En Route Lines + Line Density

Where from? Where to?

The majority **(64%)** of the visitors to the machine integrated the

stop into a greater journey across campus

This map shows the travel lines -- from where to where with

Wright implied in between

Additionally shown is a line density based on those results

The density results are interesting because they show a distinct path through Wright, even though the lines themselves do not include the Wright stop. Meaning most visitors who integrate this stop into a greater trip are going almost not at all out of the way to stop in Wright.

N

0 0.025 0.05 0.1 0.15 0.2 Miles

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Specific Visits to Coffee Machine

What most interested me most was who is making a trip out EXCLUSIVELY to get coffee. **How far are those people willing to travel?**

36% of visitors made a coffee-specific visit.

Here we have those "specific visits" in which the start and end point are the same -- again with Wright implied in between

35

14

44% of specific visits came from within Wright

And **18%** came from Sabin-Reed – the home of the **Spatial Analysis Lab**!

N

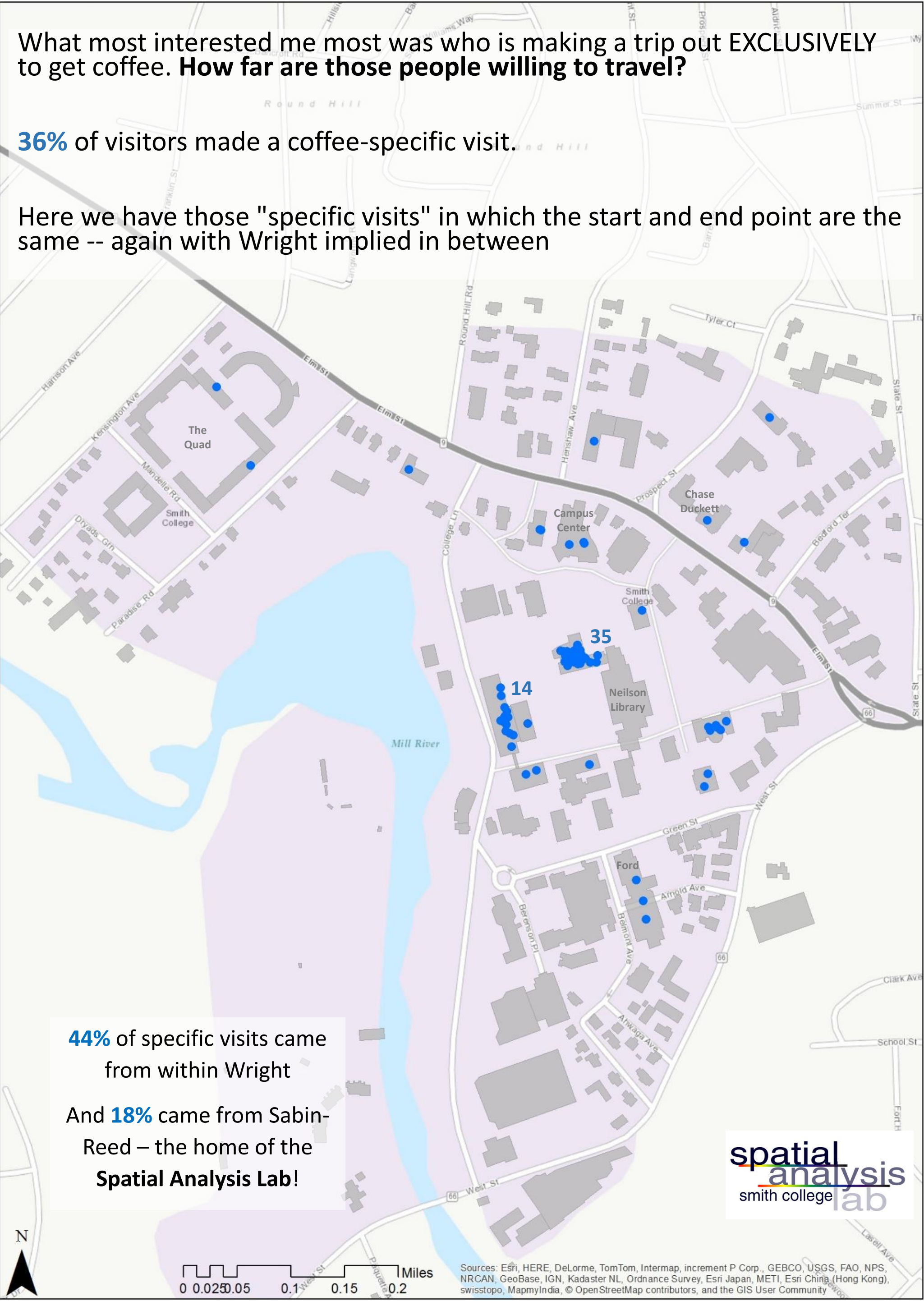0 0.025 0.05   0.1   0.15   0.2 Miles

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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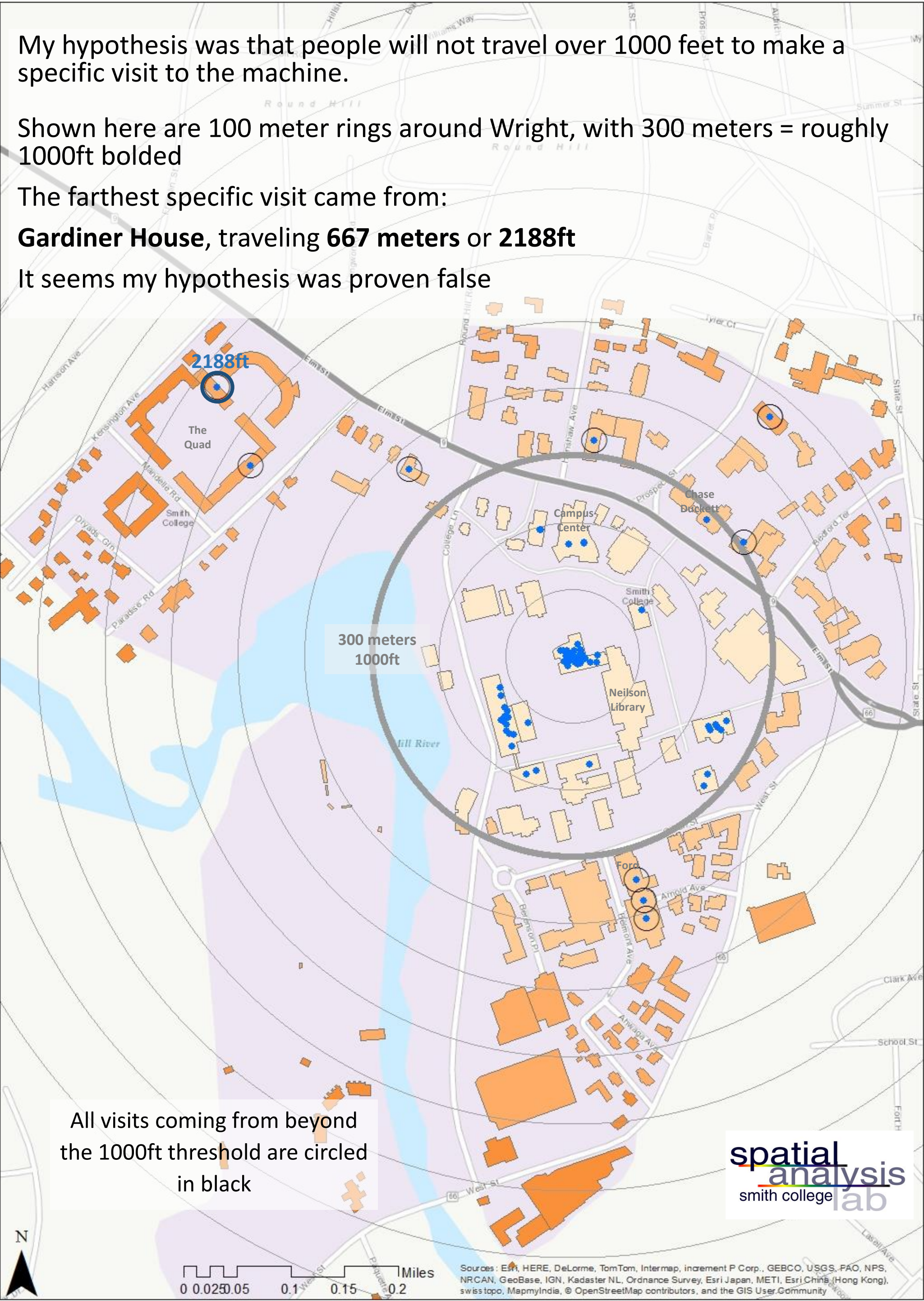smith college

Specific Visits to Coffee Machine

My hypothesis was that people will not travel over 1000 feet to make a specific visit to the machine.

