From the Outskirts to Downtown: Taxes, Land Use & Value in Upper Valley Communities

A virtual presentation by Joe Minicozzi AICP | Urban3
October 29, 2020 at 11 AM

Hosted by Vital Communities | Claremont | Hanover | Lebanon

NHHFA.org/events
Our thanks to all the communities that supported this study.
Value per acre map of Auckland, New Zealand

URBAN3
Economics of Land Use
Case Study: Economic MRI®

Asheville, North Carolina
In the 70's and 80's our downtown died.

Asheville’s de facto motto was:

“That will never work here - don’t even try.”
In God we trust; everyone else, bring data.

Mayor Michael Bloomberg
Asheville’s de facto motto was:

“That will never work here - don’t even try.”
Asheville CBD Taxable Value

- 1991: $104M
- 2000: $350M
- 2007: $552M
- 2010: $665M
- 2013: $648M

DON’T TRUST THIS GROUP OF LYING POLITICIANS!

THE GREAT RIVER GRAB HAS BEGUN!
DON’T BE FOOLED BY THESE CHARLETANS!

THIS CORRUPT GROUP NEEDS TO RESIGN ALONG WITH THEIR AARRC RIVER COMMITTEE

HELP US FIGHT!
AshevilleRiverGate.com
What is a City?
What is a City?
**Incorporate** (in\'kɔrpərət)  
VERB  
Constitute (a company, city, or other organization) as a legal corporation.  
Source: Oxford Dictionary
“The United States is the largest corporation in the world.”

Joe Biden
United States Vice President
Late Show: 12/6/2016
Life is a game. Money is how we keep score.
-Ted Turner
Asheville
Is 6x >

Life is a game.  
Money is how we keep score.  
-Ted Turner
For 40 years this building remained vacant…… its tax value in 1991 was just over $300,000

Today the building is valued at over $11,000,000 an increase of over 3500% in 15 years

The lot is less than 1/5 acre
Asheville Walmart
$20,000,000 Tax Value

Downtown
$11,000,000 Tax Value
Scary Math
How do you compare cars?

Ford F150 Lariat LTD
648 miles per tank

Rolls-Royce Phantom Drophead
380 miles per tank

1955 BMW Isetta
245 miles per tank

Bugatti Veyron SS
390 miles per tank

Toyota Prius
571 miles per tank
How do you compare cars?

1. Ford F150 Lariat LTD
   648 miles per tank

2. Toyota Prius
   571 miles per tank

3. Bugatti Veyron SS
   390 miles per tank

4. Rolls-Royce Phantom Drophead
   380 miles per tank

5. 1955 BMW Isetta
   245 miles per tank
How do you compare cars?

- **Toyota Prius**: 13/18 mpg
- **Ford F150 Lariat LTD**: 17/28 mpg
- **Rolls-Royce Phantom Drophead**: 11/18 mpg
- **1955 BMW Isetta**: 50/70 mpg
- **Bugatti Veyron SS**: 8/14 mpg
How do you compare cars?

1. Toyota Prius
   51/48 mpg

2. Bugatti Veyron SS
   8/14 mpg

3. Ford F150 Lariat LTD
   13/18 mpg

4. Rolls-Royce Phantom Drophead
   11/18 mpg

5. 1955 BMW Isetta
   50/70 mpg
County Property Taxes/Acre

Ratio Difference of 60 City Sample Set, in 21 States (+ a Province)

- Residential
- Commercial
- Mixed-Use

- County S-F
- City S-F
- Walmart
- Mall or strip
- Mixed-Use (2 Story)
- Mixed-Use (3 Story)
- Mixed-Use (6 Story)
Fiber architecture of the brain. Measured from diffusion spectral imaging (DSI).

Human Connectome Project

- up-down
- left-right
- anterior-posterior
Case Study: Economic MRI®
2016

Asheville, North Carolina
Total Taxable Value
Buncombe County, NC

Biltmore Estate

Not Taxable
< 160,000
160,001 - 430,000
430,001 - 1M
1M - 2.5M
2.5M - 5.5M
5.5M - 10M
10M - 17M
17M - 33M
33M - 76M
> 76M
Biltmore Estate Taxable Value per Acre
Buncombe County, NC

Value Per Acre ($)

Not Taxable
< 170,000
170,001 - 420,000
420,001 - 760,000
760,001 - 1.2M
1.2M - 2M
2M - 3.5M
3.5M - 6.2M
6.2M - 12M
12M - 20M
> 20M
WELL
ISN’T THAT SPATIAL
New Hampshire
New Hampshire Property Taxes For Dummies

A Reference for North Carolinians!
New Hampshire Property Taxes

For Dummies

Market Value\( \times \) Taxable Value % = Taxable Value

Tax Bill = Taxable Value \( \times \) Tax Rate %

This is how NC’s system works.
New Hampshire Property Taxes for Dummies

Assessed Value - Exemptions = Taxable Value

\[
\text{Local Tax Rate} \times \frac{(\text{Needed Budget} - \text{Non-property tax revenue})}{\text{City Assessed Value}} = \text{Tax Bill}
\]

This is how NH’s system works.

