# Housing & Transportation Cost: Applications in Planning

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## **Expanding the Definition of Affordability**

Housing Cost < 30%

Transportation Costs < 15%

Suburban

to

Urban









Combined
Costs
< 45% of
Income

#### Transportation Costs Vary by Location

#### **6 Neighborhood Variables**

Residential Density
Gross Density
Average Block Size in Acres
Transit Connectivity Index
Job Density
Average Time Journey to Work
Diversity of Land Use
Land Use Access via Transit

#### 3 Household Variables

Household Income Household Size Commuters per Household

Source: Center for Neighborhood Technology



Car Ownership
Car Usage (VMT/HH)
Public Transit Usage

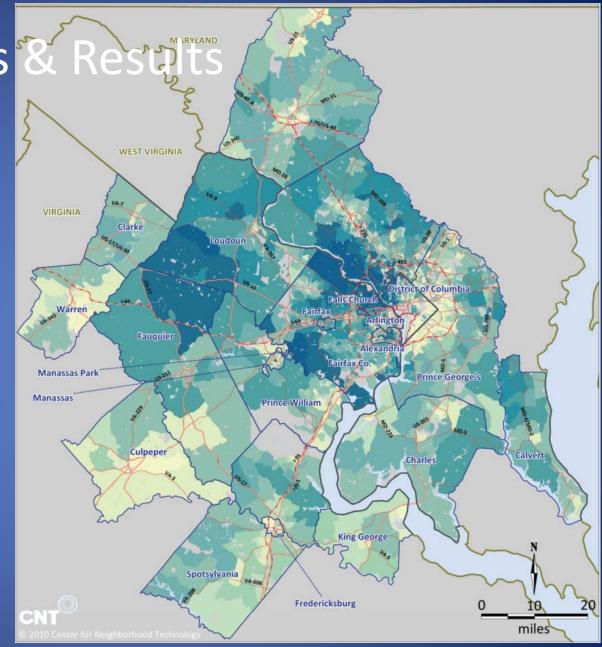


**Total Transportation Costs** 

Model Outputs & Resu

## Average Monthly Housing Costs

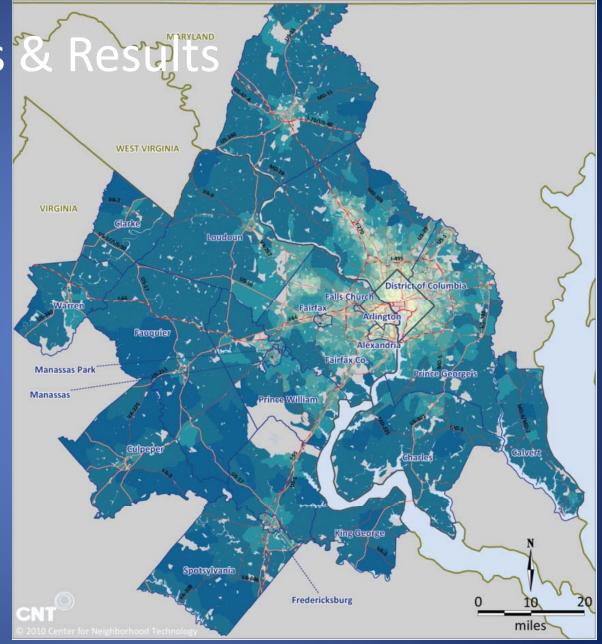
- < \$1,200</p>
- \$1,200 to \$1,400
- \$1,400 to \$1,500
- \$1,500 to \$1,600
- \$1,600 to \$1,900
- \$1,900 to \$2,200
- \$2,200 to \$2,700
- \$2,700 to \$3,600
- \$3,600 to \$5,200
- \$5,200 +
- Insufficient Data



# Model Outputs & Resi

# Average Monthly Transportation Costs

- < \$920
- \$920 to \$1,020
- \$1,020 to \$1,100
- \$1,100 to \$1,170
- \$1,170 to \$1,230
- \$1,230 to \$1,280
- \$1,280 to \$1,370
- \$1,370 to \$1,500
- \$1,500 to \$1,770
- \$1,770 +
- Insufficient Data