Shown here are 100 meter rings around Wright, with 300 meters = roughly 1000ft bolded

The farthest specific visit came from:

Gardiner House, traveling **667 meters** or **2188ft**

It seems my hypothesis was proven false

2188ft

300 meters
1000ft

All visits coming from beyond the 1000ft threshold are circled in black

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Miles
0 0.025 0.05   0.1   0.15   0.2

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Specific Visits to Coffee Machine
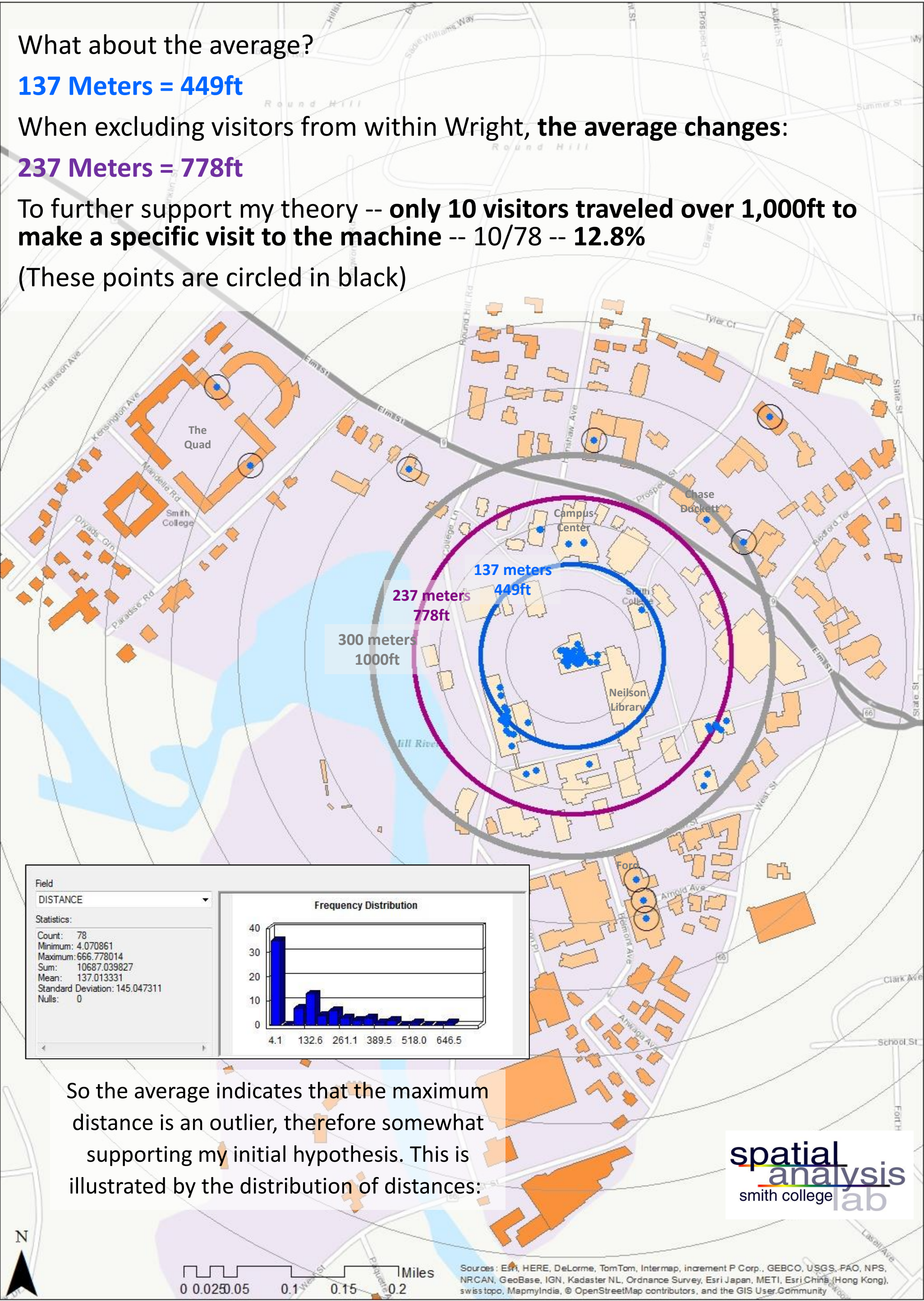
What about the average?

137 Meters = 449ft

When excluding visitors from within Wright, **the average changes**:

237 Meters = 778ft

To further support my theory -- **only 10 visitors traveled over 1,000ft to make a specific visit to the machine** -- 10/78 -- **12.8%**

(These points are circled in black)

137 meters
449ft

237 meters
778ft

300 meters
1000ft

Field
DISTANCE

Statistics:

Count: 78
Minimum: 4.070861
Maximum: 666.778014
Sum: 10687.039827
Mean: 137.013331
Standard Deviation: 145.047311
Nulls: 0

Frequency Distribution

So the average indicates that the maximum distance is an outlier, therefore somewhat supporting my initial hypothesis. This is illustrated by the distribution of distances:

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Combined Distances – Campus Affiliation

Here are the points colored by campus affiliation:

Student -- 70%

Faculty -- 13%

Staff -- 16%

Other -- 1%
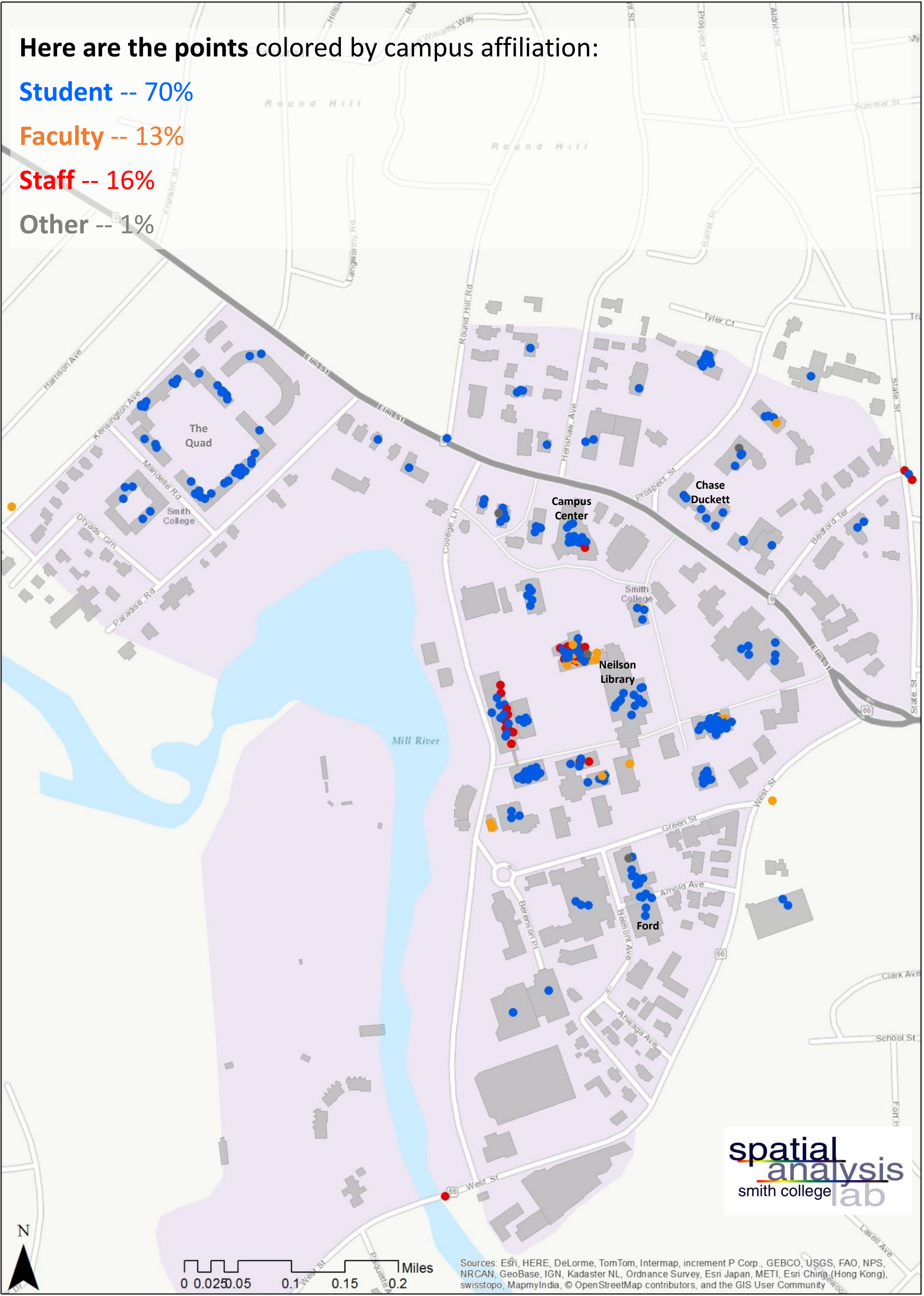
The Quad

Smith College

Campus Center

Chase Duckett

Smith College

Neilson Library

Mill River

Ford

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N

0 0.025 0.05   0.1   0.15   0.2 Miles

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
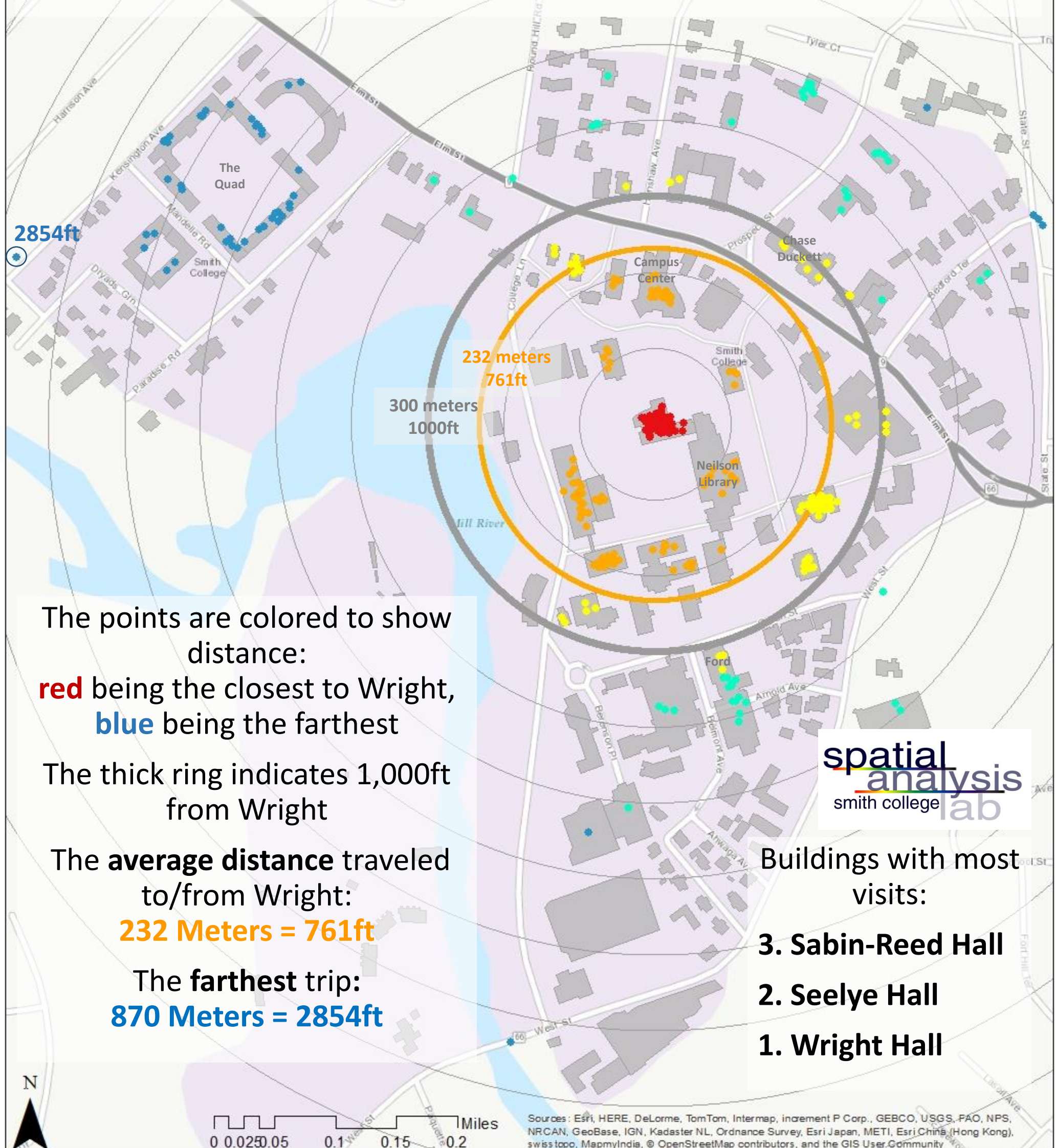
Combined Distances

This map shows the points both from **en route journeys** (start and finish represented as points) and **the specific trips**

Total Visits during the week: 218

We can already see that again the majority of the points are within my 1,000ft (300 meter) estimate ring

319/436 **(73%)** points are within a 1000ft from Wright

2854ft

232 meters 761ft

300 meters 1000ft

Campus Center

Chase Duckett

Smith College

Neilson Library

Ford

The points are colored to show distance:
red being the closest to Wright,
blue being the farthest

The thick ring indicates 1,000ft from Wright

The **average distance** traveled to/from Wright:
232 Meters = 761ft

The **farthest** trip:
870 Meters = 2854ft

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Buildings with most visits:

3. Sabin-Reed Hall

2. Seelye Hall

1. Wright Hall

N

Miles
0 0.025 0.05   0.1   0.15   0.2

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

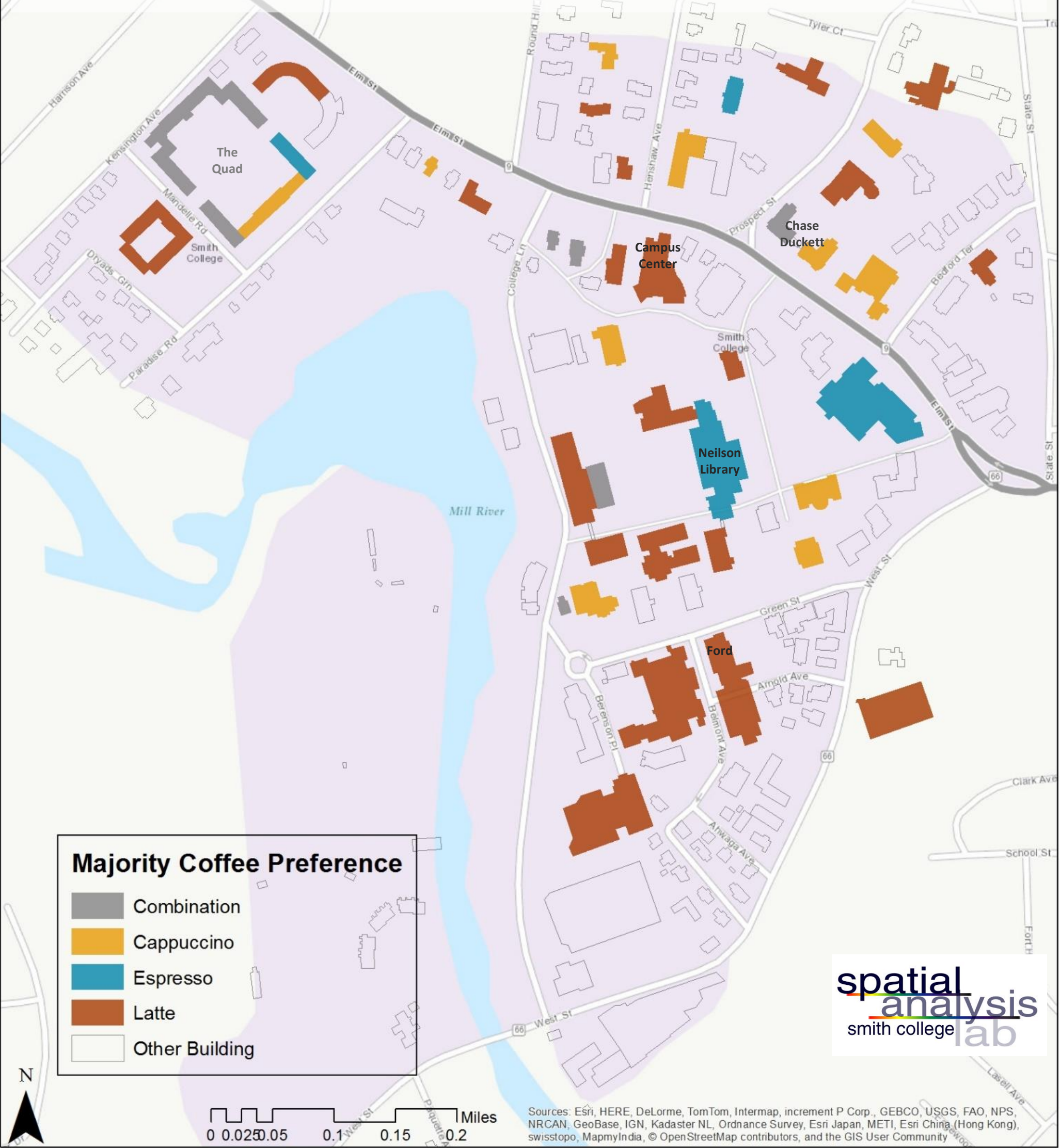# Trends By Building – Coffee Preference

We asked visitors what their coffee preference at the machine, here are the results:

Cappuccino: the preference of **twelve buildings**

Espresso: the preference of **four buildings**

Latte: the preference of **twenty-three buildings**

Combination: buildings with more than one main preference, click buildings for details -- **nine buildings**

Majority Coffee Preference

- Combination
- Cappuccino
- Espresso
- Latte
- Other Building

N

0 0.025 0.05   0.1   0.15   0.2 Miles

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Trends By Building – Primary Reason

