

# Access Across America: Transit 2019

Final Report

*Prepared by:*

**Andrew Owen**

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Accessibility Observatory  
Center for Transportation Studies  
University of Minnesota

CTS 20-09

**ACCESSIBILITY  
OBSERVATORY**

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# Executive Summary

Accessibility is the ease and feasibility of reaching valuable destinations. Accessibility can be measured for a wide array of transportation modes, to different types of destinations, and at different times of day. There are a variety of ways to define accessibility, but the number of destinations reachable within a given travel time is the most comprehensible and transparent—as well as the most directly comparable between cities, and other geographic areas. This report focuses on accessibility to jobs by transit. Jobs are the most significant non-home destination, and job accessibility is an important consideration in the attractiveness and usefulness of a place or area. Transit is used for an estimated 5% of commuting trips in the United States nationwide, making it the second most widely used commute mode after driving.

This study estimates the accessibility to jobs by transit and walking for each of the United States' 11 million census blocks, and analyzes these data in the 50 largest (by population) metropolitan areas. Travel times by transit are calculated using detailed pedestrian networks and full transit schedules for the 7:00 – 9:00 AM period. The calculations include all components of a transit journey, including “last mile” access and egress walking segments and transfers, and account for minute-by-minute variations in service frequency.

Rankings are determined by a weighted average of accessibility, with a higher weight given to closer, easier to access jobs. Jobs reachable within ten minutes are weighted most heavily, and jobs are given decreasing weights as travel time increases up to 60 minutes. Based on this measure, the 10 metropolitan areas with the greatest accessibility to jobs by transit are:

1. New York
2. San Francisco
3. Chicago
4. Los Angeles
5. Boston
6. Washington, D.C.
7. Philadelphia
8. Seattle
9. San Jose
10. Denver

Additionally, rankings based on 1-year changes in weighted average accessibility are also provided, comparing the results of *Access Across America: Transit 2018* with the results of the 2019 study. The 10 metropolitan areas with the greatest 1-year relative gains in accessibility to jobs by transit are:

1. Phoenix

2. Raleigh
3. Los Angeles
4. Las Vegas
5. Riverside
6. Jacksonville
7. San Diego
8. San Antonio
9. Atlanta
10. Orlando

This report presents detailed accessibility values for each metropolitan area, as well as block-level maps that illustrate the spatial patterns of accessibility within each area. A separate publication, *Access Across America: Transit 2019 Methodology*, describes the data and methodology used in this evaluation.

This analysis uses the same tools, techniques and study scale as the *Access Across America: Transit 2015, 2016, 2017, 2018* reports. GTFS data are now sufficiently consistent to allow for year to year comparisons of transit accessibility, and federal jobs and federal worker data are included in U.S. Census Bureau datasets in both data year 2018 and data year 2019. As a result, comparisons between 2018 and 2019 accessibility results allow for meaningful inferences in changes in employment, land use, and transportation networks.

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# 1 Introduction

Accessibility is the ease and feasibility of reaching valuable destinations. It combines the simpler metric of mobility with the understanding that travel is driven by a desire to reach destinations. Accessibility can be measured for a wide range of transportation modes, to different types of destinations, and at different times of day. There are a variety of ways to define accessibility, but the number of destinations reachable within a given travel time is the most comprehensible and transparent—as well as the most directly comparable across cities. This report focuses on accessibility to jobs by transit. Jobs are the most significant non-home destination, and economic accessibility is an important consideration in the attractiveness and usefulness of a place or area. Transit is used for an estimated 5% of commuting trips in the United States, making it the second most widely used commute mode after driving.<sup>1</sup> The commute mode share of transit can be higher in individual metropolitan areas: 31% in the New York metropolitan area; 11% in Chicago; 8% in Seattle.<sup>2</sup>

Accessibility is not a new idea.<sup>3</sup> Historically, however, implementations of accessibility evaluation have typically focused on individual cities or metropolitan areas. Recent work has demonstrated the feasibility and value of systematically evaluating accessibility across multiple metropolitan areas by auto,<sup>4</sup> and by transit.<sup>5</sup>

This study estimates the accessibility to jobs by transit and walking for each of the United States' 11 million census blocks, and analyzes these data in the 50 largest (by population) metropolitan areas using transit schedules from 2019. [Table 1](#) lists the included metropolitan areas, ordered by the total employment within each.

Travel times by transit are calculated using detailed pedestrian networks and full transit schedules for the 7:00 – 9:00 AM period. The calculations include all components of a transit journey, including “last mile” access and egress walking segments and transfers, and account for minute-by-minute variations in service frequency.

[Section 2](#) presents the accessibility values for the included metropolitan areas and ranks metropolitan areas by accessibility. [Section 3](#) discusses these results and their implications, and [Section 4](#) provides data and maps describing patterns of accessibility in individual metropolitan areas. A separate document, *Access Across America: Transit 2019 Methodology*, describes the data and detailed methodology used in the evaluation.

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<sup>1</sup>[McKenzie \(2014\)](#)

<sup>2</sup>American Community Survey 2012 5-year estimates

<sup>3</sup>See [Hansen \(1959\)](#) for its origins, and [Geurs and Van Eck \(2001\)](#) and [Handy and Niemeier \(1997\)](#) for reviews.

<sup>4</sup>[Levinson \(2013\)](#) [Levine et al. \(2012\)](#)

<sup>5</sup>[Ramsey and Bell \(2014\)](#), [Tomer et al. \(2011\)](#)

Table 1: Metropolitan Areas Ranked by Total Employment

<b>Rank</b>	<b>Area</b>	<b>Total Employment</b>
<b>1</b>	New York	8,946,175
<b>2</b>	Los Angeles	5,825,012
<b>3</b>	Chicago	4,448,938
<b>4</b>	Dallas	3,366,285
<b>5</b>	Houston	2,894,863
<b>6</b>	Philadelphia	2,862,819
<b>7</b>	Washington	2,683,930
<b>8</b>	Atlanta	2,534,711
<b>9</b>	Miami	2,503,411
<b>10</b>	Boston	2,464,508
<b>11</b>	San Francisco	2,241,034
<b>12</b>	Phoenix	1,958,550
<b>13</b>	Detroit	1,915,549
<b>14</b>	Minneapolis	1,847,804
<b>15</b>	Seattle	1,798,352
<b>16</b>	Riverside	1,749,931
<b>17</b>	San Diego	1,419,381
<b>18</b>	Denver	1,395,732
<b>19</b>	St. Louis	1,344,165
<b>20</b>	Tampa	1,293,226
<b>21</b>	Baltimore	1,277,911
<b>22</b>	Portland	1,140,463
<b>23</b>	Orlando	1,135,710
<b>24</b>	Pittsburgh	1,105,247
<b>25</b>	Cincinnati	1,045,101
<b>26</b>	Kansas City	1,036,878
<b>27</b>	San Antonio	1,019,742
<b>28</b>	Austin	967,584
<b>29</b>	Sacramento	964,523
<b>30</b>	Cleveland	961,969
<b>31</b>	San Jose	947,987
<b>32</b>	Columbus	946,698
<b>33</b>	Las Vegas	941,812
<b>34</b>	Charlotte	930,190
<b>35</b>	Indianapolis	919,836
<b>36</b>	Nashville	843,428
<b>37</b>	Milwaukee	779,865
<b>38</b>	Providence	775,615
<b>39</b>	Virginia Beach	715,637
<b>40</b>	Jacksonville	662,664
<b>41</b>	Louisville	645,505
<b>42</b>	Richmond	640,682
<b>43</b>	Raleigh	615,937
<b>44</b>	Salt Lake City	605,393
<b>45</b>	Hartford	595,341
<b>46</b>	Memphis	589,984
<b>47</b>	Oklahoma City	565,695
<b>48</b>	Buffalo	525,947
<b>49</b>	New Orleans	505,876
<b>50</b>	Birmingham	479,837

*Employment totals are based on LEHD estimates and may not match other sources.*

## 2 Accessibility to Jobs by Transit

Table 2 gives the accessibility values for each metropolitan area, in alphabetical order, based on January, 2019 transit schedules. The columns represent the number of jobs that a typical worker residing in the city can reach within 10, 20, 30, 40, 50, and 60 minutes of travel, between 7:00 and 9:00 AM, by transit and walking.

Table 2: Number of Jobs Reachable by Number of Minutes, 2019

Area	10 min	20 min	30 min	40 min	50 min	60 min
Atlanta	349	2,185	7,708	19,719	39,812	68,754
Austin	508	3,155	11,322	26,951	50,136	79,631
Baltimore	662	5,372	17,441	38,184	69,257	109,254
Birmingham	191	914	2,735	6,118	11,140	17,596
Boston	1,611	11,983	41,396	96,493	176,084	265,702
Buffalo	471	3,467	11,509	26,127	46,911	70,787
Charlotte	413	2,261	7,208	17,447	33,977	56,237
Chicago	1,826	16,131	54,870	127,632	231,307	350,985
Cincinnati	370	2,145	6,994	16,267	30,444	48,745
Cleveland	424	2,437	8,338	21,536	43,091	72,598
Columbus	401	3,007	10,609	25,248	48,308	80,114
Dallas	497	3,242	11,091	28,046	58,197	104,166
Denver	781	5,935	20,125	49,510	102,168	182,105
Detroit	287	1,841	6,284	16,213	34,873	64,528
Hartford	464	3,423	11,239	23,992	42,089	65,129
Houston	464	3,423	12,807	31,843	63,431	109,221
Indianapolis	354	2,353	7,563	17,544	32,912	53,467
Jacksonville	295	1,282	3,959	9,821	20,111	34,832
Kansas City	360	2,111	6,929	16,108	29,882	48,252
Las Vegas	313	2,287	9,271	27,002	62,968	120,689
Los Angeles	1,290	10,746	41,077	104,511	213,289	374,836
Louisville	325	2,148	7,178	17,454	33,000	52,852
Memphis	243	1,414	4,650	10,950	21,007	35,194
Miami	752	4,641	15,207	37,190	72,890	124,610
Milwaukee	666	5,085	18,926	46,610	87,610	137,390
Minneapolis	574	4,708	18,448	46,667	90,598	147,048
Nashville	296	1,603	5,393	12,475	22,461	35,289
New Orleans	561	3,241	9,967	21,368	34,883	48,721
New York	6,249	61,679	213,413	478,211	858,227	1,320,519
Oklahoma City	247	1,465	4,499	10,481	19,752	32,091
Orlando	330	1,785	5,500	13,178	27,023	49,130
Philadelphia	1,254	10,845	37,908	80,267	137,767	207,954
Phoenix	339	2,698	10,668	29,351	63,162	114,601
Pittsburgh	523	3,212	12,669	29,648	52,198	79,175
Portland	822	5,741	20,396	50,162	96,339	156,927
Providence	522	3,054	9,219	19,468	33,755	51,738
Raleigh	282	1,485	4,706	11,135	21,749	37,705
Richmond	384	2,328	7,027	14,408	23,458	33,900
Riverside	212	1,443	5,040	12,381	24,632	42,560
Sacramento	483	2,965	9,506	22,354	44,068	75,267
Salt Lake City	503	4,007	15,399	40,587	84,604	150,262
San Antonio	334	2,370	9,487	24,935	51,119	89,551
San Diego	664	3,729	11,956	30,248	62,849	111,817
San Francisco	2,733	25,482	78,599	163,338	278,930	418,615
San Jose	680	5,305	19,739	52,924	114,155	206,967
Seattle	1,614	10,273	30,346	67,906	119,508	183,588
St. Louis	338	2,057	7,350	18,864	37,867	64,475
Tampa	358	2,137	7,182	17,390	34,322	58,362
Virginia Beach	285	1,485	4,622	10,510	19,930	33,191
Washington	1,161	9,547	36,260	88,588	172,260	278,591

## 2.1 Metropolitan Area Rankings

The rankings of accessibility across U.S. cities for 2019 are shown in [Table 3](#). The ranking is based on a weighted average, where the jobs reachable within each threshold are given a decreasing weight as travel time increases. A job reachable within 10 minutes counts more toward the ranking than a job reachable within 20, and so on. The 10 metro areas where workers can, on average, reach the most jobs are listed below. Within the specific time thresholds, the rankings vary.

1. New York
2. San Francisco
3. Chicago
4. Los Angeles
5. Boston
6. Washington, D.C.
7. Philadelphia
8. Seattle
9. San Jose
10. Denver



Table 3: Rank of Accessibility by Metropolitan Area, 2019

Rank	Weighted Average	10 min	20 min	30 min	40 min	50 min	60 min
1	New York	New York	New York	New York	New York	New York	New York
2	San Francisco	San Francisco	San Francisco	San Francisco	San Francisco	San Francisco	San Francisco
3	Chicago	Chicago	Chicago	Chicago	Chicago	Chicago	Los Angeles
4	Los Angeles	Seattle	Boston	Boston	Los Angeles	Los Angeles	Chicago
5	Boston	Boston	Philadelphia	Los Angeles	Boston	Boston	Washington
6	Washington	Los Angeles	Los Angeles	Philadelphia	Washington	Washington	Boston
7	Philadelphia	Philadelphia	Seattle	Washington	Philadelphia	Philadelphia	Philadelphia
8	Seattle	Washington	Washington	Seattle	Seattle	Seattle	San Jose
9	San Jose	Portland	Denver	Portland	San Jose	San Jose	Seattle
10	Denver	Denver	Portland	Denver	Portland	Denver	Denver
11	Portland	Miami	Baltimore	San Jose	Denver	Portland	Portland
12	Minneapolis	San Jose	San Jose	Milwaukee	Minneapolis	Minneapolis	Salt Lake City
13	Milwaukee	Milwaukee	Milwaukee	Minneapolis	Milwaukee	Milwaukee	Minneapolis
14	Salt Lake City	San Diego	Minneapolis	Baltimore	Salt Lake City	Salt Lake City	Milwaukee
15	Baltimore	Baltimore	Miami	Salt Lake City	Baltimore	Miami	Miami
16	Miami	Minneapolis	Salt Lake City	Miami	Miami	Baltimore	Las Vegas
17	San Diego	New Orleans	San Diego	Houston	Houston	Houston	Phoenix
18	Houston	Pittsburgh	Buffalo	Pittsburgh	San Diego	Phoenix	San Diego
19	Phoenix	Providence	Houston	San Diego	Pittsburgh	Las Vegas	Baltimore
20	Dallas	Austin	Hartford	Buffalo	Phoenix	San Diego	Houston
21	Las Vegas	Salt Lake City	Dallas	Austin	Dallas	Dallas	Dallas
22	Pittsburgh	Dallas	New Orleans	Hartford	Las Vegas	Pittsburgh	San Antonio
23	Austin	Sacramento	Pittsburgh	Dallas	Austin	San Antonio	Columbus
24	Buffalo	Buffalo	Austin	Phoenix	Buffalo	Austin	Austin
25	Columbus	Houston	Providence	Columbus	Columbus	Columbus	Pittsburgh
26	San Antonio	Hartford	Columbus	New Orleans	San Antonio	Buffalo	Sacramento
27	Hartford	Cleveland	Sacramento	Sacramento	Hartford	Sacramento	Cleveland
28	Sacramento	Charlotte	Phoenix	San Antonio	Sacramento	Cleveland	Buffalo
29	Cleveland	Columbus	Cleveland	Las Vegas	Cleveland	Hartford	Atlanta
30	New Orleans	Richmond	San Antonio	Providence	New Orleans	Atlanta	Hartford
31	Providence	Cincinnati	Indianapolis	Cleveland	Atlanta	St. Louis	Detroit
32	Atlanta	Kansas City	Richmond	Atlanta	Providence	New Orleans	St. Louis
33	St. Louis	Tampa	Las Vegas	Indianapolis	St. Louis	Detroit	Tampa
34	Charlotte	Indianapolis	Charlotte	St. Louis	Indianapolis	Tampa	Charlotte
35	Tampa	Atlanta	Atlanta	Charlotte	Louisville	Charlotte	Indianapolis
36	Indianapolis	Phoenix	Louisville	Tampa	Charlotte	Providence	Louisville
37	Louisville	St. Louis	Cincinnati	Louisville	Tampa	Louisville	Providence
38	Detroit	San Antonio	Tampa	Richmond	Cincinnati	Indianapolis	Orlando
39	Cincinnati	Orlando	Kansas City	Cincinnati	Detroit	Cincinnati	Cincinnati
40	Kansas City	Louisville	St. Louis	Kansas City	Kansas City	Kansas City	New Orleans
41	Richmond	Las Vegas	Detroit	Detroit	Richmond	Orlando	Kansas City
42	Orlando	Nashville	Orlando	Orlando	Orlando	Riverside	Riverside
43	Riverside	Jacksonville	Nashville	Nashville	Nashville	Richmond	Raleigh
44	Nashville	Detroit	Raleigh	Riverside	Riverside	Nashville	Nashville
45	Raleigh	Virginia Beach	Virginia Beach	Raleigh	Raleigh	Raleigh	Memphis
46	Memphis	Raleigh	Oklahoma City	Memphis	Memphis	Memphis	Jacksonville
47	Virginia Beach	Oklahoma City	Riverside	Virginia Beach	Virginia Beach	Jacksonville	Richmond
48	Oklahoma City	Memphis	Memphis	Oklahoma City	Oklahoma City	Virginia Beach	Virginia Beach
49	Jacksonville	Riverside	Jacksonville	Jacksonville	Jacksonville	Oklahoma City	Oklahoma City
50	Birmingham	Birmingham	Birmingham	Birmingham	Birmingham	Birmingham	Birmingham

## 2.2 Annual Accessibility Change

The 1-year relative gains and losses of weighted transit accessibility across U.S. cities between 2018 and 2019 are shown in [Table 4](#), and the ranking of metropolitan areas by the 1-year relative change in weighted transit accessibility is shown in [Table 5](#). The differences detailed here are relative percentage changes in weighted accessibility. Following are the 10 metro areas which saw the largest gains in relative transit accessibility over 2018 are as follows.

1. Phoenix
2. Raleigh
3. Los Angeles
4. Las Vegas
5. Riverside
6. Jacksonville
7. San Diego
8. San Antonio
9. Atlanta
10. Orlando

Additional details about each metropolitan area, including block-level maps of accessibility, are presented in [Section 4](#).

Table 4: 1-Year Change in Weighted Accessibility, 2019 vs. 2018

<b>Rank</b>	<b>Area</b>	<b>1-Year Change in Weighted Accessibility</b>
<b>1</b>	<b>Phoenix</b>	+8.07%
<b>2</b>	<b>Raleigh</b>	+6.77%
<b>3</b>	<b>Los Angeles</b>	+5.96%
<b>4</b>	<b>Las Vegas</b>	+3.97%
<b>5</b>	<b>Riverside</b>	+3.89%
<b>6</b>	<b>Jacksonville</b>	+3.88%
<b>7</b>	<b>San Diego</b>	+3.63%
<b>8</b>	<b>San Antonio</b>	+3.44%
<b>9</b>	<b>Atlanta</b>	+3.11%
<b>10</b>	<b>Orlando</b>	+2.29%
<b>11</b>	<b>Kansas City</b>	+2.28%
<b>12</b>	<b>Buffalo</b>	+1.84%
<b>13</b>	<b>Richmond</b>	+1.83%
<b>14</b>	<b>Birmingham</b>	+1.77%
<b>15</b>	<b>Virginia Beach</b>	+1.75%
<b>16</b>	<b>San Jose</b>	+1.70%
<b>17</b>	<b>Chicago</b>	+1.45%
<b>18</b>	<b>Minneapolis</b>	+1.23%
<b>19</b>	<b>Pittsburgh</b>	+1.15%
<b>20</b>	<b>Salt Lake City</b>	+1.12%
<b>21</b>	<b>Sacramento</b>	+1.02%
<b>22</b>	<b>Indianapolis</b>	+0.56%
<b>23</b>	<b>Dallas</b>	+0.54%
<b>24</b>	<b>Providence</b>	+0.12%
<b>25</b>	<b>Columbus</b>	+0.03%
<b>26</b>	<b>Seattle</b>	+0.01%
<b>27</b>	<b>Philadelphia</b>	-0.07%
<b>28</b>	<b>Cincinnati</b>	-0.21%
<b>29</b>	<b>New York</b>	-0.49%
<b>30</b>	<b>Tampa</b>	-0.76%
<b>31</b>	<b>Portland</b>	-0.77%
<b>32</b>	<b>San Francisco</b>	-0.87%
<b>33</b>	<b>Milwaukee</b>	-0.90%
<b>34</b>	<b>Louisville</b>	-1.22%
<b>35</b>	<b>Houston</b>	-1.29%
<b>36</b>	<b>Detroit</b>	-1.56%
<b>37</b>	<b>Hartford</b>	-1.61%
<b>38</b>	<b>Washington</b>	-1.86%
<b>39</b>	<b>Austin</b>	-2.04%
<b>40</b>	<b>Charlotte</b>	-2.22%
<b>41</b>	<b>New Orleans</b>	-2.38%
<b>42</b>	<b>Nashville</b>	-2.56%
<b>43</b>	<b>Miami</b>	-2.65%
<b>44</b>	<b>Oklahoma City</b>	-3.04%
<b>45</b>	<b>Boston</b>	-3.73%
<b>46</b>	<b>St. Louis</b>	-3.88%
<b>47</b>	<b>Denver</b>	-4.49%
<b>48</b>	<b>Cleveland</b>	-5.15%
<b>49</b>	<b>Memphis</b>	-7.66%
<b>50</b>	<b>Baltimore</b>	-8.92%

Table 5: Rank of Accessibility Gains by Metropolitan Area, 2019 vs. 2018

Rank	Weighted Average	10 min	20 min	30 min	40 min	50 min	60 min
1	Phoenix	New York	Chicago	Los Angeles	Los Angeles	Los Angeles	Los Angeles
2	Raleigh	Seattle	Los Angeles	Chicago	Phoenix	Phoenix	Phoenix
3	Los Angeles	San Francisco	Seattle	Phoenix	Chicago	San Diego	San Diego
4	Las Vegas	Minneapolis	Phoenix	Minneapolis	San Diego	Chicago	Las Vegas
5	Riverside	Phoenix	San Francisco	Seattle	Las Vegas	Las Vegas	San Antonio
6	Jacksonville	Los Angeles	Minneapolis	San Jose	San Jose	San Jose	San Jose
7	San Diego	Raleigh	Raleigh	Raleigh	San Antonio	San Antonio	Chicago
8	San Antonio	Chicago	Buffalo	Las Vegas	Raleigh	Atlanta	Riverside
9	Atlanta	Boston	Atlanta	Salt Lake City	Seattle	Raleigh	Raleigh
10	Orlando	Miami	Las Vegas	San Antonio	Salt Lake City	Riverside	Atlanta
11	Kansas City	Austin	San Jose	Buffalo	Atlanta	Jacksonville	Jacksonville
12	Buffalo	Philadelphia	Salt Lake City	San Diego	Buffalo	Kansas City	Columbus
13	Richmond	Dallas	San Antonio	Atlanta	Riverside	Buffalo	Kansas City
14	Birmingham	Las Vegas	Richmond	Pittsburgh	Jacksonville	Orlando	Orlando
15	Virginia Beach	Kansas City	Pittsburgh	Riverside	Kansas City	Pittsburgh	Sacramento
16	San Jose	Jacksonville	San Diego	Richmond	Orlando	Sacramento	Pittsburgh
17	Chicago	Atlanta	Orlando	Kansas City	Sacramento	Salt Lake City	Charlotte
18	Minneapolis	Richmond	Kansas City	Orlando	Pittsburgh	Columbus	Buffalo
19	Pittsburgh	San Jose	Dallas	Jacksonville	Minneapolis	Virginia Beach	Virginia Beach
20	Salt Lake City	Salt Lake City	Riverside	Dallas	Richmond	Richmond	Philadelphia
21	Sacramento	Orlando	Jacksonville	Sacramento	Virginia Beach	Indianapolis	Indianapolis
22	Indianapolis	Virginia Beach	Birmingham	Virginia Beach	Dallas	Minneapolis	Richmond
23	Dallas	San Antonio	Virginia Beach	Birmingham	Columbus	Providence	New York
24	Providence	Riverside	Miami	Philadelphia	Birmingham	Birmingham	Providence
25	Columbus	Birmingham	Indianapolis	Indianapolis	Indianapolis	Dallas	Salt Lake City
26	Seattle	Portland	Philadelphia	Providence	Providence	Cincinnati	Dallas
27	Philadelphia	San Diego	Sacramento	Cincinnati	Cincinnati	Tampa	Birmingham
28	Cincinnati	Sacramento	Cincinnati	Milwaukee	Tampa	Charlotte	Minneapolis
29	New York	Louisville	Milwaukee	Detroit	Detroit	New Orleans	Tampa
30	Tampa	Indianapolis	Providence	Louisville	Louisville	Louisville	New Orleans
31	Portland	Houston	Louisville	Tampa	Nashville	Nashville	Cincinnati
32	San Francisco	Pittsburgh	Austin	Columbus	Hartford	Hartford	Portland
33	Milwaukee	Cincinnati	Houston	Oklahoma City	Oklahoma City	Detroit	Hartford
34	Louisville	Columbus	Oklahoma City	San Francisco	Philadelphia	Oklahoma City	Louisville
35	Houston	Buffalo	Portland	Houston	Houston	Philadelphia	Nashville
36	Detroit	Tampa	Detroit	Nashville	Charlotte	Portland	Detroit
37	Hartford	Charlotte	Tampa	Hartford	Milwaukee	Houston	Oklahoma City
38	Washington	Nashville	Nashville	St. Louis	New Orleans	New York	Milwaukee
39	Austin	Providence	Memphis	Austin	Portland	Milwaukee	Houston
40	Charlotte	Oklahoma City	St. Louis	Miami	St. Louis	Seattle	Austin
41	New Orleans	Milwaukee	Hartford	Portland	Austin	Austin	St. Louis
42	Nashville	Hartford	Columbus	Memphis	New York	St. Louis	Washington
43	Miami	Washington	Cleveland	Charlotte	Memphis	Memphis	Memphis
44	Oklahoma City	Detroit	New Orleans	New Orleans	Miami	Cleveland	Cleveland
45	Boston	Cleveland	Charlotte	Cleveland	Cleveland	Washington	San Francisco
46	St. Louis	Memphis	Boston	Washington	Washington	Miami	Miami
47	Denver	New Orleans	Washington	Denver	Denver	Denver	Denver
48	Cleveland	Baltimore	Denver	Baltimore	San Francisco	San Francisco	Seattle
49	Memphis	St. Louis	Baltimore	Boston	Baltimore	Baltimore	Baltimore
50	Baltimore	Denver	New York	New York	Boston	Boston	Boston

### 3 Discussion

This report builds on the work begun in *Access Across America: Transit 2014* and continued in *Access Across America: Transit 2015* through *Access Across America: Transit 2018*, which introduced a new methodology and datasets to enable inter-metropolitan comparisons of accessibility by transit in a way that is clearly understood and explainable, tracks with our experience and the available evidence, and incorporates the many factors that determine the usefulness of a transit system. Additionally, in 2015 the work expanded its scope to become fully national – accessibility data are calculated for every census block in the U.S.; data are aggregated and summarized within CBSAs for this report. In 2016, the uniform methodology across years allowed for direct comparison, and the beginning of longitudinal analysis of accessibility. However, beginning in data year 2018 federal jobs and worker data were no longer included in U.S. Census Bureau datasets, making year-to-year comparisons before and after 2018 less accurate in places with larger shares of federal jobs. Comparisons between data year 2018 and data year 2019 are meaningful and consistent.

Not all jobs are the same. Some jobs are higher paying, some are lower skilled, and they exist in a variety of industries. Given sufficient data, one could differentiate accessibility by breaking down jobs by type and get different results. Accessibility to non-work locations (shopping, health care, education, etc.) is also important. Regardless of trip purpose, people who experience higher accessibility tend to travel shorter distances because origins and destinations are closer together.

But accessibility to jobs is not the only thing that people care about. If it were, cities would be situated on a minimum amount of space so people could live immediately adjacent to their jobs, or everyone would work from home. Measuring (and then valuing) accessibility to other opportunities and considering the trade-off between accessibility and living space are central problems of urban economics, regional science, and transportation and land use planning. While being more accessible is generally better, there are costs as well as benefits associated with accessibility. If land is more valuable, its price is higher, and purchasers can afford less. Streets in places with more activities are inherently more crowded, and trips are less peaceful.

Accessibility is a function of both transportation networks and land use decisions, which has important policy implications. There are two broad avenues to increasing accessibility: improving transportation systems, and altering land use patterns. Neither of these things can be easily shifted overnight, but over time they do change—both through direct plans and action and through market forces.

It is important to recognize that aggregate metrics such as these are also affected simply by the size of the areas being studied. For example, residents of central Minneapolis enjoy greater accessibility than those of central Milwaukee, but the expansive Minneapolis–Saint Paul metropolitan area, which is over four times as large in land area, includes far more suburban and exurban areas (with little or no transit service) than does the Milwaukee area.

#### 3.1 Transit Service Effects

Transit transportation improvements within existing infrastructure take the form of speed increases or frequency increases. Speed improvements increase accessibility by making destinations reachable in less time, but they are often difficult to achieve for transit vehicles operating in mixed traffic. Frequency improvements reduce the average amount of time spent waiting for transit vehicles at stops, leaving

more time for travel toward valuable destinations. Speed and frequency are also linked: as average speeds increase, a fixed number of transit vehicles can serve the same route length with increasing frequency.<sup>6</sup> Improvements involving construction of new transit infrastructure (additional bus stops, rail line extensions, or entirely new transit lines) also can heavily influence accessibility by transit, by providing transit-based access to job centers and destinations previously unreachable. New transit lines which serve already-served areas do not expand the set of reachable valuable destinations, but could serve to increase service frequency in aggregate.

This evaluation reflects the impact of transit service frequency by making the assumption that all departure times are equally valuable to users, and it includes full waiting times before each trip. This is an important difference relative to earlier national evaluations of transit accessibility, which typically use a single departure time and/or a fixed wait time.<sup>7</sup> This approach provides two important benefits. First, it avoids the assumptions that transit service with 30-minute frequency is as valuable as service with 10-minute frequency, and that users suffer no inconvenience from adjusting their personal schedules to match transit schedules. Second, it allows more meaningful comparisons with accessibility evaluations for other transportation modes such as driving,<sup>8</sup> which typically use average speeds over time periods—implicitly assuming an equal value of departure times. As a result of this methodological choice, the accessibility results presented here are far more sensitive to service frequency effects than those of earlier transit accessibility evaluations. Cities with robust transit coverage but low service frequency are generally ranked lower than cities with comparable networks but higher frequencies.

## 3.2 Land Use Effects

Land use-based approaches to improving transit accessibility revolve around proximity and density for both origins and destinations. Proximity to transit service is critical in overcoming both the low speed of pedestrian access to and from stops and stations, and the decrease in motivation to make the walking trip with greater distance. Density is the manifestation of the increasing value of more accessible locations. As residential areas become denser, more residents experience the local accessibility; as employment areas become denser, more jobs can be accessed through the same transit system.

Density is not determined solely by accessibility, however: land use policies can restrict density where it would otherwise be high or encourage density where it might otherwise be low. Perhaps the most famous examples of such policies are Oregon's urban growth boundary laws, which encourage density by restricting the amount of land available for urban development, and the Height of Buildings Act of 1910, which restricts density in the District of Columbia by limiting building heights. Other notable areas with urban growth boundary laws in the U.S. include Seattle, San Jose, and Boulder; additionally, Boston limits building heights near its Common central park. Between these most salient examples lie a range of density-focused urban policies, typically embedded in zoning codes, which help enable (and hinder) each city's transit accessibility performance. In general, areas with higher residential and employment density can achieve greater transit accessibility given the same level of transit service.

At lower accessibility thresholds, and especially at the 10-minute threshold, the job accessibility experienced by a typical worker is determined primarily by local employment density and only second-

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<sup>6</sup>Walker (2012) provides a detailed and accessible exploration of transit service fundamentals.

<sup>7</sup>e.g. Tomer et al. (2011), Ramsey and Bell (2014)

<sup>8</sup>e.g. Levinson (2013), Levine et al. (2012)

daily, if at all, by transit service. With a 10-minute travel time budget, reaching a stop, waiting for a vehicle, and walking to the destination after alighting leave little time available for actually traveling on a transit vehicle. It is likely that most jobs within this threshold are reached solely by walking and do not involve a transit vehicle at all. The results presented in [Table 3](#) for the 10-minute threshold look much like a ranking by employment and residential density. As the travel time threshold increases, so does the relative contribution of transit service and coverage to the rankings.

### 3.3 Comparisons With 2018 Data

This analysis uses the same tools, techniques and study scale as the *Access Across America: Transit 2015–2018* reports. GTFS data are now sufficiently consistent to allow for year to year comparisons of transit accessibility, and federal jobs and federal worker data are included in U.S. Census Bureau datasets in both data year 2018 and data year 2019. As a result, comparisons between 2018 and 2019 accessibility results allow for meaningful inferences in changes in employment, land use, and transportation networks.

This update of datasource, in combination with increased GTFS consistency, allows observation of significant land use changes (namely, job growth and mixed-use densification in certain metropolitan areas), and the impact of land use on how accessible a city will turn out to be. The precise disentangling of accessibility changes due to land use mix or transit improvements (and determining relative percentage apportionment) requires a significant increase in the amount of accessibility computations, but the relative impacts can be estimated by computing accessibility using multiple years of LEHD data (see methodology explanation in *Access Across America: Transit 2019 Methodology*).

Among the metropolitan areas with the most significant positive changes, Phoenix and Los Angeles showed a mix of positive accessibility changes from both transit investments and land use; Raleigh showed accessibility increases primarily due to job growth and relocation. Among the metropolitan areas with significant negative changes, Baltimore implemented the BaltimoreLink service redesign, which went into effect around February 4, 2018; Memphis' MATA implemented bus service changes in 2018; Cleveland's GCRTA experienced budget cuts in 2018; and Oklahoma City experienced employment changes leading to lower accessibility.

### 3.4 Conclusions

The cities that make up the top 10 transit accessibility ranks all exhibit a combination of high density land use and fast, frequent transit service. However, there is still significant variation within this group. In New York, San Francisco, Washington, and Chicago, fast heavy rail systems connect both urban and suburban areas with a highly employment-dense core. It is instructive to compare these cities to Atlanta, which has a similar, but smaller, rail system but a much more decentralized job and population distribution, and lower accessibility. Seattle and Denver both have rapidly expanding light rail systems, supported by extensive and frequent bus networks. Though Portland is famous for its streetcar service, this covers only a small part of the city, and operates mostly in mixed traffic with very little access to proprietary right-of-way, limiting its service speed. Its urban growth boundary, combined with frequent bus service throughout core areas and light rail connections to suburban areas, likely plays a more important role in providing high accessibility: by encouraging both residents and employers to

locate in parts of the city already well served by transit, each new resident enjoys high accessibility but imposes only a small marginal burden on the transit system's existing resources.

Additionally, the scope of this report's focus toward analyzing accessibility for every census block in the U.S. affords a look at what impact public transit has on a national scale. The vast majority of the U.S. land mass is quite sparsely-populated outside of metropolitan areas, and the contained metropolitan areas are in many cases very far apart. Also, the type of transit service included in the analysis is strictly limited to public transit, most commonly found in urban areas—inter-city bus and rail services, such as Megabus, Greyhound, or Jefferson, and Amtrak, respectively, are not included. Further, such services operate on time-scales greater than the travel times involved in this analysis. Given that mostly urban-centric systems are included, only a very small geographical area of the country enjoys mass transit services, and thus the total area experiencing transit accessibility benefits is quite small.

Transportation and land use systems are both dynamic, and this report presents the fourth annual national evaluation, following those detailed in *Access Across America: Transit 2015* through *Access Across America: Transit 2018*. In constantly evolving systems like these, it is critical to monitor changes over time. A city that adopts a goal of increasing transit accessibility should be evaluated based on how effectively it advances that goal relative to a baseline. *Access Across America: Transit 2014* served as a starting framework for inter-city accessibility evaluation, and *Access Across America: Transit 2015* expanded the scope and data availability to allow direct year-to-year comparisons, which began in *Access Across America: 2016*; this report adds 2019 transit accessibility data, and continues the process of monitoring how accessibility in these metropolitan areas evolves in response to transportation investments and land use decisions.



## **4 Metropolitan Area Data and Maps**

The following pages present summary accessibility data and maps for each of the 50 included metropolitan areas. Metropolitan areas are presented in alphabetical order. The maps show 30-minute accessibility values at the Census block level, averaged between 7:00 and 9:00 AM. On the data summary pages, two different chart scales are used to accommodate the wide range of accessibility values across metropolitan areas. All charts using the same scale are plotted in the same color.

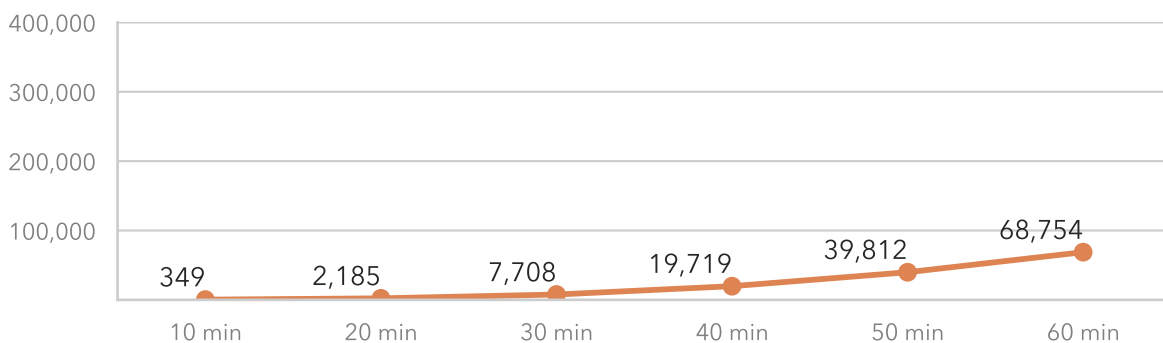
# Atlanta

Atlanta-Sandy Springs-Marietta, GA

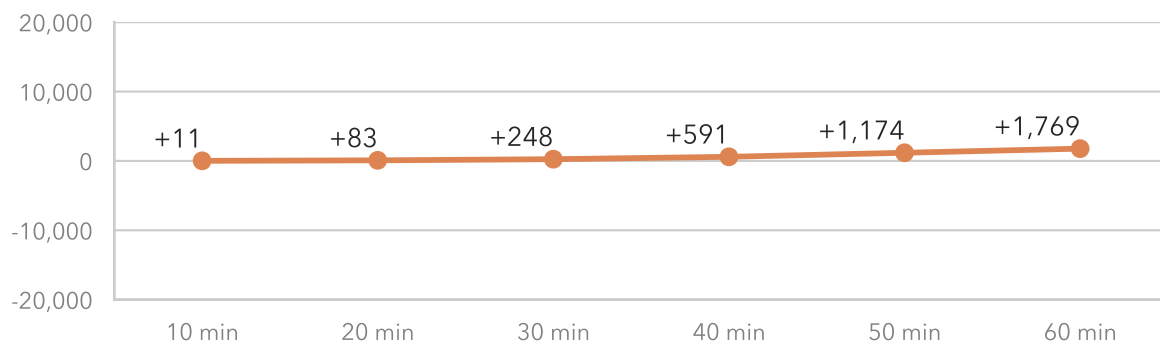
Rank by Weighted Accessibility	32
Rank by Total Employment	8
Rank by 1-Year Change in Weighted Accessibility	9
1-Year Change in Weighted Accessibility	+3.11%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	2,637,483
Average Job Density (per km <sup>2</sup> )	122
Total Workers	2,534,711
Average Worker Density (per km <sup>2</sup> )	117

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

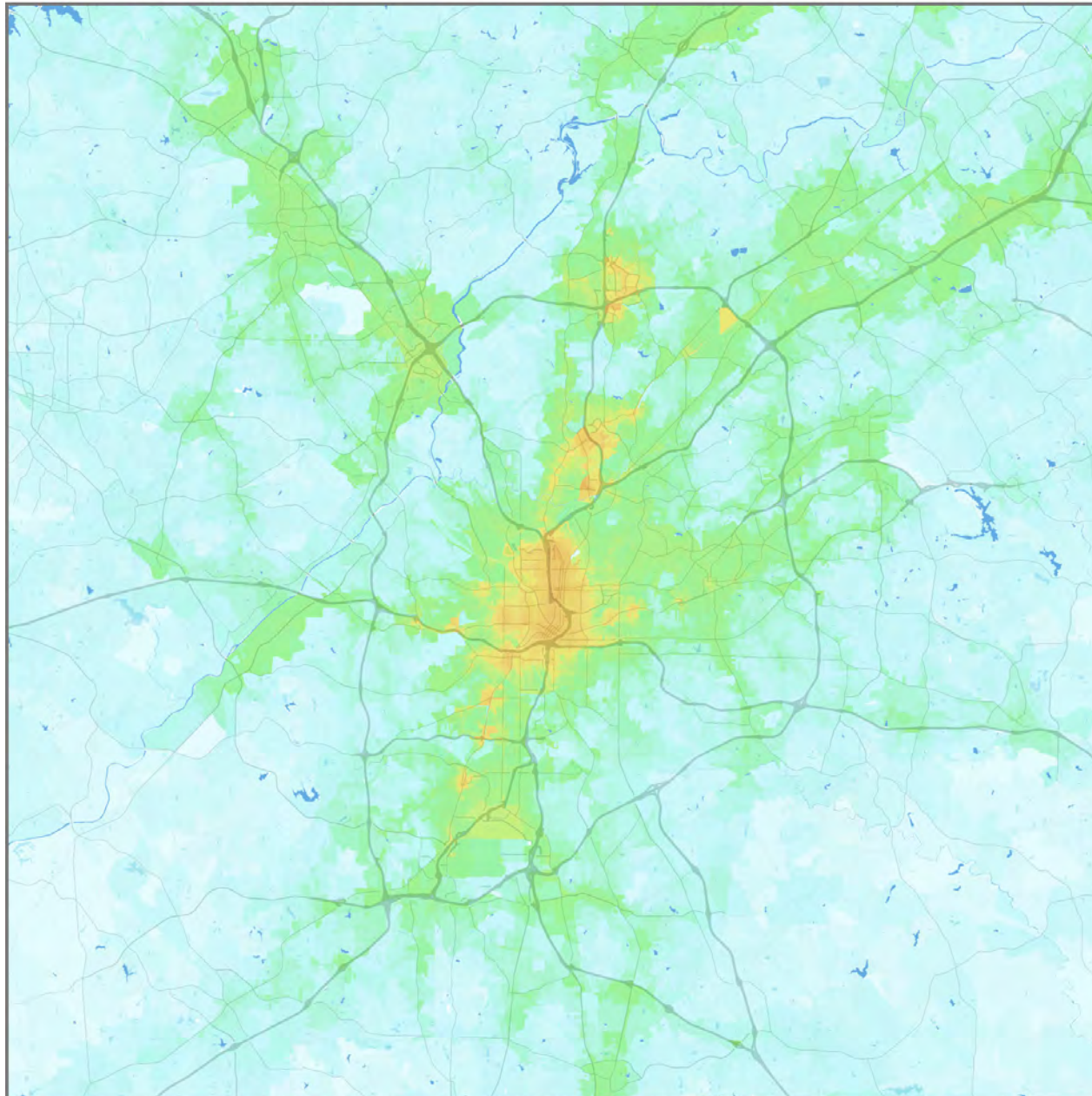


## Transit Schedules Included

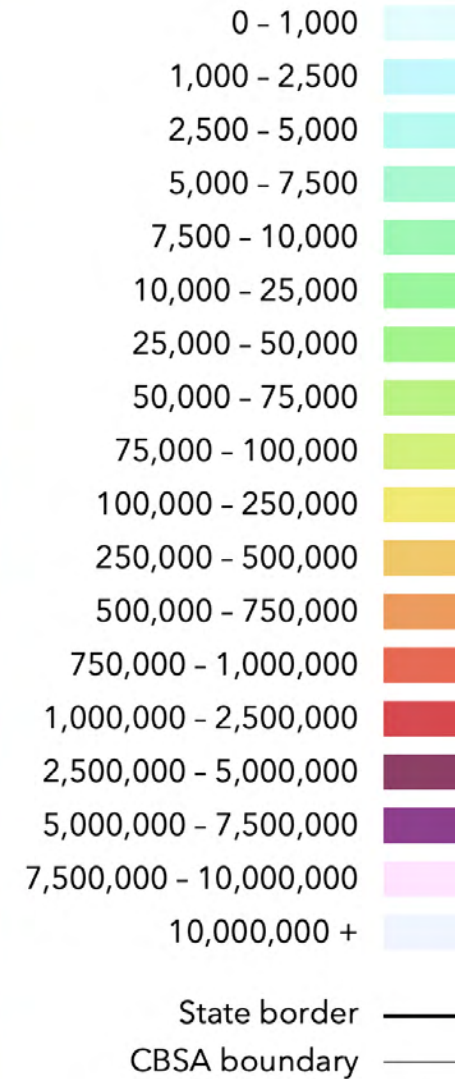
Agency	Dates
CobbLinc	September 30, 2016 - September 30, 2018
Gwinnett County Transit	June 11, 2018 - January 1, 2021
Metropolitan Atlanta Rapid Transit Authority	December 8, 2018 - April 12, 2019
SRTA	January 14, 2019 - April 14, 2019

# Atlanta

Atlanta-Sandy Springs-Marietta, GA



Jobs within 30 minutes  
(Transit, AM peak)



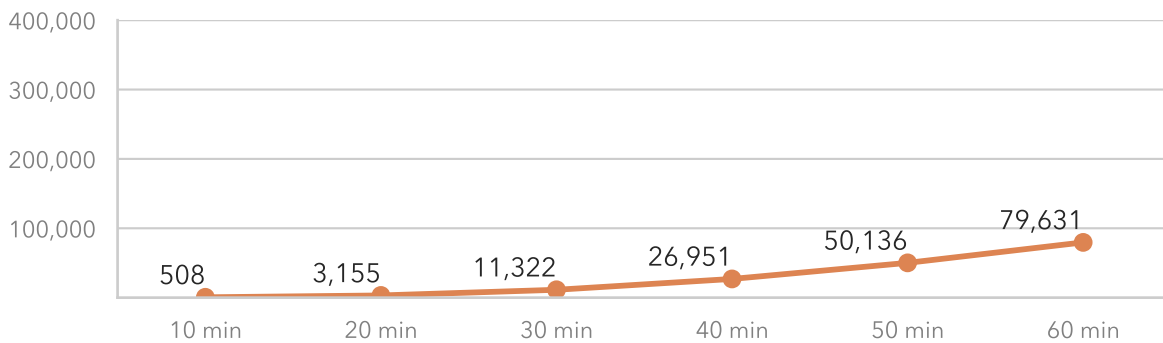
# Austin

Austin-Round Rock-San Marcos, TX

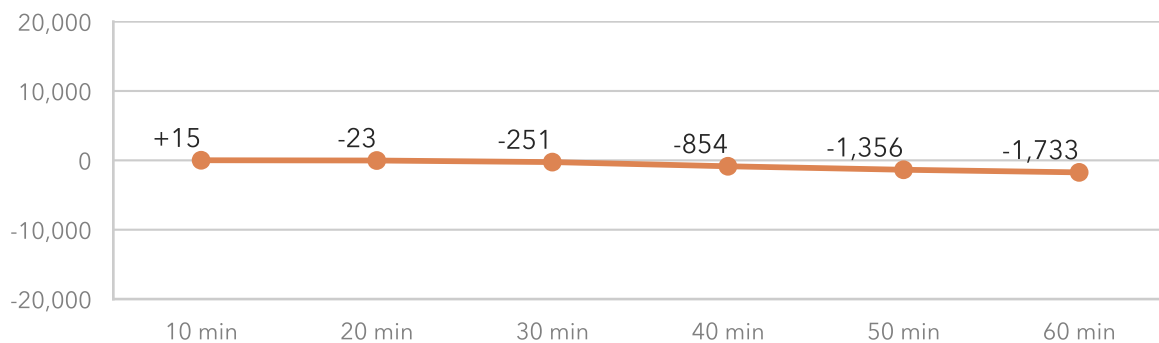
Rank by Weighted Accessibility	23
Rank by Total Employment	28
Rank by 1-Year Change in Weighted Accessibility	39
1-Year Change in Weighted Accessibility	-2.04%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,004,341
Average Job Density (per km <sup>2</sup> )	92
Total Workers	967,584
Average Worker Density (per km <sup>2</sup> )	89

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



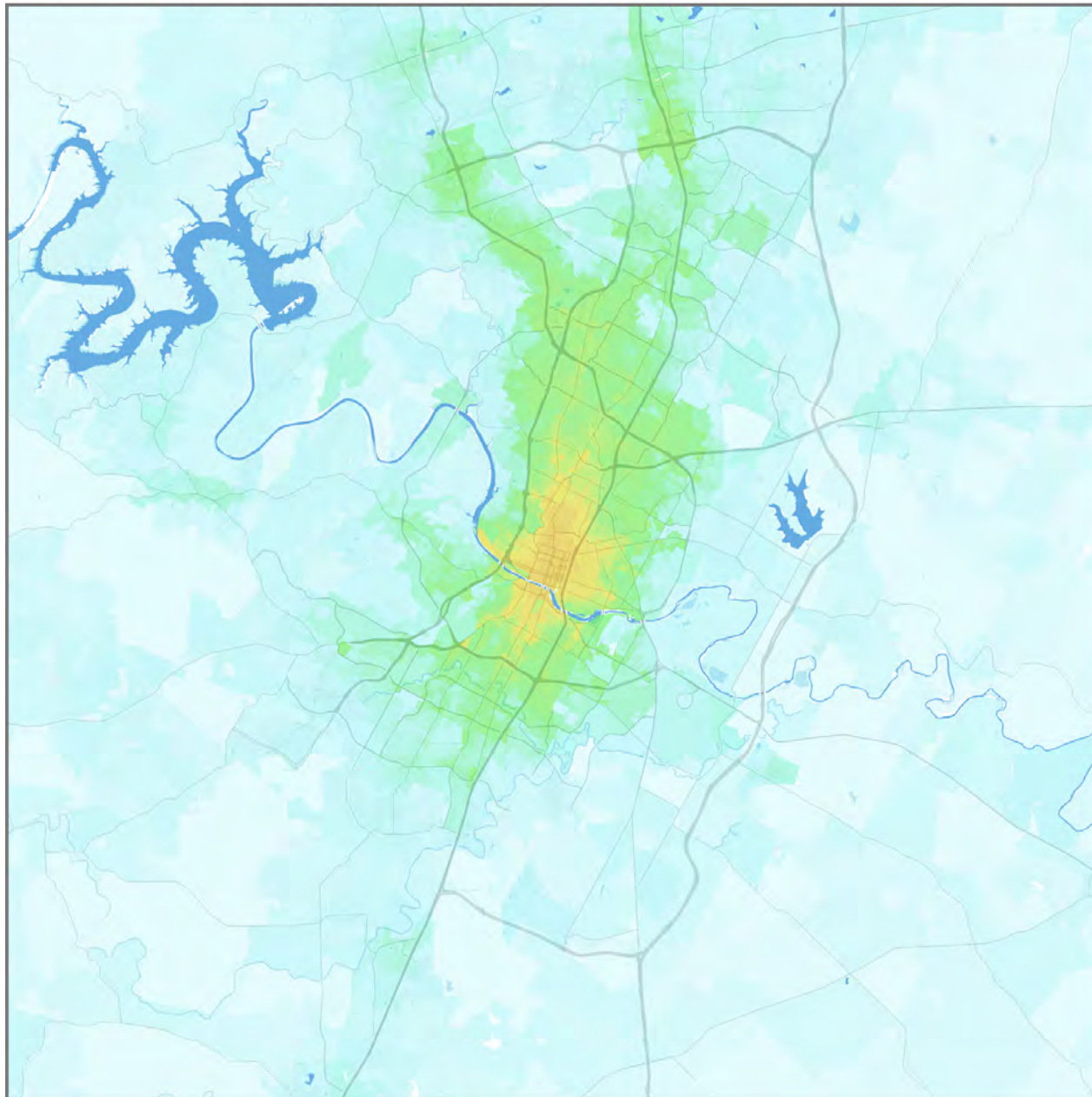
## Transit Schedules Included

Agency	Dates
Capital Metro	January 6, 2019 – June 15, 2019

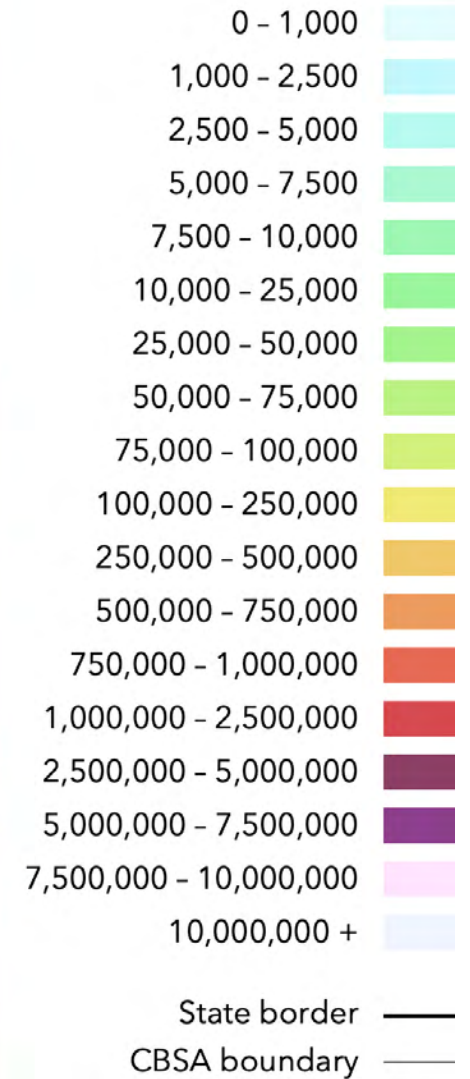


# Austin

Austin-Round Rock-San Marcos, TX



Jobs within 30 minutes  
(Transit, AM peak)



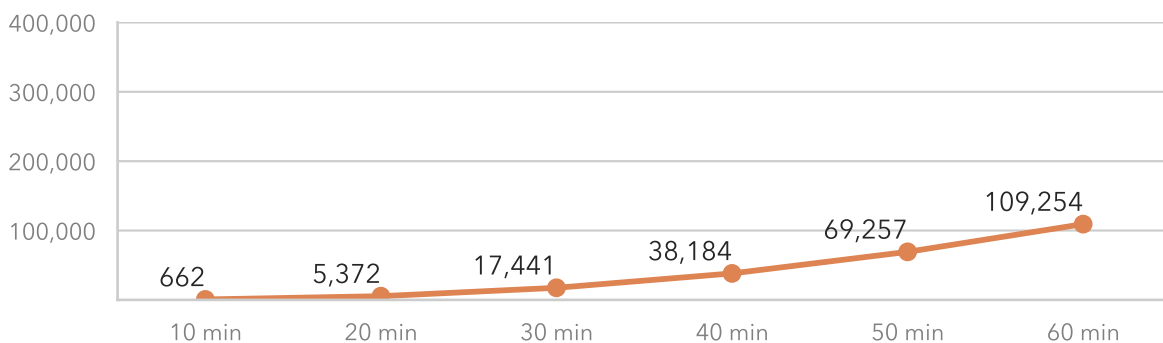
# Baltimore

Baltimore-Towson, MD

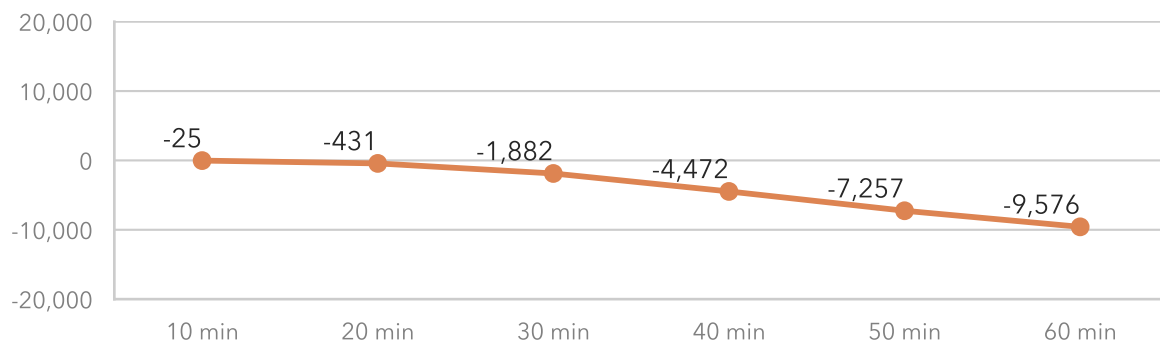
Rank by Weighted Accessibility	15
Rank by Total Employment	21
Rank by 1-Year Change in Weighted Accessibility	50
1-Year Change in Weighted Accessibility	-8.92%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	1,316,328
Average Job Density (per km <sup>2</sup> )	195
Total Workers	1,277,911
Average Worker Density (per km <sup>2</sup> )	190

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



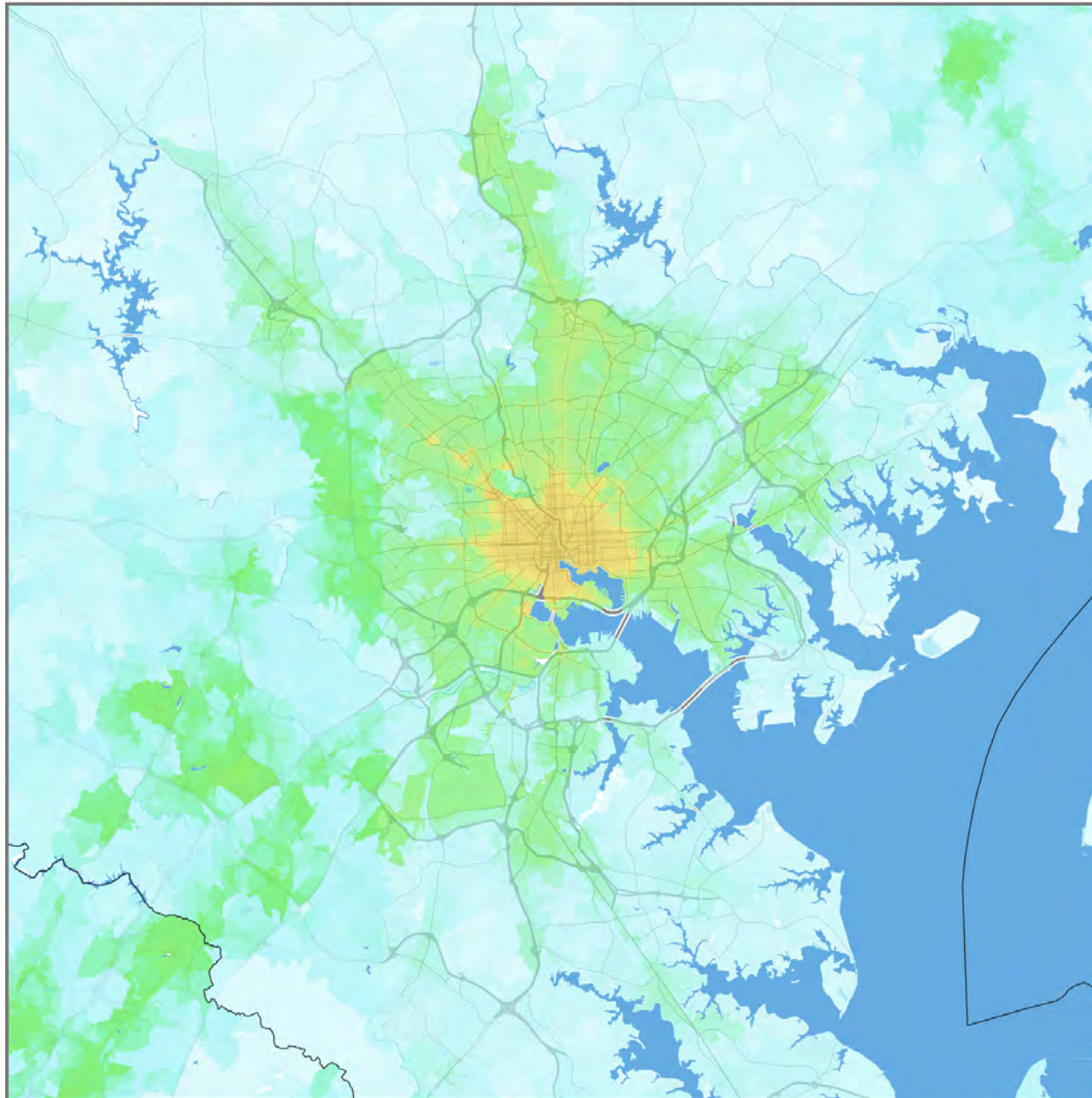


## Transit Schedules Included

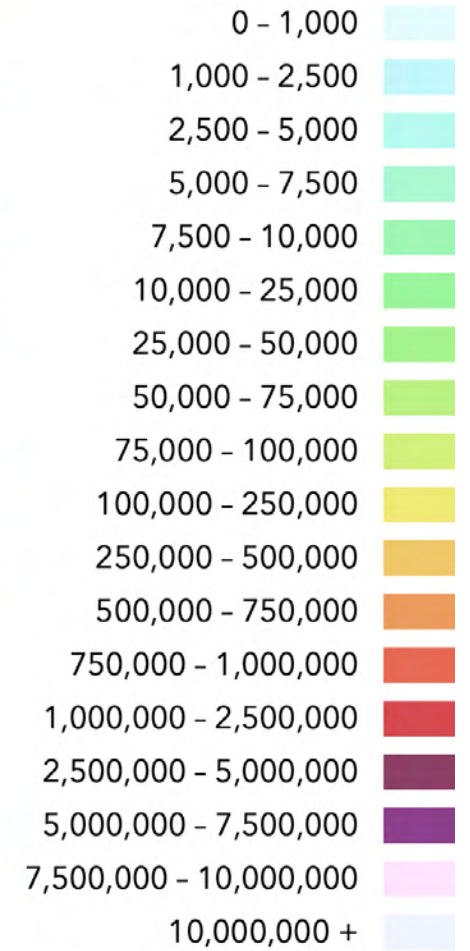
Agency	Dates
BWI Thurgood Marshall Airport	December 17, 2018 - December 31, 2022
Carroll Transit System	January 1, 2019 - January 31, 2022
Charm City Circulator	May 1, 2016 - February 28, 2020
Delmarva Community Transit	September 23, 2015 - February 28, 2022
Harford Transit LINK	October 1, 2018 - June 1, 2019
Maryland Transit Administration	September 2, 2018 - February 2, 2019
Queen Anne's County Ride	September 3, 2017 - February 28, 2019
Rabbit Transit	December 7, 2018 - December 7, 2019
Regional Transportation Agency of Central Maryland	May 5, 2019 - August 10, 2019
WMATA	November 30, 2018 - May 28, 2019

