

2020 Bike Accessibility Report: Florida

Prepared for the state of Florida by the
Accessibility Observatory at the University of Minnesota

September 28, 2022



**ACCESSIBILITY
OBSERVATORY**

UNIVERSITY OF MINNESOTA

Driven to DiscoverSM

Authors

Andrew Owen

Lead Researcher, Accessibility Observatory
University of Minnesota

Contents

1	Introduction	1
2	Accessibility Evaluation Results	2
2.1	Statewide Accessibility	2
2.2	Accessibility in Metropolitan Areas	4
2.3	Accessibility by County	91
3	Data Sources and Methodology	99
3.1	Bicycle Level of Traffic Stress	99
3.2	Travel Times by Bike	99
3.3	Geography	99
3.4	Population and Job Distribution	99
3.5	Accessibility Calculation	100
4	Comparisons With Previous Years	100
5	Conclusions	100

1 Introduction

This report presents the results of an evaluation of accessibility to jobs by bike throughout the state of Florida. *Accessibility* refers to the ease of reaching valued 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 various 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 highly comprehensible and transparent — as well as the most directly comparable across locations.

This study focuses on access to jobs, one of the most significant non-home travel destinations. Accessibility is calculated at the Census block level by computing the travel time from each block to surrounding blocks, and then adding up the total number of jobs that can be reached within different travel time thresholds. This process is repeated for every block within the state of Florida, and the results are aggregated to provide accessibility summaries for each county, and the jurisdiction of each metropolitan planning organization (MPO), within the state.

[Section 2](#) presents these results, summarized statewide, by MPO, and by county. [Section 3](#) provides an overview of the data sources and methodology used in this study. A separate document, *Access Across America: Bike 2020 Methodology*, describes the methodology and data sources in greater detail.

2 Accessibility Evaluation Results

2.1 Statewide Accessibility

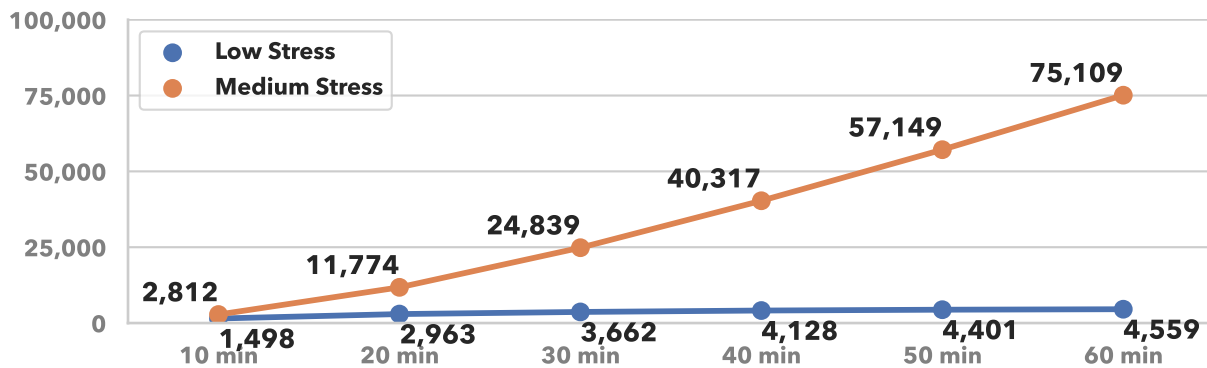
Florida

Job Accessibility Results—Bike, 2020

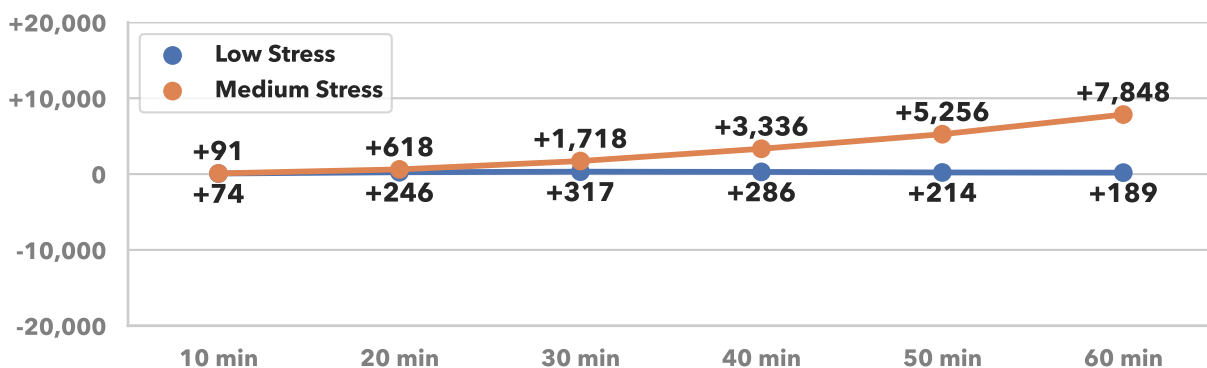
Total Jobs	8,685,351
Average Job Density (per mi ²)	160
Total Workers	8,686,214
Average Worker Density (per mi ²)	160

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

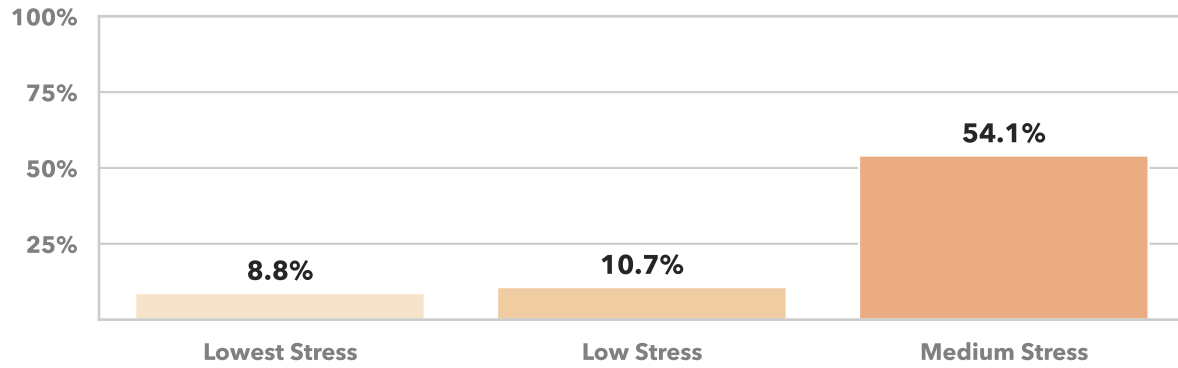


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



Florida

Weighted Biking Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



2.2 Accessibility in Metropolitan Areas

The following sections analyze accessibility in the metropolitan areas (as defined by jurisdictions of MPOs that lie within or partially within the state of Florida). The following MPO jurisdictions are included:

- Bay County Transportation Planning Organization
- Broward MPO
- Capital Region Transportation Planning Agency
- Charlotte-Punta Gorda MPO
- Collier MPO
- Florida-Alabama Transportation Planning Organization
- Gainesville MTPO
- Heartland Regional TPO
- Hernando/Citrus County MPO
- Hillsborough MPO
- Indian River County MPO
- Lake-Sumter MPO
- Lee County MPO
- METROPLAN Orlando
- Martin MPO
- Miami-Dade MPO
- North Florida Transportation Planning Organization
- Ocala - Marion County Transportation Planning Organization
- Okaloosa-Walton Transportation Planning Organization
- Palm Beach MPO
- Pasco County MPO
- Pinellas County MPO

- Polk County Transportation Planning Organization
- River to Sea Transportation Planning Organization
- Sarasota-Manatee MPO
- Space Coast Transportation Planning Organization
- St. Lucie Transportation Planning Organization

Table 1 provides the average (worker-weighted; see Section 3.5) job accessibility by bike for each MPO on low-stress bicycle networks, and Table 2 provides the average job accessibility by bike for each MPO on medium-stress bicycle networks (see Section 3.1 for bike network definitions and discussion of Level of Traffic Stress (LTS)). Table 3 and Table 4 show the 1-year change in access to jobs on LTS 2 and LTS 3 networks, respectively. The following pages provide additional details and maps for each MPO. The first map for each MPO jurisdiction shows 30-minute biking accessibility values at the Census block level, on medium-stress bicycle networks; areas of more intense color have higher access to jobs. The second map shows the ratio of low-stress accessibility to “open streets” (LTS 4) accessibility; areas of more intense, deeper color have lower access to jobs on low-stress bicycle networks as a percentage of the maximum access possible (LTS 4), and lighter-colored areas have higher relative low-stress access to jobs. Areas colored in light grey on the second map reflect census blocks where “open streets” bicycle accessibility is 0.

On the data summary pages, up to four different chart scales are used in the first chart to accommodate the wide range of accessibility values across MPO jurisdictions. The second chart for each MPO shows the accessibility ratios for lowest-stress, low-stress, and medium-stress bicycle networks compared to the maximum of “open streets” access. MPOs with lower percentages for low-stress and medium-stress accessibility may have lower-performing bicycle networks, and areas with higher percentage ratios for low-stress and medium-stress accessibility may have more extensive, well-performing bicycle networks.

Table 1: Average Job Accessibility by Travel Time Threshold for Metropolitan Areas (Bike, Low-Stress)

MPO	10 min	20 min	30 min	40 min	50 min	60 min
Bay County Transportation Planning Organization	665	1,247	1,415	1,478	1,485	1,485
Broward MPO	2,089	4,389	4,876	5,014	5,079	5,102
Capital Region Transportation Planning Agency	1,098	3,502	6,424	9,812	13,324	16,426
Charlotte-Punta Gorda MPO	496	911	983	987	988	988
Collier MPO	881	1,970	2,468	2,709	2,785	2,798
Florida-Alabama Transportation Planning Organization	674	1,224	1,317	1,344	1,356	1,361
Gainesville MTPO	3,311	15,104	31,713	47,934	57,292	60,897
Heartland Regional TPO	328	460	479	480	480	480
Hernando/Citrus County MPO	262	513	580	602	622	628
Hillsborough MPO	1,691	2,904	3,135	3,185	3,203	3,205
Indian River County MPO	489	1,209	1,934	2,425	2,723	2,885
Lake-Sumter MPO	477	888	1,039	1,099	1,100	1,100
Lee County MPO	902	2,090	2,916	3,359	3,569	3,704
METROPLAN Orlando	1,342	2,646	3,351	3,780	3,951	4,048
Martin MPO	741	1,174	1,226	1,246	1,246	1,247
Miami-Dade MPO	3,720	6,967	8,145	8,711	8,979	9,146
North Florida Transportation Planning Organization	1,048	2,014	2,371	2,540	2,627	2,665
Ocala - Marion County Transportation Planning Organization	318	460	487	497	499	500
Okaloosa-Walton Transportation Planning Organization	1,234	2,424	2,873	3,107	3,236	3,321
Palm Beach MPO	1,206	2,063	2,384	2,622	2,761	2,846
Pasco County MPO	395	633	680	692	700	703
Pinellas County MPO	1,962	3,835	4,853	5,531	5,913	6,090
Polk County Transportation Planning Organization	652	1,360	1,941	2,319	2,552	2,715
River to Sea Transportation Planning Organization	477	799	883	913	923	927
Sarasota-Manatee MPO	930	1,712	1,970	2,069	2,123	2,147
Space Coast Transportation Planning Organization	651	992	1,039	1,057	1,066	1,067
St. Lucie Transportation Planning Organization	447	644	658	670	670	670

Table 2: Average Job Accessibility by Travel Time Threshold for Metropolitan Areas (Bike, Medium-Stress)

MPO	10 min	20 min	30 min	40 min	50 min	60 min
Bay County Transportation Planning Organization	1,240	5,563	11,078	16,107	20,252	23,549
Broward MPO	3,581	15,835	32,819	53,603	78,124	104,368
Capital Region Transportation Planning Agency	2,391	11,828	25,903	39,833	51,915	61,547
Charlotte-Punta Gorda MPO	940	4,158	8,170	11,908	14,550	16,495
Collier MPO	1,274	4,326	7,151	9,358	10,904	12,544
Florida-Alabama Transportation Planning Organization	1,377	5,750	10,620	15,635	19,282	21,796
Gainesville MTPO	4,028	18,422	37,797	57,866	71,651	83,546
Heartland Regional TPO	667	1,757	2,623	3,471	4,336	5,122
Hernando/Citrus County MPO	428	1,597	2,868	3,995	5,015	5,960
Hillsborough MPO	3,524	16,939	38,069	64,095	92,457	120,920
Indian River County MPO	1,148	4,667	9,313	14,489	19,341	22,445
Lake-Sumter MPO	750	2,757	4,889	6,880	8,566	9,783
Lee County MPO	1,452	5,568	10,725	16,198	21,874	26,600
METROPLAN Orlando	2,798	12,860	28,455	48,901	73,318	100,451
Martin MPO	1,381	4,116	7,369	11,671	15,417	18,817
Miami-Dade MPO	7,135	27,453	58,550	95,469	135,669	182,488
North Florida Transportation Planning Organization	1,870	7,333	15,026	22,466	28,697	34,068
Ocala - Marion County Transportation Planning Organization	783	3,228	6,658	10,272	14,295	18,675
Okaloosa-Walton Transportation Planning Organization	1,538	4,329	5,990	7,118	8,058	8,797
Palm Beach MPO	2,090	9,090	19,531	31,830	47,069	62,893
Pasco County MPO	790	3,058	5,725	8,780	11,954	15,314
Pinellas County MPO	3,622	15,902	34,071	56,597	78,290	98,955
Polk County Transportation Planning Organization	1,322	5,029	9,461	14,191	19,352	25,004
River to Sea Transportation Planning Organization	1,075	4,483	8,328	11,720	14,844	18,194
Sarasota-Manatee MPO	2,008	8,834	18,262	28,464	38,481	47,937
Space Coast Transportation Planning Organization	1,227	5,030	10,131	15,730	21,420	27,582
St. Lucie Transportation Planning Organization	1,048	4,261	6,967	9,394	12,324	14,987

Table 3: 1-Year Change in Time-Weighted Average Job Accessibility for Metropolitan Areas (Bike, Low-Stress)

MPO	10 min	20 min	30 min	40 min	50 min	60 min
Bay County Transportation Planning Organization	-9	-23	-7	+5	+4	+2
Broward MPO	+93	+268	+326	+341	+349	+366
Capital Region Transportation Planning Agency	+121	+1,352	+3,823	+6,870	+10,159	+12,982
Charlotte-Punta Gorda MPO	-7	-77	-112	-126	-125	-125
Collier MPO	+8	-69	-387	-421	-401	-399
Florida-Alabama Transportation Planning Organization	+6	-12	-19	-15	-16	-19
Gainesville MTPO	+430	+476	+357	+2,065	+2,492	+2,852
Heartland Regional TPO	+19	+30	+33	+33	+33	+33
Hernando/Citrus County MPO	+23	+60	+79	+94	+113	+118
Hillsborough MPO	+249	+600	+626	+623	+622	+623
Indian River County MPO	+79	+560	+1,252	+1,729	+2,018	+2,177
Lake-Sumter MPO	+48	+86	+105	+120	+121	+121
Lee County MPO	+42	+112	+122	+140	+183	+206
METROPLAN Orlando	+98	+381	+680	+887	+968	+1,011
Martin MPO	+78	+128	+142	+160	+160	+161
Miami-Dade MPO	+247	+621	+272	-964	-2,264	-3,032
North Florida Transportation Planning Organization	+65	+200	+287	+329	+349	+340
Ocala - Marion County Transportation Planning Organization	+29	+44	+46	+46	+46	+47
Okaloosa-Walton Transportation Planning Organization	-57	-118	-130	-133	-129	-102
Palm Beach MPO	-329	-612	-531	-362	-246	-171
Pasco County MPO	+35	+81	+103	+108	+109	+109
Pinellas County MPO	+189	+602	+969	+1,240	+1,397	+1,503
Polk County Transportation Planning Organization	-4	-90	-258	-407	-482	-508
River to Sea Transportation Planning Organization	+15	+29	+33	+41	+45	+45
Sarasota-Manatee MPO	+94	+453	+627	+711	+761	+780
Space Coast Transportation Planning Organization	+99	+147	+121	+62	+58	+58
St. Lucie Transportation Planning Organization	+22	+38	+33	+34	+34	+33

Table 4: 1-Year Change in Time-Weighted Average Job Accessibility for Metropolitan Areas (Bike, Medium-Stress)

MPO	10 min	20 min	30 min	40 min	50 min	60 min
Bay County Transportation Planning Organization	-20	-192	-440	-625	-873	-1,035
Broward MPO	+46	+284	+476	+1,015	+1,425	+2,583
Capital Region Transportation Planning Agency	+31	+937	+3,286	+5,827	+8,113	+9,851
Charlotte-Punta Gorda MPO	-5	-55	-86	+6	+87	+190
Collier MPO	-13	-133	-477	-649	-789	-579
Florida-Alabama Transportation Planning Organization	-3	-316	-752	-1,004	-1,114	-1,037
Gainesville MTPO	+406	+728	+515	+2,835	+2,427	+2,666
Heartland Regional TPO	+32	+61	+30	+30	+24	+3
Hernando/Citrus County MPO	+30	+121	+236	+357	+480	+537
Hillsborough MPO	+242	+594	+821	+605	-399	-1,577
Indian River County MPO	-47	-472	-1,074	-1,764	-1,549	-1,721
Lake-Sumter MPO	+37	+143	+248	+352	+535	+660
Lee County MPO	+69	+258	+459	+654	+1,070	+1,336
METROPLAN Orlando	+261	+2,653	+7,534	+15,161	+25,347	+37,604
Martin MPO	+66	+221	+552	+1,578	+2,747	+3,556
Miami-Dade MPO	+372	+1,433	+3,896	+6,161	+7,550	+10,995
North Florida Transportation Planning Organization	+58	+298	+999	+1,714	+2,340	+2,663
Ocala - Marion County Transportation Planning Organization	+33	+57	+97	+160	+364	+600
Okaloosa-Walton Transportation Planning Organization	-82	-218	-326	-514	-598	-521
Palm Beach MPO	-467	-622	+161	+2,469	+6,203	+10,648
Pasco County MPO	+42	+121	+247	+438	+766	+1,124
Pinellas County MPO	+144	+400	+525	+1,738	+4,624	+8,970
Polk County Transportation Planning Organization	+16	-42	-182	-468	-874	-1,362
River to Sea Transportation Planning Organization	+9	+30	+177	+253	+388	+527
Sarasota-Manatee MPO	+101	+342	+353	+326	+581	+846
Space Coast Transportation Planning Organization	+245	+1,620	+4,110	+7,670	+11,816	+16,684
St. Lucie Transportation Planning Organization	-24	-280	-1,022	-2,062	-3,412	-4,909

Bay County Transportation Planning Organization

Job Accessibility Results—Bike, 2020

Total Jobs **76,520**

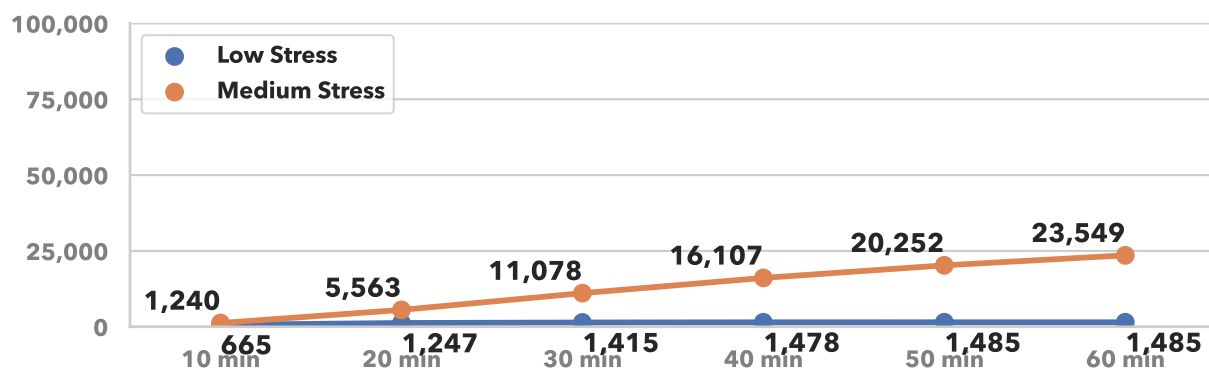
Average Job Density (per mi²) **192**

Total Workers **72,116**

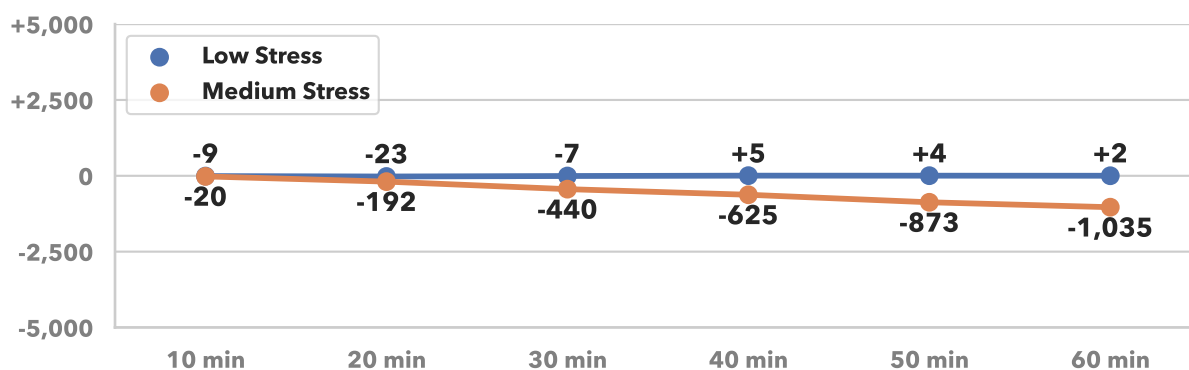
Average Worker Density (per mi²) **181**

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

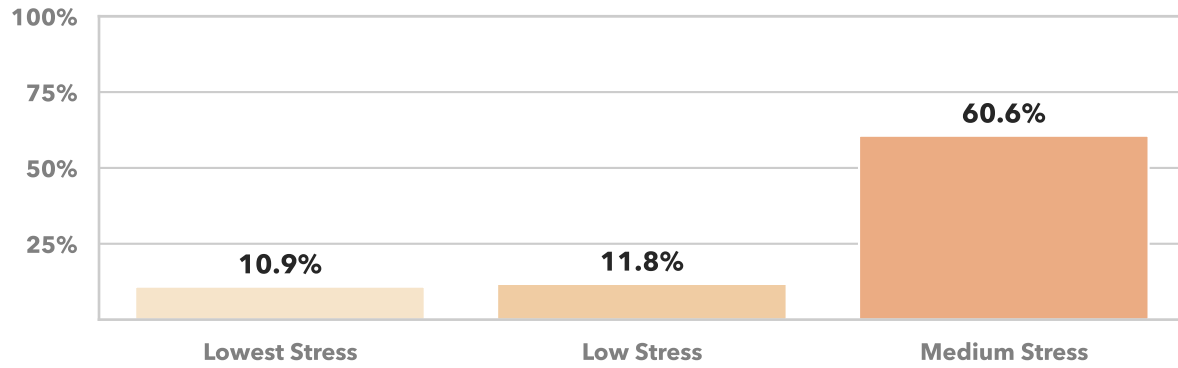


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

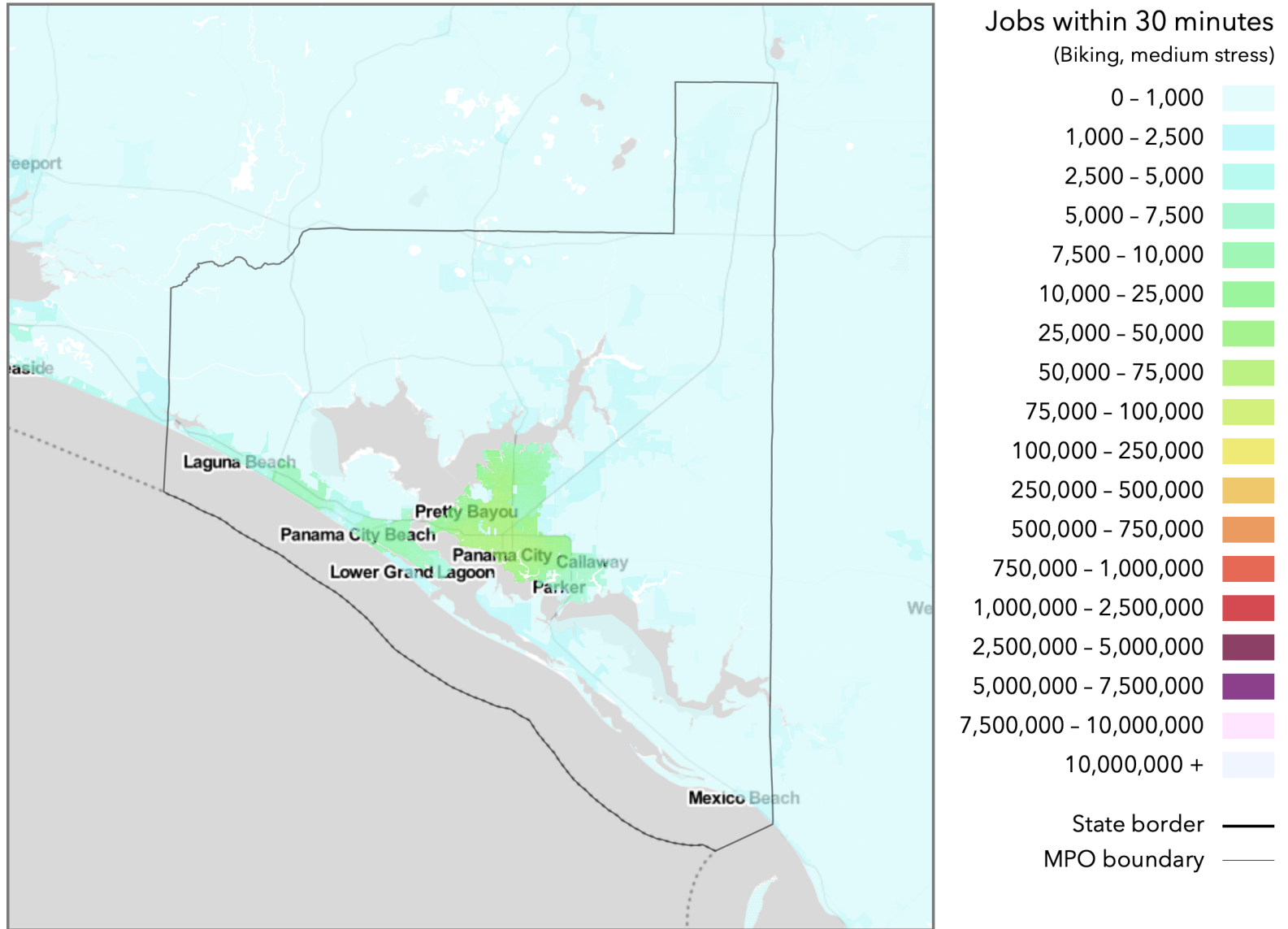


Bay County Transportation Planning Organization

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Bay County Transportation Planning Organization