*The city tax rate is established by the State.*
New Hampshire Property Taxes

FOR DUMMIES

Assessed Value = $600k

Dover Tax Rate

Commercial 2.332%

Residential 2.332%
New Hampshire Property Taxes

Assessed Value = $600k

Dover Tax Rate

Commercial
$13,992

Residential
$13,992
New Hampshire Property Taxes

FOR DUMMIES

Assessed Value = $600k

- Commercial: 0.13%
- Residential: 0.13%
New Hampshire Property Taxes

FOR DUMMIES

Assessed Value = $600k

Strafford County Tax Rate

Commercial

$780

Residential

$780
Total Value
New Hampshire

White Mountains

Lake Winnipesaukee

Source: New Hampshire Department of Revenue Administration 2019
Value Per Acre
New Hampshire

Missing Data Accounts for 5.25% of Total Land Area

Source: New Hampshire Department of Revenue Administration 2019
Missing Data: the property is there and paying taxes but isn’t mapped. Significantly rural and undeveloped.

Source: New Hampshire Department of Revenue Administration 2019
Value Per Acre
New Hampshire

Source: New Hampshire Department of Revenue Administration 2019
Taxable Area
New Hampshire

Total Area
- Taxable: 78%
- Non Taxable: 22%

Source: New Hampshire Department of Revenue Administration 2019
Case Study: Economic MRI®
2020

NH Sample

Upper Valley

Southwest Region

Seacoast

Southern Tier

Central Corridor
NH Sample

Upper Valley
- Hanover
- Lebanon
- Claremont

Southwest Region
- Keene
- Peterborough

Seacoast
- Laconia
- Concord
- Rochester
- Dover
- Portsmouth
- Exeter

Central Corridor
- Berlin
- Claremont

Southern Tier
- Manchester
- Pelham
- Hudson
- Nashua

Case Study: Economic MRI®
2020
Case Study: Economic MRI®
2020

Upper Valley

Hanover
Lebanon
Claremont
Case Study: Economic MRI®
2020

Claremont
Value Per Acre
Sullivan County

Source: New Hampshire Department of Revenue Administration 2019
Value Per Acre

Source: New Hampshire Department of Revenue Administration 2019
Value Per Acre
Downtown Claremont

Source: New Hampshire Department of Revenue Administration 2019
Total Area

- Taxable Area: 77%
- Non Taxable Area: 23%

Source: New Hampshire Department of Revenue Administration 2019
Source: New Hampshire Department of Revenue Administration 2019
Land Use Types

Local samples of buildings and development types
Single-family
Avg. VPA: $0.89 M

Avg. VPA: $28,311
Claremont Examples
Land Use Productivity

Single-family
Avg. VPA: $0.89 M

Multi-family
Avg. VPA: $0.6 M

Avg. VPA: $28,311

Source: New Hampshire Department of Revenue Administration 2019
Claremont Examples
Land Use Productivity

- Single-family
  Avg. VPA: $0.89 M

- Multi-family
  Avg. VPA: $0.6 M

- Commercial
  VPA: $0.49 M
  Avg. VPA: $28,311

Source: New Hampshire Department of Revenue Administration 2019
Claremont Examples

Land Use Productivity

Single-family
Avg.VPA: $0.89 M

Multi-family
Avg.VPA: $0.6 M

Mixed-use
VPA: $2 M

Commercial
VPA: $0.49 M

Avg. VPA: $28,311

Source: New Hampshire Department of Revenue Administration 2019
Claremont Examples
Land Use Productivity

Single-family
Avg. VPA: $0.89 M

Multi-family
Avg. VPA: $0.6 M

Commercial
VPA: $0.49 M

Mixed-use
VPA: $2 M

Peak VPA
VPA: $2.6 M

Avg. VPA: $28,311

Source: New Hampshire Department of Revenue Administration 2019
Claremont Examples
Land Use Productivity

- Peak VPA
  - VPA: $2.6 M

- Multi-family
  - Avg. VPA: $0.6 M

- Mixed-use
  - VPA: $2 M

- Commercial
  - VPA: $0.49 M

- Single-family
  - Avg. VPA: $0.89 M
Productivity

Geospatial Analysis
Claremont Profile
Land Use Productivity

*Not Perfectly to Scale
Claremont Profile
Land Use Productivity

City Avg. VPA
$28 K

Source: New Hampshire Department of Revenue Administration 2019
Claremont Profile
Land Use Productivity

