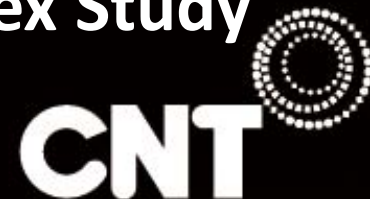


INDC + T

Housing and Transportation Affordability Index Study

NCR Transportation Planning Board

September 21, 2011



Expanding the Definition of Affordability

Housing Costs < 30% of Income



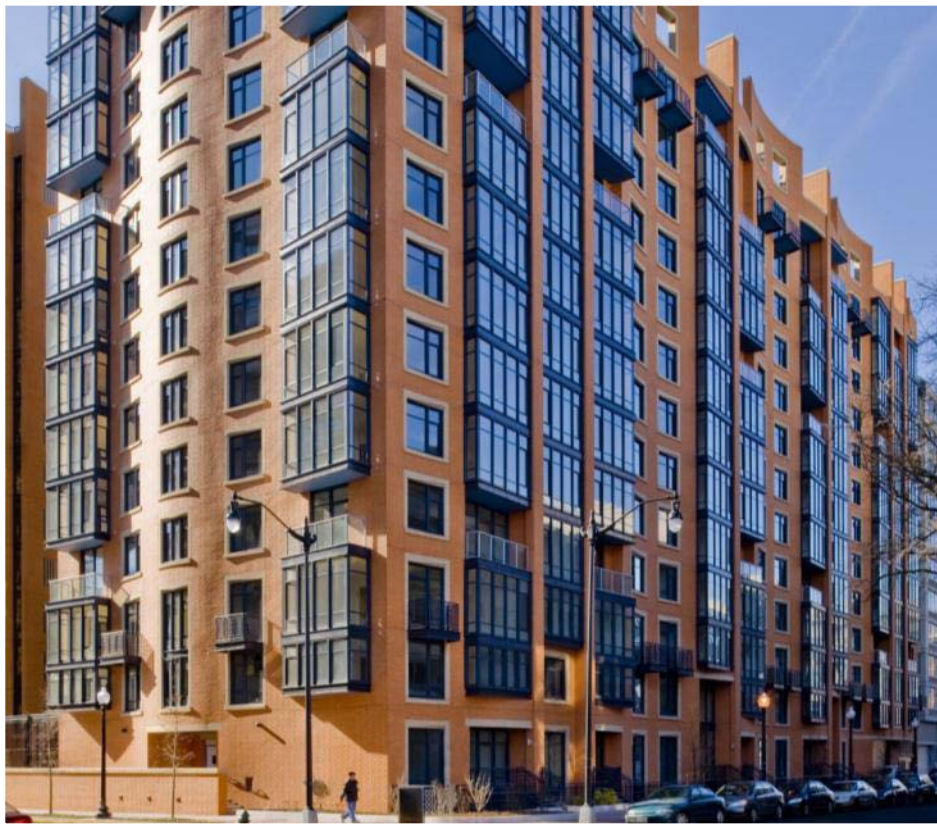
Expanding the Definition of Affordability

Transportation Costs?



Expanding the Definition of Affordability

H+T Costs < 45% of Income



Expanding the Definition of Affordability

- Transportation costs are typically 18% of household budget
- H+T[®] Affordability Index calculates costs at the neighborhood level
- 337 metro areas at: <http://htaindex.cnt.org>
- 30% housing + 15% transportation
= 45% H+T affordability benchmark

$$\text{H+T INDEX} = \frac{\text{Housing Costs} + \text{Transportation Costs}}{\text{Income}}$$

