WHAT DO TODAY’S METRO AREAS ACTUALLY LOOK LIKE?

An Examination of Density and Changing Development Patterns

Caitlin Walter
National Multifamily Housing Council
AGENDA

• Why Look at This?
• What Is a Suburb?
• An Alternative Way to Look at Metropolitan Areas—Density
• Is there a Relationship Between Demographics and Density in Metropolitan Areas?
• Has that Changed Over Time?
• Implications for the Apartment Industry
WHY LOOK AT THIS?

**Millennials Are Driving the Suburban Resurgence**

These Cities Have Already Reached 'Peak Millennial' as Young People Begin to Leave

**Studies Show Millennials Are Moving to the Suburbs (and Employers Are Following)**

Conventional wisdom says younger workers only want to live in cities, but the conventional wisdom might be wrong.

**The miserable reason behind millennials' slow march to the suburbs**

**No, Young People Aren't Fleeing Cities**

@ApartmentWire #NMHCresearch
WHY LOOK AT THIS?

Current Location of Generation Y Survey Respondents

- Rural areas
- Small towns
- Newer suburbs
- Dense, older suburbs
- Other city neighborhoods
- Downtown/Near Downtown

Source: “Gen Y and Housing: What They Want and Where They Want It”, p. 9 (UDR/Lachman Associates)
WHERE MILLENNAL RESPONDENTS WANT TO LIVE

Mixed-Use Communities, 62%

Other, 38%

Source: “Millennials—Breaking the Myths”, p. 16 (Nielsen)
WHAT IS A SUBURB?

a district lying immediately outside a city or town, especially a smaller residential community.

.dictionary.com
TYPOLOGIES OF SUBURBS

Classification of the Suburbs; Atlanta-Sandy Springs-Roswell, GA MSA

SOURCE: RCLCO
## TYPOLOGIES OF SUBURBS

<table>
<thead>
<tr>
<th>Name of Suburb</th>
<th>Defining Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edge Cities</td>
<td>· 5 million sq. ft. office space</td>
</tr>
<tr>
<td></td>
<td>· 600,000 sq. ft. retail space</td>
</tr>
<tr>
<td></td>
<td>· More jobs than bedrooms</td>
</tr>
<tr>
<td></td>
<td>· People perceive as “one place”</td>
</tr>
<tr>
<td></td>
<td>· Incorporated cities with more than 100,000 residents</td>
</tr>
<tr>
<td></td>
<td>· Not the core city of the metro area</td>
</tr>
<tr>
<td></td>
<td>· &lt;10% population growth from 1970 to 2000 Census</td>
</tr>
<tr>
<td>Boomburbs</td>
<td>· Have all the elements of a city, but their physical</td>
</tr>
<tr>
<td></td>
<td>characteristics do not resemble them.</td>
</tr>
<tr>
<td>Metroburbia</td>
<td>· “New Metropolis”*: employers located outside of city with</td>
</tr>
<tr>
<td></td>
<td>retail opportunities nearby</td>
</tr>
<tr>
<td>Technoburbs</td>
<td>· Mix of all uses, including agricultural</td>
</tr>
<tr>
<td>New Urbanism</td>
<td>· Mix of all uses</td>
</tr>
</tbody>
</table>

AN ALTERNATIVE WAY TO LOOK AT METRO AREAS: COMPARE CHANGES IN DENSITY OVER TIME
METHODOLOGY - INDEX

- Time Period: 1990-2015
- Data Source: Urban Institute/Geolytics Neighborhood Change Database and American FactFinder
- Geography: Census Tract (in 2010 boundaries)
THREE DIFFERENT INDEXES

• Total Housing Index
• Single-Family Housing Index & Single-Family Share Housing Index
• Multifamily Housing Index & Multifamily Share Housing Index
DENSITY IS MOVING OUTWARD

Total Housing Index in Denver Metro Area, 2015

Total Housing Index in Nashville Metro Area, 2015

Source: ESRI; U.S. Census Bureau; Geolytics; Urban Institute.
…BUT NOT AT AN INCREDIBLY RAPID RATE

Total Housing Index (excluding top 5th percentile)