- Multi-family Avg. VPA: $0.6 M
- Commercial VPA: $0.49 M
- City Avg. VPA: $28 K

Source: New Hampshire Department of Revenue Administration 2019
**Claremont Profile**

Land Use Productivity

- **Single-family Avg. VPA**
  - $0.89 M

- **Multi-family Avg. VPA**
  - $0.6 M

- **Commercial VPA**
  - $0.49 M

- **City Avg. VPA**
  - $28 K

Source: New Hampshire Department of Revenue Administration 2019

*Not Perfectly to Scale*
Mixed-use VPA
$2 M

Single-family Avg. VPA
$0.89 M

Multi-family Avg. VPA
$0.6 M

Commercial VPA
$0.49 M

City Avg. VPA
$28 K

Source: New Hampshire Department of Revenue Administration 2019

*Not Perfectly to Scale*
Claremont Profile
Land Use Productivity

Peak VPA
$2.6 M

Mixed-use VPA
$2 M

Single-family Avg. VPA
$0.89 M

Multi-family Avg. VPA
$0.6 M

Commercial VPA
$0.49 M

City Avg. VPA
$28 K

Source: New Hampshire Department of Revenue Administration 2019

*Not Perfectly to Scale*
Case Study: Economic MRI®
2020

Hanover
Source: New Hampshire Department of Revenue Administration 2019
Value Per Acre
Hanover

Source: New Hampshire Department of Revenue Administration 2019
Source: New Hampshire Department of Revenue Administration 2019
Value Per Acre
Downtown Hanover

Source: New Hampshire Department of Revenue Administration 2019
Total Area

72%

Taxable Area

Grafton County

28%

Source: New Hampshire Department of Revenue Administration 2019

White Mountain National Forest

Hanover

Taxable Property

- No Data
- Nontaxable
- Taxable
Total Area*

- 89%
- 11%

Source: New Hampshire Department of Revenue Administration 2019

* Some parcels of Dartmouth campus shows up as taxable
Land Use Types

Local samples of buildings and development types
Hanover Examples
Land Use Productivity

Multi-family
Avg. VPA: $1.7 M

Single-family
Avg. VPA: $0.81 M

Source: New Hampshire Department of Revenue Administration 2019

Avg. VPA: $100,083
Hanover Examples
Land Use Productivity

- Commercial
  - VPA: $3.4 M

- Single-family
  - Avg. VPA: $0.81 M

- Multi-family
  - Avg. VPA: $1.7 M

Source: New Hampshire Department of Revenue Administration 2019
Hanover Examples
Land Use Productivity

- Single-family
  Avg. VPA: $0.81 M

- Multi-family
  Avg. VPA: $1.7 M

- Commercial
  VPA: $3.4 M

- Mixed-use
  VPA: $12 M

Avg. VPA: $100,083
Source: New Hampshire Department of Revenue Administration 2019
Hanover Examples
Land Use Productivity

- Single-family
  - Avg. VPA: $0.81 M

- Multi-family
  - Avg. VPA: $1.7 M

- Commercial
  - VPA: $3.4 M

- Mixed-use
  - VPA: $12 M

- Peak VPA
  - VPA: $37.8 M

Source: New Hampshire Department of Revenue Administration 2019
Hanover Examples
Land Use Productivity

Mixed-use
VPA: $12 M

Peak VPA
VPA: $37.8 M

Commercial
VPA: $3.4 M

Single-family
Avg. VPA: $0.81 M

Multi-family
Avg. VPA: $1.7 M
Productivity

Geospatial Analysis
Hanover Profile
Land Use Productivity

City Avg. VPA
$0.1 M

Source: New Hampshire Department of Revenue Administration 2019

*Not Perfectly to Scale
Hanover Profile
Land Use Productivity

Source: New Hampshire Department of Revenue Administration 2019

Single-family Avg. VPA
$0.81 M

City Avg. VPA
$0.1 M

*Not Perfectly to Scale
Hanover Profile
Land Use Productivity

Mixed-use VPA
$12 M

Commercial VPA
$3.4 M

Multi-family Avg. VPA
$1.7 M

Single-family Avg. VPA
$0.81 M

City Avg. VPA
$0.1 M

Source: New Hampshire Department of Revenue Administration 2019

*Not Perfectly to Scale*
Hanover Profile
Land Use Productivity

Peak VPA
$37.8 M

Mixed-use VPA
$12 M

Commercial VPA
$3.4 M

Multi-family Avg. VPA
$1.7 M

Single-family Avg. VPA
$0.81 M

City Avg. VPA
$0.1 M

Source: New Hampshire Department of Revenue Administration 2019

*Not Perfectly to Scale
Case Study: Economic MRI®
2020

Lebanon
Value Per Acre
Lebanon

Source: New Hampshire Department of Revenue Administration 2019
Value Per Acre
Grafton County