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

3 HOUSEHOLD VARIABLES

Household Income

Household Size

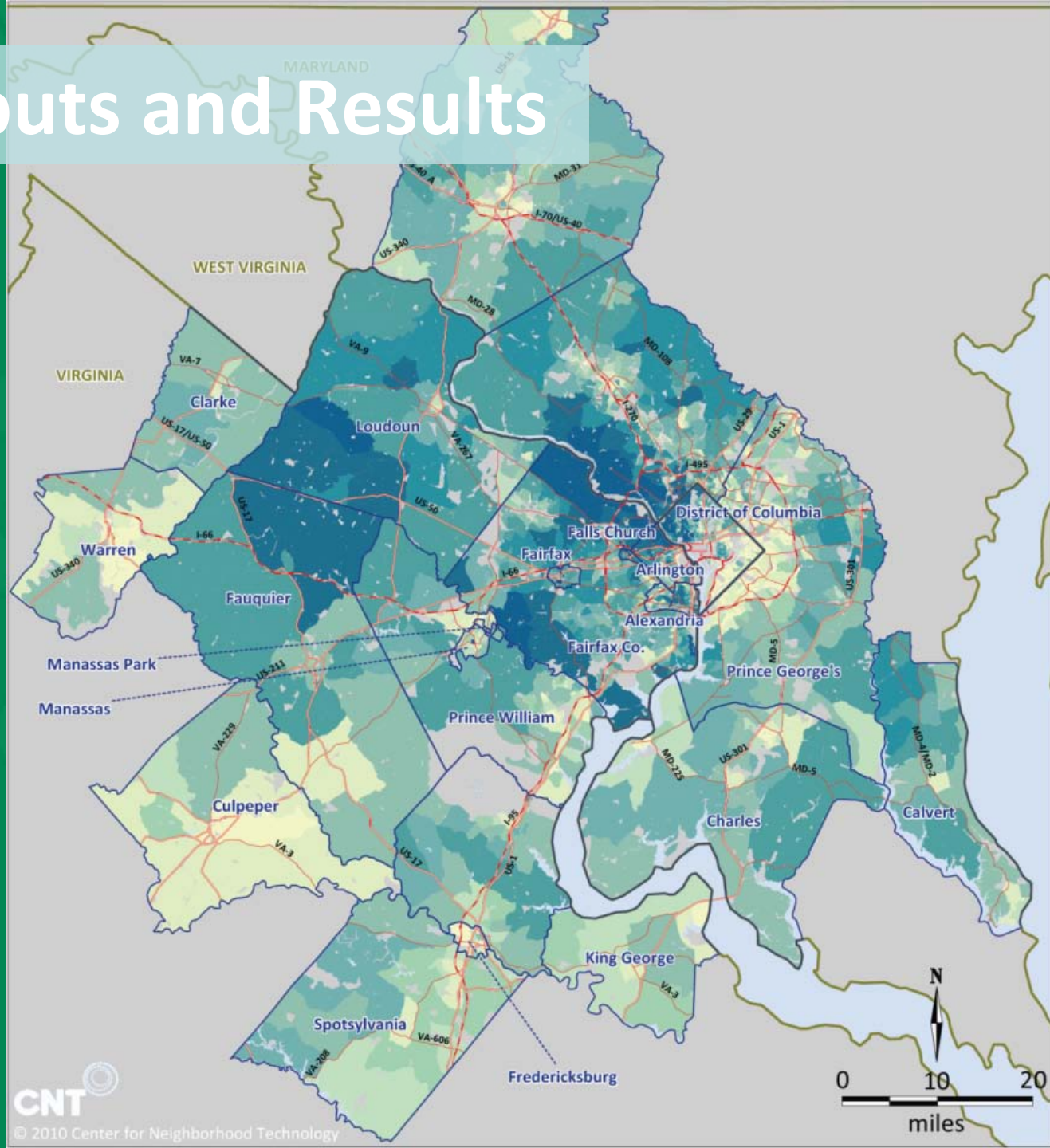
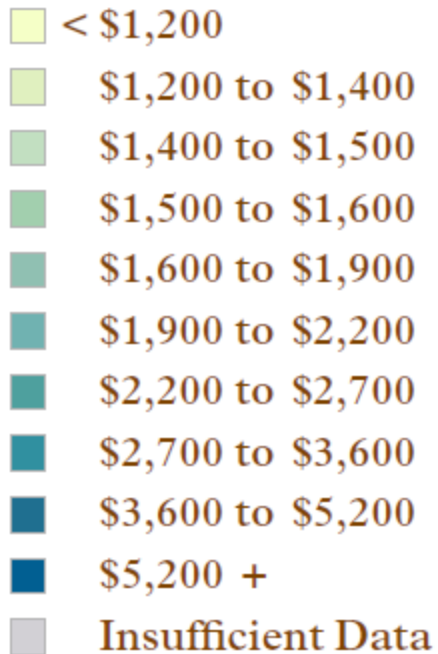
Commuters per Household