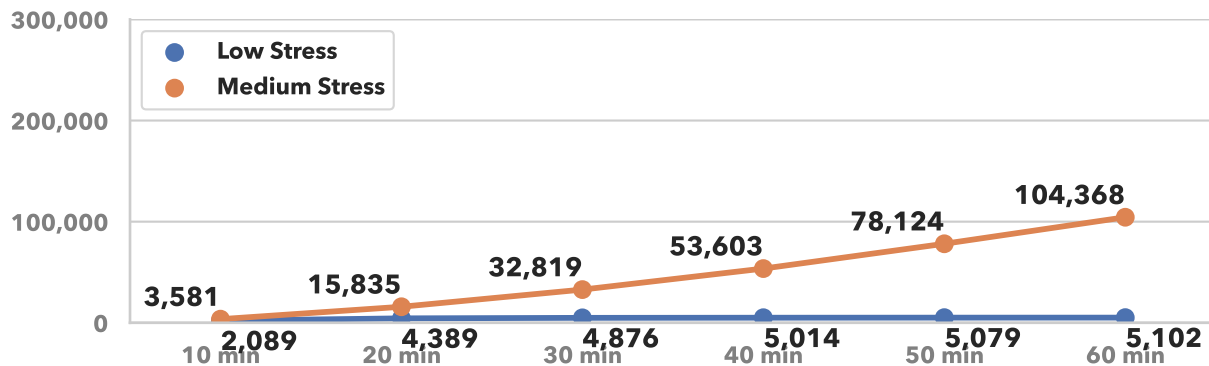
Broward MPO

Job Accessibility Results—Bike, 2020

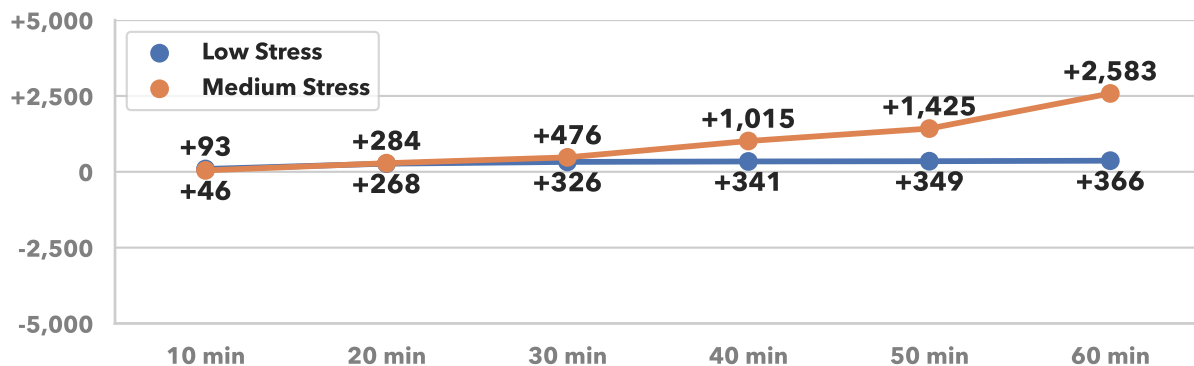
Total Jobs	841,472
Average Job Density (per mi ²)	1779
Total Workers	856,019
Average Worker Density (per mi ²)	1809

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

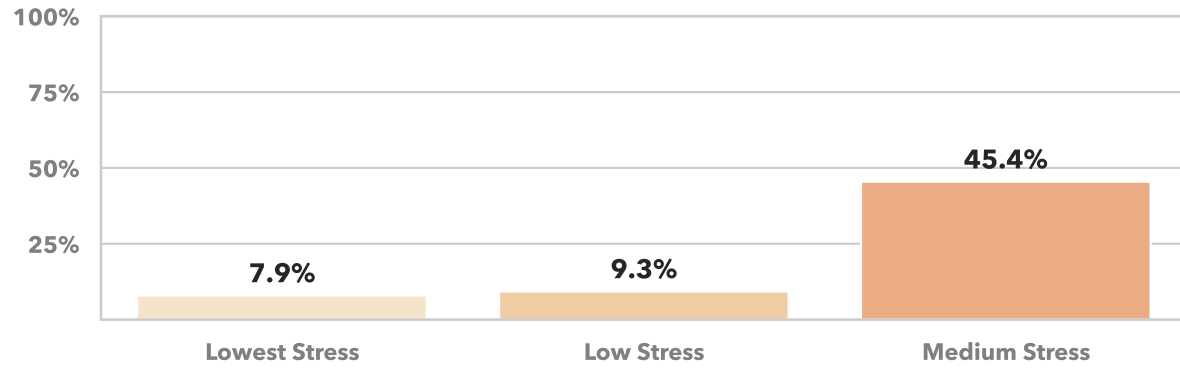


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



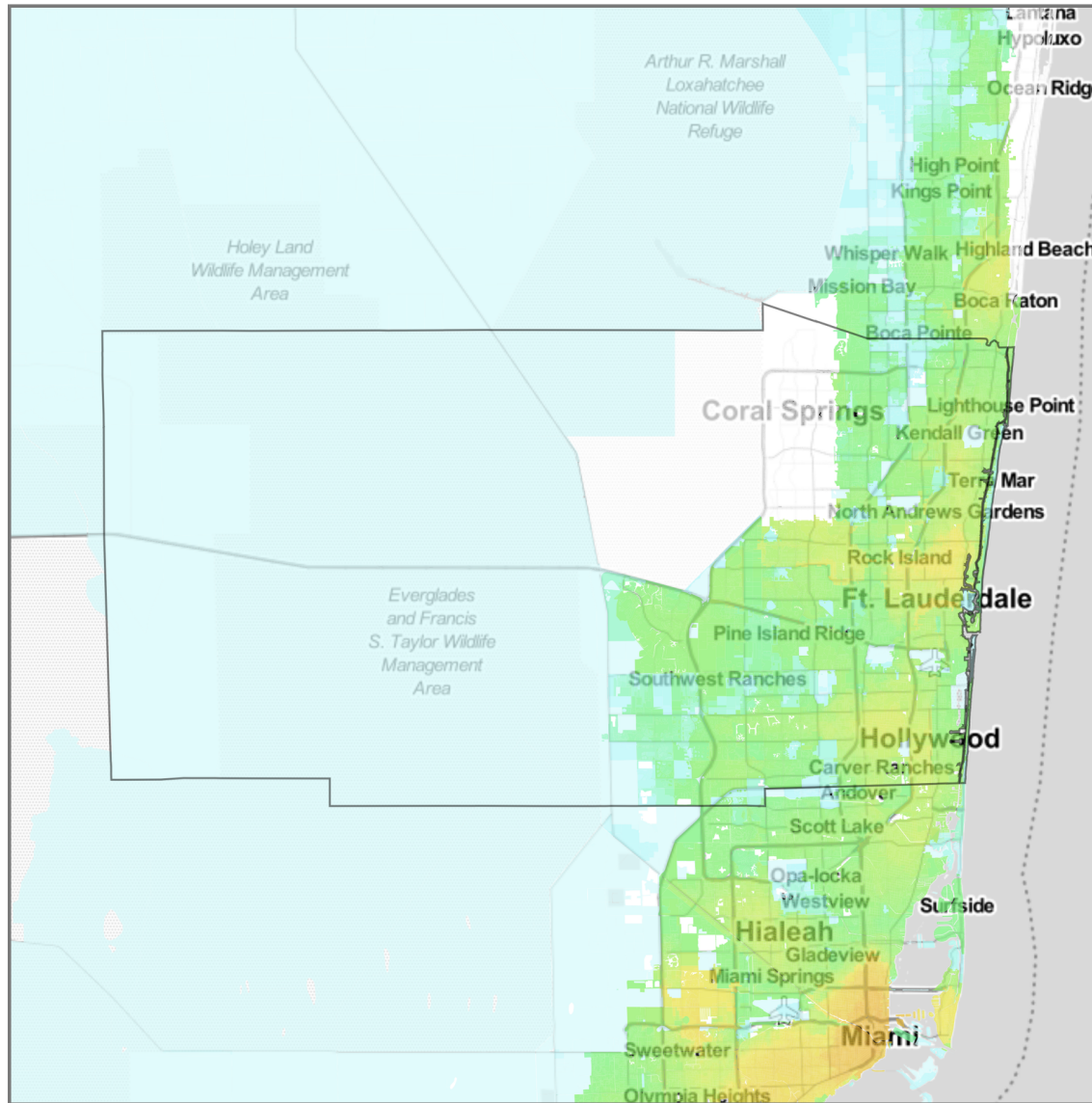
Broward MPO

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)

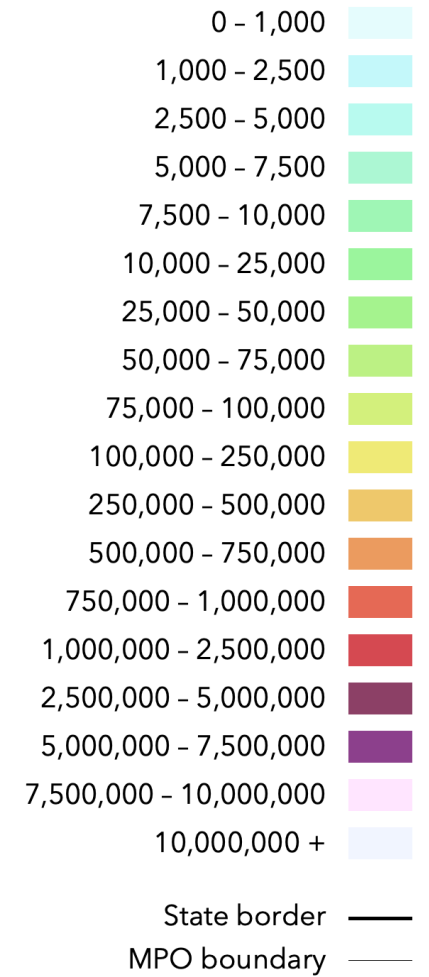


Broward MPO

15



Jobs within 30 minutes
(Biking, medium stress)



Capital Region Transportation Planning Agency

Job Accessibility Results—Bike, 2020

Total Jobs 182,813

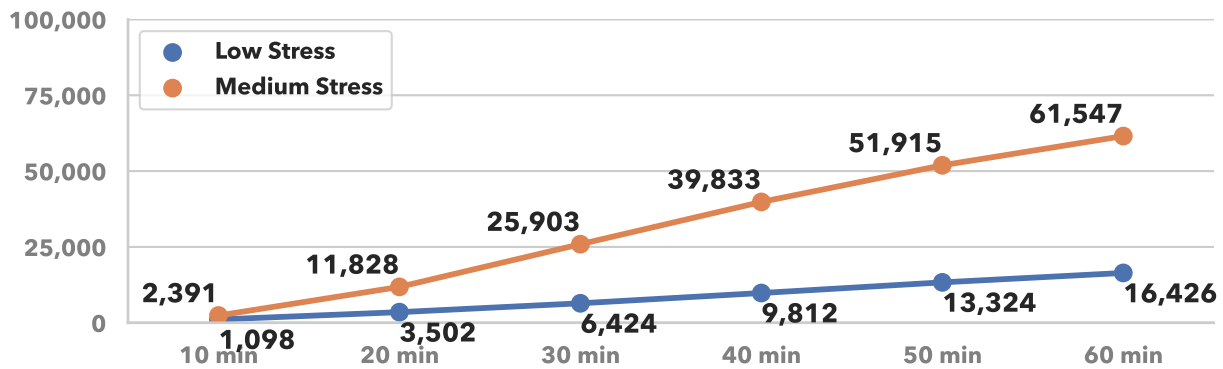
Average Job Density (per mi²) 192

Total Workers 158,717

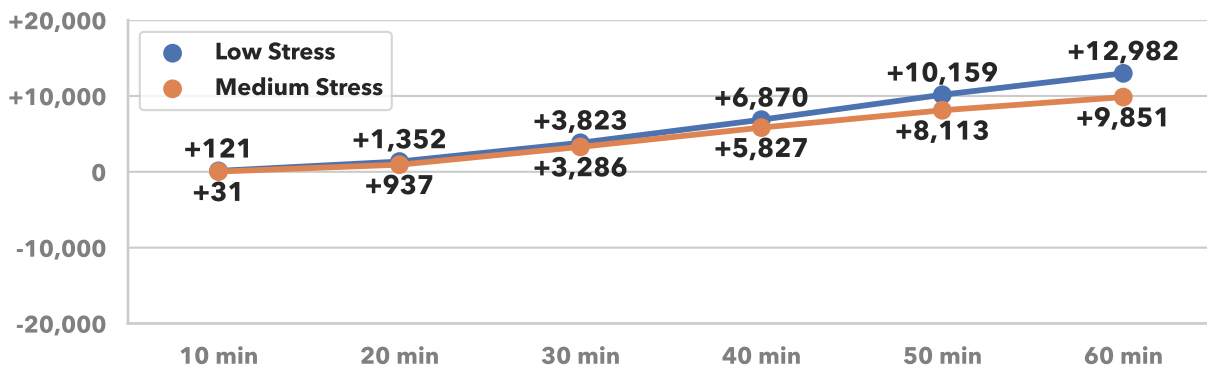
Average Worker Density (per mi²) 167

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

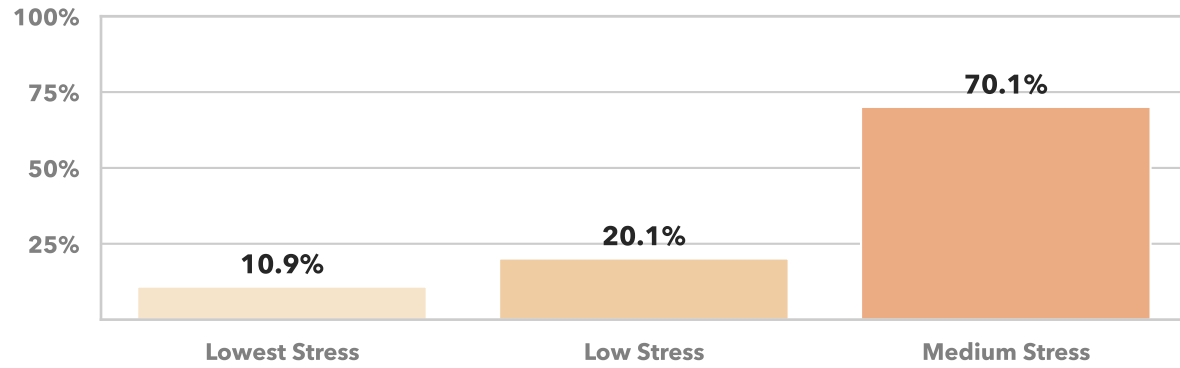


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



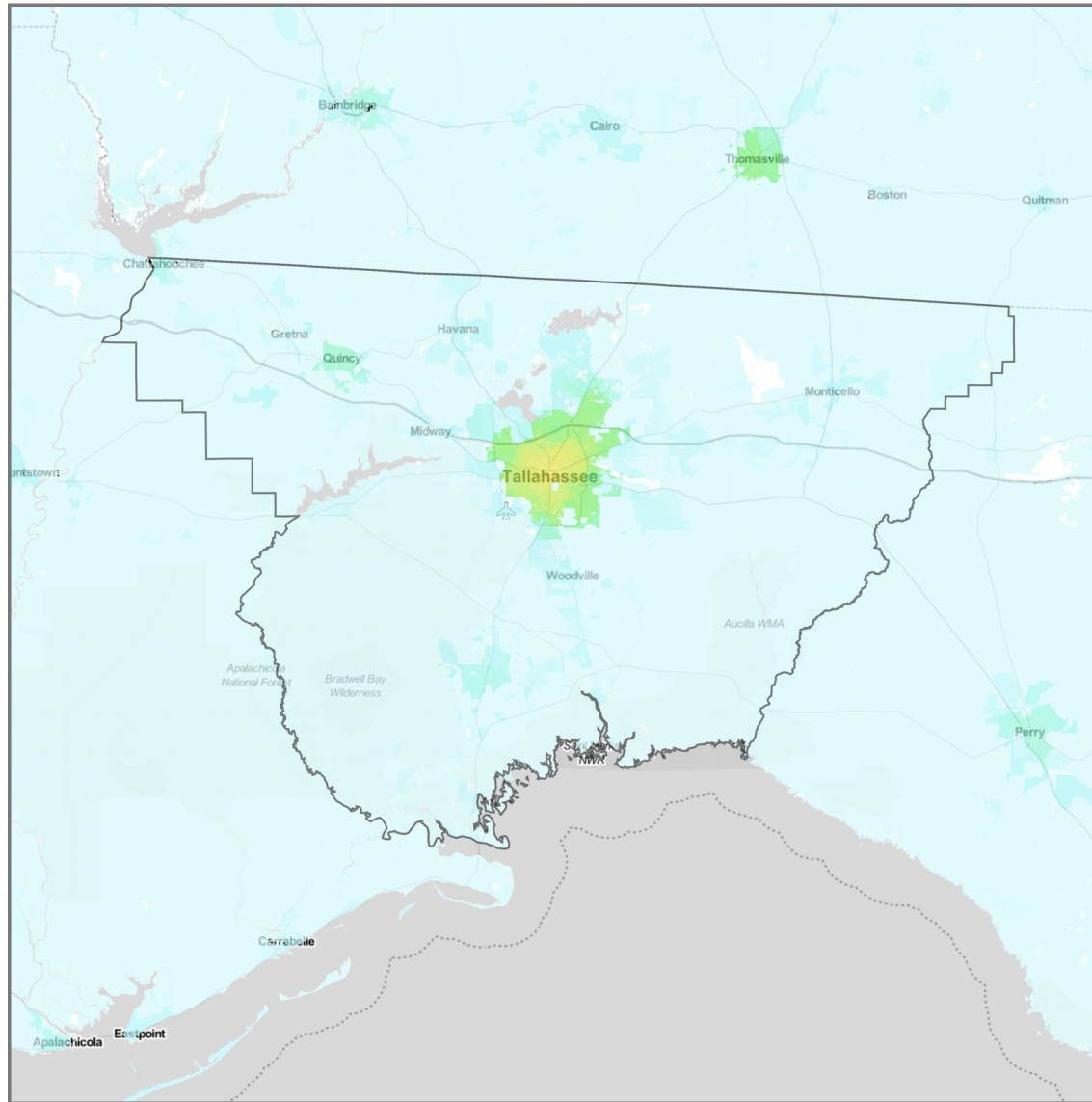
Capital Region Transportation Planning Agency

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)

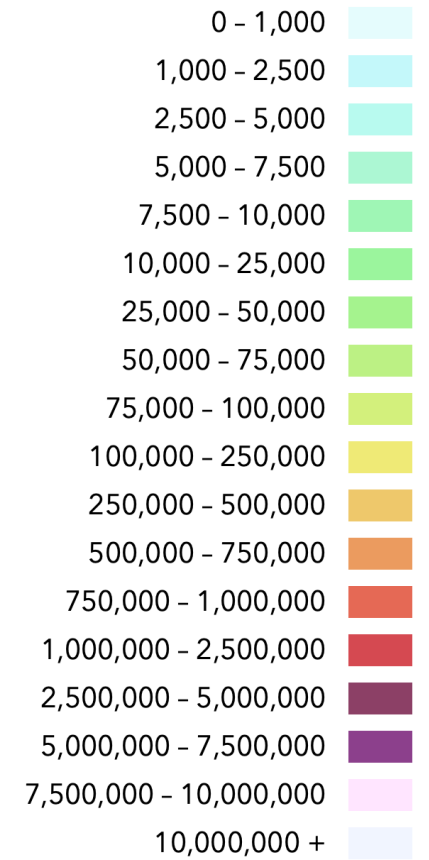


Capital Region Transportation Planning Agency

18



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

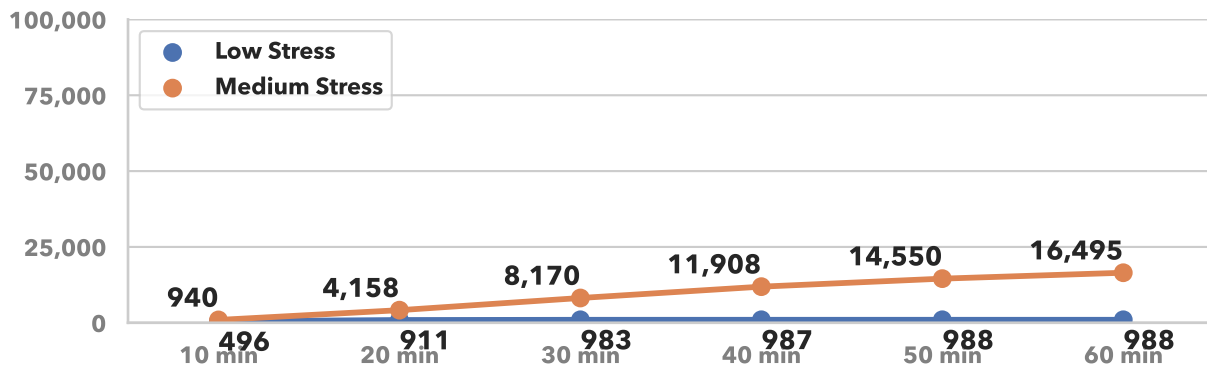
Charlotte-Punta Gorda MPO

Job Accessibility Results—Bike, 2020

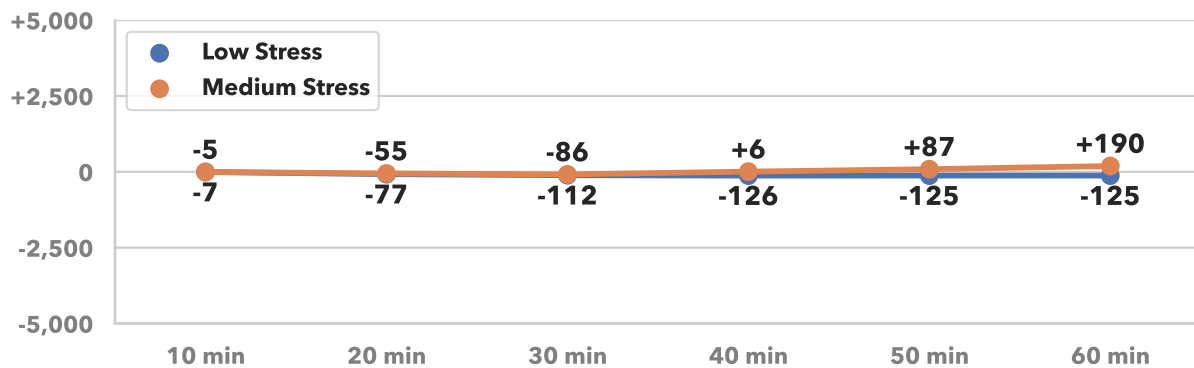
Total Jobs	50,376
Average Job Density (per mi ²)	182
Total Workers	58,809
Average Worker Density (per mi ²)	212

