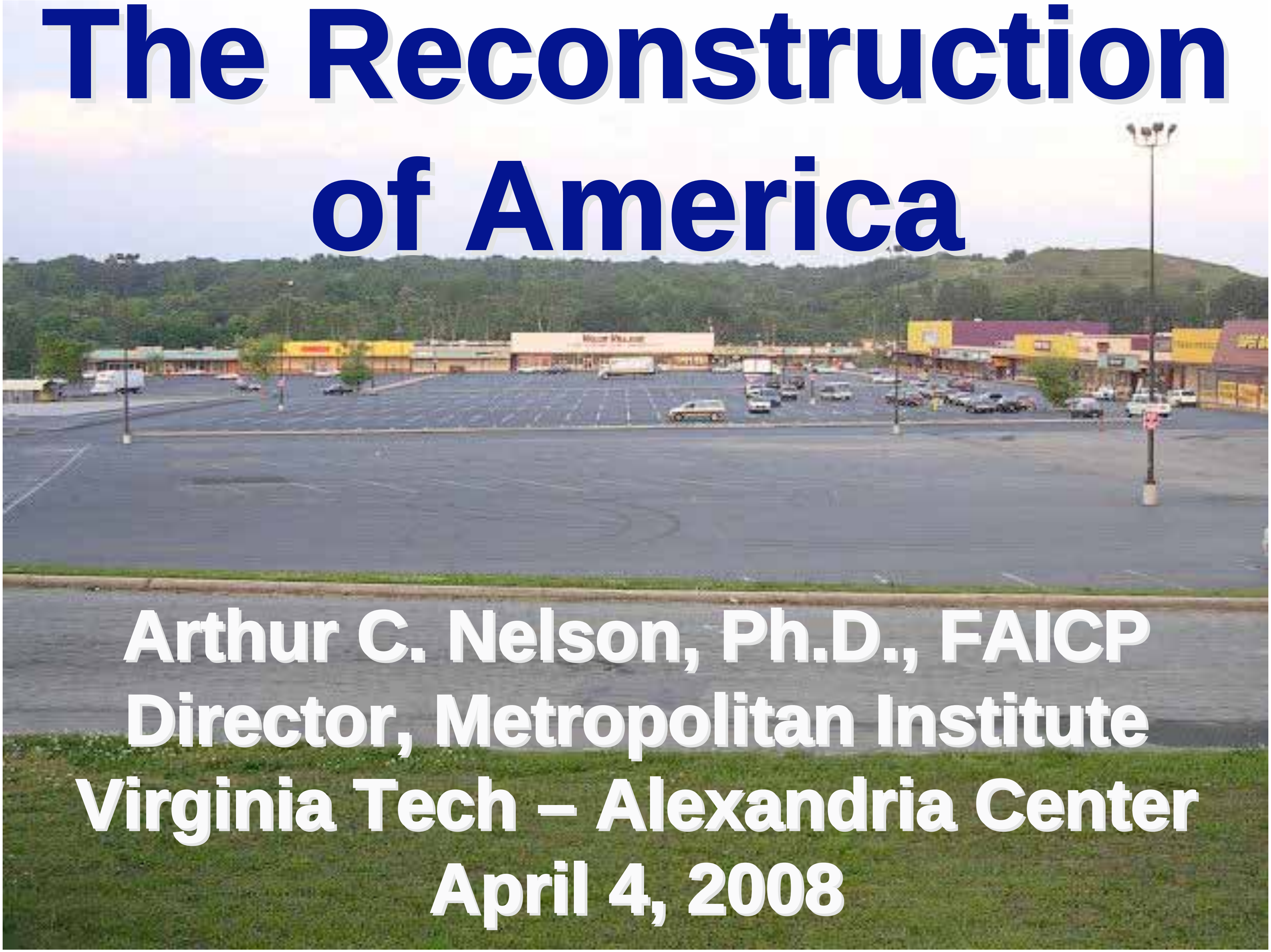
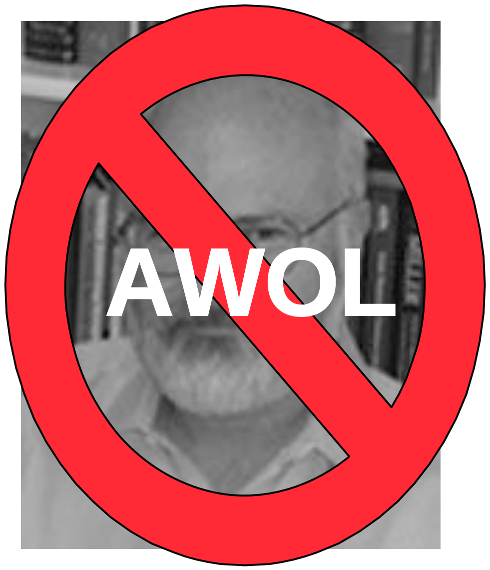
The Reconstruction of America



Arthur C. Nelson, Ph.D., FAICP
Director, Metropolitan Institute
Virginia Tech – Alexandria Center

April 4, 2008

Pick your presenter from the lineup:



Arthur C. Nelson

Arthur C. Clarke

David A. Goldberg

Themes

- Growth is coming → and you can't duck it
- America's metropolitan areas are merging
- Demographics are changing needs profoundly
- Most growth will be redevelopment
- Metropolitan areas can accommodate large share of all growth on existing parking lots – with room for parking if we are smart
- Sustainability in plausible
- America can manage the next 100 Million sustainably (but what about the first 300 million?