# Baltimore

Baltimore-Towson, MD



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

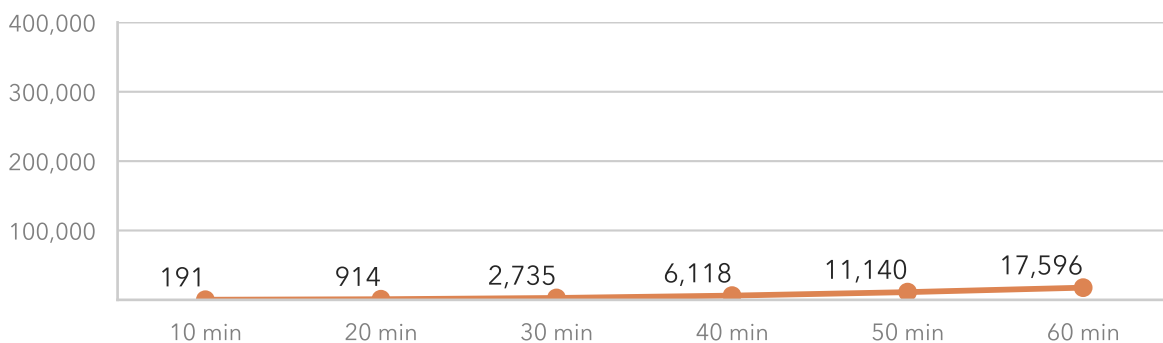
# Birmingham

Birmingham-Hoover, AL

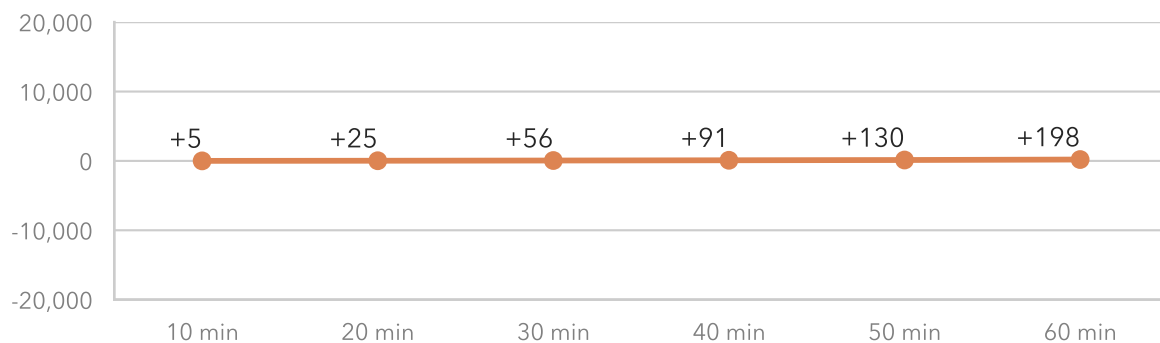
Rank by Weighted Accessibility	50
Rank by Total Employment	50
Rank by 1-Year Change in Weighted Accessibility	14
1-Year Change in Weighted Accessibility	+1.77%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	510,537
Average Job Density (per km <sup>2</sup> )	37
Total Workers	479,837
Average Worker Density (per km <sup>2</sup> )	35

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

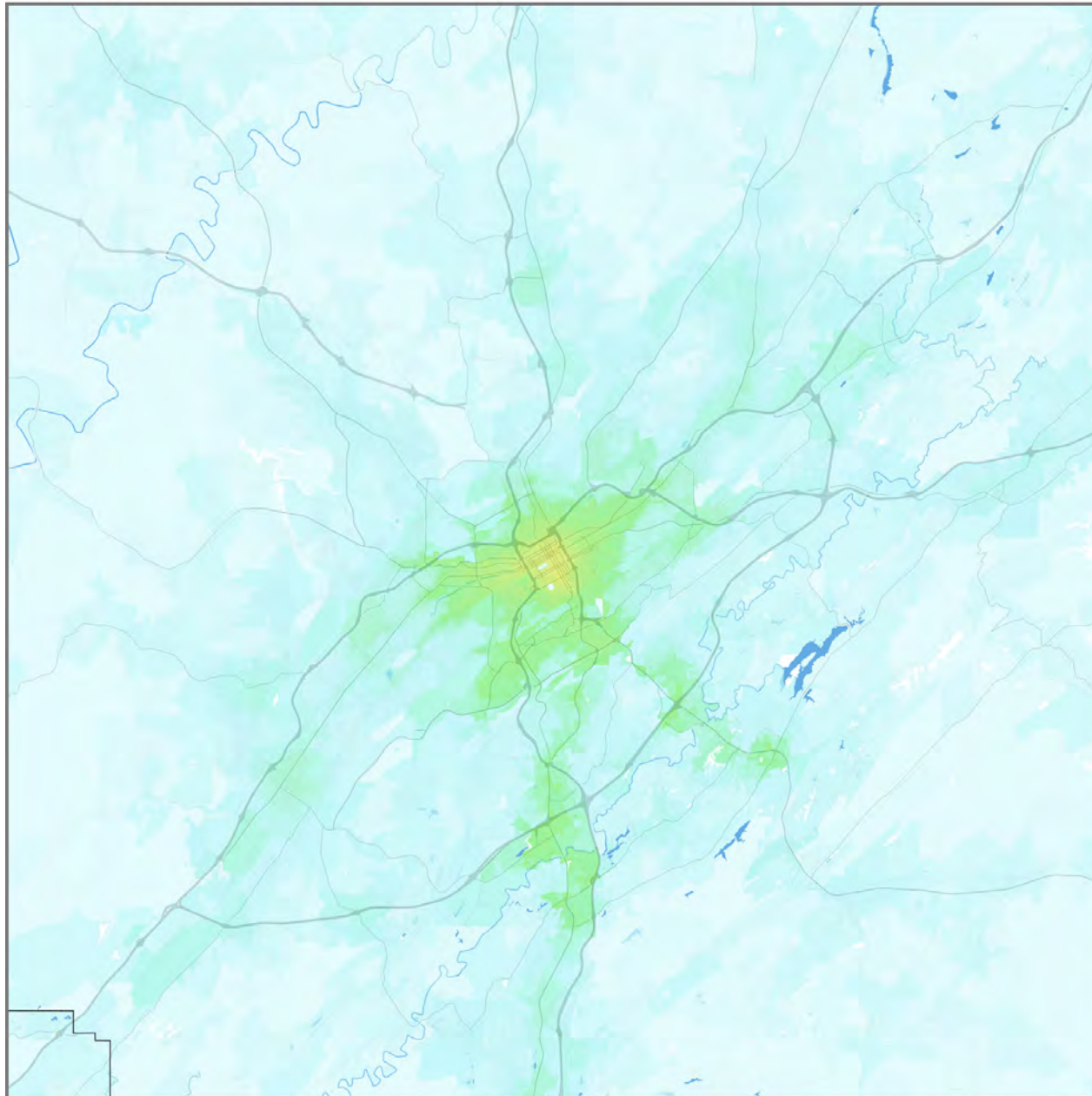


## Transit Schedules Included

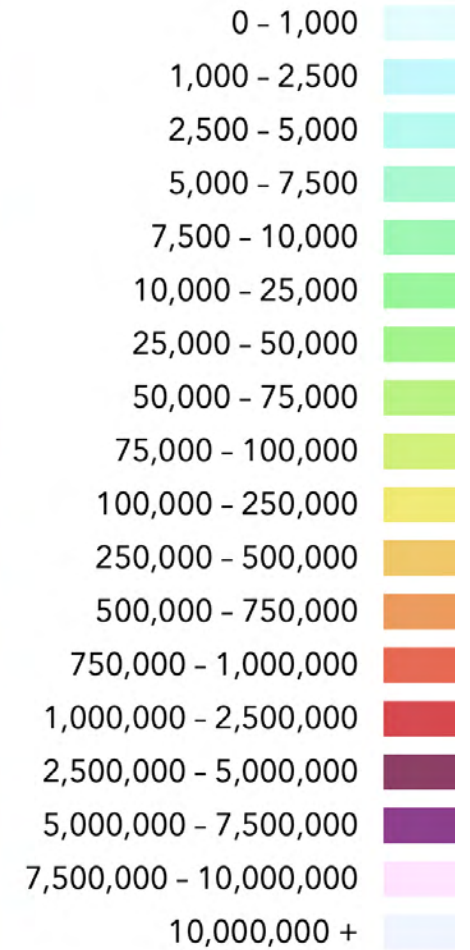
Agency	Dates
Birmingham Jefferson County Transit Authority	February 1, 2017 - December 31, 2018

# Birmingham

Birmingham-Hoover, AL



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

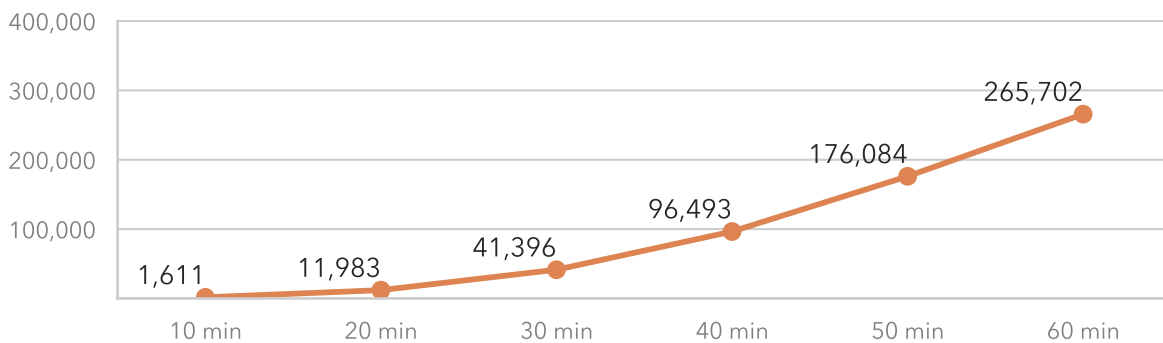
# Boston

Boston-Cambridge-Quincy, MA-NH

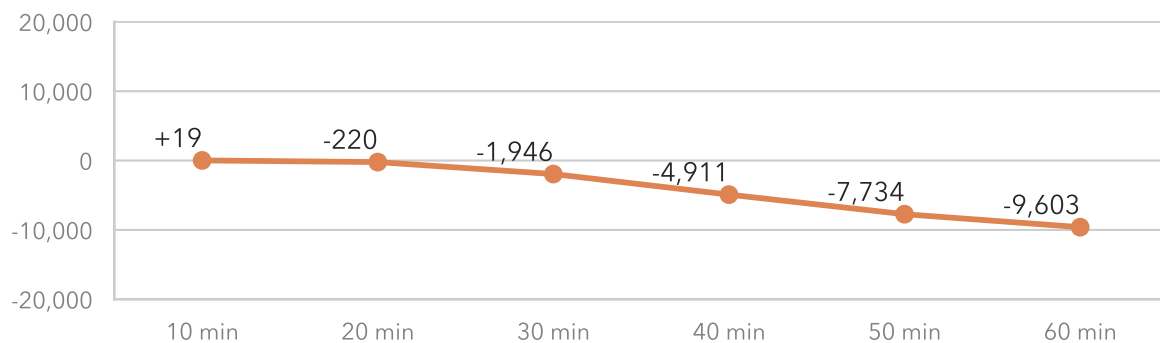
Rank by Weighted Accessibility	5
Rank by Total Employment	10
Rank by 1-Year Change in Weighted Accessibility	45
1-Year Change in Weighted Accessibility	-3.73%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	2,682,278
Average Job Density (per km <sup>2</sup> )	297
Total Workers	2,464,508
Average Worker Density (per km <sup>2</sup> )	273

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



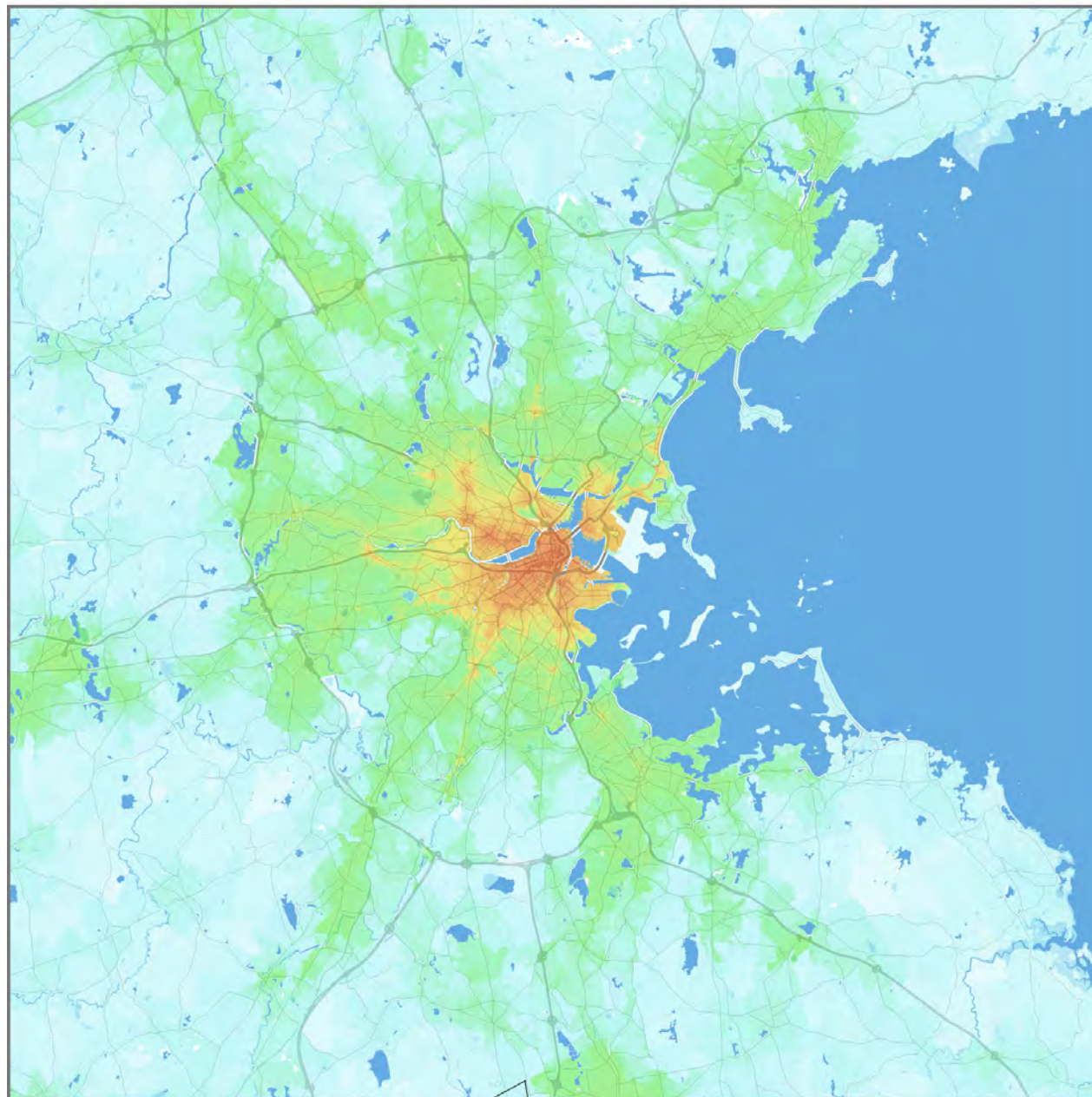


## Transit Schedules Included

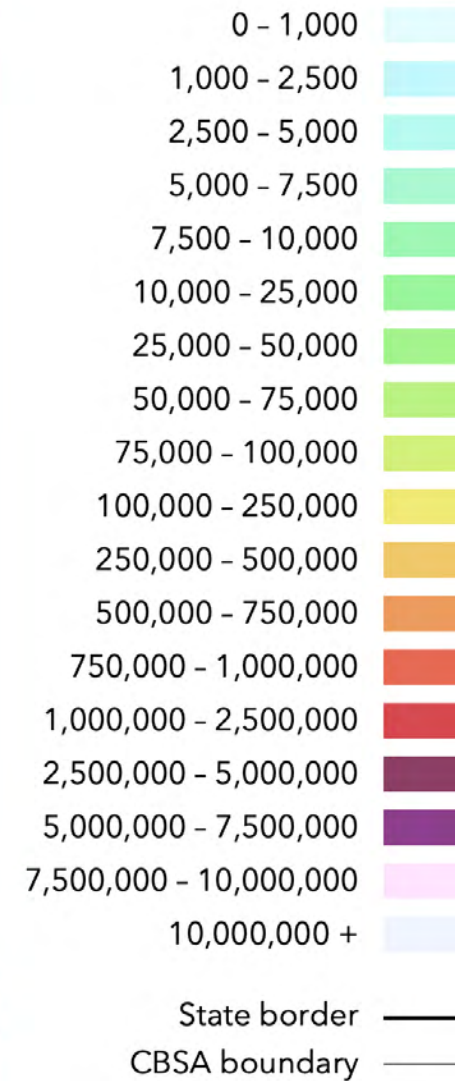
Agency	Dates
128 Business Council	November 1, 2015 – January 1, 2019
Bloom Bus	January 2, 2015 – January 2, 2016
Boston Harbor Islands National and State Park	May 19, 2018 – October 8, 2018
Brockton Area Transit Authority	January 1, 2015 – January 1, 2021
Cape Ann Transportation	January 1, 2015 – January 1, 2021
Cape Cod Regional Transit Authority	May 24, 2019 – June 22, 2019
DATTCO	October 20, 2017 – January 1, 2021
Lexpress Lexington MA	October 1, 2014 – June 30, 2016
Logan Express	January 1, 2019 – January 1, 2021
Lowell Regional Transit Authority	January 1, 2015 – January 1, 2021
MBTA	December 26, 2018 – March 16, 2019
MWRTA	September 10, 2018 – May 1, 2019
Massport	January 20, 2019 – January 1, 2021
Merrimack Valley Regional Transit Authority	January 1, 2017 – January 1, 2021
Middlesex 3 TMA	January 1, 2019 – January 1, 2021
Montachusett Regional Transit Authority	January 1, 2015 – January 1, 2021
Plymouth & Brockton Street Railway Co.	February 5, 2018 – October 31, 2018
Southeastern Regional Transit Authority	January 1, 2015 – January 1, 2021
The Greater Attleboro Taunton Regional Transit Authority	January 1, 2016 – January 1, 2021

# Boston

Boston-Cambridge-Quincy, MA-NH



Jobs within 30 minutes  
(Transit, AM peak)





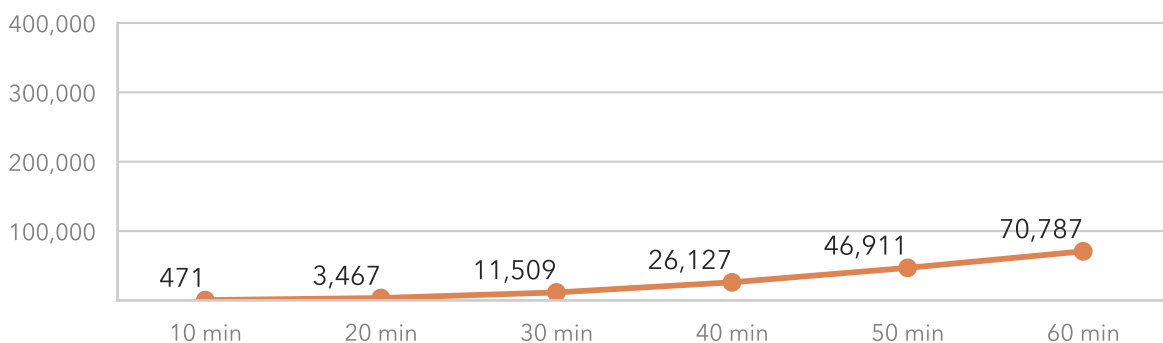
# Buffalo

Buffalo-Niagara Falls, NY

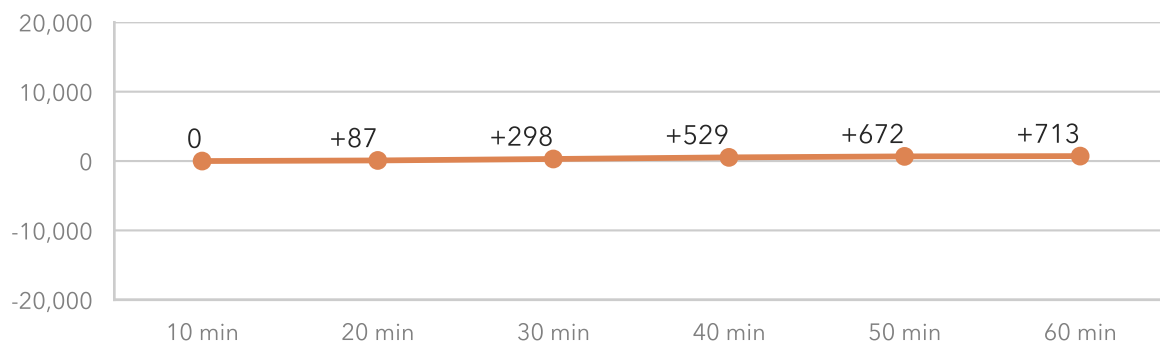
Rank by Weighted Accessibility	24
Rank by Total Employment	48
Rank by 1-Year Change in Weighted Accessibility	12
1-Year Change in Weighted Accessibility	+1.84%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	546,694
Average Job Density (per km <sup>2</sup> )	135
Total Workers	525,947
Average Worker Density (per km <sup>2</sup> )	130

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

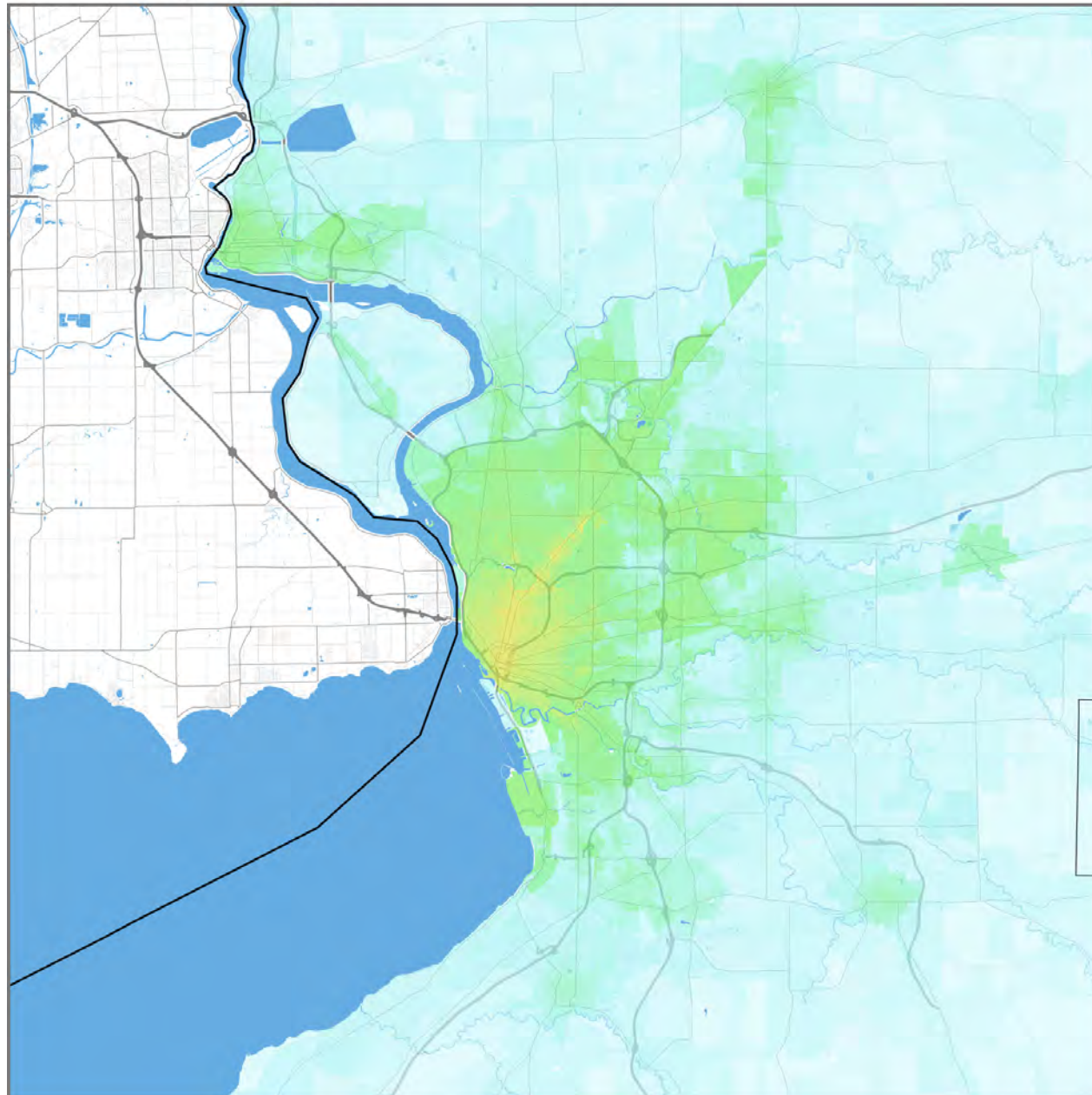


## Transit Schedules Included

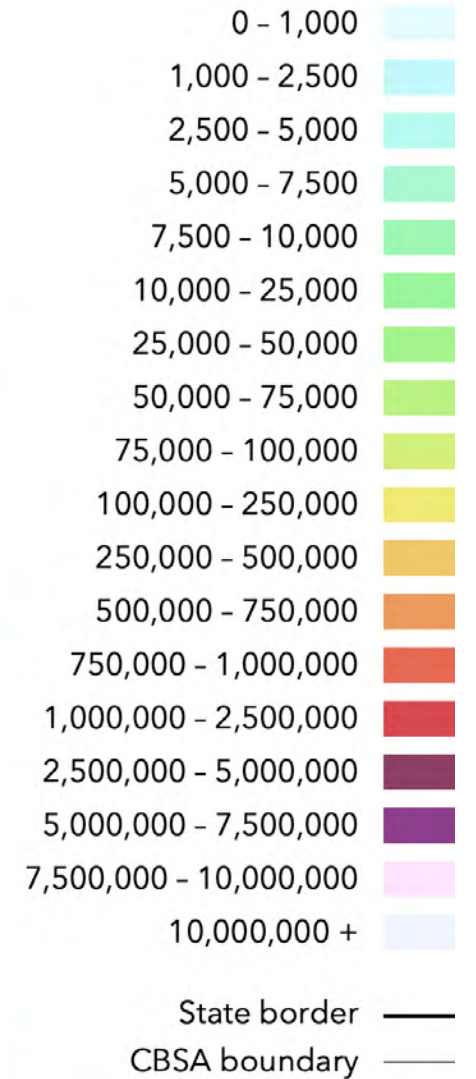
Agency	Dates
NFTA - Metro	November 27, 2018 - March 2, 2019

# Buffalo

Buffalo-Niagara Falls, NY



Jobs within 30 minutes  
(Transit, AM peak)



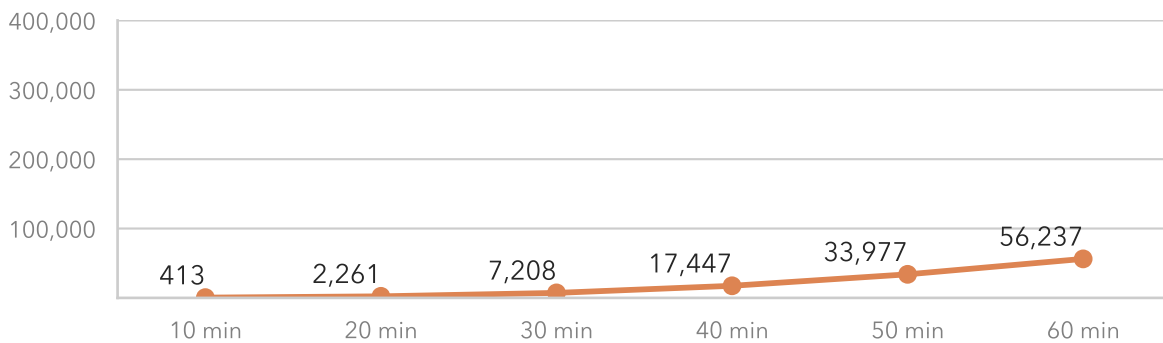
# Charlotte

Charlotte-Gastonia-Rock Hill, NC-SC

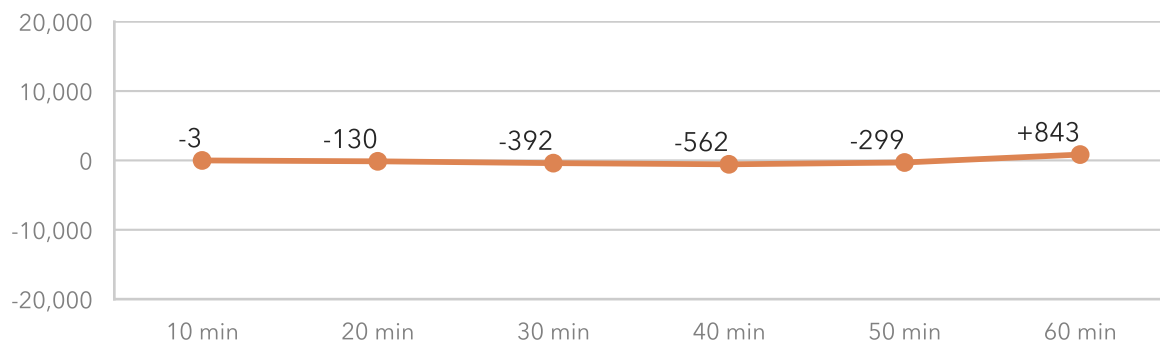
Rank by Weighted Accessibility	34
Rank by Total Employment	34
Rank by 1-Year Change in Weighted Accessibility	40
1-Year Change in Weighted Accessibility	-2.22%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,037,014
Average Job Density (per km <sup>2</sup> )	130
Total Workers	930,190
Average Worker Density (per km <sup>2</sup> )	116

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



## Transit Schedules Included

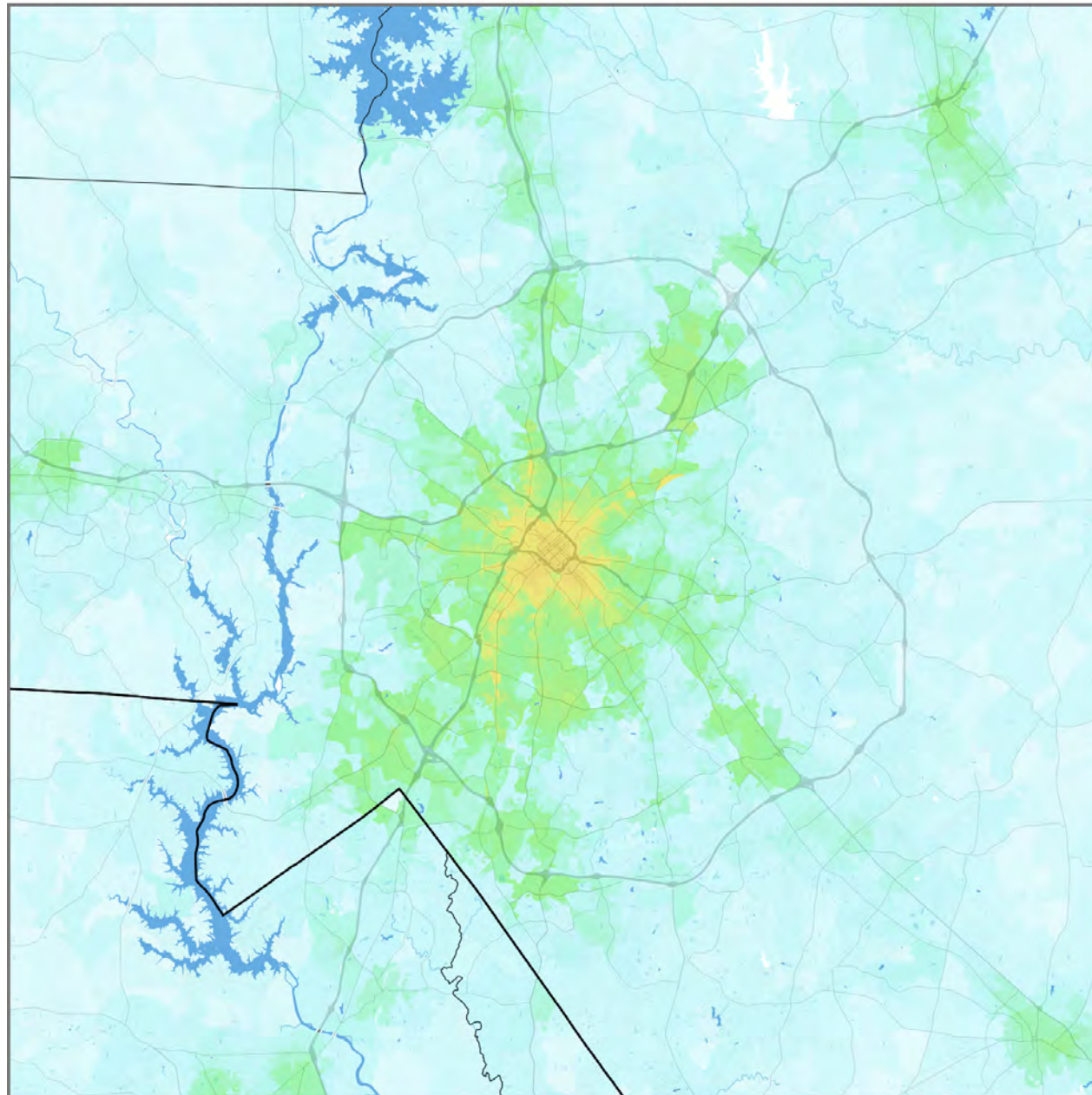
Agency	Dates
CATS	July 1, 2019 - October 6, 2019
Concord Kannapolis Area Transit	January 1, 2016 - January 1, 2021



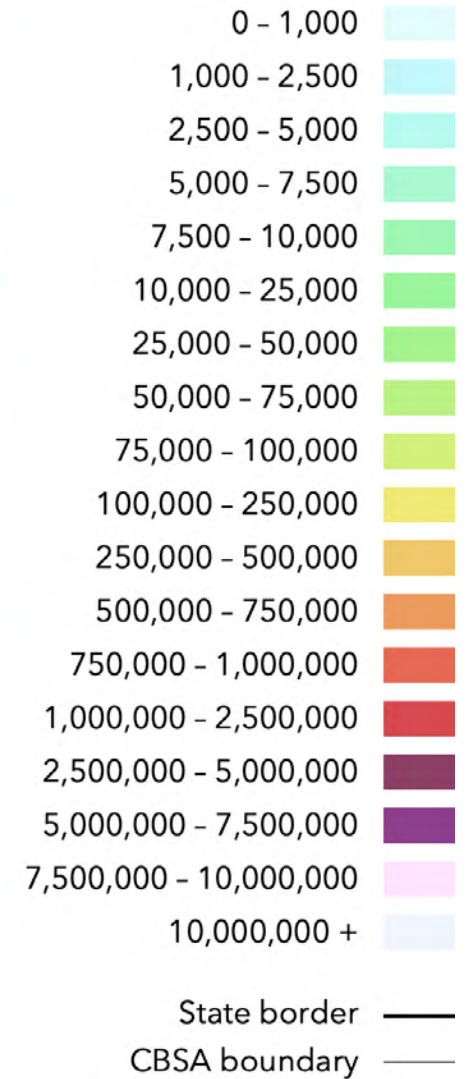
# Charlotte

Charlotte-Gastonia-Rock Hill, NC-SC

35



Jobs within 30 minutes  
(Transit, AM peak)



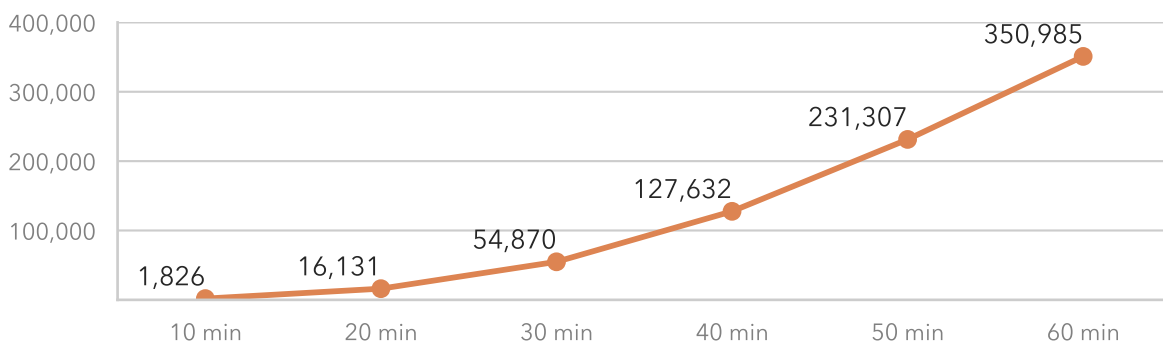
# Chicago

Chicago-Joliet-Naperville, IL-IN-WI

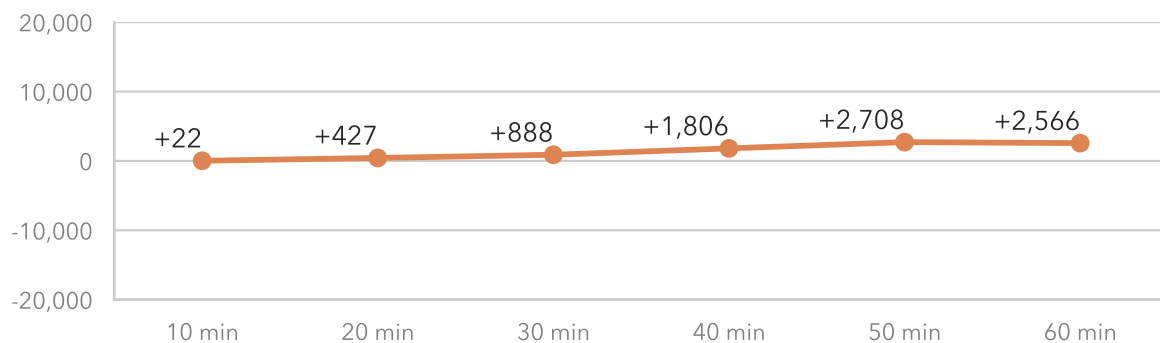
Rank by Weighted Accessibility	3
Rank by Total Employment	3
Rank by 1-Year Change in Weighted Accessibility	17
1-Year Change in Weighted Accessibility	+1.45%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	4,559,884
Average Job Density (per km <sup>2</sup> )	245
Total Workers	4,448,938
Average Worker Density (per km <sup>2</sup> )	239

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



## Transit Schedules Included

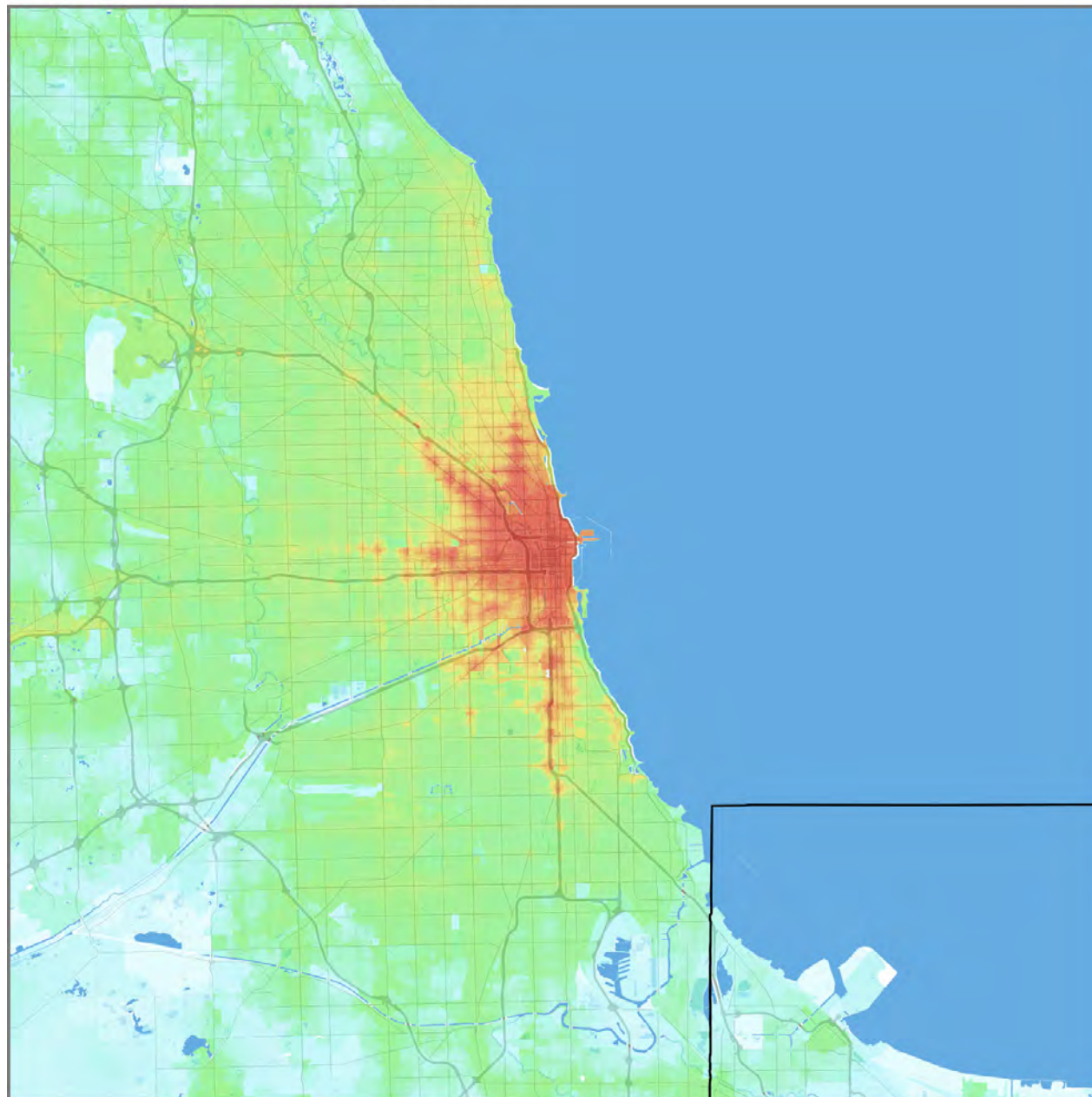
Agency	Dates
Chicago Transit Authority	November 6, 2018 - January 31, 2019
Metra	January 1, 2018 - December 31, 2019
Northern Indiana Commuter Transportation District	January 1, 2012 - December 31, 2020
PACE	August 12, 2018 - August 10, 2019



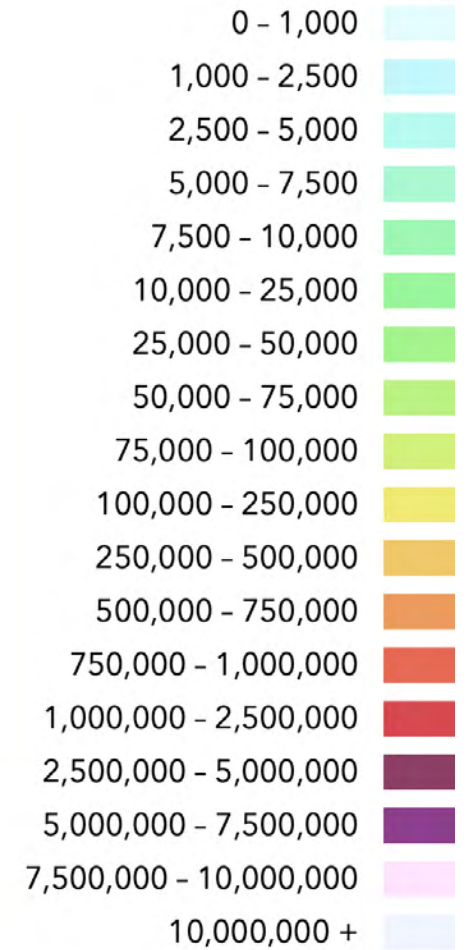
# Chicago

Chicago-Joliet-Naperville, IL-IN-WI

38



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

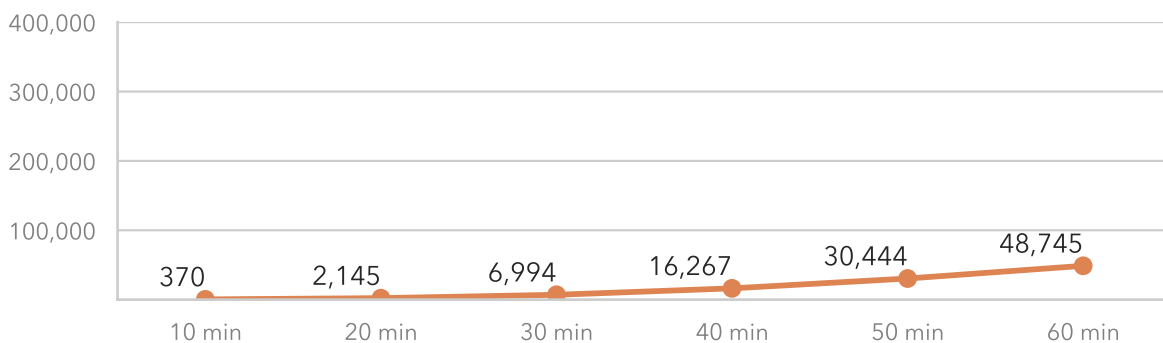
# Cincinnati

Cincinnati-Middletown, OH-KY-IN

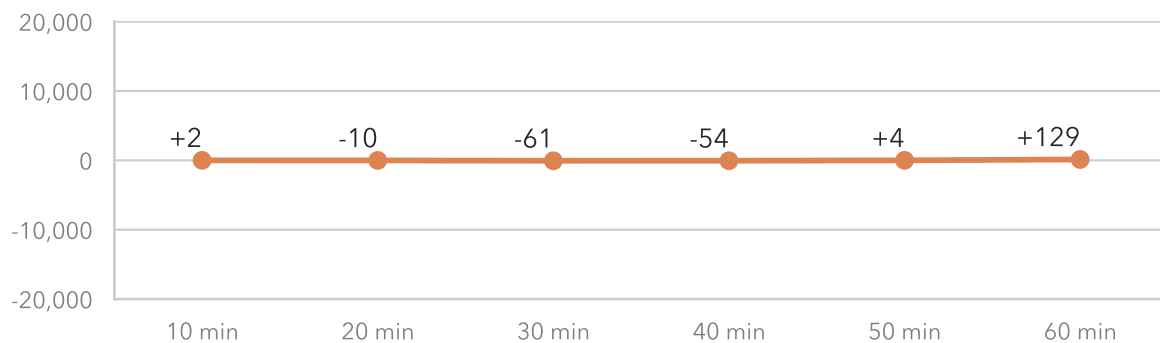
Rank by Weighted Accessibility	39
Rank by Total Employment	25
Rank by 1-Year Change in Weighted Accessibility	28
1-Year Change in Weighted Accessibility	-0.21%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,051,395
Average Job Density (per km <sup>2</sup> )	92
Total Workers	1,045,101
Average Worker Density (per km <sup>2</sup> )	92

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

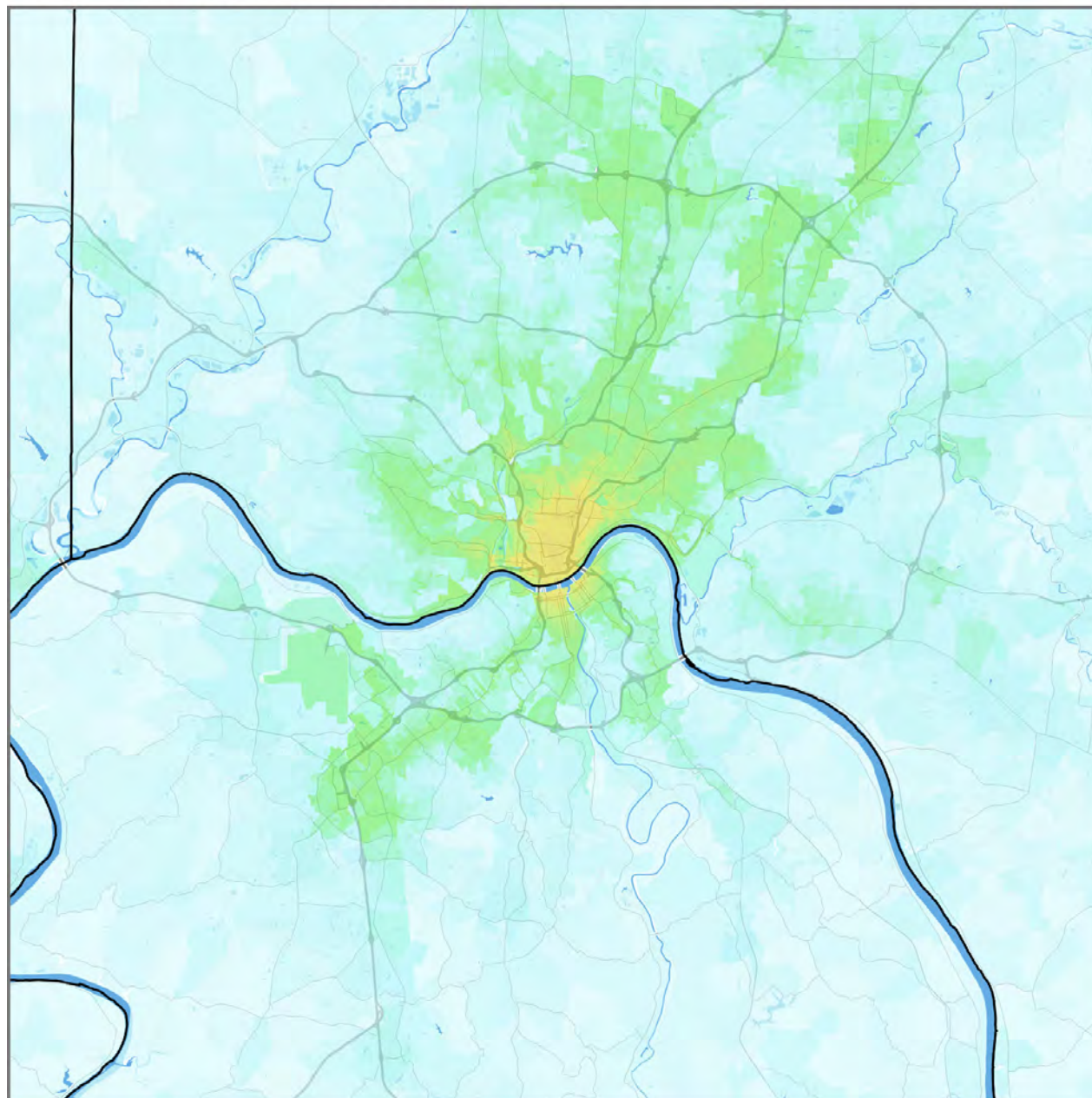


## Transit Schedules Included

Agency	Dates
Southwest Ohio Regional Transit Authority	December 2, 2018 - March 2, 2019
Transit Authority of Northern Kentucky	August 4, 2018 - November 2, 2019

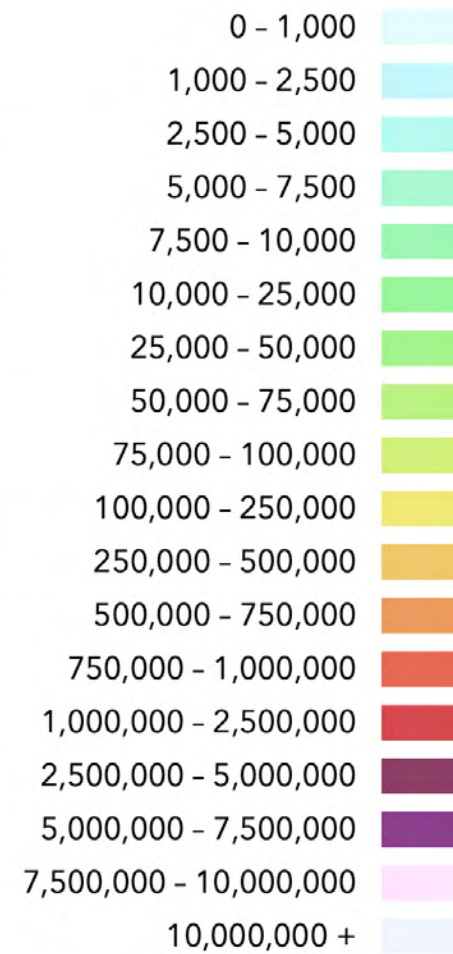
# Cincinnati

Cincinnati-Middletown, OH-KY-IN



## Jobs within 30 minutes

(Transit, AM peak)



State border —  
CBSA boundary —

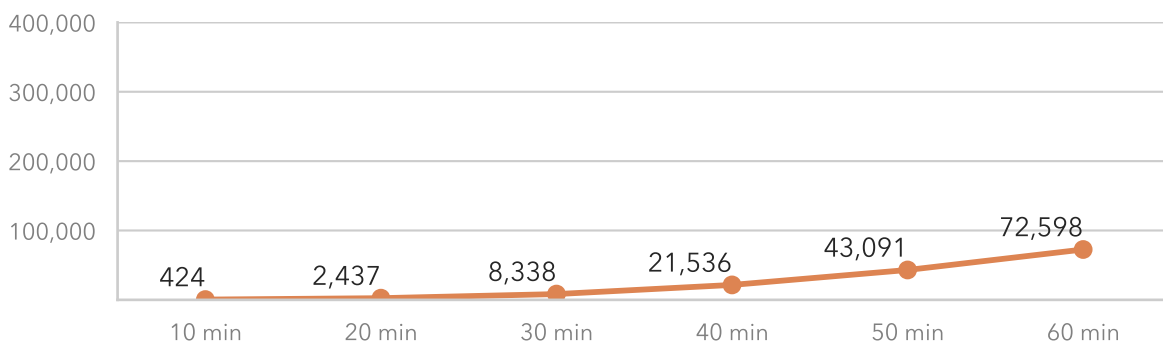
# Cleveland

Cleveland-Elyria-Mentor, OH

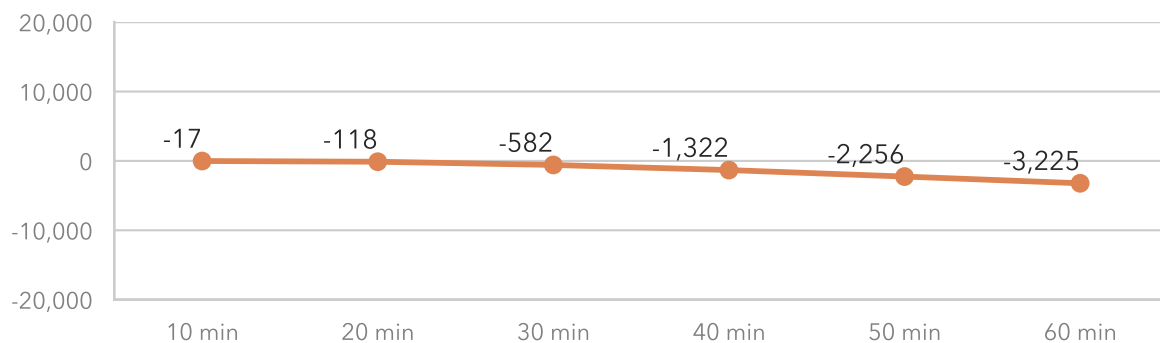
Rank by Weighted Accessibility	29
Rank by Total Employment	30
Rank by 1-Year Change in Weighted Accessibility	48
1-Year Change in Weighted Accessibility	-5.15%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,023,177
Average Job Density (per km <sup>2</sup> )	198
Total Workers	961,969
Average Worker Density (per km <sup>2</sup> )	186