CAR OWNERSHIP
+ CAR USAGE
+ PUBLIC TRANSIT USAGE

TOTAL TRANSPORTATION COSTS

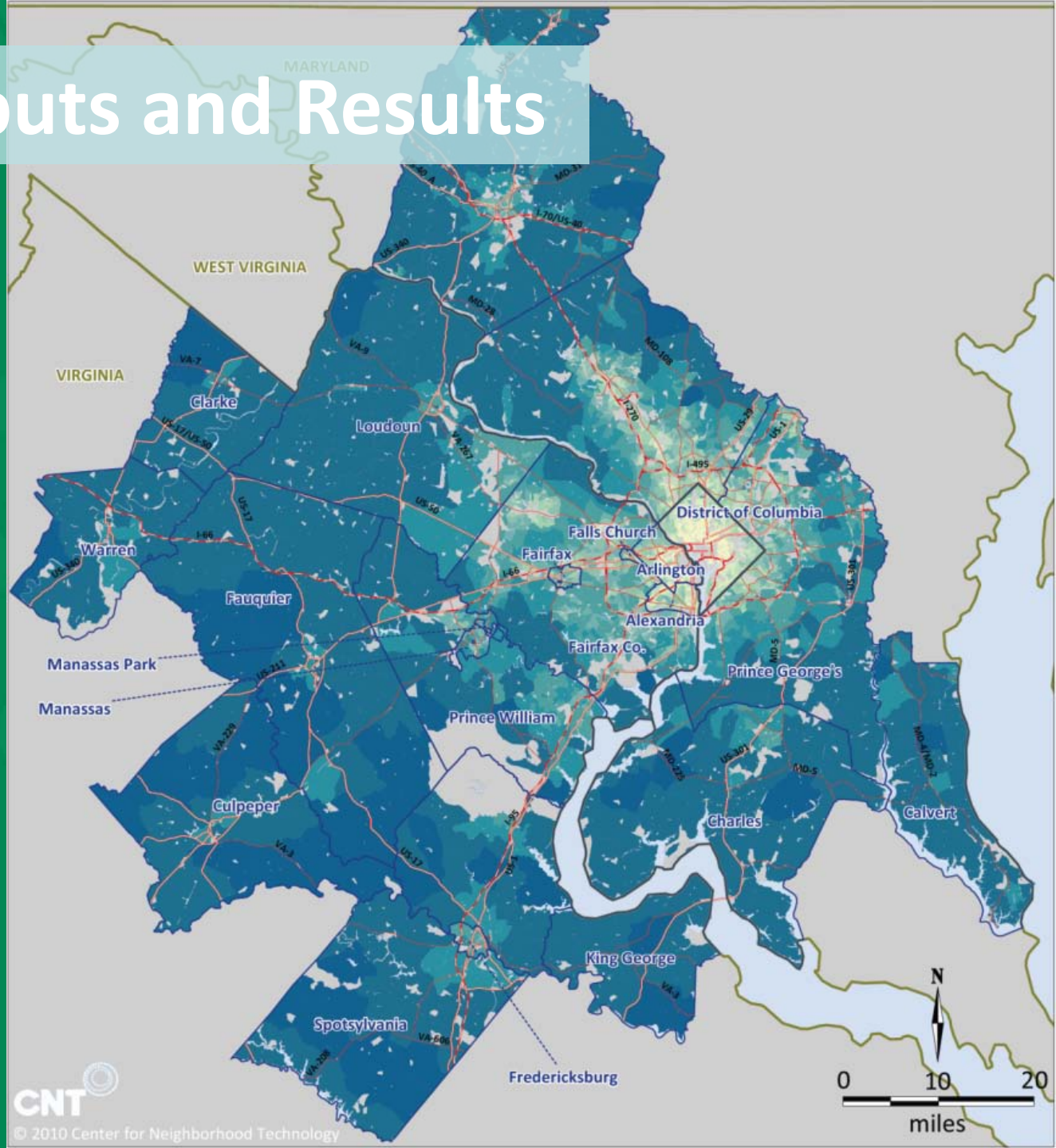
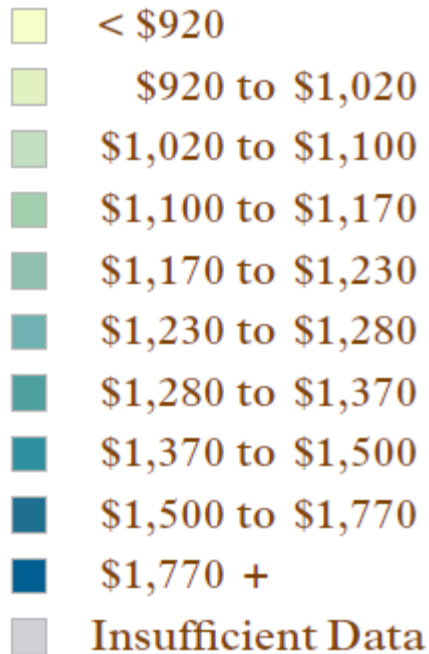
Model Outputs and Results