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

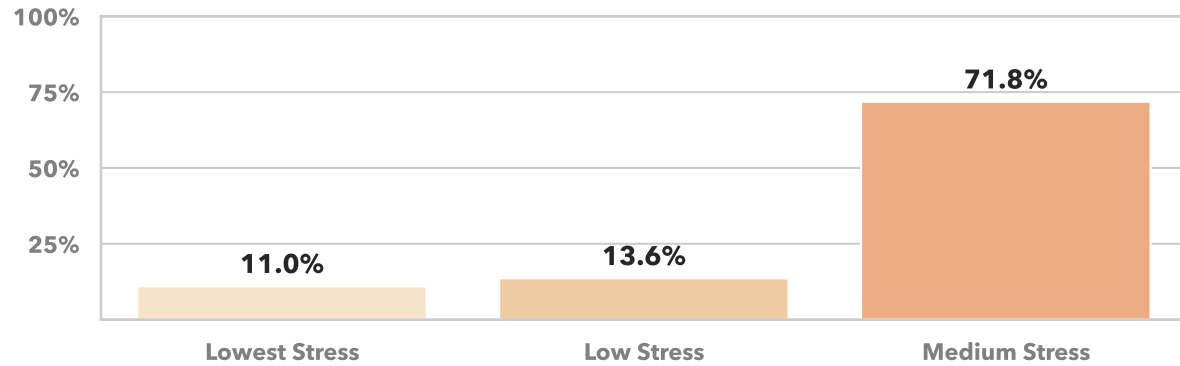


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

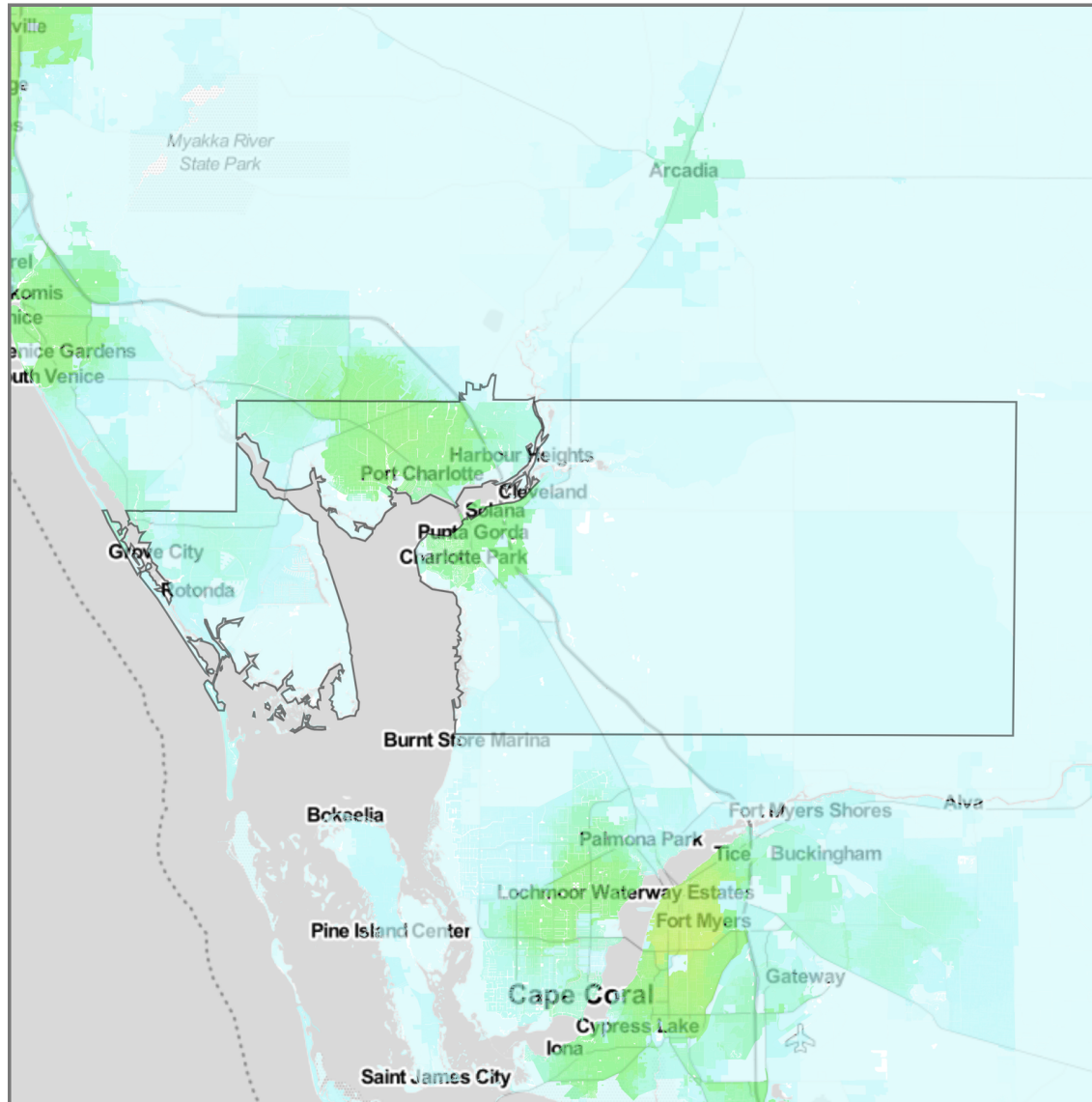


Charlotte-Punta Gorda MPO

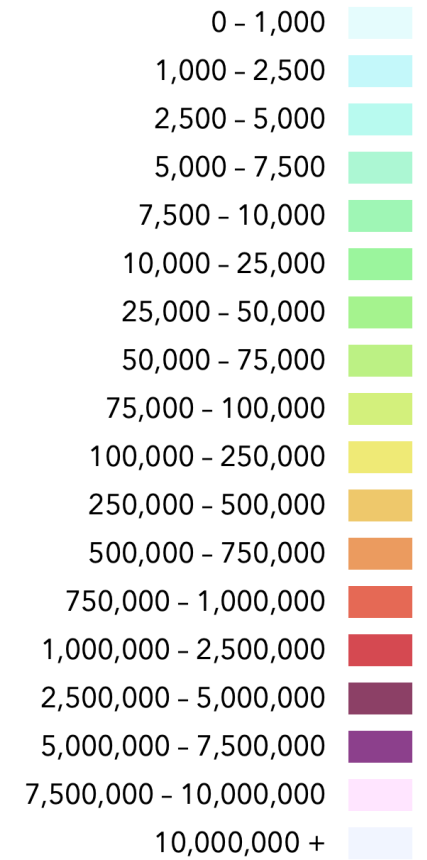
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Charlotte-Punta Gorda MPO



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

Collier MPO

Job Accessibility Results—Bike, 2020

Total Jobs 144,441

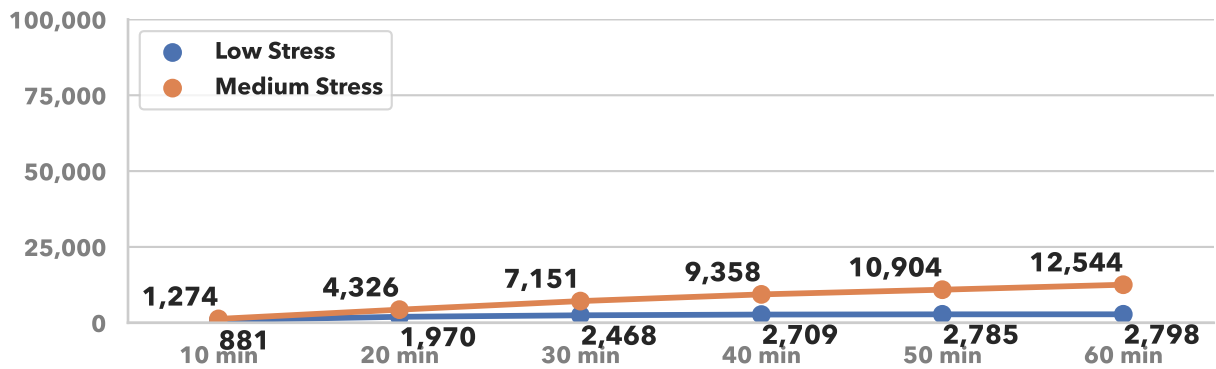
Average Job Density (per mi²) 180

Total Workers 143,071

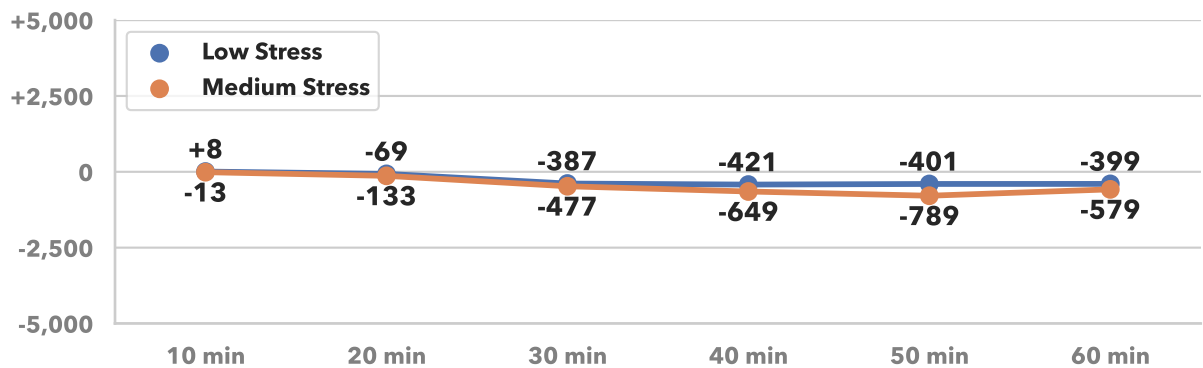
Average Worker Density (per mi²) 179

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

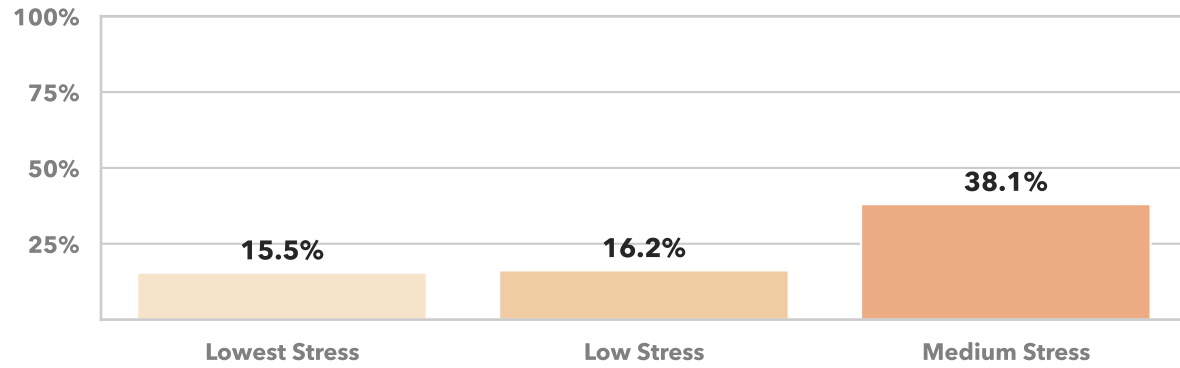


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

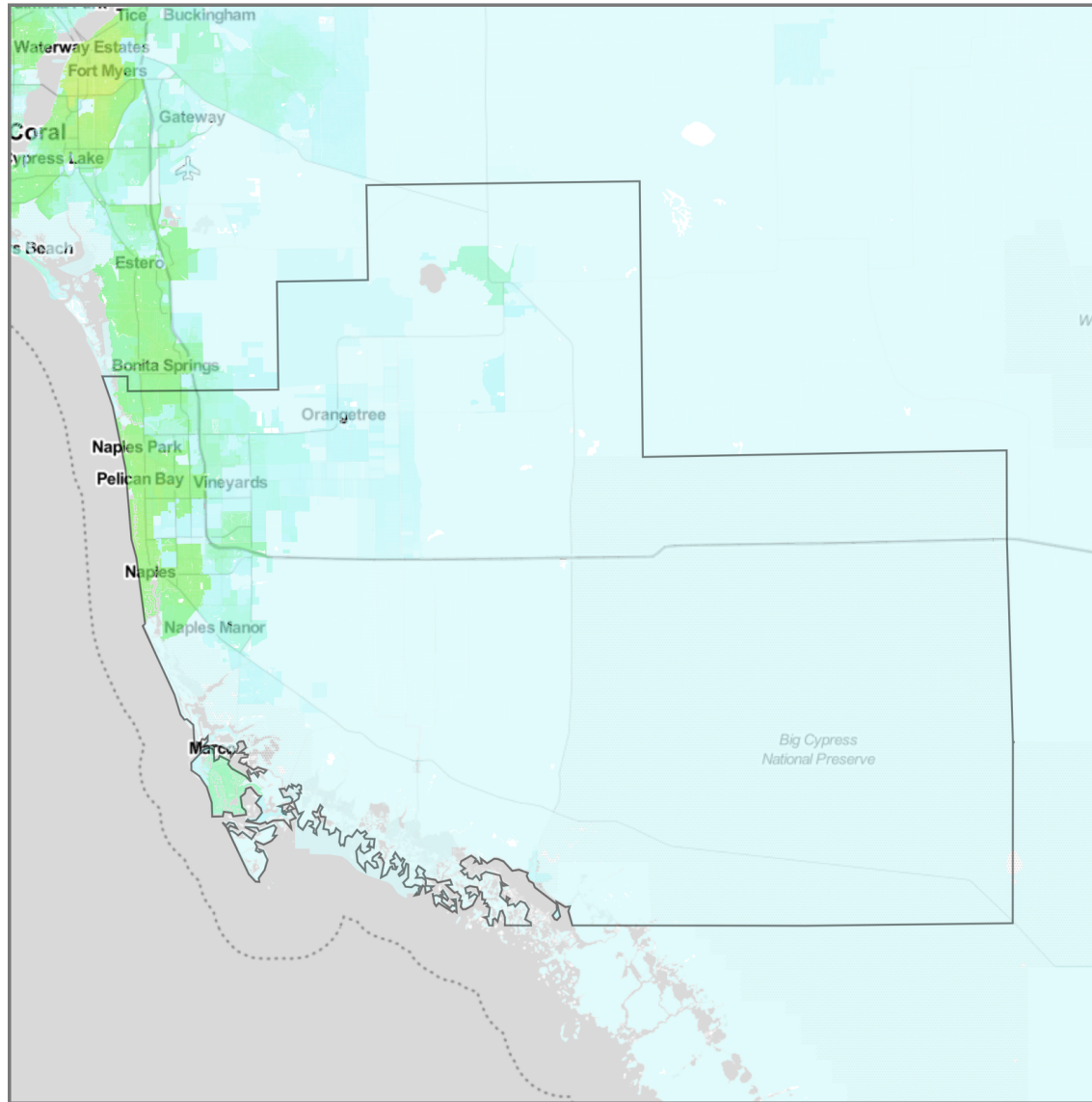


Collier MPO

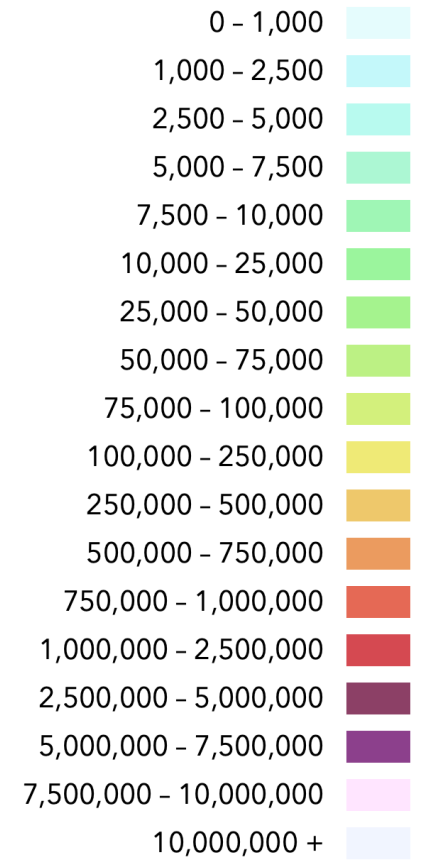
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Collier MPO



Jobs within 30 minutes (Biking, medium stress)



State border —
MPO boundary —

Florida-Alabama Transportation Planning Organization

Job Accessibility Results—Bike, 2020

Total Jobs 193,446

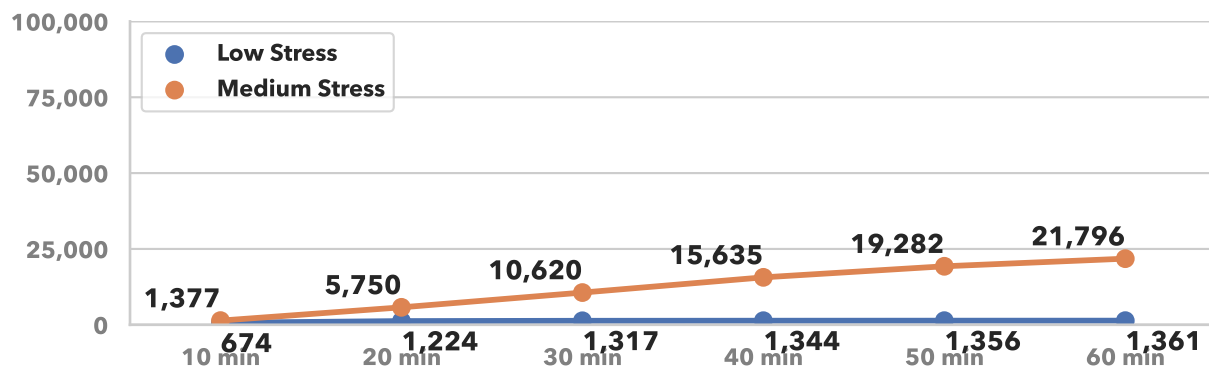
Average Job Density (per mi²) 418

Total Workers 185,184

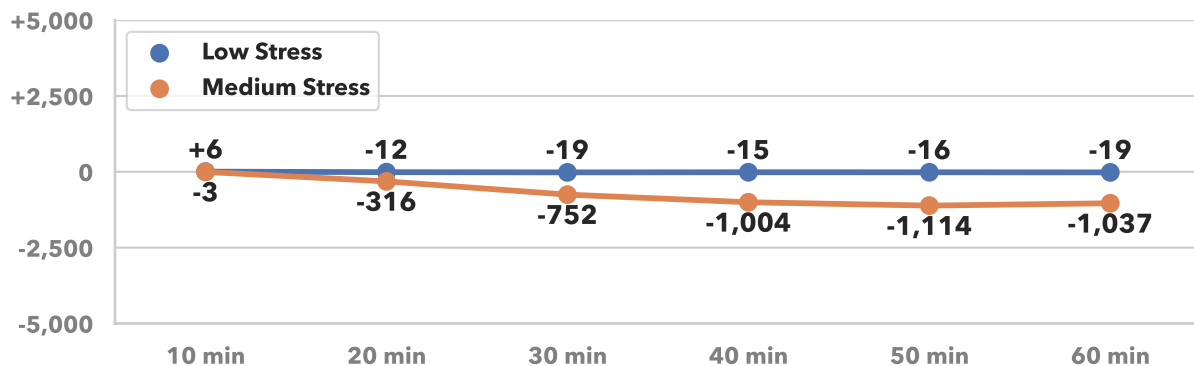
Average Worker Density (per mi²) 400

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

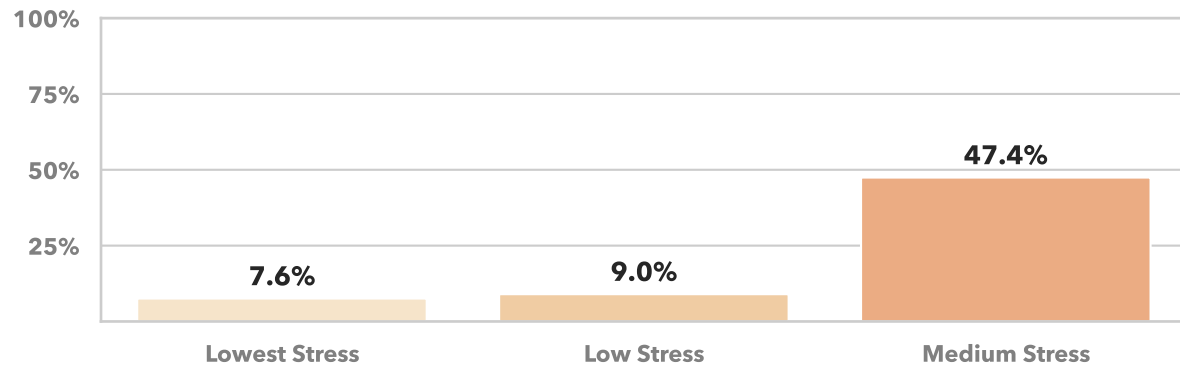


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

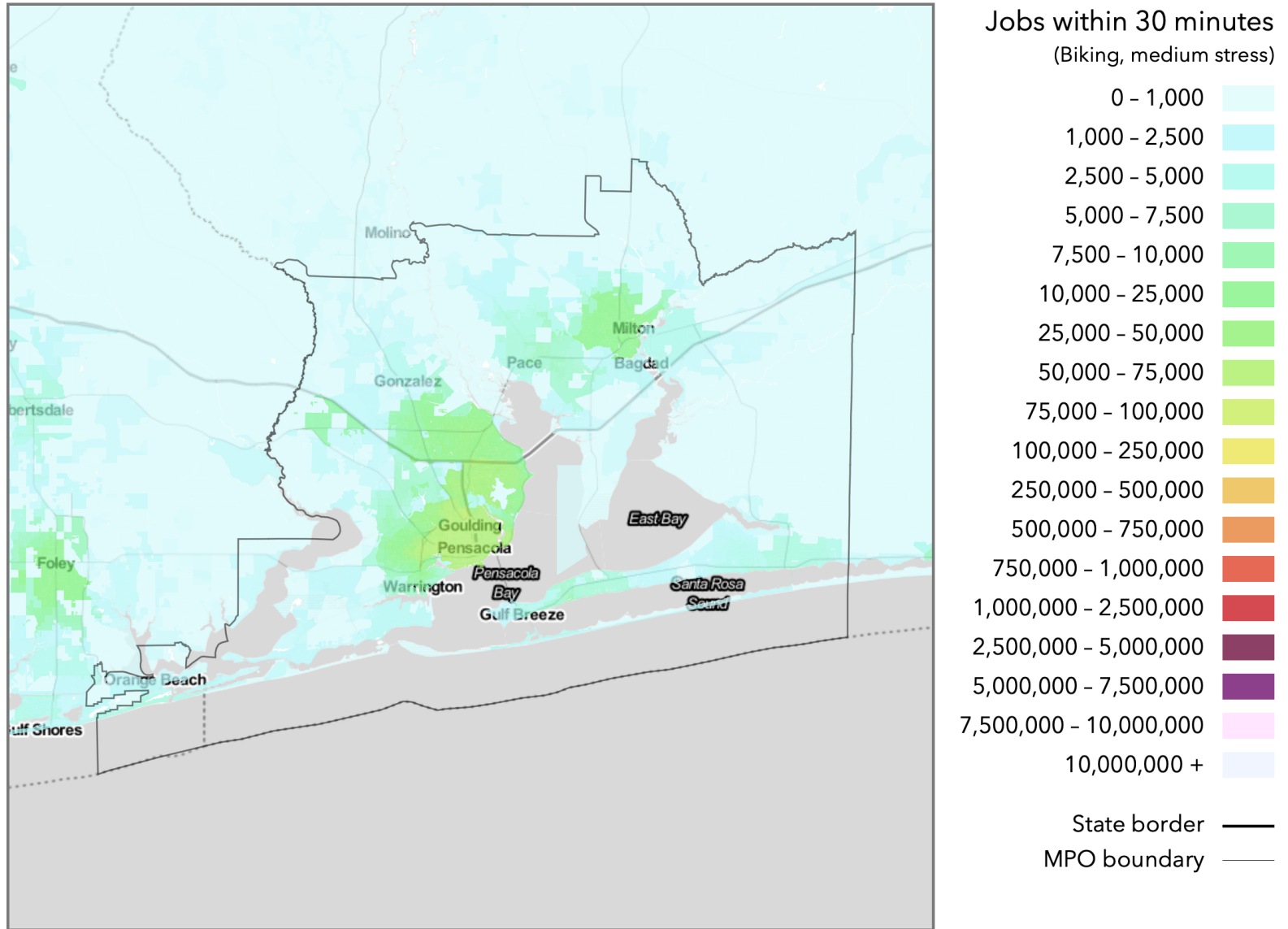


Florida-Alabama Transportation Planning Organization

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Florida-Alabama Transportation Planning Organization



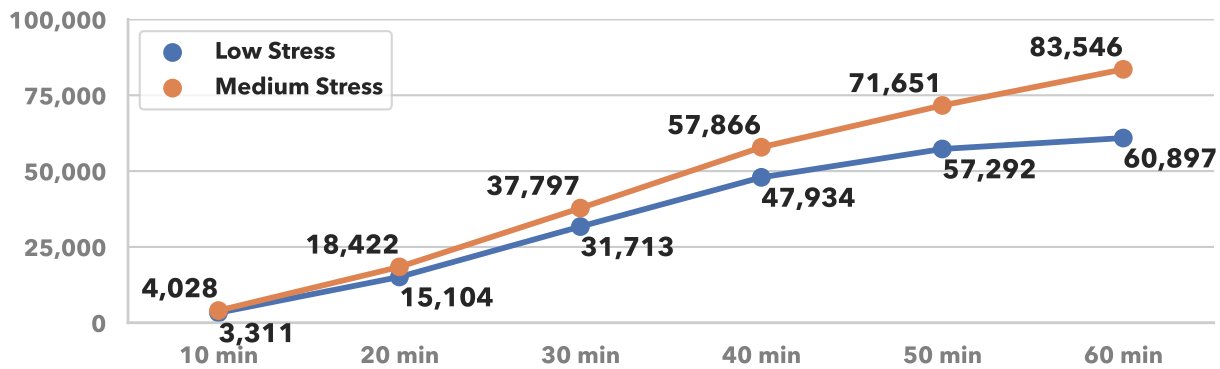
Gainesville MTPO

Job Accessibility Results—Bike, 2020

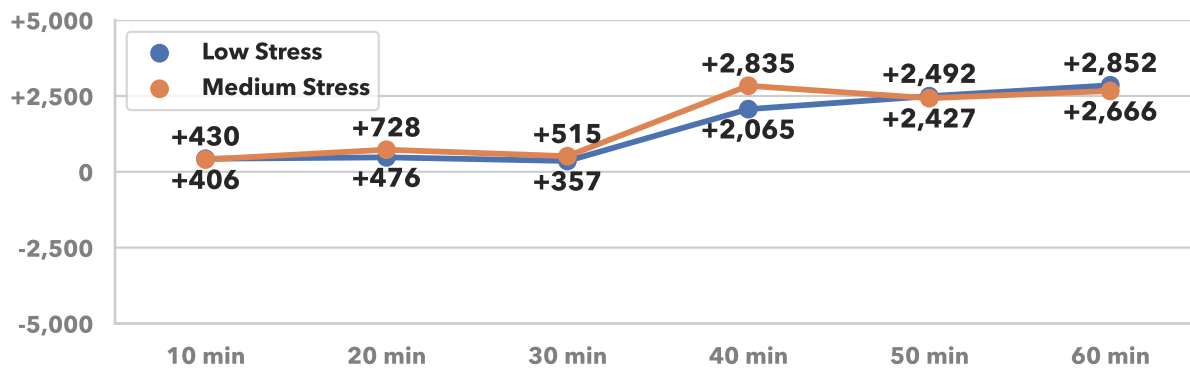
Total Jobs	115,597
Average Job Density (per mi ²)	1590
Total Workers	82,598
Average Worker Density (per mi ²)	1136