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



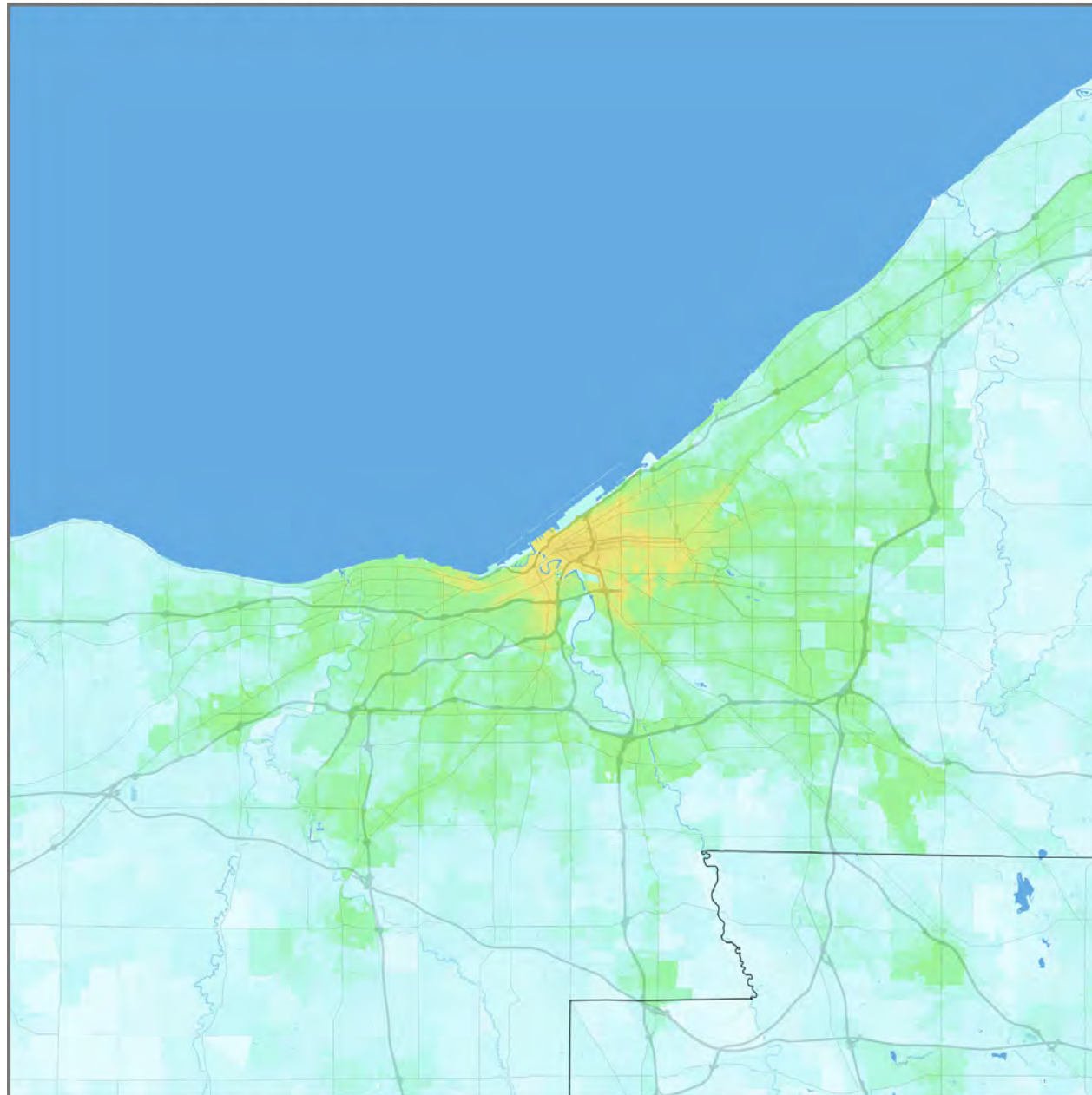
## Transit Schedules Included

Agency	Dates
Cuyahoga Valley Scenic Railroad	April 1, 2018 – October 28, 2018
Greater Cleveland Regional Transit Authority	December 2, 2018 – March 9, 2019
Laketran	January 1, 2016 – January 1, 2021
METRO	July 11, 2019 – July 10, 2020

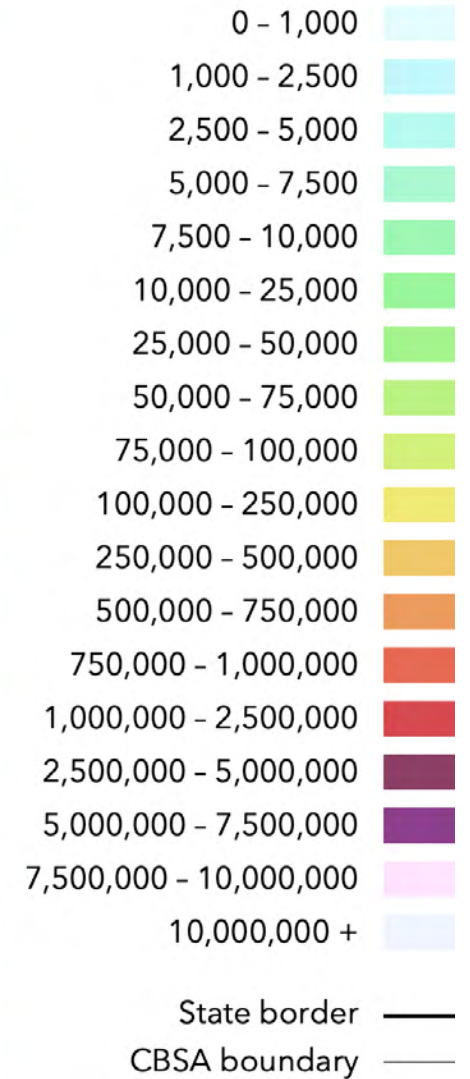


# Cleveland

Cleveland-Elyria-Mentor, OH



Jobs within 30 minutes  
(Transit, AM peak)



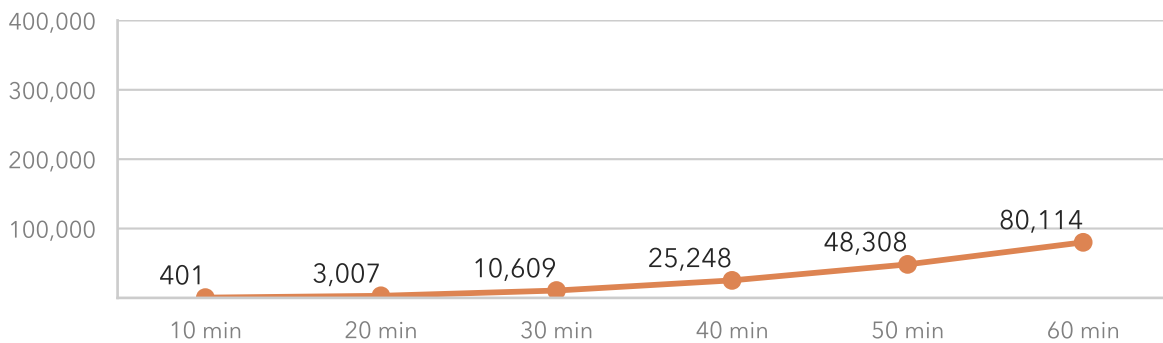
# Columbus

Columbus, OH

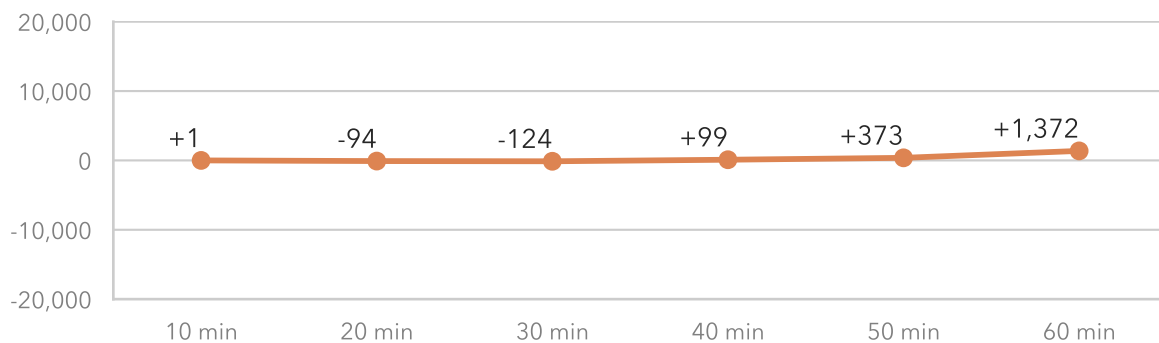
Rank by Weighted Accessibility	25
Rank by Total Employment	32
Rank by 1-Year Change in Weighted Accessibility	25
1-Year Change in Weighted Accessibility	+0.03%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	1,025,982
Average Job Density (per km <sup>2</sup> )	100
Total Workers	946,698
Average Worker Density (per km <sup>2</sup> )	92

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



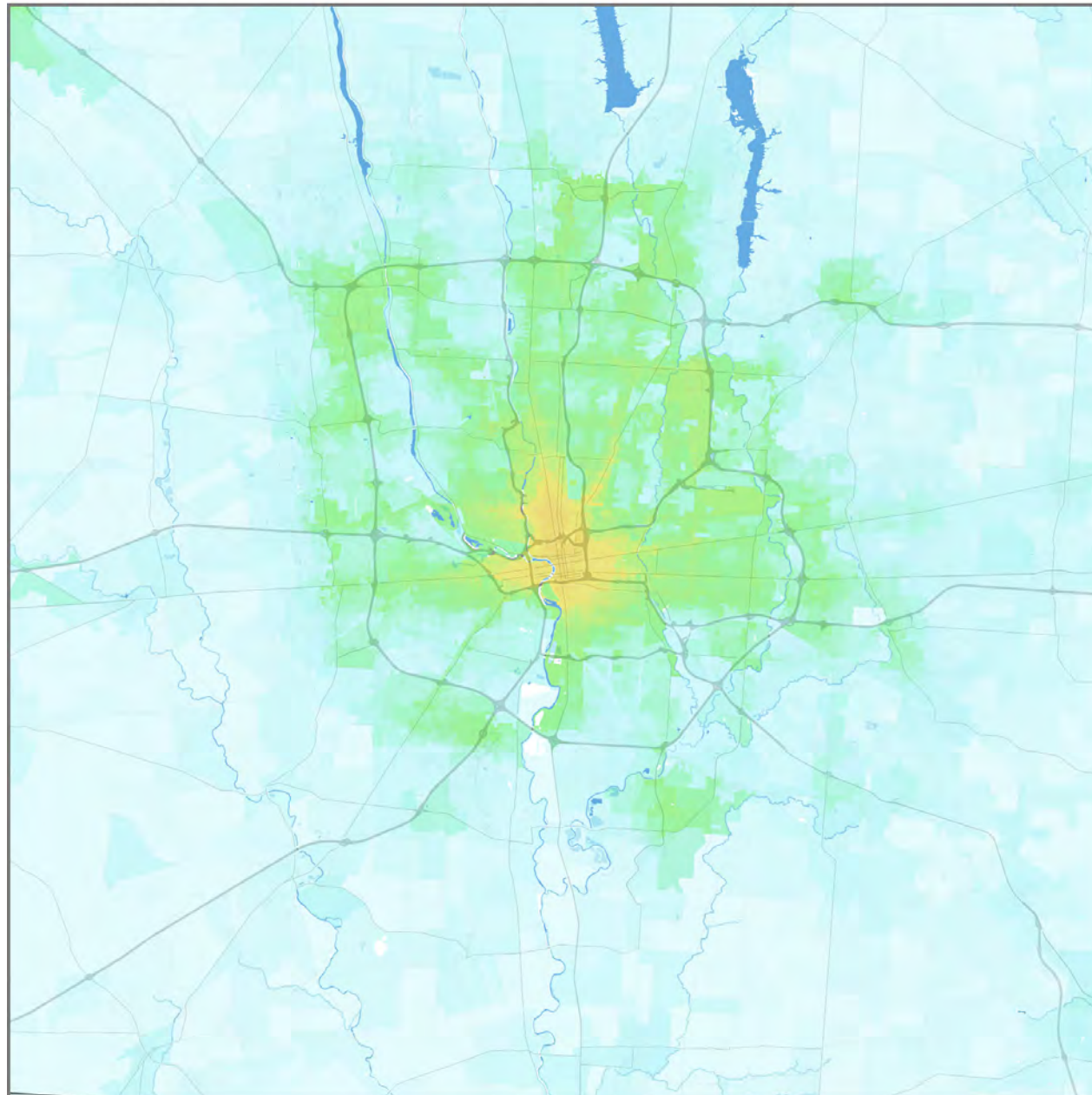


## Transit Schedules Included

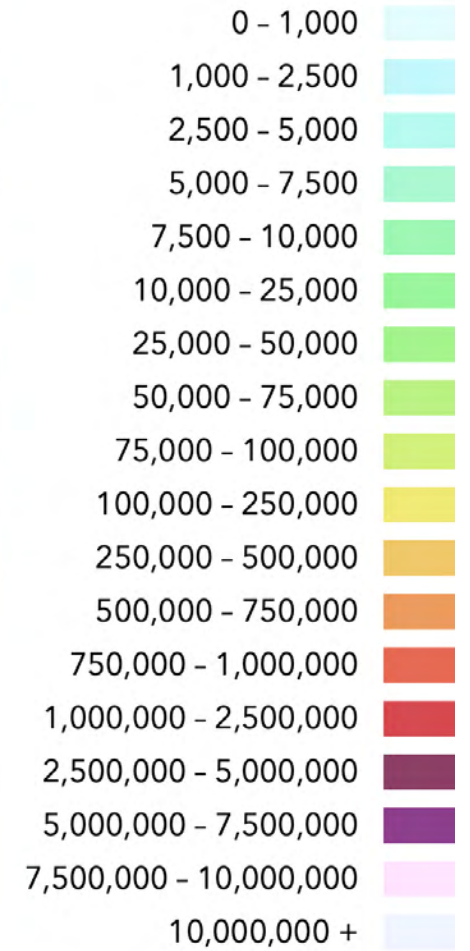
Agency	Dates
Central Ohio Transit Authority	May 6, 2019 - September 1, 2019
Delaware Area Transit Agency	June 28, 2019 - July 1, 2020
Delaware County Transit	June 28, 2019 - July 1, 2020

# Columbus

Columbus, OH



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

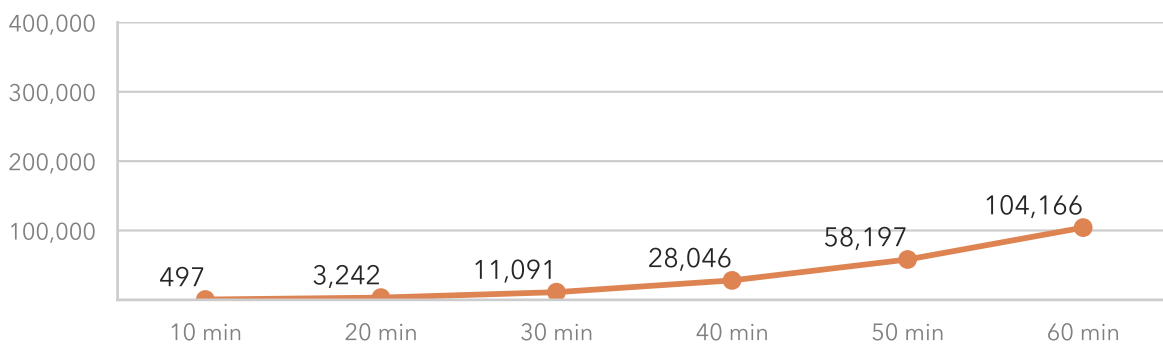
# Dallas

Dallas-Fort Worth-Arlington, TX

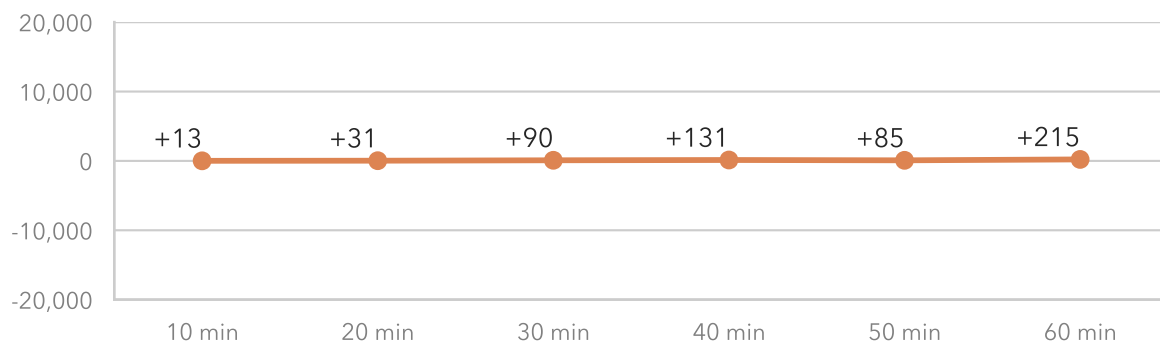
Rank by Weighted Accessibility	20
Rank by Total Employment	4
Rank by 1-Year Change in Weighted Accessibility	23
1-Year Change in Weighted Accessibility	+0.54%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	3,546,551
Average Job Density (per km <sup>2</sup> )	153
Total Workers	3,366,285
Average Worker Density (per km <sup>2</sup> )	146

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



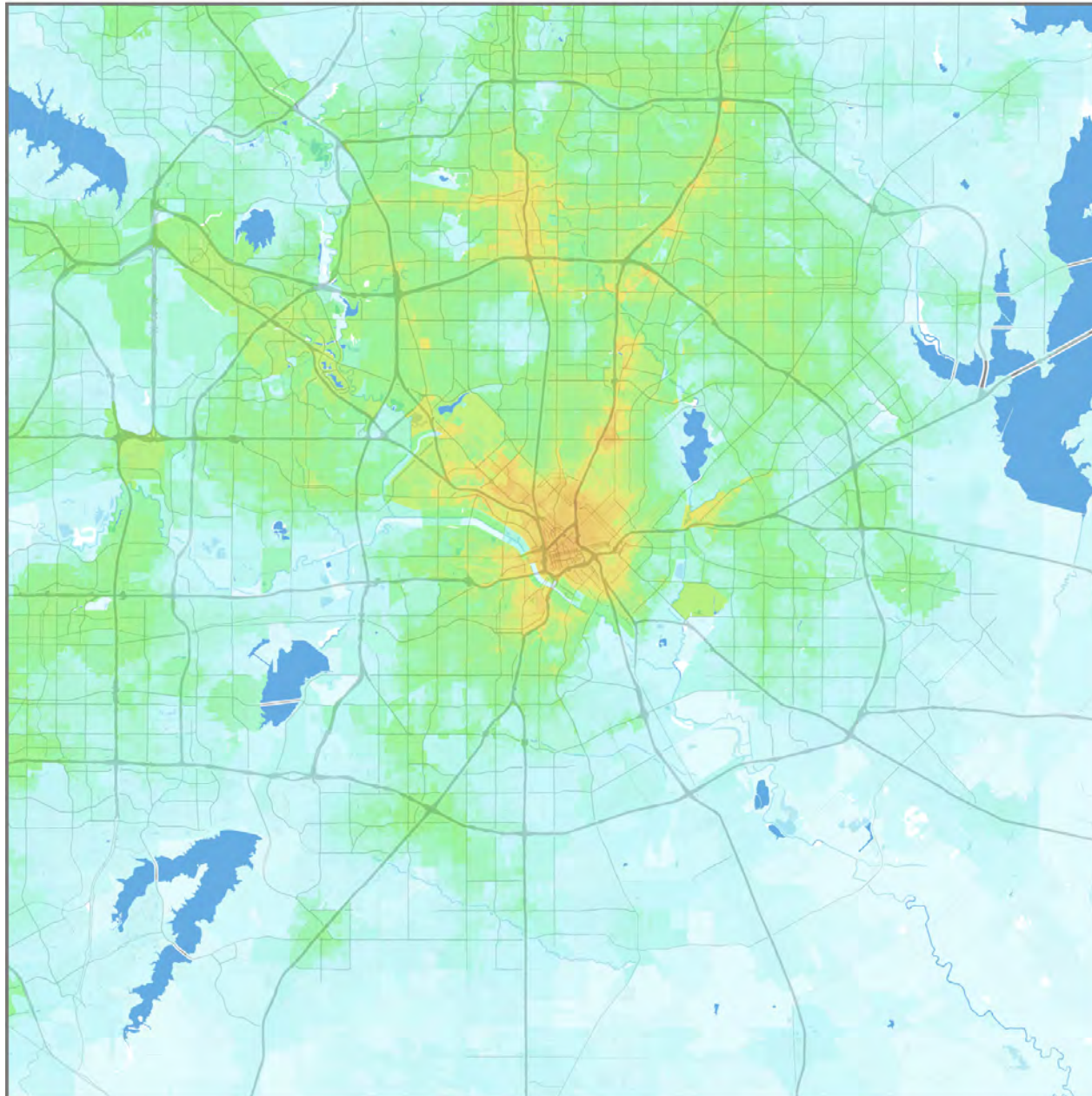
## Transit Schedules Included

Agency	Dates
DALLAS AREA RAPID TRANSIT	August 27, 2018 - March 24, 2019
Denton County Transportation Authority	August 26, 2018 - January 1, 2020
Grapevine Visitors Shuttle	May 5, 2019 - September 21, 2019
STAR Transit	January 1, 2016 - December 31, 2020
Trinity Metro	December 30, 2018 - April 20, 2019

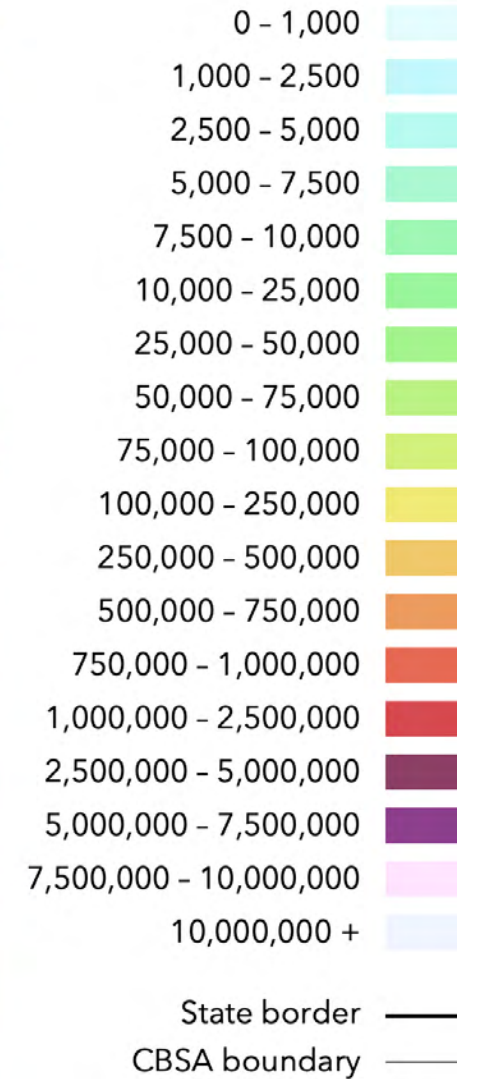
# Dallas

Dallas-Fort Worth-Arlington, TX

50



Jobs within 30 minutes  
(Transit, AM peak)





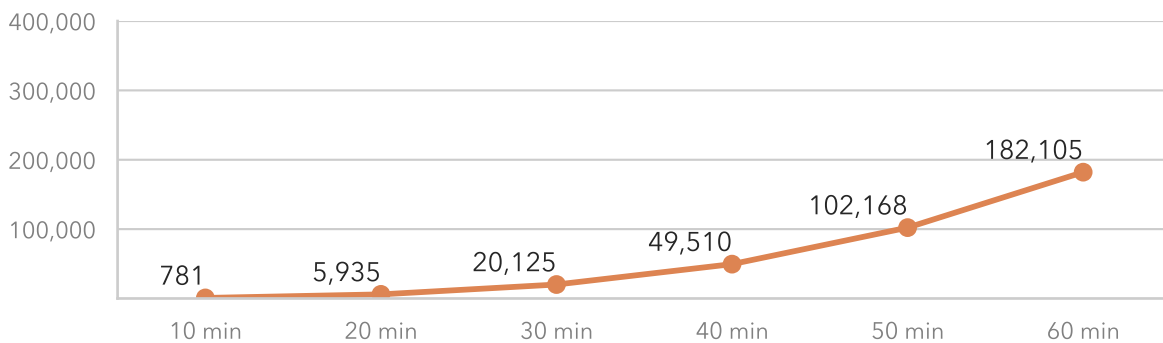
# Denver

Denver-Aurora-Broomfield, CO

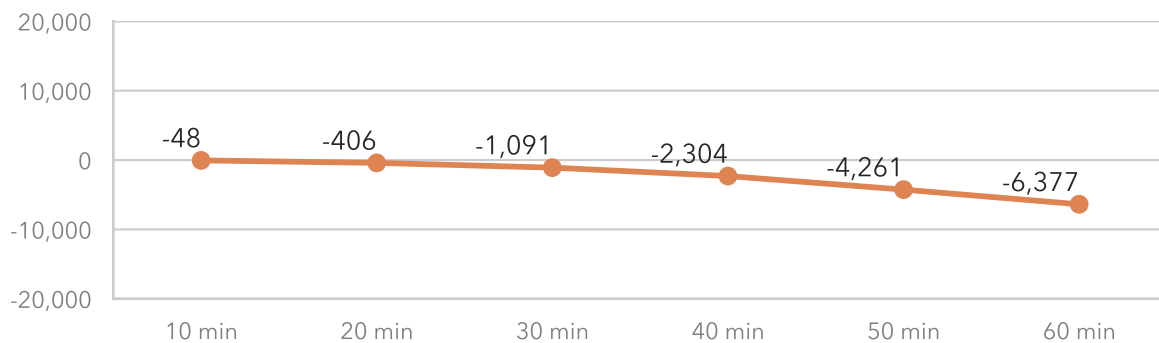
Rank by Weighted Accessibility	10
Rank by Total Employment	18
Rank by 1-Year Change in Weighted Accessibility	47
1-Year Change in Weighted Accessibility	-4.49%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	1,450,715
Average Job Density (per km <sup>2</sup> )	67
Total Workers	1,395,732
Average Worker Density (per km <sup>2</sup> )	65

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

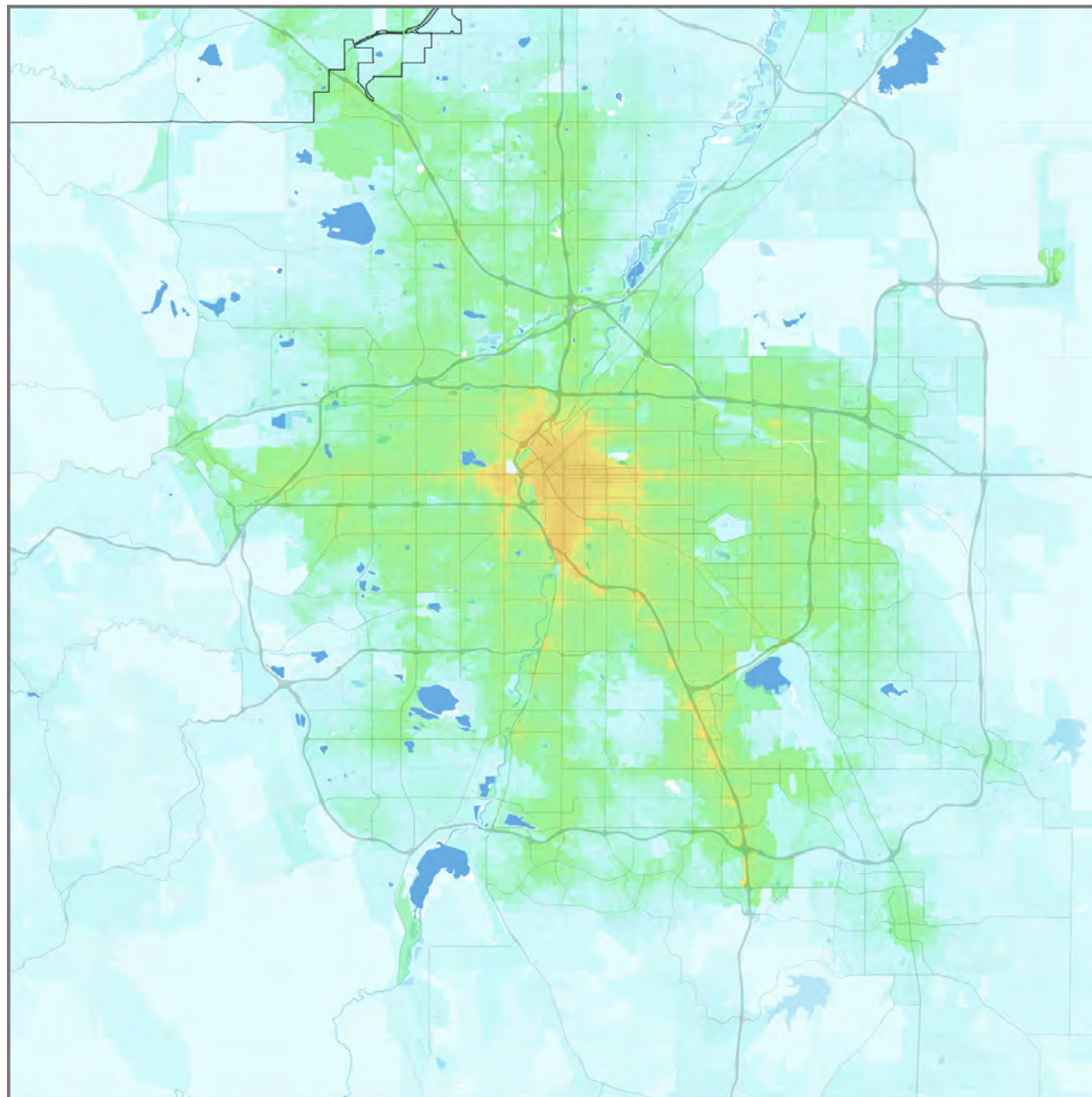


## Transit Schedules Included

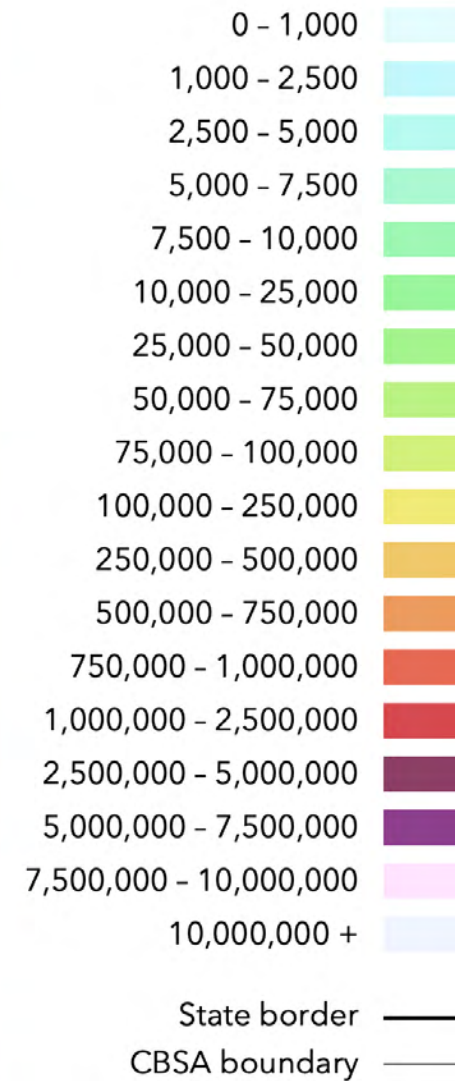
Agency	Dates
Bustang	August 15, 2018 - January 1, 2020
Regional Transportation District	January 13, 2019 - May 18, 2019

# Denver

Denver-Aurora-Broomfield, CO



Jobs within 30 minutes  
(Transit, AM peak)





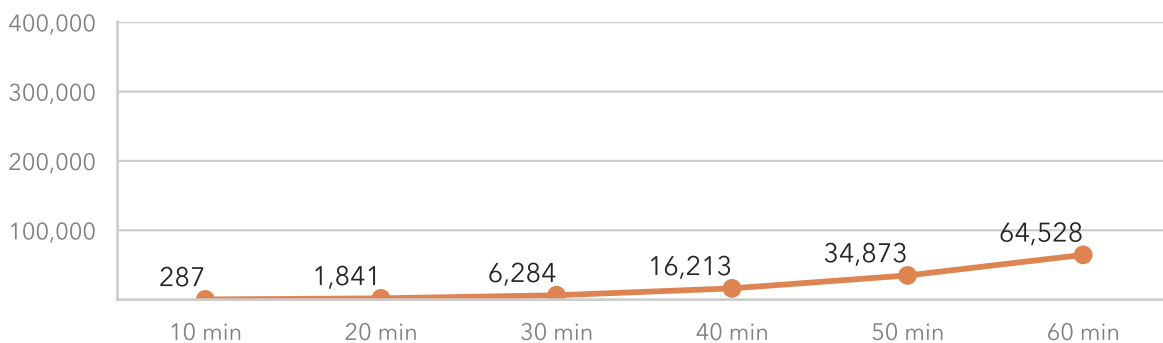
# Detroit

Detroit-Warren-Livonia, MI

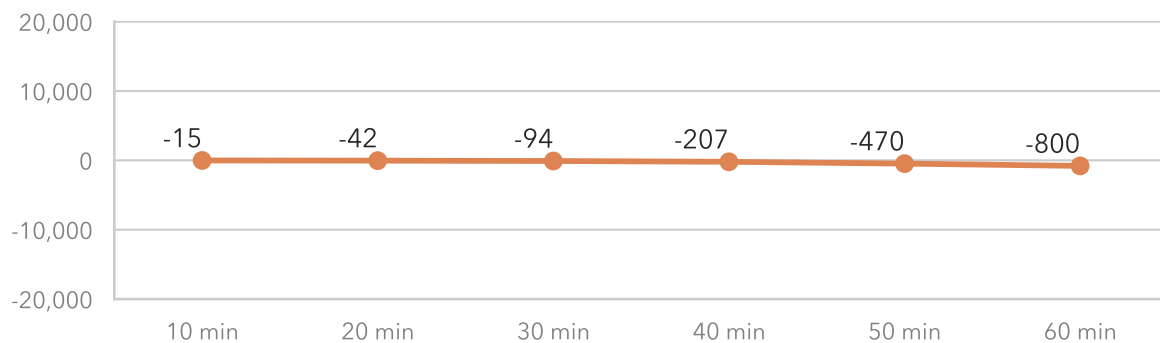
Rank by Weighted Accessibility	38
Rank by Total Employment	13
Rank by 1-Year Change in Weighted Accessibility	36
1-Year Change in Weighted Accessibility	-1.56%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	1,934,459
Average Job Density (per km <sup>2</sup> )	192
Total Workers	1,915,549
Average Worker Density (per km <sup>2</sup> )	190

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

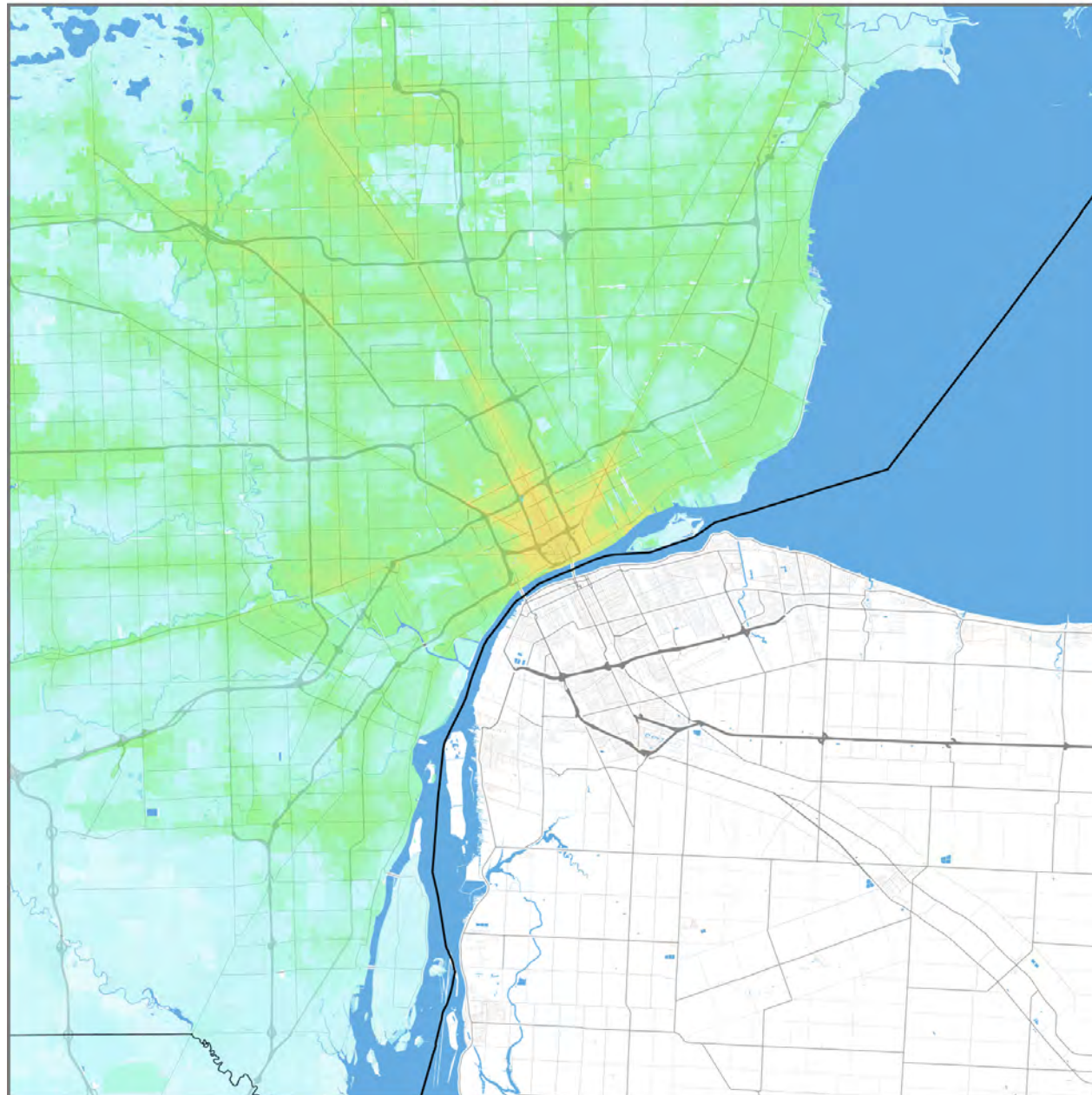


## Transit Schedules Included

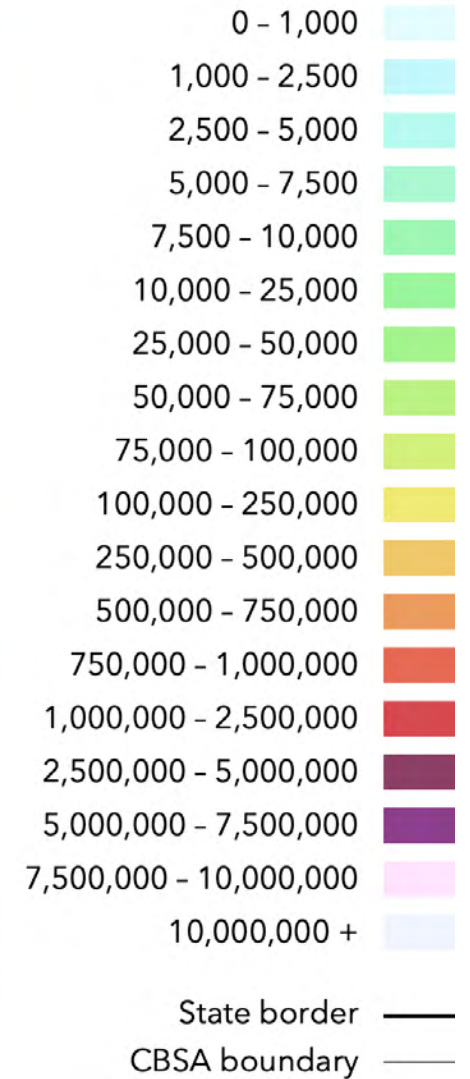
Agency	Dates
Ann Arbor Area Transportation Authority	August 27, 2017 - January 27, 2018
Detroit Department of Transportation	August 31, 2017 - February 26, 2018
SMART	January 2, 2017 - April 2, 2017

# Detroit

Detroit-Warren-Livonia, MI



Jobs within 30 minutes  
(Transit, AM peak)



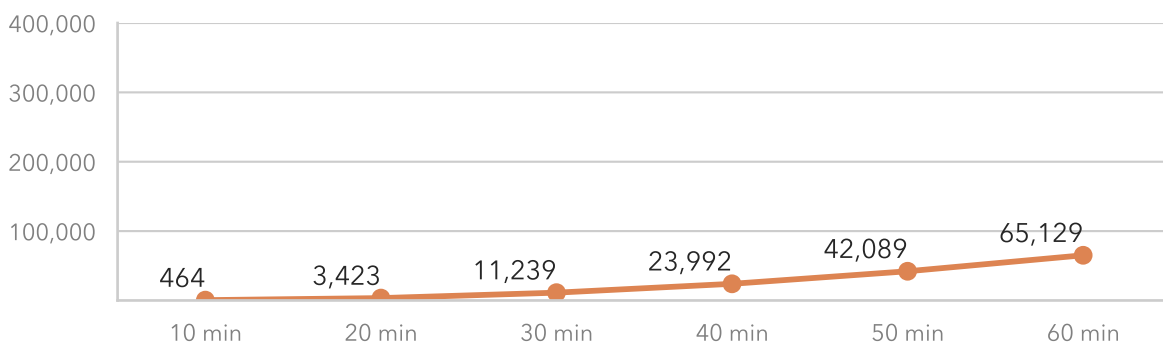
# Hartford

Hartford-West Hartford-East Hartford, CT

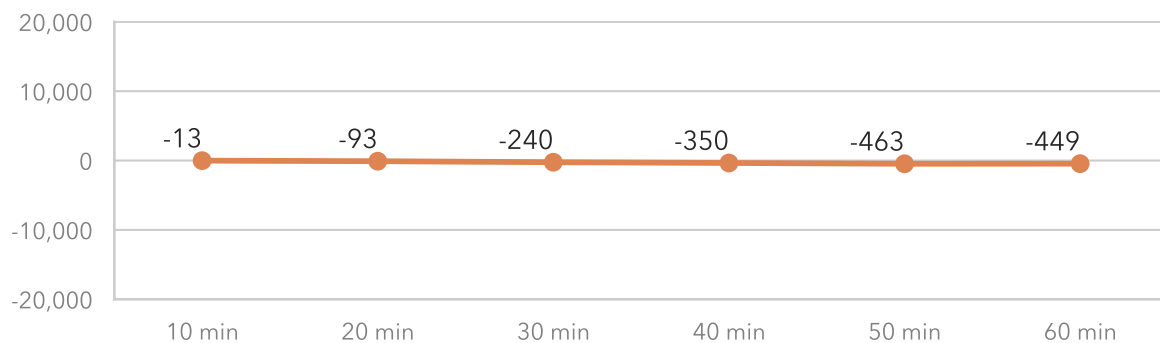
Rank by Weighted Accessibility	27
Rank by Total Employment	45
Rank by 1-Year Change in Weighted Accessibility	37
1-Year Change in Weighted Accessibility	-1.61%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	637,565
Average Job Density (per km <sup>2</sup> )	163
Total Workers	595,341
Average Worker Density (per km <sup>2</sup> )	152

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



## Transit Schedules Included

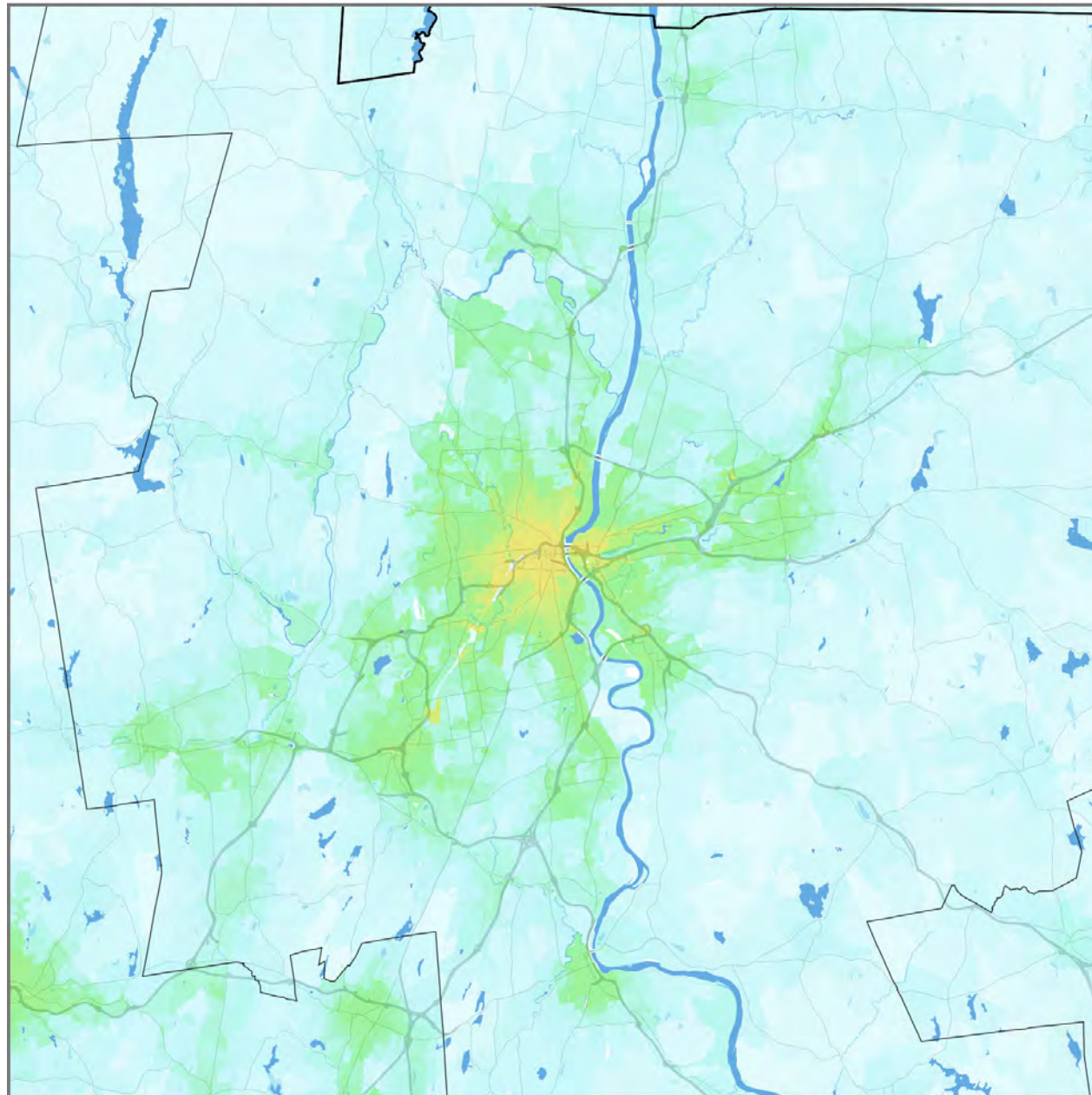
Agency	Dates
9 Town Transit	September 1, 2016 - December 31, 2020
CTTransit - New Britain	June 24, 2018 - July 30, 2020
CTTransit - Waterbury-Meriden	February 19, 2018 - May 25, 2019
CTTransit- Hartford	December 2, 2018 - May 25, 2019
PVTA	January 2, 2019 - September 2, 2019
Shore Line East	October 29, 2018 - October 28, 2019



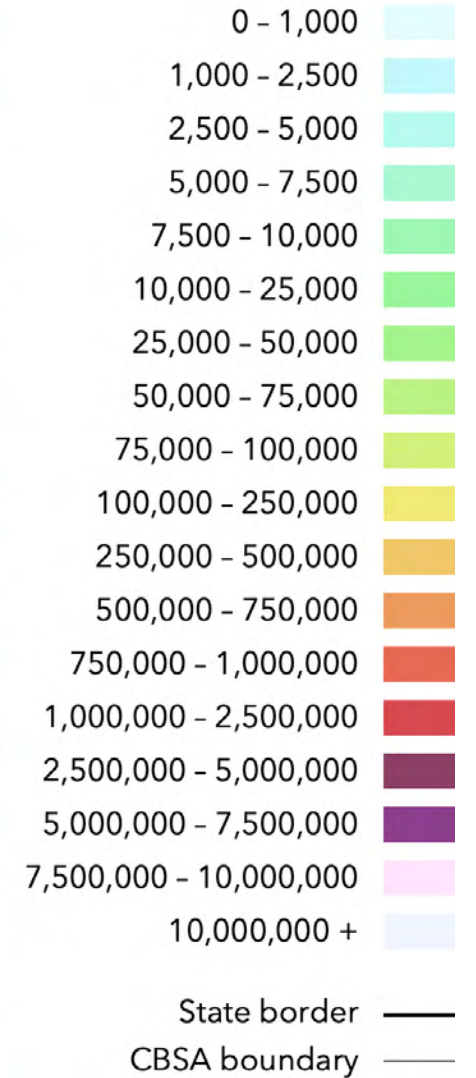
# Hartford

Hartford-West Hartford-East Hartford, CT

59



Jobs within 30 minutes  
(Transit, AM peak)



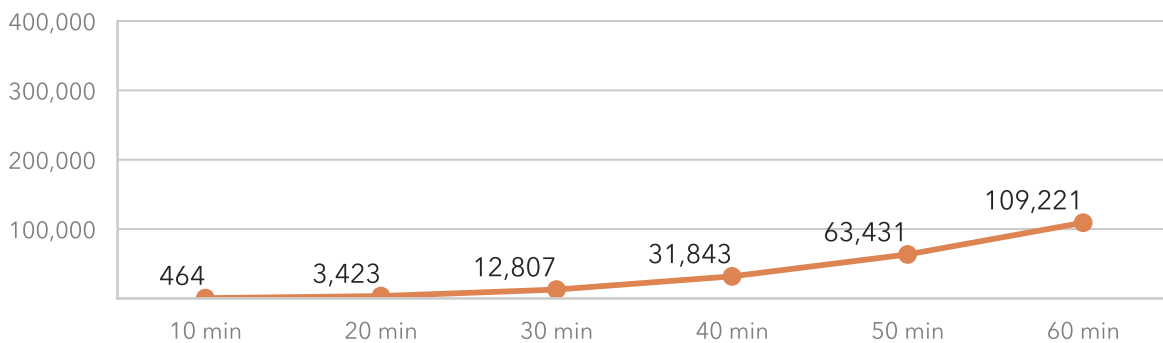
# Houston

Houston-Sugar Land-Baytown, TX

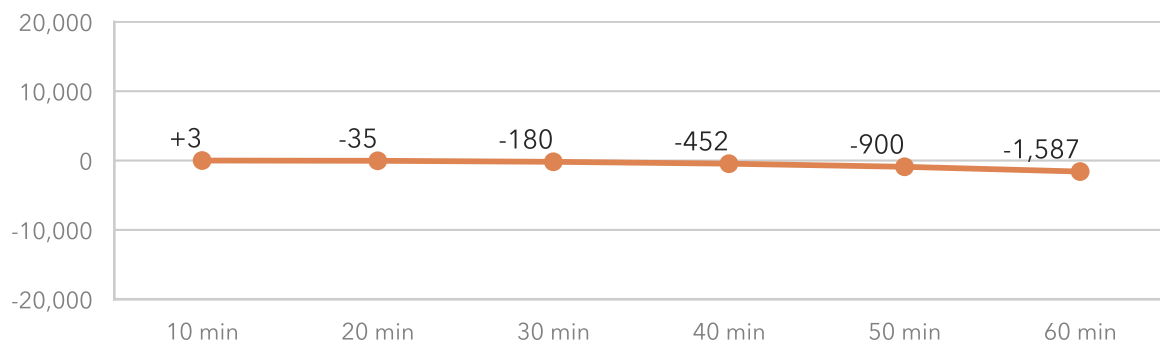
Rank by Weighted Accessibility	18
Rank by Total Employment	5
Rank by 1-Year Change in Weighted Accessibility	35
1-Year Change in Weighted Accessibility	-1.29%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	2,977,082
Average Job Density (per km <sup>2</sup> )	130
Total Workers	2,894,863
Average Worker Density (per km <sup>2</sup> )	127

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



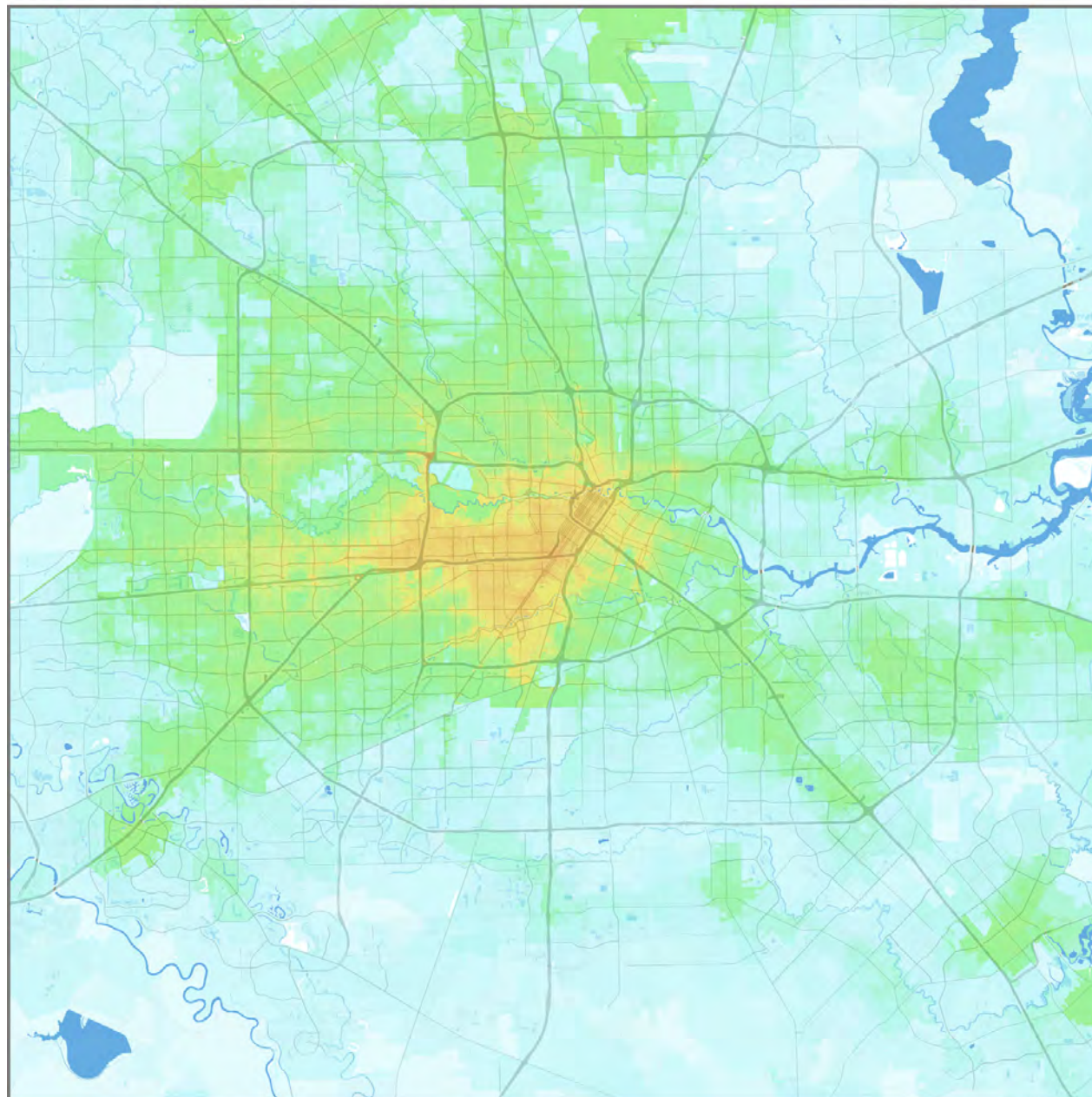
## Transit Schedules Included

Agency	Dates
Metropolitan Transit Authority of Harris County	August 26, 2018 - February 23, 2019

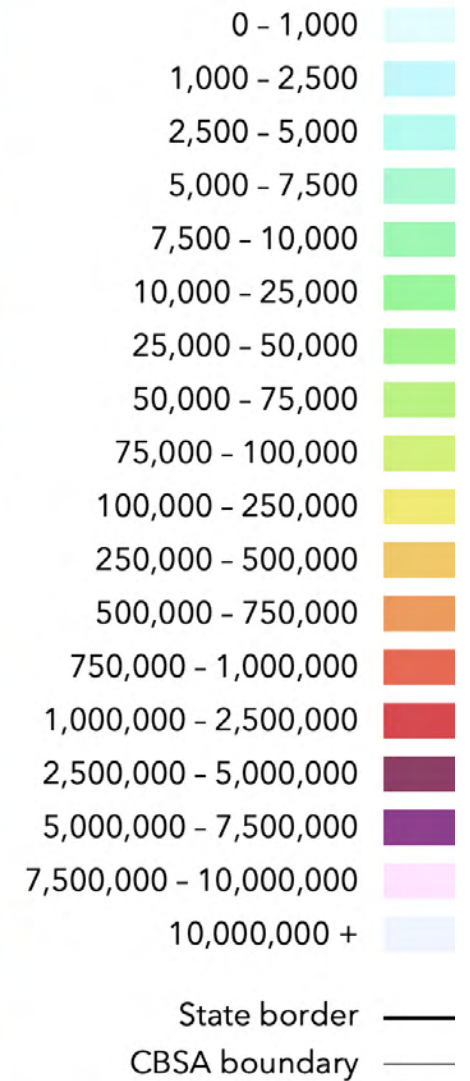


# Houston

Houston-Sugar Land-Baytown, TX



Jobs within 30 minutes  
(Transit, AM peak)



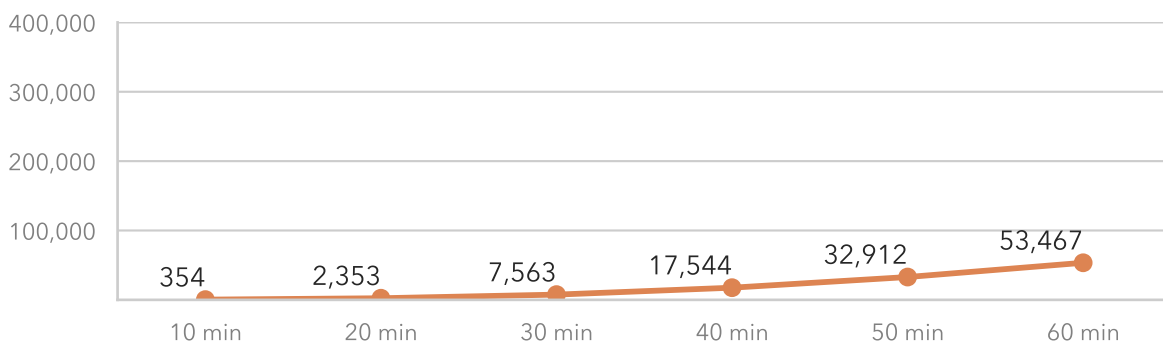
# Indianapolis

Indianapolis-Carmel, IN

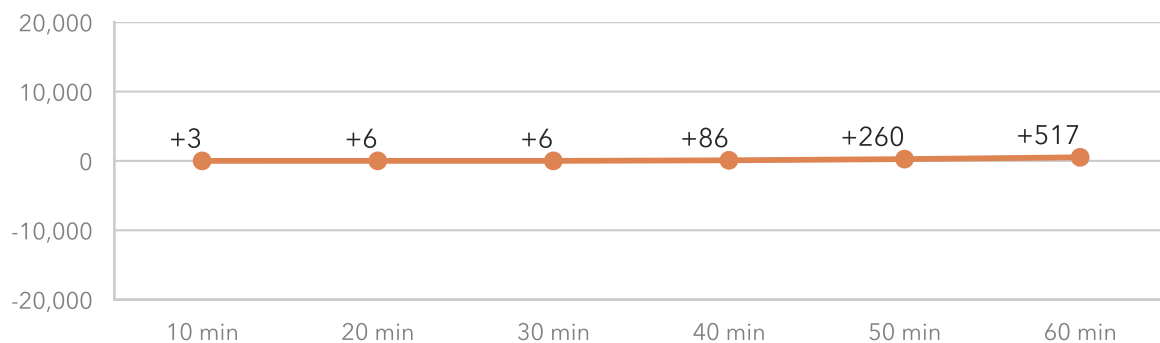
Rank by Weighted Accessibility	36
Rank by Total Employment	35
Rank by 1-Year Change in Weighted Accessibility	22
1-Year Change in Weighted Accessibility	+0.56%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,012,511
Average Job Density (per km <sup>2</sup> )	101
Total Workers	919,836
Average Worker Density (per km <sup>2</sup> )	92