America Grows

200 million in 1968

300 million in 2006

400 million in 2032

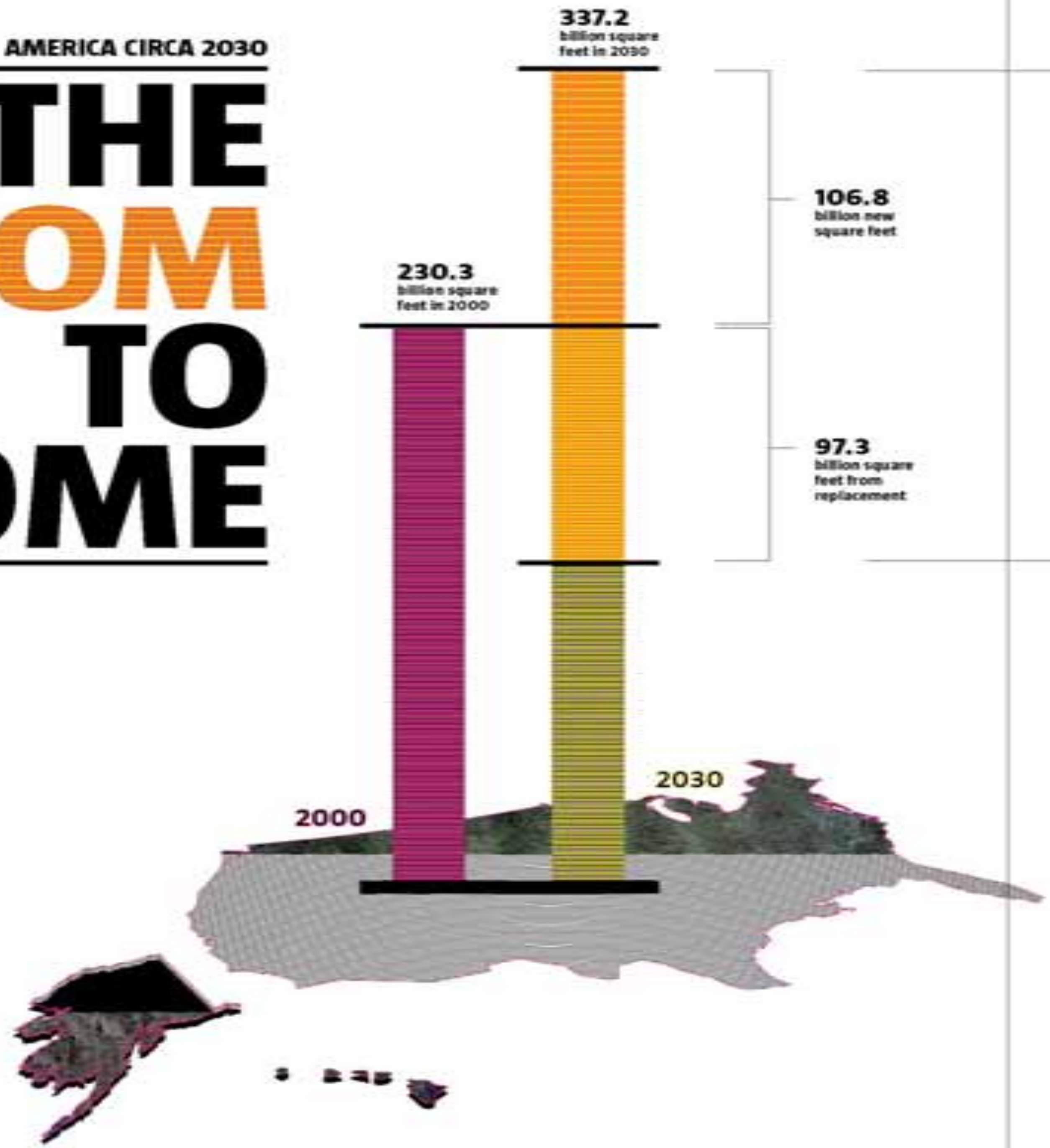
500 million in 2050

America adds 100 million people faster than any other nation except India and Pakistan – But *faster* than China.

Source: Arthur C. Nelson, Metropolitan Institute at Virginia Tech.

AMERICA CIRCA 2030

THE BOOM TO COME



Getting Ahead of the Curve

US	2000	2040
Population	281 million	433 million
Housing Units	116 million	178 million
Jobs	166 million	249 million

Source: Arthur C. Nelson, Metropolitan Institute at Virginia Tech

Residential Development

US	2000 to 2040
Growth-Related Units	50 million
Replaced Units	39 million*
Total Units	89 million

Loss rate =~ 6% per decade compounded.

Source: Arthur C. Nelson, Metropolitan Institute at Virginia Tech

Nonresidential Development

US	**2000 to 2040**
Growth-Related Square Feet	33 billion
Replaced Square Feet	94 billion*
Total Square Feet	127 billion

Loss rate =~ 24% per decade compounded.

Source: Arthur C. Nelson, Metropolitan Institute at Virginia Tech

Life-Span of Building Function

***Source*: Arthur C. Nelson, Metropolitan Institute at Virginia Tech based on DoE Commercial Buildings Energy Consumption Survey.**

Bottom Line
New Construction 2000-2040

Construction

Residential	**$24 Trillion**
Nonresidential	**$22 Trillion**
Infrastructure	**$ 9 Trillion**
Total	**$55 Trillion**

How Does It Grow?

What is the Resale Market Telling Us?

- ***Resale*** **price analysis better than new sale analysis as it strips out the "sizzle".**
- **Resale prices of condominiums are approaching resale prices of single-family homes for first time ever**
- **Appreciation of condominiums is higher than single-family homes nationally and every region**

Emerging Resale Price Evidence Trends 2007

Region	SF%	CC%
US	**-1.2%**	**1.9%**
NE	2.4%	2.9%
MW	-3.2%	4.2%
S	-2.1%	0.8%
W	-1.5%	0.0%

SF includes detached and townhouse units. CC includes condominium and cooperative units.

Source: Adapted from National Association of Realtors, March 2008, by Arthur C. Nelson, Metropolitan Institute at Virginia Tech.