<table>
<thead>
<tr>
<th>Index Year</th>
<th>No. of Obs.</th>
<th>10th Percentile</th>
<th>50th Percentile</th>
<th>90th Percentile</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>64,713</td>
<td>94.65</td>
<td>106.34</td>
<td>137.75</td>
<td>111.58</td>
<td>19.32</td>
</tr>
<tr>
<td>2010</td>
<td>64,713</td>
<td>91.46</td>
<td>111.90</td>
<td>184.53</td>
<td>127.48</td>
<td>50.41</td>
</tr>
<tr>
<td>2015</td>
<td>64,713</td>
<td>90.58</td>
<td>112.72</td>
<td>194.54</td>
<td>130.39</td>
<td>55.81</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau; Geolytics; Urban Institute.
MULTIFAMILY SHARE IS INCREASING IN MANY “SUBURBS”

Multifamily Share Index in Nashville Metro Area, 2015

Multifamily Share Index in Denver Metro Area, 2015

Source: ESRI; U.S. Census Bureau; Geolytics; Urban Institute.

@ApartmentWire #NMHCResearch
LITTLE DIFFERENCE IN AVERAGE INDEX VALUES BETWEEN CITIES AND SUBURBS

<table>
<thead>
<tr>
<th>Region</th>
<th>2000</th>
<th>2010</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal City</td>
<td>136.28</td>
<td>202.70</td>
<td>212.79</td>
</tr>
<tr>
<td>Suburbs</td>
<td>133.81</td>
<td>201.83</td>
<td>212.37</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau; Geolytics; Urban Institute.
DEVELOPMENT TRENDS SUPERSEDE POLITICAL DEFINITIONS

Multifamily Index in Nashville Metro Area, 2015

Source: ESRI; U.S. Census Bureau; Geolytics; Urban Institute.
WHAT ABOUT THE PEOPLE LIVING IN METROPOLITAN AREAS?
WHY LOOK AT THIS?

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The miserable reason behind millennials' slow march to the suburbs

No, Young People Aren't Fleeing Cities

Joe Cortright  Dec 20, 2017
ARE MILLENNIALS ANYTHING MORE THAN A MARKETING GROUP?

Median Age at First Marriage

Source: U.S. Census Bureau.
METHODOLOGY - REGRESSION

• Time Period: 1990-2015

• Data Source: Urban Institute/Geolytics Neighborhood Change Database and American FactFinder


• Geography: Census Tract (in 2010 boundaries)
REGRESSION VARIABLES

• Dependent Variable: Total Housing Units per Acre (Log)

• Independent/Control Variables:
  • Share of Each Age Cohort
  • City/Suburb Status
  • Household Income
  • Educational Attainment
  • Race/Ethnicity
  • Commute Time to Work
  • Means of Transportation to Work
  • Structure Type
  • Tenure & Vacancy Status
THE RELATIONSHIP BETWEEN THE SHARE OF 25-34 YEAR OLDS & DENSITY HAS CHANGED LITTLE OVER TIME

Coefficients for Young Adult Cohort from Larger Regression

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>-2.55*</td>
<td>-4.05*</td>
<td>-1.32*</td>
<td>-0.42*</td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: Log of Total Housing Units per Acre

*p<0.05

Source: U.S. Census Bureau; Geolytics; Urban Institute.
HOUSING STOCK VARIABLES ARE SIMILAR TO WHAT WAS ANTICIPATED

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Multifamily Share</td>
<td>2.44*</td>
<td>2.29*</td>
<td>3.24*</td>
<td>3.08*</td>
</tr>
<tr>
<td>% Renters</td>
<td>2.07*</td>
<td>1.51*</td>
<td>-0.52*</td>
<td>-0.37*</td>
</tr>
<tr>
<td>% Vacant Units</td>
<td>N/A</td>
<td>N/A</td>
<td>-3.71*</td>
<td>-3.79*</td>
</tr>
</tbody>
</table>

Dependent Variable: Log of Total Housing Units per Acre

*p<0.05

Source: U.S. Census Bureau; Geolytics; Urban Institute.
DEMOGRAPHIC VARIABLES ARE MIXED, BUT RELATIONSHIPS WITH DENSITY REMAIN CONSTANT OVER TIME