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



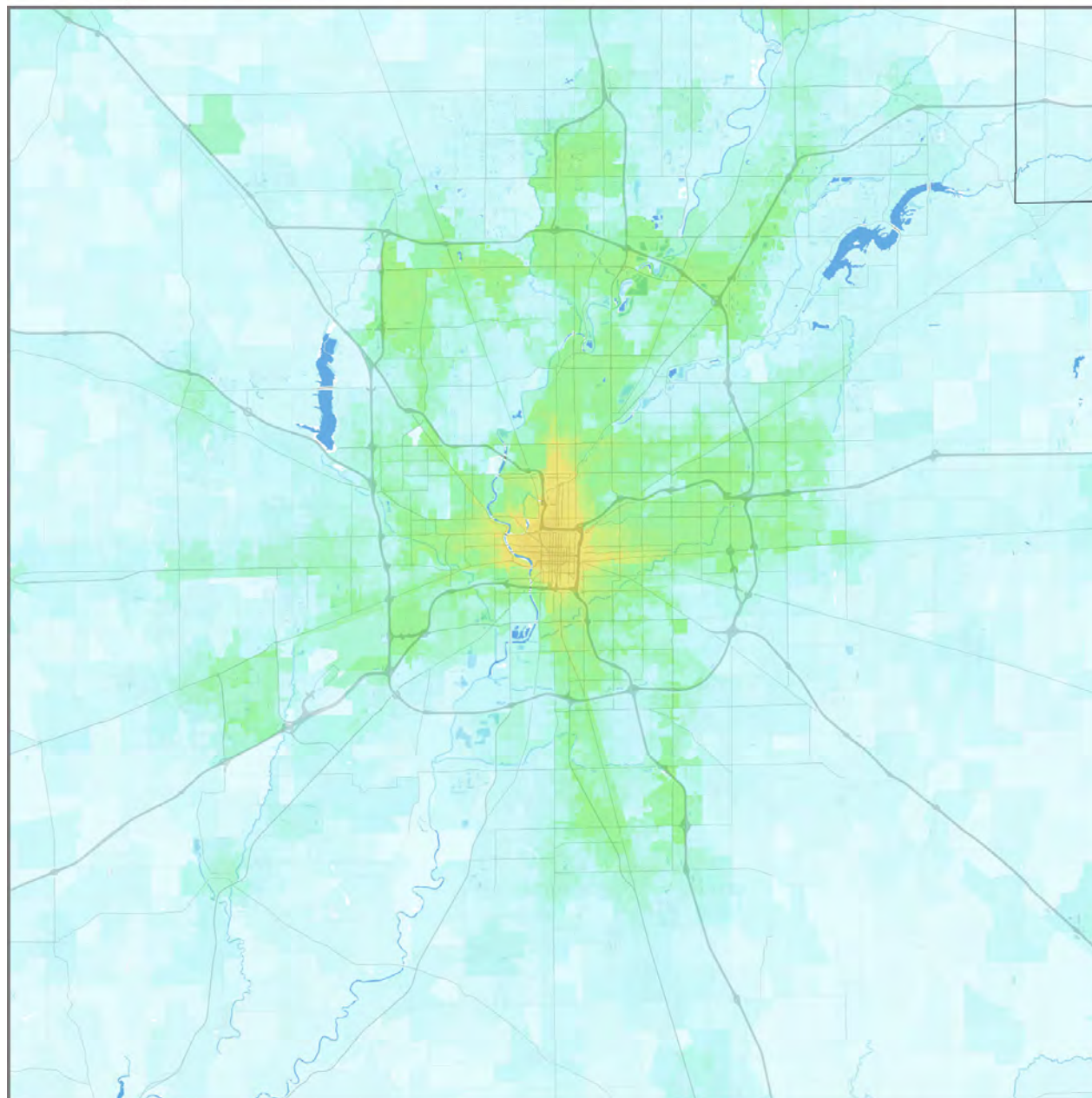
## Transit Schedules Included

Agency	Dates
Central Indiana Regional Transportation Authority	July 18, 2014 - December 31, 2019
IndyGo	August 12, 2018 - February 9, 2019

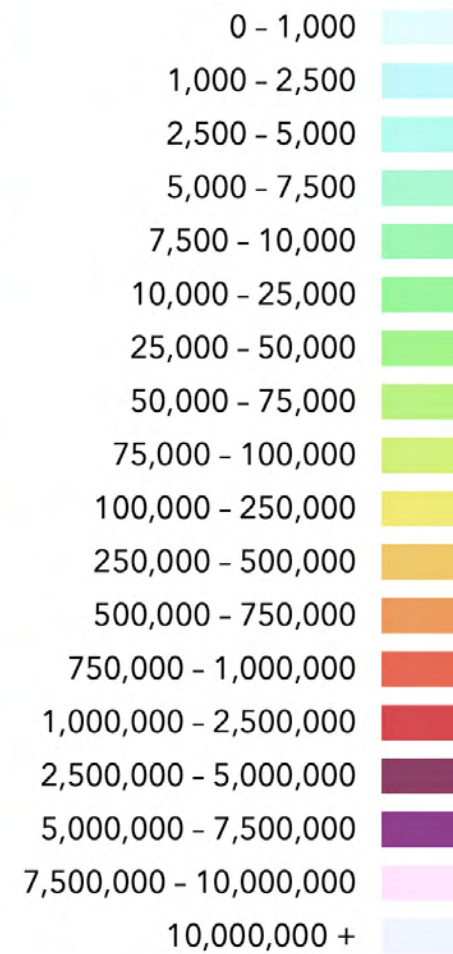


# Indianapolis

Indianapolis-Carmel, IN



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

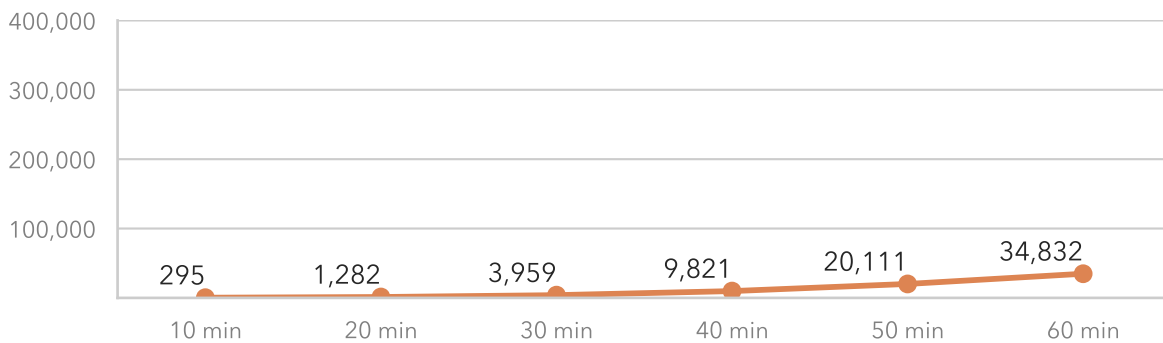
# Jacksonville

Jacksonville, FL

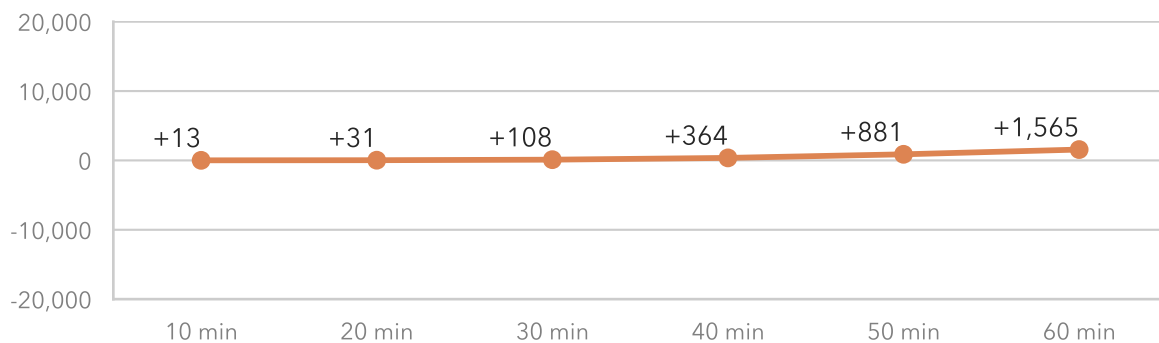
Rank by Weighted Accessibility	49
Rank by Total Employment	40
Rank by 1-Year Change in Weighted Accessibility	6
1-Year Change in Weighted Accessibility	+3.88%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	694,925
Average Job Density (per km <sup>2</sup> )	84
Total Workers	662,664
Average Worker Density (per km <sup>2</sup> )	80

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



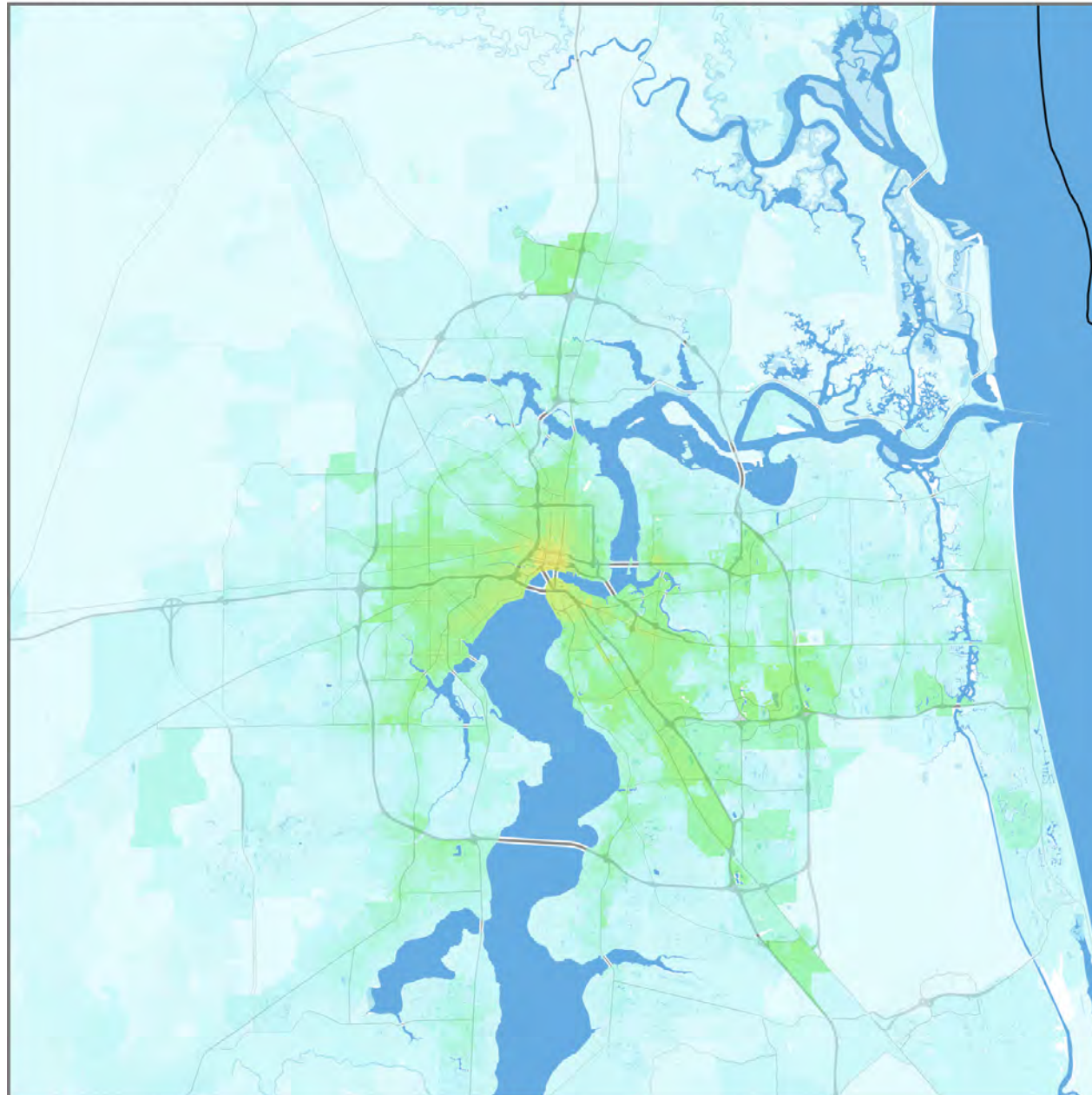
## Transit Schedules Included

Agency	Dates
Jacksonville Transportation Authority	December 3, 2018 - August 4, 2019
Sunshine Bus Company	July 1, 2015 - January 1, 2021

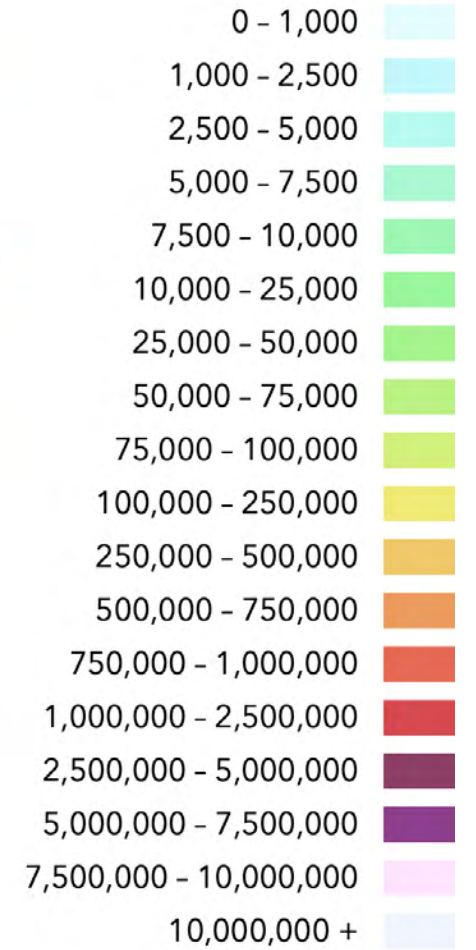
# Jacksonville

Jacksonville, FL

69



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

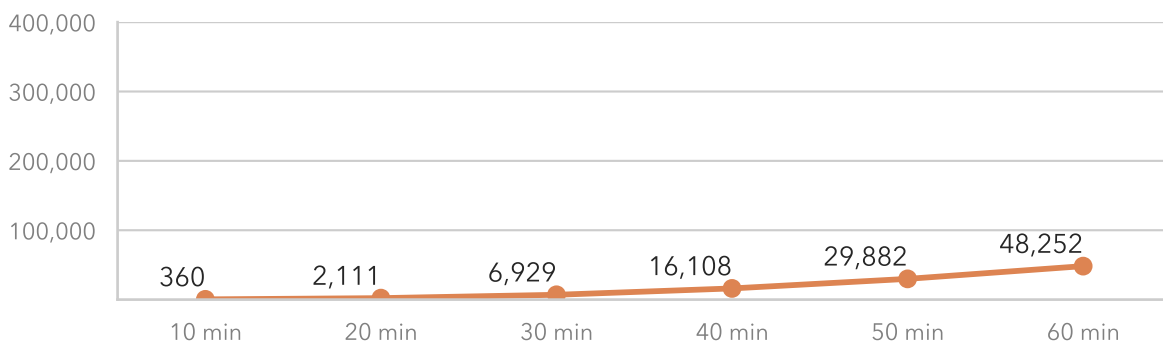
# Kansas City

Kansas City, MO-KS

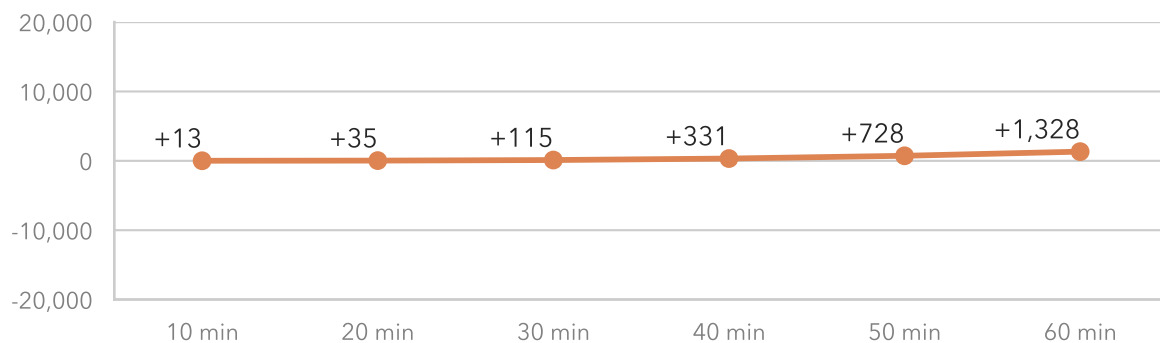
Rank by Weighted Accessibility	40
Rank by Total Employment	26
Rank by 1-Year Change in Weighted Accessibility	11
1-Year Change in Weighted Accessibility	+2.28%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,059,744
Average Job Density (per km <sup>2</sup> )	52
Total Workers	1,036,878
Average Worker Density (per km <sup>2</sup> )	51

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



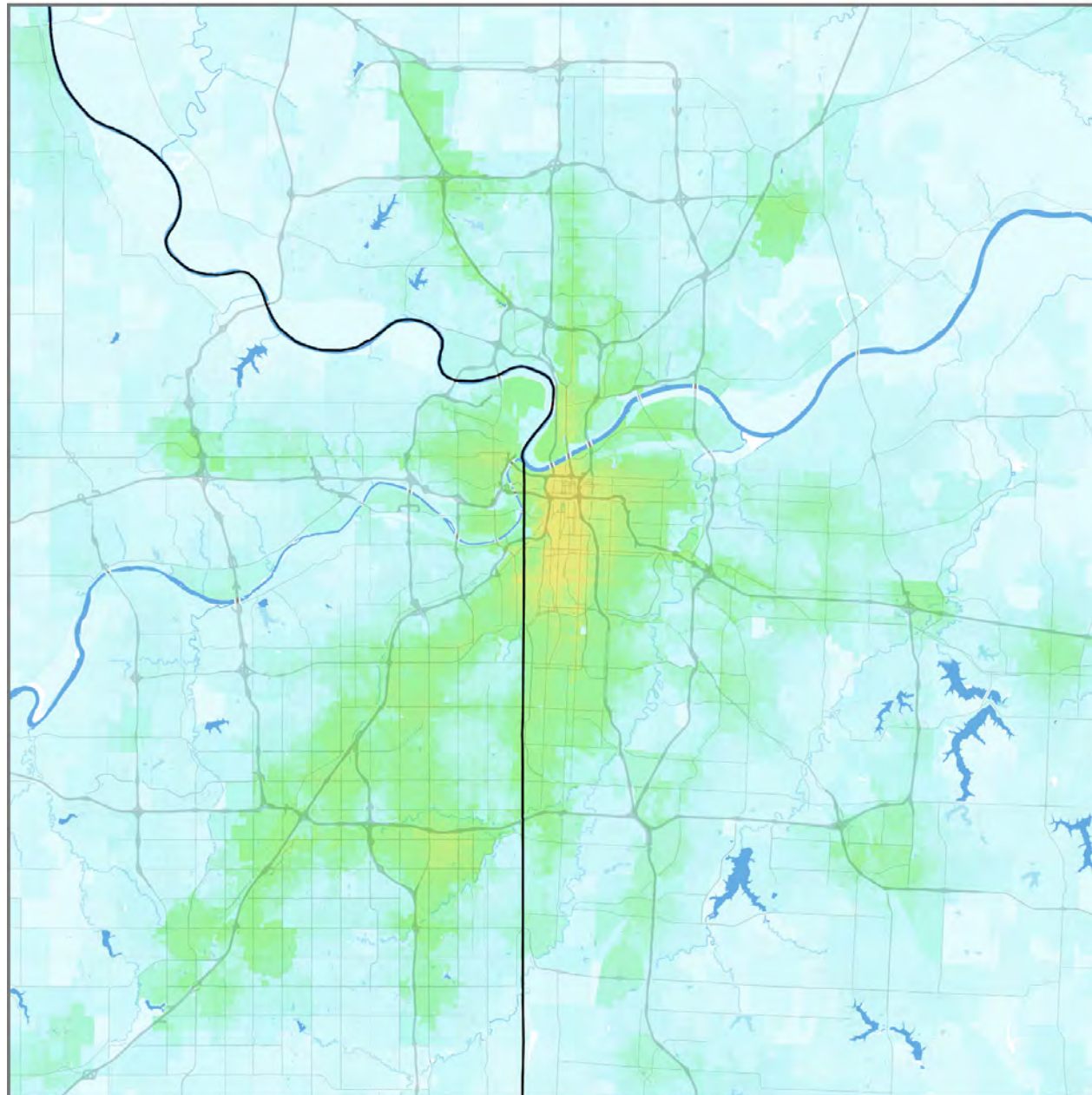


## Transit Schedules Included

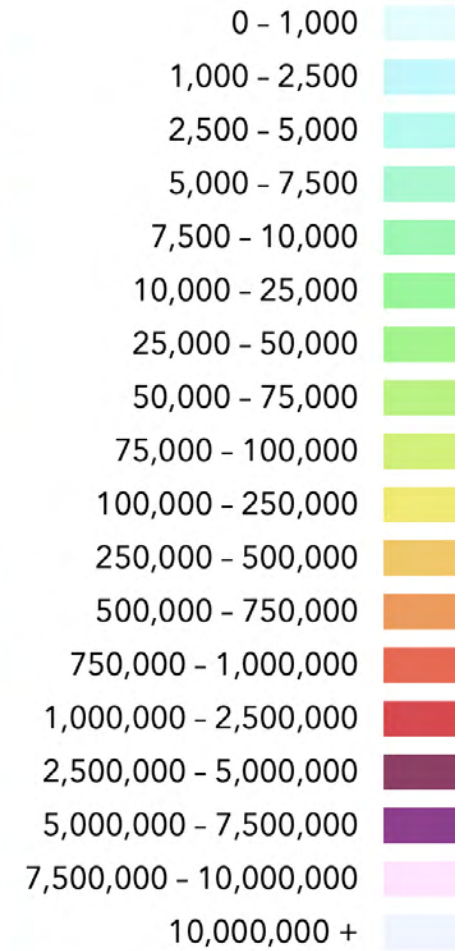
Agency	Dates
KCATA	January 6, 2019 - March 30, 2019
The JO	January 1, 2013 - May 31, 2019

# Kansas City

Kansas City, MO-KS



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

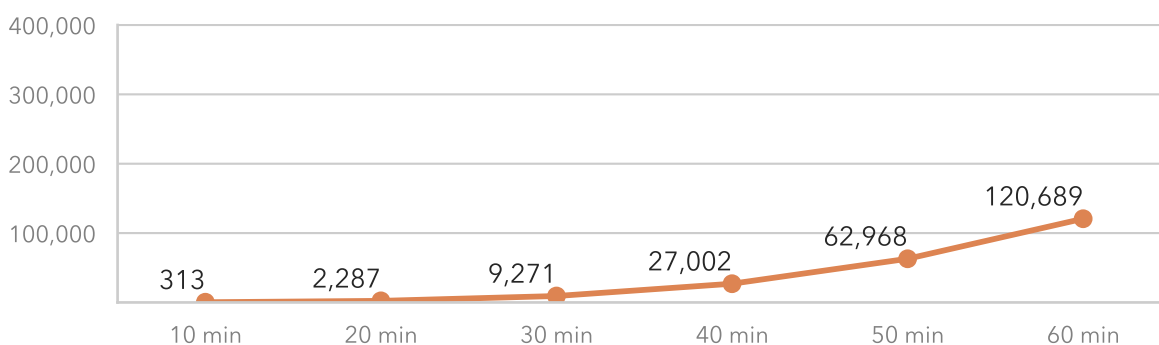
# Las Vegas

Las Vegas-Paradise, NV

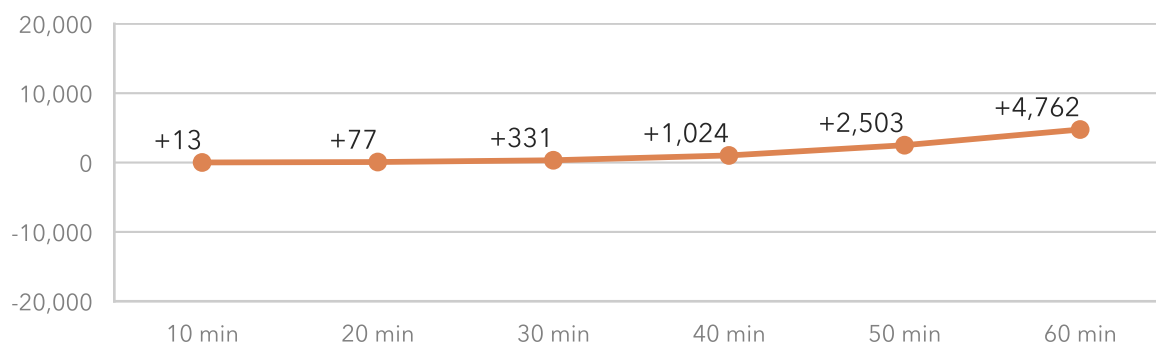
Rank by Weighted Accessibility	21
Rank by Total Employment	33
Rank by 1-Year Change in Weighted Accessibility	4
1-Year Change in Weighted Accessibility	+3.97%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	956,530
Average Job Density (per km <sup>2</sup> )	47
Total Workers	941,812
Average Worker Density (per km <sup>2</sup> )	46

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

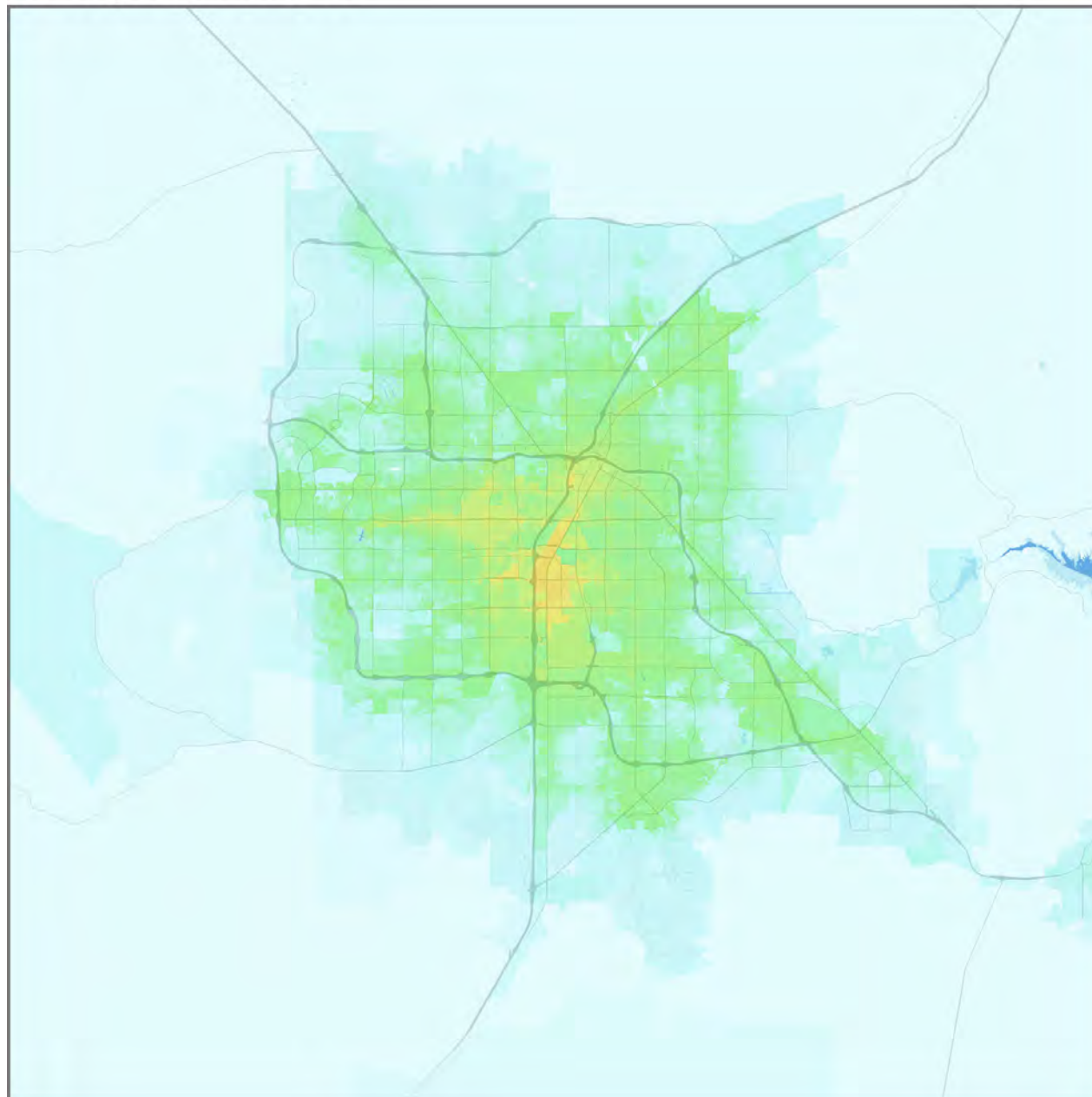


## Transit Schedules Included

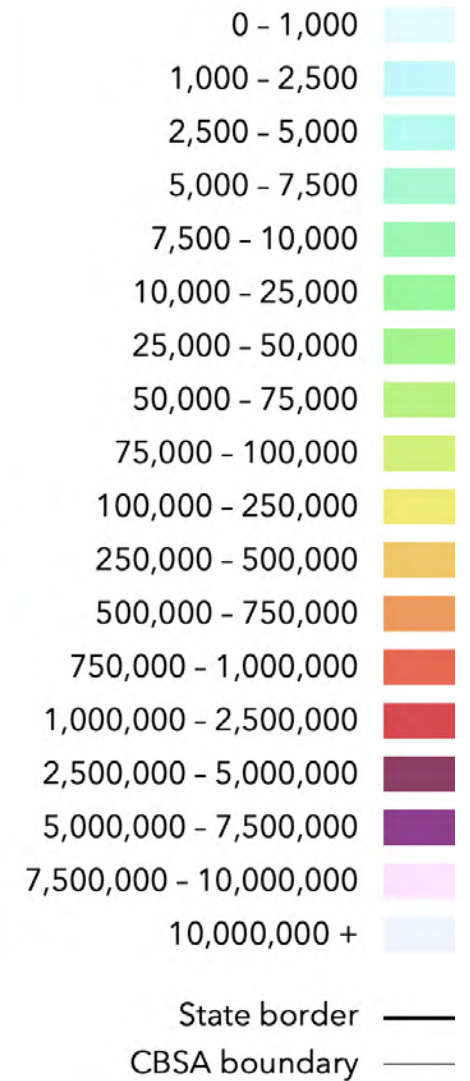
Agency	Dates
Regional Transportation Commission of Southern Nevada	March 10, 2019 - March 7, 2020

# Las Vegas

Las Vegas-Paradise, NV



Jobs within 30 minutes  
(Transit, AM peak)



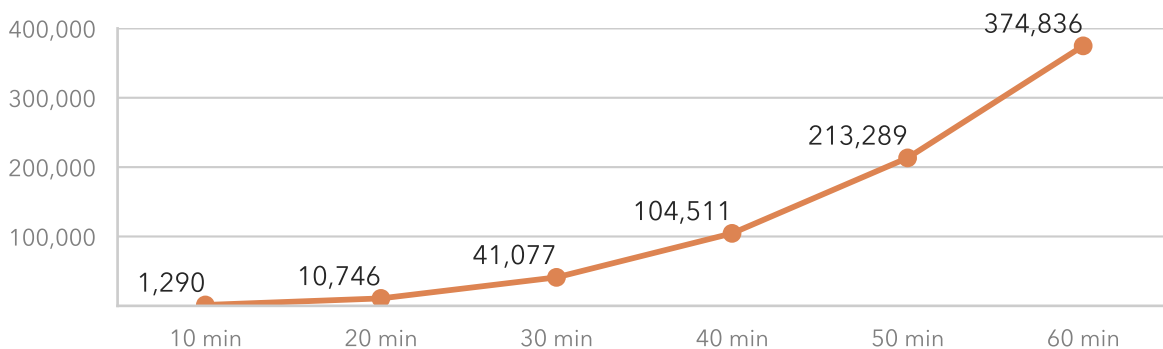
# Los Angeles

Los Angeles-Long Beach-Santa Ana, CA

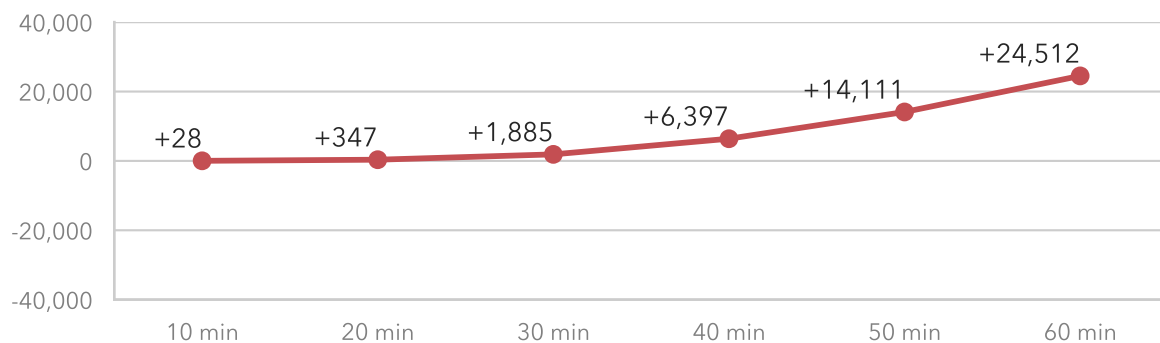
Rank by Weighted Accessibility	4
Rank by Total Employment	2
Rank by 1-Year Change in Weighted Accessibility	3
1-Year Change in Weighted Accessibility	+5.96%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	6,249,699
Average Job Density (per km <sup>2</sup> )	498
Total Workers	5,825,012
Average Worker Density (per km <sup>2</sup> )	464

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



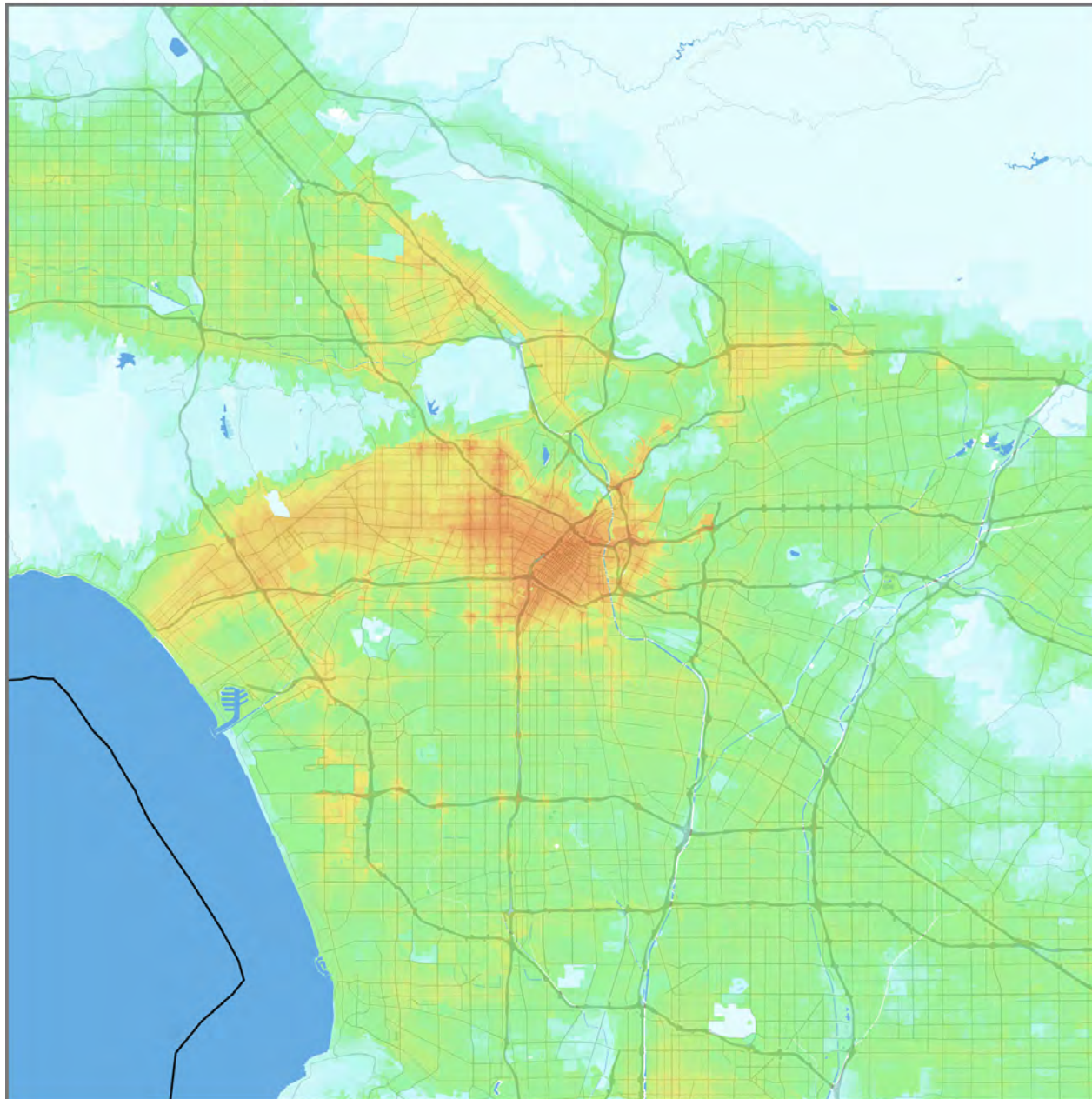
## Transit Schedules Included

Agency	Dates
Anaheim Resort Transportation	October 18, 2018 – January 1, 2020
Avalon Transit	April 2, 2019 – September 15, 2019
Big Blue Bus	September 16, 2018 – March 16, 2019
Burbank Bus	April 30, 2018 – June 15, 2020
Culver CityBus	September 17, 2018 – January 6, 2019
Duarte Transit	January 1, 2016 – January 1, 2020
Eastern Sierra Transit Authority	January 2, 2015 – May 27, 2030
El Monte Transit	July 25, 2017 – January 1, 2021
Foothill Transit	July 3, 2018 – February 2, 2019
Glendale Beeline	July 6, 2018 – July 1, 2020
Kern Transit	January 1, 2017 – January 1, 2020
LADOT	May 1, 2018 – December 25, 2019
Laguna Beach Transit	January 1, 2013 – January 1, 2021
Long Beach Transit	August 26, 2018 – February 9, 2019
Metro - Los Angeles - Bus	January 26, 2019 – June 22, 2019
Metro - Los Angeles - Rail	January 31, 2019 – February 14, 2019
Metrolink Trains	September 1, 2017 – December 31, 2017
Norwalk Transit System	May 13, 2018 – January 1, 2021
OMNITRANS	January 7, 2019 – September 1, 2019
Orange County Transportation Authority	June 10, 2018 – February 10, 2019
Palos Verdes Peninsula Transit Authority	January 2, 2015 – January 1, 2021
Pasadena Transit	March 10, 2019 – December 31, 2020
Riverside Transit Agency	January 13, 2019 – May 11, 2019
Simi Valley Transit	October 1, 2017 – January 1, 2021
Spirit Bus	January 1, 2016 – January 1, 2019
TORRANCE TRANSIT SYSTEM	January 6, 2019 – April 13, 2019
Thousand Oaks Transit	January 1, 2016 – January 1, 2021
Ventura County Transportation Commission	January 14, 2019 – May 10, 2019

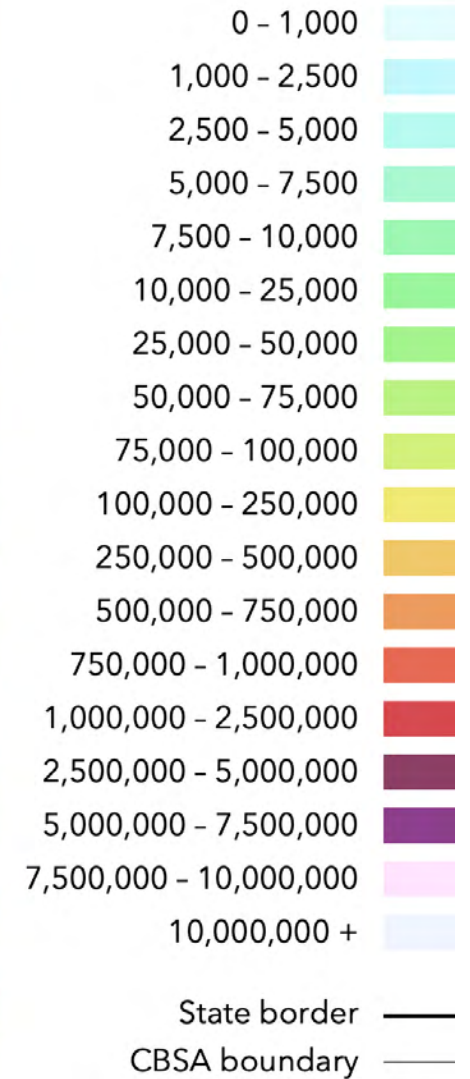


# Los Angeles

Los Angeles-Long Beach-Santa Ana, CA



Jobs within 30 minutes  
(Transit, AM peak)





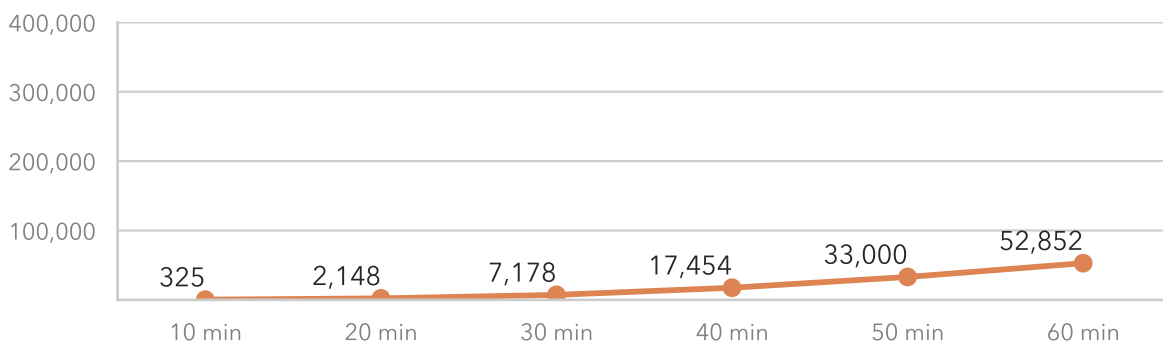
# Louisville

Louisville/Jefferson County, KY-IN

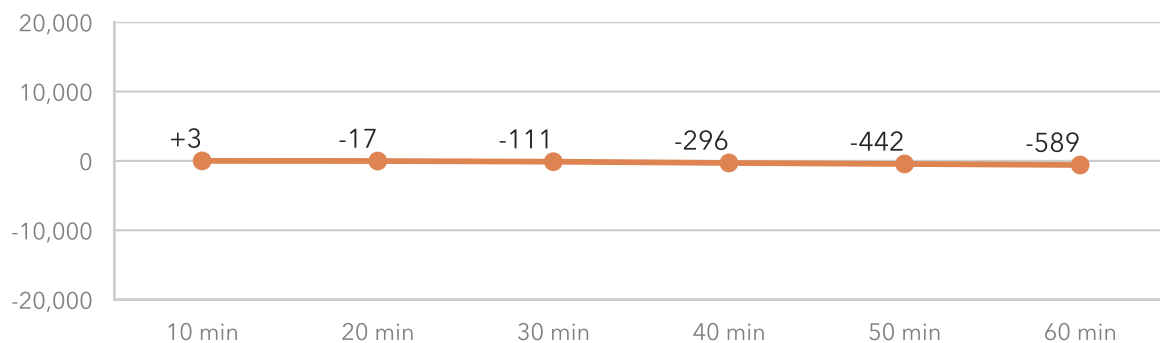
Rank by Weighted Accessibility	37
Rank by Total Employment	41
Rank by 1-Year Change in Weighted Accessibility	34
1-Year Change in Weighted Accessibility	-1.22%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	668,246
Average Job Density (per km <sup>2</sup> )	63
Total Workers	645,505
Average Worker Density (per km <sup>2</sup> )	61

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



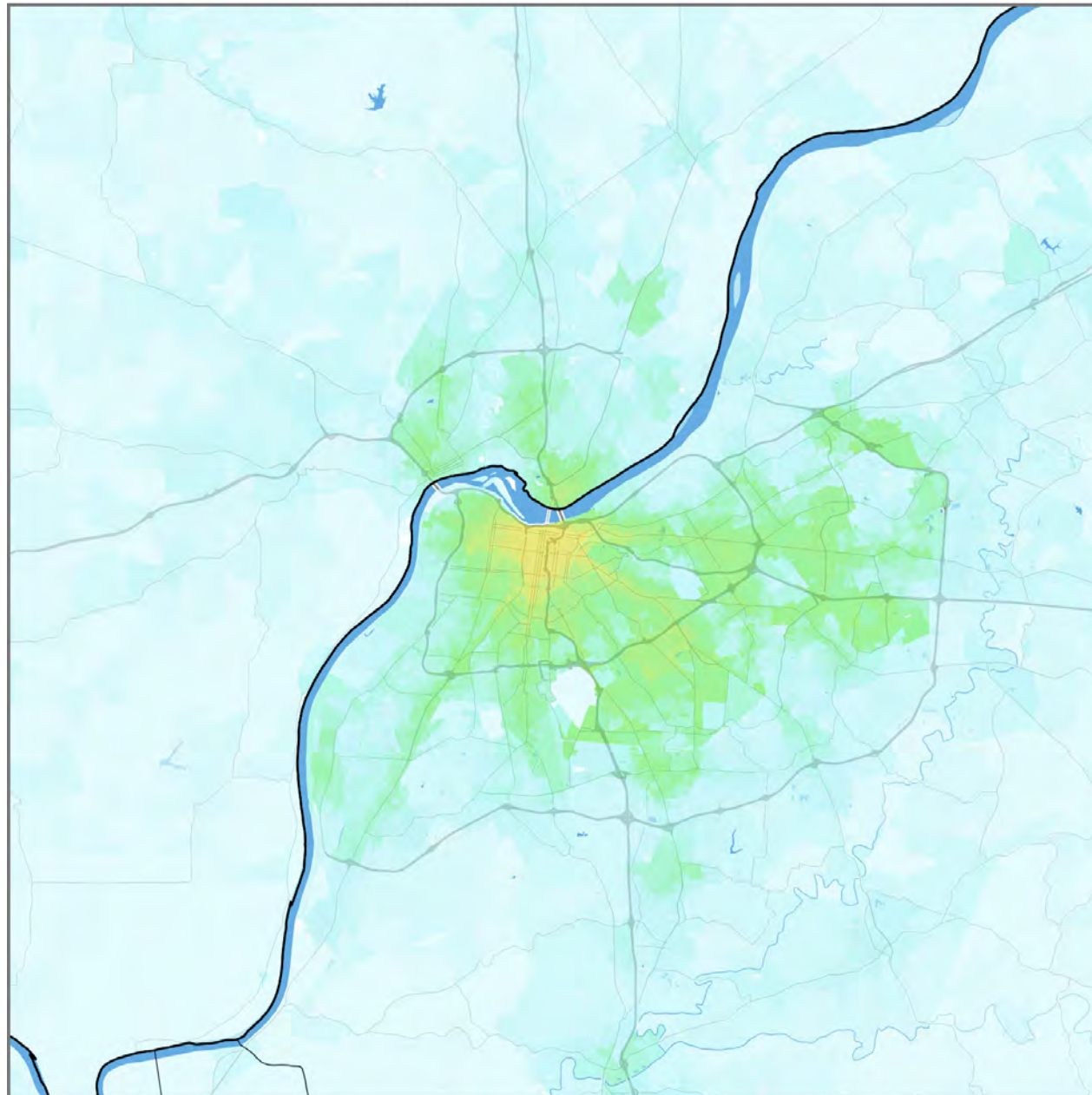
## Transit Schedules Included

Agency	Dates
Transit Authority of River City	June 9, 2019 – August 10, 2019

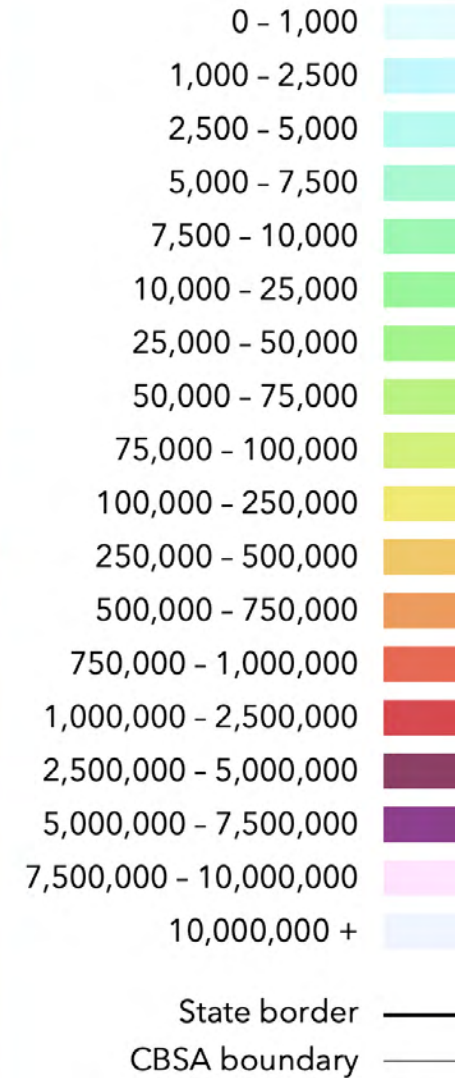
# Louisville

Louisville/Jefferson County, KY-IN

80



Jobs within 30 minutes  
(Transit, AM peak)



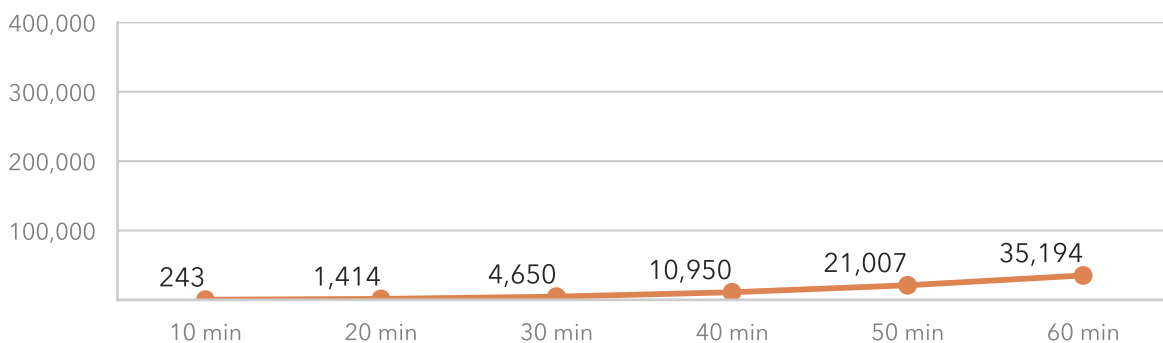
# Memphis

Memphis, TN-MS-AR

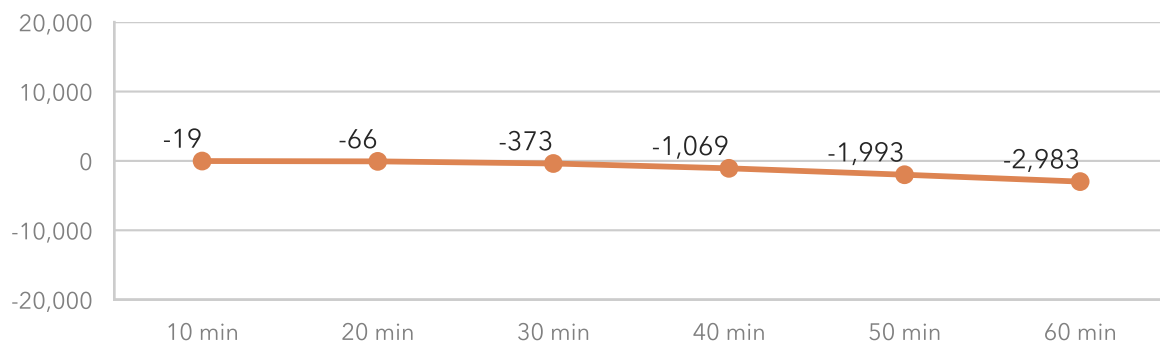
Rank by Weighted Accessibility	46
Rank by Total Employment	46
Rank by 1-Year Change in Weighted Accessibility	49
1-Year Change in Weighted Accessibility	-7.66%
1-Year Change in Weighted Accessibility Rank	-2
Total Jobs	615,157
Average Job Density (per km <sup>2</sup> )	52
Total Workers	589,984
Average Worker Density (per km <sup>2</sup> )	50

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



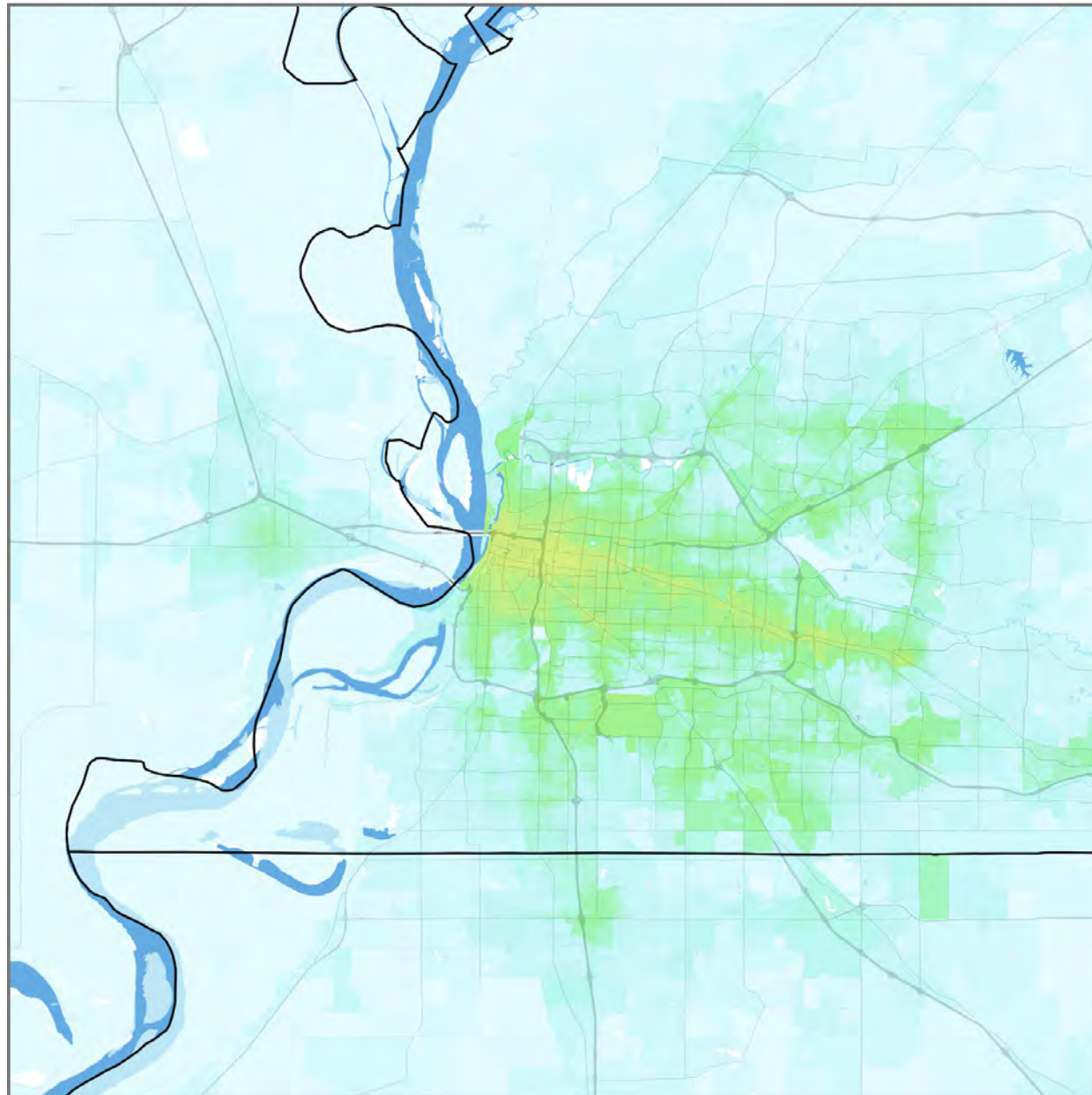
## Transit Schedules Included

Agency	Dates
Memphis Area Transit Authority	December 9, 2018 – June 8, 2019

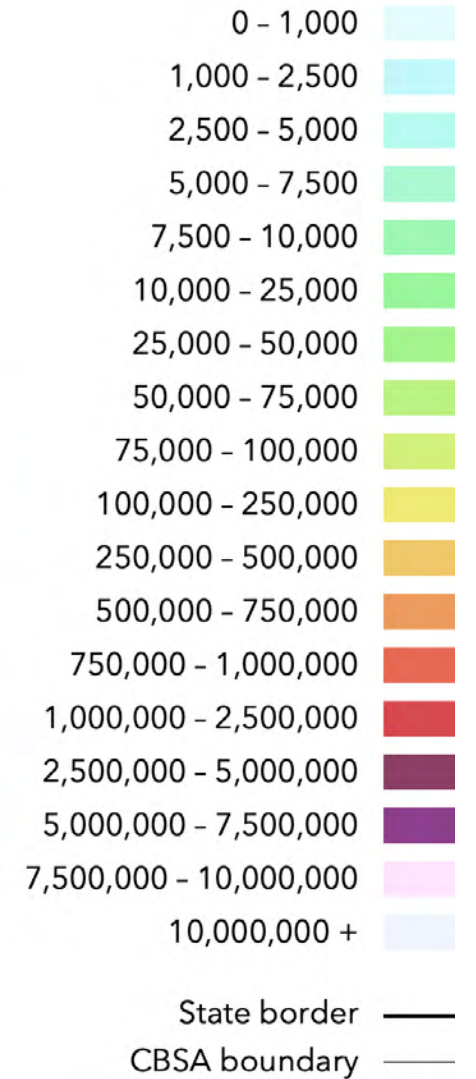
# Memphis

Memphis, TN-MS-AR

83



Jobs within 30 minutes  
(Transit, AM peak)



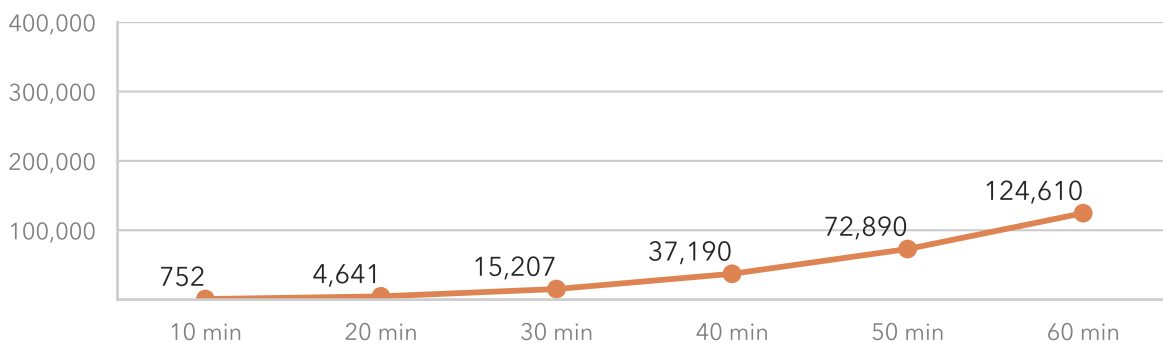
# Miami

Miami-Fort Lauderdale-Pompano Beach, FL

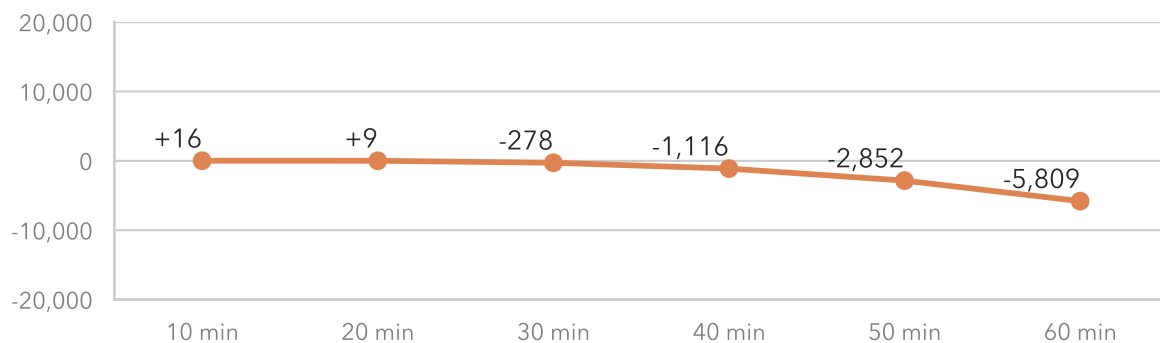
Rank by Weighted Accessibility	16
Rank by Total Employment	9
Rank by 1-Year Change in Weighted Accessibility	43
1-Year Change in Weighted Accessibility	-2.65%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	2,560,082
Average Job Density (per km <sup>2</sup> )	195
Total Workers	2,503,411
Average Worker Density (per km <sup>2</sup> )	190