Source: New Hampshire Department of Revenue Administration 2019
Area

City

Country

Value

Source: New Hampshire Department of Revenue Administration 2019

Value Per Acre

Lebanon

1:4.9

Taxable Value per Acre ($)

0

< 50,000

50,001 - 100,000

100,001 - 500,000

500,001 - 1,000,000

1,000,001 - 1,500,000

1,500,001 - 2,000,000

2,000,001 - 2,500,000

2,500,001 - 3,000,000

3,000,001 - 4,000,000

4,000,001 - 5,000,000

5,000,001 - 6,000,000

6,000,001 - 8,000,000

8,000,001 - 12,000,000

12,000,001 - 16,000,000

16,000,001 - 20,000,000

> 20,000,000

Missing Data

Source: New Hampshire Department of Revenue Administration 2019
Area

Value

Taxable Value per Acre ($)
- 0
- 0 - 90,000
- 90,001 - 100,000
- 100,001 - 500,000
- 500,001 - 1,000,000
- 1,000,001 - 1,500,000
- 1,500,001 - 2,000,000
- 2,000,001 - 3,000,000
- 3,000,001 - 4,000,000
- 4,000,001 - 5,000,000
- 5,000,001 - 6,000,000
- 6,000,001 - 7,000,000
- 7,000,001 - 8,000,000
- 8,000,001 - 12,000,000
- 12,000,001 - 15,000,000
- 15,000,001 - 20,000,000
- 18,000,001 - 28,000,000
- > 28,000,000
- Missing Data

Source: New Hampshire Department of Revenue Administration 2019
Total Area

Taxable Area
Grafton County

White Mountain National Forest

Lebanon

Source: New Hampshire Department of Revenue Administration 2019
Total Area

- Taxable: 86%
- Nontaxable: 13%

Source: New Hampshire Department of Revenue Administration 2019
Land Use Types

Local samples of buildings and development types
Lebanon Examples
Land Use Productivity

Source: New Hampshire Department of Revenue Administration 2019

Avg. VPA: $90,509
Lebanon Examples
Land Use Productivity

Avg. VPA: $90,509

Source: New Hampshire Department of Revenue Administration 2019

Single-family
Avg. VPA: $0.51 M
Lebanon Examples
Land Use Productivity

- Single-family
  Avg. VPA: $0.51 M
- Multi-family
  Avg. VPA: $1.2 M

Source: New Hampshire Department of Revenue Administration 2019

Avg. VPA: $90,509
Avg. VPA: $90,509

Source: New Hampshire Department of Revenue Administration 2019

Lebanon Examples
Land Use Productivity

Single-family
Avg. VPA: $0.51 M

Multi-family
Avg. VPA: $1.2 M

Commercial
VPA: $1.1 M

Avg. VPA: $90,509
Avg. VPA: $90,509

Source: New Hampshire Department of Revenue Administration 2019

Single-family
Avg. VPA: $0.51 M

Multi-family
Avg. VPA: $1.2 M

Commercial
VPA: $1.1 M

Mixed-use
VPA: $6.2 M

Lebanon Examples
Land Use Productivity
Lebanon Examples
Land Use Productivity

- Single-family
  Avg. VPA: $0.51 M

- Multi-family
  Avg. VPA: $1.2 M

- Commercial
  VPA: $1.1 M

- Mixed-use
  VPA: $6.2 M

- Top VPA
  VPA: $14.4 M

Source: New Hampshire Department of Revenue Administration 2019
Lebanon Examples
Land Use Productivity

- Single-family
  Avg. VPA: $0.51 M
- Multi-family
  Avg. VPA: $1.2 M
- Commercial
  VPA: $1.1 M
- Mixed-use
  VPA: $6.2 M
- Peak VPA
  VPA: $14.4 M

Example locations:
- Brown Furniture
- Best Western West Lebanon-Hanover Hotel
- Lebanon Municipal Airport
- Miracle Mile Plaza
- Colburn Park
- Storrs Hill Ski Area
Productivity

Geospatial Analysis
Lebanon Profile
Land Use Productivity

Source: New Hampshire Department of Revenue Administration 2019
Lebanon Profile
Land Use Productivity

City Avg. VPA
$0.09 M

Source: New Hampshire Department of Revenue Administration 2019
Lebanon Profile
Land Use Productivity

Single-family Avg. VPA
$0.56 M

City Avg. VPA
$0.09 M

Source: New Hampshire Department of Revenue Administration 2019
Lebanon Profile
Land Use Productivity

Source: New Hampshire Department of Revenue Administration 2019

- Commercial VPA: $1.1 M
- Single-family Avg. VPA: $0.56 M
- City Avg. VPA: $0.09 M