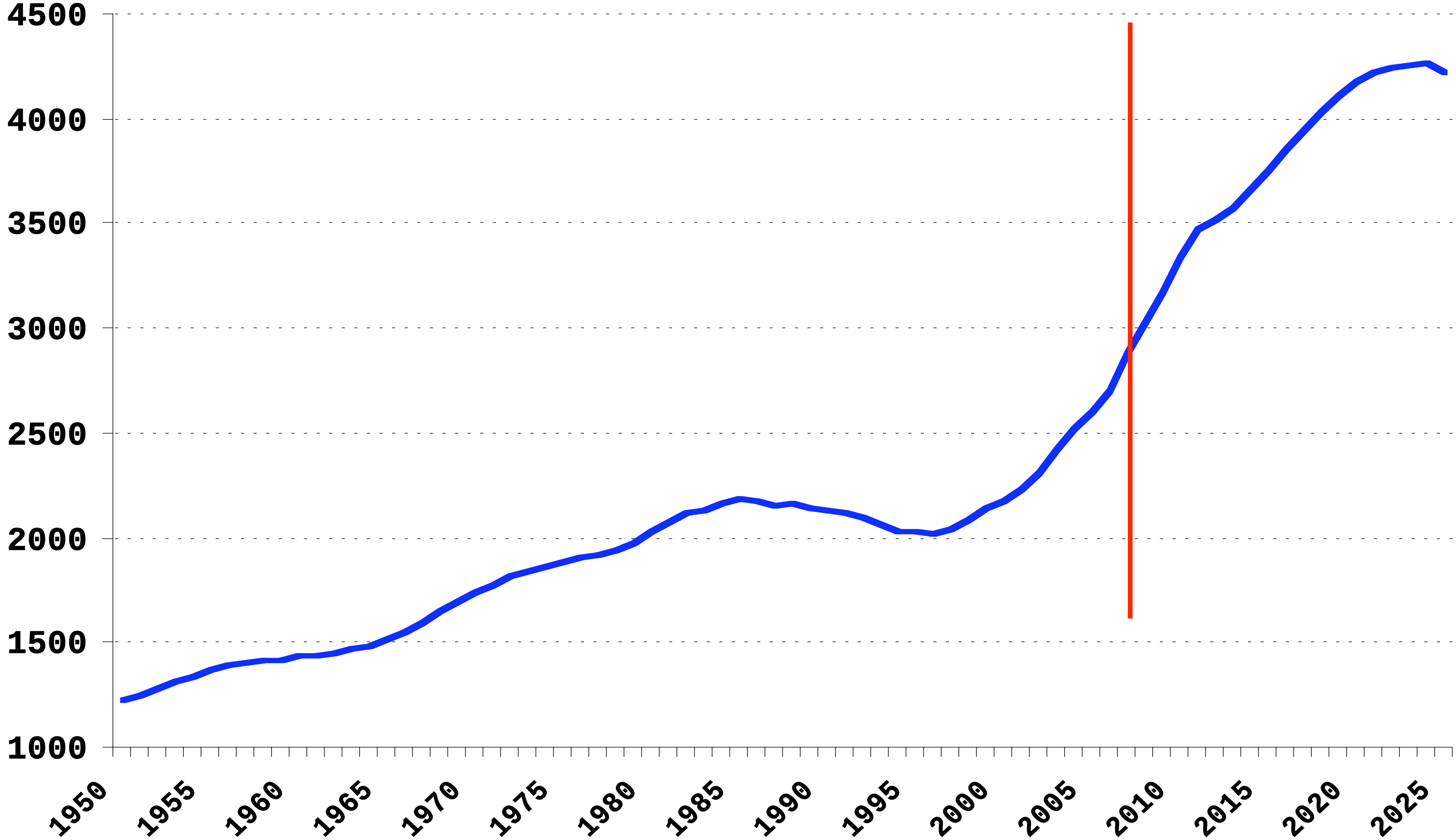
"Traditional" Households on the Wane

Household Type	1960	2000	2040
HH with Children	48%	33%	28%
HH without Children	52%	67%	72%
Single-Person HH	13%	27%	29%

***Source*: Arthur C. Nelson, Metropolitan Institute at Virginia Tech.**

People Turning 65 *Each* Year

[Figures in 000s]



Source: US Census Bureau – *65+ in the United States: 2005;* Wan He, Manisha Sengupta, Victoria A. Velkoff, & Kimberly A DeBarros. December 2005.

Share of Growth 2000-2040

HH Type	Growth	Share
With children	9M	**15%**
Single-person	21M	**34%**
Without children	52M	**85%**
Total new households	61M	

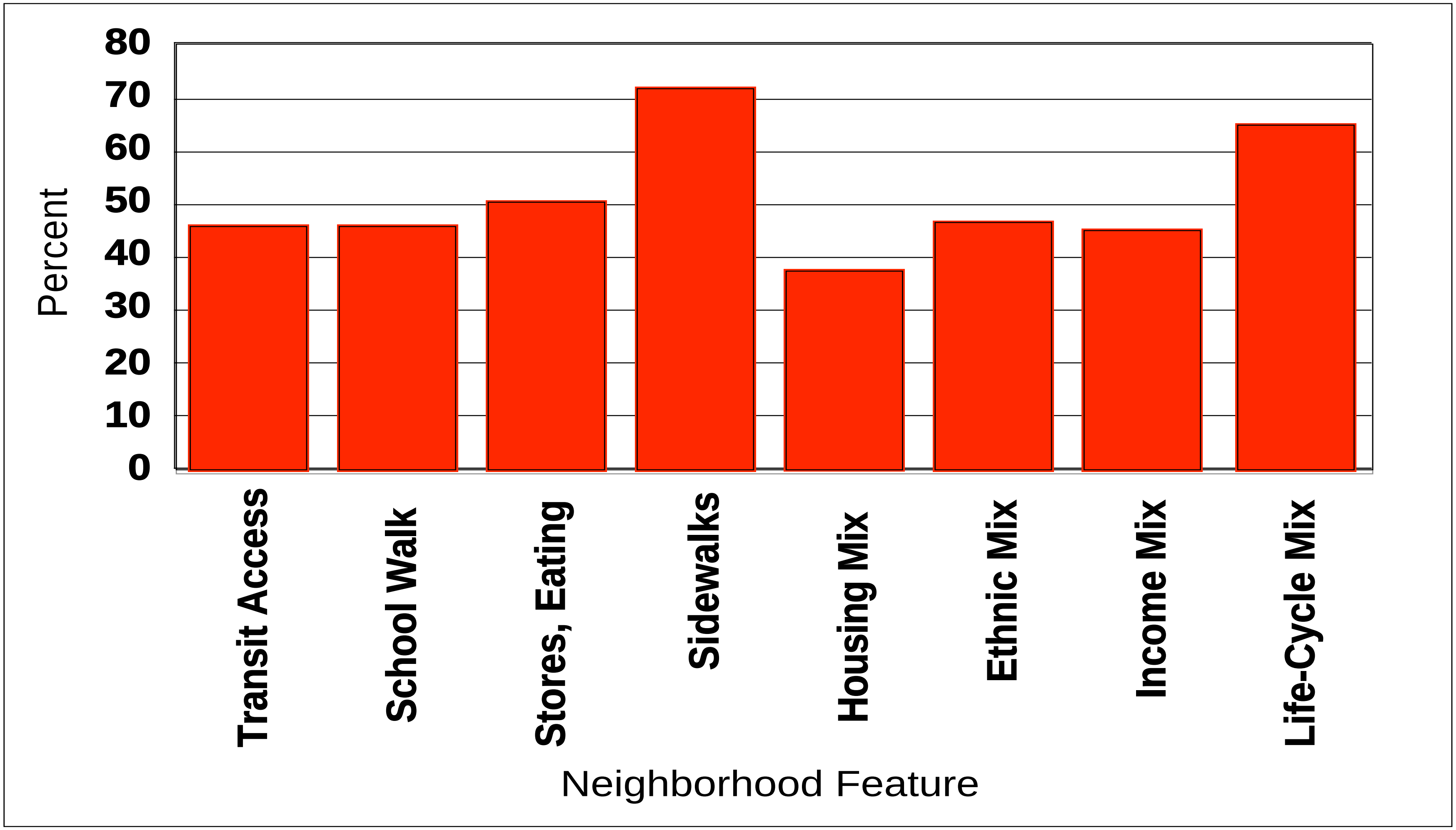
Figures in millions of households.

Source: Adapted and extrapolated from Martha Farnsworth Riche, *How Changes in the Nation's Age and Household Structure Will Reshape Housing Demand in the 21st Century*, HUD (2003).

What Futurists Tell Us

- **Bio-medical advances extend lifetimes.**
- **Insurance actuarial tables extend to 120.**
- ***Another 20 years added – minimum →***
  - ***Census says 76 to 96***
- **Adulthood nearing 75% without child-rearing**
- **Gen-X & -Y making "family" location decisions differently from their parents**

Neighborhood Feature Preferences



Source: National Association of Realtors, American Preference Survey 2004.

Unmet *Walkable* Demand

Residential Form	Boston	Atlanta
% want drivable suburbs	30%	41%
% of those who have	***85%***	***95%***
% want walkable suburbs	40%	29%
% of those who have	***70%***	***35%***

Source: Jonathan Levine, *Zoned Out*, Resources for the Future, 2006.