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold





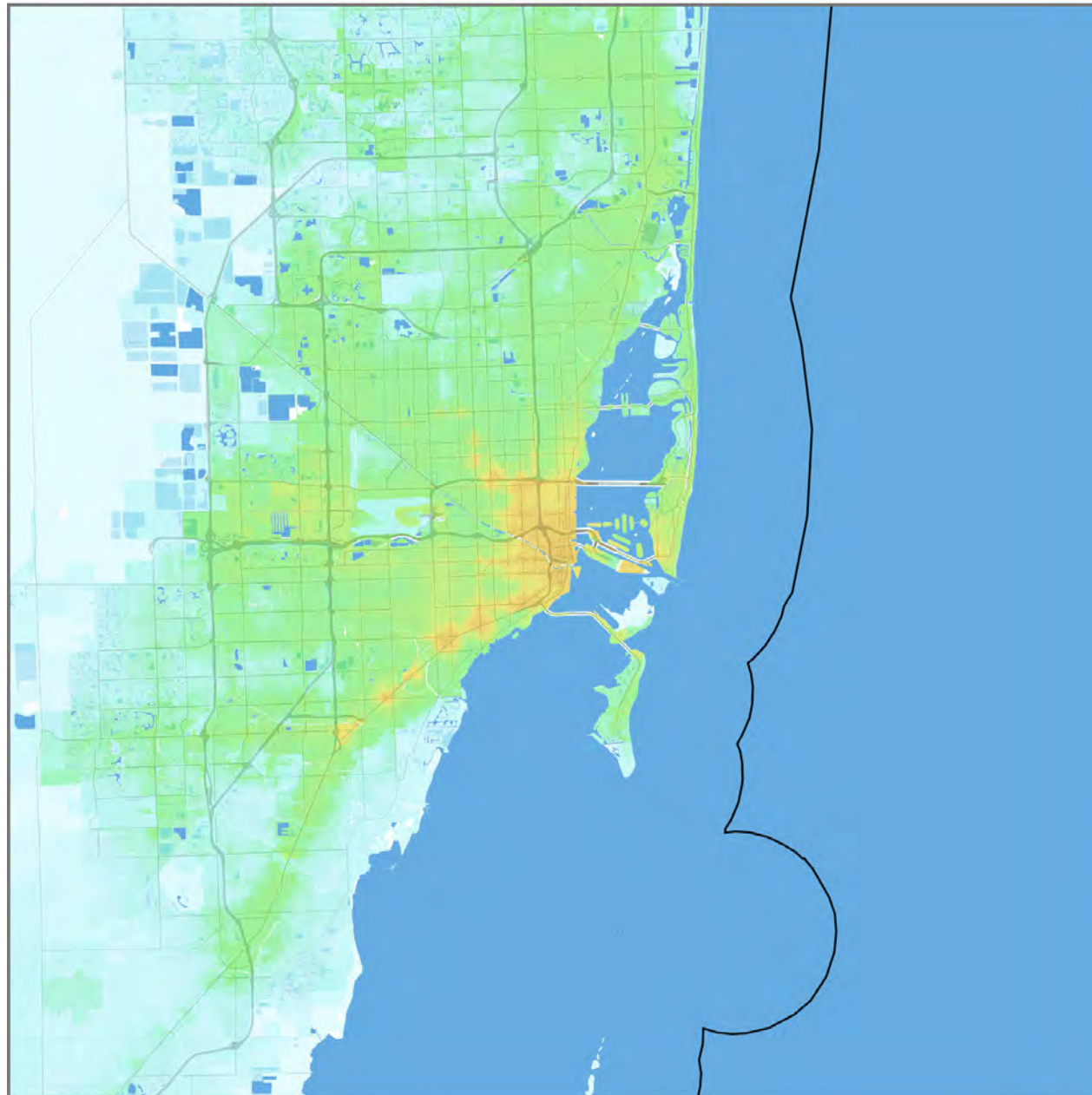
## Transit Schedules Included

Agency	Dates
Broward County Transit	January 14, 2018 - September 8, 2018
Miami-Dade Transit	March 11, 2018 - July 28, 2018
Palm Tran	January 24, 2019 - January 24, 2020
SFRTA/Tri-Rail	April 20, 2012 - December 31, 2024

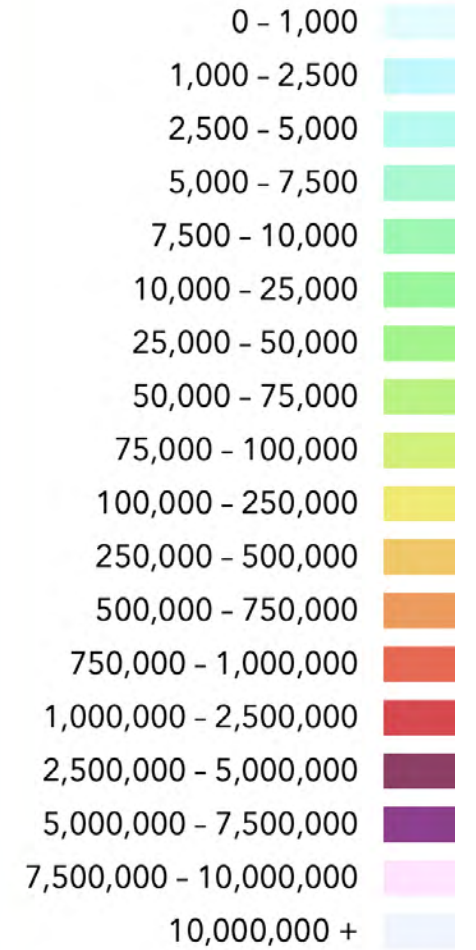
# Miami

Miami-Fort Lauderdale-Pompano Beach, FL

98



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

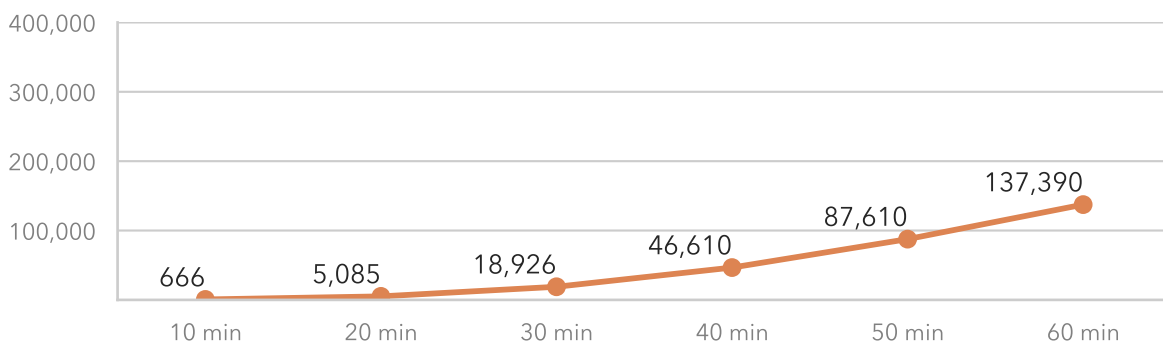
# Milwaukee

Milwaukee-Waukesha-West Allis, WI

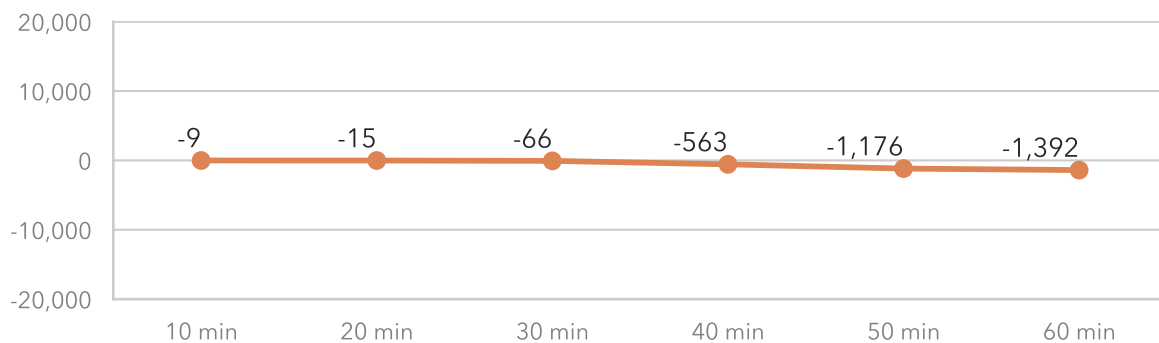
Rank by Weighted Accessibility	13
Rank by Total Employment	37
Rank by 1-Year Change in Weighted Accessibility	33
1-Year Change in Weighted Accessibility	-0.90%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	856,719
Average Job Density (per km <sup>2</sup> )	227
Total Workers	779,865
Average Worker Density (per km <sup>2</sup> )	207

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



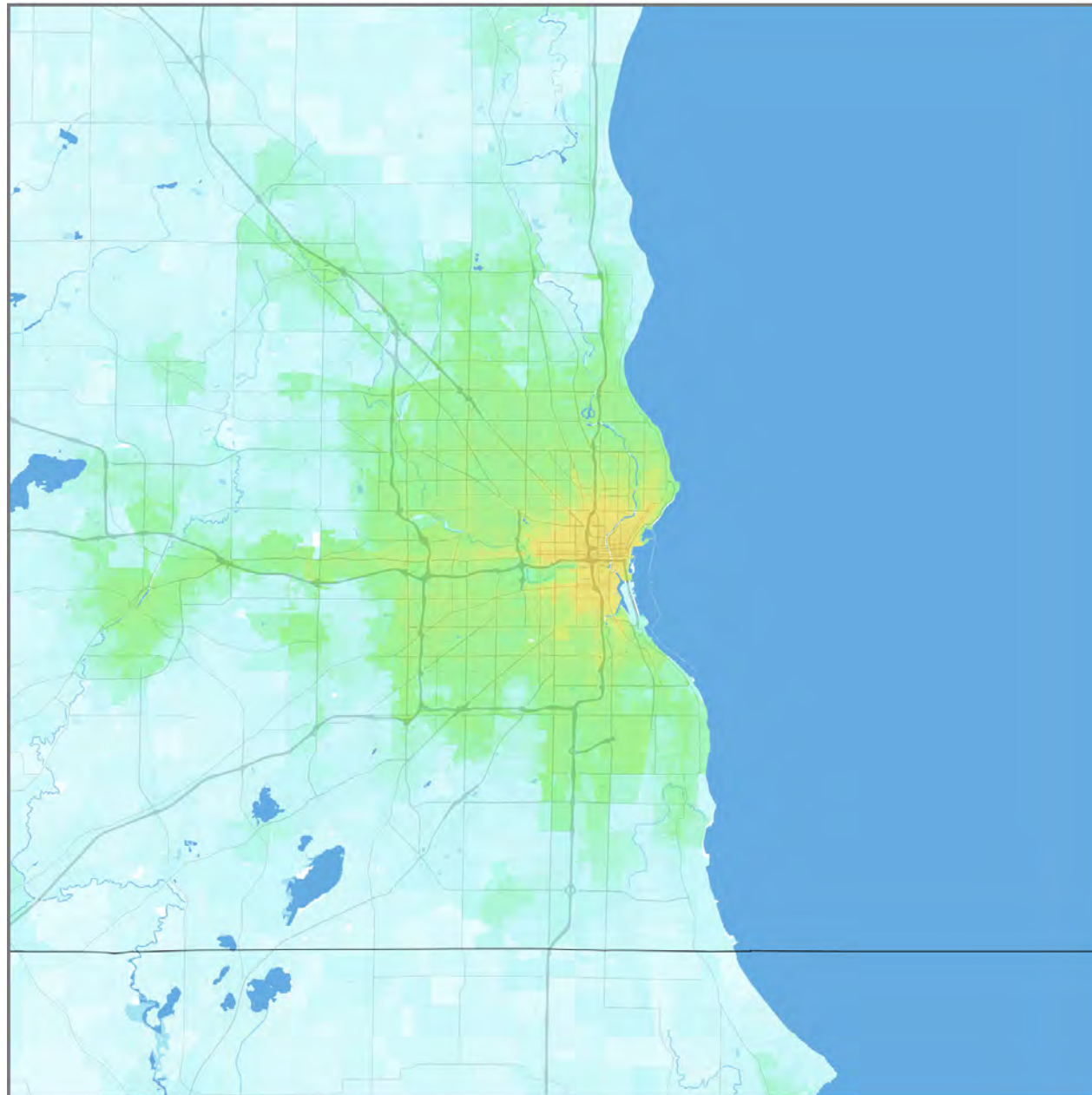
## Transit Schedules Included

Agency	Dates
Milwaukee County Transit System	December 30, 2018 - March 3, 2019
Waukesha County Transit	January 1, 2017 - December 31, 2021

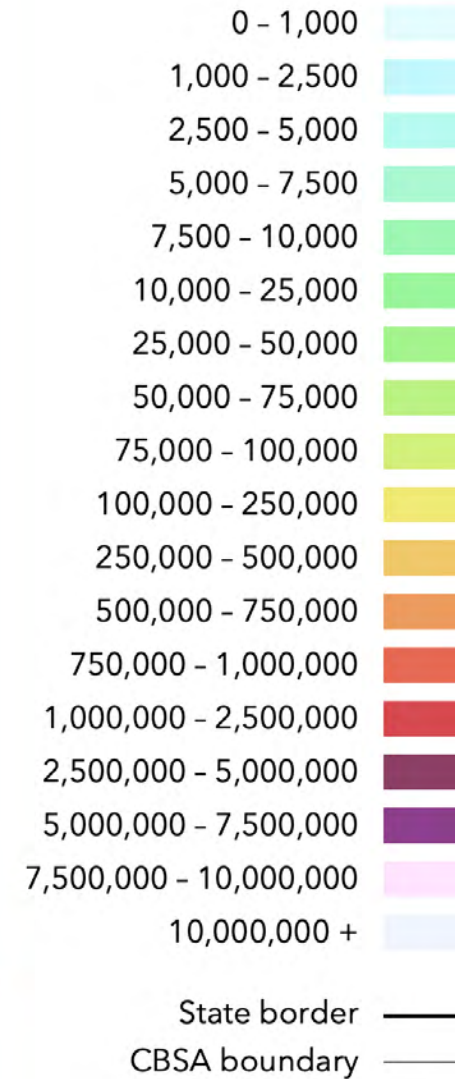
# Milwaukee

Milwaukee-Waukesha-West Allis, WI

68



Jobs within 30 minutes  
(Transit, AM peak)



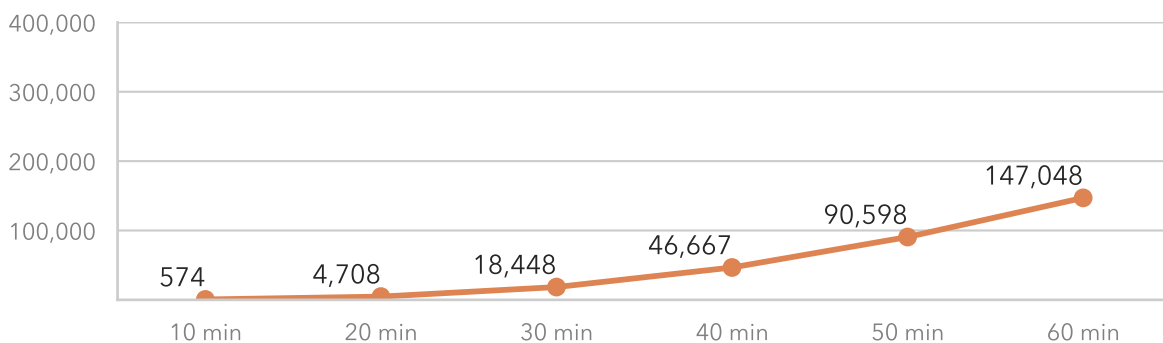
# Minneapolis

Minneapolis-St. Paul-Bloomington, MN-WI

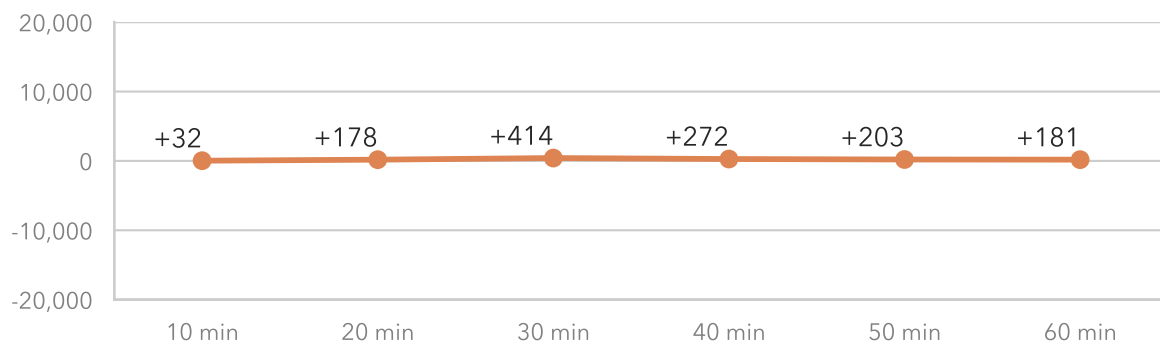
Rank by Weighted Accessibility	12
Rank by Total Employment	14
Rank by 1-Year Change in Weighted Accessibility	18
1-Year Change in Weighted Accessibility	+1.23%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	1,901,603
Average Job Density (per km <sup>2</sup> )	122
Total Workers	1,847,804
Average Worker Density (per km <sup>2</sup> )	118

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



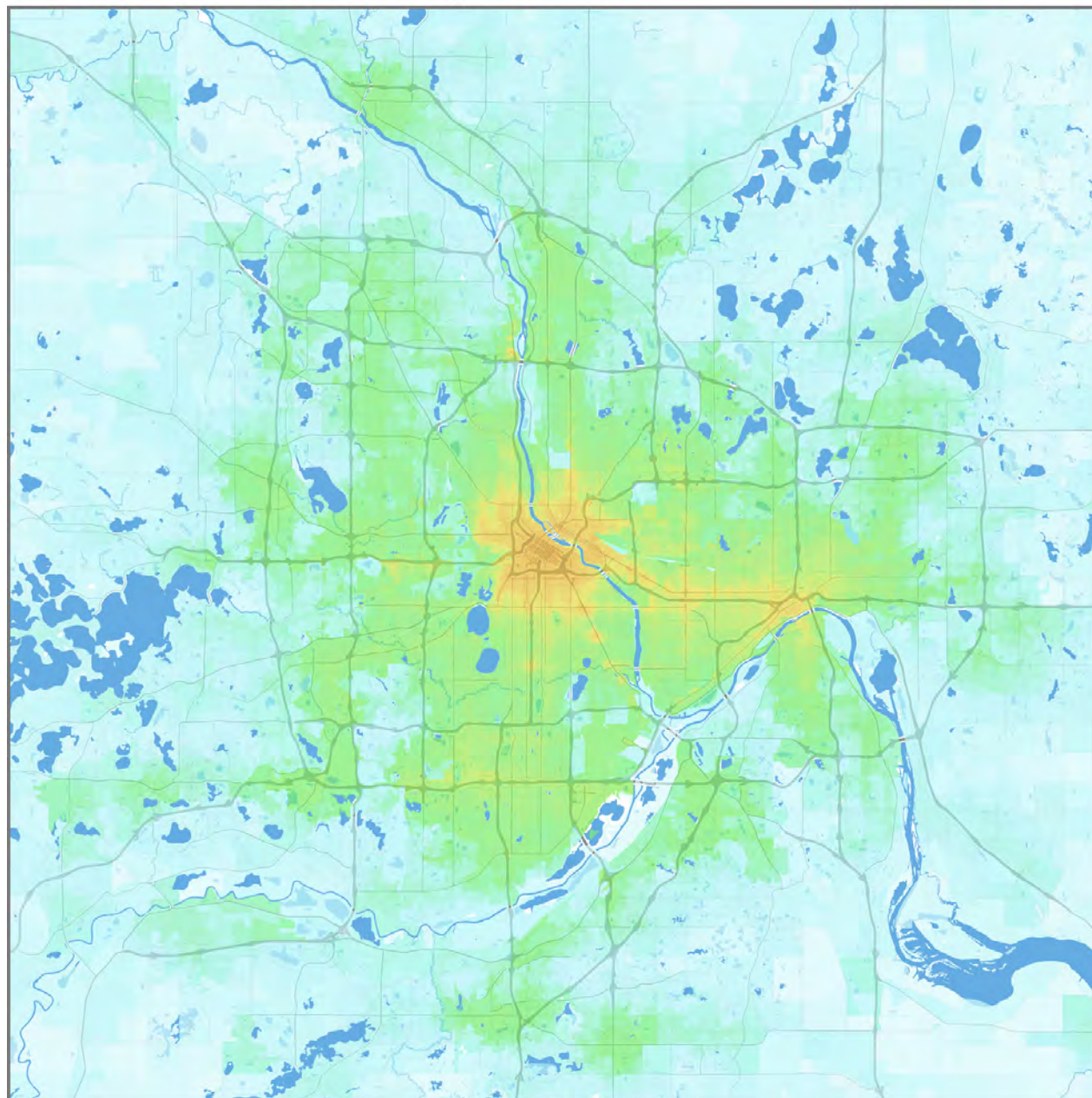
## Transit Schedules Included

Agency	Dates
Airport (MAC)	December 29, 2018 - March 8, 2019
MVTA	December 3, 2018 - February 15, 2019
Maple Grove	December 3, 2018 - March 8, 2019
Metro	November 2, 2018 - February 15, 2019
Metro Bus	July 1, 2019 - September 7, 2019
Metro Red Line	May 10, 2018 - June 29, 2018
Metro Transit	December 29, 2018 - March 8, 2019
Mystic	November 2, 2018 - February 15, 2019
Northstar Link	December 1, 2018 - March 8, 2019
Plymouth	October 29, 2018 - March 8, 2019
SouthWest Transit	October 29, 2018 - March 8, 2019
University of Minnesota	October 27, 2018 - March 8, 2019

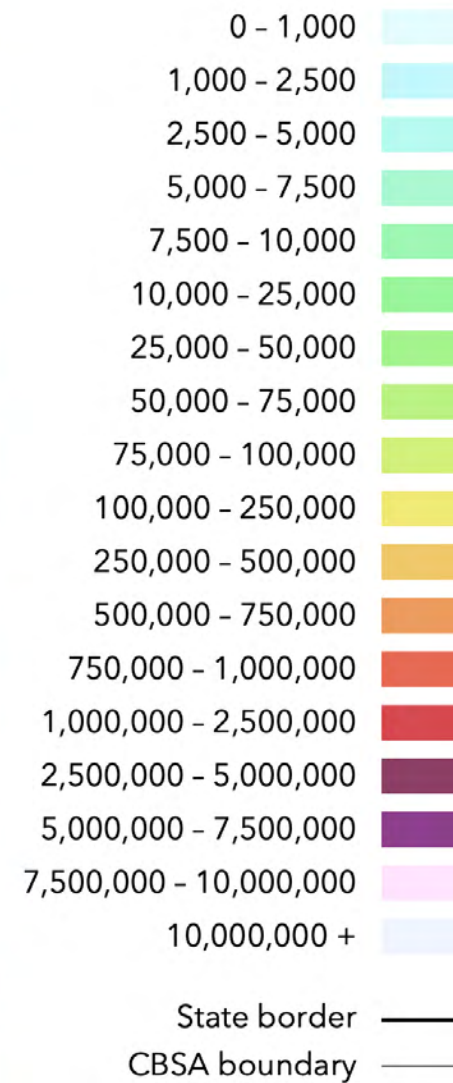


# Minneapolis

Minneapolis-St. Paul-Bloomington, MN-WI



Jobs within 30 minutes  
(Transit, AM peak)



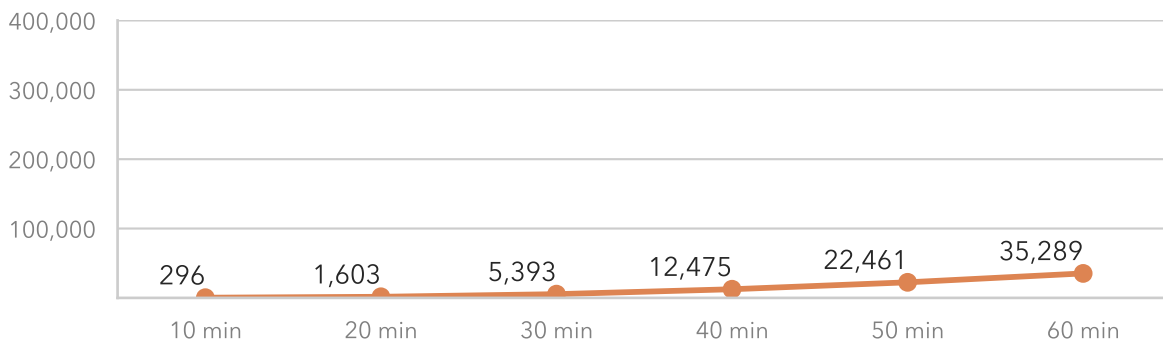
# Nashville

Nashville-Davidson-Murfreesboro-Franklin, TN

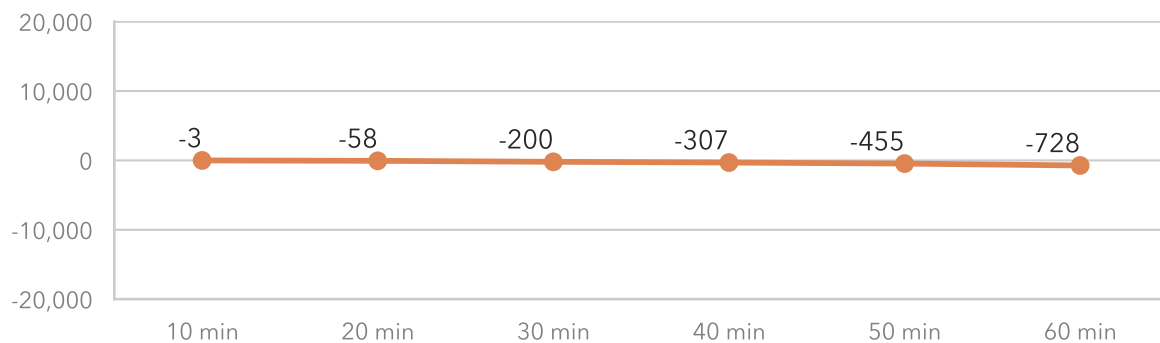
Rank by Weighted Accessibility	44
Rank by Total Employment	36
Rank by 1-Year Change in Weighted Accessibility	42
1-Year Change in Weighted Accessibility	-2.56%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	922,352
Average Job Density (per km <sup>2</sup> )	63
Total Workers	843,428
Average Worker Density (per km <sup>2</sup> )	57

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



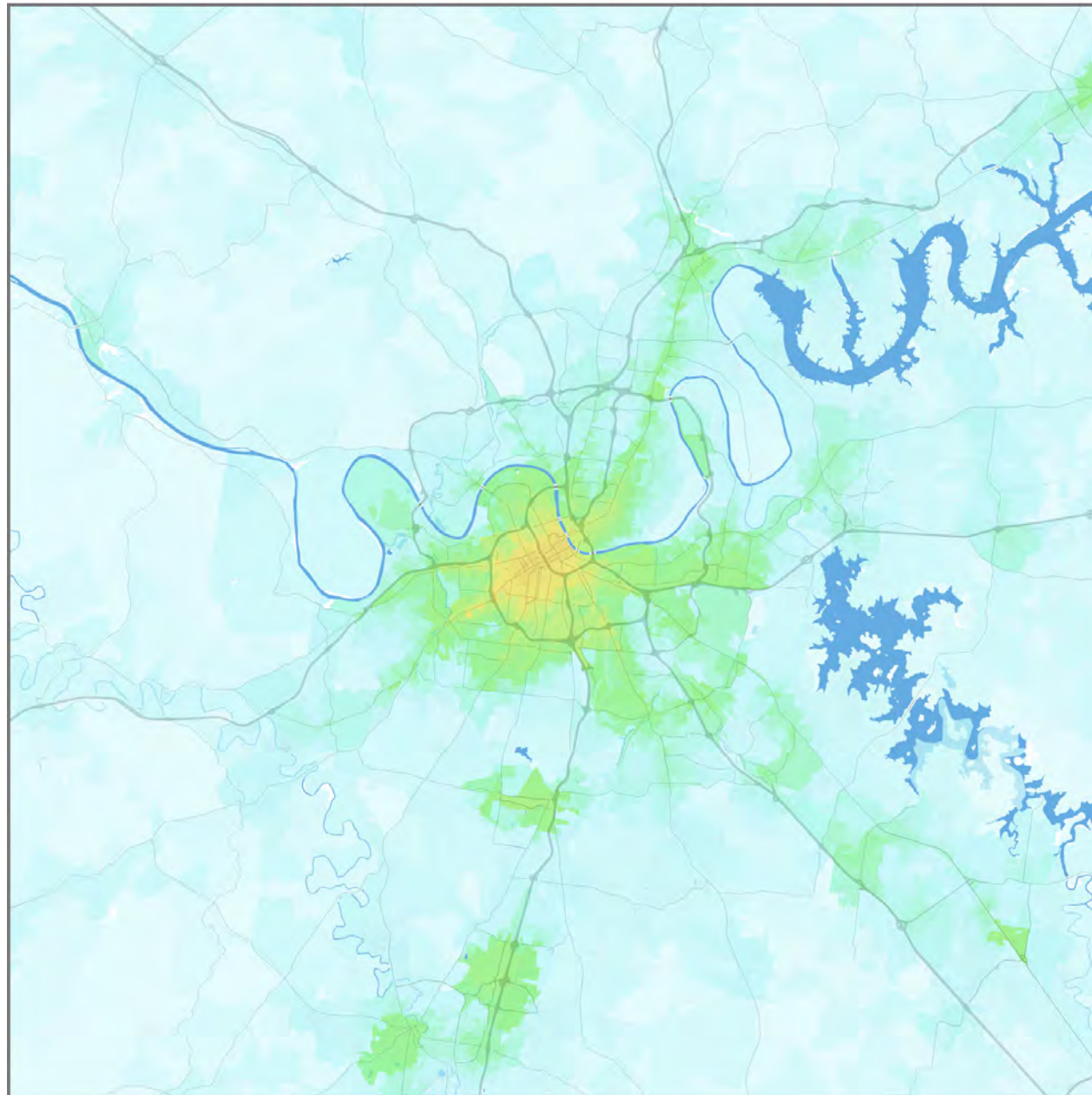
## Transit Schedules Included

Agency	Dates
Metropolitan Transit Authority	August 12, 2018 - April 6, 2019
Regional Transportation Authority of Middle Tennessee	April 7, 2019 - October 5, 2019



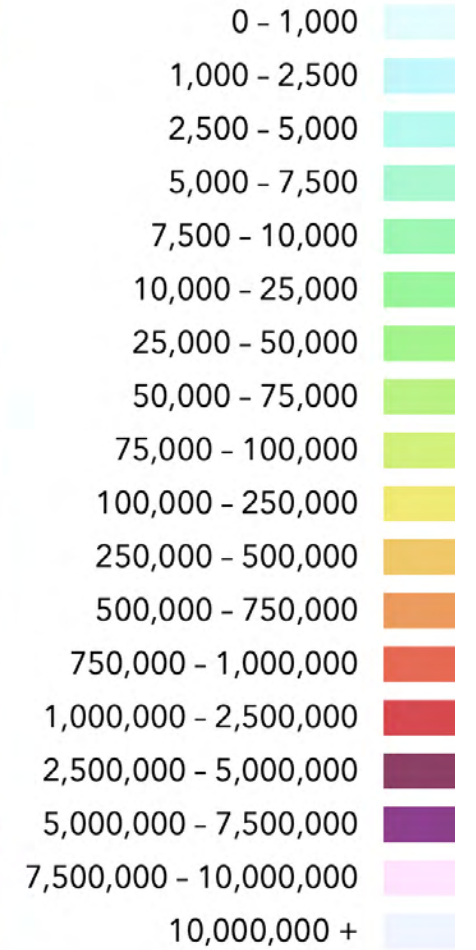
# Nashville

Nashville-Davidson--Murfreesboro--Franklin, TN



## Jobs within 30 minutes

(Transit, AM peak)



State border —  
CBSA boundary —

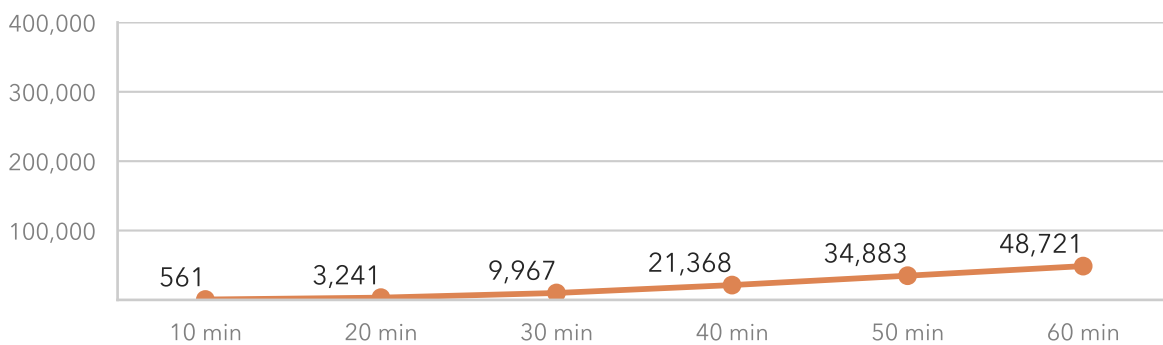
# New Orleans

New Orleans-Metairie-Kenner, LA

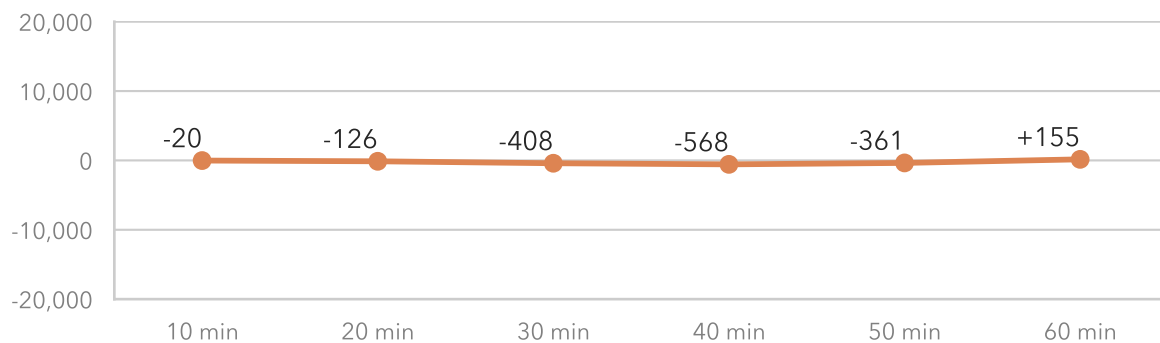
Rank by Weighted Accessibility	30
Rank by Total Employment	49
Rank by 1-Year Change in Weighted Accessibility	41
1-Year Change in Weighted Accessibility	-2.38%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	534,498
Average Job Density (per km <sup>2</sup> )	70
Total Workers	505,876
Average Worker Density (per km <sup>2</sup> )	66

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



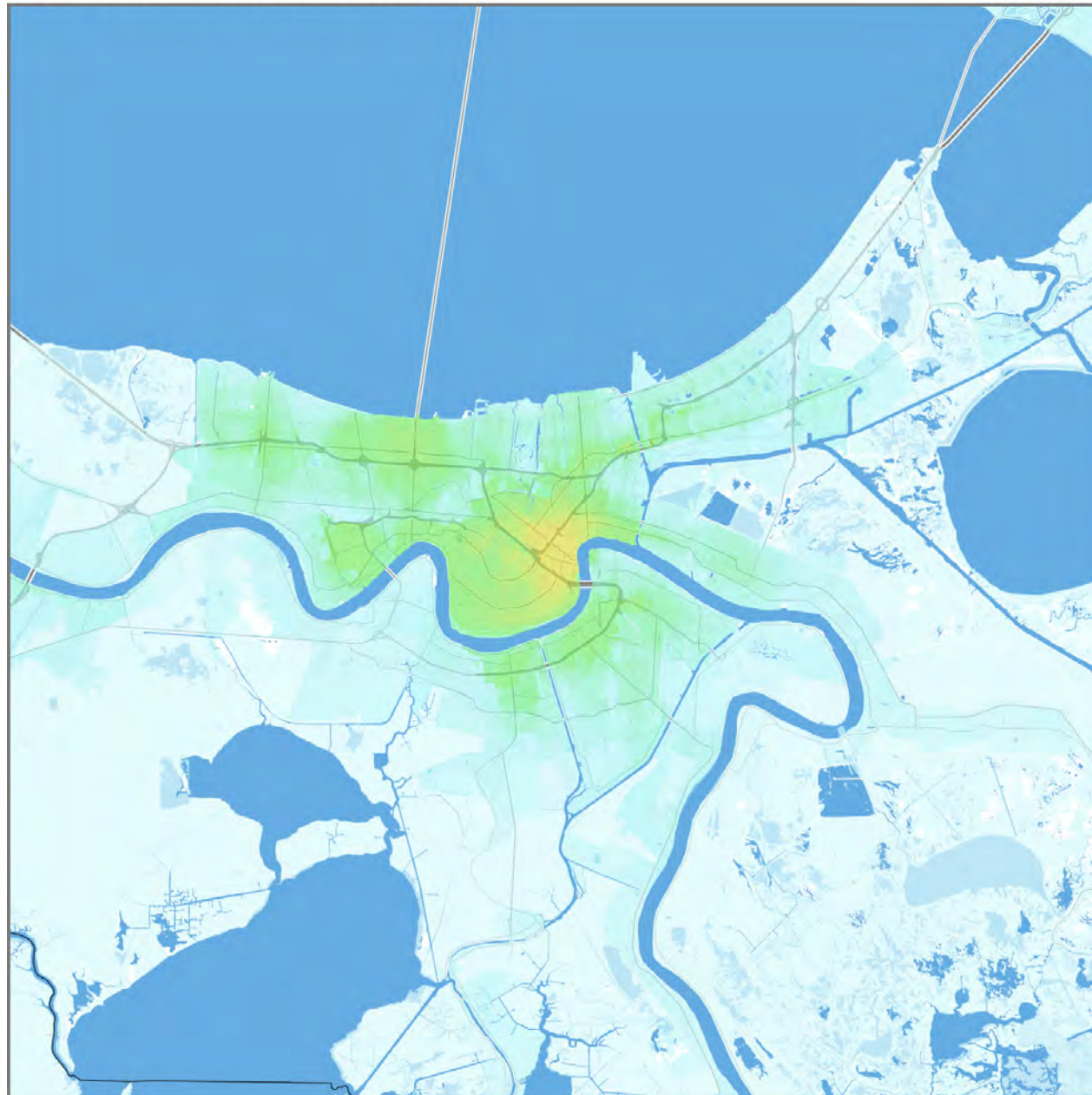
## Transit Schedules Included

Agency	Dates
New Orleans RTA	January 6, 2019 - December 31, 2019

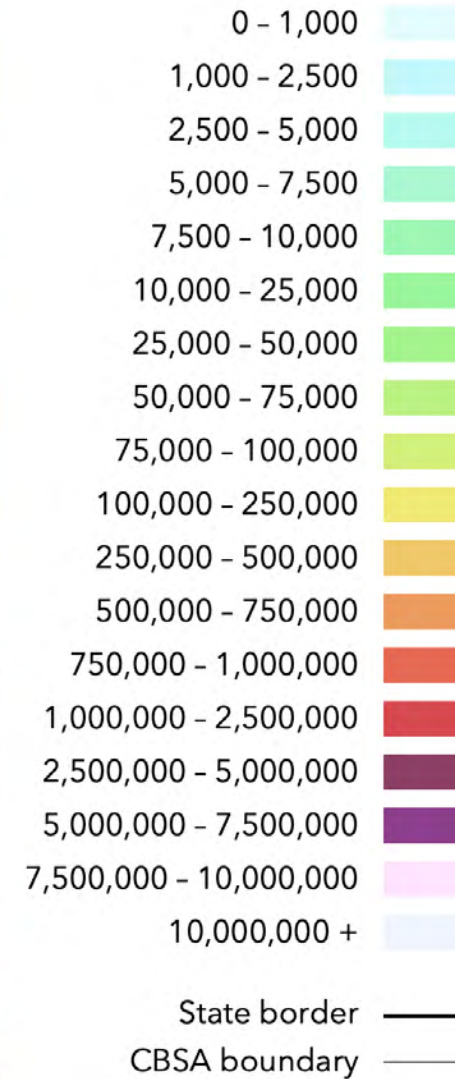
# New Orleans

New Orleans-Metairie-Kenner, LA

98



Jobs within 30 minutes  
(Transit, AM peak)





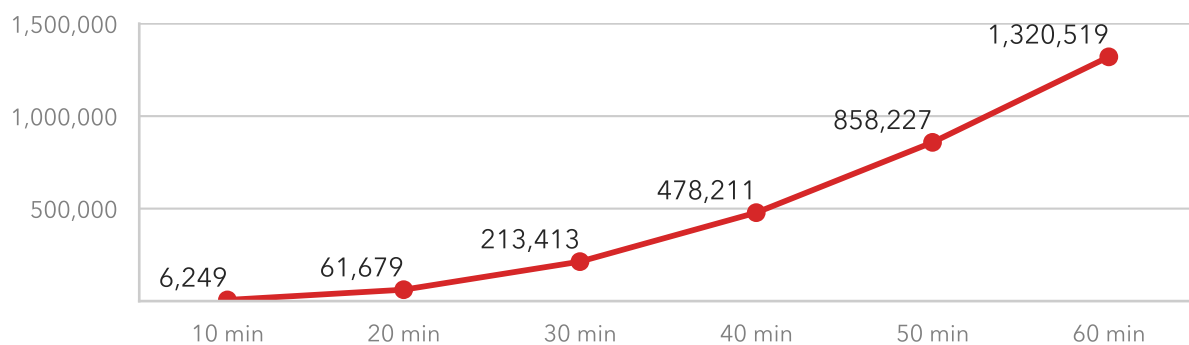
# New York

New York-Northern New Jersey-Long Island, NY-NJ-PA

Rank by Weighted Accessibility	1
Rank by Total Employment	1
Rank by 1-Year Change in Weighted Accessibility	29
1-Year Change in Weighted Accessibility	-0.49%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	9,159,786
Average Job Density (per km <sup>2</sup> )	529
Total Workers	8,946,175
Average Worker Density (per km <sup>2</sup> )	517

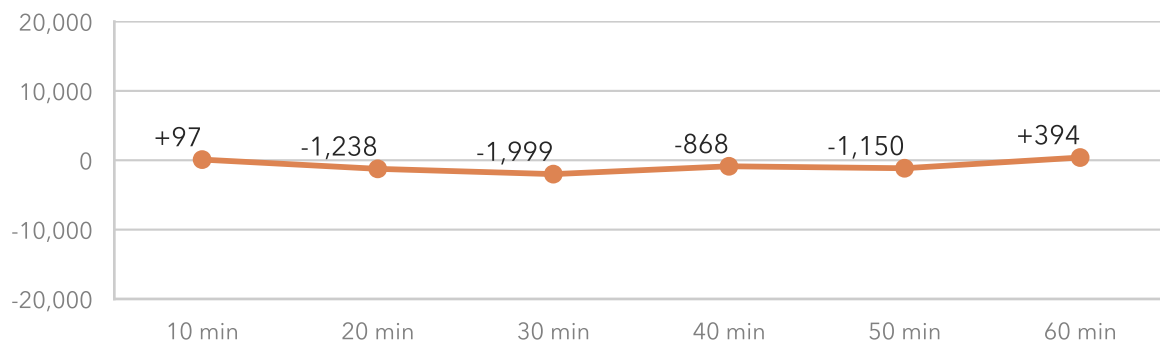
*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



*The plot scales have been changed to accommodate the much larger number of jobs within New York City.*

## 1-Year Change in Weighted Accessibility by Travel Time Threshold

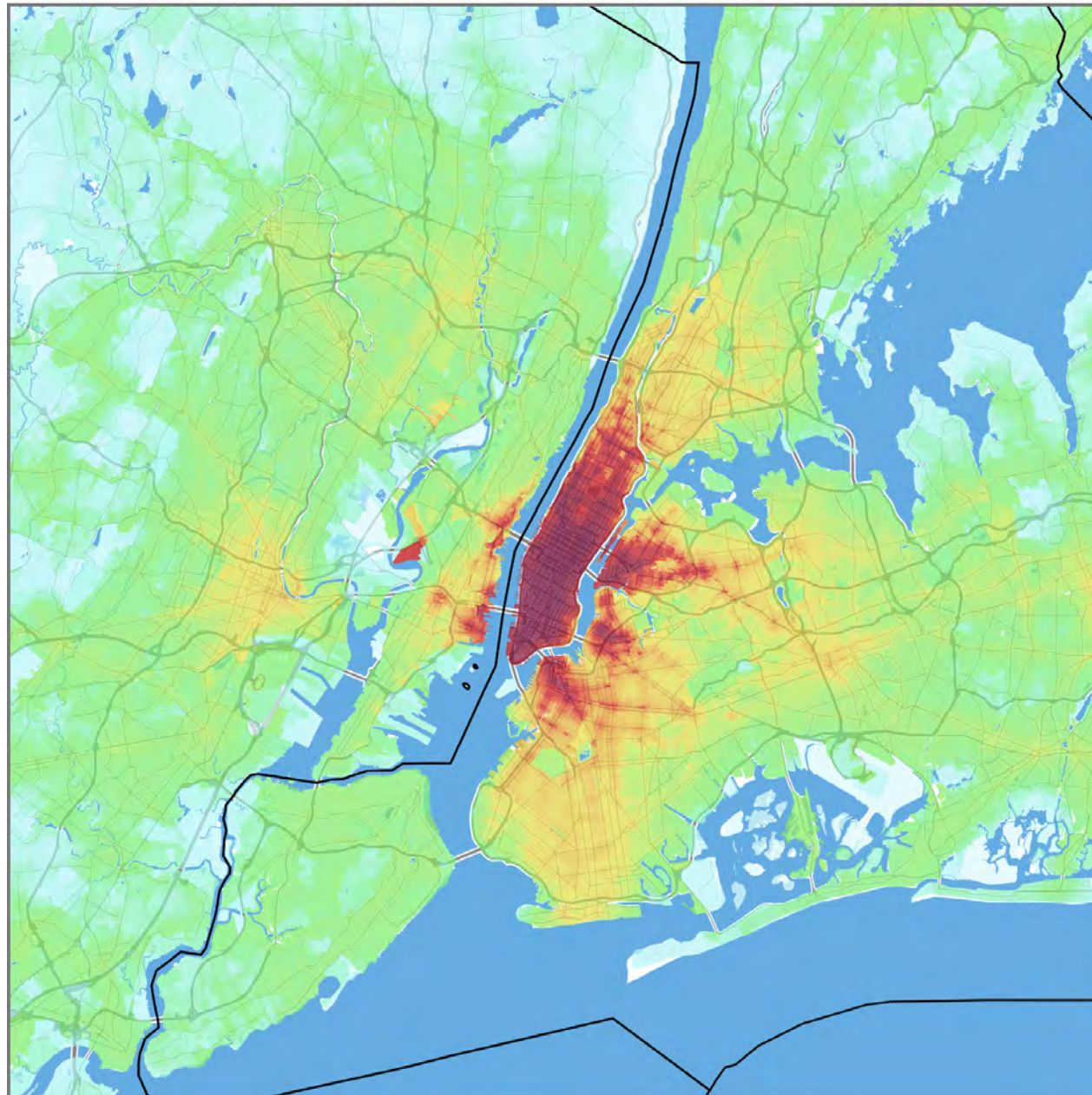


## Transit Schedules Included

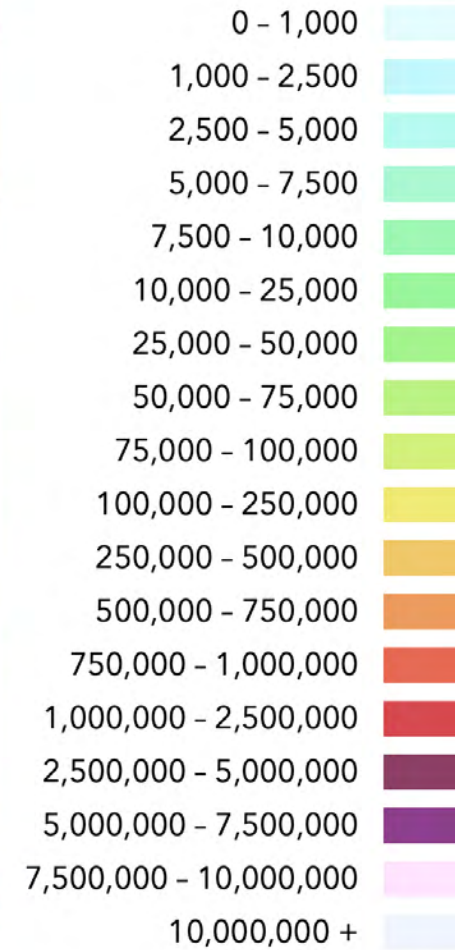
Agency	Dates
Bee-Line Bus	September 4, 2018 – June 17, 2019
CTTransit- Stamford	November 4, 2018 – June 30, 2019
Downtown Alliance	June 15, 2019 – October 31, 2021
HART Bus	July 12, 2017 – July 12, 2018
JFK Airtrain	June 24, 2016 – July 1, 2019
Long Island Rail Road	November 12, 2018 – March 3, 2019
MTA Bus Company	January 6, 2019 – April 20, 2019
MTA New York City Transit	November 4, 2018 – April 27, 2019
MTA New York City Transit - Bronx	January 5, 2019 – April 20, 2019
MTA New York City Transit - Brooklyn	January 5, 2019 – April 20, 2019
MTA New York City Transit - Manhattan	January 5, 2019 – April 20, 2019
MTA New York City Transit - Queens	January 5, 2019 – April 20, 2019
MTA New York City Transit - Staten Island	January 13, 2019 – April 20, 2019
Metro-North Railroad	November 22, 2018 – April 13, 2019
Middlesex County Area Transit	January 1, 2017 – January 15, 2018
NJ TRANSIT BUS	January 8, 2019 – July 6, 2019
NJ TRANSIT RAIL	January 3, 2019 – July 1, 2019
NY Waterway	January 1, 2012 – December 31, 2020
NYC Ferry	January 22, 2019 – December 31, 2020
Nassau Inter-County Express	September 2, 2018 – January 19, 2019
New York City Department of Transportation	April 17, 2019 – April 16, 2022
Norwalk Transit District	April 11, 2019 – December 31, 2019
Port Authority Trans-Hudson Corporation	January 6, 2019 – January 1, 2020
Port Authority of NY and NJ	February 1, 2017 – January 1, 2021
Seastreak	June 15, 2015 – November 27, 2020
Shore Line East	October 29, 2018 – October 28, 2019
Suffolk County Transit	January 1, 2019 – December 31, 2019
Sussex County Skylands Ride	April 1, 2012 – January 2, 2019
TappanZee Express	November 4, 2016 – November 17, 2018

# New York

New York-Northern New Jersey-Long Island, NY-NJ-PA



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

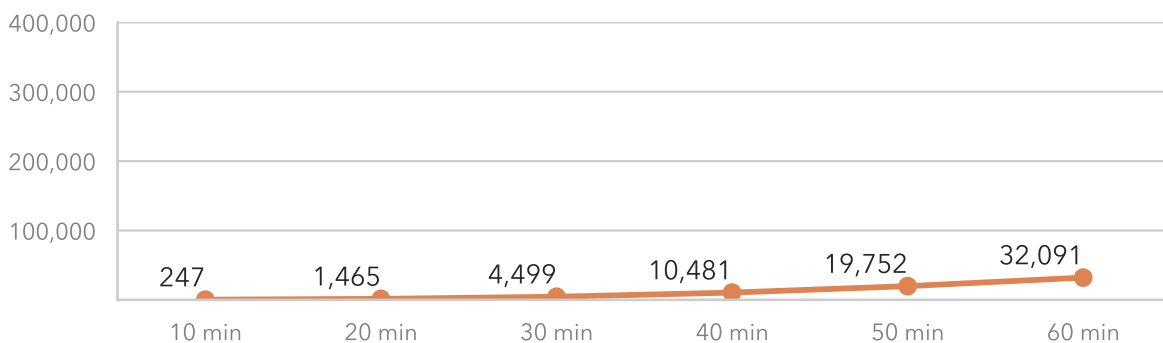
# Oklahoma City

Oklahoma City, OK

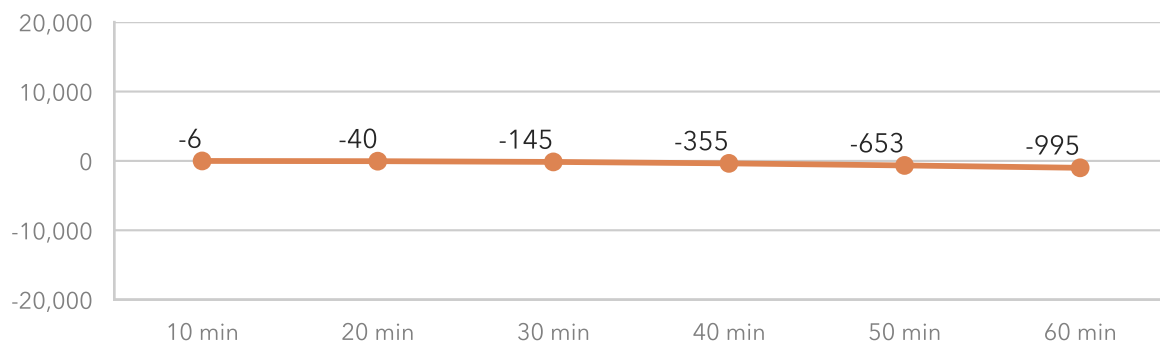
Rank by Weighted Accessibility	48
Rank by Total Employment	47
Rank by 1-Year Change in Weighted Accessibility	44
1-Year Change in Weighted Accessibility	-3.04%
1-Year Change in Weighted Accessibility Rank	-2
Total Jobs	595,050
Average Job Density (per km <sup>2</sup> )	42
Total Workers	565,695
Average Worker Density (per km <sup>2</sup> )	40

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



## Transit Schedules Included

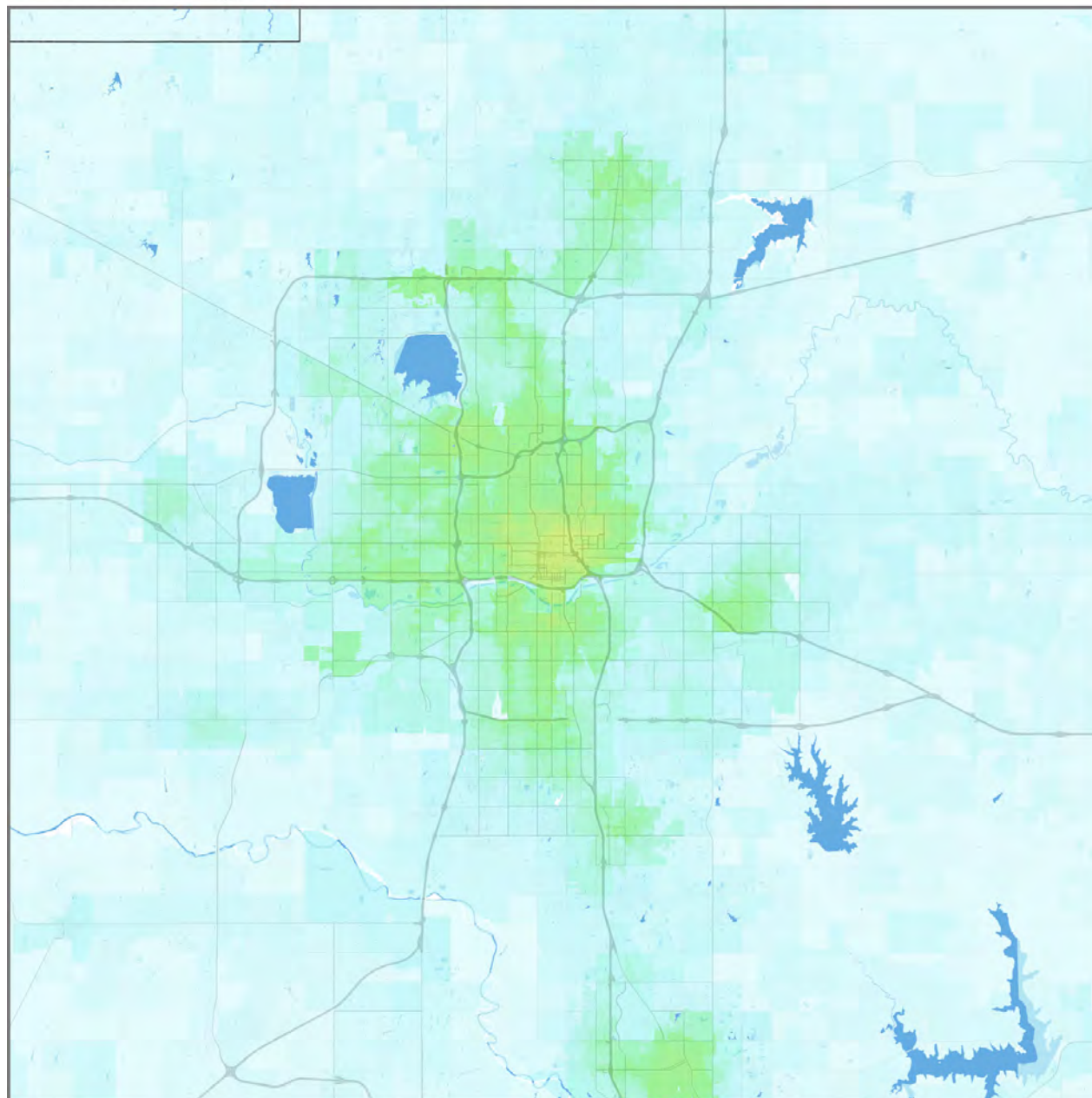
Agency	Dates
EMBARK	January 27, 2019 - January 25, 2020



# Oklahoma City

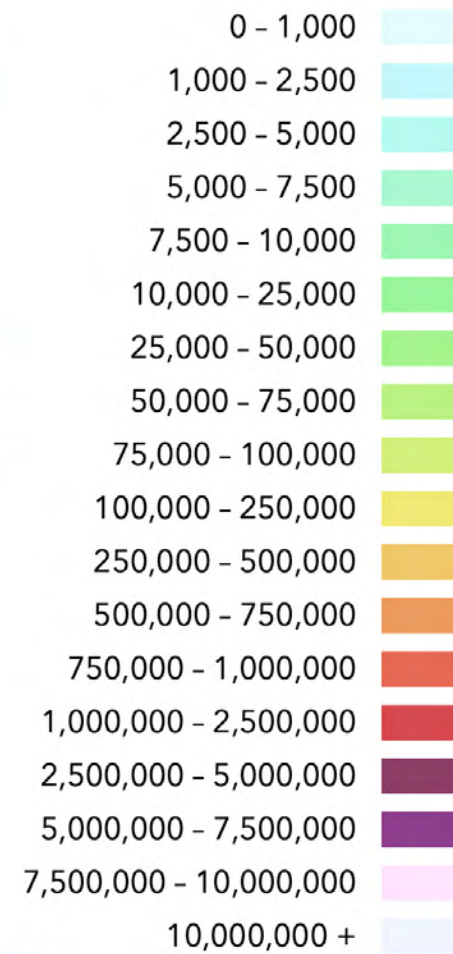
Oklahoma City, OK

104



## Jobs within 30 minutes

(Transit, AM peak)