*Not Perfectly to Scale
Land Use Productivity

Multi-family Avg. VPA $1.2 M
Commercial VPA $1.1 M
Single-family Avg. VPA $0.56 M
City Avg. VPA $0.09 M

Source: New Hampshire Department of Revenue Administration 2019
Lebanon Profile
Land Use Productivity

Mixed-use VPA
$6.2 M

Multi-family Avg. VPA
$1.2 M

Commercial VPA
$1.1 M

Single-family Avg. VPA
$0.56 M

City Avg. VPA
$0.09 M

Source: New Hampshire Department of Revenue Administration 2019
Lebanon Profile
Land Use Productivity

Peak VPA
$14.4 M

Mixed-use VPA
$6.2 M

Multi-family Avg. VPA
$1.2 M

Commercial VPA
$1.1 M

Single-family Avg. VPA
$0.56 M

City Avg. VPA
$0.09 M

Source: New Hampshire Department of Revenue Administration 2019

*Not Perfectly to Scale
Comparing Communities

15 municipalities from across New Hampshire
Comparisons
Population

Source: New Hampshire Department of Revenue Administration 2019
Comparisons
Total Area (acres)

Source: New Hampshire Department of Revenue Administration 2019
Comparisons

Density

Source: New Hampshire Department of Revenue Administration 2019
Peer Groups
Population

Source: New Hampshire Department of Revenue Administration 2019
Comparisons
Taxable & Non-Taxable

Billions

Source: New Hampshire Department of Revenue Administration 2019
Comparisons
Taxable & Non-Taxable

Source: New Hampshire Department of Revenue Administration 2019
Comparisons
Total Value

Source: New Hampshire Department of Revenue Administration 2019
Comparisons
Average Value/Acre

Source: New Hampshire Department of Revenue Administration 2019
Comparisons
Downtown to City Ratio

Area to Value Ratio (1 to x)

Source: New Hampshire Department of Revenue Administration 2019
Comparisons

Density : Value

Source: New Hampshire Department of Revenue Administration 2019
County Property Taxes/Acre

Ratio Difference of 60 City Sample Set, in 21 States (+ a Province)

- Residential
- Commercial
- Mixed-Use

Joseph Minicozzi, AICP

County Property Taxes/Acre

- $0
- $75
- $150
- $225
- $300

- County S-F
- City S-F
- Walmart
- Mall or strip
- Mixed-Use (2 Story)
- Mixed-Use (3 Story)
- Mixed-Use (6 Story)
Property Value/Acre

Ratio Difference of New Hampshire Sample Set

- Residential
- Commercial
- Mixed-Use

City S-F
- Commercial Box
- City M-F
- Mixed-Use (Average)
- Mixed-Use (Peak Value/Acre)
Peer Clusters

Similar characteristics of places & learning from each other.
<table>
<thead>
<tr>
<th></th>
<th>Hanover</th>
<th>Lebanon</th>
<th>Claremont</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>11,500</td>
<td>13,602</td>
<td>12,967</td>
</tr>
<tr>
<td>DTN. Ratio</td>
<td>1:78</td>
<td>1:25</td>
<td>1:26</td>
</tr>
<tr>
<td>Avg. VPA</td>
<td>$100,083</td>
<td>$90,500</td>
<td>$28,311</td>
</tr>
<tr>
<td>Peak VPA</td>
<td>$37,827,184</td>
<td>$14,427,351</td>
<td>$2,606,428</td>
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<tr>
<td></td>
<td>Hanover</td>
<td>Keene</td>
<td>Exeter</td>
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<tr>
<td>----------------</td>
<td>---------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Population</td>
<td>11,500</td>
<td>23,056</td>
<td>14,306</td>
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<tr>
<td>Non Tax %</td>
<td>11%</td>
<td>16%</td>
<td>32%</td>
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<tr>
<td>Avg. VPA</td>
<td>$100,083</td>
<td>$103,944</td>
<td>$197,142</td>
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<td>$37,827,184</td>
<td>$14,050,950</td>
<td>$13,578,189</td>
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### Peer Groups