Avg. Monthly Housing Costs



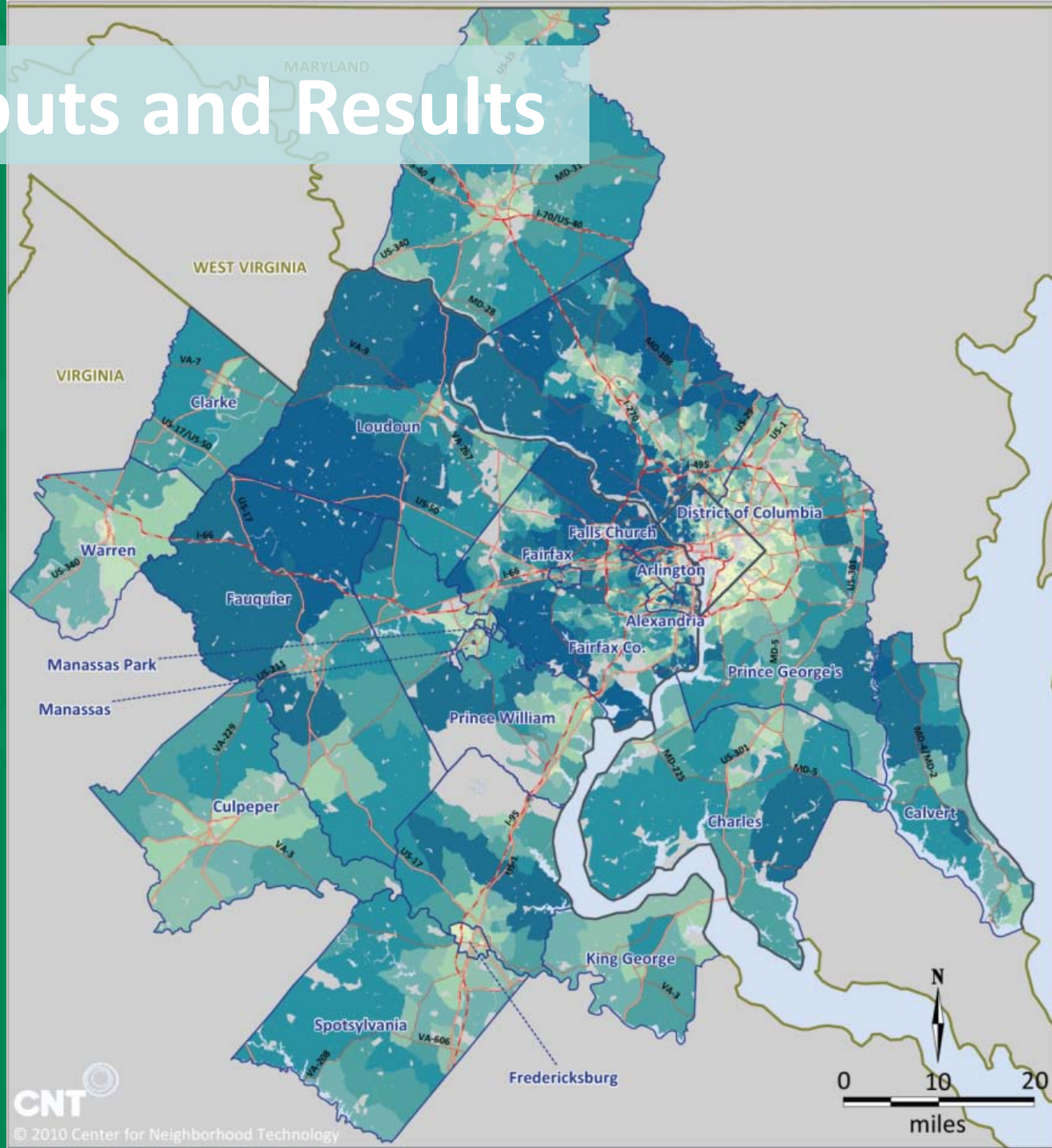
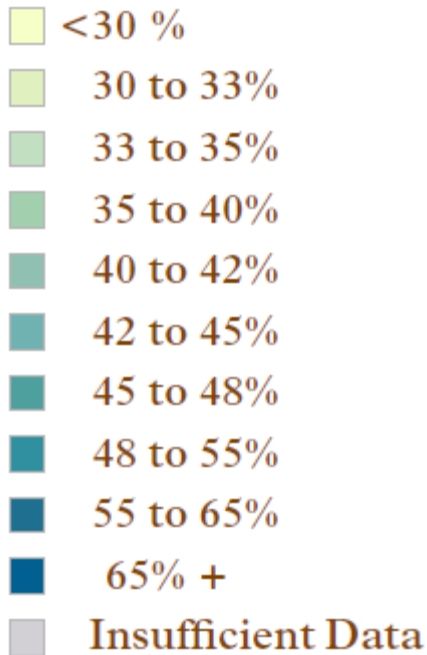
Model Outputs and Results

