by 1.6 percentage points, and the transit share increased by 0.7 percentage points.
- The biggest modal shifts between auto driver vehicle trips and the transit and walk modes were seen in the 16 to 34 and the 55 to 64 age groups.
- Persons 25 to 34 more likely to live in Regional Activity Centers