Retired Location Preference

In a city	**14%**
In a suburb close to a city	**37%**
Total "urban"	***51%***
In a suburb away from a city	**19%**
In a rural community	**30%**

Suburbs away from cities are the losers

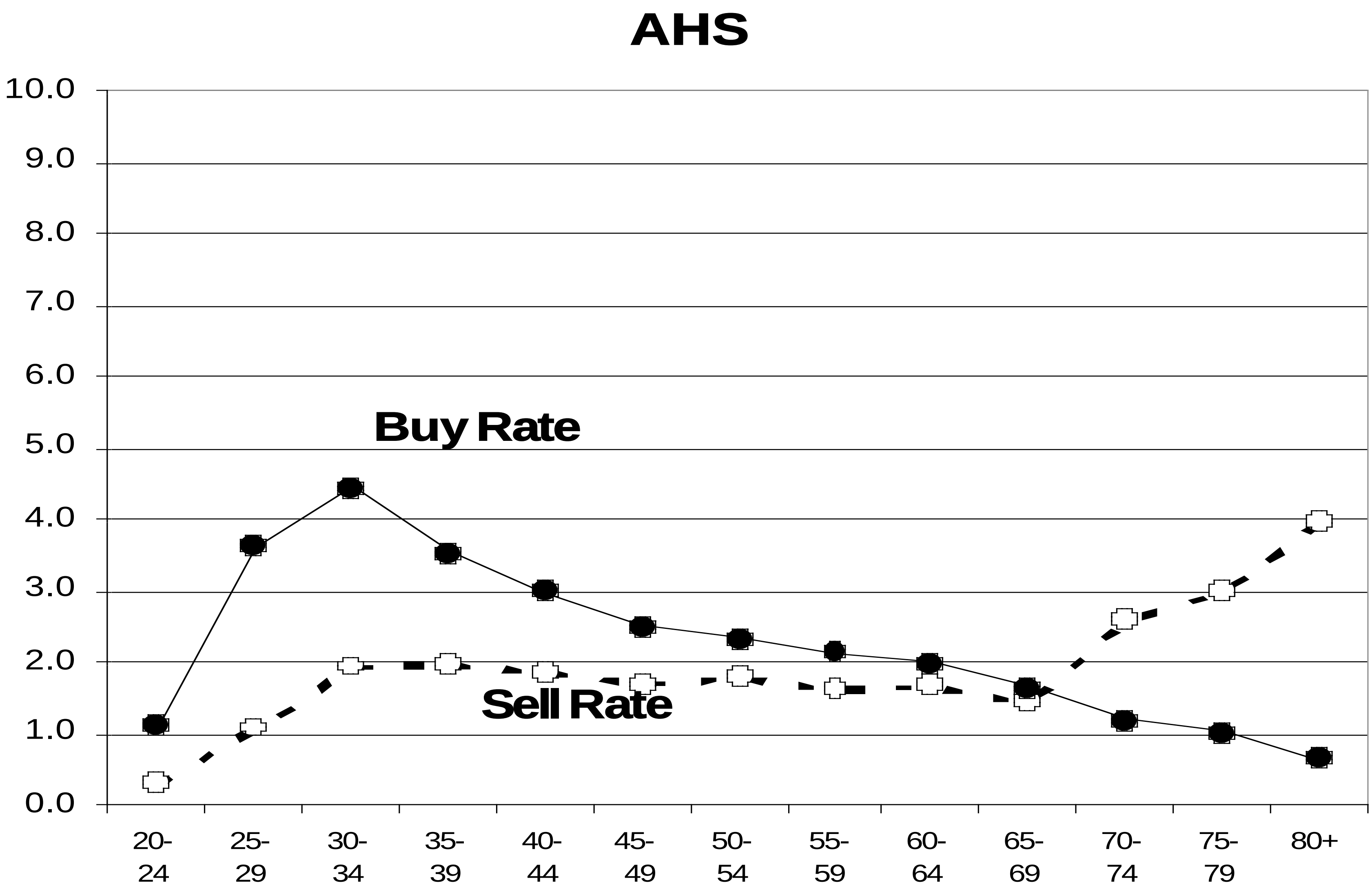
Source: National Association of Realtors & Smart Growth America, American Preference Survey 2004.

Housing Type Choices of Seniors

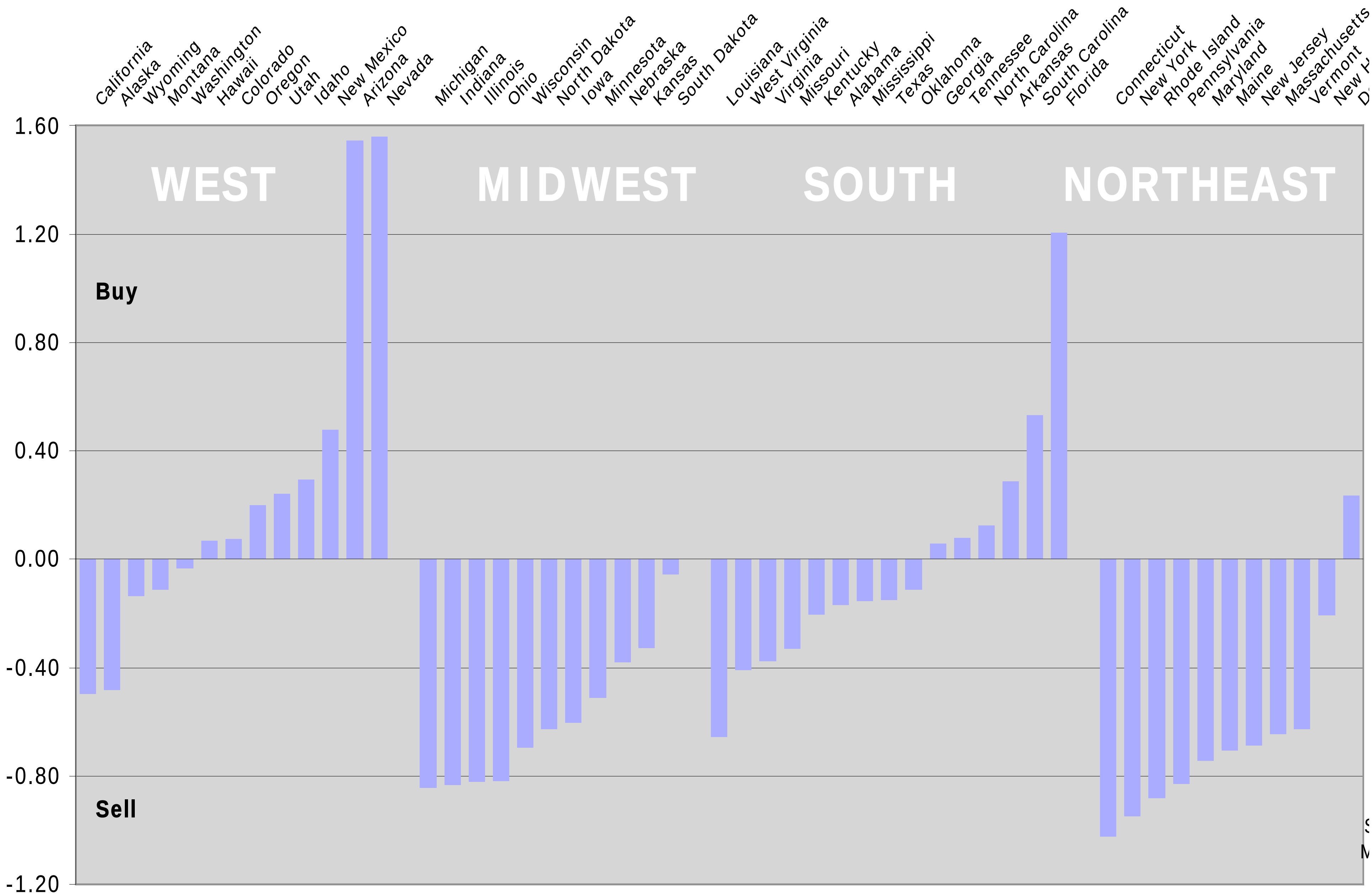
Housing Type	All Seniors		Senior Movers
Detached	**69%**	→	**35%**
Attached	**24%**	→	**54%**
Owner	**80%**	→	**41%**

Source: American Housing Survey 2003. New movers means moved in past year. Annual senior movers are about 5% of all senior households; 75%+ of all senior will change housing type between ages 65 and 80.