Avg. Monthly Transportation Costs

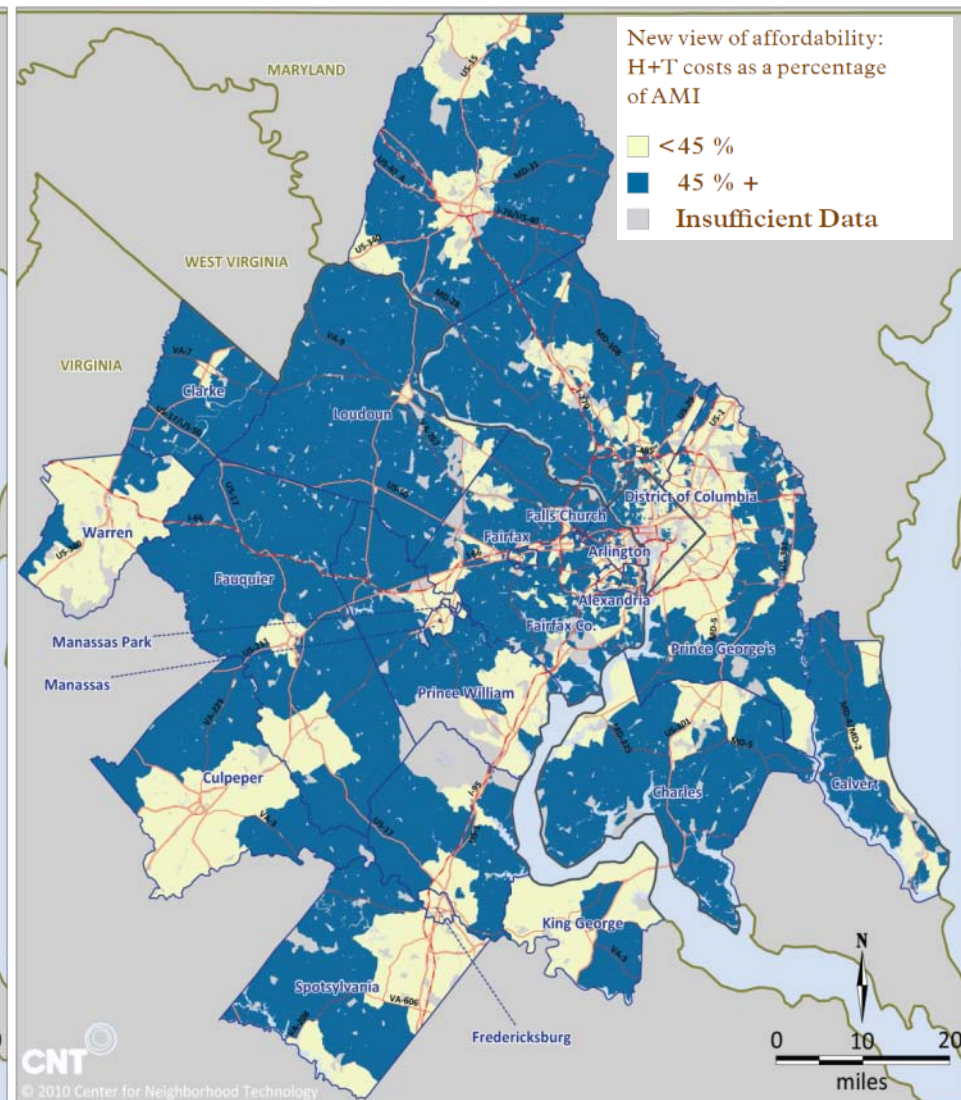