State border

CBSA boundary

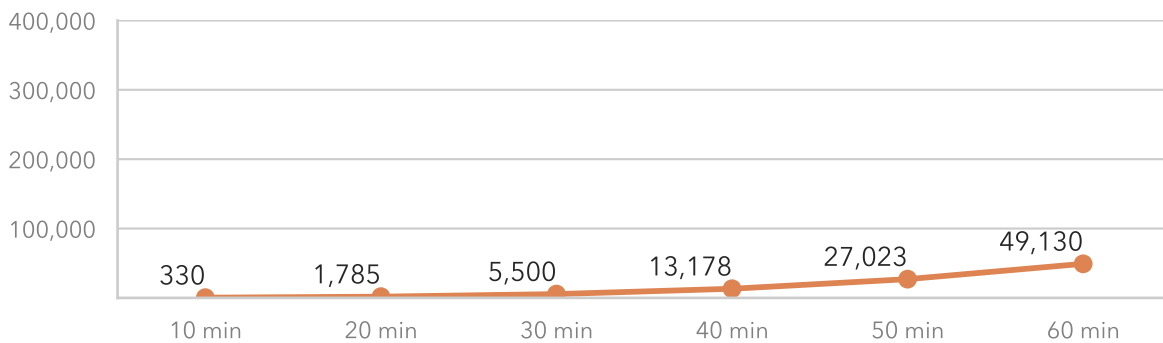
# Orlando

Orlando-Kissimmee-Sanford, FL

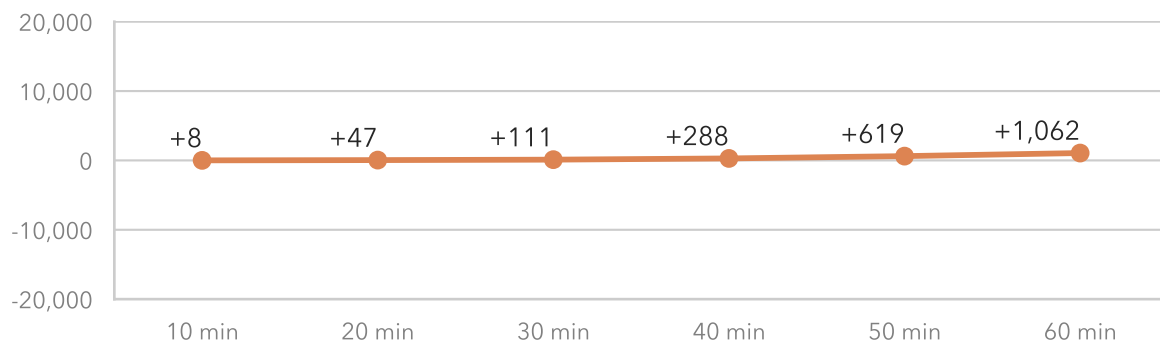
Rank by Weighted Accessibility	42
Rank by Total Employment	23
Rank by 1-Year Change in Weighted Accessibility	10
1-Year Change in Weighted Accessibility	+2.29%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,262,313
Average Job Density (per km <sup>2</sup> )	140
Total Workers	1,135,710
Average Worker Density (per km <sup>2</sup> )	126

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



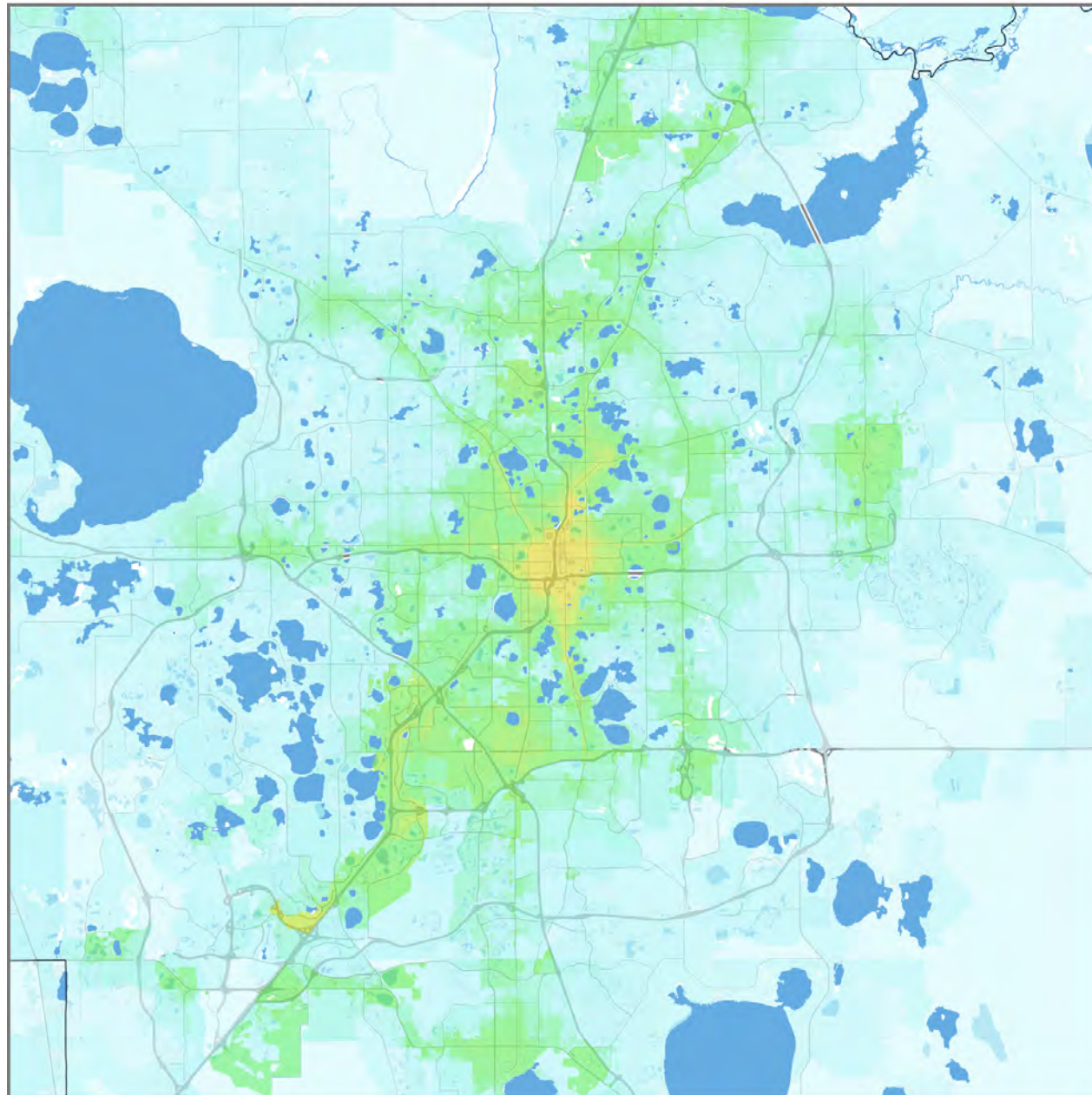


## Transit Schedules Included

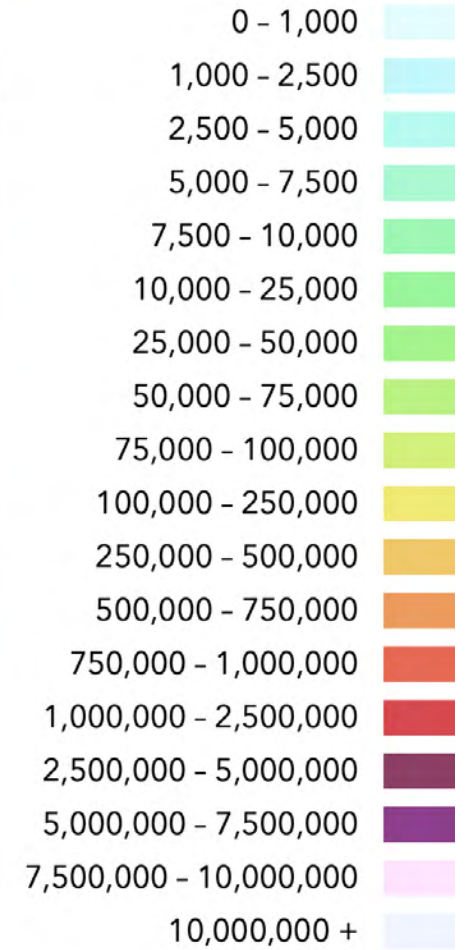
Agency	Dates
Central Florida Regional Transit Authority	January 11, 2019 - April 27, 2019
Florida Department of Transportation	July 30, 2018 - December 31, 2020
I-RIDE Trolley	January 1, 2018 - December 31, 2019
Lake County	April 24, 2017 - April 20, 2020
Lakeland	October 27, 2018 - September 30, 2019
Polk County Transit Services	July 3, 2015 - December 31, 2015
Sanford Community Redevelopment Agency	November 20, 2018 - June 1, 2019
Winter Haven Area Transit	July 3, 2015 - December 31, 2015

# Orlando

Orlando-Kissimmee-Sanford, FL



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

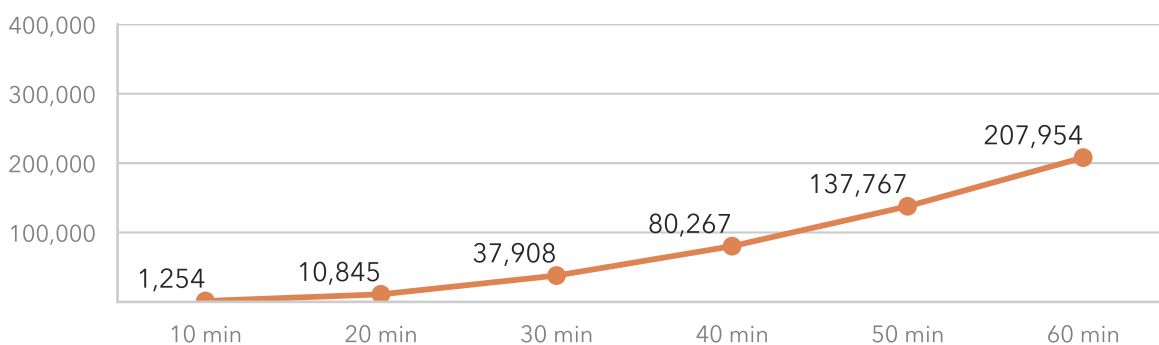
# Philadelphia

Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

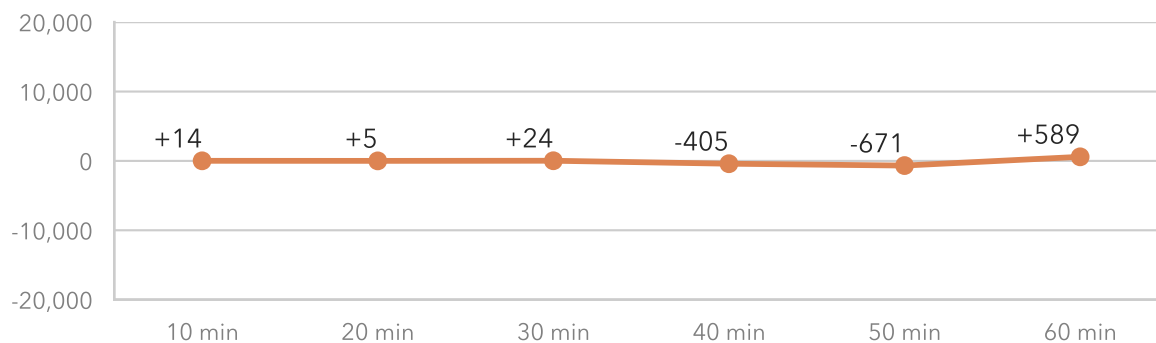
Rank by Weighted Accessibility	7
Rank by Total Employment	6
Rank by 1-Year Change in Weighted Accessibility	27
1-Year Change in Weighted Accessibility	-0.07%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	2,853,154
Average Job Density (per km <sup>2</sup> )	239
Total Workers	2,862,819
Average Worker Density (per km <sup>2</sup> )	240

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



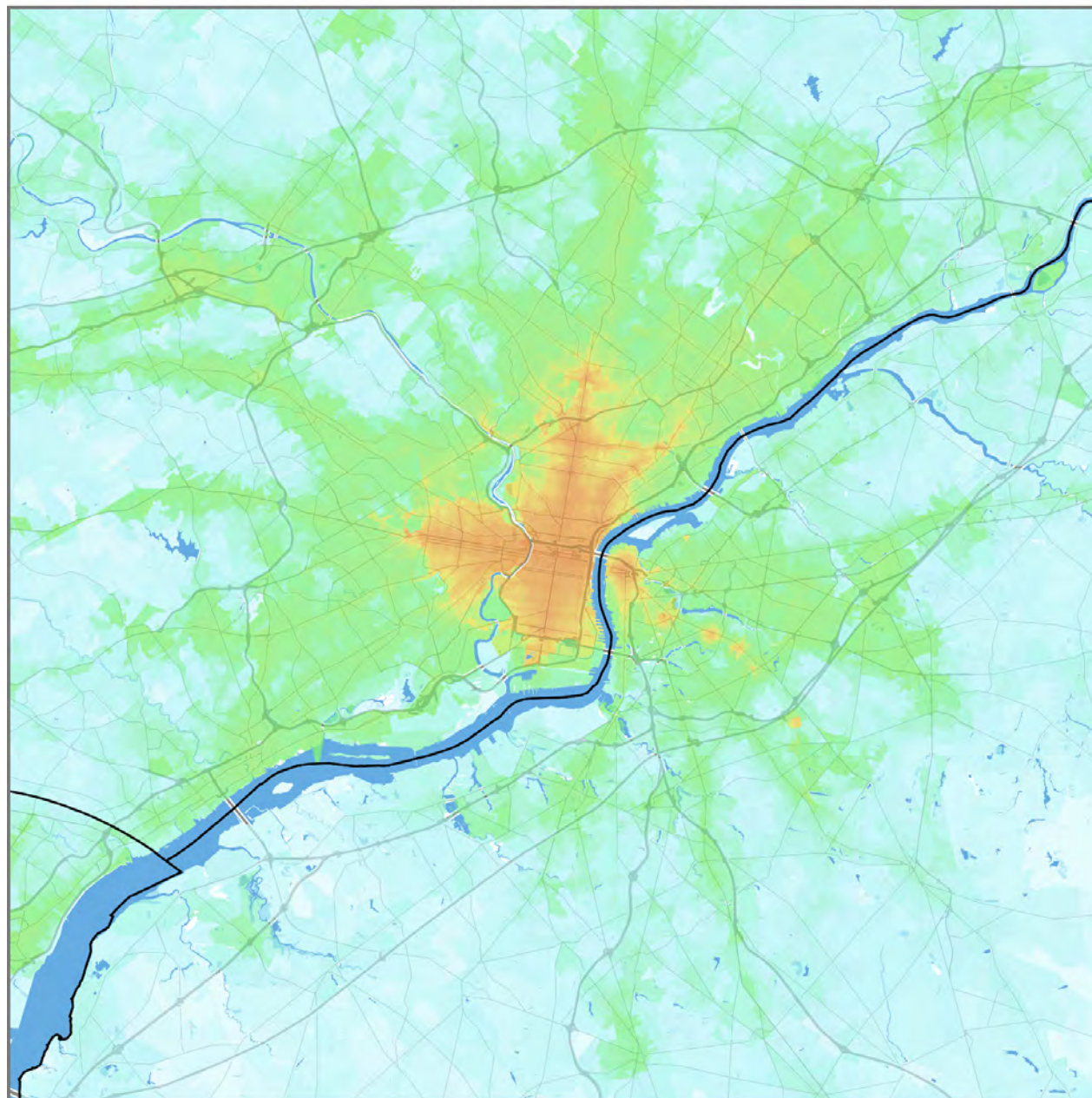
## Transit Schedules Included

Agency	Dates
Cecil Transit	May 7, 2018 - January 31, 2019
Dart First State	December 9, 2018 - June 1, 2019
Harford Transit LINK	October 1, 2018 - June 1, 2019
Maryland Transit Administration	September 2, 2018 - February 2, 2019
NJ TRANSIT BUS	January 8, 2019 - July 6, 2019
NJ TRANSIT RAIL	January 3, 2019 - July 1, 2019
Port Authority Transit Corporation	July 2, 2015 - December 16, 2020
SEPTA-bus	June 9, 2019 - August 31, 2019
SEPTA-rail	March 23, 2019 - July 27, 2019
TMACC	January 1, 2016 - December 31, 2020



# Philadelphia

Philadelphia-Camden-Wilmington, PA-NJ-DE-MD



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

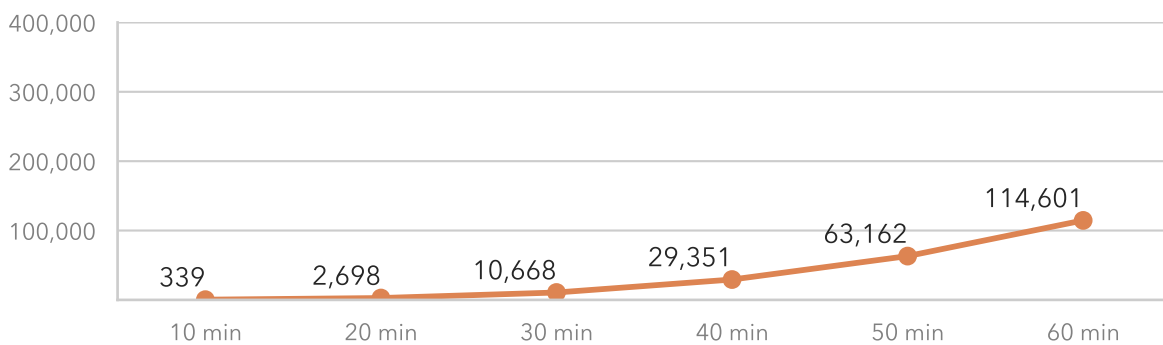
# Phoenix

Phoenix-Mesa-Glendale, AZ

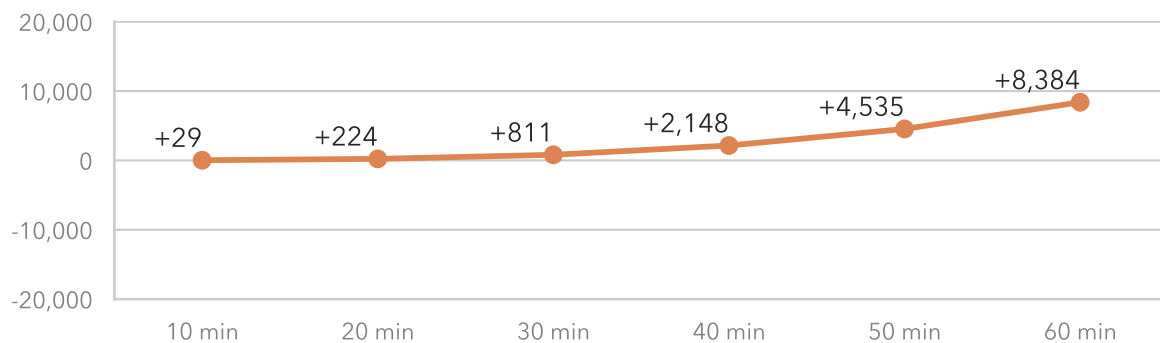
Rank by Weighted Accessibility	19
Rank by Total Employment	12
Rank by 1-Year Change in Weighted Accessibility	1
1-Year Change in Weighted Accessibility	+8.07%
1-Year Change in Weighted Accessibility Rank	+2
Total Jobs	2,007,240
Average Job Density (per km <sup>2</sup> )	53
Total Workers	1,958,550
Average Worker Density (per km <sup>2</sup> )	52

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



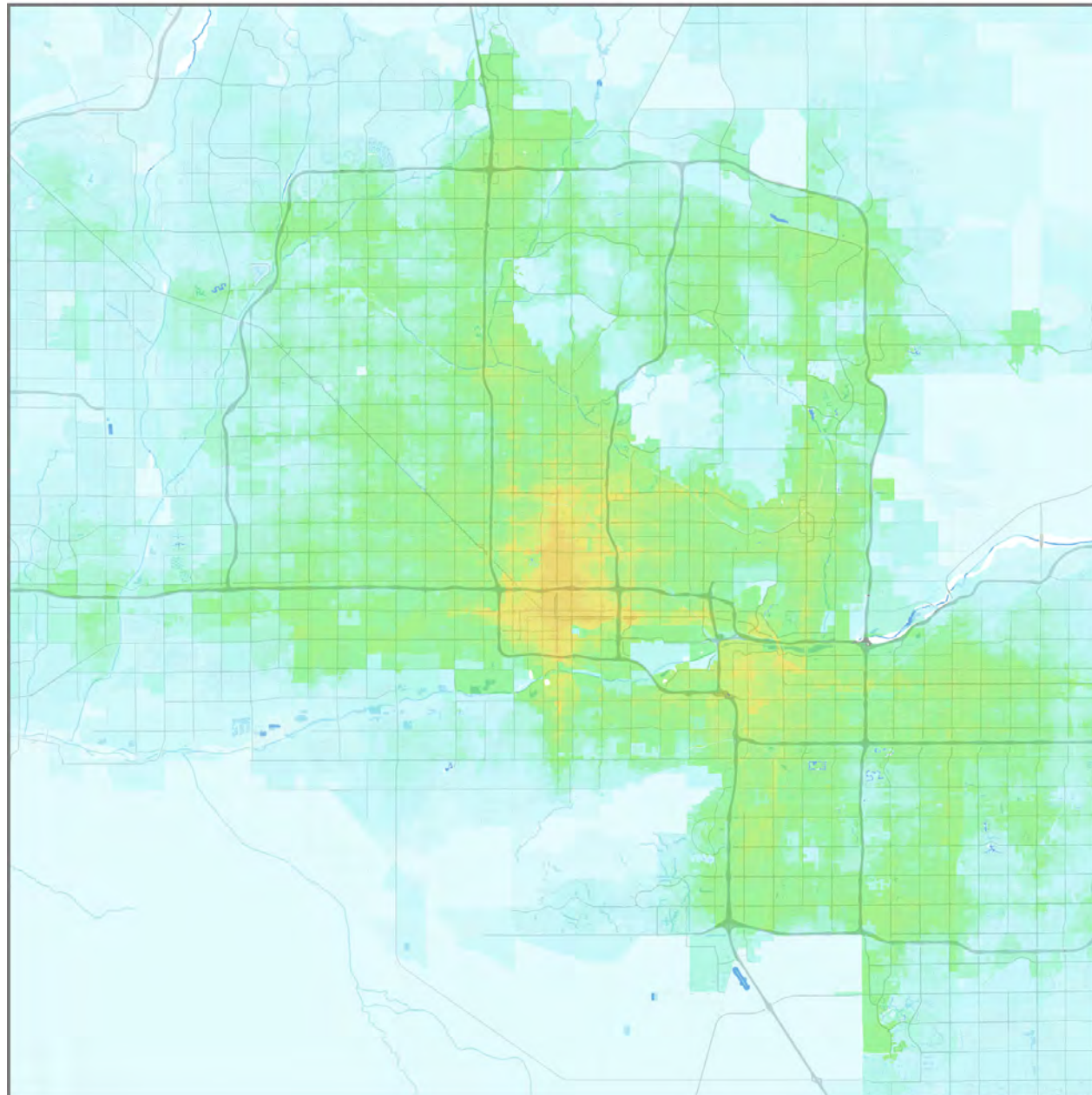


## Transit Schedules Included

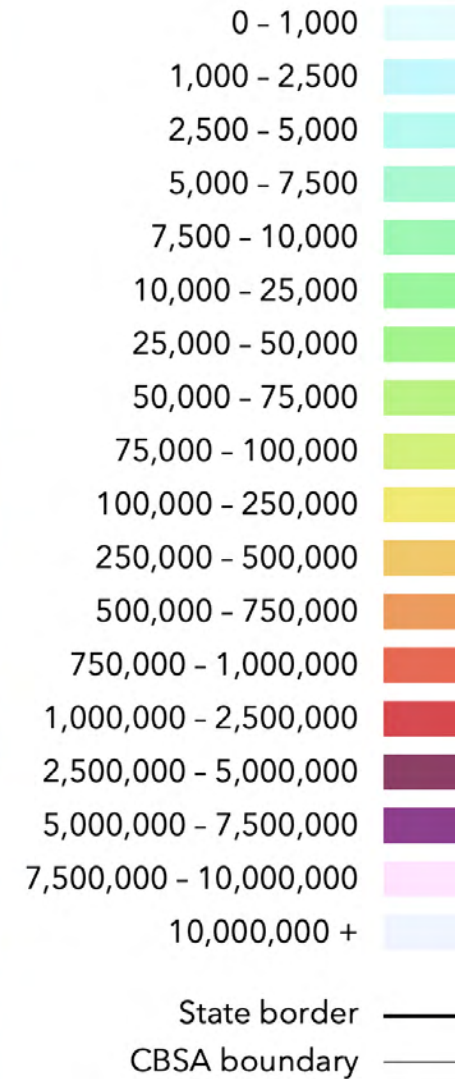
Agency	Dates
Valley Metro	October 23, 2017 – January 21, 2018

# Phoenix

Phoenix-Mesa-Glendale, AZ



Jobs within 30 minutes  
(Transit, AM peak)



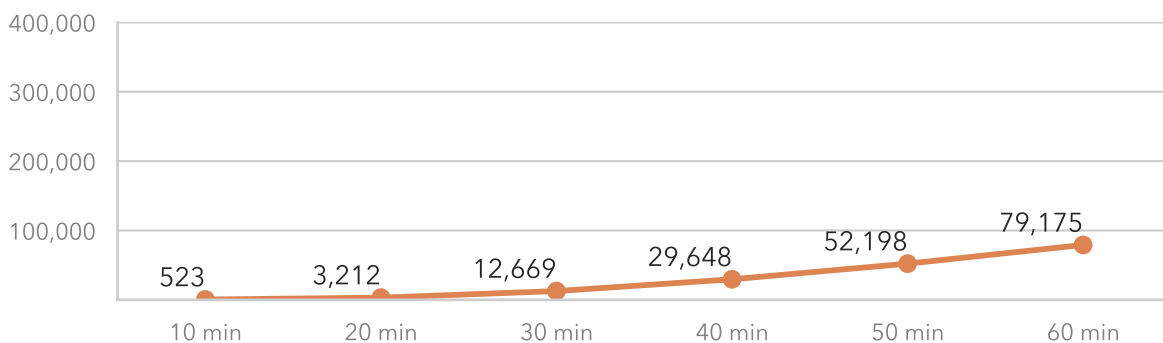
# Pittsburgh

Pittsburgh, PA

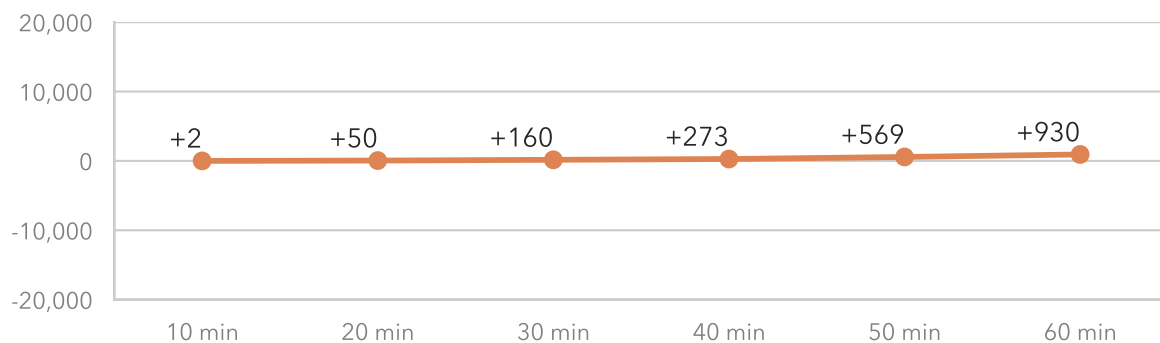
Rank by Weighted Accessibility	22
Rank by Total Employment	24
Rank by 1-Year Change in Weighted Accessibility	19
1-Year Change in Weighted Accessibility	+1.15%
1-Year Change in Weighted Accessibility Rank	-2
Total Jobs	1,138,726
Average Job Density (per km <sup>2</sup> )	83
Total Workers	1,105,247
Average Worker Density (per km <sup>2</sup> )	81

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

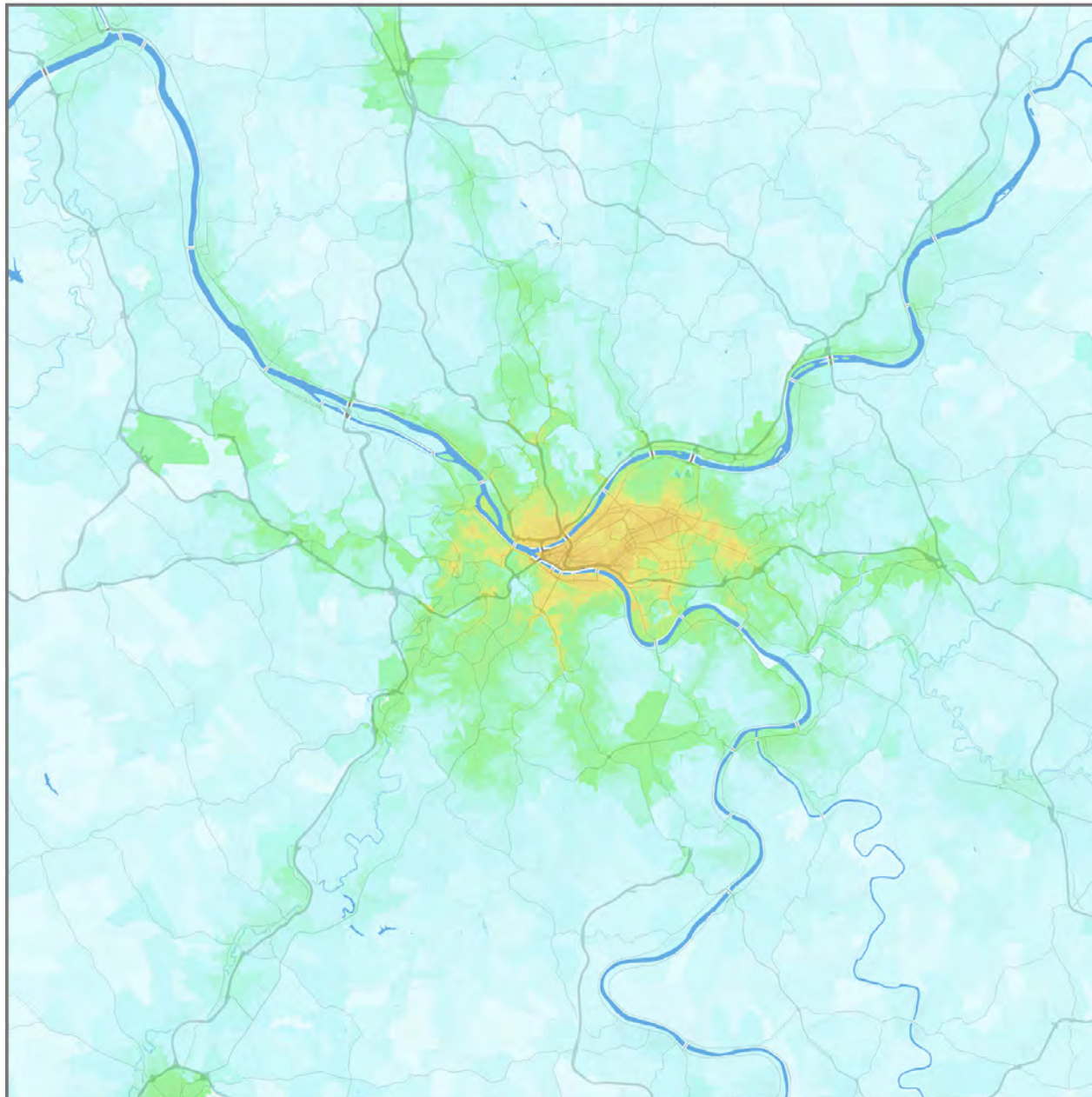


## Transit Schedules Included

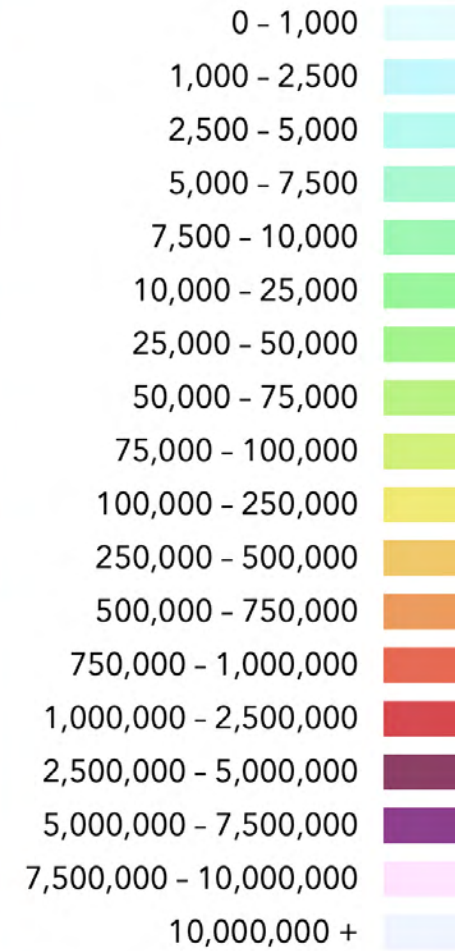
Agency	Dates
Mountain Line Transit Authority	February 20, 2019 - May 31, 2020
Port Authority of Allegheny County	November 18, 2018 - March 16, 2019

# Pittsburgh

Pittsburgh, PA



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —



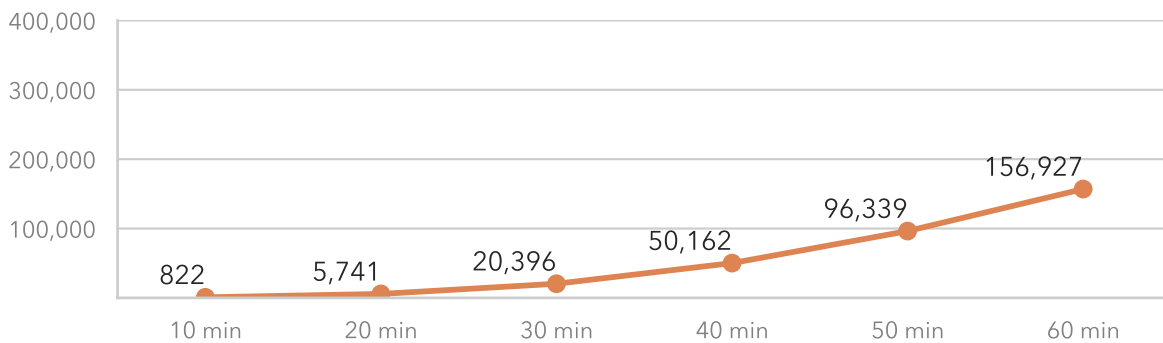
# Portland

Portland-Vancouver-Hillsboro, OR-WA

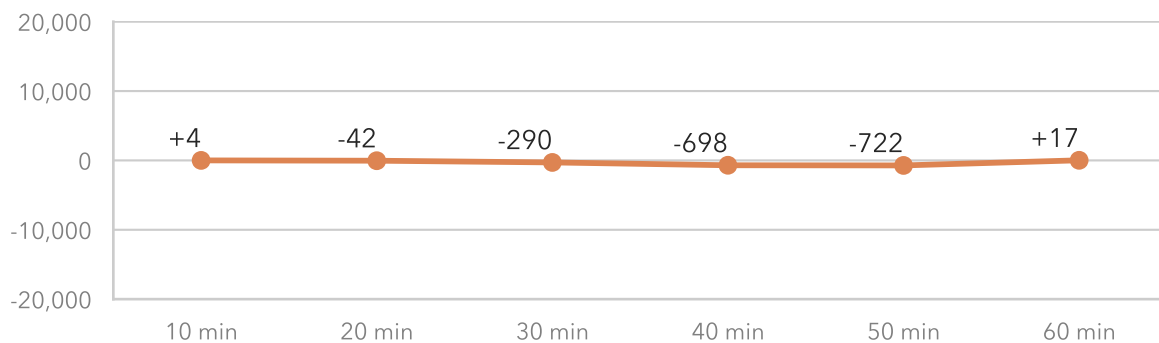
Rank by Weighted Accessibility	11
Rank by Total Employment	22
Rank by 1-Year Change in Weighted Accessibility	31
1-Year Change in Weighted Accessibility	-0.77%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,165,042
Average Job Density (per km <sup>2</sup> )	67
Total Workers	1,140,463
Average Worker Density (per km <sup>2</sup> )	66

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



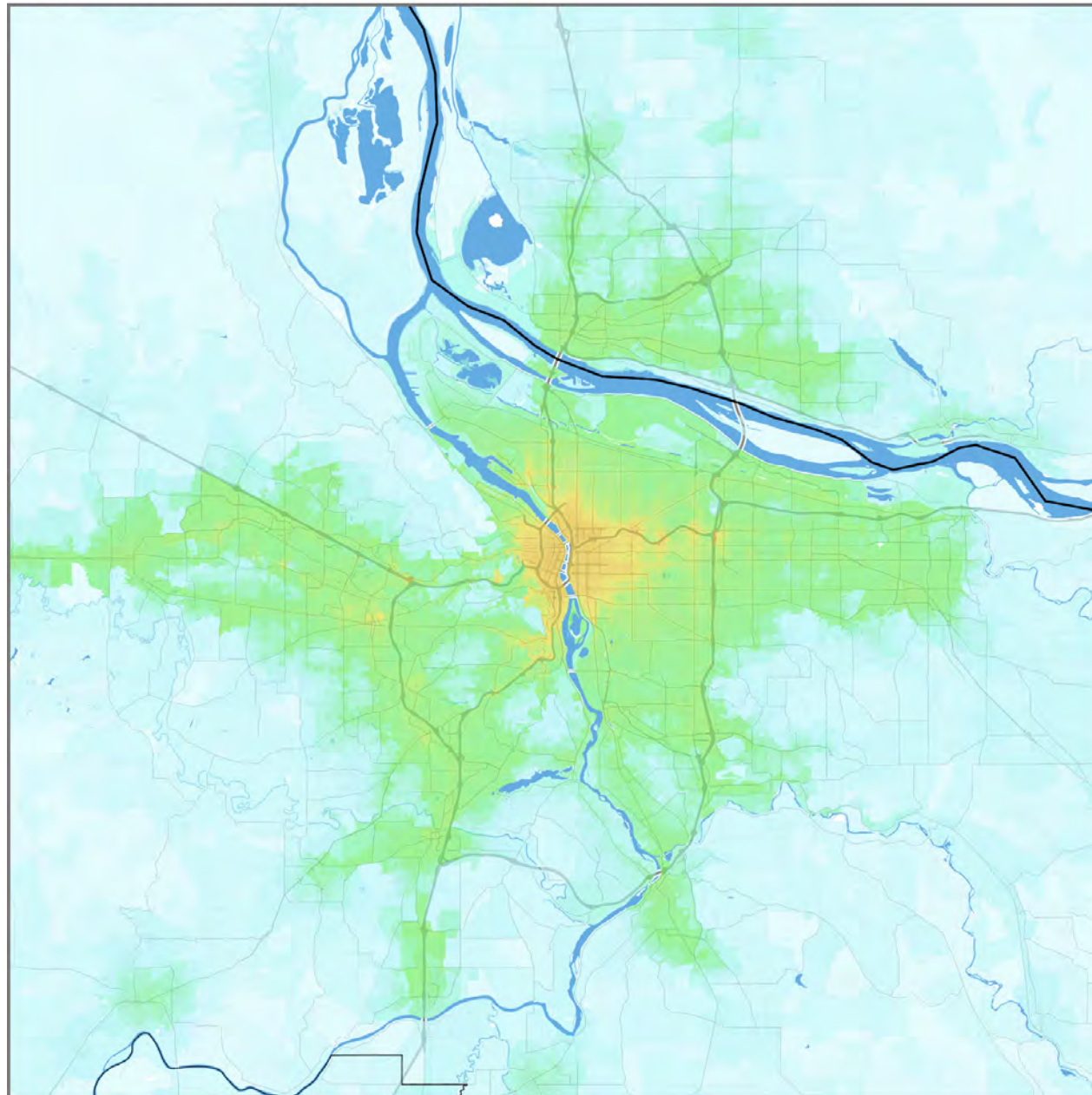


## Transit Schedules Included

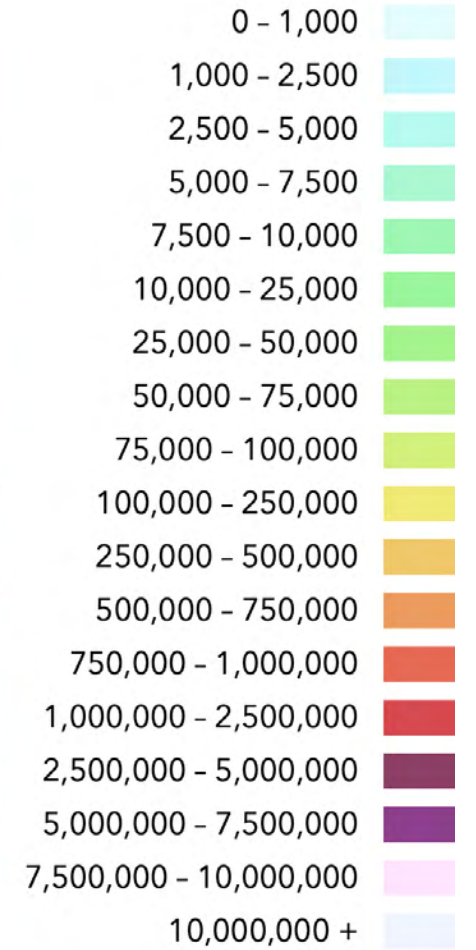
Agency	Dates
Blue Star Bus	January 1, 2013 – January 1, 2021
C-TRAN	January 6, 2019 – May 31, 2019
CCC Xpress	September 24, 2018 – June 15, 2019
Canby Area Transit	January 1, 2014 – January 1, 2021
Caravan Airport Transportation	October 1, 2019 – January 1, 2021
Cascades POINT	January 2, 2018 – January 1, 2020
Central Oregon Breeze	January 1, 2014 – January 1, 2021
Cherriots	July 15, 2018 – January 5, 2019
City2City Shuttle	January 1, 2015 – January 1, 2019
Columbia Area Transit	June 17, 2019 – January 1, 2020
Columbia County Rider	January 1, 2012 – January 1, 2020
Columbia Gorge Express	May 25, 2018 – September 1, 2019
Groome Transportation	May 31, 2019 – January 1, 2021
Mt. Hood Express	June 1, 2017 – January 1, 2020
NorthWest POINT	May 21, 2018 – January 1, 2020
Port of Portland	April 7, 2020 – August 29, 2020
Portland Aerial Tram	December 3, 2018 – June 1, 2019
Portland Streetcar	December 2, 2018 – June 1, 2019
Ride Connection	January 1, 2015 – January 1, 2022
Sandy Area Metro	December 1, 2014 – January 1, 2021
Skamania County Public Transit (Gorge WET Bus)	April 1, 2018 – January 1, 2021
South Clackamas Transportation District	November 1, 2015 – January 1, 2020
South Metro Area Regional Transit	January 1, 2013 – January 1, 2020
Sunset Empire Transportation District	January 1, 2018 – January 1, 2020
Swan Island TMA	January 1, 2013 – January 1, 2019
Tillamook County Transportation District	January 1, 2012 – January 1, 2020
TriMet	December 2, 2018 – June 1, 2019
Washington Park Shuttle	May 1, 2018 – October 31, 2019
Yamhill County Transit Area	January 1, 2015 – January 1, 2020

# Portland

Portland-Vancouver-Hillsboro, OR-WA



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

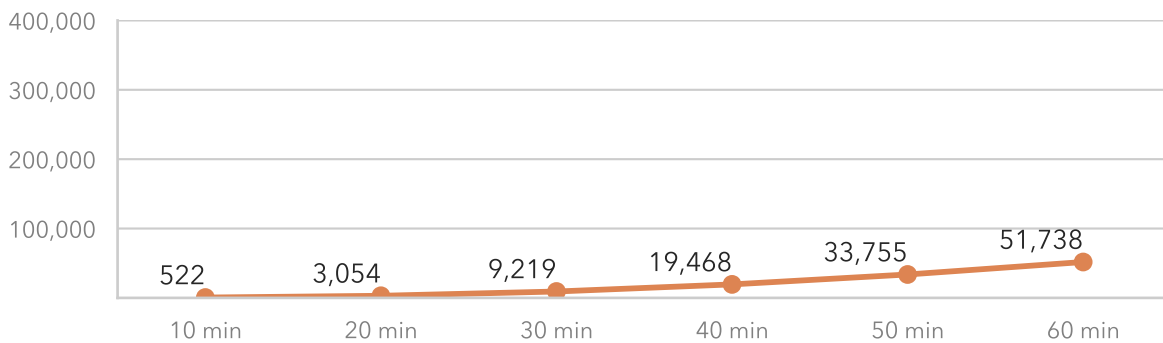
# Providence

Providence-New Bedford-Fall River, RI-MA

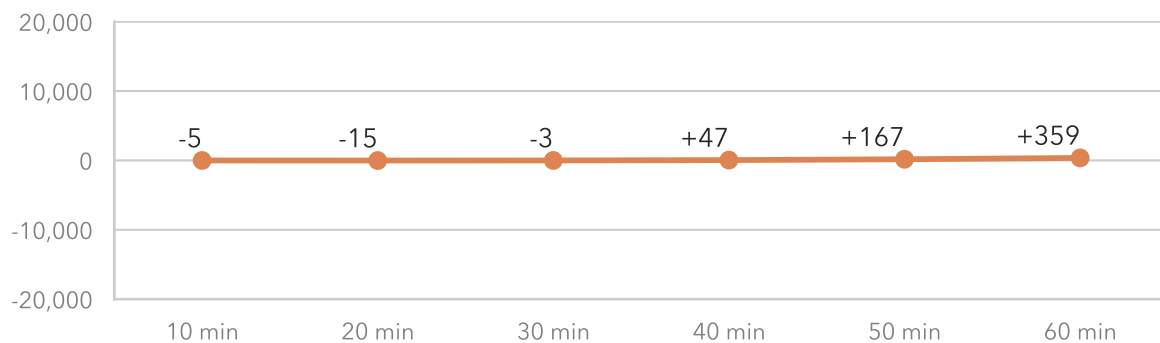
Rank by Weighted Accessibility	31
Rank by Total Employment	38
Rank by 1-Year Change in Weighted Accessibility	24
1-Year Change in Weighted Accessibility	+0.12%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	689,902
Average Job Density (per km <sup>2</sup> )	168
Total Workers	775,615
Average Worker Density (per km <sup>2</sup> )	189

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



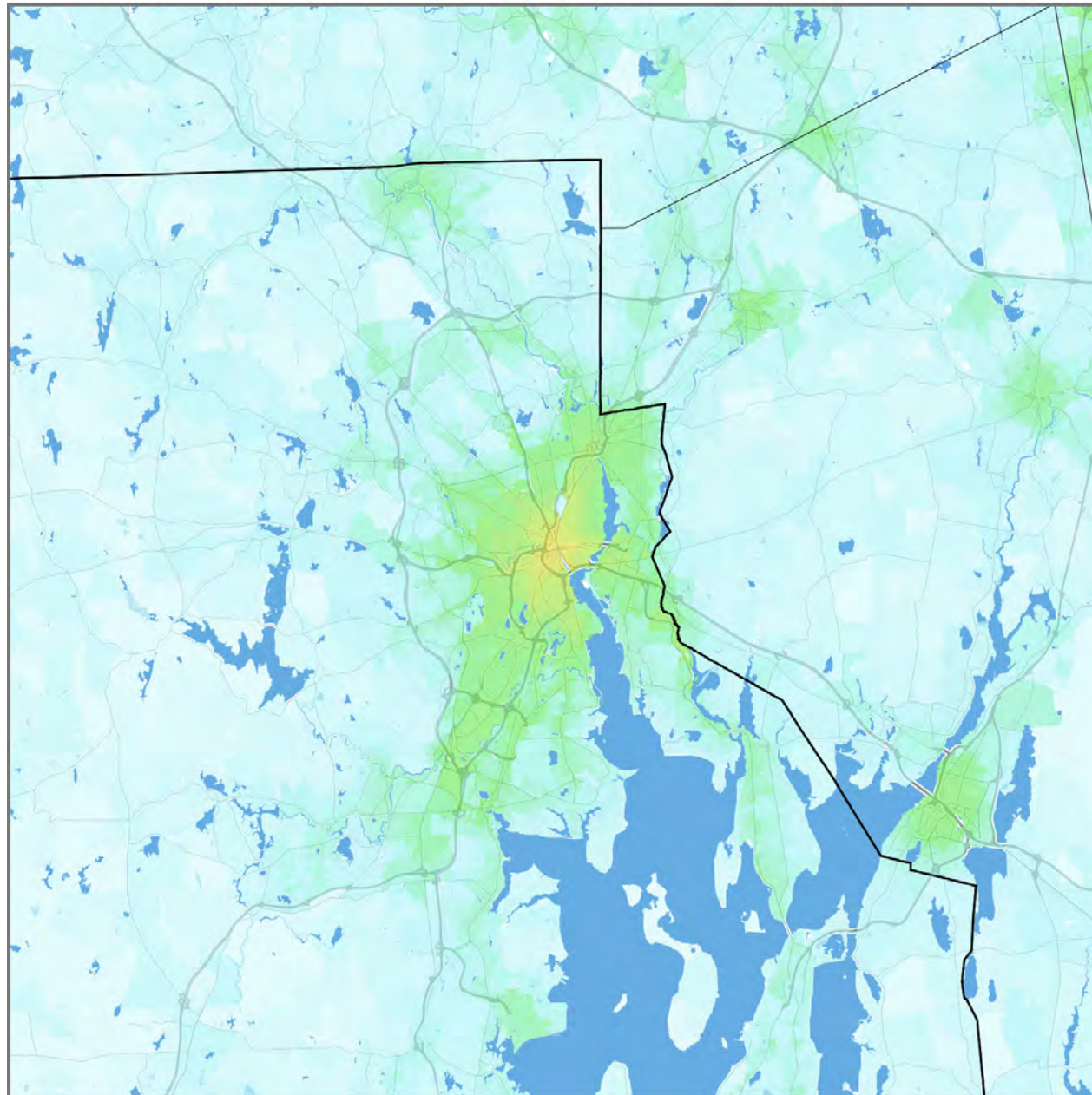
## Transit Schedules Included

Agency	Dates
Block Island Ferry	January 7, 2019 – January 5, 2020
Bloom Bus	January 2, 2015 – January 2, 2016
Brockton Area Transit Authority	January 1, 2015 – January 1, 2021
Cuttyhunk Ferry Co.	October 16, 2017 – April 12, 2019
DATTCO	October 20, 2017 – January 1, 2021
MBTA	December 26, 2018 – March 16, 2019
Rhode Island Public Transit Authority	January 19, 2019 – June 21, 2019
Seastreak	June 15, 2015 – November 27, 2020
Southeastern Regional Transit Authority	January 1, 2015 – January 1, 2021
The Greater Attleboro Taunton Regional Transit Authority	January 1, 2016 – January 1, 2021
Vineyard Fast Ferry	June 7, 2018 – October 9, 2018

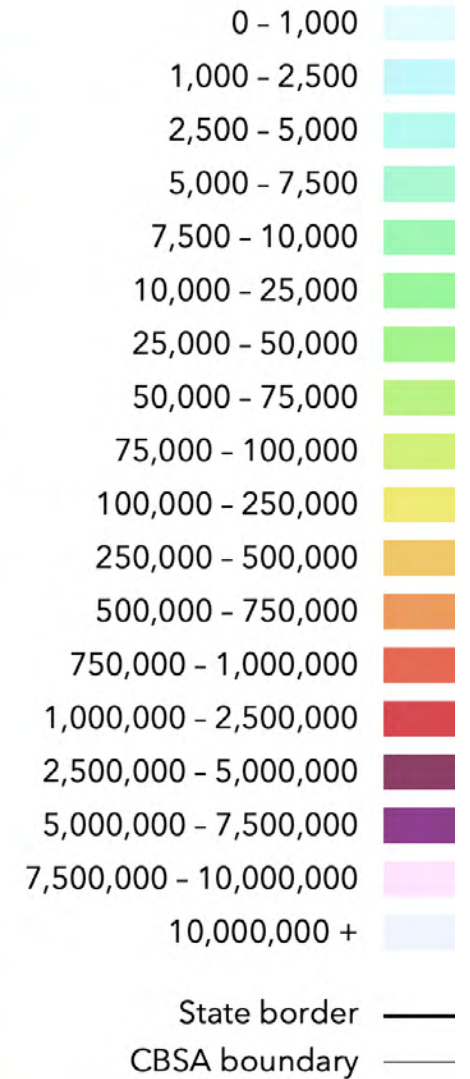


# Providence

Providence-New Bedford-Fall River, RI-MA



Jobs within 30 minutes  
(Transit, AM peak)



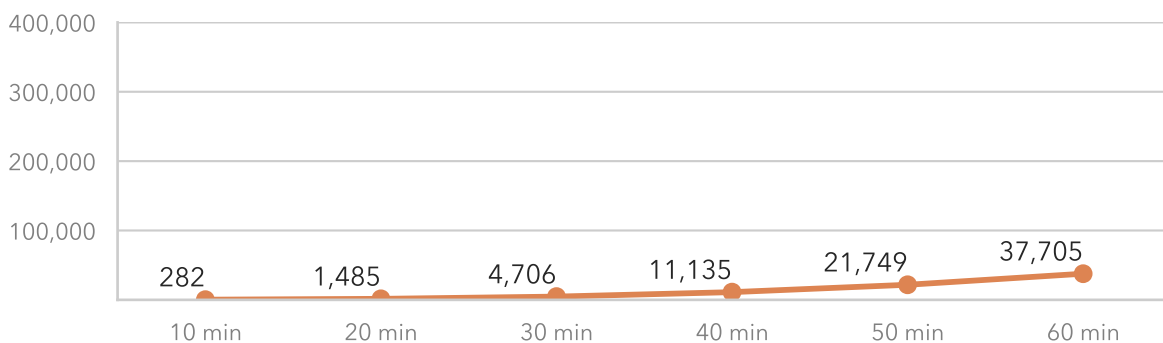
# Raleigh

Raleigh-Cary, NC

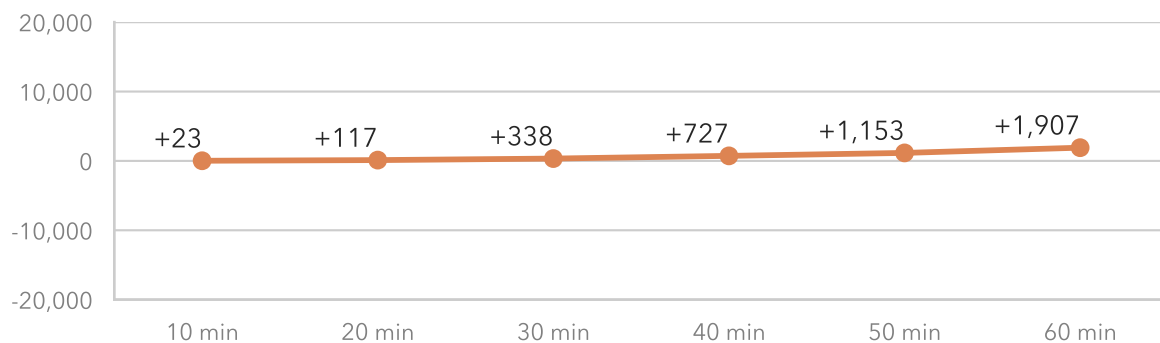
Rank by Weighted Accessibility	45
Rank by Total Employment	43
Rank by 1-Year Change in Weighted Accessibility	2
1-Year Change in Weighted Accessibility	+6.77%
1-Year Change in Weighted Accessibility Rank	+2
Total Jobs	677,938
Average Job Density (per km <sup>2</sup> )	124
Total Workers	615,937
Average Worker Density (per km <sup>2</sup> )	112

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold





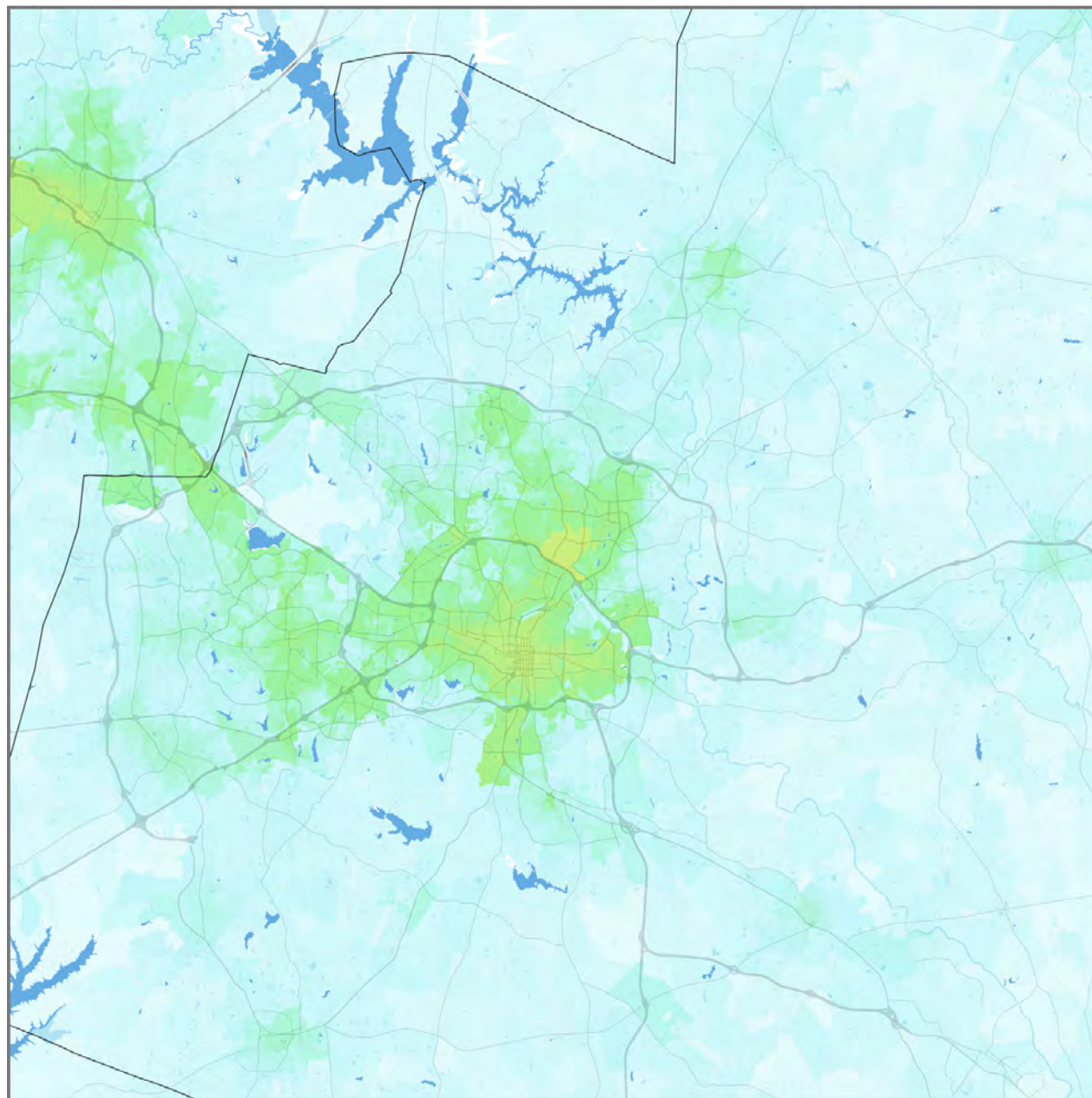
## Transit Schedules Included

Agency	Dates
GoCary	November 23, 2018 - November 27, 2019
GoDurham	December 26, 2018 - December 24, 2020
GoRaleigh	August 1, 2019 - November 25, 2020
GoTriangle	September 4, 2018 - September 4, 2020
NCSU Wolfline	November 26, 2018 - August 13, 2019

