What If...
The Washington Region Grew Differently?

The TPB Regional Mobility and Accessibility Study

TPB Citizens Advisory Committee
Public Forum in Takoma Park, Maryland
November 16, 2005

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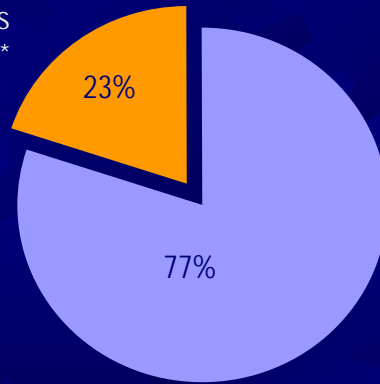# Why look at alternative transportation and land use scenarios?

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Because the road ahead isn't looking good…

The region's transportation plan only includes projects that we know we can pay for.

Most Transportation Dollars Are Needed for Maintenance

Little money is available for new transportation projects

New Roads and Transit*

23%

77%

Operations & Preservation*

* Based on region's 2003 Constrained Long-Range Plan
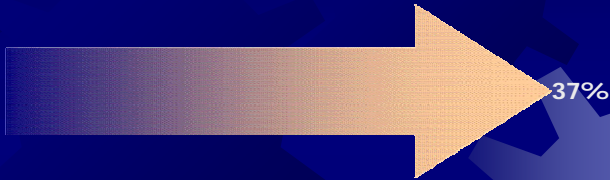
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The Highway System Won't Keep Pace with Growth
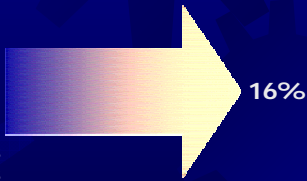
Forecast Trends 2000 - 2030

Daily Vehicle Miles Traveled
2000: 109 Million
2030: 150 Million

37%

Freeway and Arterial Lane Miles
2000: 15,300 Miles
2030: 17,600 Miles

16%

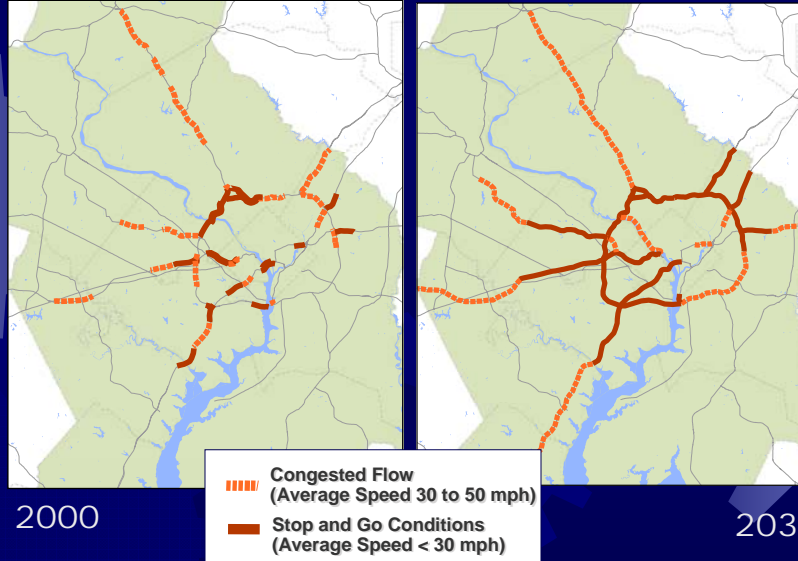Based on region's 2003 Constrained Long-Range Plan