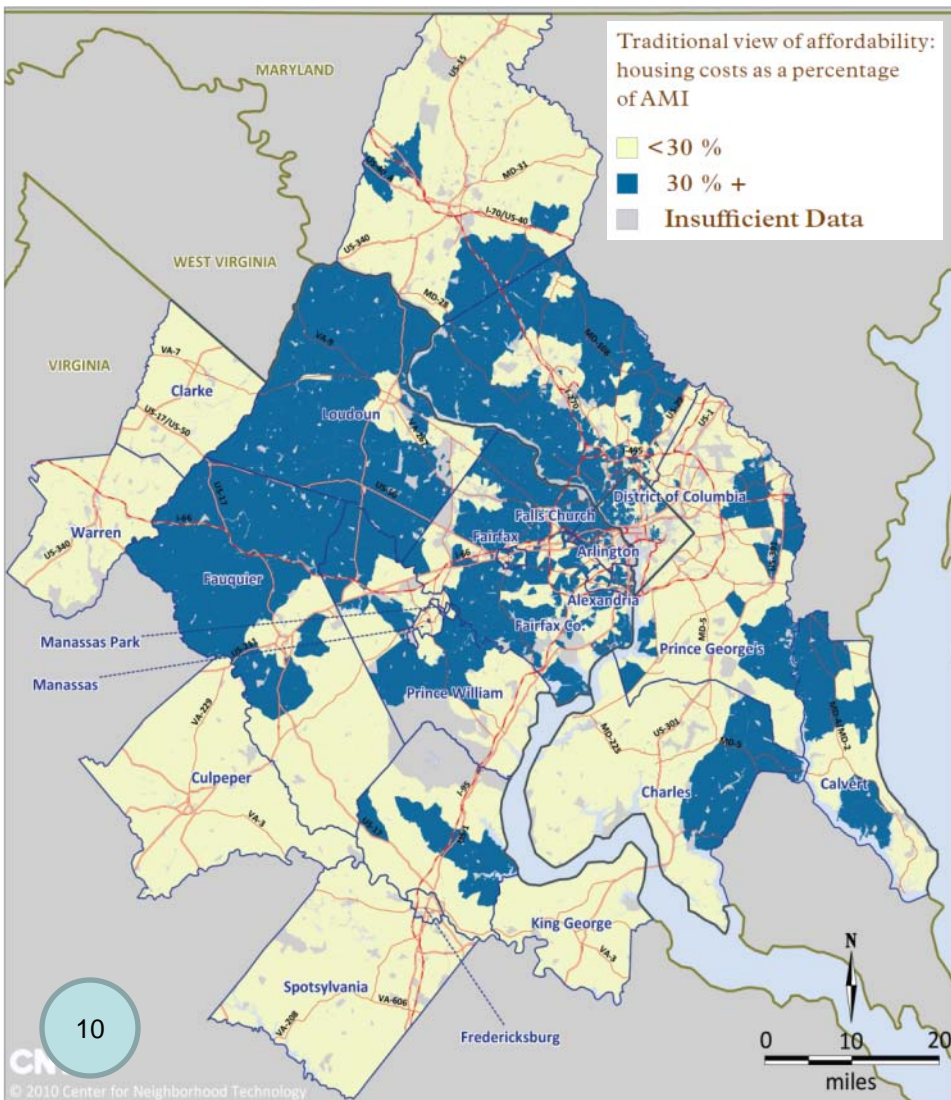