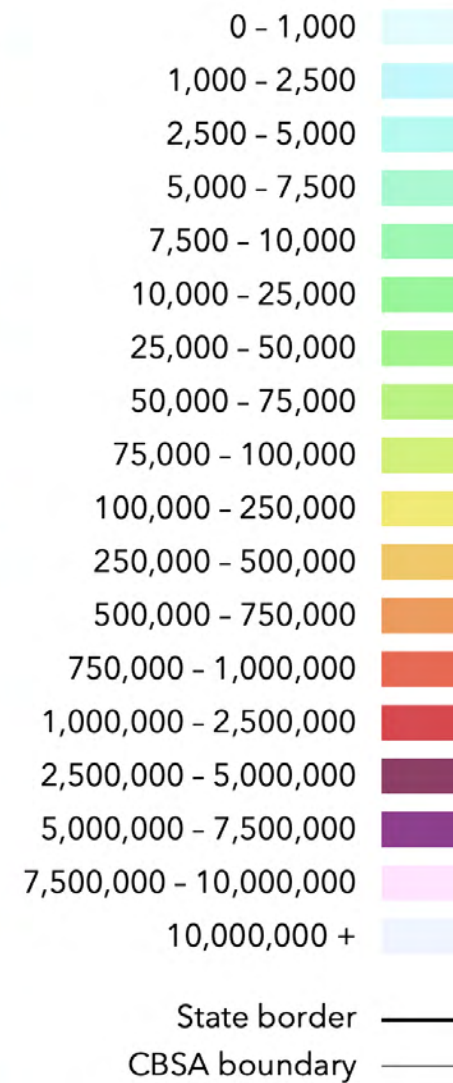
# Raleigh

Raleigh-Cary, NC

125



Jobs within 30 minutes  
(Transit, AM peak)



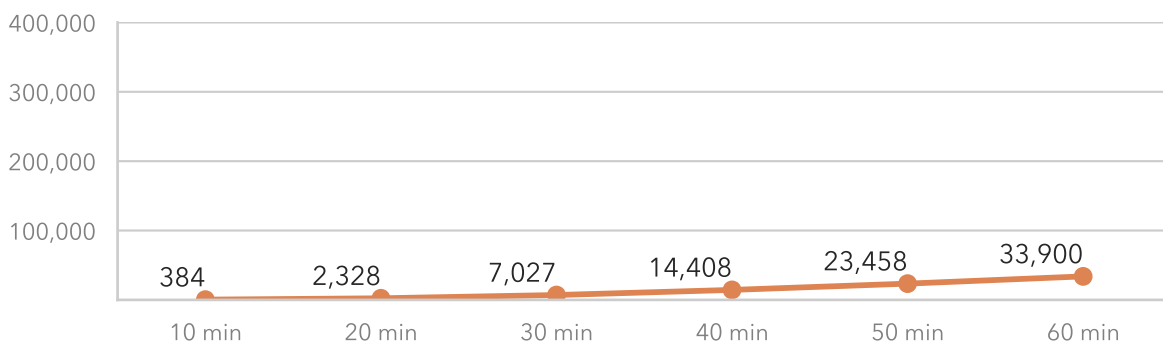
# Richmond

Richmond, VA

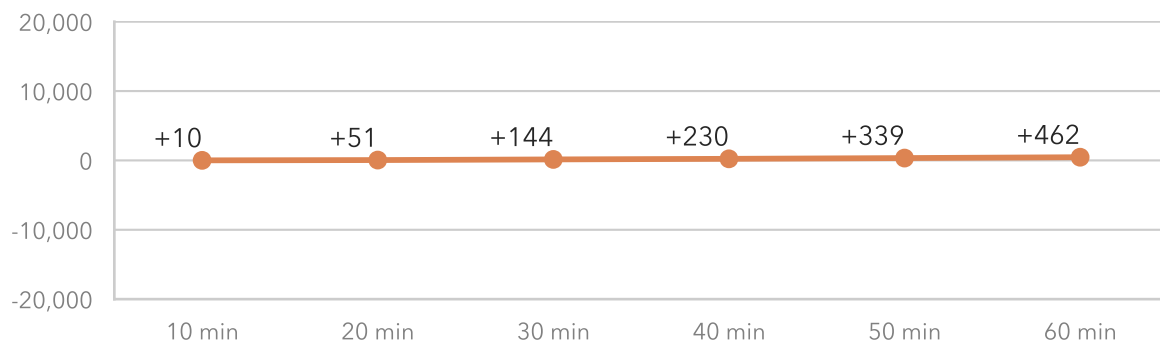
Rank by Weighted Accessibility	41
Rank by Total Employment	42
Rank by 1-Year Change in Weighted Accessibility	13
1-Year Change in Weighted Accessibility	+1.83%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	659,862
Average Job Density (per km <sup>2</sup> )	45
Total Workers	640,682
Average Worker Density (per km <sup>2</sup> )	44

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

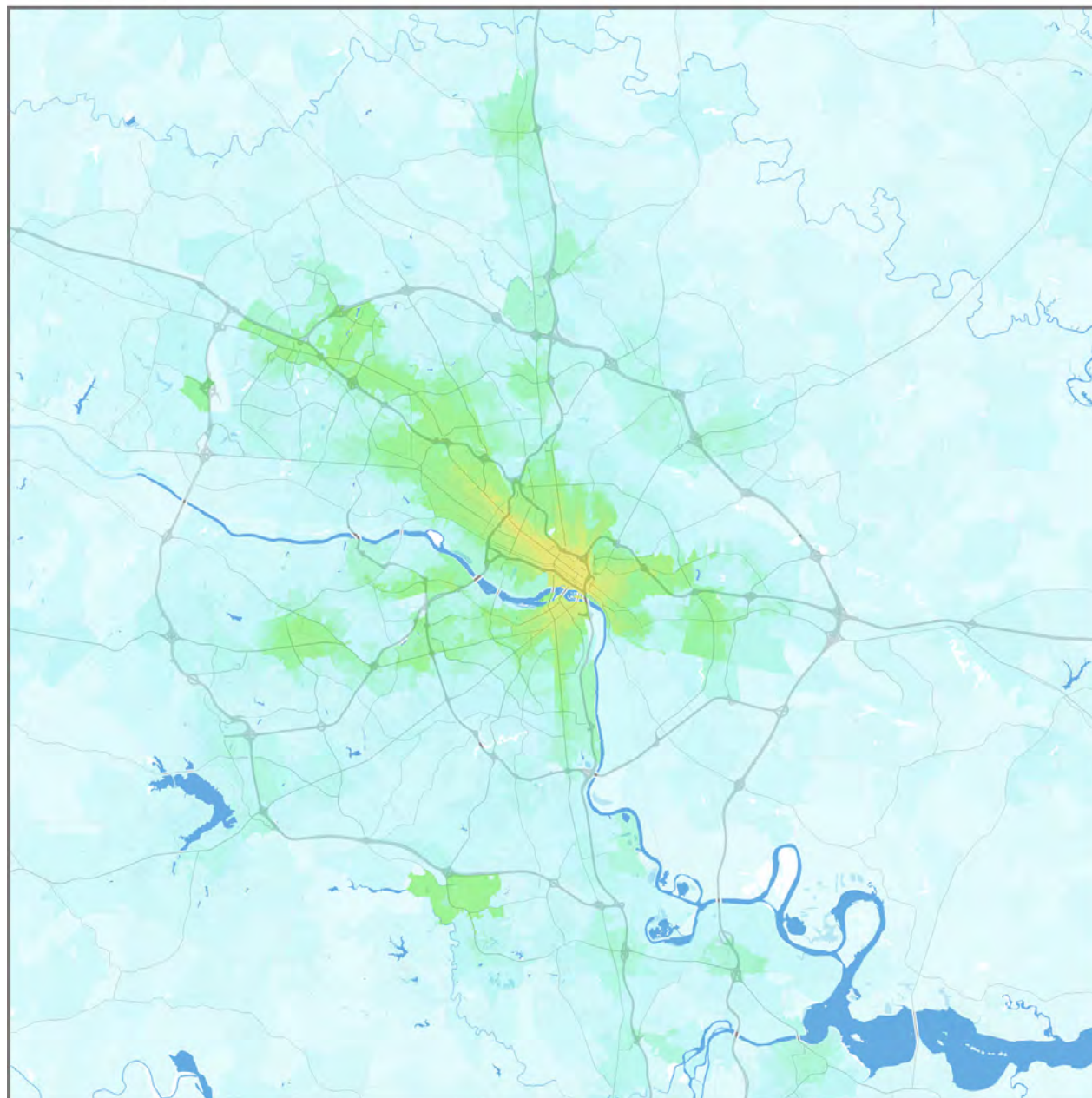


## Transit Schedules Included

Agency	Dates
GRTC Transit System	May 14, 2017 - August 19, 2017

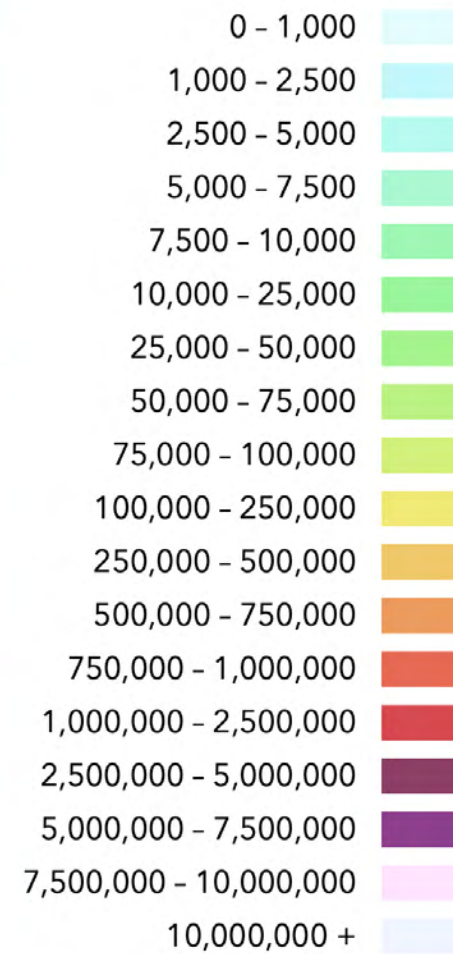
# Richmond

Richmond, VA



## Jobs within 30 minutes

(Transit, AM peak)



State border —  
CBSA boundary —



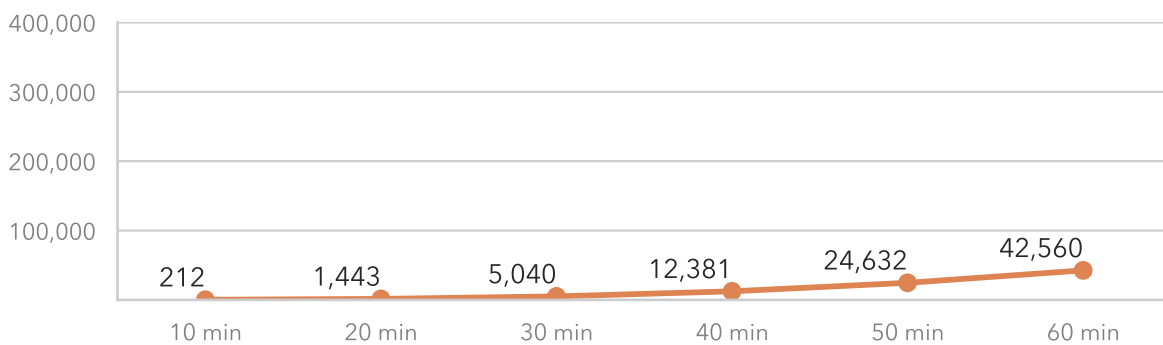
# Riverside

Riverside-San Bernardino-Ontario, CA

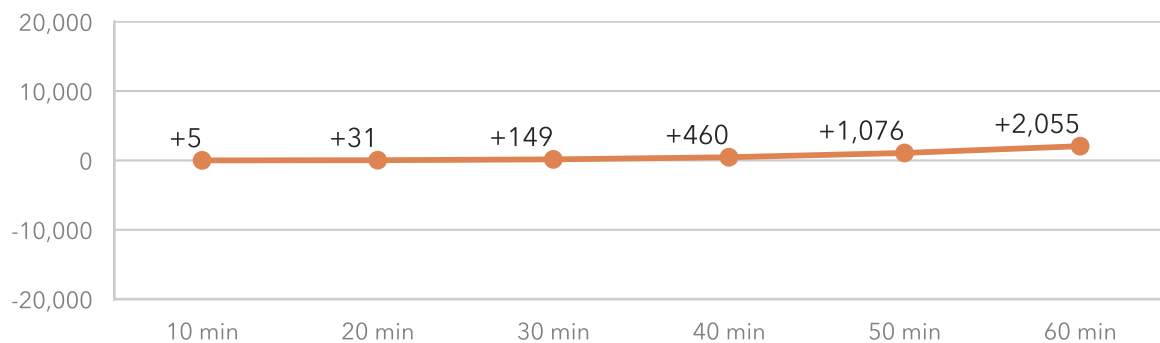
Rank by Weighted Accessibility	43
Rank by Total Employment	16
Rank by 1-Year Change in Weighted Accessibility	5
1-Year Change in Weighted Accessibility	+3.89%
1-Year Change in Weighted Accessibility Rank	+2
Total Jobs	1,439,654
Average Job Density (per km <sup>2</sup> )	20
Total Workers	1,749,931
Average Worker Density (per km <sup>2</sup> )	25

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



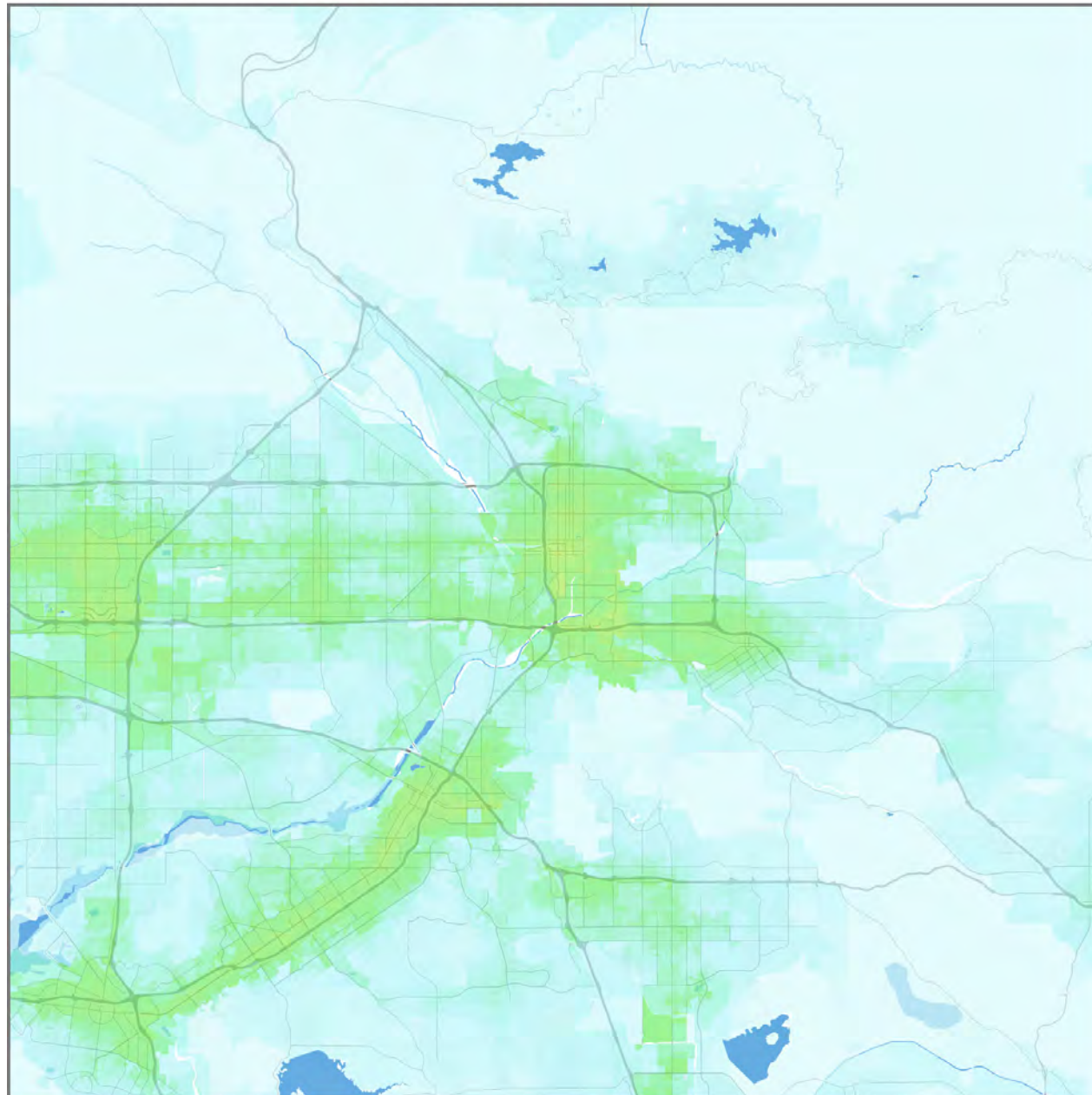


## Transit Schedules Included

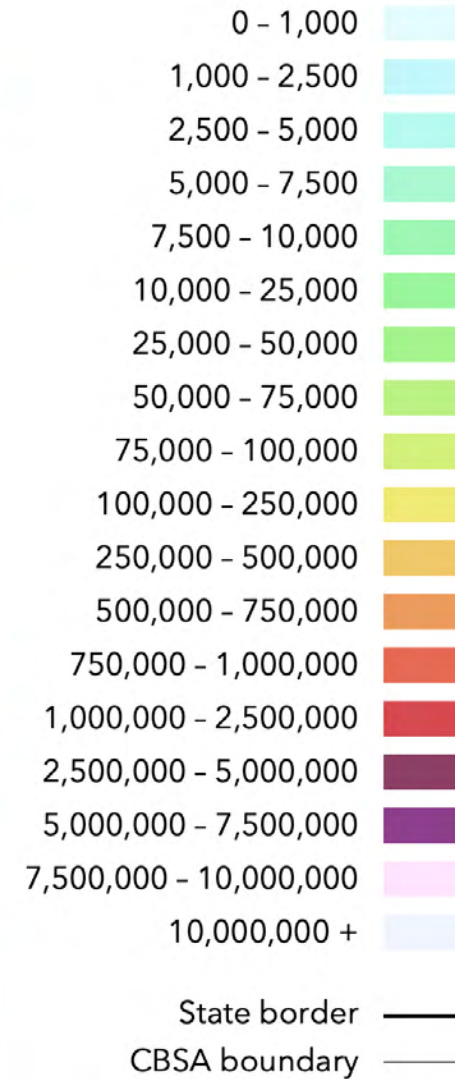
Agency	Dates
Beaumont Pass Transit	January 1, 2013 - January 1, 2020
Beaumont Transit	January 1, 2016 - January 1, 2021
Corona Cruiser	January 1, 2013 - January 1, 2021
Foothill Transit	July 3, 2018 - February 2, 2019
Metrolink Trains	September 1, 2017 - December 31, 2017
Mountain Transit	January 1, 2014 - January 1, 2021
OMNITRANS	January 7, 2019 - September 1, 2019
Orange County Transportation Authority	June 10, 2018 - February 10, 2019
Palo Verde Valley Transit Agency	January 1, 2013 - January 1, 2021
Riverside Transit Agency	January 13, 2019 - May 11, 2019
SunLine Transit Agency	January 6, 2019 - May 4, 2019
Victor Valley Transit Authority	January 1, 2016 - January 1, 2020

# Riverside

Riverside-San Bernardino-Ontario, CA



Jobs within 30 minutes  
(Transit, AM peak)



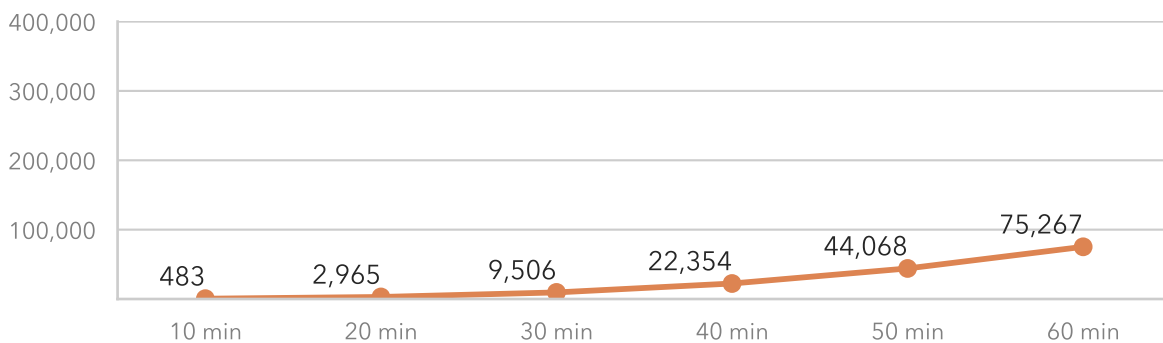
# Sacramento

Sacramento-Arden-Arcade-Roseville, CA

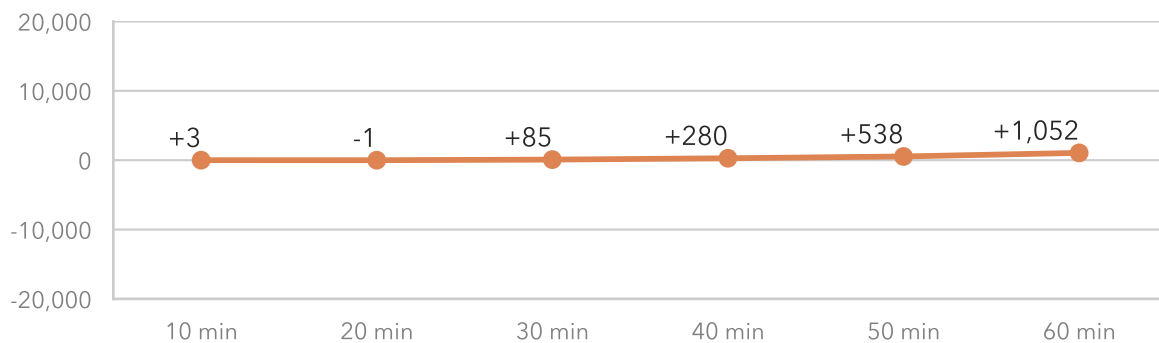
Rank by Weighted Accessibility	28
Rank by Total Employment	29
Rank by 1-Year Change in Weighted Accessibility	21
1-Year Change in Weighted Accessibility	+1.02%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	951,760
Average Job Density (per km <sup>2</sup> )	72
Total Workers	964,523
Average Worker Density (per km <sup>2</sup> )	73

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

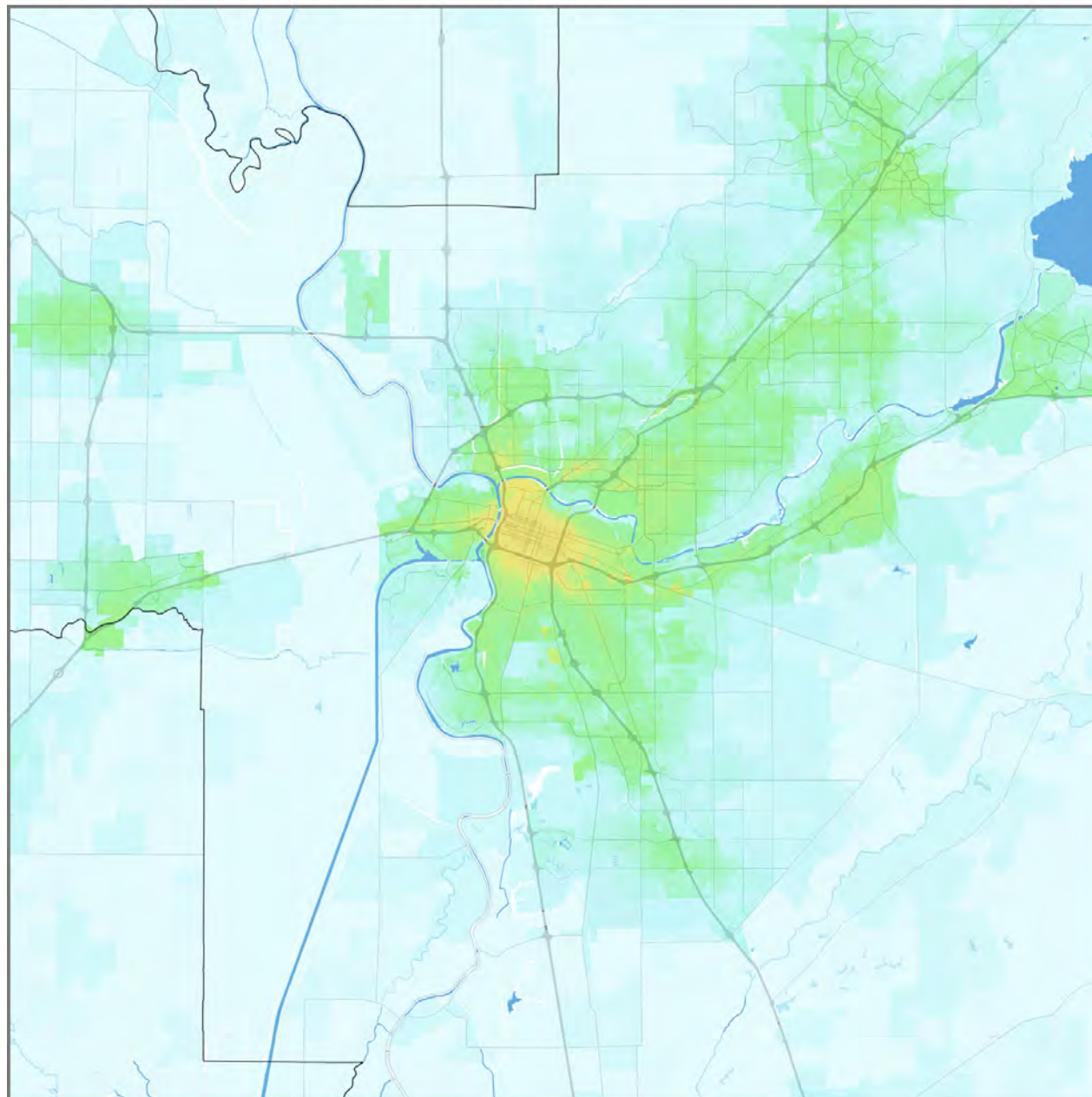


## Transit Schedules Included

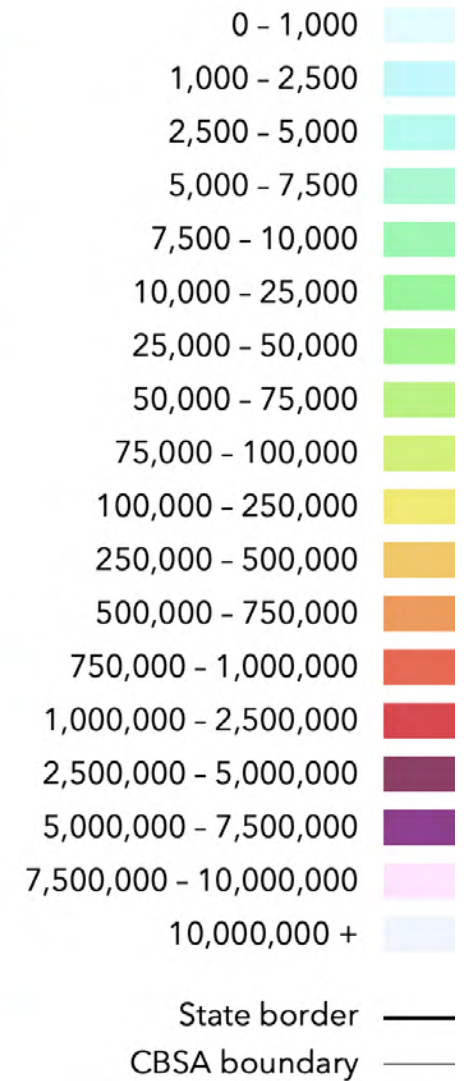
Agency	Dates
Amador Transit	January 1, 2012 – January 1, 2021
BlueGo	September 5, 2015 – January 1, 2017
Capitol Corridor Joint Powers Authority	May 7, 2018 – March 31, 2020
El Dorado Transit	January 16, 2018 – January 1, 2020
Fairfield and Suisun Transit	January 1, 2013 – January 1, 2019
Folsom Stage Lines	June 1, 2018 – May 30, 2019
Mountain Line	January 1, 2014 – January 1, 2017
Nevada County Gold Country Stage	July 1, 2018 – December 31, 2019
Night Rider (Airport Minibus)	July 1, 2015 – September 6, 2015
Placer County Transit	January 2, 2019 – January 2, 2021
Rio Vista Delta Breeze	February 1, 2017 – January 1, 2021
Roseville Transit	August 8, 2016 – December 31, 2019
Sacramento Regional Transit	September 2, 2018 – April 6, 2019
San Joaquin Regional Transit District (RTD)	July 29, 2018 – January 26, 2019
Tahoe Area Regional Transit	December 14, 2018 – April 9, 2019
Tahoe Transportation District	October 1, 2018 – January 2, 2022
Tahoe Truckee Area Regional Transit	April 8, 2019 – September 2, 2019
Unitrans (Davis)	August 6, 2018 – September 25, 2018
Yolo County Transportation District	February 3, 2019 – October 6, 2019
Yuba-Sutter Transit	January 1, 2013 – January 1, 2022

# Sacramento

Sacramento--Arden-Arcade--Roseville, CA



Jobs within 30 minutes  
(Transit, AM peak)



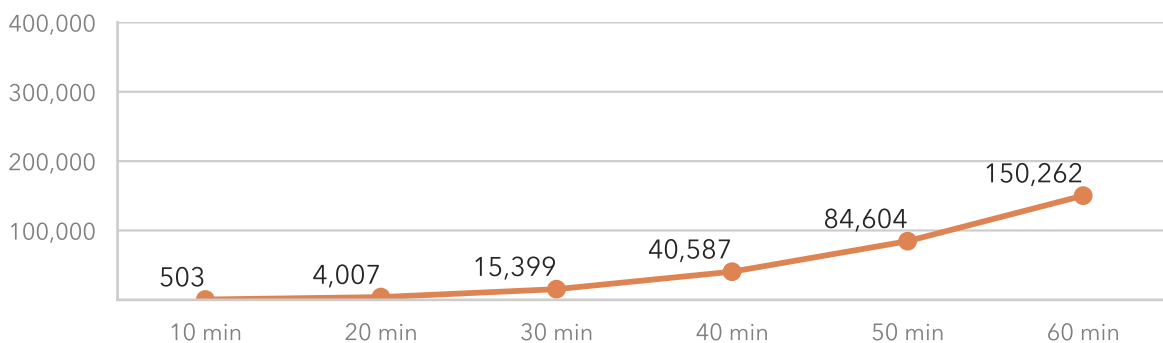
# Salt Lake City

Salt Lake City, UT

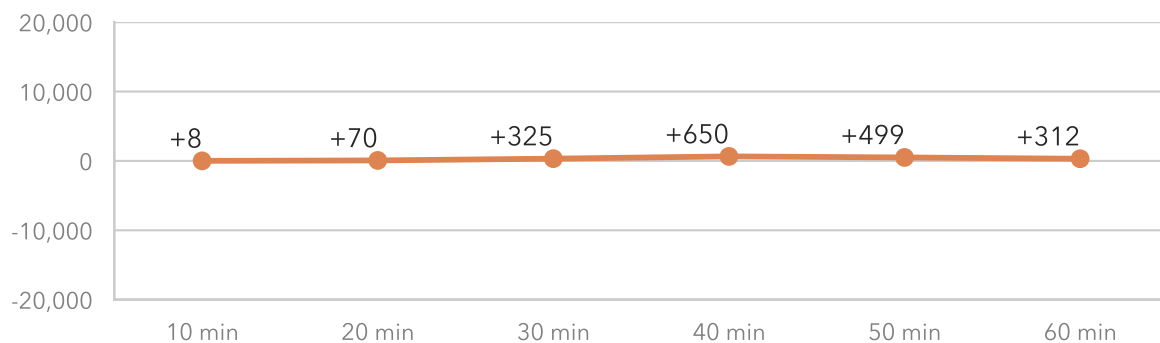
Rank by Weighted Accessibility	14
Rank by Total Employment	44
Rank by 1-Year Change in Weighted Accessibility	20
1-Year Change in Weighted Accessibility	+1.12%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	716,561
Average Job Density (per km <sup>2</sup> )	29
Total Workers	605,393
Average Worker Density (per km <sup>2</sup> )	24

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



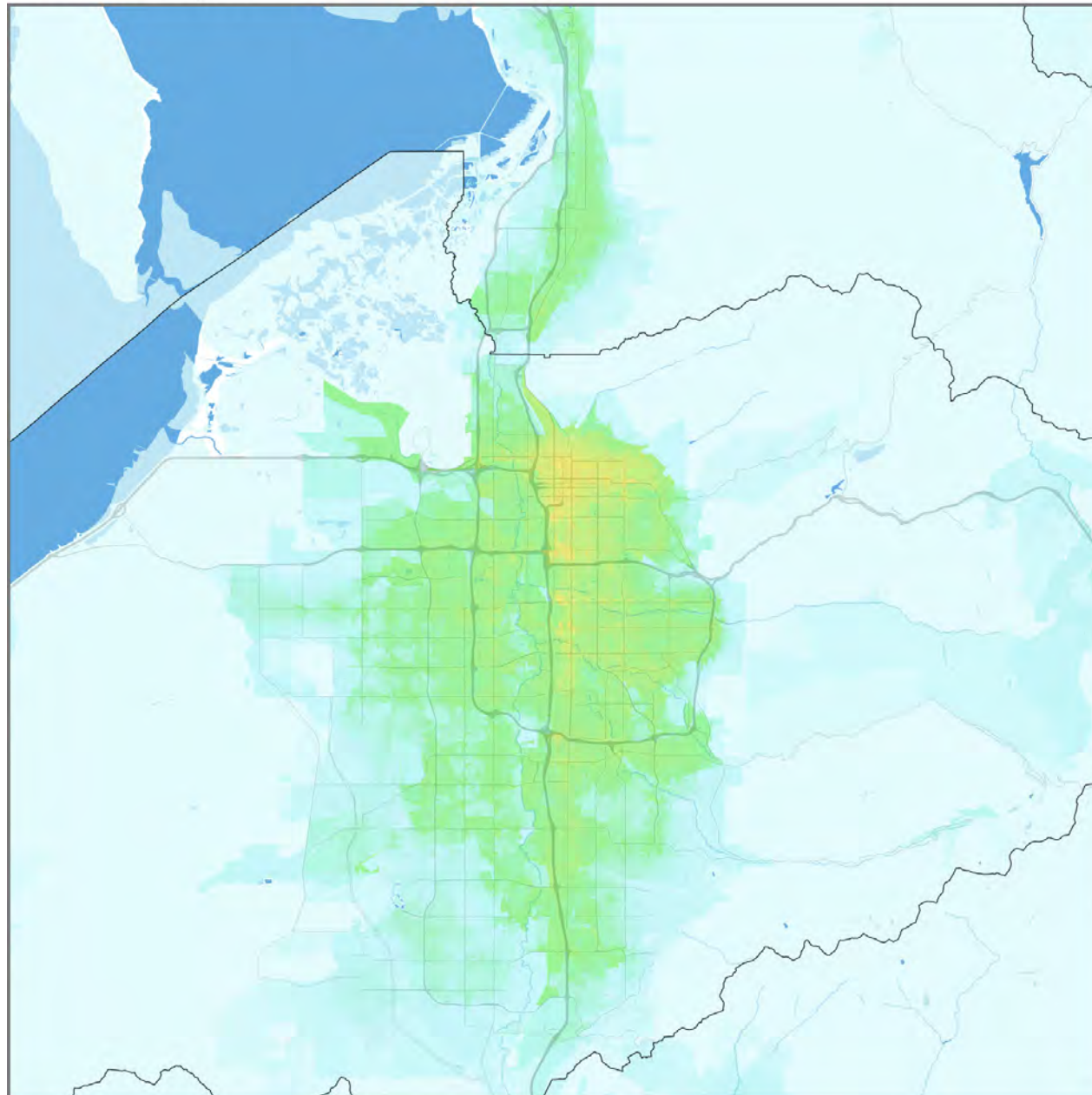


## Transit Schedules Included

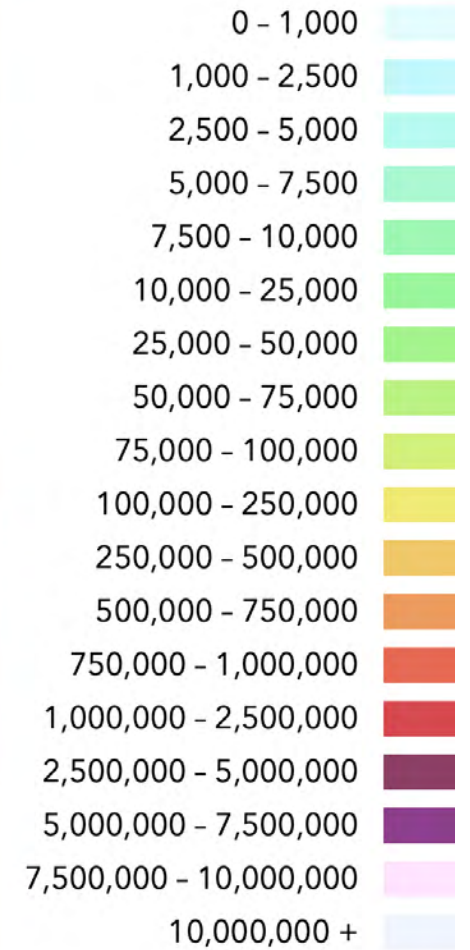
Agency	Dates
Elevated Transit	November 20, 2014 - January 1, 2019
Utah Transit Authority	August 12, 2018 - April 6, 2019

# Salt Lake City

Salt Lake City, UT



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

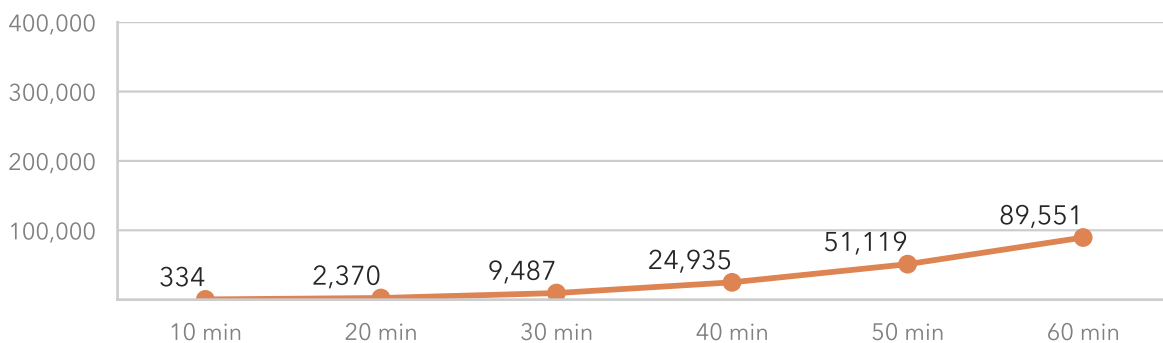
# San Antonio

San Antonio-New Braunfels, TX

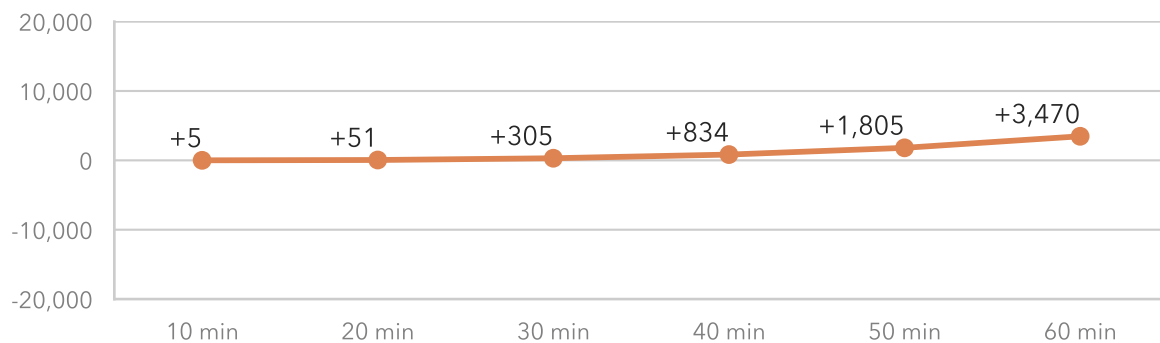
Rank by Weighted Accessibility	26
Rank by Total Employment	27
Rank by 1-Year Change in Weighted Accessibility	8
1-Year Change in Weighted Accessibility	+3.44%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	979,988
Average Job Density (per km <sup>2</sup> )	52
Total Workers	1,019,742
Average Worker Density (per km <sup>2</sup> )	54

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



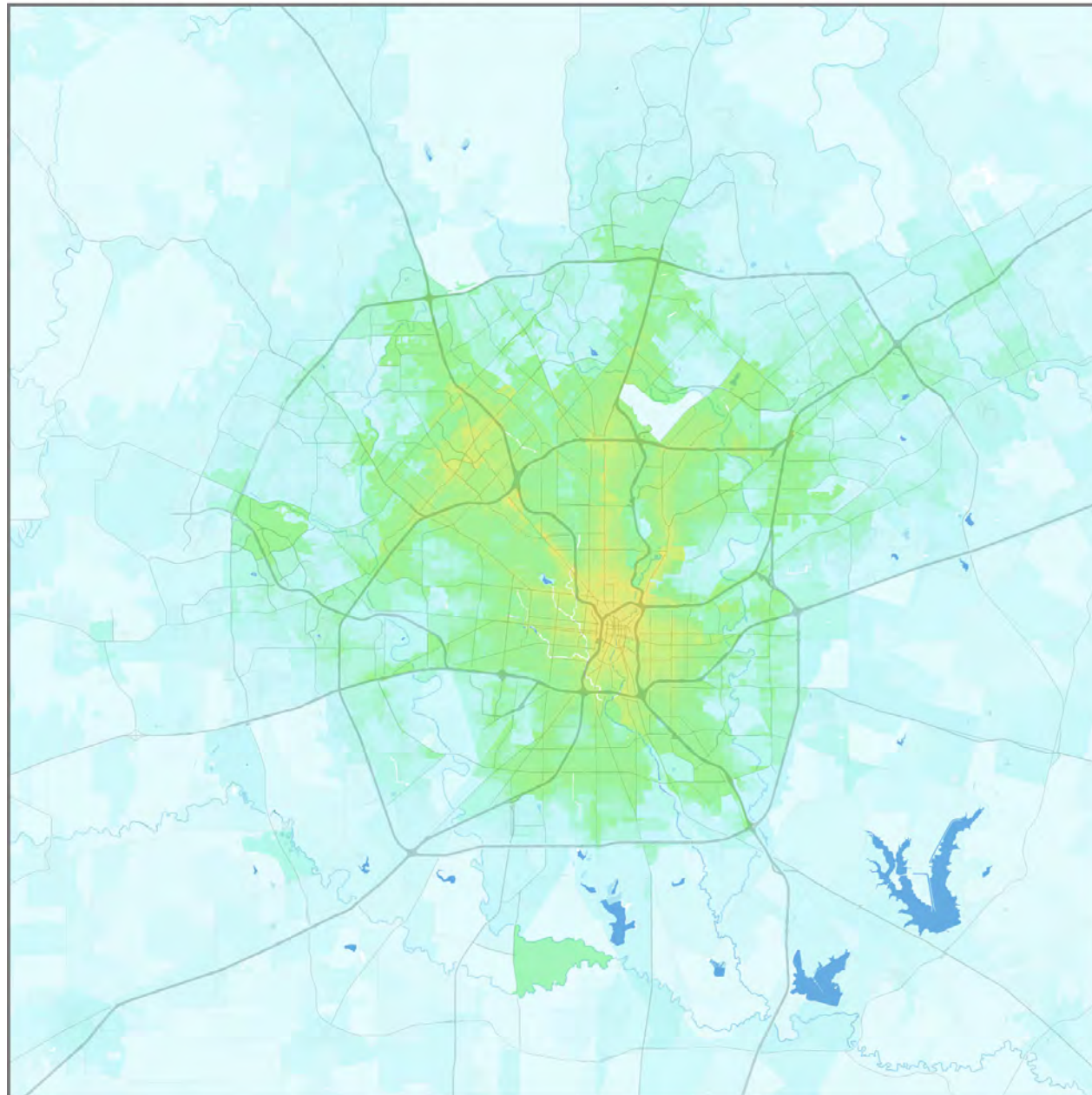
## Transit Schedules Included

Agency	Dates
VIA Metropolitan Transit	January 7, 2019 - May 5, 2019

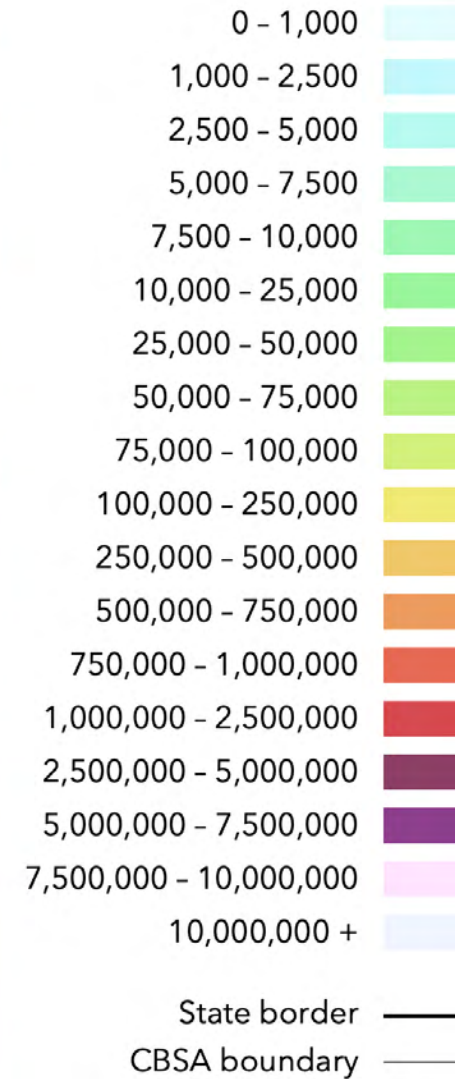
# San Antonio

San Antonio-New Braunfels, TX

140



Jobs within 30 minutes  
(Transit, AM peak)



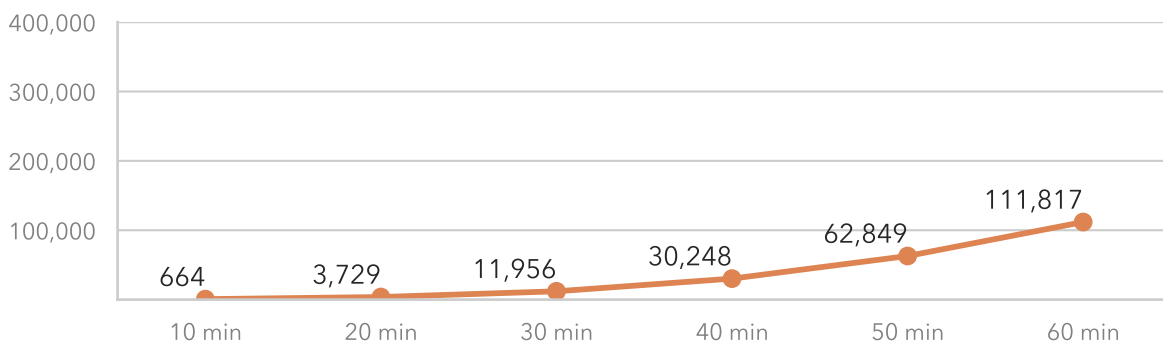
# San Diego

San Diego-Carlsbad-San Marcos, CA

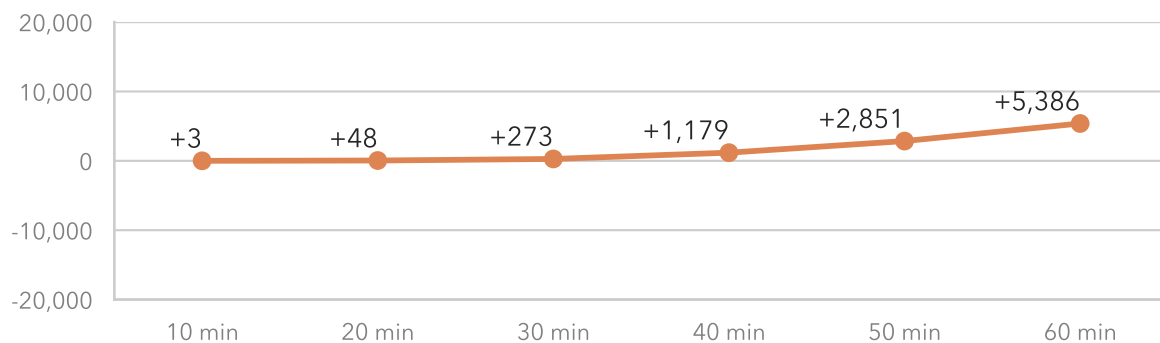
Rank by Weighted Accessibility	17
Rank by Total Employment	17
Rank by 1-Year Change in Weighted Accessibility	7
1-Year Change in Weighted Accessibility	+3.63%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	1,403,191
Average Job Density (per km <sup>2</sup> )	129
Total Workers	1,419,381
Average Worker Density (per km <sup>2</sup> )	130

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



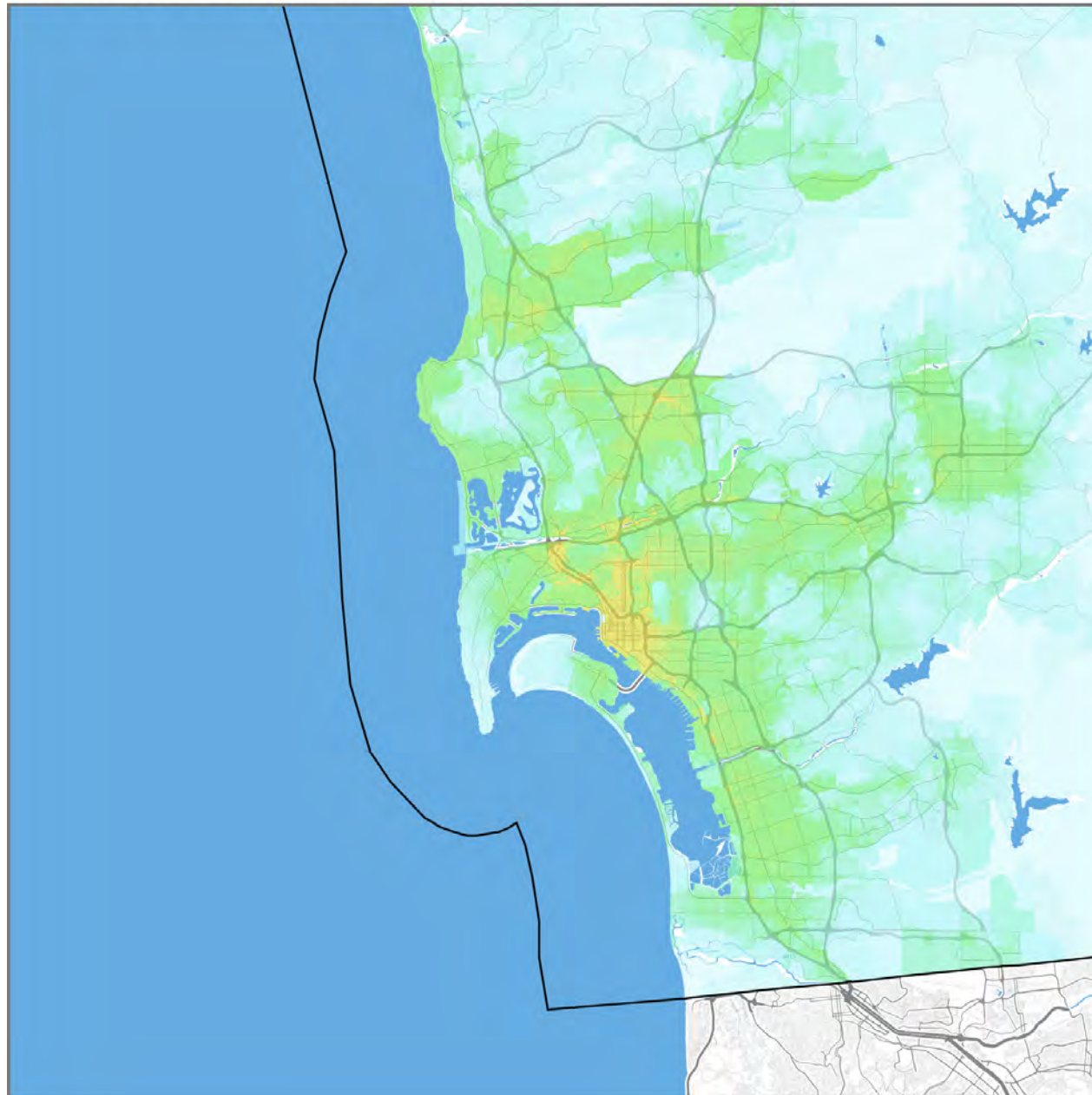


## Transit Schedules Included

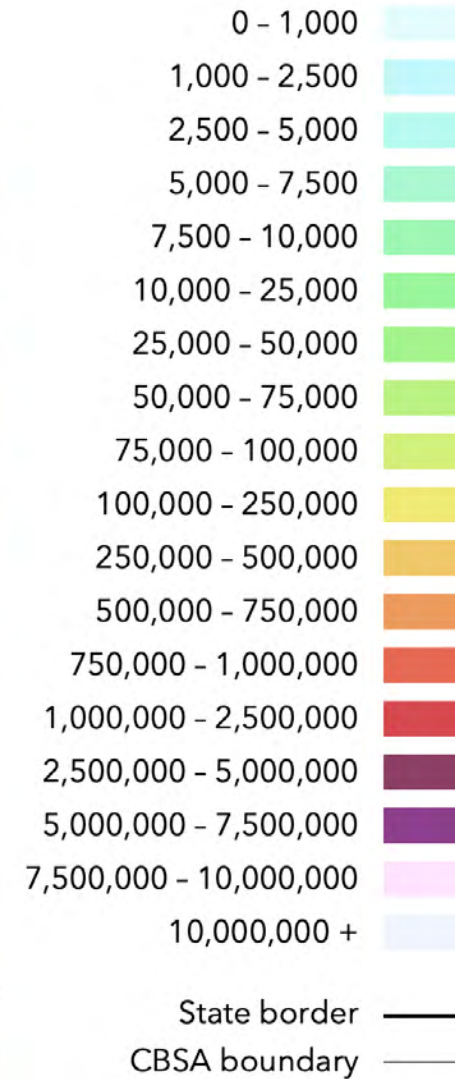
Agency	Dates
MTS	January 26, 2018 - January 26, 2019
Metrolink Trains	September 1, 2017 - December 31, 2017
North County Transit District	October 7, 2018 - October 5, 2019
Riverside Transit Agency	January 13, 2019 - May 11, 2019
San Diego International Airport	September 2, 2018 - June 8, 2019

# San Diego

San Diego-Carlsbad-San Marcos, CA



Jobs within 30 minutes  
(Transit, AM peak)



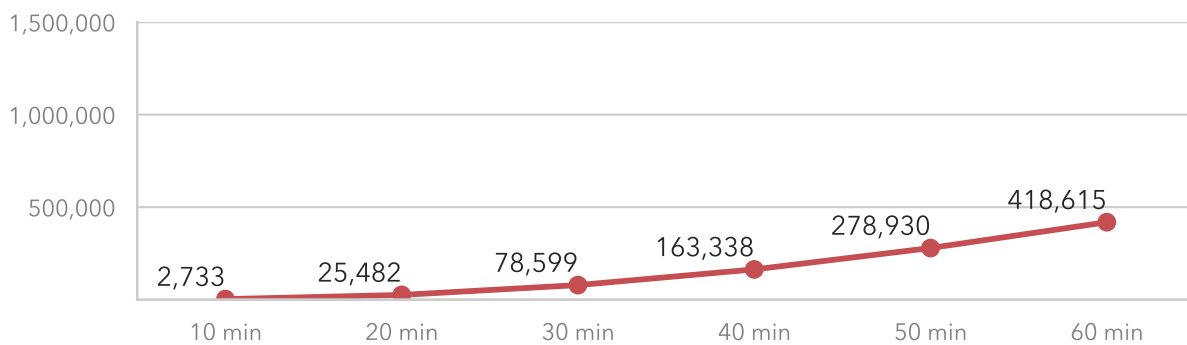
# San Francisco

San Francisco-Oakland-Fremont, CA

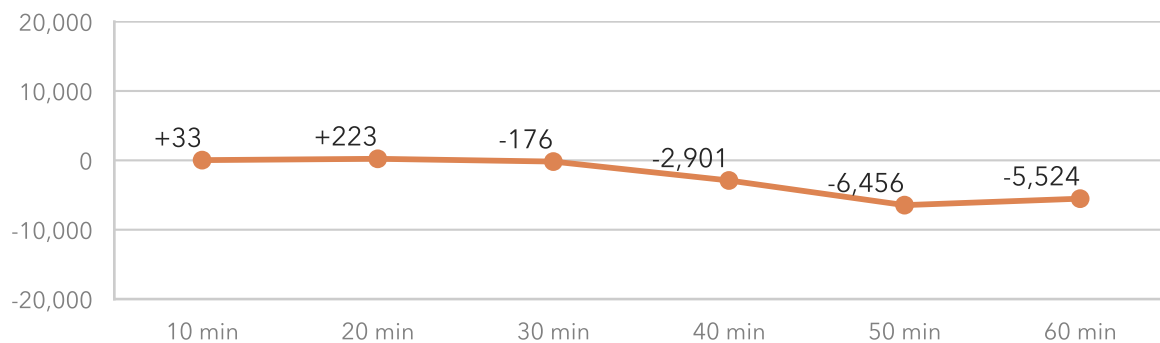
Rank by Weighted Accessibility	2
Rank by Total Employment	11
Rank by 1-Year Change in Weighted Accessibility	32
1-Year Change in Weighted Accessibility	-0.87%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	2,400,290
Average Job Density (per km <sup>2</sup> )	375
Total Workers	2,241,034
Average Worker Density (per km <sup>2</sup> )	350