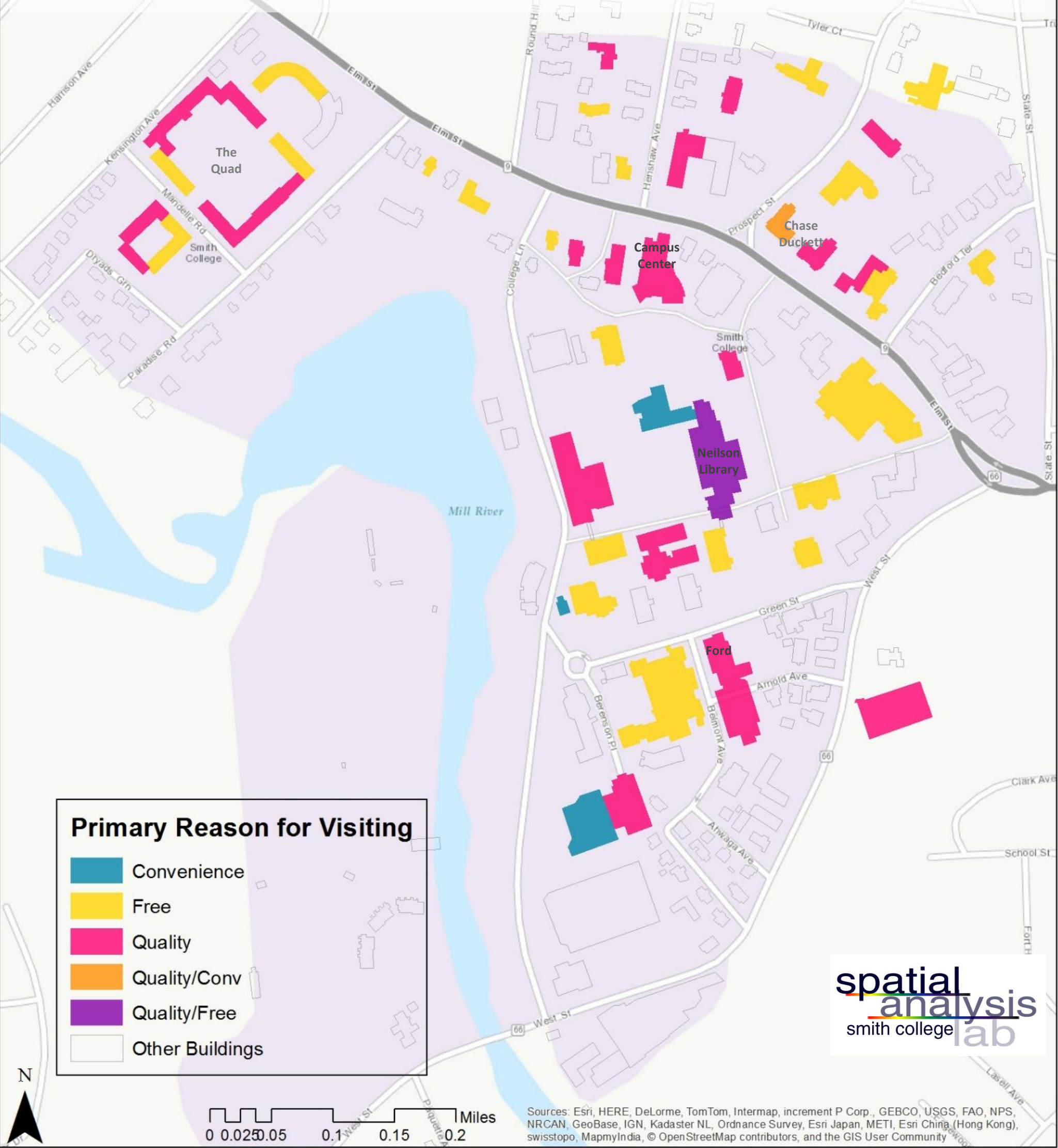We asked visitors what their primary reason for visiting this coffee machine was, here are the results:

Convenience: the primary reason of **three buildings**

Free: the primary reason of **twenty-two buildings**

Quality: the primary reason of **twenty-one buildings**

Quality/Convenience: Tied for primary reason -- **one building**

Quality/Free: Tied for primary reason -- **one building**

Primary Reason for Visiting

- Convenience
- Free
- Quality
- Quality/Conv
- Quality/Free
- Other Buildings

0 0.025 0.05 0.1 0.15 0.2 Miles

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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Trends By Building – Avg Weekly Visits