**Potential Core Focus**

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<th>Hudson</th>
<th>Pelham</th>
<th>Laconia</th>
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<tbody>
<tr>
<td><strong>Population</strong></td>
<td>24,467</td>
<td>14,049</td>
<td>16,492</td>
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<tr>
<td><strong>Avg. VPA</strong></td>
<td>$165,357</td>
<td>$121,607</td>
<td>$173,092</td>
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<tr>
<td><strong>Peak VPA</strong></td>
<td>$2,690,571</td>
<td>$3,610,967</td>
<td>$10,897,320</td>
</tr>
<tr>
<td></td>
<td>Claremont</td>
<td>Lebanon</td>
<td>Peterborough</td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td>Population</td>
<td>12,967</td>
<td>13,602</td>
<td>6,284</td>
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<tr>
<td>Avg. VPA</td>
<td>$28,311</td>
<td>$90,500</td>
<td>$38,904</td>
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<tr>
<td>Peak VPA</td>
<td>$2,606,428</td>
<td>$14,427,351</td>
<td>$12,205,874</td>
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<tr>
<td></td>
<td>Concord</td>
<td>Manchester</td>
<td>Nashua</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Population</td>
<td>43,412</td>
<td>112,525</td>
<td>89,246</td>
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<tr>
<td>Avg. VPA</td>
<td>$153,833</td>
<td>$687,321</td>
<td>$539,622</td>
</tr>
<tr>
<td>Peak VPA</td>
<td>$45,923,043</td>
<td>$67,720,654</td>
<td>$12,915,100</td>
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</tbody>
</table>
Lesson:

Historic Value
Charleston, South Carolina
Beaches tuned out

Taxable Value Per Acre
Charleston, SC MSA
Declaration of Independence

July 4, 1776

240 years ago
Built ca: 1686

Revolutionary

Walmart
$866,760 value per acre

Tavern Wine and Spirits
$13,394,415 Value per Acre
Pre-1776 Taxable Value Per Acre
Charleston, SC MSA
Pre-1776 Taxable Value Per Acre
Charleston, SC MSA
<table>
<thead>
<tr>
<th></th>
<th>&gt; 1776</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres</td>
<td>20.95</td>
</tr>
<tr>
<td>Value</td>
<td>$344M</td>
</tr>
<tr>
<td>Value/Acre</td>
<td>$16,440,700</td>
</tr>
<tr>
<td>County Taxes 2015</td>
<td>$631,000</td>
</tr>
</tbody>
</table>

Detail Map

Pre-1776 Tax Productivity
Charleston, SC MSA
<table>
<thead>
<tr>
<th></th>
<th>&gt; 1776</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres</td>
<td>20.95</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>$344M</td>
<td></td>
</tr>
<tr>
<td>Value/Acre</td>
<td>$16,440,700</td>
<td></td>
</tr>
<tr>
<td>County Taxes 2015</td>
<td>$631,000</td>
<td></td>
</tr>
</tbody>
</table>

**Walmart (at Tanger)**

$866,760 value per acre

Born: 2005

Pre-1776 Tax Productivity
Charleston, SC MSA

**County Taxes 2015**

$631,000
<table>
<thead>
<tr>
<th></th>
<th>Walmart</th>
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</tr>
</tbody>
</table>

13x the County Taxes

Detail Map

Charleston, SC MSA
Value Per Acre
Traditional Commercial

<table>
<thead>
<tr>
<th>City</th>
<th>Type</th>
<th>Peak VPA</th>
<th>VPA: $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exeter</td>
<td>Mixed-use</td>
<td>$13.5 M</td>
<td></td>
</tr>
<tr>
<td>Lebanon</td>
<td>Mixed-use</td>
<td>$14 M</td>
<td></td>
</tr>
<tr>
<td>Laconia</td>
<td>Mixed-use</td>
<td>$6.2 M</td>
<td></td>
</tr>
<tr>
<td>Hanover</td>
<td>Mixed-use</td>
<td>$12 M</td>
<td></td>
</tr>
<tr>
<td>Nashua</td>
<td>Mixed-use</td>
<td>$10 M</td>
<td></td>
</tr>
<tr>
<td>Berlin</td>
<td>Peak VPA</td>
<td>$9.6 M</td>
<td></td>
</tr>
<tr>
<td>Peterborough</td>
<td>Peak VPA</td>
<td>$2.5 M</td>
<td></td>
</tr>
<tr>
<td>Peterborough</td>
<td>Peak VPA</td>
<td>$12.2 M</td>
<td></td>
</tr>
<tr>
<td>Rochester</td>
<td>Mixed-use</td>
<td>$3.9 M</td>
<td></td>
</tr>
<tr>
<td>Portsmouth</td>
<td>Mixed-use</td>
<td>$29.3 M</td>
<td></td>
</tr>
</tbody>
</table>

Sample average: $8,300,000 value/acre

Source: New Hampshire Department of Revenue Administration 2019
Lesson:

The Value of Urban Design
Case Study: Economic MRI®
2020

Derry
<table>
<thead>
<tr>
<th></th>
<th>Siragusa</th>
<th>Butterfield</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building Footprint (Acres)</strong></td>
<td>1.92</td>
<td>2.13</td>
</tr>
<tr>
<td><strong>Parking Acres</strong></td>
<td>2.65</td>
<td>5.95</td>
</tr>
<tr>
<td><strong>Building:Parking Ratio</strong></td>
<td>1 : 1.4</td>
<td>1 : 2.8</td>
</tr>
</tbody>
</table>
Manchester, New Hampshire
Land Use Analysis
Manchester, NH

City of Manchester

- Parking
- Buildings
- Roads

Other land
What is Parking?
Measuring space
What is Parking?
Measuring space

Average Building
998 sq.ft.