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

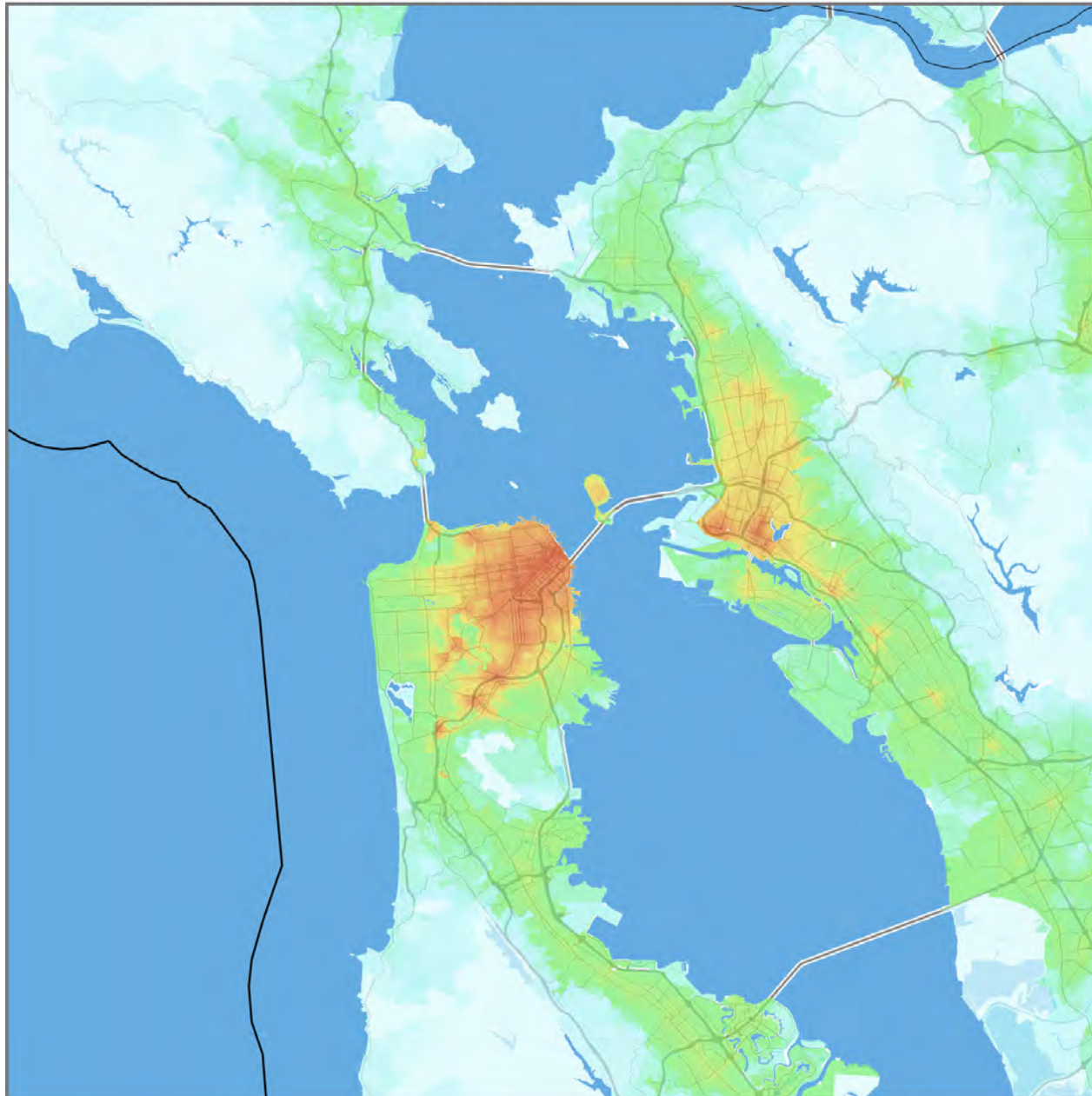


## Transit Schedules Included

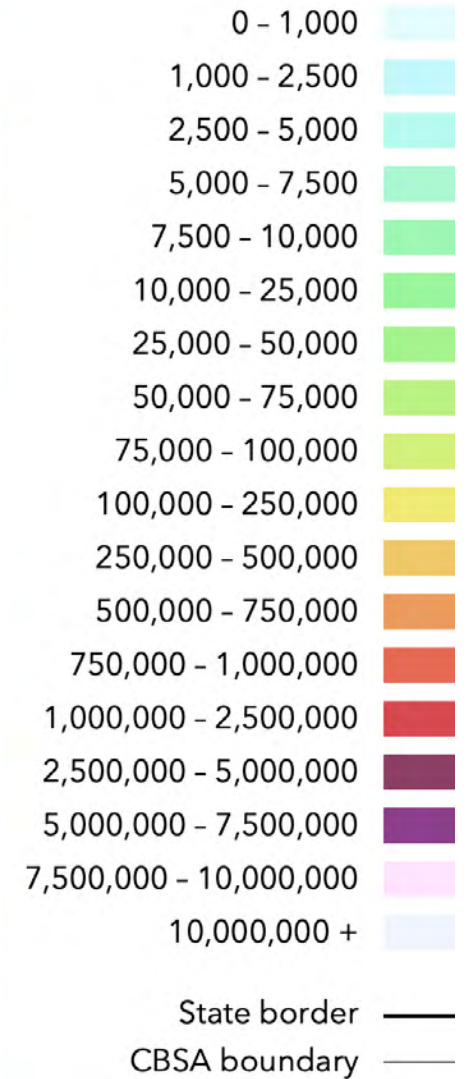
Agency	Dates
AC Transit	December 22, 2018 - March 16, 2019
ACE Altamont Corridor Express	March 11, 2013 - May 19, 2019
Alameda County Clean Commute Program	January 1, 2015 - December 1, 2019
Bay Area Rapid Transit	September 10, 2018 - September 10, 2019
Bear Transit - UC Berkeley Shuttle	January 7, 2015 - January 31, 2018
Caltrain	October 2, 2017 - October 6, 2019
Capitol Corridor Joint Powers Authority	May 7, 2018 - March 31, 2020
County Connection	August 12, 2018 - March 9, 2019
Dumbarton Express Consortium	June 17, 2019 - August 9, 2019
Emery Go-Round	November 30, 2018 - December 31, 2020
Fairfield and Suisun Transit	January 1, 2013 - January 1, 2019
Golden Gate Ferry	June 21, 2019 - September 7, 2019
Golden Gate Transit	December 9, 2018 - March 9, 2019
Livermore Amador Valley Transit Authority	October 1, 2018 - May 31, 2019
Marin Transit	June 10, 2018 - October 31, 2019
Mission Bay TMA	September 10, 2018 - January 1, 2021
Modesto Area Express	January 1, 2018 - January 1, 2020
Napa	April 30, 2019 - April 29, 2020
Rio Vista Delta Breeze	February 1, 2017 - January 1, 2021
SamTrans	January 20, 2019 - June 8, 2019
San Francisco Bay Ferry	October 29, 2018 - January 1, 2020
San Francisco Municipal Transportation Agency	January 22, 2018 - March 8, 2019
San Joaquin Regional Transit District (RTD)	July 29, 2018 - January 26, 2019
SolTrans	July 1, 2018 - January 18, 2020
Sonoma County Transit	August 14, 2018 - January 1, 2020
Sonoma Marin Area Rail Transit	August 25, 2017 - December 31, 2020
Stanford Marguerite Shuttle	May 29, 2017 - October 1, 2019
Stanislaus Regional Transit	August 22, 2016 - January 1, 2021
Tideline Marine Group Inc	August 14, 2018 - April 18, 2020
Tri Delta Transit	June 19, 2019 - December 31, 2020
Union City Transit	January 1, 2019 - December 31, 2019
VTA	January 14, 2019 - April 7, 2019
WestCat (Western Contra Costa)	June 1, 2016 - January 1, 2021

# San Francisco

San Francisco-Oakland-Fremont, CA



Jobs within 30 minutes  
(Transit, AM peak)



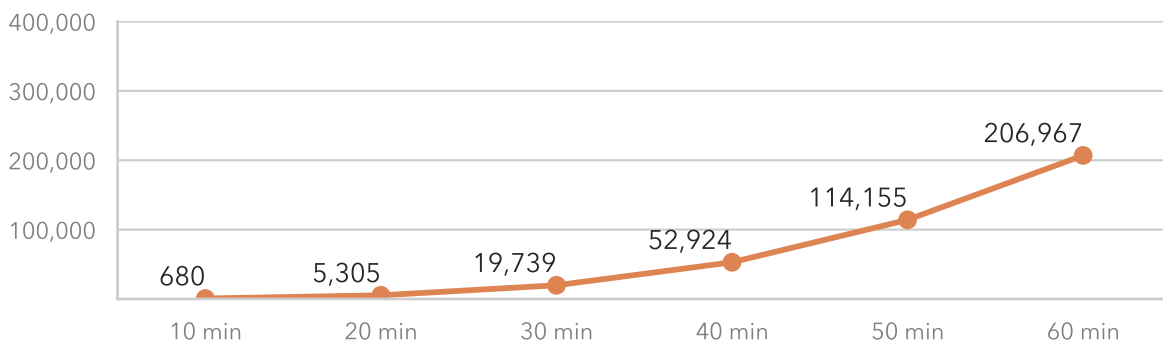
# San Jose

San Jose-Sunnyvale-Santa Clara, CA

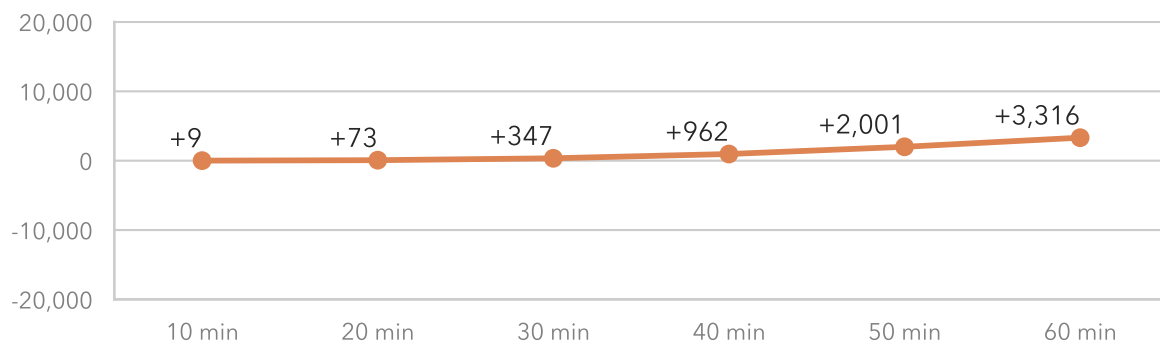
Rank by Weighted Accessibility	9
Rank by Total Employment	31
Rank by 1-Year Change in Weighted Accessibility	16
1-Year Change in Weighted Accessibility	+1.70%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	1,077,279
Average Job Density (per km <sup>2</sup> )	155
Total Workers	947,987
Average Worker Density (per km <sup>2</sup> )	137

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



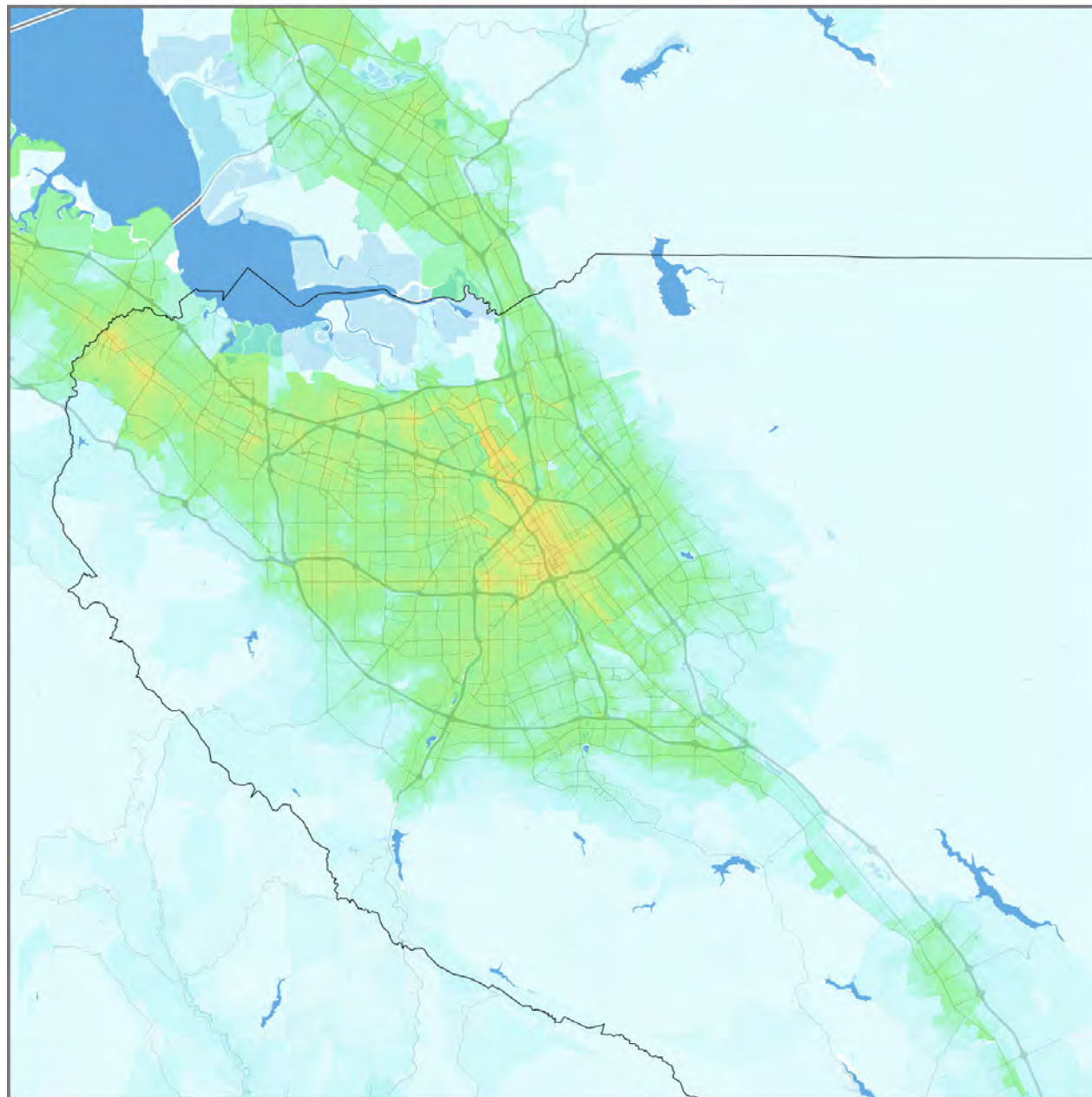


## Transit Schedules Included

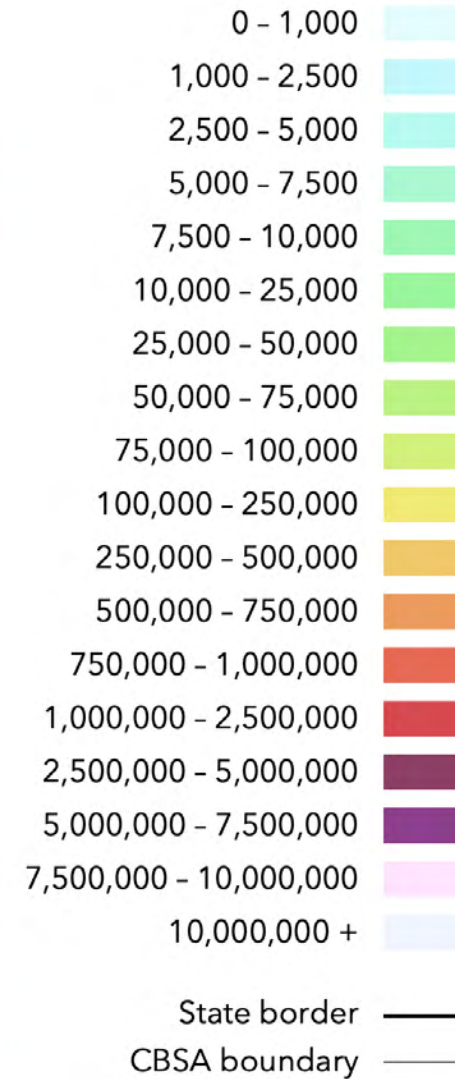
Agency	Dates
AC Transit	December 22, 2018 - March 16, 2019
ACE Altamont Corridor Express	March 11, 2013 - May 19, 2019
Caltrain	October 2, 2017 - October 6, 2019
Capitol Corridor Joint Powers Authority	May 7, 2018 - March 31, 2020
City of Palo Alto Shuttle	August 1, 2018 - February 1, 2020
Dumbarton Express Consortium	June 17, 2019 - August 9, 2019
MVgo Mountain View	April 1, 2019 - December 31, 2019
Monterey-Salinas Transit	November 28, 2018 - March 8, 2019
SamTrans	January 20, 2019 - June 8, 2019
San Benito County Express	January 1, 2014 - January 1, 2021
San Joaquin Regional Transit District (RTD)	July 29, 2018 - January 26, 2019
Santa Cruz Metro	November 29, 2018 - March 6, 2019
Stanford Marguerite Shuttle	May 29, 2017 - October 1, 2019
VTA	January 14, 2019 - April 7, 2019

# San Jose

San Jose-Sunnyvale-Santa Clara, CA



Jobs within 30 minutes  
(Transit, AM peak)



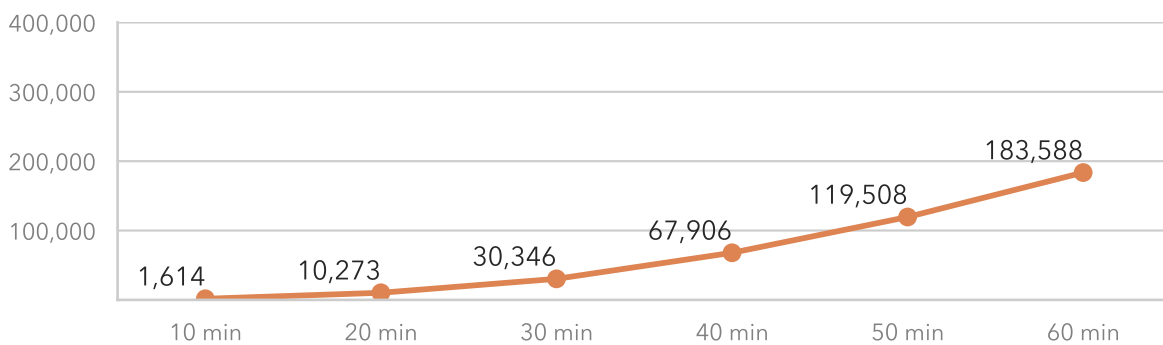
# Seattle

Seattle-Tacoma-Bellevue, WA

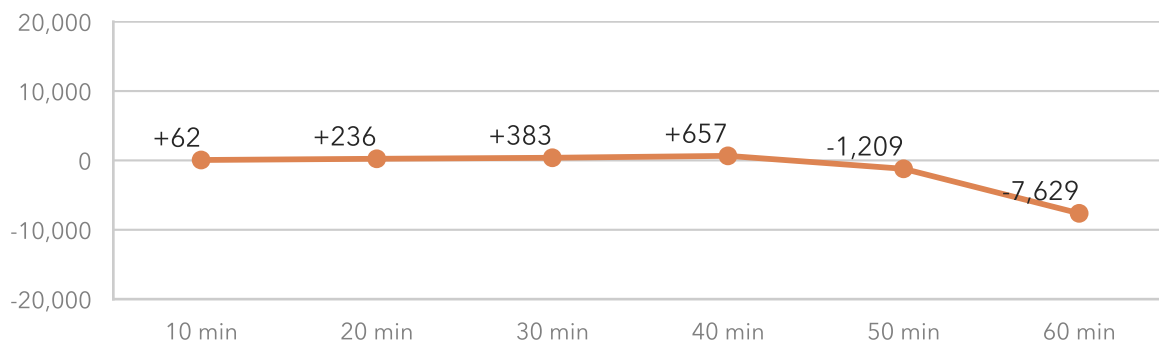
Rank by Weighted Accessibility	8
Rank by Total Employment	15
Rank by 1-Year Change in Weighted Accessibility	26
1-Year Change in Weighted Accessibility	+0.01%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,919,635
Average Job Density (per km <sup>2</sup> )	126
Total Workers	1,798,352
Average Worker Density (per km <sup>2</sup> )	118

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold

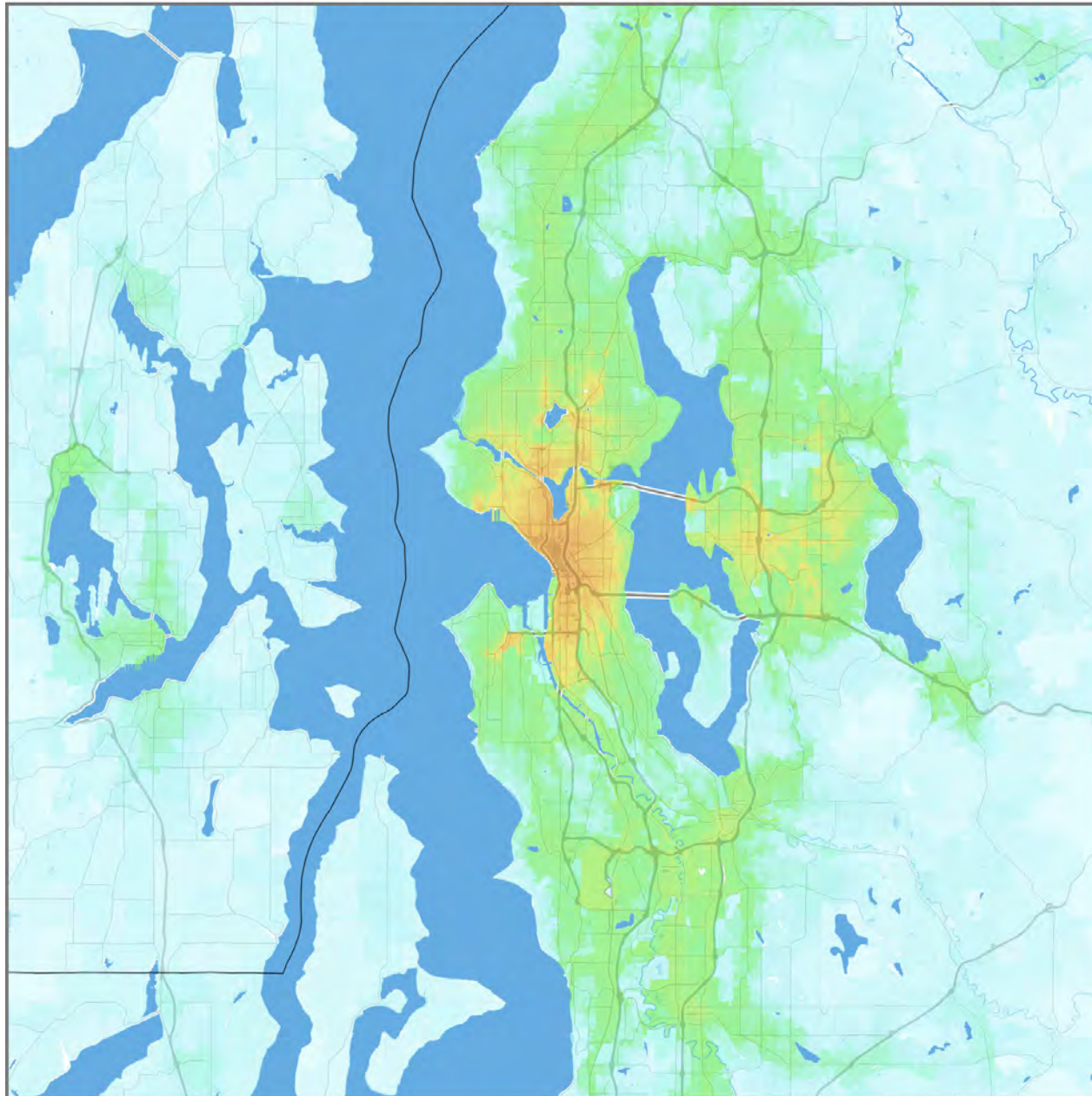


## Transit Schedules Included

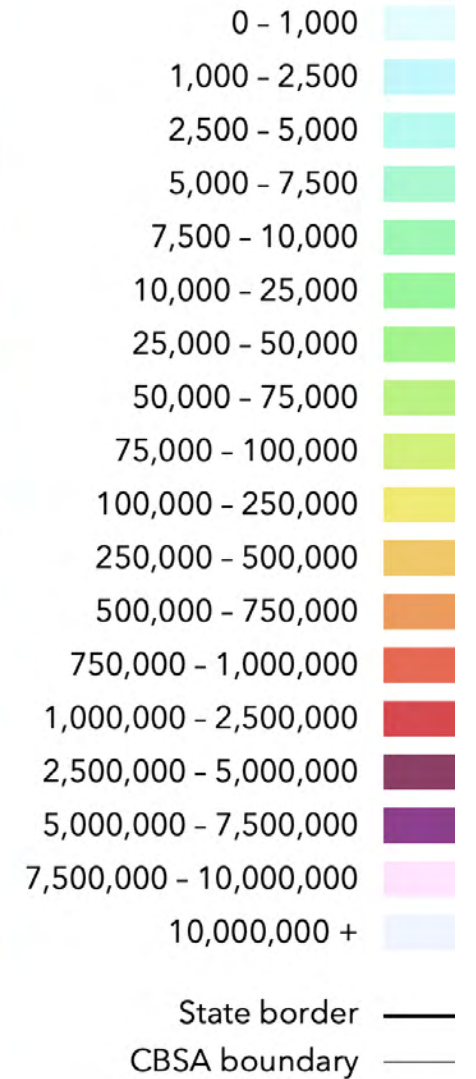
Agency	Dates
City of Seattle	November 29, 2018 - June 14, 2019
Community Transit	December 19, 2018 - March 23, 2019
Everett Transit	September 16, 2018 - March 16, 2019
Intercity Transit	March 5, 2018 - March 2, 2023
Island Transit	August 20, 2014 - May 31, 2015
Kingcounty Marine Divison	December 11, 2018 - June 14, 2019
Kitsap Transit	November 1, 2018 - January 1, 2020
Metro Transit	November 29, 2018 - June 14, 2019
Pierce Transit	September 17, 2018 - September 22, 2019
Seattle Children's Hospital	September 17, 2018 - December 31, 2019
SeattleCenterMonorail	May 1, 2019 - April 30, 2020
The Victoria Clipper	January 1, 2018 - February 28, 2019
Washington State Ferries	December 27, 2018 - March 30, 2019

# Seattle

Seattle-Tacoma-Bellevue, WA



Jobs within 30 minutes  
(Transit, AM peak)





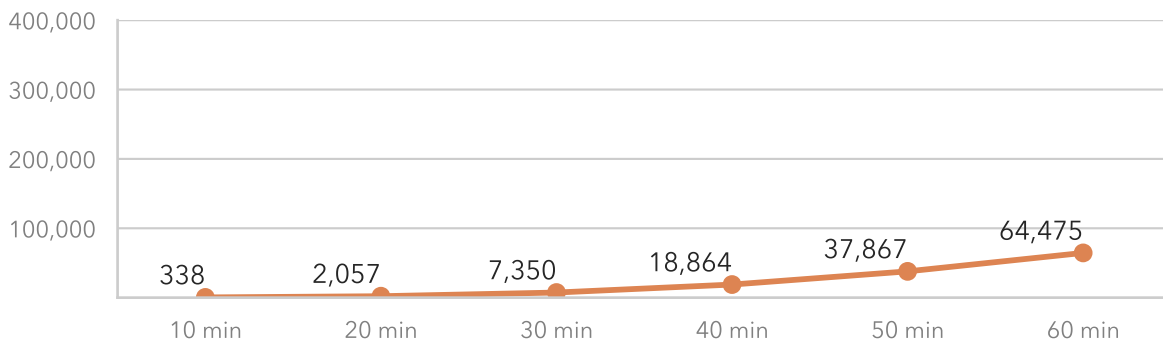
# St. Louis

St. Louis, MO-IL

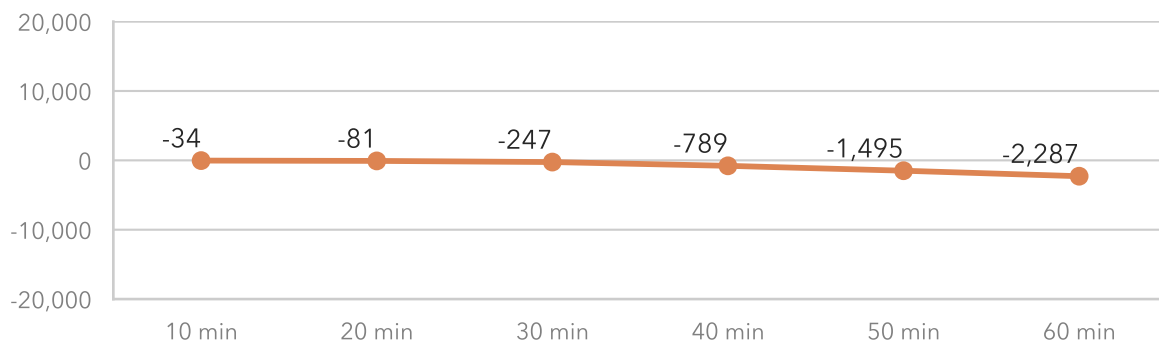
Rank by Weighted Accessibility	33
Rank by Total Employment	19
Rank by 1-Year Change in Weighted Accessibility	46
1-Year Change in Weighted Accessibility	-3.88%
1-Year Change in Weighted Accessibility Rank	-1
Total Jobs	1,363,165
Average Job Density (per km <sup>2</sup> )	61
Total Workers	1,344,165
Average Worker Density (per km <sup>2</sup> )	60

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold





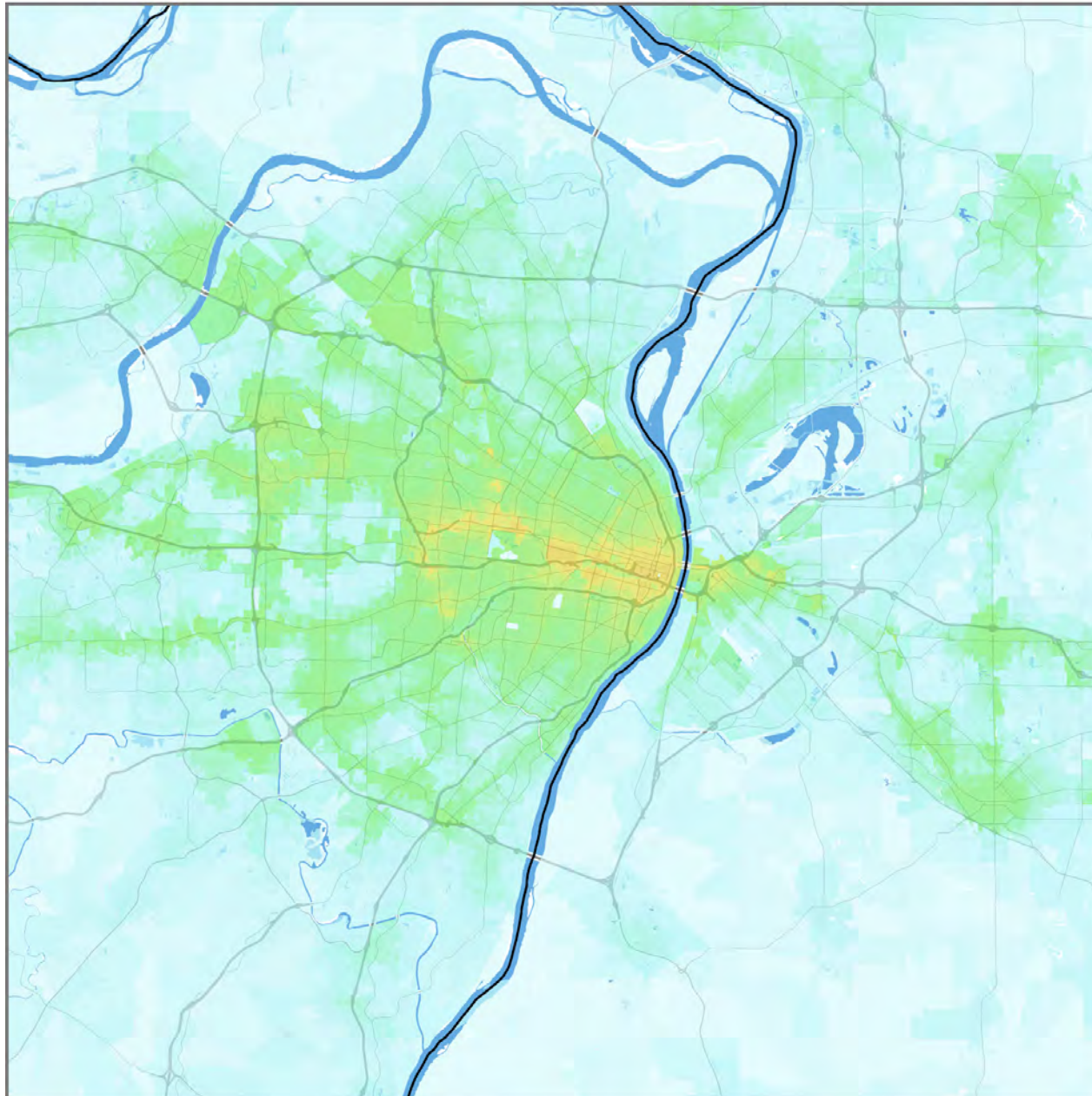
## Transit Schedules Included

Agency	Dates
Madison County Transit	January 13, 2019 - August 10, 2019
Metro St. Louis	September 10, 2018 - March 10, 2019

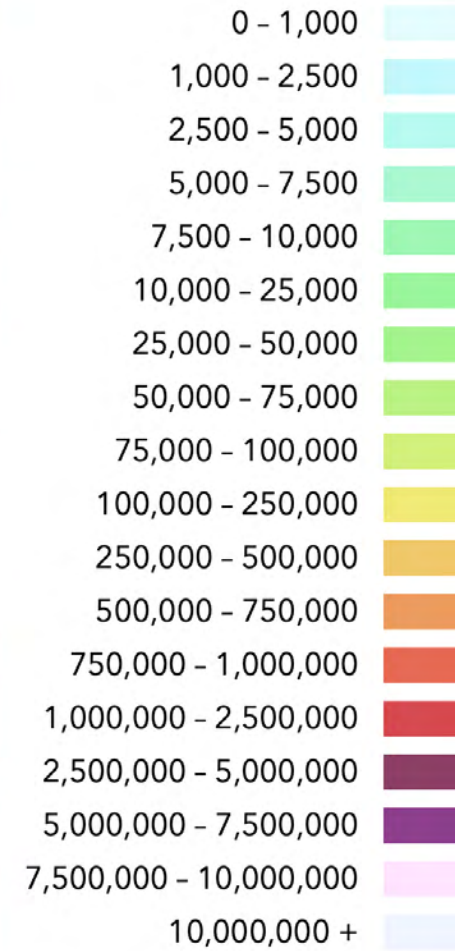
# St. Louis

St. Louis, MO-IL

155



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

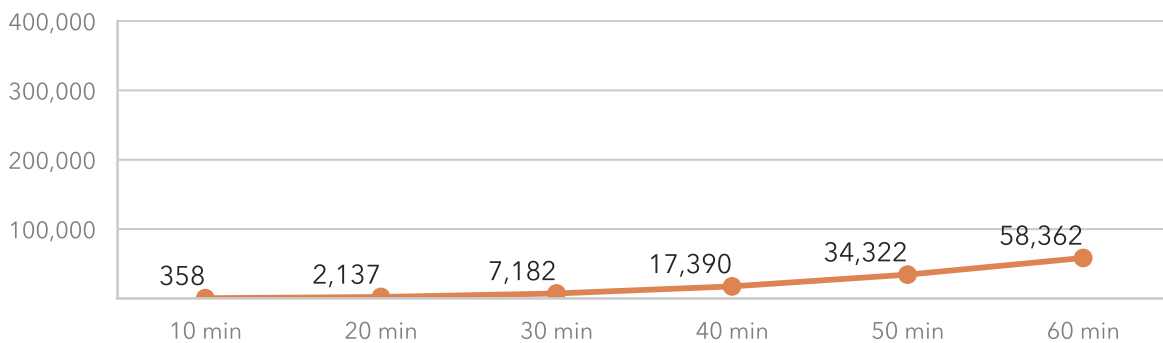
# Tampa

Tampa-St. Petersburg-Clearwater, FL

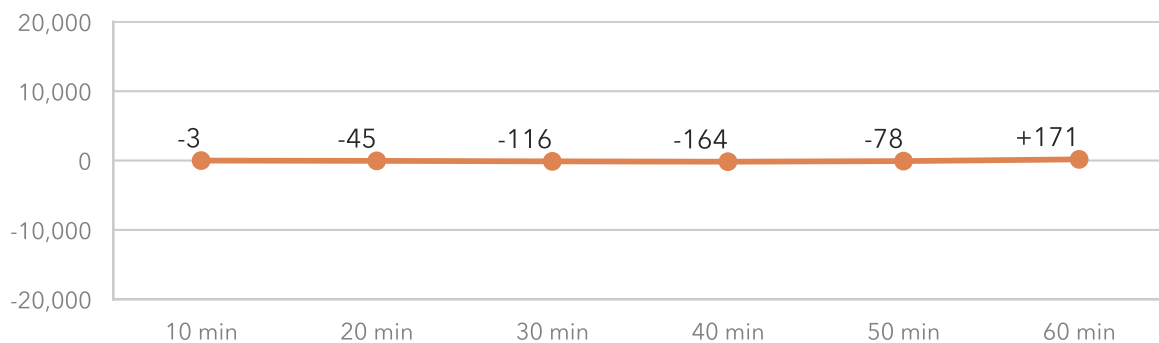
Rank by Weighted Accessibility	35
Rank by Total Employment	20
Rank by 1-Year Change in Weighted Accessibility	30
1-Year Change in Weighted Accessibility	-0.76%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	1,307,910
Average Job Density (per km <sup>2</sup> )	201
Total Workers	1,293,226
Average Worker Density (per km <sup>2</sup> )	199

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



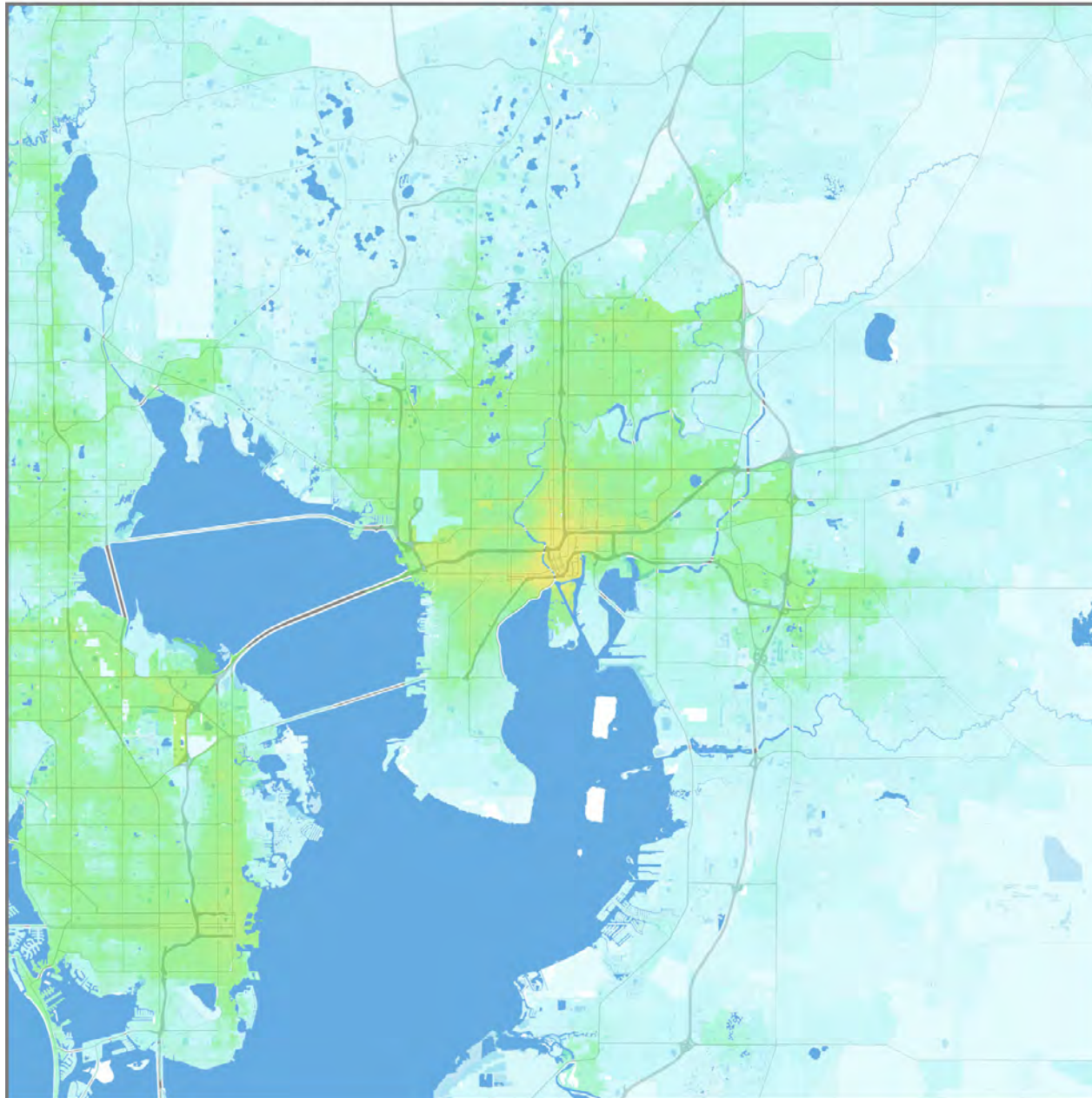
## Transit Schedules Included

Agency	Dates
Hillsborough Area Regional Transit	April 21, 2018 - July 13, 2019
Lakeland	October 27, 2018 - September 30, 2019
Manatee County Area Transit	April 15, 2017 - January 1, 2020
Pasco County Public Transportation	December 18, 2017 - January 1, 2021
Pinellas Suncoast Transit Authority	October 7, 2018 - June 1, 2019
The Hernando Express	January 1, 2015 - January 1, 2017
USF Bull Runner	January 1, 2015 - December 31, 2020

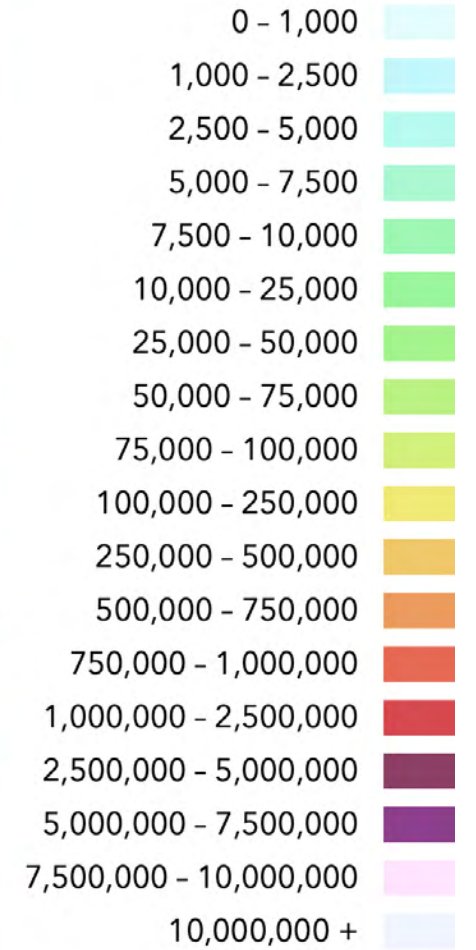


# Tampa

Tampa-St. Petersburg-Clearwater, FL



Jobs within 30 minutes  
(Transit, AM peak)



State border

CBSA boundary

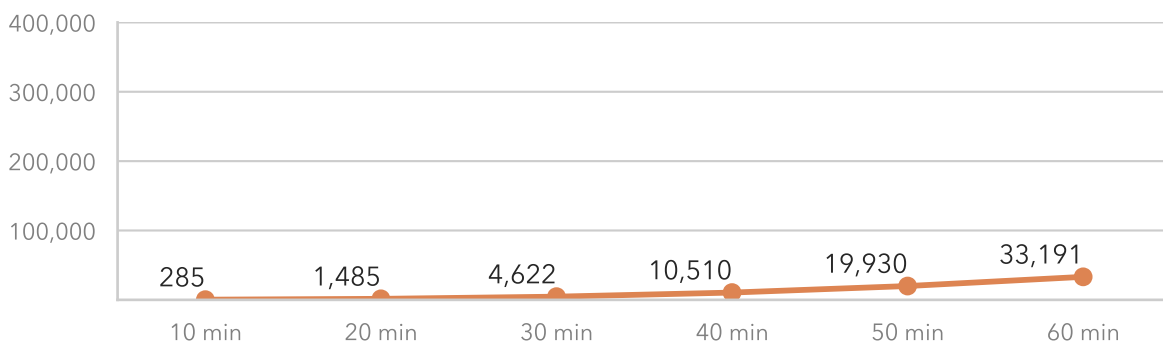
# Virginia Beach

Virginia Beach-Norfolk-Newport News, VA-NC

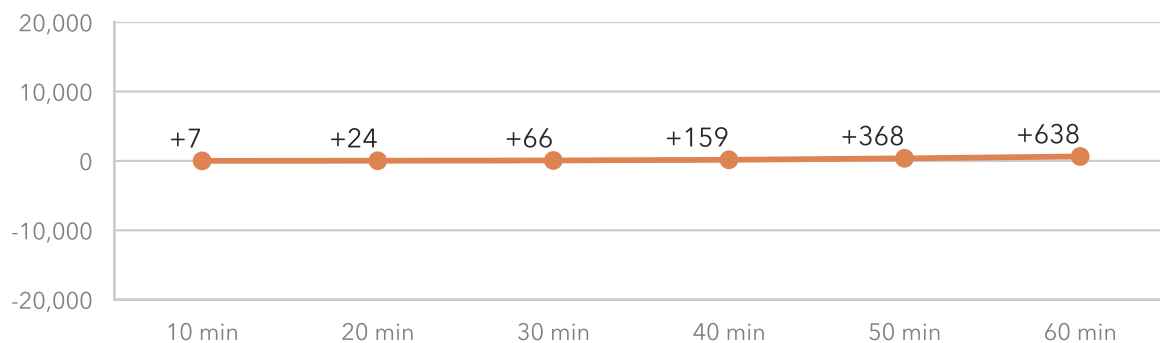
Rank by Weighted Accessibility	47
Rank by Total Employment	39
Rank by 1-Year Change in Weighted Accessibility	15
1-Year Change in Weighted Accessibility	+1.75%
1-Year Change in Weighted Accessibility Rank	+1
Total Jobs	711,408
Average Job Density (per km <sup>2</sup> )	104
Total Workers	715,637
Average Worker Density (per km <sup>2</sup> )	105

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



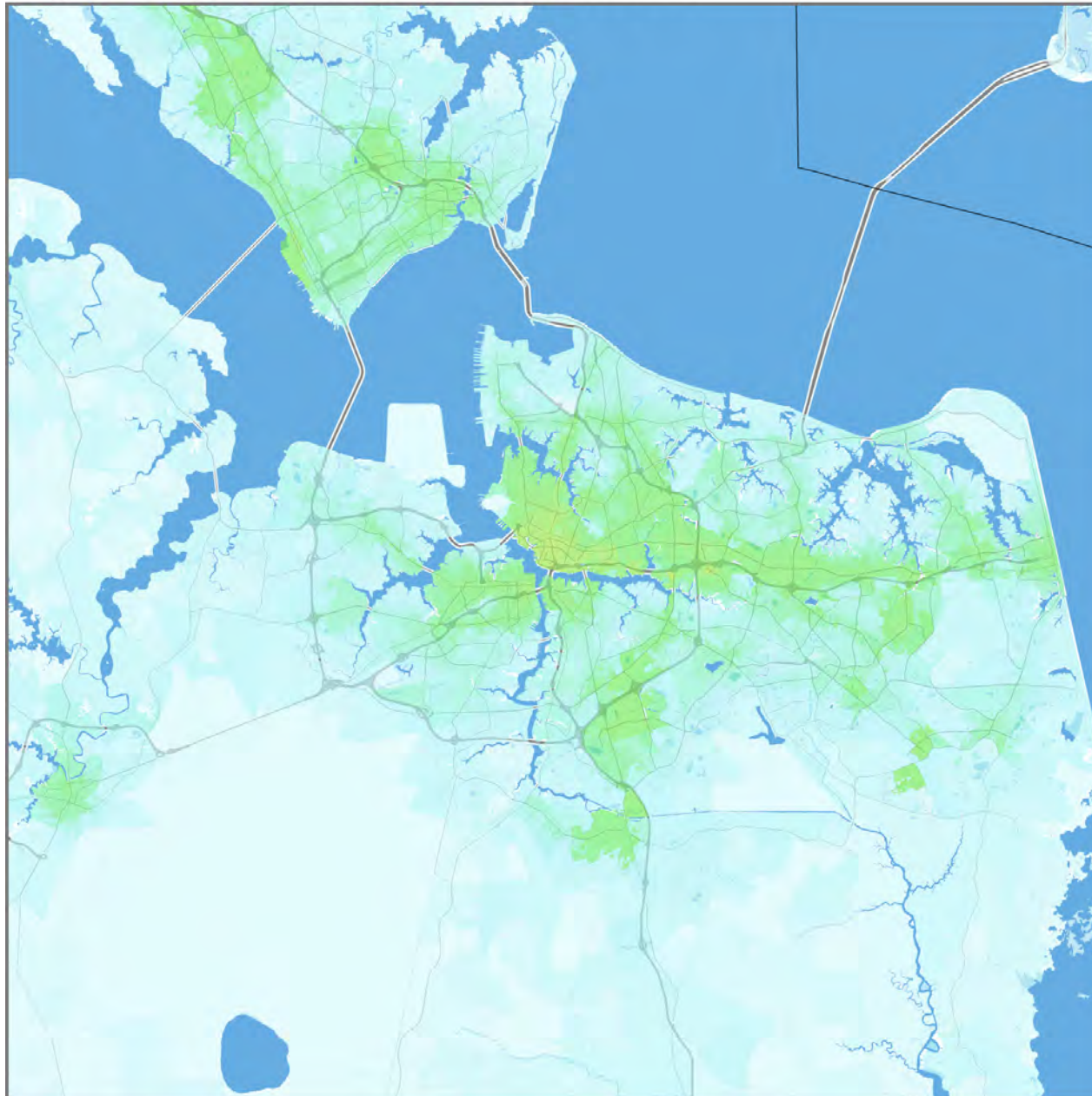


## Transit Schedules Included

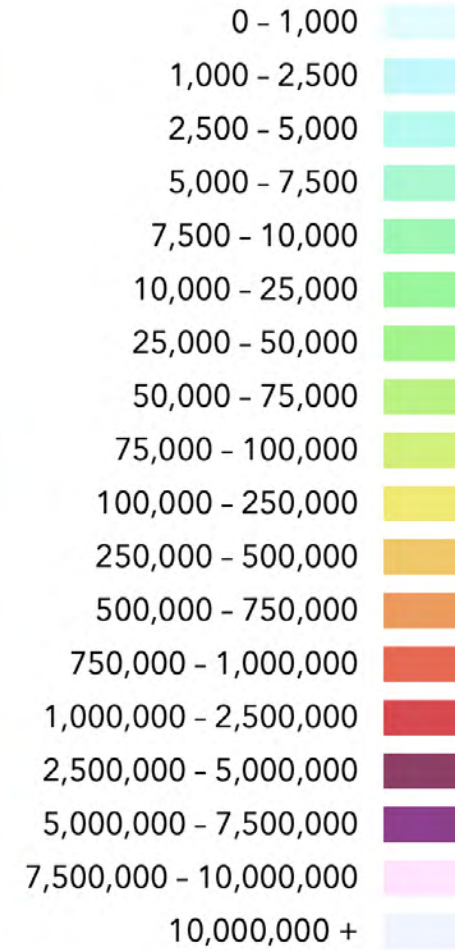
Agency	Dates
Hampton Roads Transit (HRT)	July 15, 2018 - April 30, 2019
WATA	October 19, 2018 - January 19, 2019

# Virginia Beach

Virginia Beach-Norfolk-Newport News, VA-NC



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

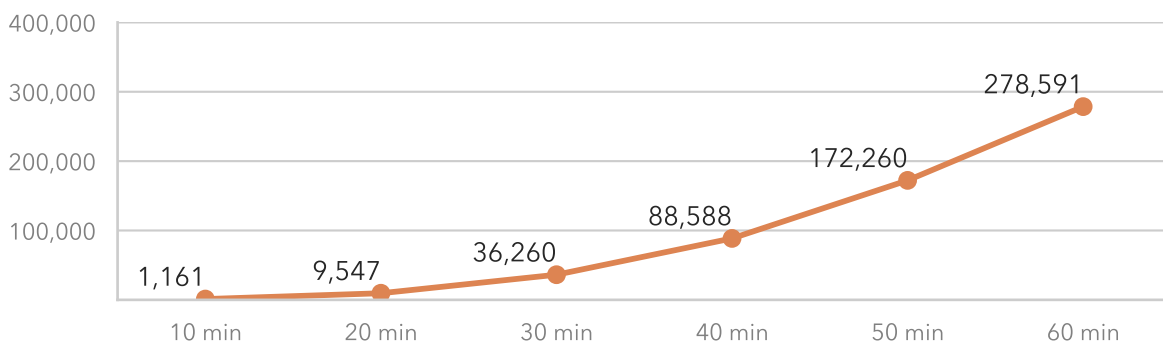
# Washington

Washington-Arlington-Alexandria, DC-VA-MD-WV

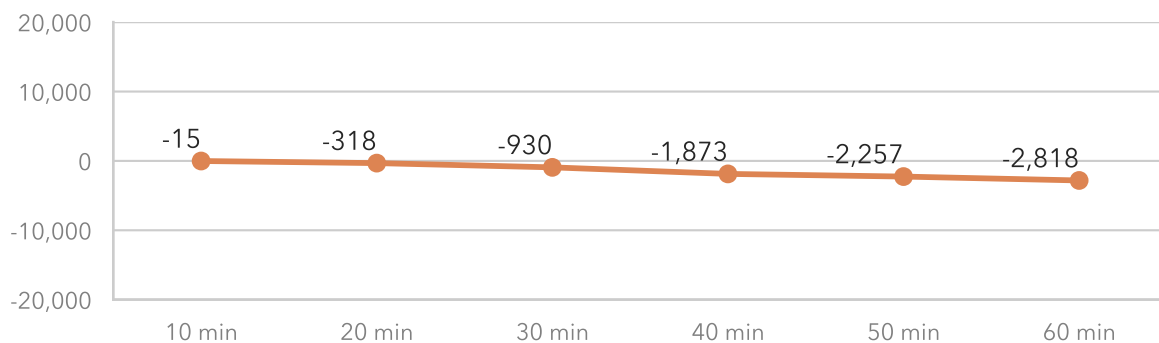
Rank by Weighted Accessibility	6
Rank by Total Employment	7
Rank by 1-Year Change in Weighted Accessibility	38
1-Year Change in Weighted Accessibility	-1.86%
1-Year Change in Weighted Accessibility Rank	0
Total Jobs	2,830,896
Average Job Density (per km <sup>2</sup> )	195
Total Workers	2,683,930
Average Worker Density (per km <sup>2</sup> )	185

*Job and worker totals are based on LEHD estimates and may not match other sources.*

## Job Accessibility by Travel Time Threshold



## 1-Year Change in Weighted Accessibility by Travel Time Threshold



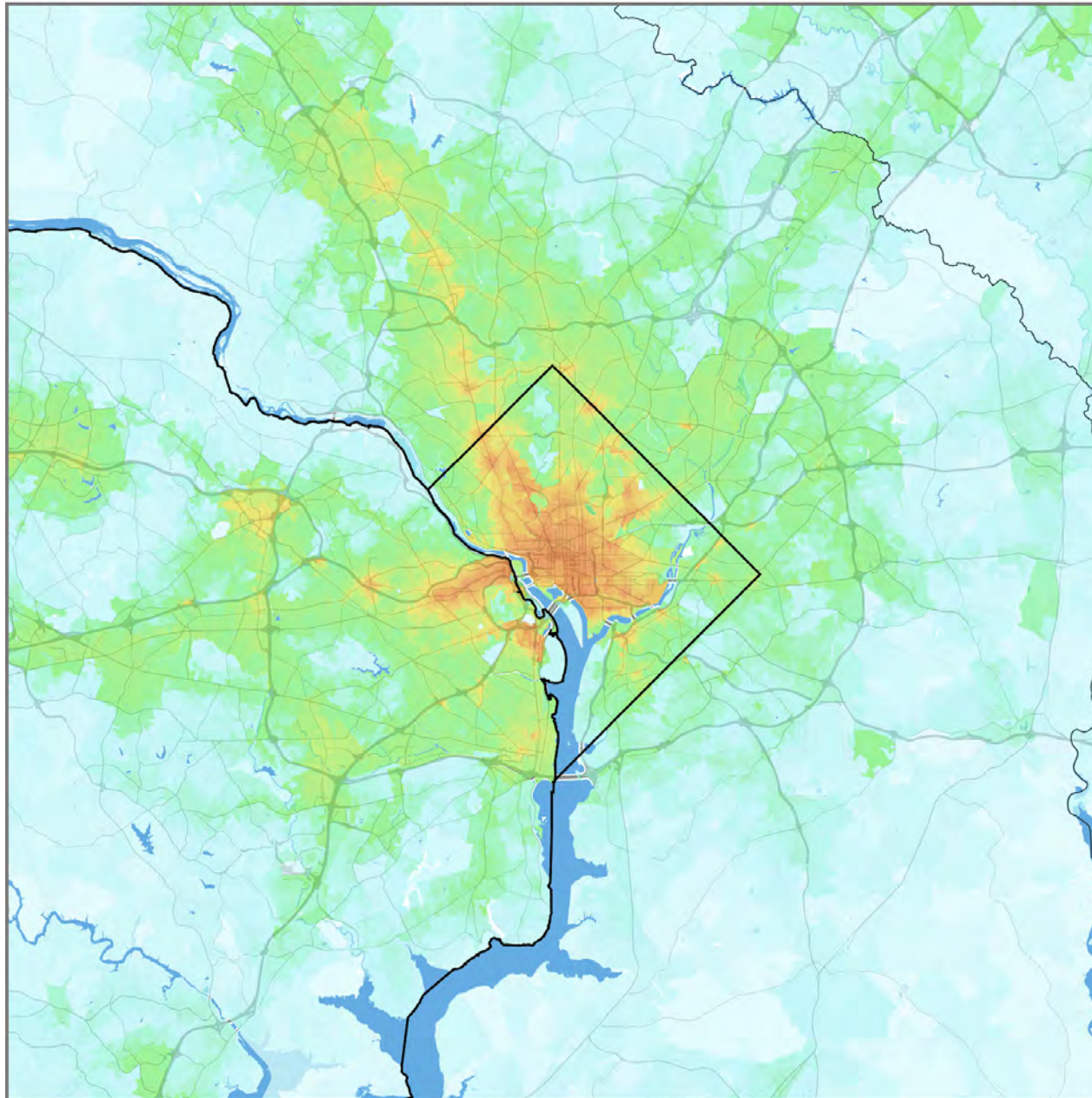
## Transit Schedules Included

Agency	Dates
Alexandria Transit Company (DASH)	March 30, 2018 - March 30, 2023
Arlington Transit	December 16, 2018 - December 31, 2020
Calvert County Public Transportation	August 1, 2014 - December 31, 2018
Charles County VanGo	December 24, 2017 - August 26, 2021
D.C. Circulator	April 1, 2019 - December 31, 2019
DASH	August 25, 2018 - January 31, 2019
DC Streetcar	December 1, 2018 - January 1, 2021
Fairfax CUE	January 1, 2000 - December 31, 2099
Fairfax Connector	December 4, 2017 - December 4, 2018
Maryland Transit Administration	September 2, 2018 - February 2, 2019
Montgomery County MD Ride On	September 17, 2017 - May 12, 2018
OMNIRIDE	December 17, 2018 - May 26, 2019
Potomac and Rappahannock Transportation Commission	December 17, 2018 - April 14, 2019
Prince George's County TheBus	December 20, 2018 - December 31, 2020
Regional Transportation Agency of Central Maryland	May 5, 2019 - August 10, 2019
St. Mary's Transit System	August 1, 2014 - December 31, 2018
TransIT Services of Frederick County	January 1, 2009 - May 1, 2020
Virginia Railway Express	January 22, 2019 - January 9, 2020
WMATA	November 30, 2018 - May 28, 2019

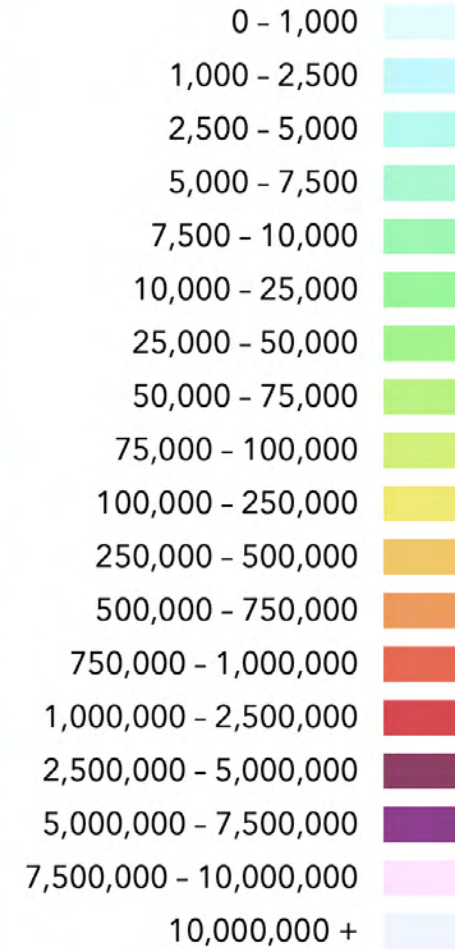


# Washington

Washington-Arlington-Alexandria, DC-VA-MD-WV



Jobs within 30 minutes  
(Transit, AM peak)



State border —  
CBSA boundary —

## References

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