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

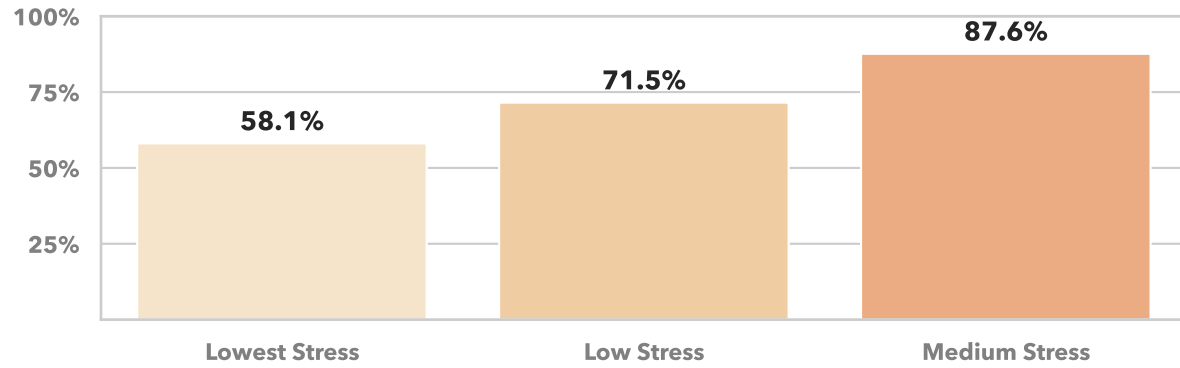


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



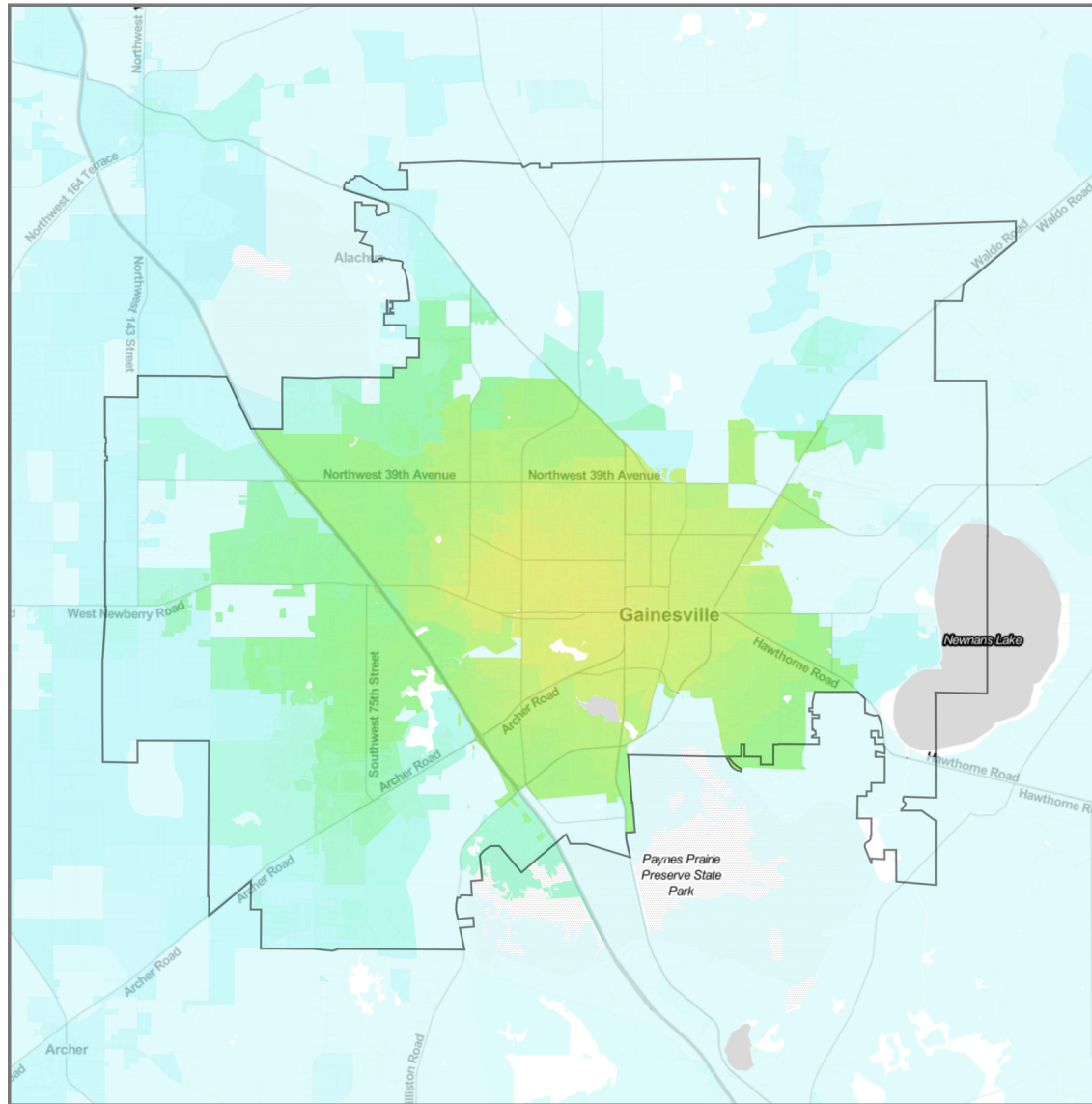
Gainesville MTPo

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)

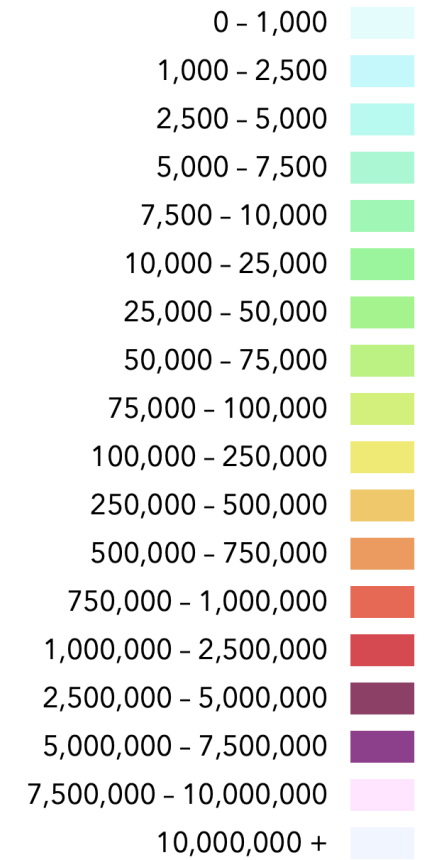


Gainesville MTP0

30



Jobs within 30 minutes
(Biking, medium stress)



State border

MPO boundary

Heartland Regional TPO

Job Accessibility Results—Bike, 2020

Total Jobs **67,639**

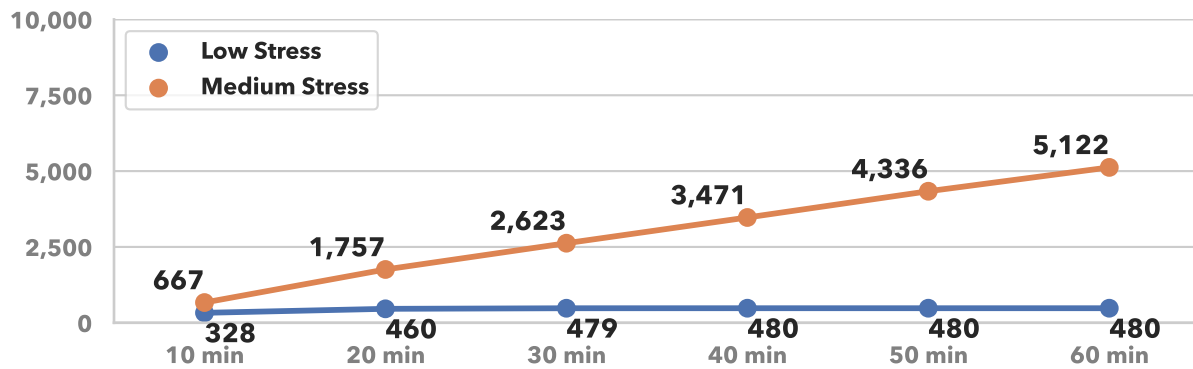
Average Job Density (per mi²) **34**

Total Workers **87,469**

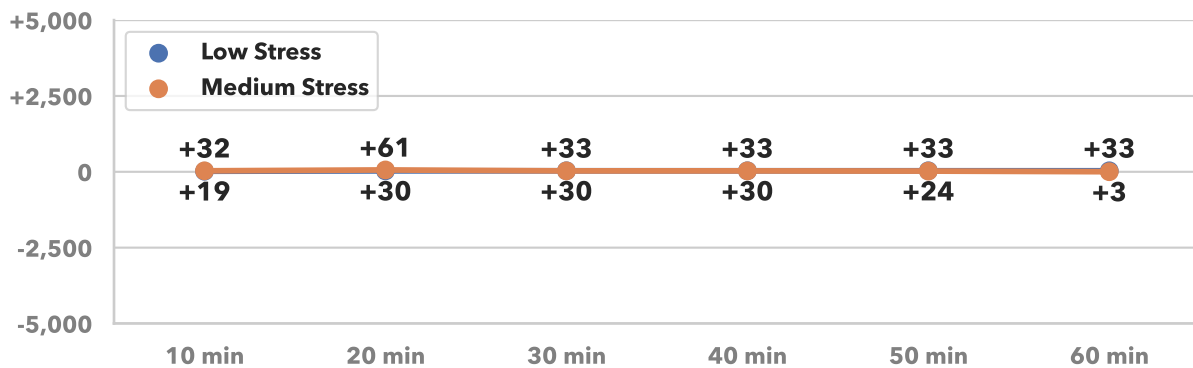
Average Worker Density (per mi²) **44**

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

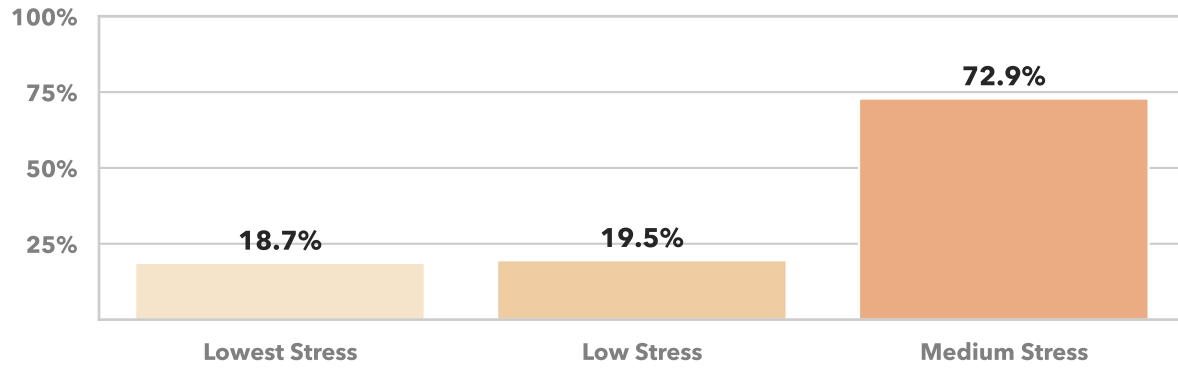


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

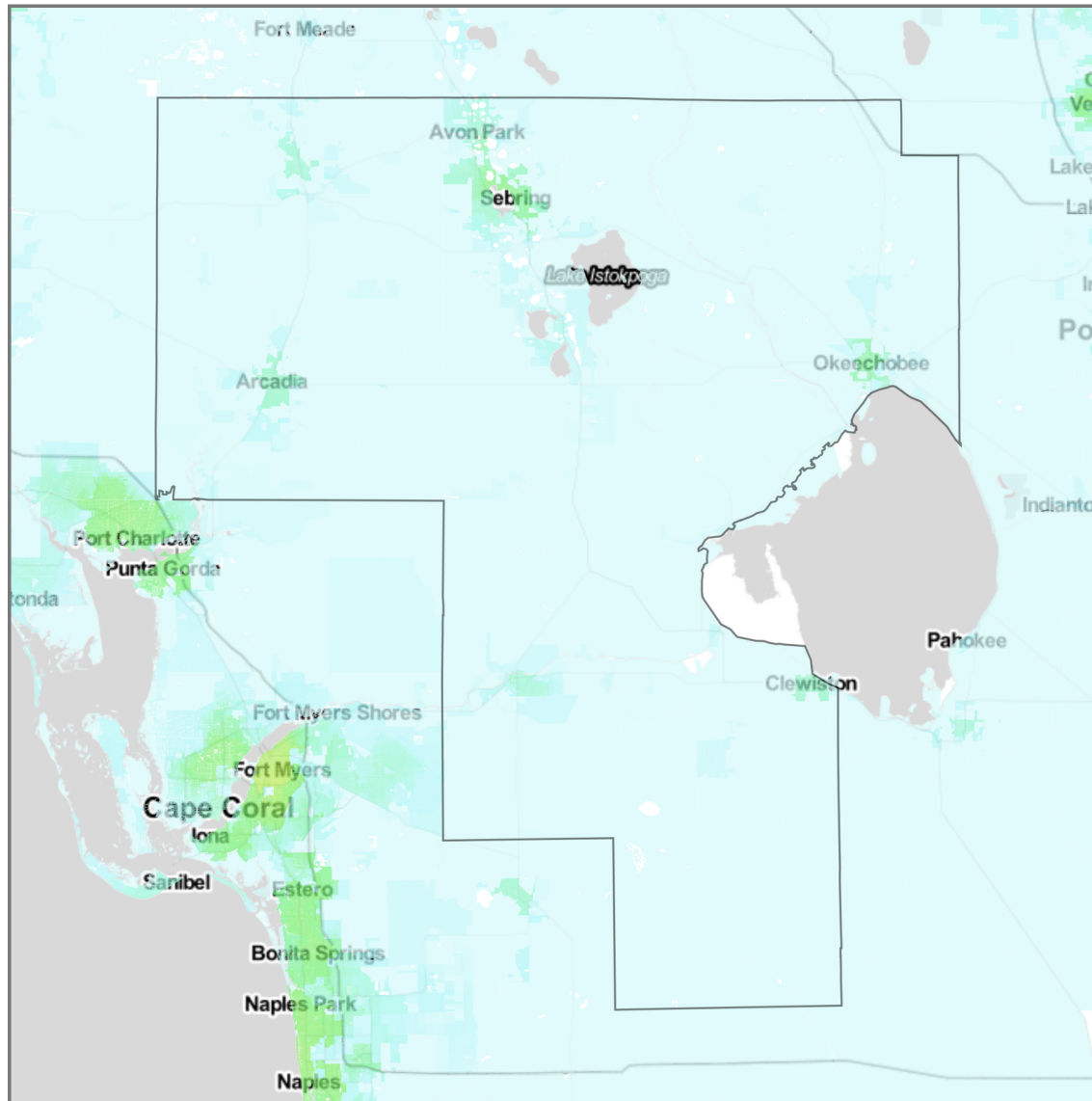


Heartland Regional TPO

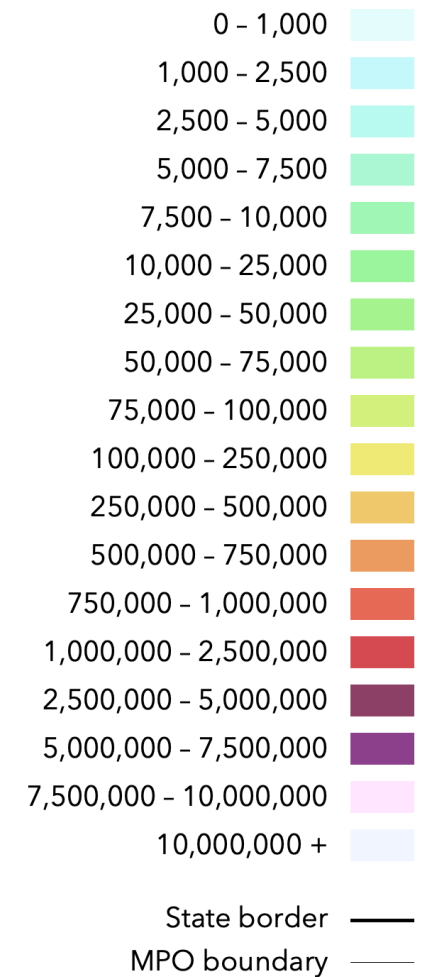
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Heartland Regional TPO



Jobs within 30 minutes
(Biking, medium stress)



Hernando/Citrus County MPO

Job Accessibility Results—Bike, 2020

Total Jobs 78,731

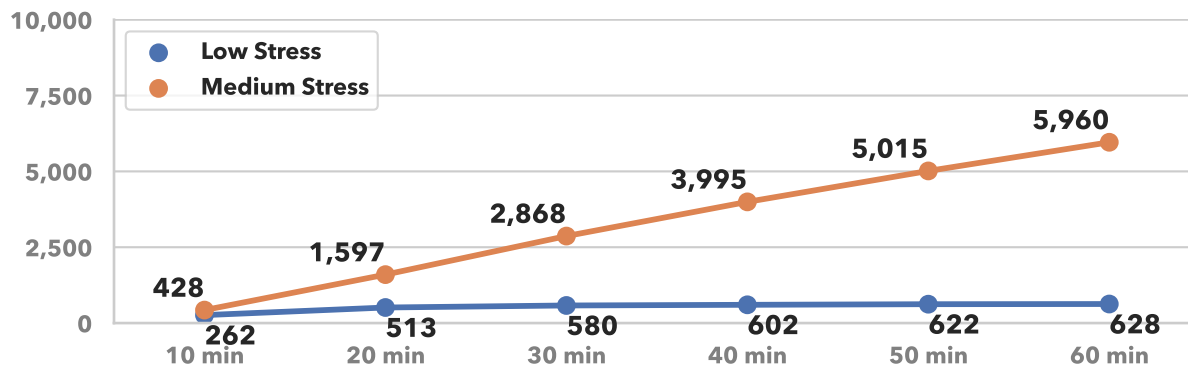
Average Job Density (per mi²) 182

Total Workers 110,773

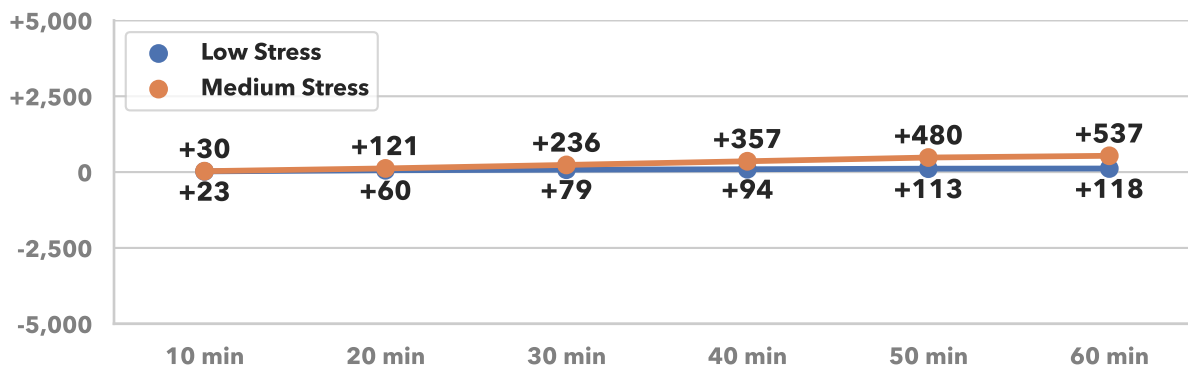
Average Worker Density (per mi²) 256

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

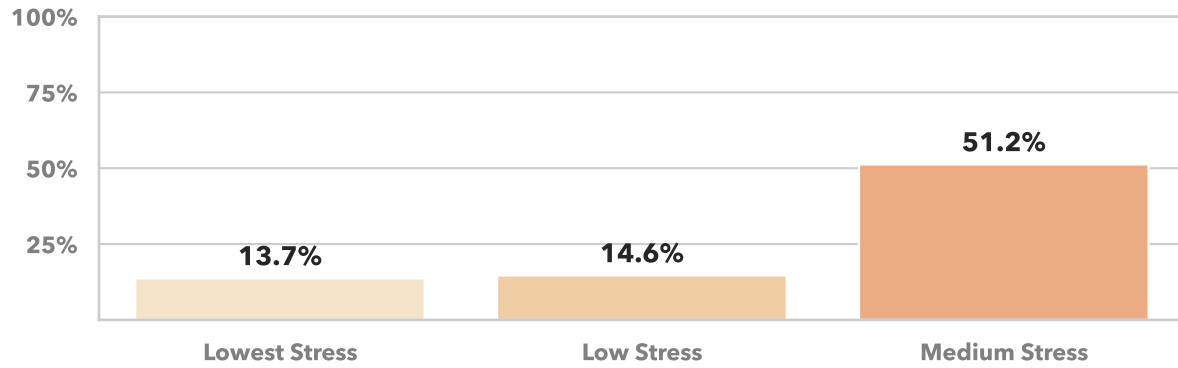


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

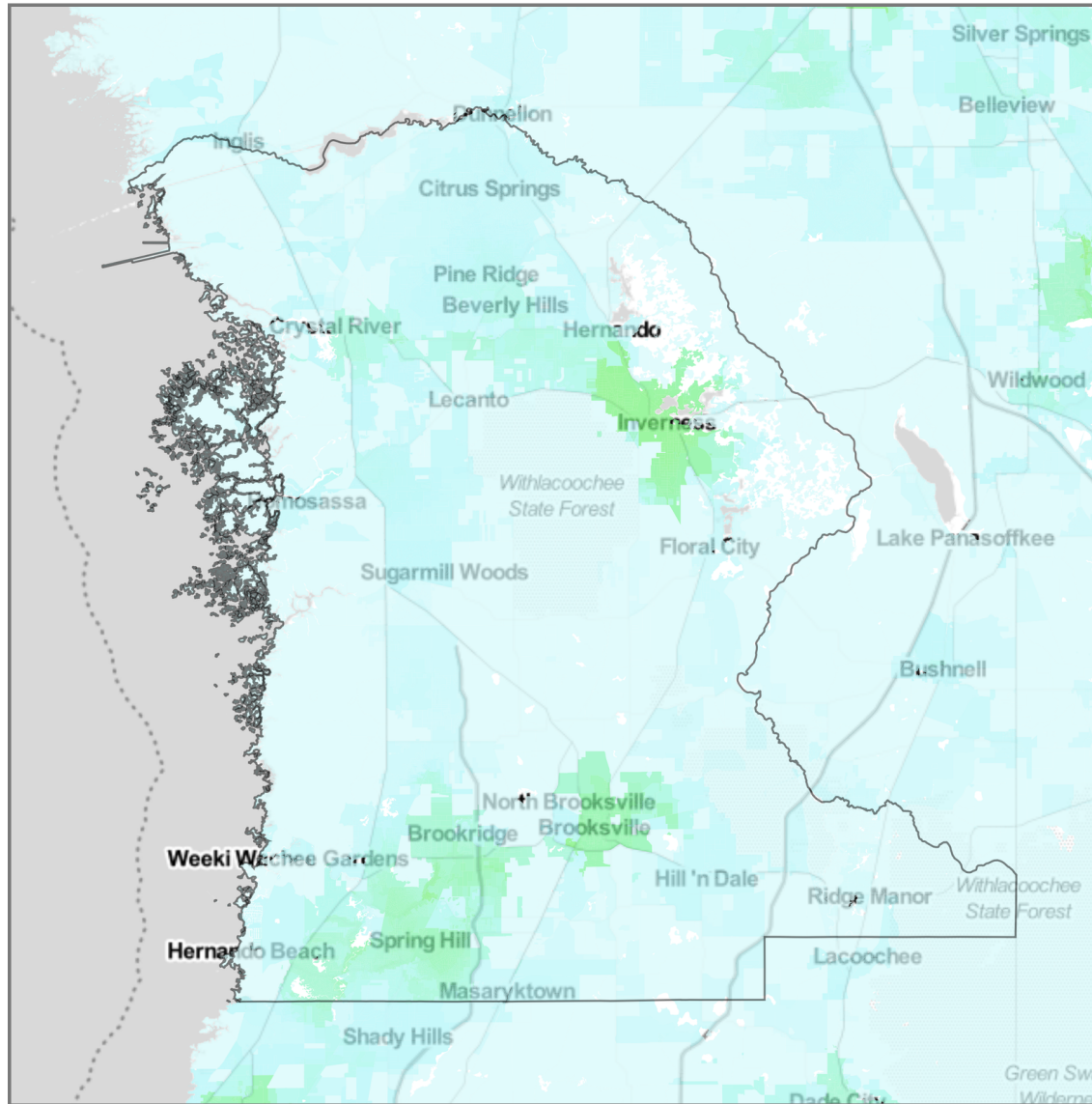


Hernando/Citrus County MPO

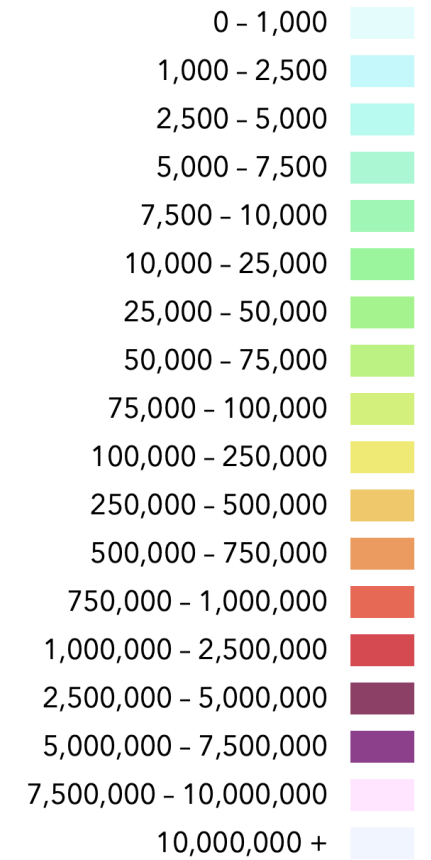
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Hernando/Citrus County MPO