Buy-Sell Rates by Age Cohort



Source: **Dowell Myers & SungHo Ryu, "Aging Baby Boomers and the Generational Housing Bubble: Foresight and Mitigation of an Epic Transition",** ***Journal of the American Planning Association*** **74(1): 1-17 (2007).**



Source: Dowell Myers & SungHo Ryu, "Aging Baby Boomers and the Generational Housing Bubble: Foresight and Mitigation of an Epic Transition", *Journal of the American Planning Association* 74(1): 1-17 (2007). Figures for net buying or selling rate age.

Housing Preference Surveys by Type, 1995-2004

Unit Type	Share
Attached	**38%**
Apartments	*14%*
Condos, Coops	*9%**
Townhouses	*15%*
Detached	**62%**
Small Lot (<7,000 sf)	*37%*
Large Lot (>7,000 sf)	**25%**

Source: **Low range** of surveys reviewed by Arthur C. Nelson, “Planning for a New Era,” *Journal of the American Planning Association*, Fall 2006.

*Toll Brothers shifting product mix to 15% condominium; *WSJ* 12/06.

Trend Demand 2005 - 2040

50% Attached (apartment, TH, condo, etc.)
30% Detached small/cluster/zero-lot
<u>20% Conventional large-lot subdivision</u>

80% = Traditional Urban Density

Even in Plano, Texas

Large-Lot Oversupply 2030

Unit Type	Supply 2005	Preference Change	Mid-Point Change
Attached	39M	15M	13M
Small Lot	12M	40M	22M
Large Lot	58M	**- 23M**	**- 3M**

Large lots subdivided, redeveloped = 7M.

Figures in millions of units.

Preference change based on low-range of preference survey averages.

Mid-point is mid-percentage distribution between 2005 and low-range estimate of preference surveys and supply of occupied units in 2005.

Unmet Smart Growth Demand

One-third of households want smart growth[a]

165M households in 2040 @ 33% = 55M

New housing demand 2000-2040 = 50M units

If all new dwelling units were “smart growth” new supply would not meet demand.

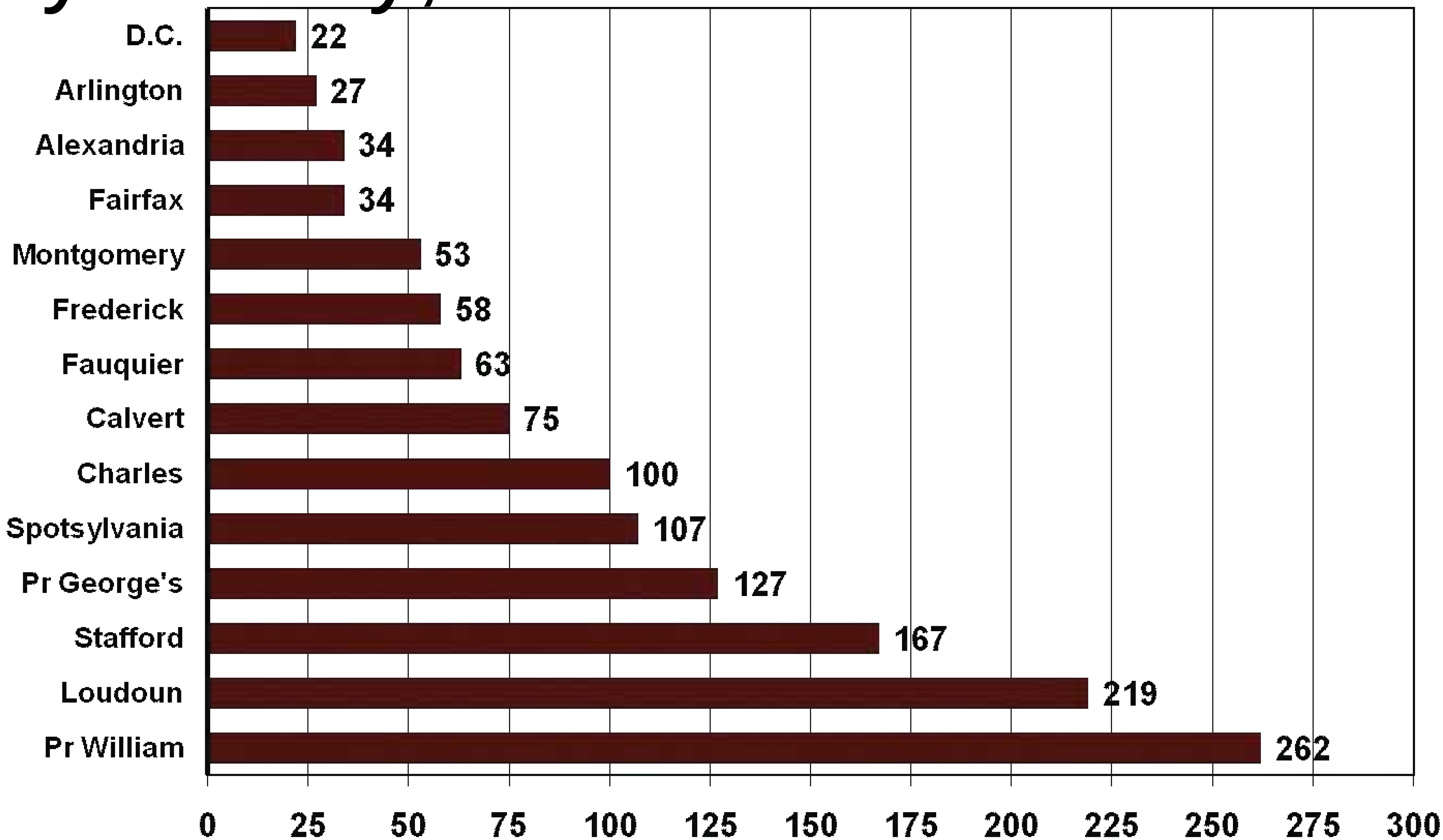
Next 100 million = 33% smart growth demand

[a]Gregg Logan, EPA Large-Production Builders Conference, January 31, 2007.

Emerging Housing Realities

- Short-term housing production out of synch with long-term demand
- Growing demand for housing accessible to transit but transit supply is lagging
- Millions of homes at the fringe may soon not be worth their mortgages
- Detached second home demand falling every decade
- Inducing home-ownership may be harming millions

Metro DC Foreclosure Rates by County, 2007



Source: RealtyTrac, Center for Regional Analysis

The New Promise Land?