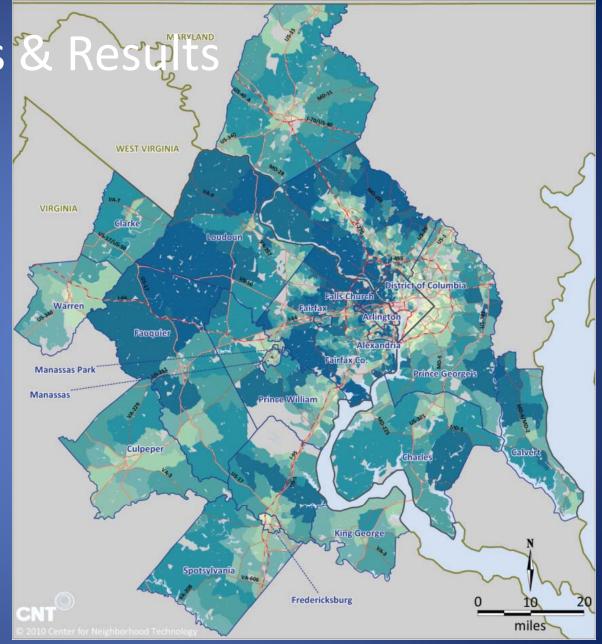


## Model Outputs & Resu

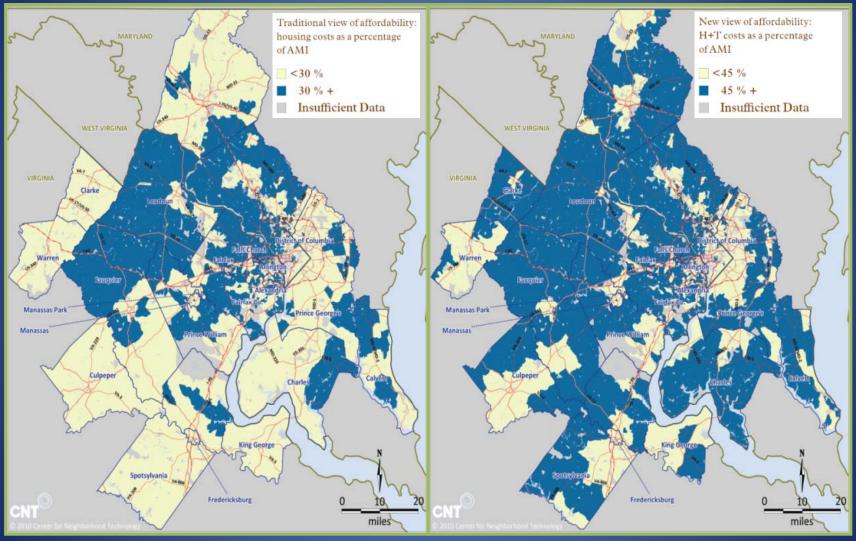
Average Monthly H+T Costs as a Percent of Area Median Income (AMI)

- <30 %
- 30 to 33%
- 33 to 35%
- 35 to 40%
- 40 to 42%
- 42 to 45%
- 45 to 48%
- 45 10 46 /0
- 48 to 55%
- 55 to 65%
- 65% +
- Insufficient Data