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

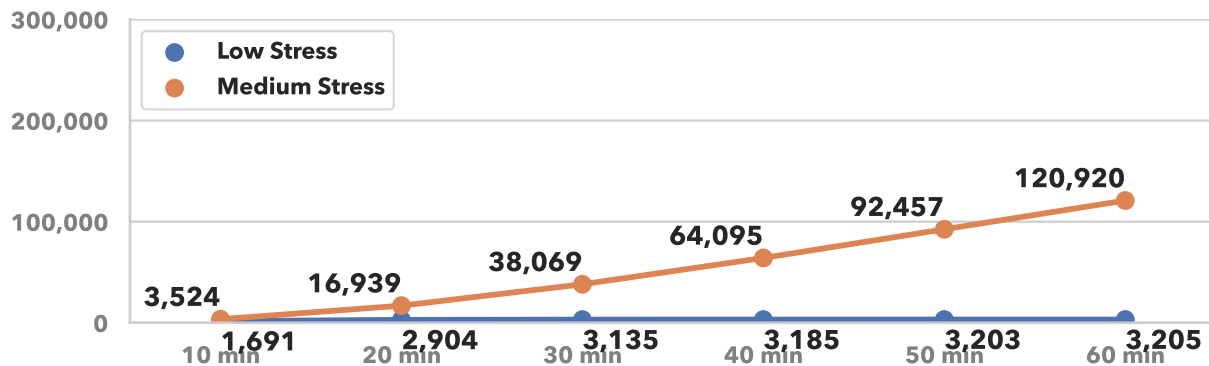
Hillsborough MPO

Job Accessibility Results—Bike, 2020

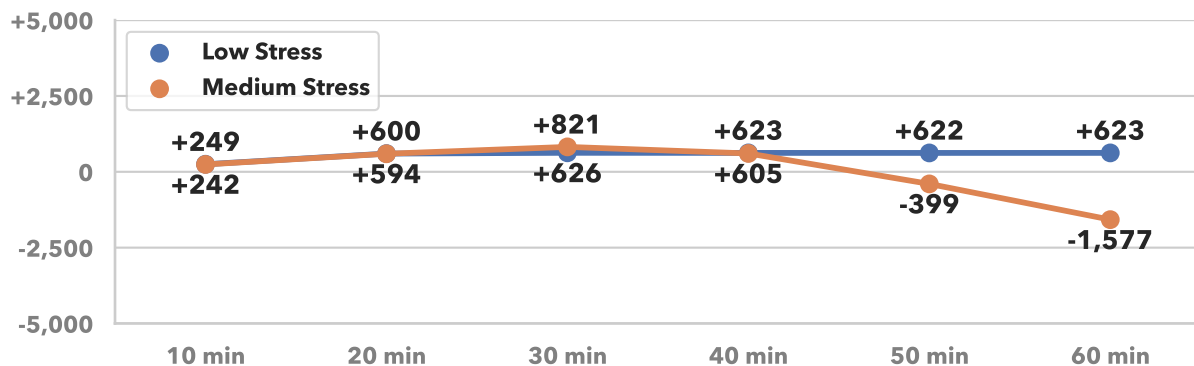
Total Jobs	731,574
Average Job Density (per mi ²)	1706
Total Workers	631,598
Average Worker Density (per mi ²)	1473

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

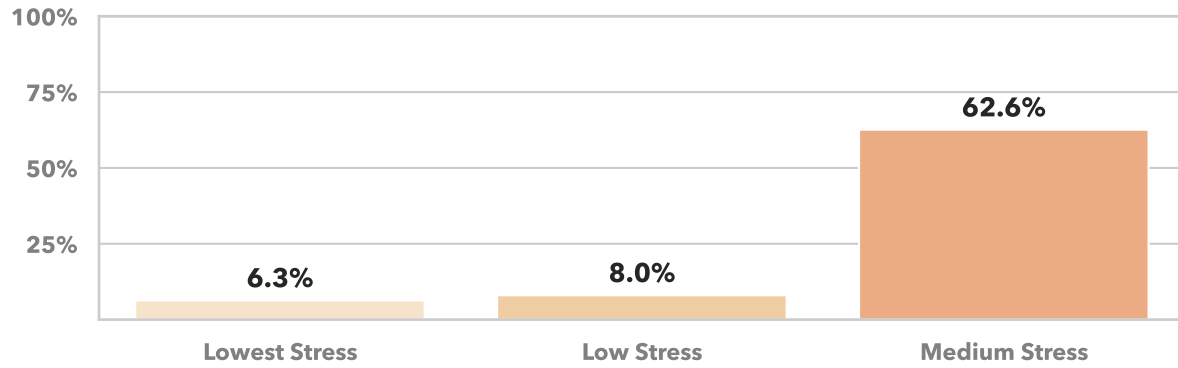


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

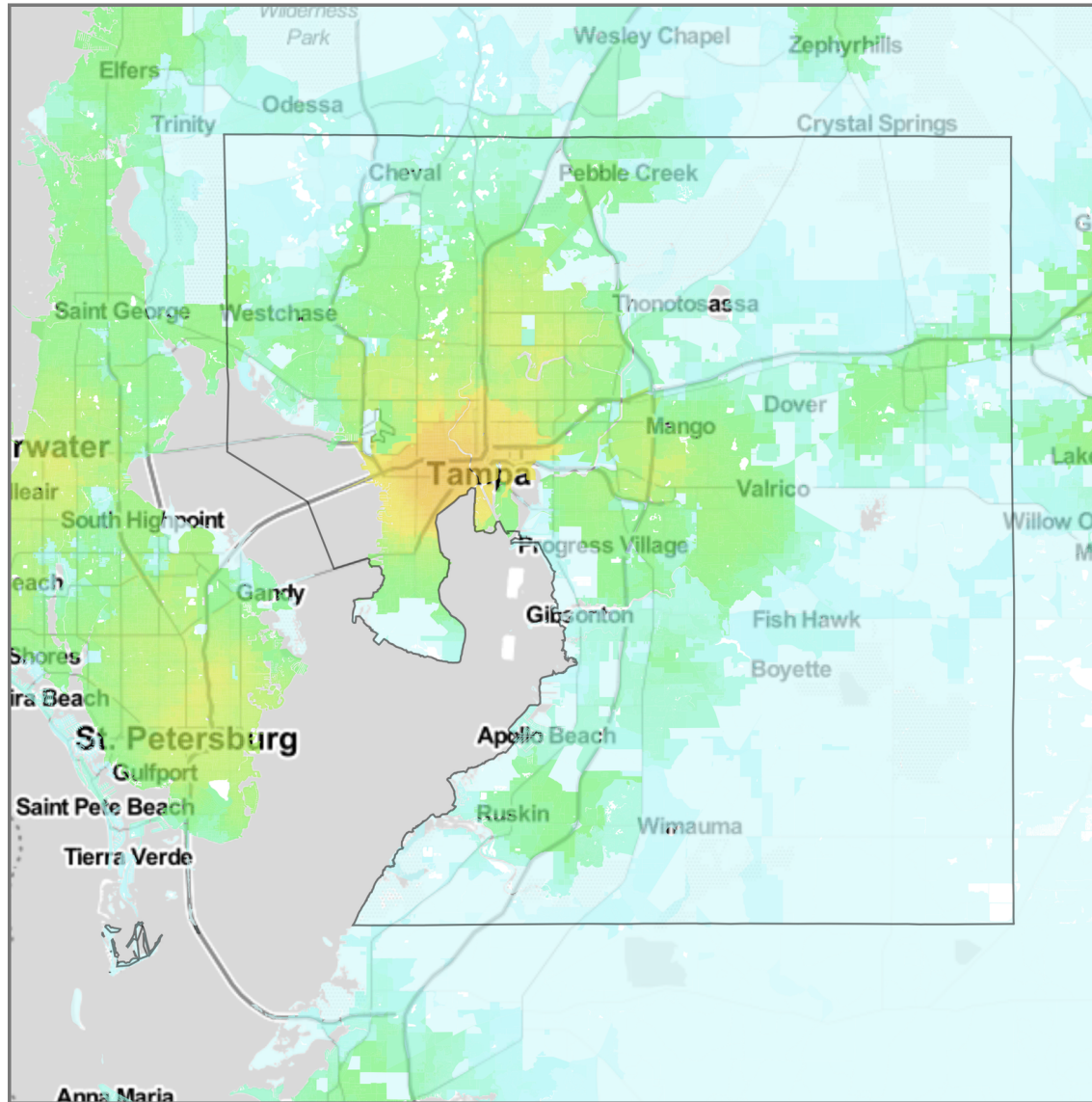


Hillsborough MPO

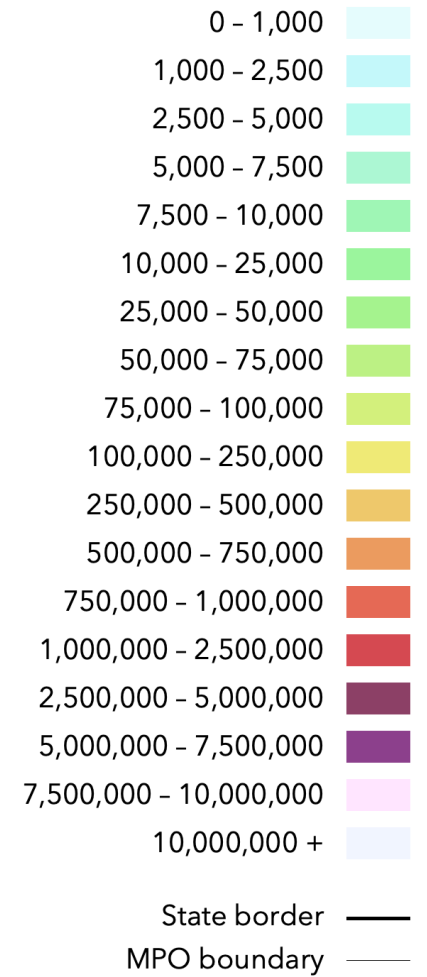
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Hillsborough MPO



Jobs within 30 minutes
(Biking, medium stress)



Indian River County MPO

Job Accessibility Results—Bike, 2020

Total Jobs 49,448

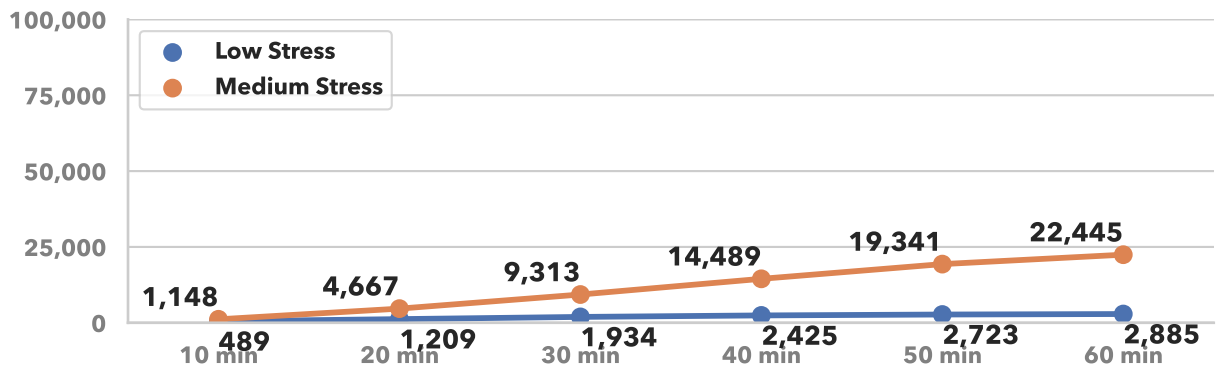
Average Job Density (per mi²) 732

Total Workers 56,539

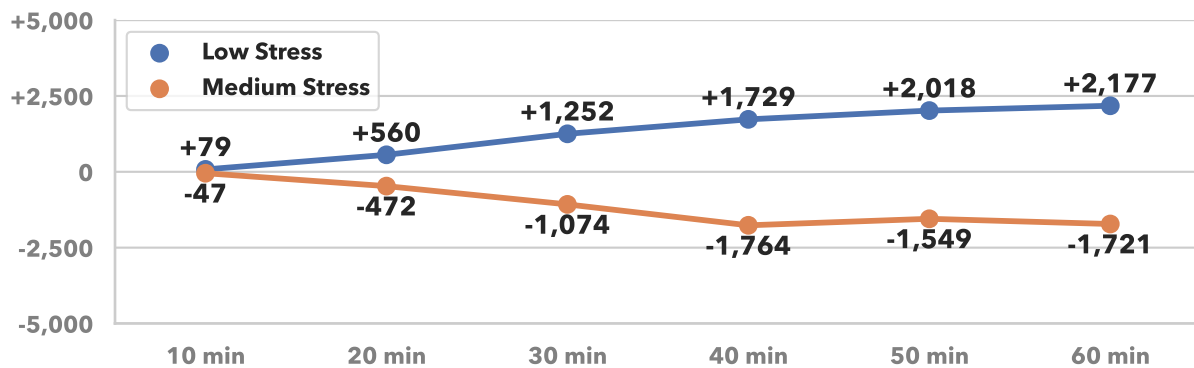
Average Worker Density (per mi²) 836

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

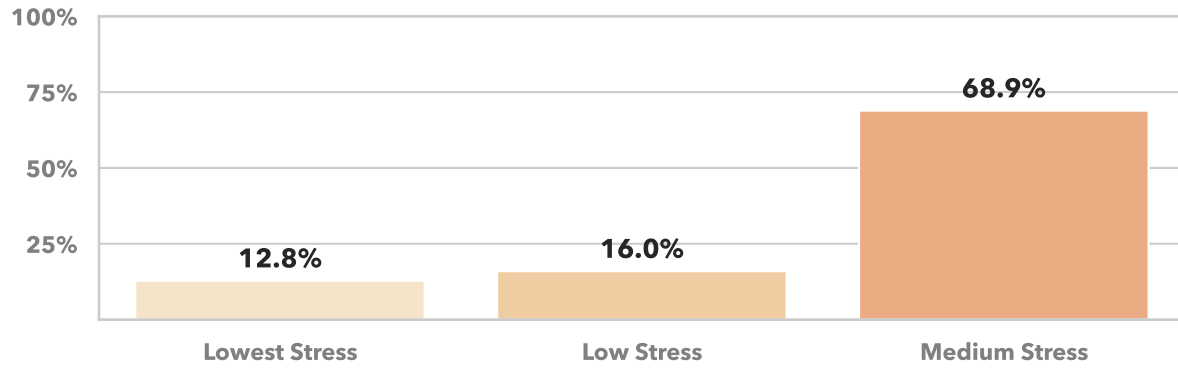


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

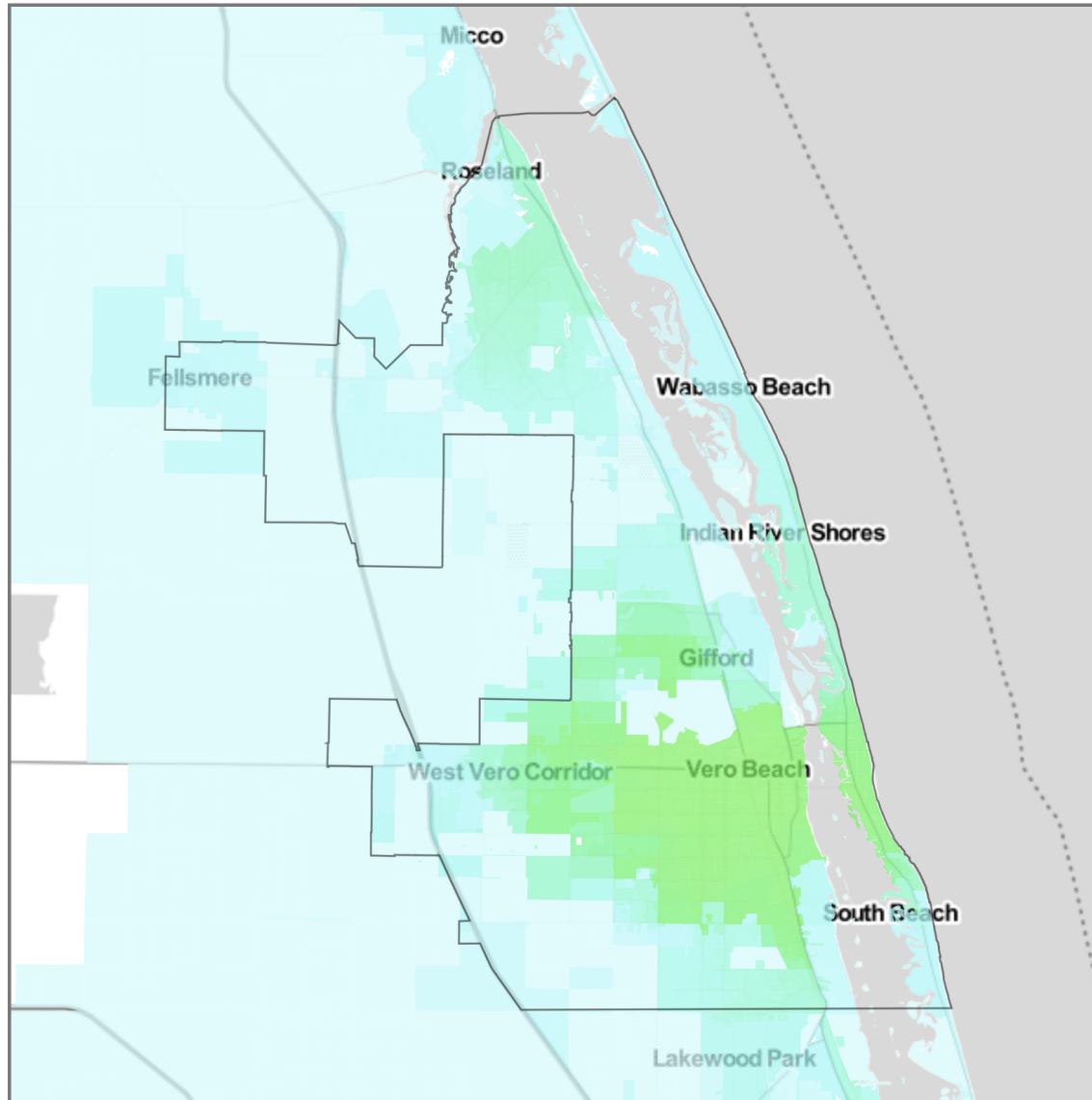


Indian River County MPO

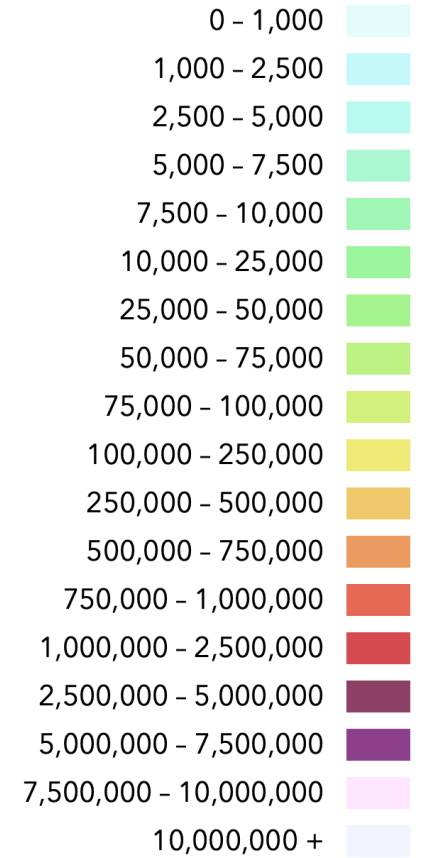
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Indian River County MPO



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

Lake-Sumter MPO

Job Accessibility Results—Bike, 2020

Total Jobs **128,999**

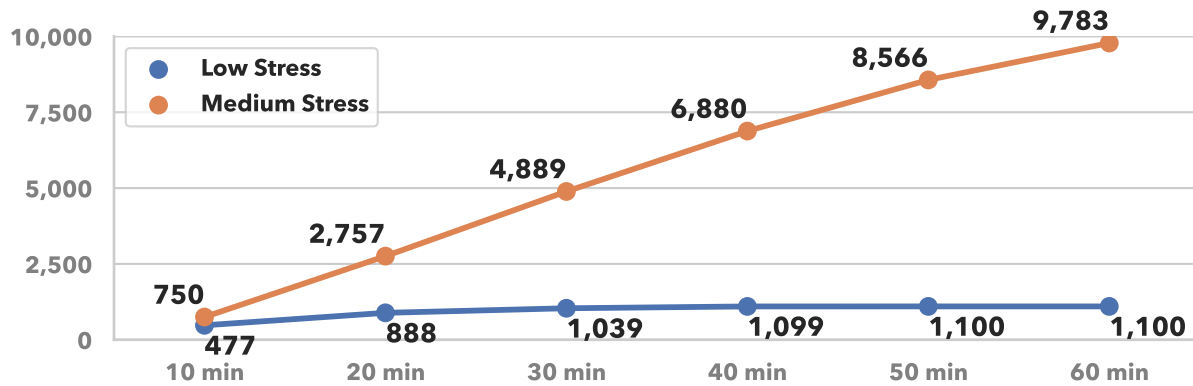
Average Job Density (per mi²) **193**

Total Workers **167,672**

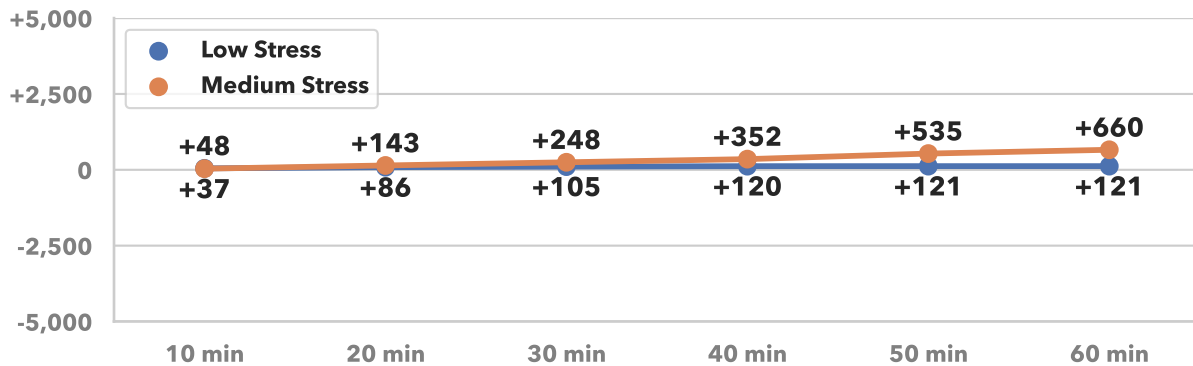
Average Worker Density (per mi²) **251**