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Most of the Beltway Will Be Stop and Go
Evening Highway Congestion 2000 and 2030
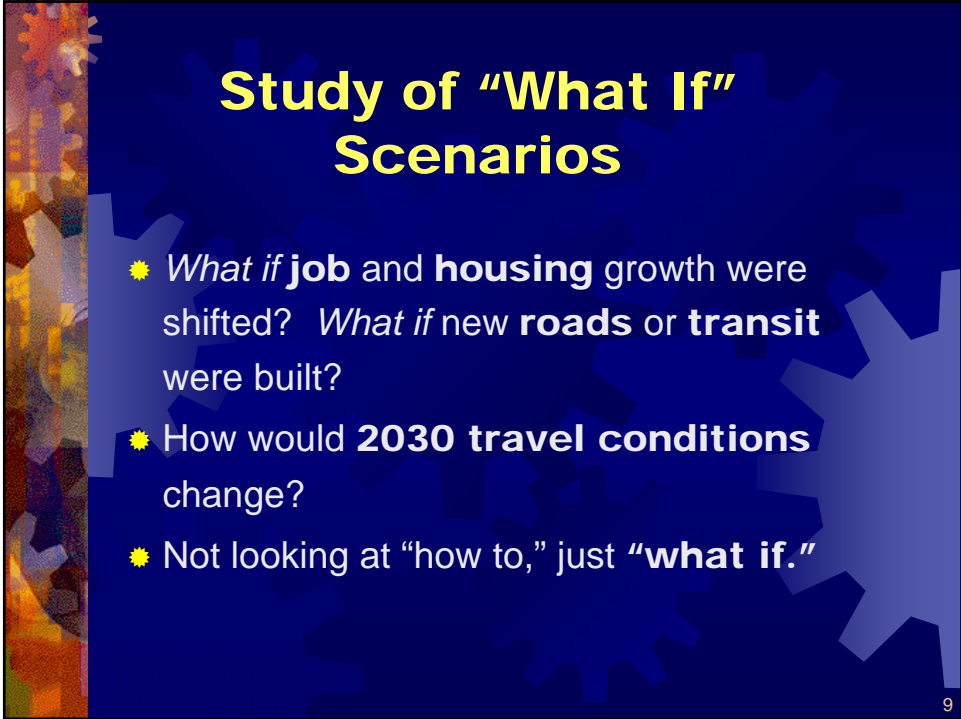
Congested Flow (Average Speed 30 to 50 mph)

Stop and Go Conditions (Average Speed < 30 mph)

2000

2030

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Metro Platforms and Trains Will Be Packed
Morning Peak-Hour Transit Congestion: 2000 and 2030

Congested

Highly Congested

2000

2030

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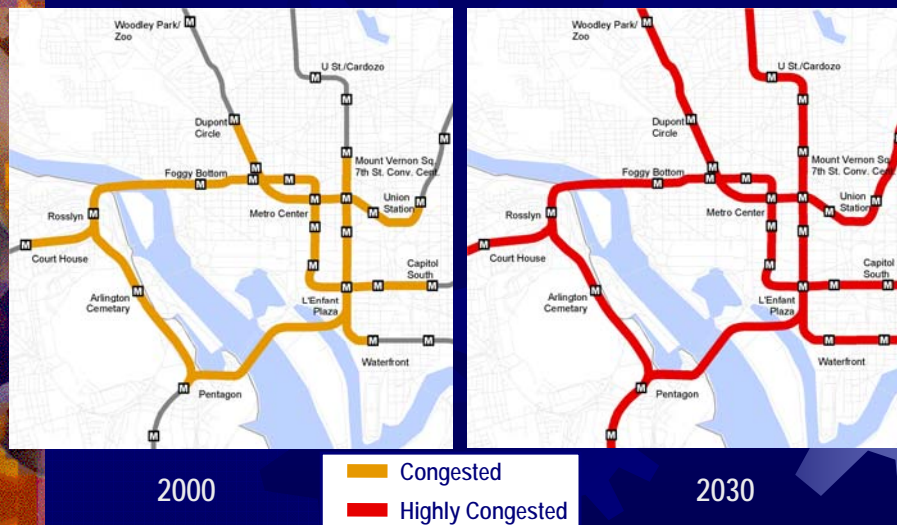
Study of "What If" Scenarios

- *What if* **job** and **housing** growth were shifted? *What if* new **roads** or **transit** were built?
- How would **2030 travel conditions** change?
- Not looking at "how to," just **"what if."**

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Developing the Scenarios:

What are **key issues** related to land use and transportation?