Model Outputs and Results

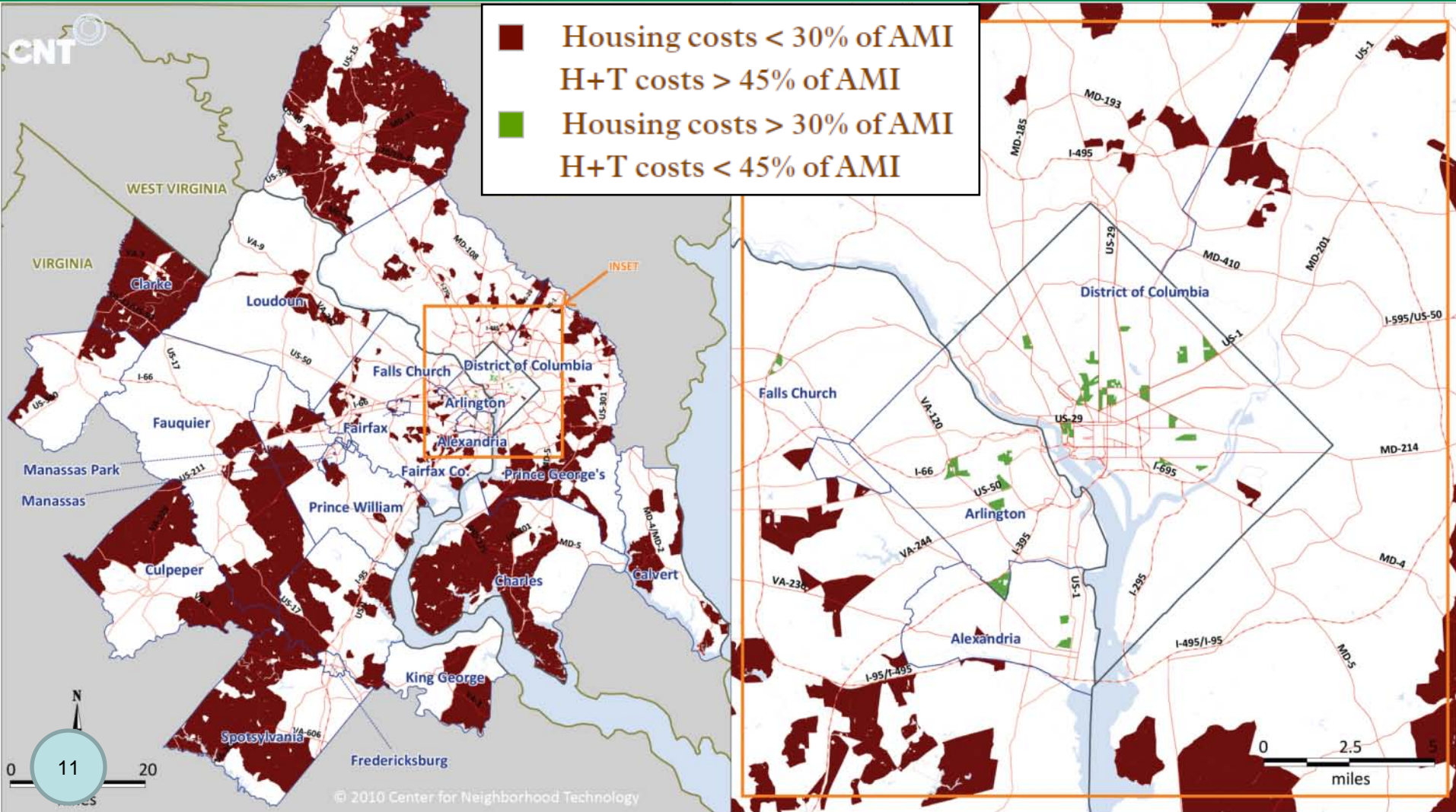
Avg. Monthly H+T Costs
as a Percent of
Area Median Income (AMI)