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

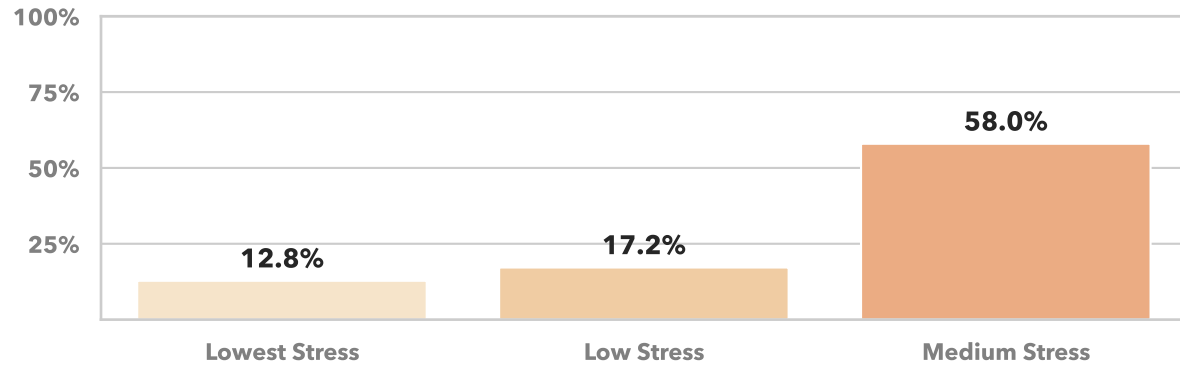


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

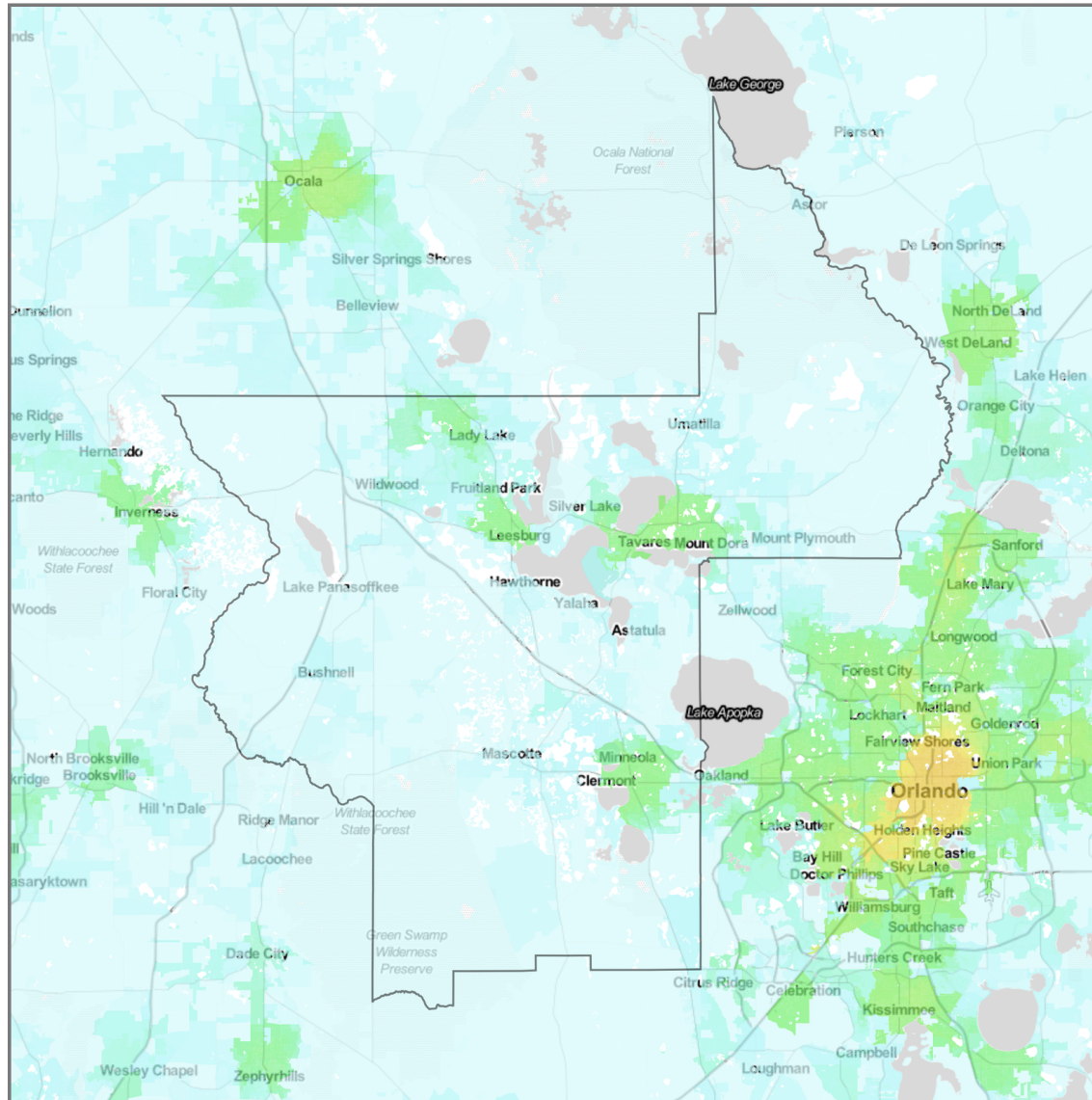


Lake-Sumter MPO

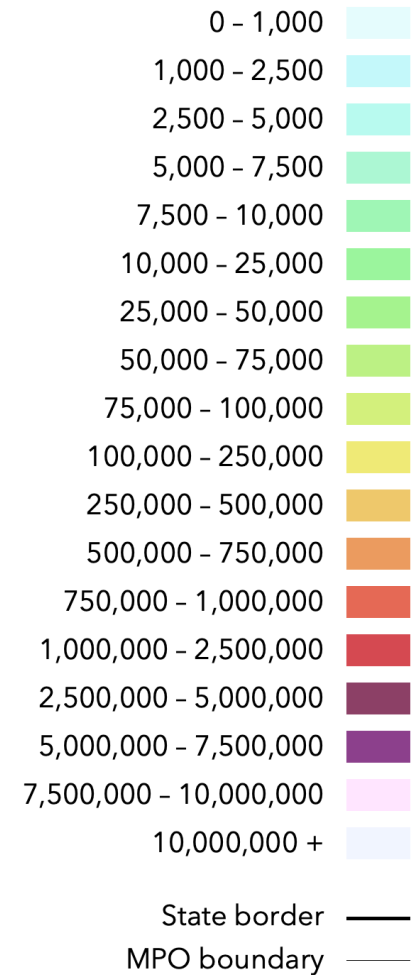
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Lake-Sumter MPO



Jobs within 30 minutes
(Biking, medium stress)



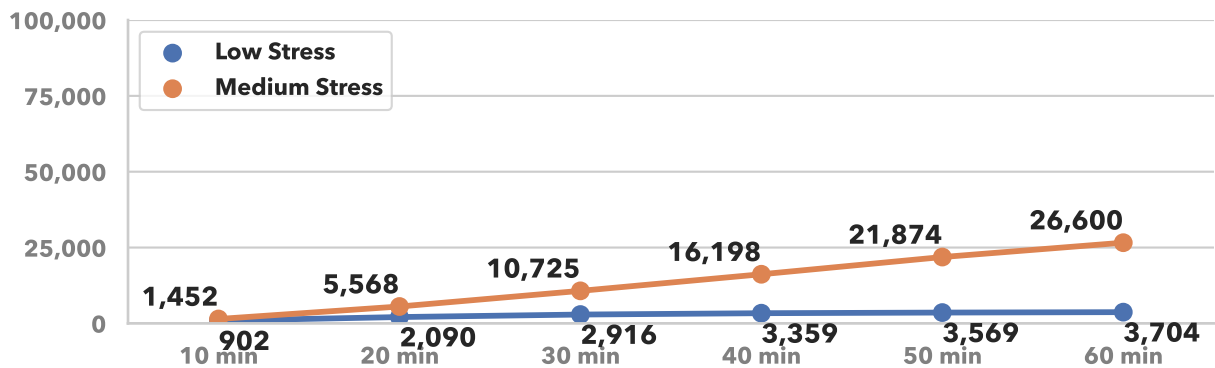
Lee County MPO

Job Accessibility Results—Bike, 2020

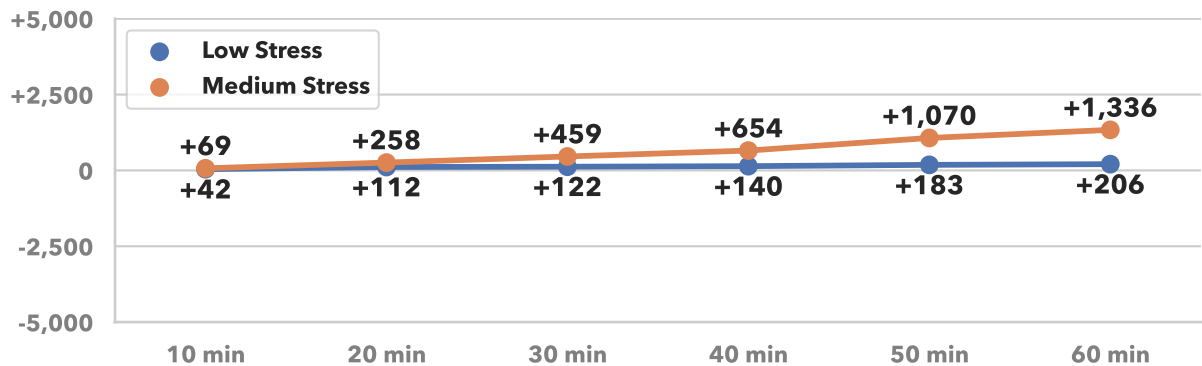
Total Jobs	257,625
Average Job Density (per mi ²)	808
Total Workers	273,559
Average Worker Density (per mi ²)	858

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

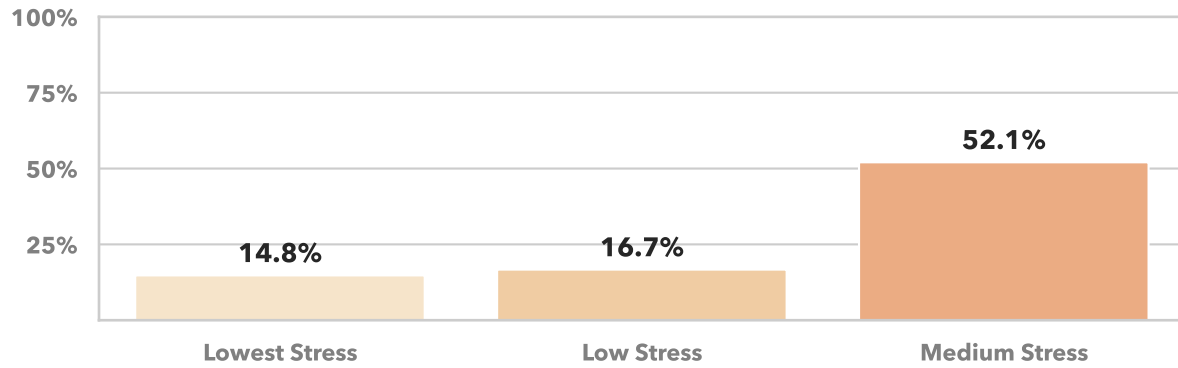


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

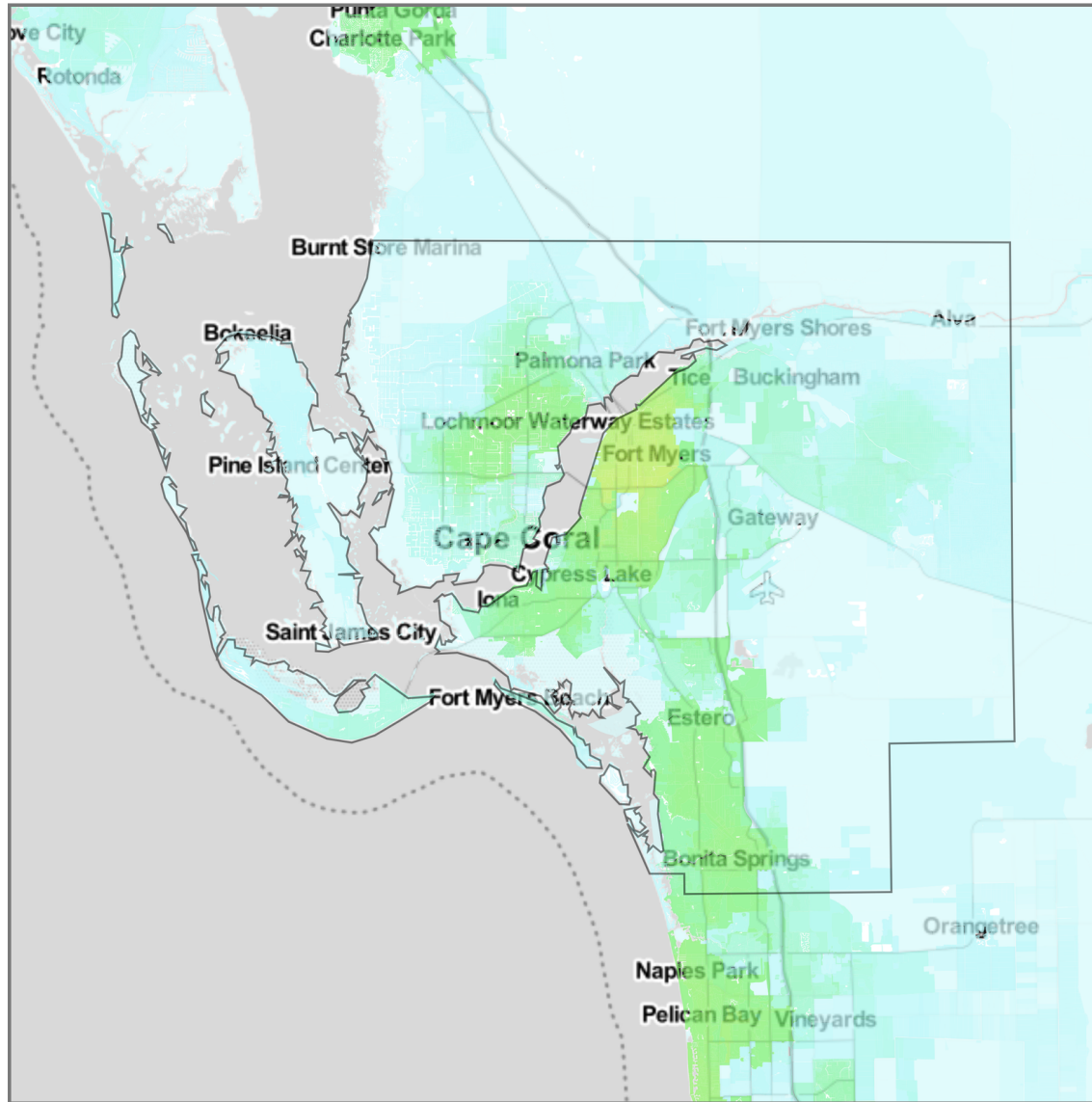


Lee County MPO

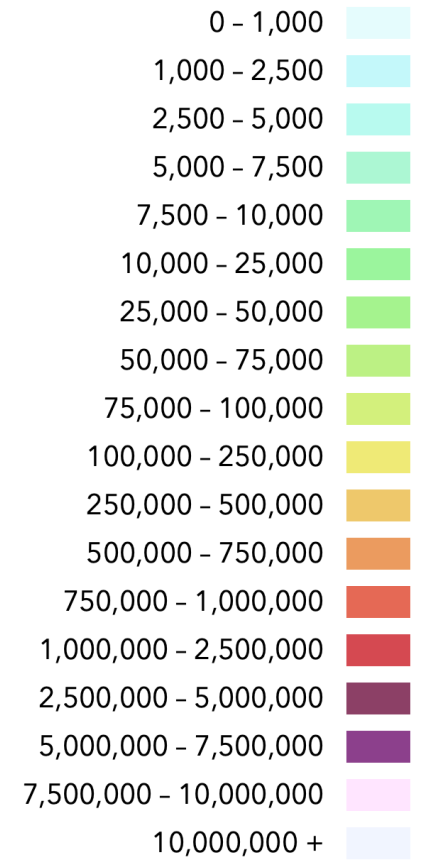
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Lee County MPO



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

METROPLAN Orlando

Job Accessibility Results—Bike, 2020

Total Jobs 1,218,166

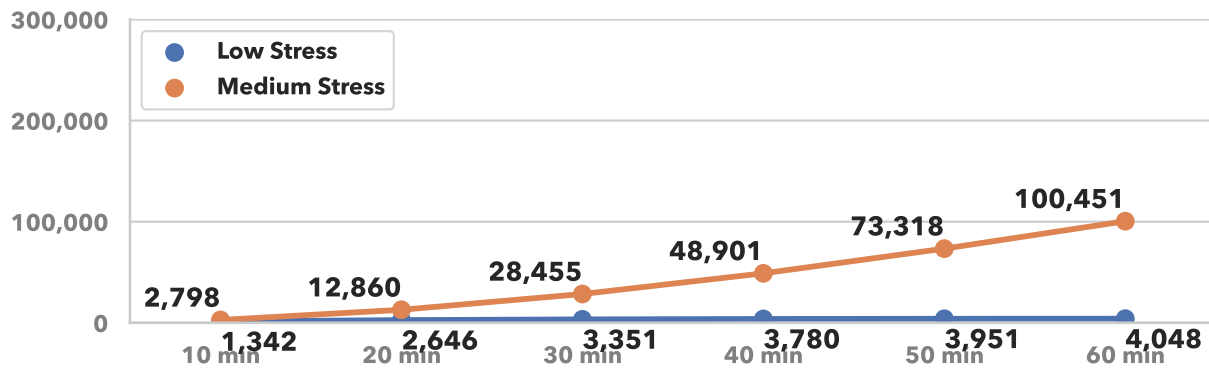
Average Job Density (per mi²) 1103

Total Workers 1,037,565

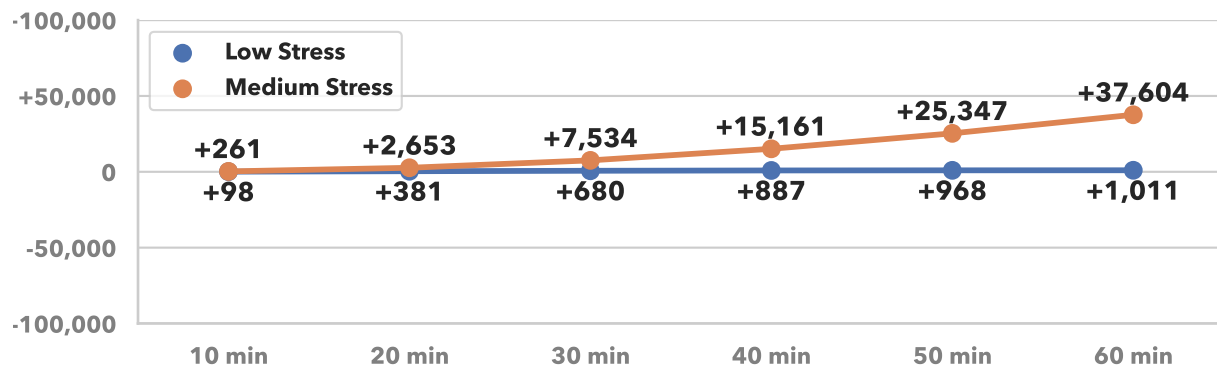
Average Worker Density (per mi²) 940

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

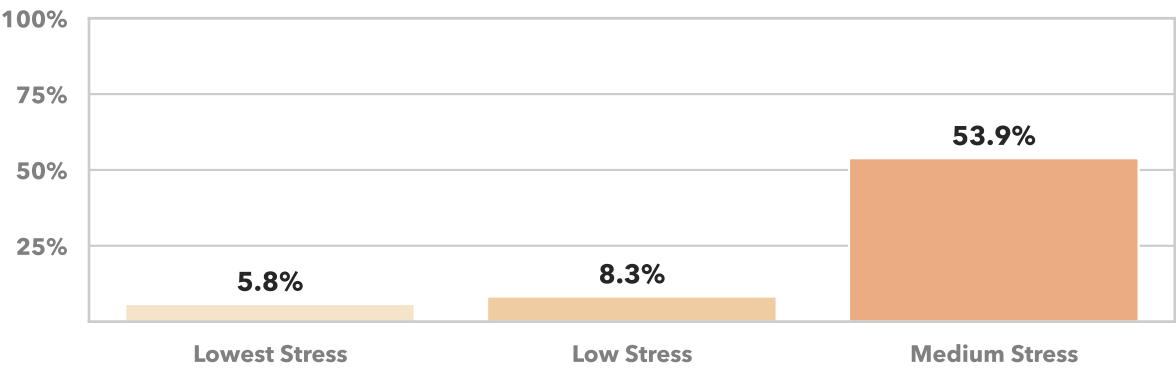


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

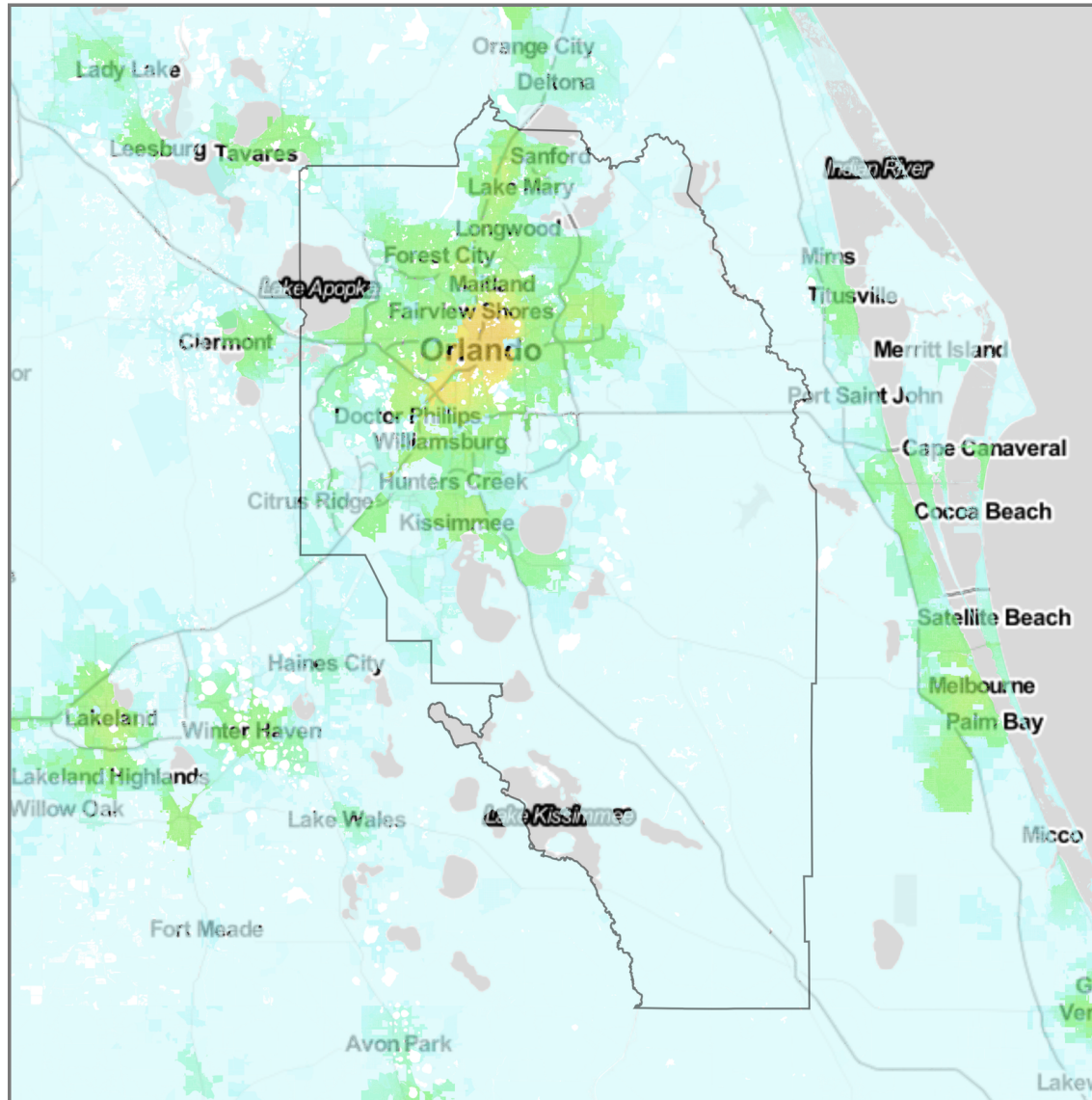


METROPLAN Orlando

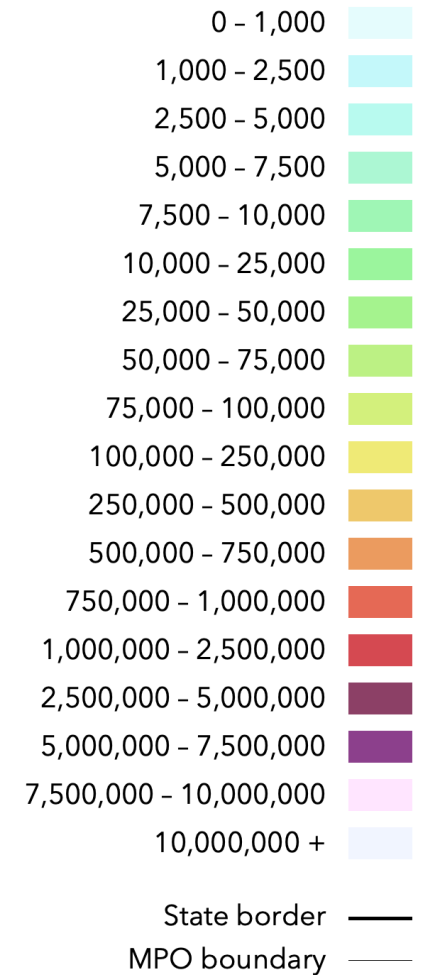
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



METROPLAN Orlando



Jobs within 30 minutes
(Biking, medium stress)