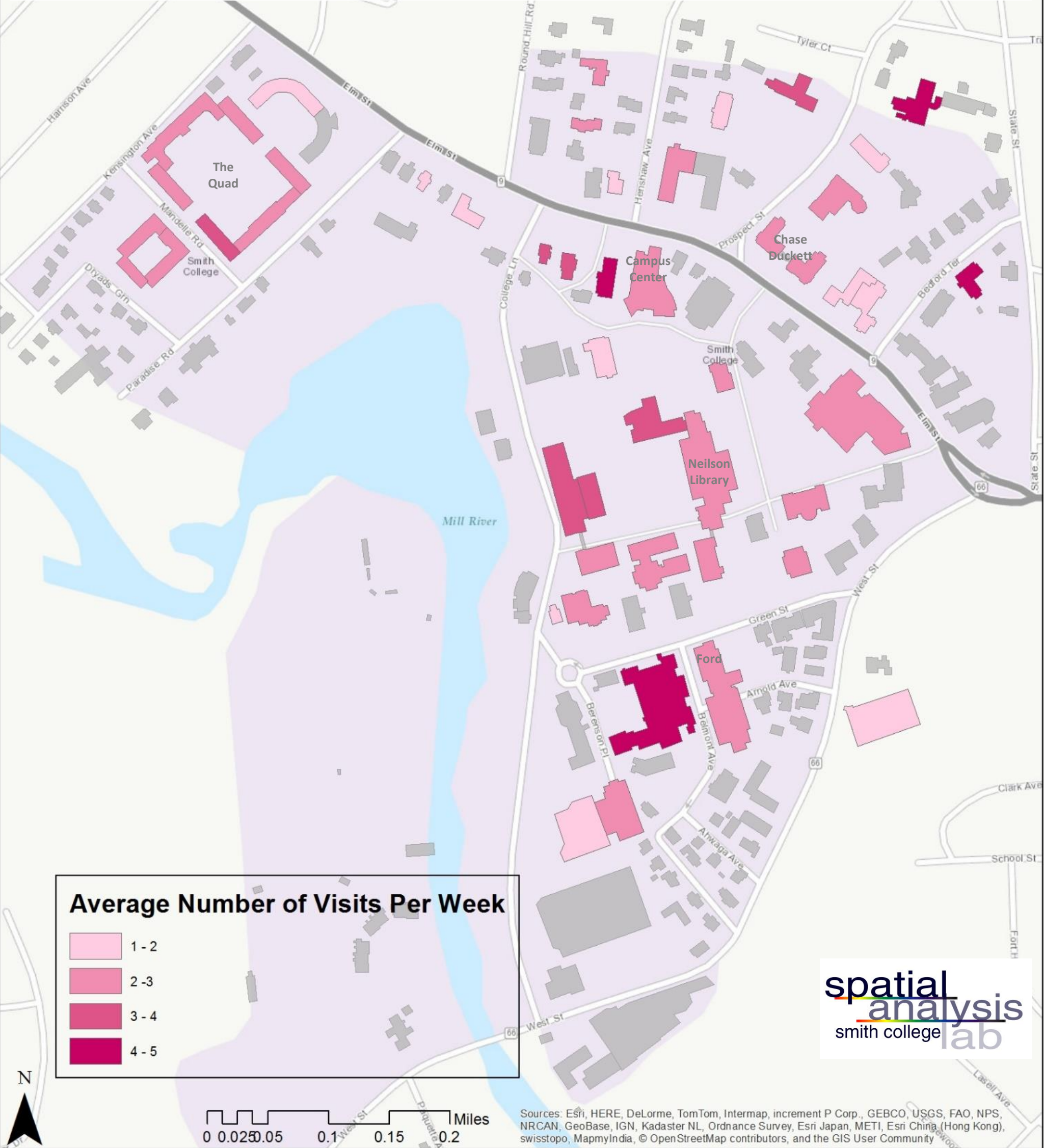Buildings ranked by **Average Number of Visits Per Week:**

Collective average: 2.75

Buildings with **Most Visits Per Week**:

1. **Gill Hall, Baldwin, Haven** -- 5

2. **Mendenhall** -- 4.7

3. **Cushing** -- 3.8

Buildings with **Least Visits Per Week** (> 0):

1. **Talbot** -- 1.3

2. **Chapin** -- 1.8

3. Many, many places tied at 2.0

Average Number of Visits Per Week

- 1 - 2
- 2 - 3
- 3 - 4
- 4 - 5

N

0   0.025 0.05   0.1   0.15   0.2   Miles

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Trends By Building – Avg Years Known About

Buildings ranked by **Average Number of Years Known About** the machine:

Collective average: 2.2

Buildings with **Most Years Known About**:

1. **Tyler Annex, Hubbard** -- 3.5

2. **Cushing** -- 3.2

3. **Gill, Ainsworth, Alumnae Gym, Wright, Jordan** -- 3.0

Buildings with **Fewest Years Known About**:

1. **Park, Davis Center, Duckett, Chase, Parsons, 146 Elm** -- 1.0

2. **Parking Garage** -- 1.5

3. **Wilder, Chapin** -- 1.7

Average Number of Years Known About

- 1 - 2
- 2 - 3
- 3 - 4

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N

0 0.025 0.05 0.1 0.15 0.2 Miles