Average Parking (1.5 spaces)
585 sq.ft.
$90/square foot

What is Parking?
Measuring Manchester space
What is Parking?
Measuring Manchester space

$90/square foot

$1.20/square foot*

*$ (75X) - Data from Assessment data on Pearl Street parking lot

-$20 / square foot
<table>
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<tr>
<td><strong>Value Per Acre</strong></td>
<td><strong>$4.6M</strong></td>
<td><strong>$2.5M</strong></td>
</tr>
</tbody>
</table>

**Parking Buildings**

**Siragusa**

**Butterfield**
Lesson:

What are you carrying?
Lancaster, California
PORTLAND, OR

LANCASTER: 953 MILES

Paved Roads
City of Lancaster, CA
What Roads Can You Sustain?

Based on revenue flow, what can we afford? About half the network.

Road Obligation*

$50M (-$25M Shortfall)

Source: City of Lancaster
*Based on 50 year useful life
77,000 people

140 miles* of road

9.6 feet of road per person
Roads over Time
Manchester, NH

111,000 people

535 miles* of road

25.4 feet of road per person

Population

163% Increase

Feet per person

2018

*Road centerline miles
Question:

OK. So now what?
Do more analytics.

What you can do:

1. Do more analytics.
Tax Code
MARKET FORCES
Source: NH DRA and City of Manchester
Land Value Per Acre
Hillsborough Co, NH

Source: NH DRA and City of Manchester
What you can do:

2. Learn from your neighbors
<table>
<thead>
<tr>
<th></th>
<th>Hanover</th>
<th>Portsmouth</th>
<th>Exeter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>11,500</td>
<td>21,896</td>
<td>14,306</td>
</tr>
<tr>
<td>% Non-Tax</td>
<td>11%</td>
<td>18%</td>
<td>32%</td>
</tr>
<tr>
<td>Avg. VPA</td>
<td>$100,083</td>
<td>$557,719</td>
<td>$197,142</td>
</tr>
<tr>
<td>Peak VPA</td>
<td>$37,827,184</td>
<td>$51,157,466</td>
<td>$13,578,189</td>
</tr>
</tbody>
</table>
3. Maintain/Recreate Historic Value
Circa: 1905

National Mechanics Bank
VPA: $29.3 M

Pierce Block
VPA: $40 M

6 Market
VPA: $5 M

9 Market
VPA: $34.9 M

10 Market
VPA: $30.5 M
Value Per Acre
High Yield Buildings

Source: New Hampshire Department of Revenue Administration 2019

Portsmouth, long term success.

Portsmouth
Mixed-use
VPA: $29.3 M

Source: New Hampshire Department of Revenue Administration 2019
What you can do:

4. Adapt
What you can do:

5. Realize that Parking is Subsidized.
$90/square foot

$1.20/square foot*

* (75X) - Data from Assessment data on Pearl Street parking lot

What is Parking?
Measuring Manchester space

-$20/square foot

-$20/square foot
What you can do:

6. Build for Productivity
Value Per Acre
Commercial

Sample average: $970,000 value/acre

Source: New Hampshire Department of Revenue Administration 2019
Value Per Acre
Traditional Commercial

Keene
Peak VPA
VPA: $14 M

Lebanon
Mixed-use
VPA: $6.2 M

Laconia
Mixed-use
VPA: $3.7 M

Hanover
Mixed-use
VPA: $12 M

Concord
Mixed-use
VPA: $7.6 M

Nashua
Mixed-use
VPA: $10 M

Exeter
Peak VPA
VPA: $13.5 M

Dover
Mixed-use
VPA: $9.6 M

Berlin
Peak VPA
VPA: $2.5 M

Peterborough
Peak VPA
VPA: $12.2 M

Rochester
Mixed-use
VPA: $3.9 M

Portsmouth
Mixed-use
VPA: $29.3 M

Source: New Hampshire Department of Revenue Administration 2019

Sample average: $8,300,000 value/acre
What you can do:

7. Patterns of Costs
$85,000

Asset Management
15-20 years

$85,000

$35,000
Asset Management

In 20 years you’ll need another $205,000
Asset Management
Asset Management

+$$  -$  -$  -$  -$  -$

+$$  +$$  +$$
Originally Built 1920s-1940s
Originally Built 1920s-1940s

Originally Built 1970s
Neighborhood Costs
South Bend, IN
Originally Built 1970s
Neighborhood Costs
South Bend, IN
Originally Built 1970s
Neighborhood Costs
South Bend, IN