Martin MPO

Job Accessibility Results—Bike, 2020

Total Jobs 70,001

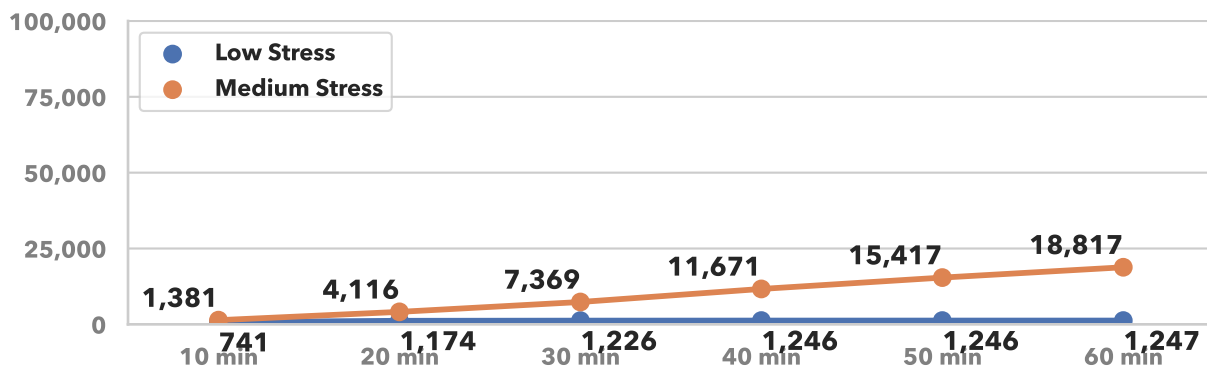
Average Job Density (per mi²) 333

Total Workers 61,220

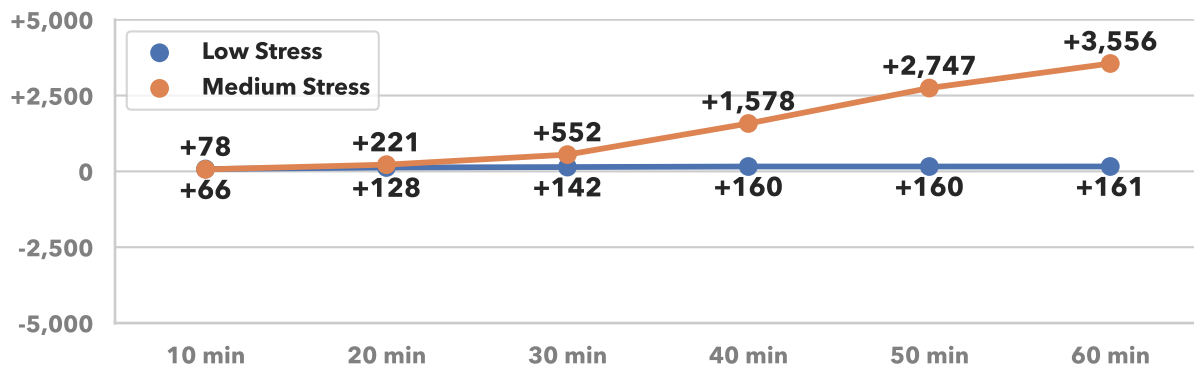
Average Worker Density (per mi²) 291

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

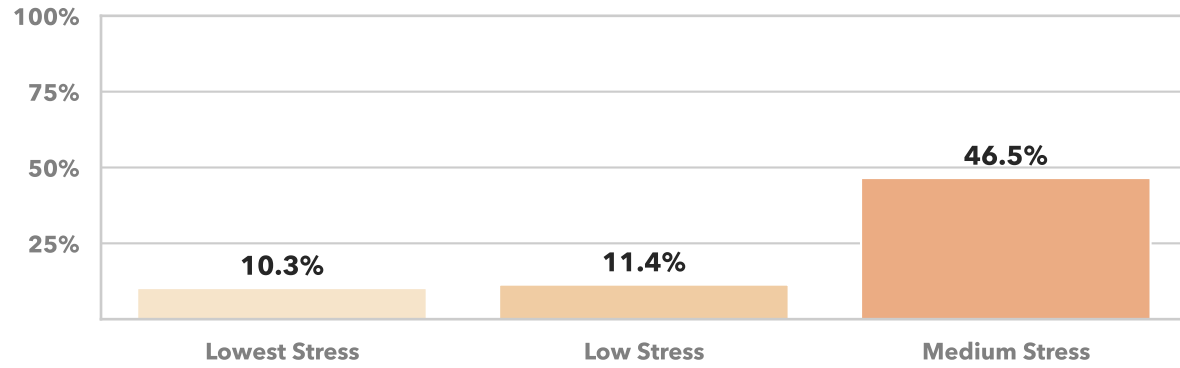


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



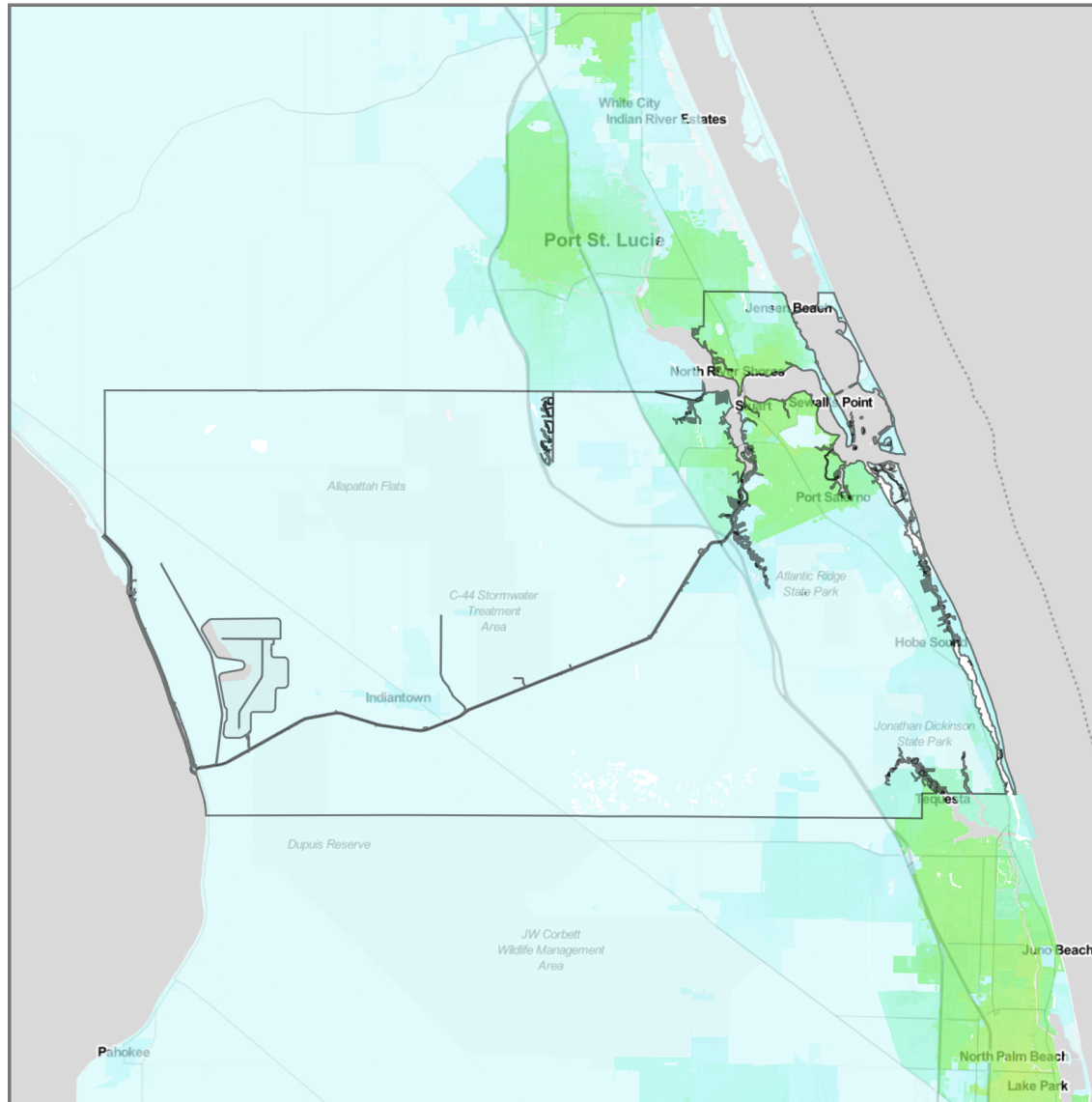
Martin MPO

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)

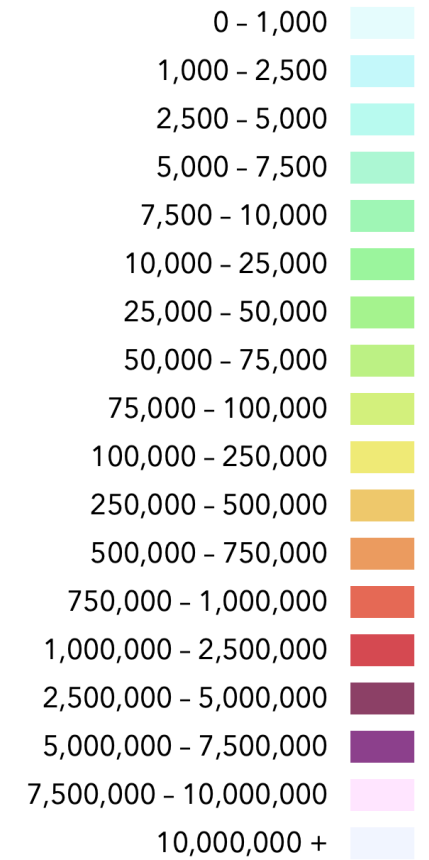


Martin MPO

54



Jobs within 30 minutes (Biking, medium stress)



State border —
MPO boundary —

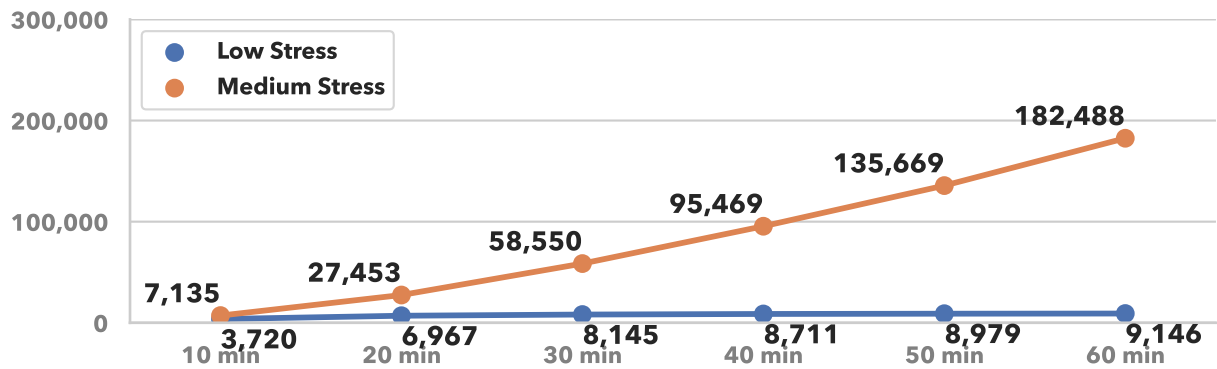
Miami-Dade MPO

Job Accessibility Results—Bike, 2020

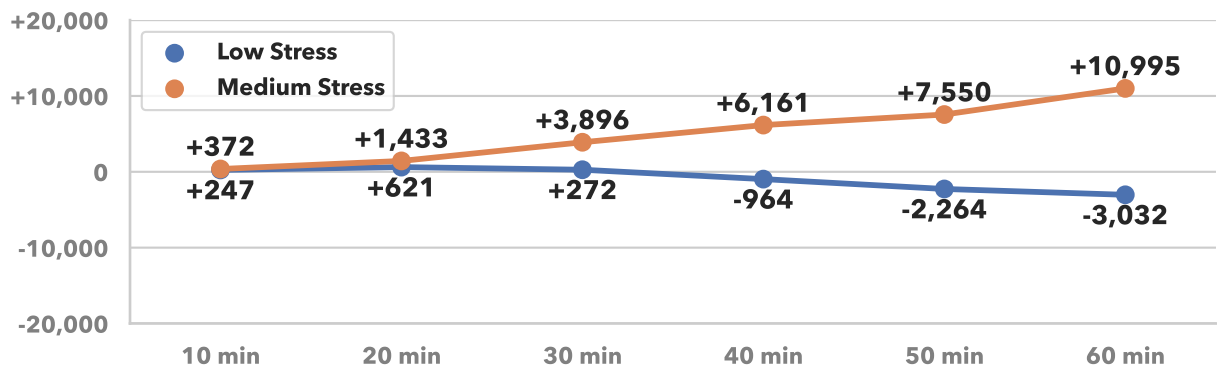
Total Jobs	1,145,768
Average Job Density (per mi ²)	1469
Total Workers	1,097,106
Average Worker Density (per mi ²)	1407

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

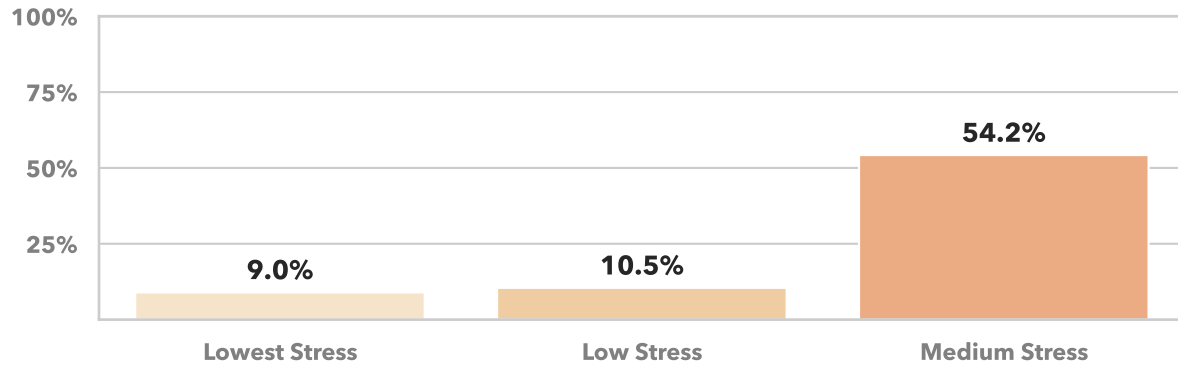


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

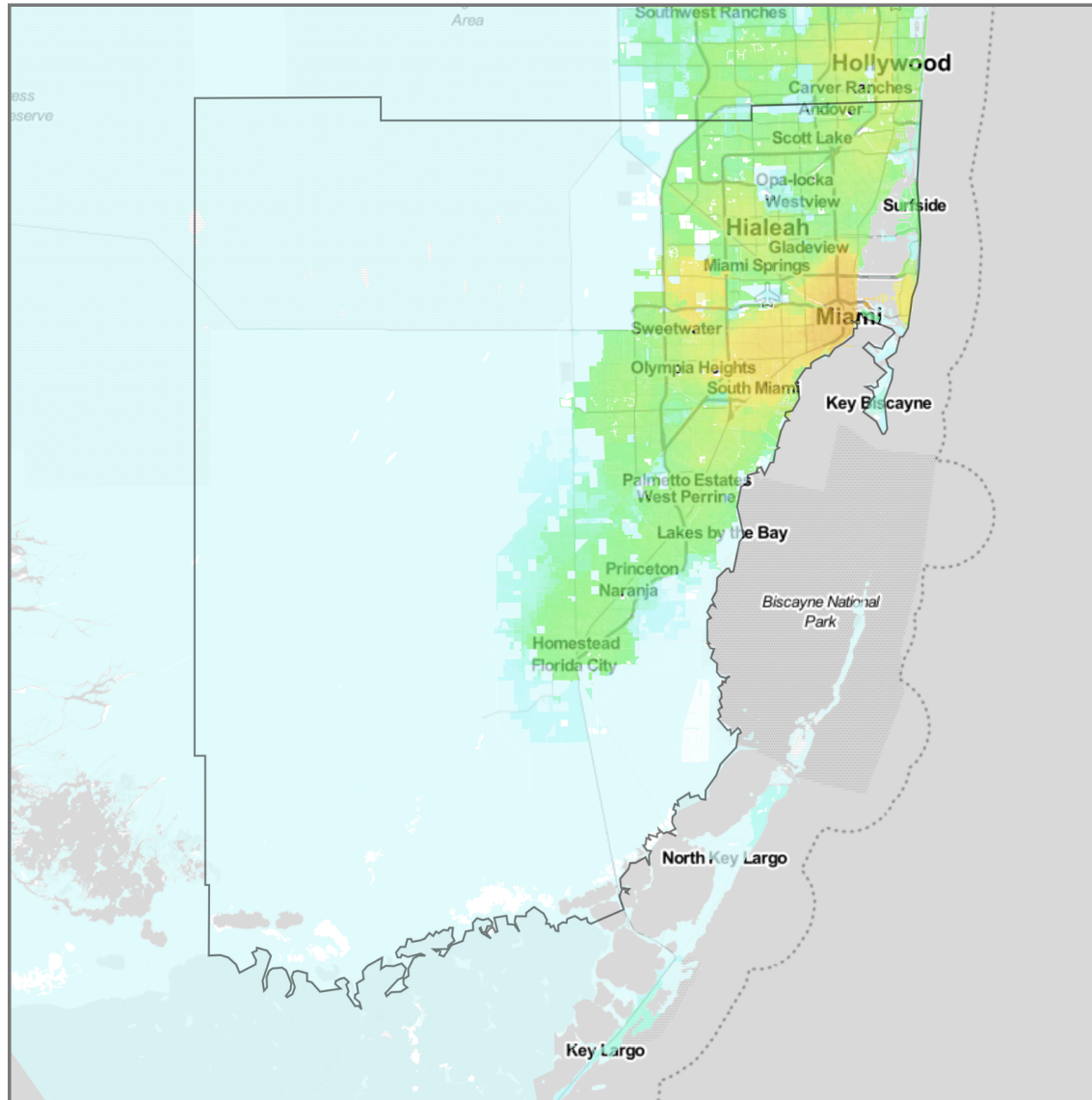


Miami-Dade MPO

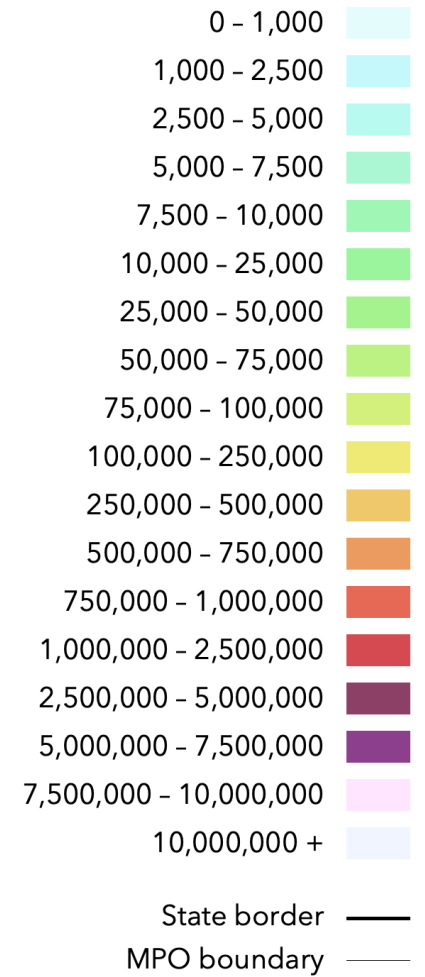
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Miami-Dade MPO



Jobs within 30 minutes (Biking, medium stress)



North Florida Transportation Planning Organization

Job Accessibility Results—Bike, 2020

Total Jobs 705,910

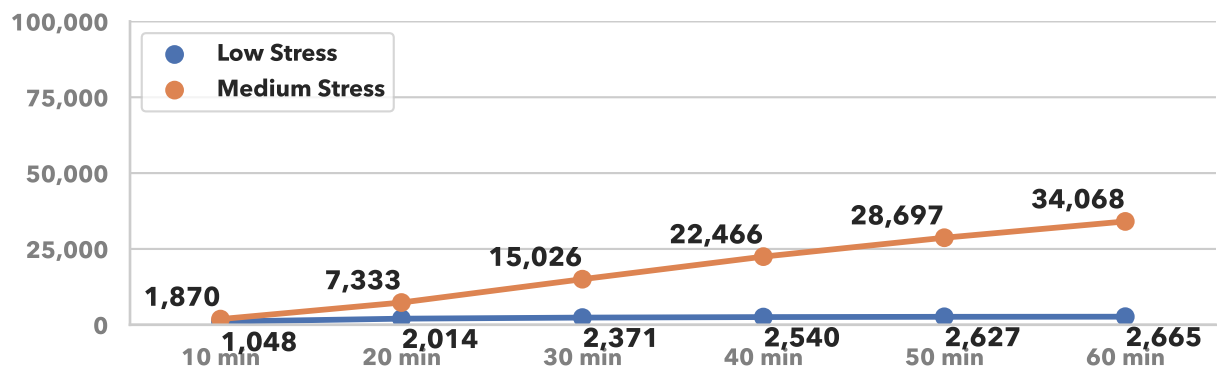
Average Job Density (per mi²) 682

Total Workers 674,076

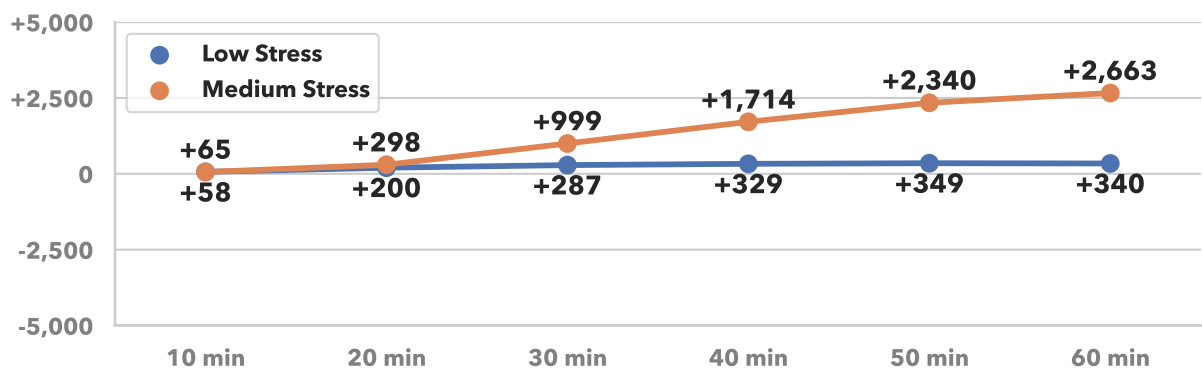
Average Worker Density (per mi²) 651

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

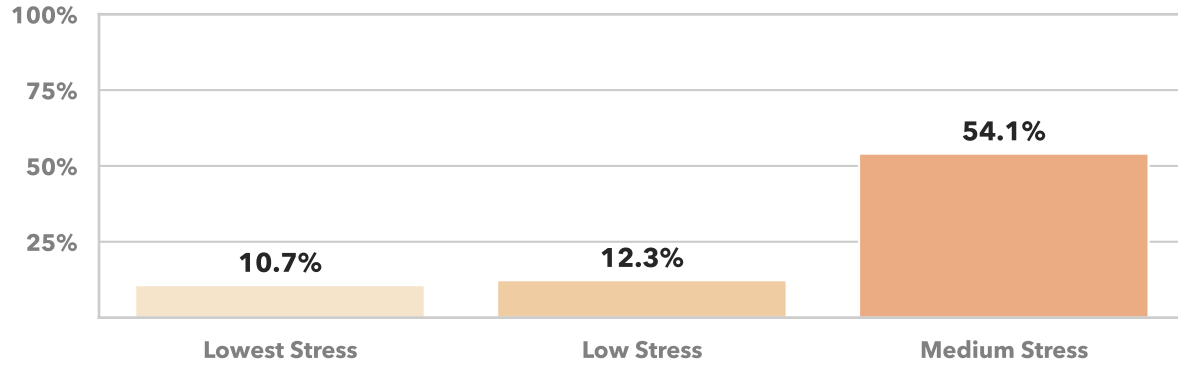


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



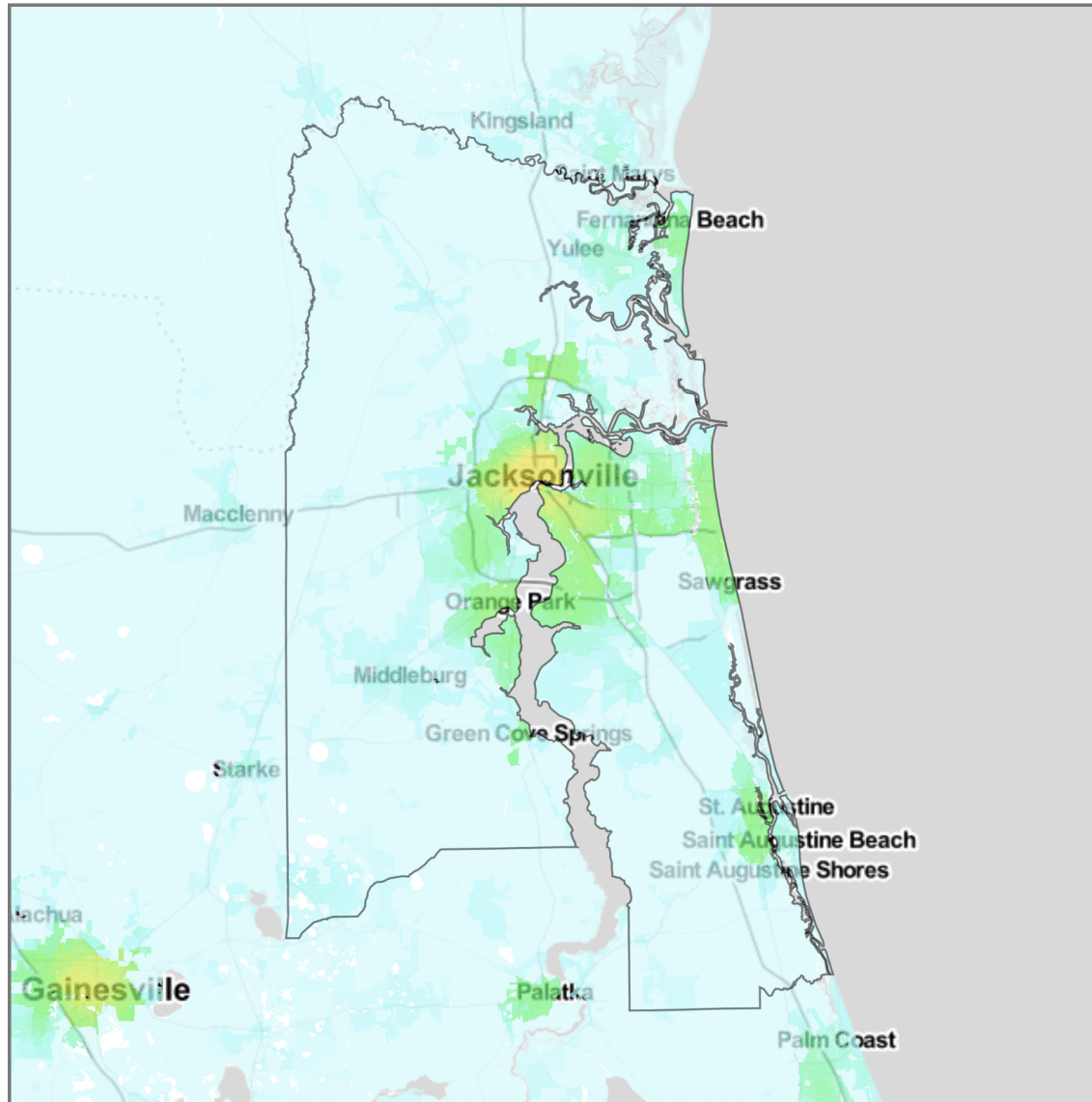
North Florida Transportation Planning Organization