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Issue #1: Job Growth is Outpacing Household Growth

Growth 2010 – 2030 (Thousands)

Additional Households Needed to Balance Jobs

Forecast Job Growth

Forecast Household Growth

The region must "import" workers from as far away as West Virginia and Pennsylvania

Assumes 1.5 Workers/Household
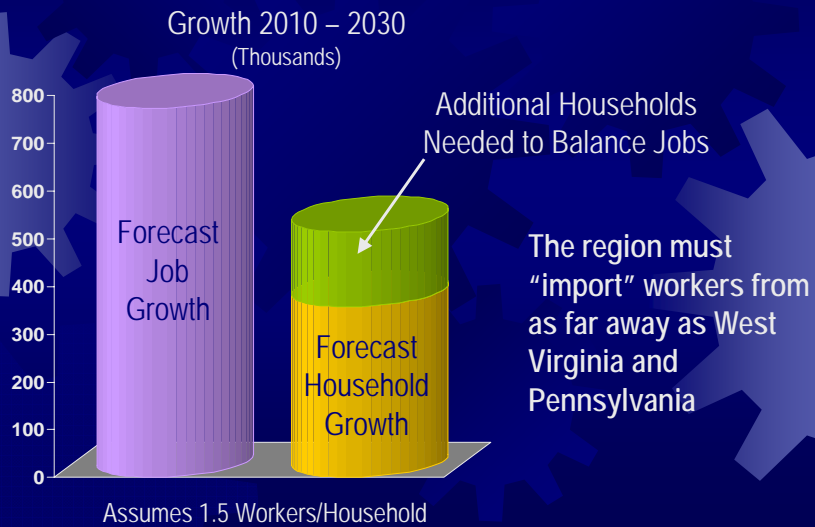
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Issue #2: Workers are Living Farther Away from Their Jobs

- Inner jurisdictions – most job growth

- Outer jurisdictions – lion's share of household growth

How Far Is Too Far?
Developer Plans 4,300 Homes 100 Miles From D.C.

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Issue #3: East-West Divide

A 1999 Brookings Institution report highlighted disparities between the eastern and western parts of the region
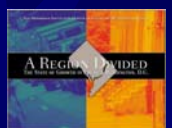
Job Growth Rate 1990 – 2000

20%
1%
West   East

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Issue #3: East-West Divide

West-bound travel clogs the roads during morning rush hour
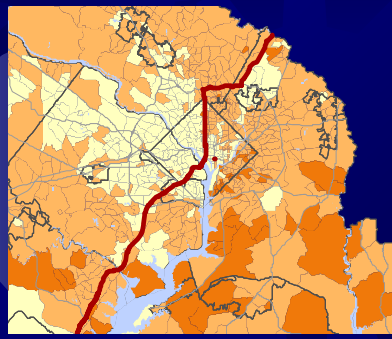
Average Commute Time

Up to 30 minutes
Up to 40 minutes
Over 40 minutes

Morning Rush Hour

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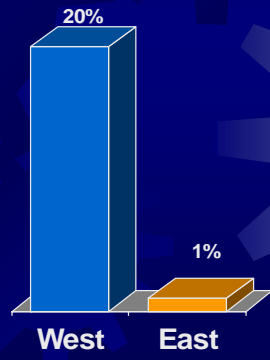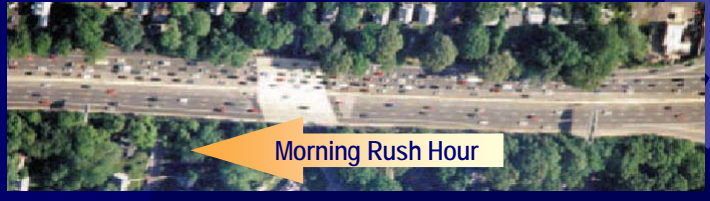## Issue #4: Most Growth Located Outside Transit Station Areas