Originally Built 1970s

Roaads
Neighborhood Yearly Costs
$75,161
Roads | Water Pipes
---|---
Neighborhood Yearly Costs | $75,161 | $11,675

Originally Built 1970s
<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Roads</th>
<th>Water Pipes</th>
<th>Storm &amp; Sewer Pipes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood Yearly Costs</td>
<td>$75,161</td>
<td>$11,675</td>
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Originally Built 1970s

Neighborhood Costs
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Neighborhood Costs
South Bend, IN
Originally Built 1970s
Neighborhood Costs
South Bend, IN

Originally Built 1970s

10% of Annual Neighborhood Property Taxes: $21,079

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Roads</th>
<th>Water Pipes</th>
<th>Storm &amp; Sewer Pipes</th>
<th>Annual Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood Yearly Costs</td>
<td>$75,161</td>
<td>$11,675</td>
<td>$35,176</td>
<td>$122,012</td>
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</tbody>
</table>
Originally Built 1920s-1940s
Originally Built 1920s-1940s

Neighborhood Costs
South Bend, IN
Originally Built 1920s-1940s

Neighborhood Costs
South Bend, IN

Roads

Yearly Costs

$38,465
Originally Built 1920s-1940s

Neighborhood Costs
South Bend, IN

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Roads</th>
<th>Water Pipes</th>
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<tbody>
<tr>
<td>Neighborhood Yearly Costs</td>
<td>$38,465</td>
<td>$12,154</td>
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<tr>
<td>Infrastructure</td>
<td>Roads</td>
<td>Water Pipes</td>
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<td>$28,362</td>
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Originally Built 1920s-1940s

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<td>$78,981</td>
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10% of Annual Neighborhood Property Taxes: $21,965
### Neighborhood Costs

**South Bend, IN**

### Originally Built 1920s-1940s

### Originally Built 1970s

<table>
<thead>
<tr>
<th></th>
<th>1920-1940s</th>
<th>1970s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lots</strong></td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td><strong>Road Cost</strong></td>
<td>$38,465</td>
<td>$75,161</td>
</tr>
<tr>
<td><strong>Water Pipes</strong></td>
<td>$12,154</td>
<td>$11,675</td>
</tr>
<tr>
<td><strong>Storm &amp; Sewer Pipes</strong></td>
<td>$28,382</td>
<td>$35,176</td>
</tr>
<tr>
<td><strong>Annual Total Costs</strong></td>
<td><strong>$78,981</strong></td>
<td><strong>$122,012</strong></td>
</tr>
<tr>
<td><strong>10% Property Taxes</strong></td>
<td>$21,965</td>
<td>$21,079</td>
</tr>
<tr>
<td><strong>Deficit</strong></td>
<td>-$57,016</td>
<td>-$100,933</td>
</tr>
</tbody>
</table>

Deficit represents the difference between the costs of the 1920s-1940s and the 1970s neighborhoods.
### Neighborhood Costs
South Bend, IN

#### Originally Built 1920s-1940s

<table>
<thead>
<tr>
<th></th>
<th>1920-1940s</th>
<th>1970s</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lots</td>
<td>88</td>
<td>88</td>
<td>0</td>
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<tr>
<td>Road Cost</td>
<td>$38,465</td>
<td>$75,161</td>
<td>2x</td>
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<tr>
<td>Water Pipes</td>
<td>$12,154</td>
<td>$11,675</td>
<td>-0.96x</td>
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<tr>
<td>Storm &amp; Sewer Pipes</td>
<td>$28,382</td>
<td>$35,176</td>
<td>1.2x</td>
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<tr>
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<tr>
<td>Deficit</td>
<td>-$57,016</td>
<td>-$100,933</td>
<td>1.8x</td>
</tr>
</tbody>
</table>
8. Measure What You Own

What you can do:
111,000 people

535 miles* of road

**25.4** feet of road per person
9. Consider the Tax System

What you can do:
Question:

What is an appropriate tax?
Proponent of the “single tax” on land.

Henry George
Author of *Progress and Poverty* (1879)
1839-97
Just put your happy little numbers on a map. Don’t worry about mistakes.
strong towns
A BOTTOM-UP REVOLUTION TO REBUILD AMERICAN PROSPERITY
DO THE MATH
DO THE MATH
From the Outskirts to Downtown: Taxes, Land Use & Value in Upper Valley Communities

A virtual presentation by
Joe Minicozzi AICP | Urban3
October 29, 2020 at 11 AM

Hosted by
Vital Communities | Claremont | Hanover | Lebanon

NHHFA.org/events
Questions?