Tear Up a Parking Lot, Rebuild Paradise

Large, flat and well drained

Major infrastructure in place

4+ lane highway frontage → "transit-ready"

"*Kelo*" problems avoided

Committed to commercial/mixed use

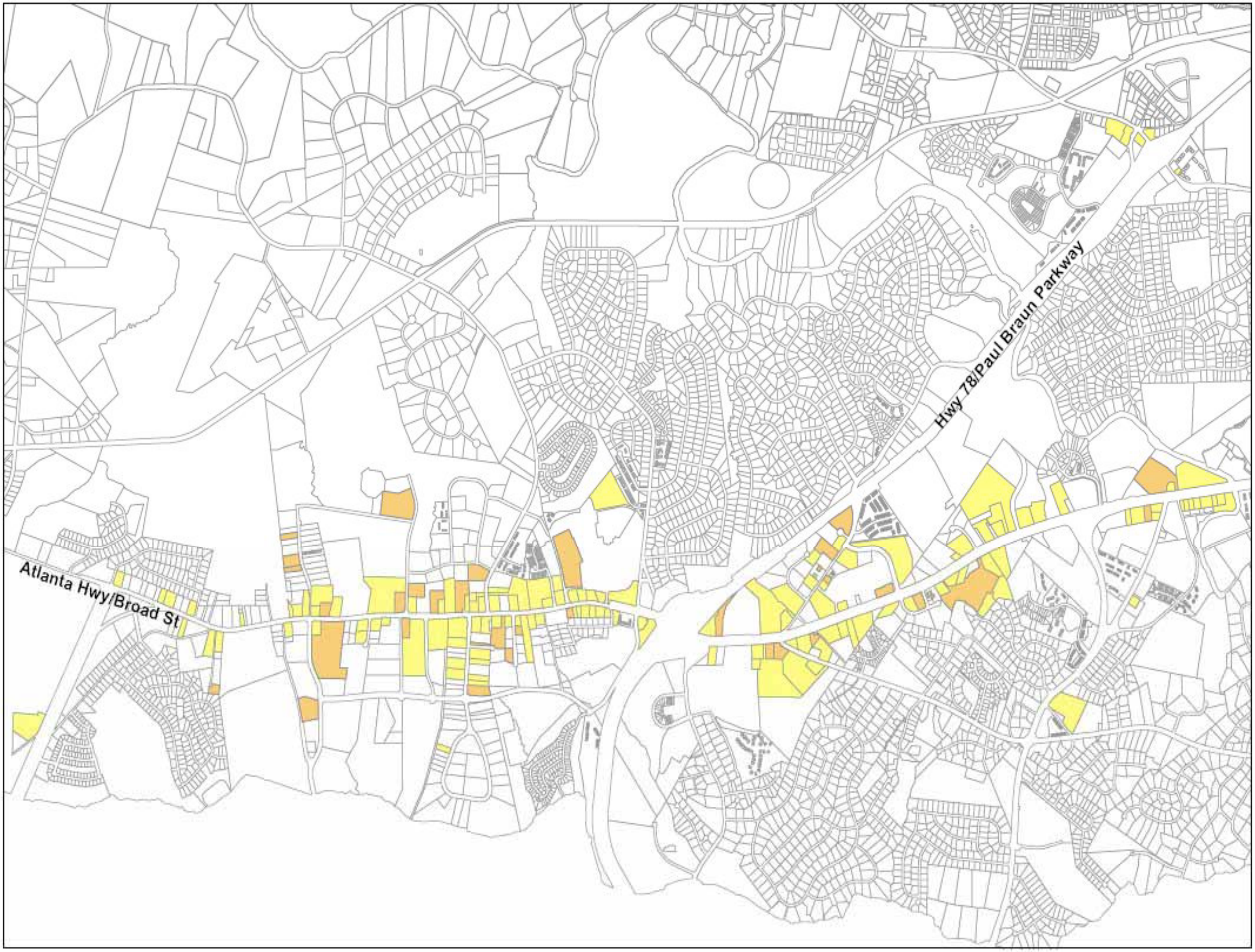
Can turn NIMBYs into YIMBYs

Slide title phrase adapted from Joni Mitchell, *Big Yellow Taxi*, refrain: "Pave over paradise, put up a parking lot."

Western Avenue at North Harvard Street: from auto-dominated strip retail to pedestrian-friendly Main Street.

Actions Needed

- Systematically evaluate low-FAR areas for their conversion ripeness over planning horizon
- Estimate share of growth conversion can accommodate feasibly
- Evaluate feasibility of creating transit corridors
- Engage stakeholders now to create “sector” and “form-based code” plans to grease the future
- Explore win-win financial tools to bridge near-term rate-of-return gap for long term gain