Employment Growth 2010 to 2030

30%

70%
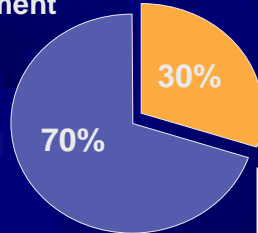
Inside Transit Station Areas

Household Growth 2010 to 2030

20%

80%
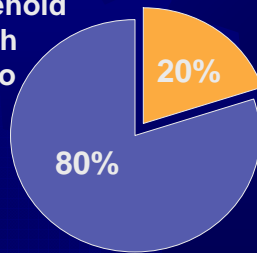
Outside Transit Station Areas

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Addressing the issues:

What if we shifted
job and household growth?

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What if more people who worked here lived here?

"More Households" Scenario

- Increase household growth to balance forecast job growth
- Locate households in regional "Activity Clusters"

WV

Balt.

VA

Increase household growth by 200,000

● Regional Activity Cluster

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Under this scenario, densities around Takoma Park would increase only modestly

Comparison Areas

Households per Square Mile

Takoma Park

0

Arlington

3,000

Baseline, 3,500 households/ mile^2

Old Town Alexandria

"Higher Household" Scenario, 4,100 households/ mile^2

6,000

Capitol Hill

9,000

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How would 2030 travel conditions change?
Compared to baseline forecasts for 2030

"Higher Households" Scenario

Transit Trips → **12%**

-9% ← Daily Vehicle Miles of Travel per Capita

-4% ← Severe AM Peak Period Congestion

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How would 2030 travel conditions change?
Compared to baseline forecasts for 2030

"Higher Households" Scenario

Transit Trips → **12%**

-1% Daily Vehicle Miles of Travel

-4% ← Severe AM Peak Period Congestion

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The average person would drive two miles less per day.

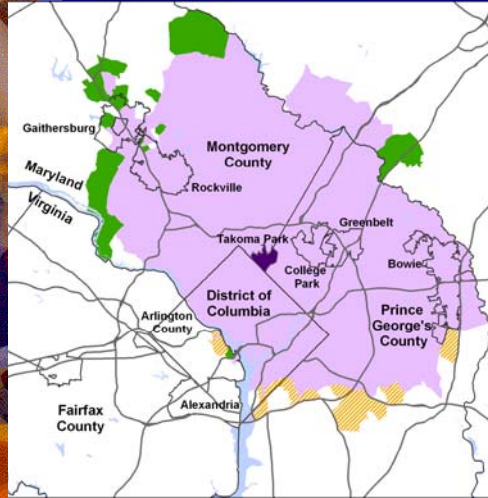| 2010:	23.4 miles/ person
2030 Baseline:	24.2 miles/ person
2030 Scenario #1:	22.1 miles/ person

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Under this scenario, driving would decrease by 1.2 million vehicle miles per day . . .
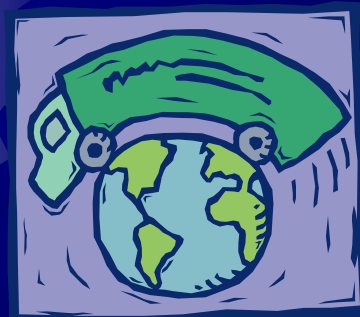
The equivalent of **48 trips** around the Earth

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From Takoma Park, some areas will become more easy to reach by auto, some less.

Areas Accessible from Takoma Park within 45 Minutes by Auto

- Baseline and Higher Household Growth Scenario
- Higher Household Growth Scenario Only
- Baseline Only

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Transit trips will increase 12% regionwide, but in many places, the local impacts would be even **bigger.**

The number of transit trips to West Hyattsville would **increase 29%** under this scenario.

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What if both
land use AND
transportation
changed?

What if more people lived near transit, _and_ there was more transit?

"Transit Oriented Development"
Scenario

* Locate job and household growth around transit

* Expand Metrorail, commuter rail, bus rapid transit and light rail

This scenario includes the
**Purple Line** (Bi-County Transitway)
between Bethesda and New Carrollton

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The scenario also includes light rail or
other rapid transit in Montgomery and
Prince George's counties and in D.C.