Coefficients for Resident Characteristics from Larger Regression

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>% Pop. Under 18</td>
<td>-4.57*</td>
<td>-5.93*</td>
<td>-3.39*</td>
<td>-3.29*</td>
</tr>
<tr>
<td>% Pop. 18-24</td>
<td>-1.99*</td>
<td>-4.97*</td>
<td>-3.29*</td>
<td>-2.06*</td>
</tr>
<tr>
<td>% Pop. 35-44</td>
<td>-7.99*</td>
<td>-6.38*</td>
<td>-2.20*</td>
<td>-0.14</td>
</tr>
<tr>
<td>% Pop. 45-54</td>
<td>-11.83*</td>
<td>-8.47*</td>
<td>-4.76*</td>
<td>-3.22*</td>
</tr>
<tr>
<td>% Pop. 55-64</td>
<td>-1.67*</td>
<td>-15.44*</td>
<td>-6.76*</td>
<td>-4.96*</td>
</tr>
<tr>
<td>% HH Inc. $25,000-$49,999</td>
<td>1.96*</td>
<td>0.17</td>
<td>0.16</td>
<td>-0.07</td>
</tr>
<tr>
<td>% HH Inc. $50,000-$74,999</td>
<td>5.98*</td>
<td>1.81*</td>
<td>-0.34*</td>
<td>0.03</td>
</tr>
<tr>
<td>% HH Inc. $75,000-$99,999</td>
<td>7.21*</td>
<td>5.88*</td>
<td>-0.19</td>
<td>-0.63*</td>
</tr>
<tr>
<td>% HH Inc. $100,000 or Greater</td>
<td>3.00*</td>
<td>3.28*</td>
<td>0.88*</td>
<td>0.89*</td>
</tr>
</tbody>
</table>

*p<0.05
DEMOGRAPHIC VARIABLES ARE MIXED, BUT RELATIONSHIPS WITH DENSITY REMAIN CONSTANT OVER TIME

Coefficients for Resident Characteristics from Larger Regression

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% Black/African American Residents</td>
<td>1.05*</td>
<td>1.36*</td>
<td>1.77*</td>
<td>1.62*</td>
</tr>
<tr>
<td>% Hispanic Residents</td>
<td>1.37*</td>
<td>1.97*</td>
<td>2.31*</td>
<td>1.82*</td>
</tr>
<tr>
<td>% Pop. With High School Diploma</td>
<td>-1.95*</td>
<td>-0.71*</td>
<td>-0.66*</td>
<td>-2.94*</td>
</tr>
<tr>
<td>% Pop. With Some College</td>
<td>2.19*</td>
<td>2.23*</td>
<td>2.45*</td>
<td>1.27*</td>
</tr>
<tr>
<td>% Pop. With Associate's Degree</td>
<td>-2.61*</td>
<td>0.44</td>
<td>-0.18</td>
<td>-1.18*</td>
</tr>
<tr>
<td>% Pop. With Bachelor’s</td>
<td>-1.69*</td>
<td>N/A</td>
<td>1.94*</td>
<td>N/A</td>
</tr>
<tr>
<td>% Workers Who Use Public Transportation</td>
<td>3.55*</td>
<td>3.28*</td>
<td>0.89*</td>
<td>1.38*</td>
</tr>
<tr>
<td>% Workers Who Walk</td>
<td>-4.92*</td>
<td>-4.39*</td>
<td>-1.91*</td>
<td>-3.69*</td>
</tr>
</tbody>
</table>

*p<0.05

Source: U.S. Census Bureau; Geolytics; Urban Institute.
SUMMARY

• The traditional city-suburb distinction is less useful today
• Density is increasing, but at a slow, uneven rate
• The relationship between certain demographic groups and residential density has changed little from 1990 to 2015—will this relationship continue in the future?
IMPLICATIONS FOR APARTMENT INDUSTRY

• Must be careful to avoid building for one group of individuals
• Additional demand in outer areas as employment patterns continue to change
• Continuation of NIMBY issues as outer areas change
• Affordability concerns becoming more heightened in areas commonly known as “suburbs”
OPPORTUNITIES FOR FURTHER RESEARCH

• Commercial data – role of employers
• Role of 25-to-34-year-olds living at home in data
• Case studies—regional differences, shrinking cities
THANK YOU!

Comments/Questions?