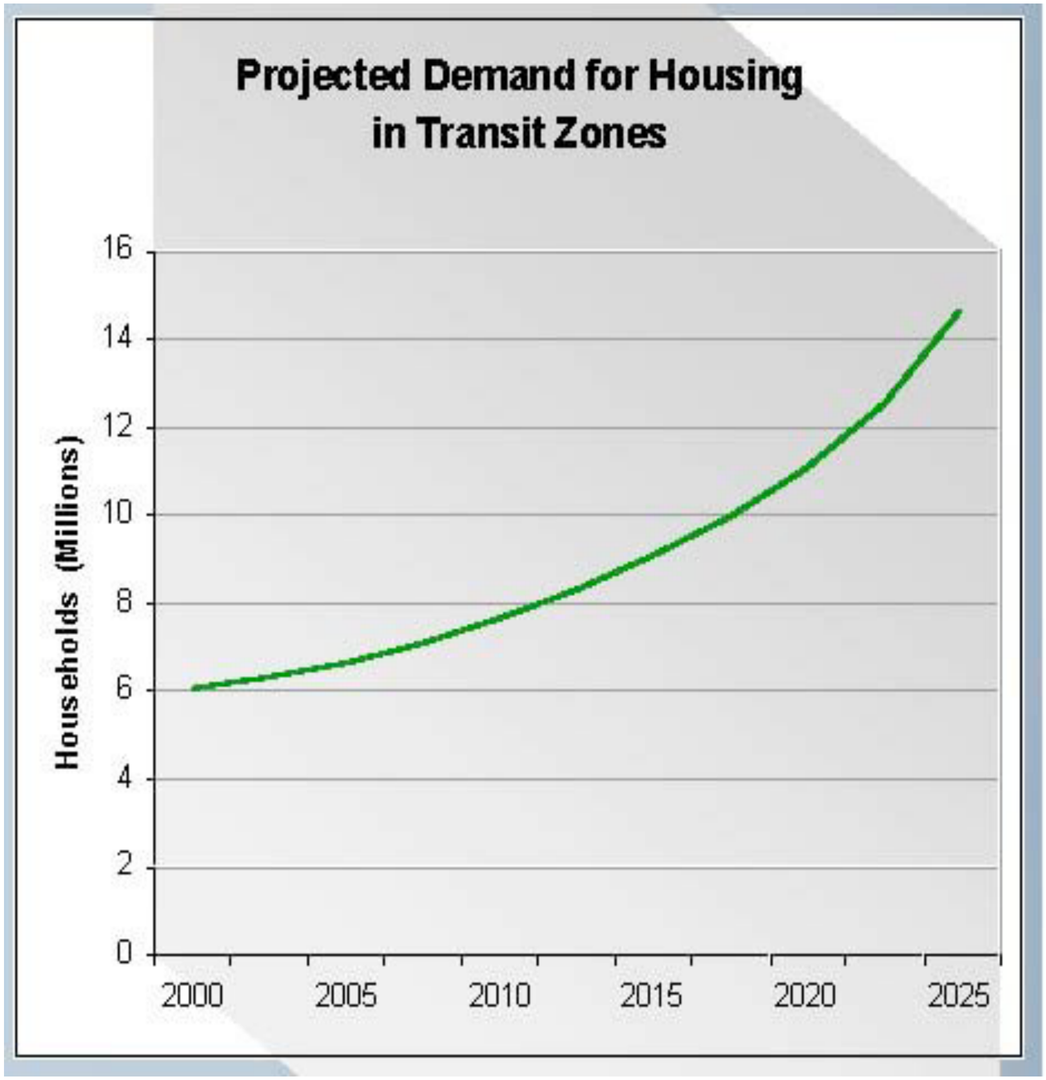

Atlanta Hwy/Broad St
Hwy 78/Paul Braun Parkway

U.S. Re-Building Capacity

Calculation	**Result**
"Ripe" Redevelopment Acres by 2040	6.0M
Minimum Share Redeveloped	25%
Redeveloped Acres	1.5M
15-25 dwellings @ 1,800sq.ft.	
30-50 jobs @ 500sq.ft.	1.5FAR
Percent Residential Absorption	**min. 67%**
Percent Employment Absorption	**min. 75%**

National TOD Opportunity

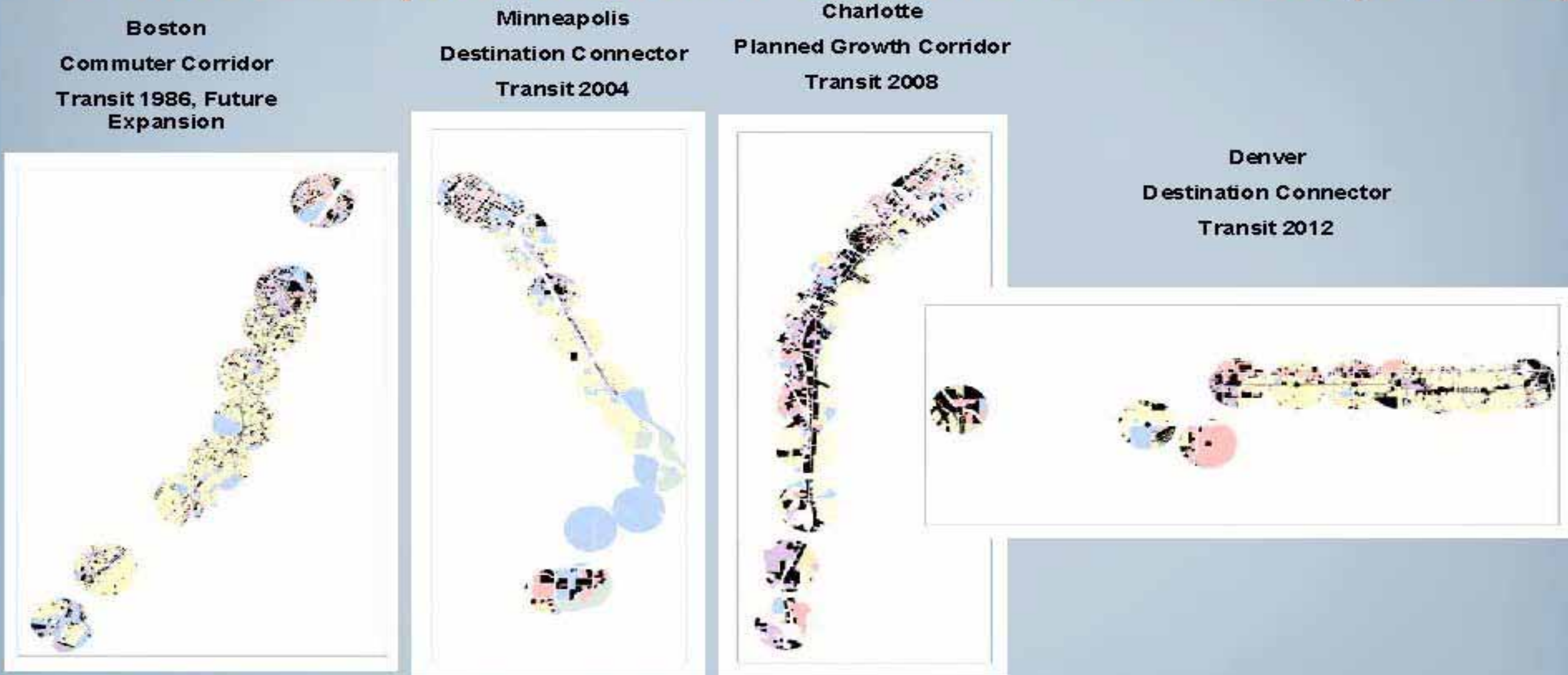
- Rail transit accessed 6M HH in 2000
- By 2025 existing & planned rail may access 15M HH
- By 2040 rail may access 30M HH
- 60% of total new housing needed



Source: Figure from Reconnecting America, *Realizing the Potential: Expanding Housing Opportunities Near Transit.*

Re/Development Opportunity

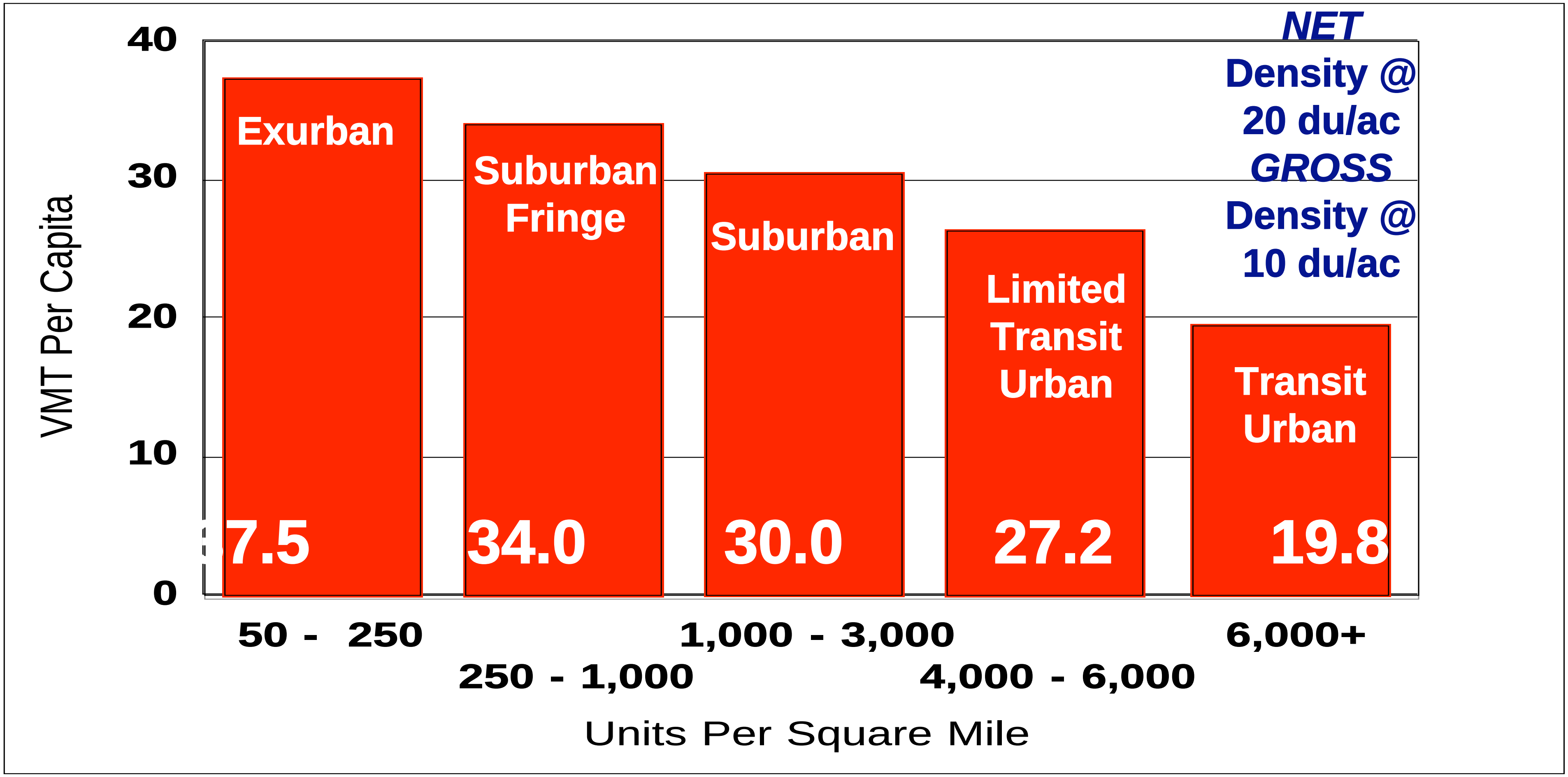
Underdeveloped Parcels in ½ Mile Station Areas (BLACK)