AMI = \$87,623

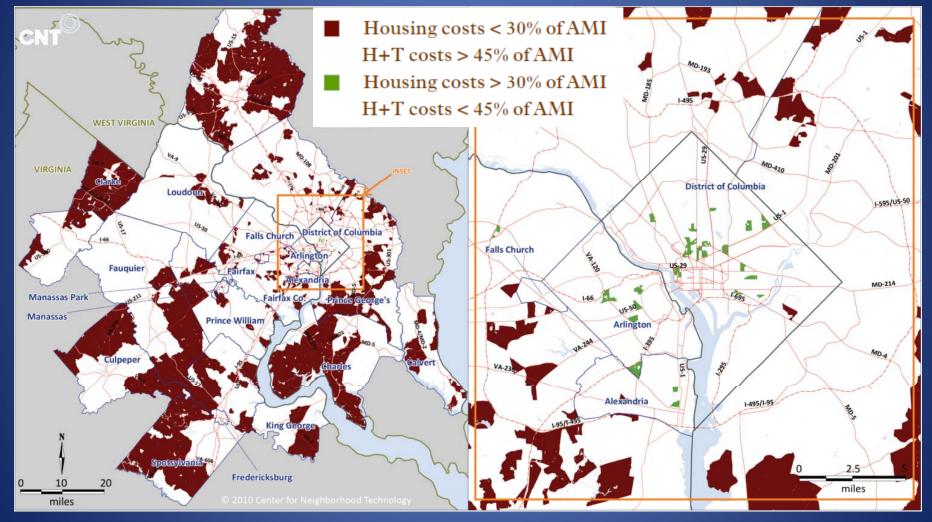


### **Expanding the Definition of Affordability**





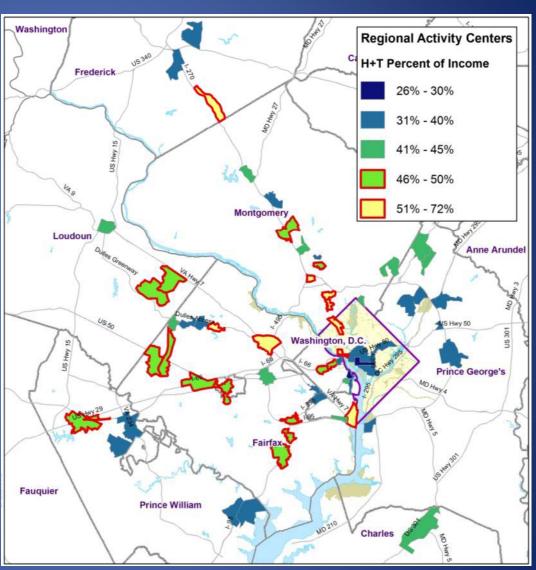
## Bringing It all Together



#### **Applications**

#### Region Forward 2050 & Council of Governments

- Target: By 2020, the housing and transportation costs in Regional Activity Centers will not exceed 45 percent of area median income
- Household Travel Survey comparison



#### **Applications**

#### **Arlington County**

- Include combined housing & transportation cost into the county's demographic profile of neighborhoods.
- Columbia Pike streetcar land use and housing study.

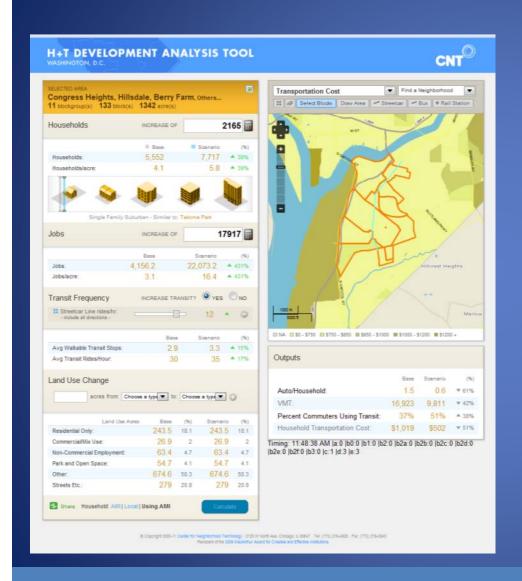
#### **WMATA**

Inclusion in the "Business Case for Transit" Study

#### Urban Institute & DC Office of Planning

Foreclosures and Transportation Costs

#### Applying the H+T Scenario Tool in DC



St Elizabeth's Area 2010-2020 2,165 New Households 17,917 New Jobs Streetcar Line

#### Results

Autos/Household -61%
VMT -42%
% Transit Use +36%
Transportation Cost -51%

**Housing Cost Implications?** 

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