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How would 2030
travel conditions change?

Compared to baseline forecasts for 2030

"Transit Oriented Development" Scenario

Transit Trips →→→ **8%**

-1% ← Daily Vehicle Miles of Travel
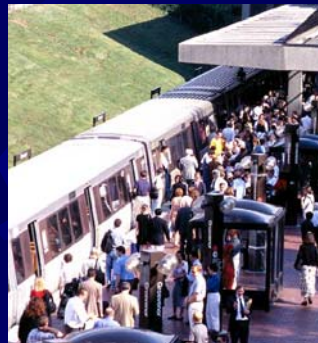
-5% ← Severe AM Peak Period Congestion
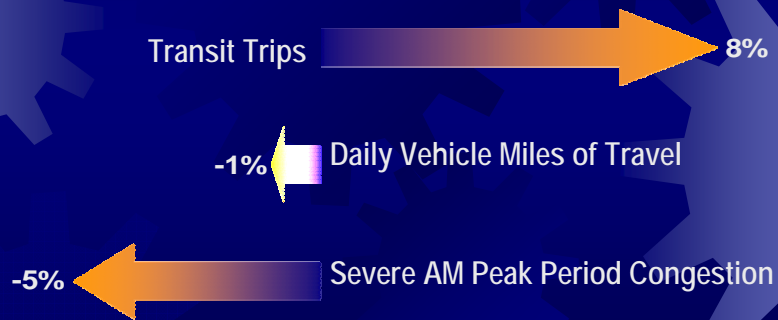
How would 2030 travel conditions
change in the bi-county area?

Compared to baseline forecasts for 2030

Under the Transit Oriented Development Scenario:

• Transit trips to the **Langely Park** area would nearly triple.

• **Hyattsville** would attract nearly twice as many transit trips.

Driving would also decrease in some locations.

Due to the new transit on Georgia Avenue north of Glenmont, auto trips in that corridor would decrease by 11,000 per day…

That's more than enough drivers to fill half the seats in the MCI Center.

What do the scenarios tell us?

☀ Land use patterns affect transportation

☀ Moving people closer to jobs

  ⬆ increases transit use

  ⬇ decreases driving and congestion

☀ Changing both land use *and* transportation has the biggest effect

Next Steps: *What if ...*

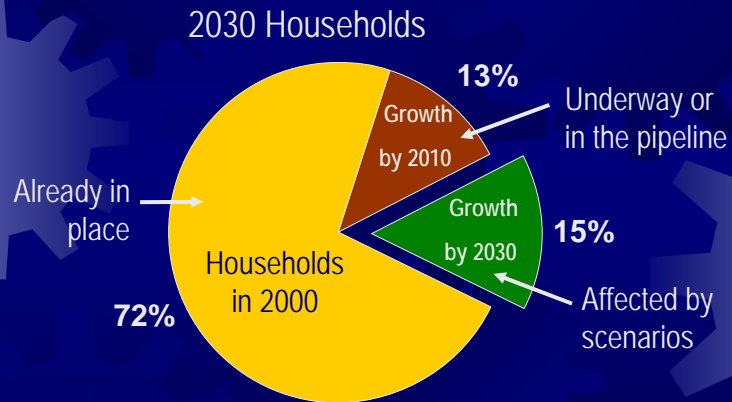We built a network of high occupancy/ toll (HOT) lanes?

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Other things to think about

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Significant change may require redevelopment of existing areas

2030 Households

13%
Growth by 2010

Underway or in the pipeline

Already in place

Growth by 2030

15%

Households in 2000

Affected by scenarios

72%

Change takes time

- Scenarios only look out to 2030, but impacts may be greatest in 2040, 2050, and beyond

- For example, just look at how long it took to get Metro in place . . .

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Courtesy of WMATA

For more information, contact the Transportation Planning Board:

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www.mwcog.org/transportation

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