H + T Index: Expanding the Definition of Affordability



Bringing It All Together: Redefining Affordability



Applications

Region Forward 2050

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

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

Applying the H+T Scenario Tool in DC

H+T DEVELOPMENT ANALYSIS TOOL
WASHINGTON, D.C. CNT

SELECTED AREA
Congress Heights, Hillside, Berry Farm, Others...
11 blockgroup(s) 133 block(s) 1342 acre(s)

Households INCREASE OF

	Base	Scenario	(%)
Households:	5,552	7,717	▲ 39%
Households/acre:	4.1	5.8	▲ 39%

Single Family Suburban - Similar to: Takoma Park

Jobs INCREASE OF

	Base	Scenario	(%)
Jobs:	4,156.2	22,073.2	▲ 431%
Jobs/acre:	3.1	16.4	▲ 431%

Transit Frequency INCREASE TRANSIT? YES NO

Streetcar Line rides/hr: ▲

	Base	Scenario	(%)
Avg Walkable Transit Stops:	2.9	3.3	▲ 15%
Avg Transit Rides/Hour:	30	35	▲ 17%

Land Use Change

acres from: Choose a type to: +

Land Use Acres	Base	(%)	Scenario	(%)
Residential Only:	243.5	18.1	243.5	18.1
Commercial/Mix Use:	26.9	2	26.9	2
Non-Commercial Employment:	63.4	4.7	63.4	4.7
Park and Open Space:	54.7	4.1	54.7	4.1
Other:	674.6	50.3	674.6	50.3
Streets Etc.:	279	20.8	279	20.8

Share Household: AMI | Local | Using AMI

Transportation Cost Find a Neighborhood

Select Blocks Draw Area Streetcar Bus Rail Station

Outputs

	Base	Scenario	(%)
Auto/Household:	1.5	0.6	▼ 61%
VMT:	16,923	9,811	▼ 42%
Percent Commuters Using Transit:	37%	51%	▲ 38%
Household Transportation Cost:	\$1,019	\$502	▼ 51%

Timing: 11:48:38 AM | a:0 | b0:0 | b1:0 | b2:0 | b2a:0 | b2b:0 | b2c:0 | b2d:0 | b2e:0 | b2f:0 | b3:0 | c:1 | d:3 | e:3

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?



Thank You! Questions?

Art Rodgers
Senior Housing Planner
art.rodgers@dc.gov