	Boston	Portland	Minneapolis	Charlotte	Denver
Total Stations in Corridor	9	38	17	15	11
Underutilized Acreage in 1/2M Radius of Each Station	345 acres	N/A	542 acres	1,295 acres	1,026 acres
"Ripe" for redevelopment by 2040		**14,000**	**6,000**	**5,500**	**4,000**
Metro growth absorbed @ 3.0 FAR		**50%**	**35%**	**35%**	**20%**

Source: Figure from Reconnecting America, *Realizing the Potential: Expanding Housing Opportunities Near Transit.*

Suburban Center + TOD Densities Offset VMT Gains of Growth



Source: Arthur C. Nelson, Metropolitan Institute at Virginia Tech, based on *Nationwide Household Transportation Survey*, USDOT, 2001. Figure is VMT per driver.

Invest Where People Want to Be

- Half the population (NAR) and 70+% of seniors want transit options (AARP)
- ULI, PriceWaterhouseCoopers, others advise:
  - Do not invest in suburban fringe
  - Highest rates of return in redevelopment, infill
- Understand changing preferences →
  - Affluent elderly who want urbane opportunities
  - Growing number want to raise children in urbane settings
  - Longer life spans increase adult-oriented preferences
- 33% and growing share want “green” living in more dense urban/suburban areas

Adding “fuel” to an existing trend

WSJ.com THE WALL STREET JOURNAL. ONLINE

March 3, 2008

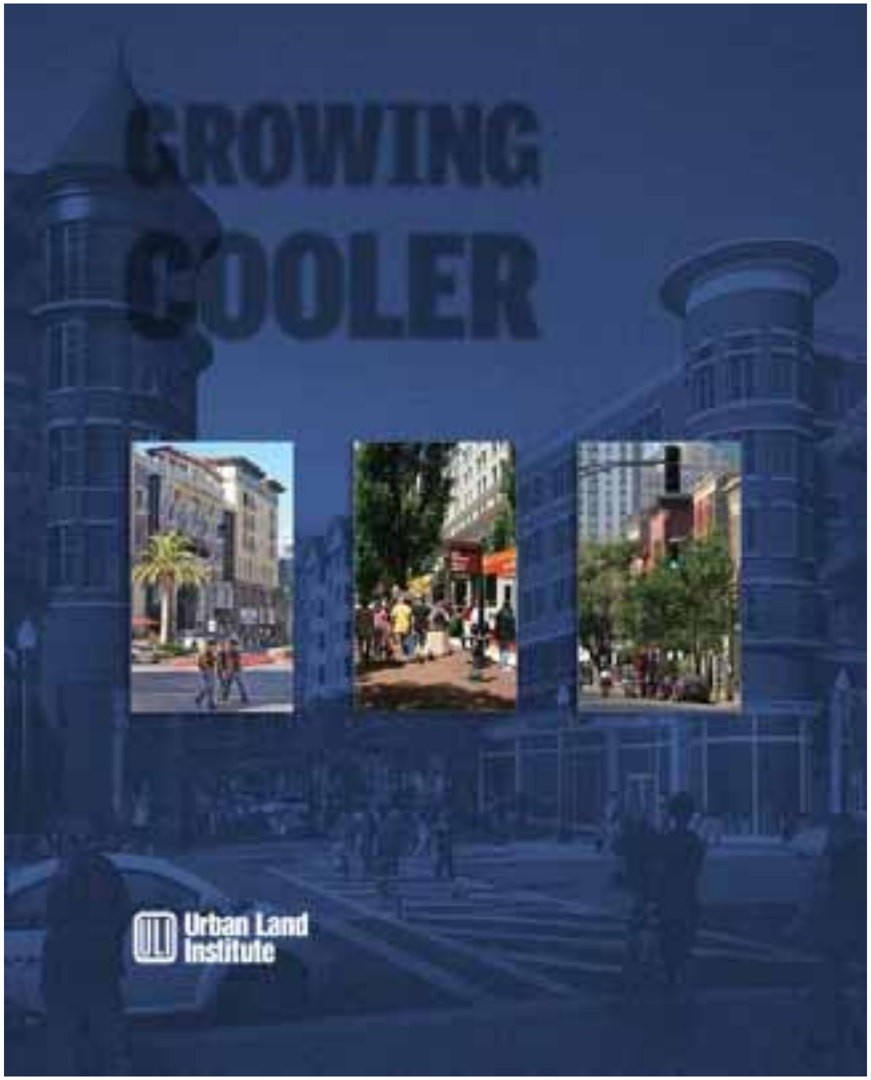
PAGE ONE

Americans Start to Curb Their Thirst for Gasoline

By ANA CAMPOY
March 3, 2008; Page A1

As crude-oil prices climb to historic highs, steep gasoline prices and the weak economy are beginning to curb Americans' gas-guzzling ways.

- **“The housing boom encouraged the development of far-flung suburbs, contributing to longer commutes. Now developers are building more walkable neighborhoods close to city centers and public transit, and Americans are beginning to migrate back toward their workplaces, city planners and other experts say.”**



Growing Cooler:
The Evidence on Urban Development and Climate Change

Now available!

THANK YOU!

Contact me:

Dgoldberg@smartgrowthamerica.org

More on our web site:

SmartGrowthAmerica.org

THANK YOU!

Western Avenue at North Harvard Street: from auto-dominated strip retail to pedestrian-friendly Main Street.