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)

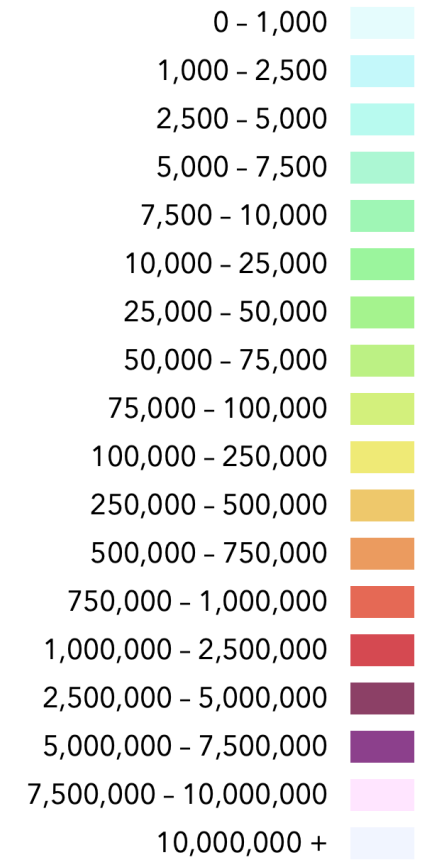


North Florida Transportation Planning Organization

60



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

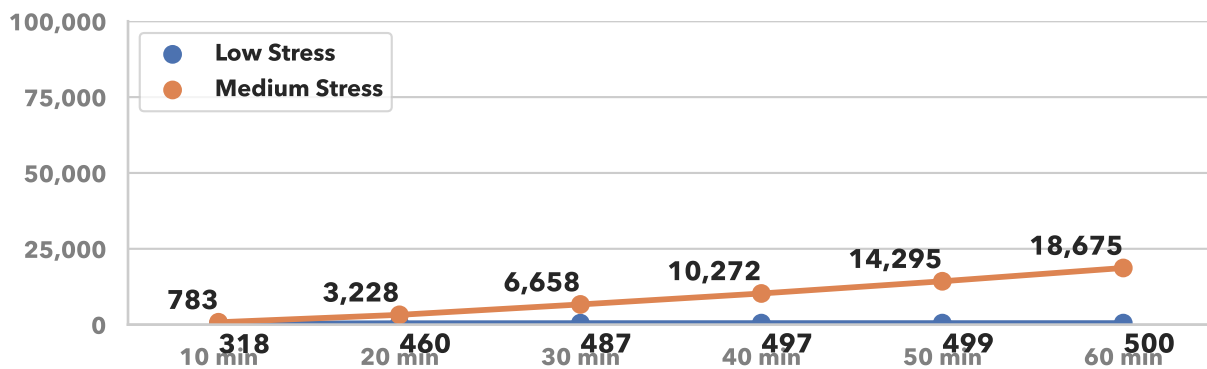
Ocala - Marion County Transportation Planning Organization

Job Accessibility Results—Bike, 2020

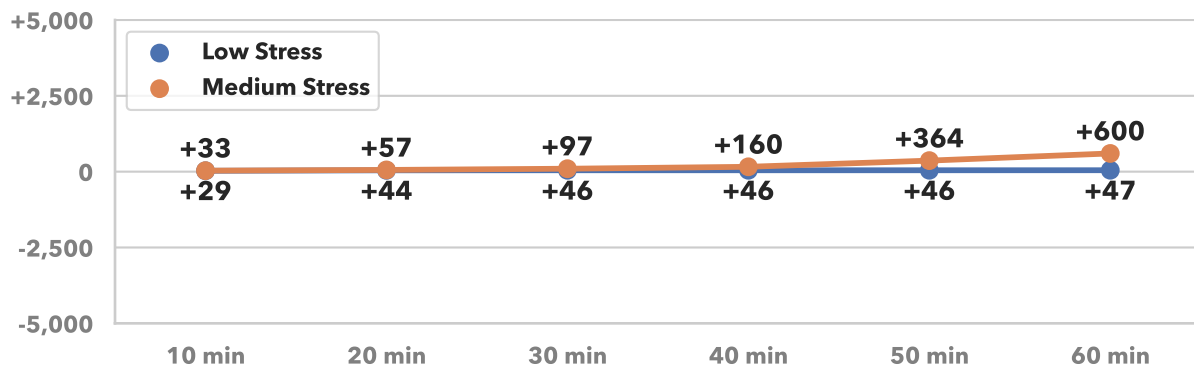
Total Jobs	103,228
Average Job Density (per mi ²)	161
Total Workers	125,144
Average Worker Density (per mi ²)	195

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

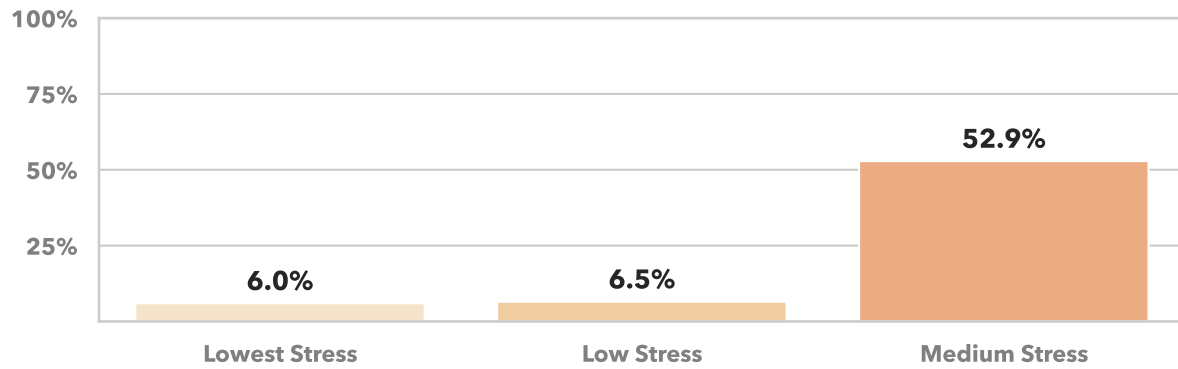


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

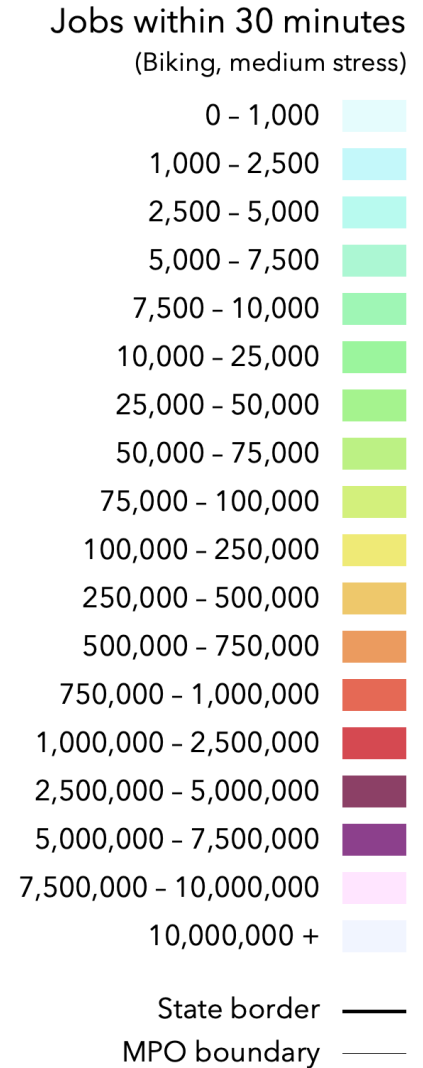
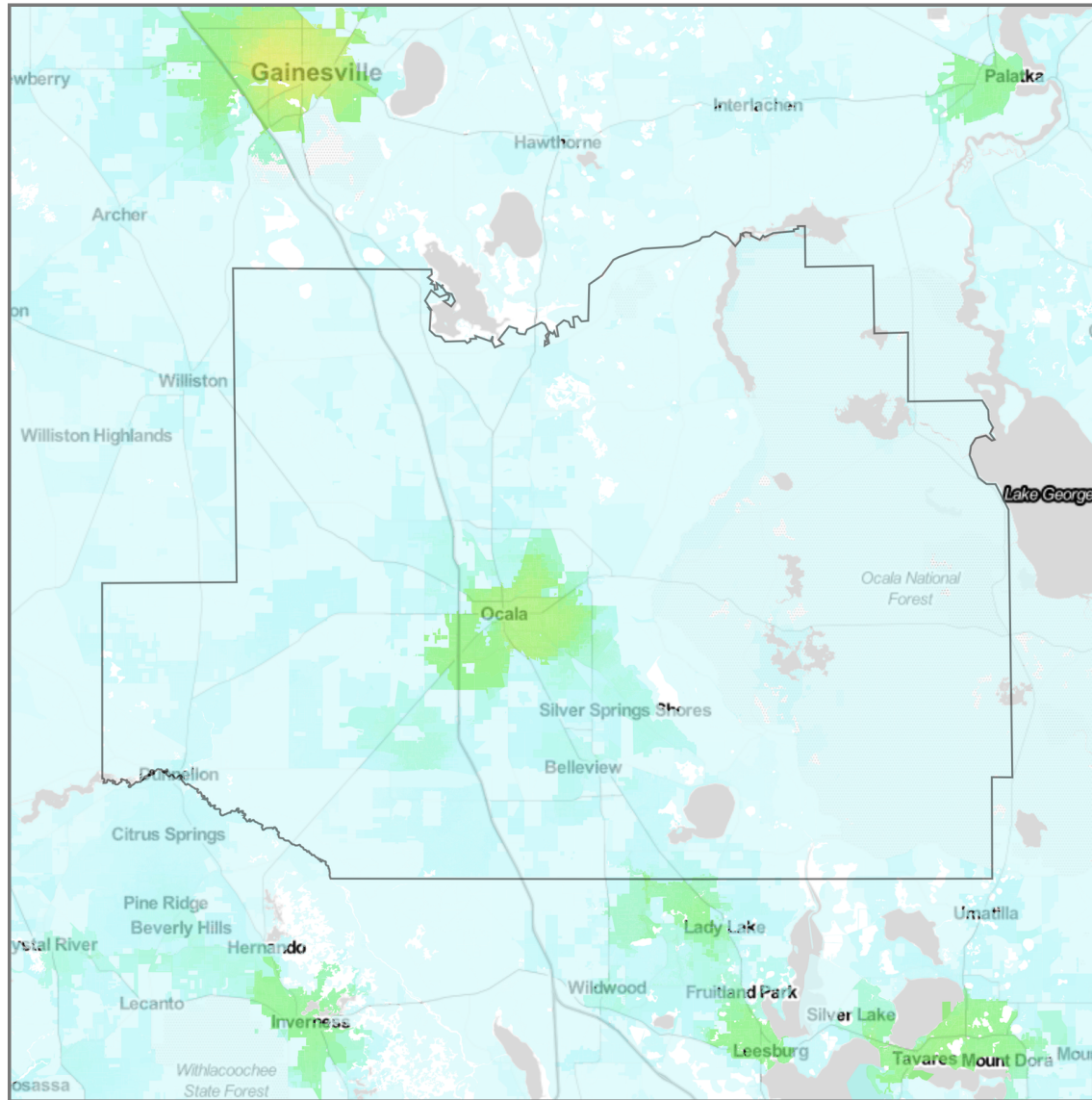


Ocala - Marion County Transportation Planning Organization

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Ocala - Marion County Transportation Planning Organization



Okaloosa-Walton Transportation Planning Organization

Job Accessibility Results—Bike, 2020

Total Jobs 111,371

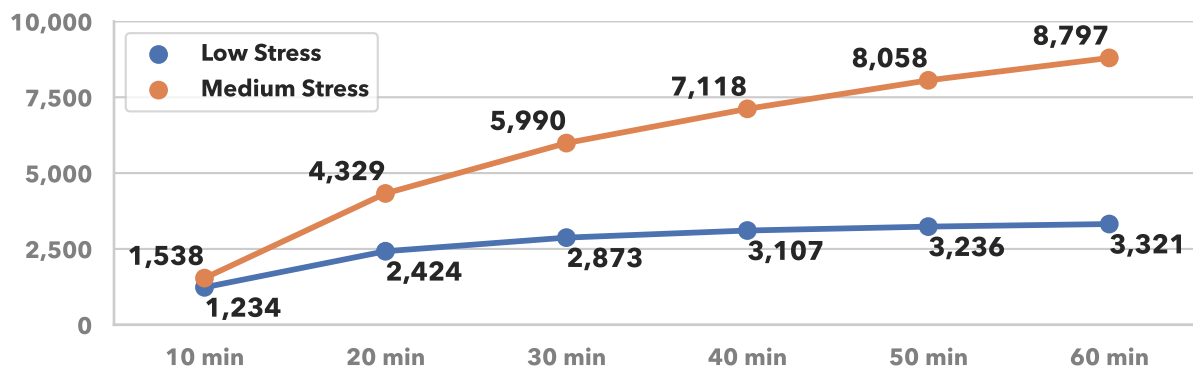
Average Job Density (per mi²) 197

Total Workers 94,434

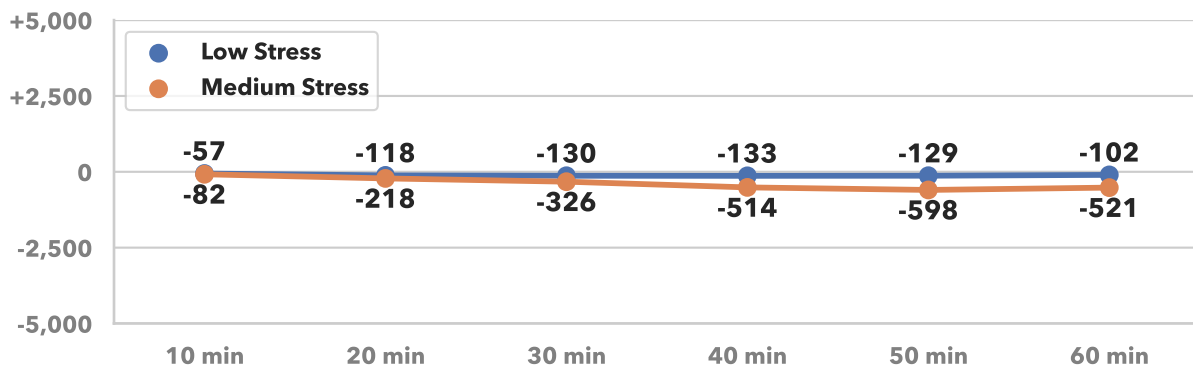
Average Worker Density (per mi²) 167

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

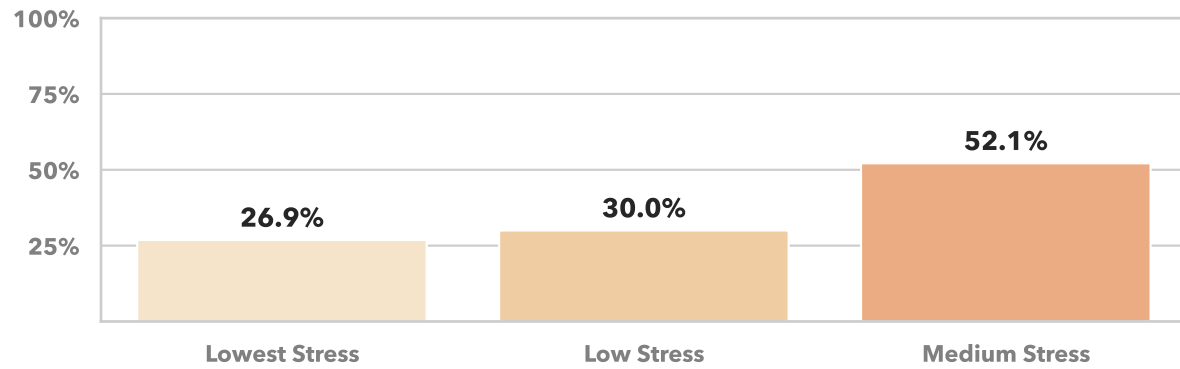


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



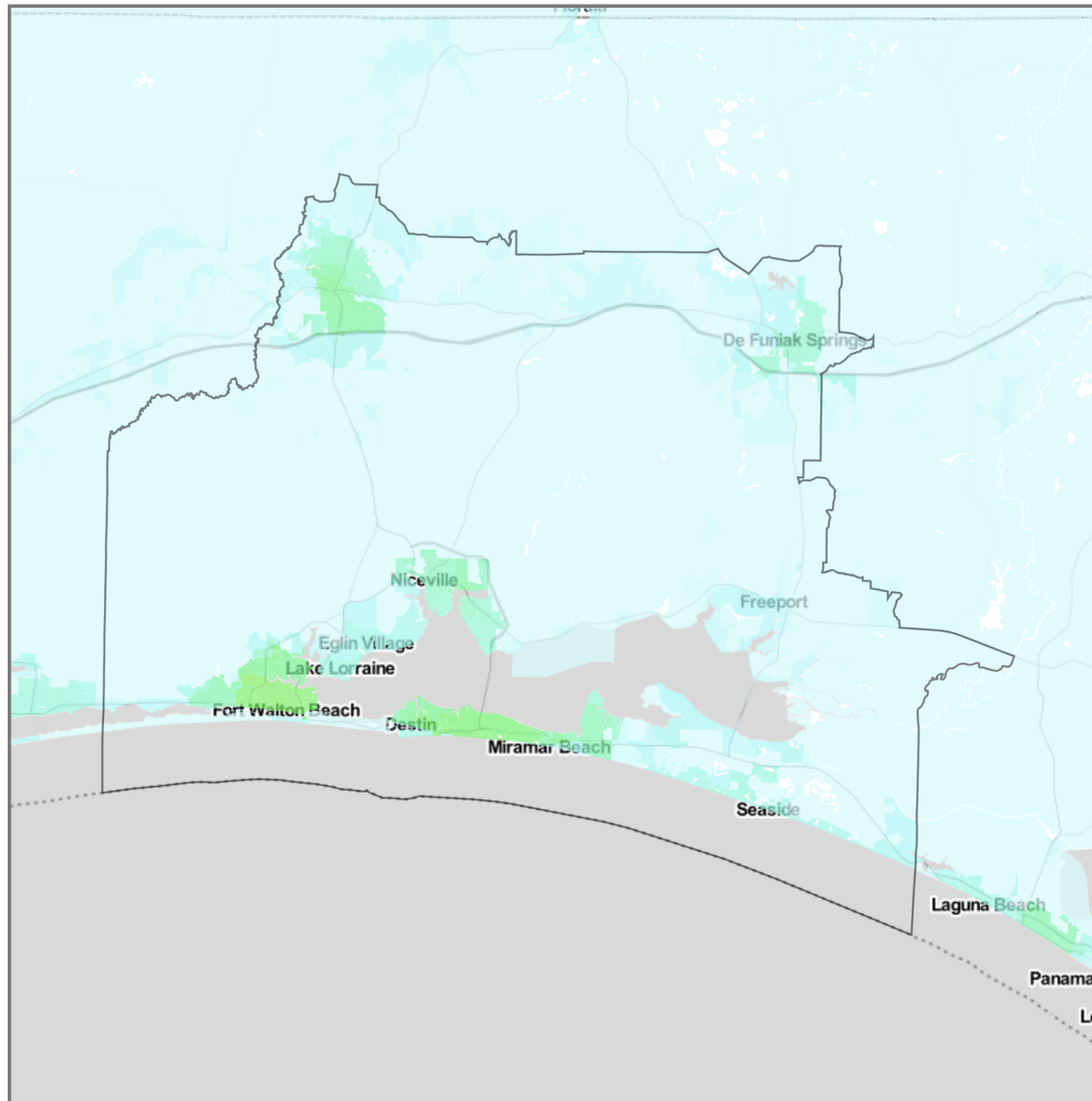
Okaloosa-Walton Transportation Planning Organization

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)

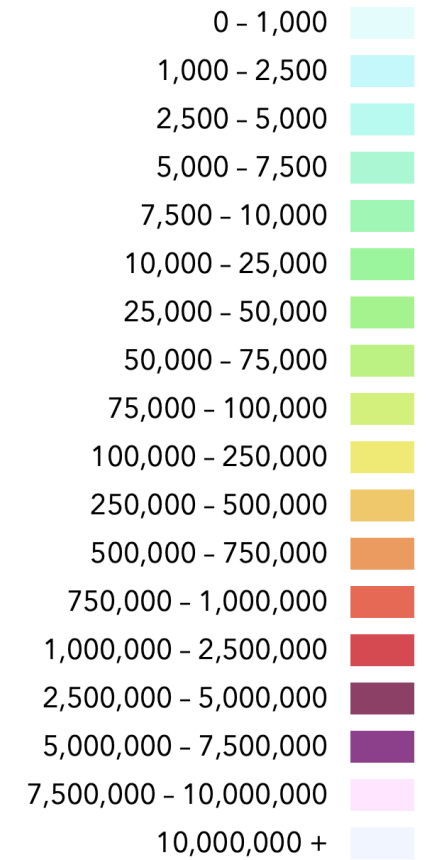


Okaloosa-Walton Transportation Planning Organization

96



Jobs within 30 minutes
(Biking, medium stress)



State border ———
MPO boundary ———

Palm Beach MPO

Job Accessibility Results—Bike, 2020

Total Jobs **616,270**

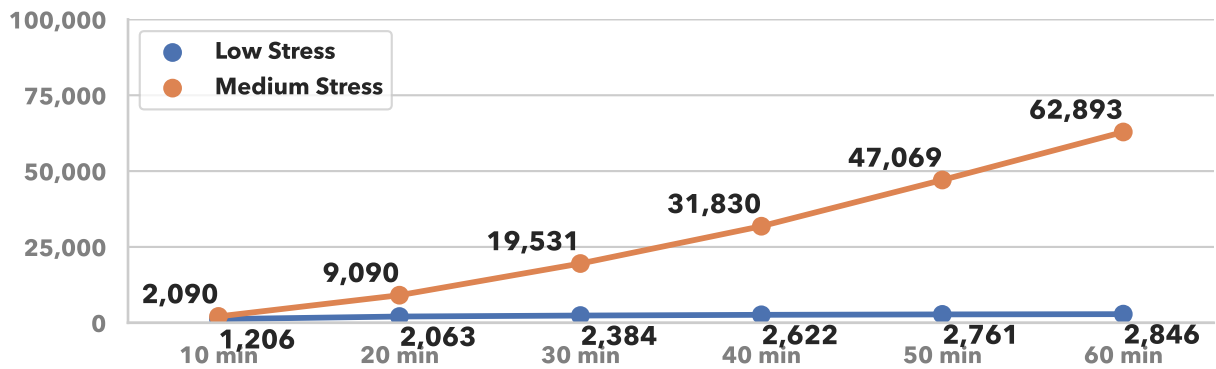
Average Job Density (per mi²) **806**

Total Workers **590,347**

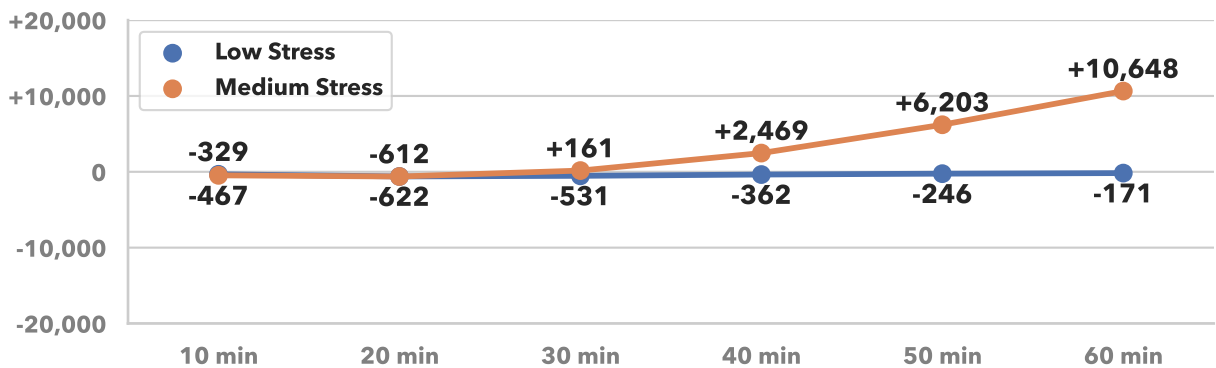
Average Worker Density (per mi²) **772**

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

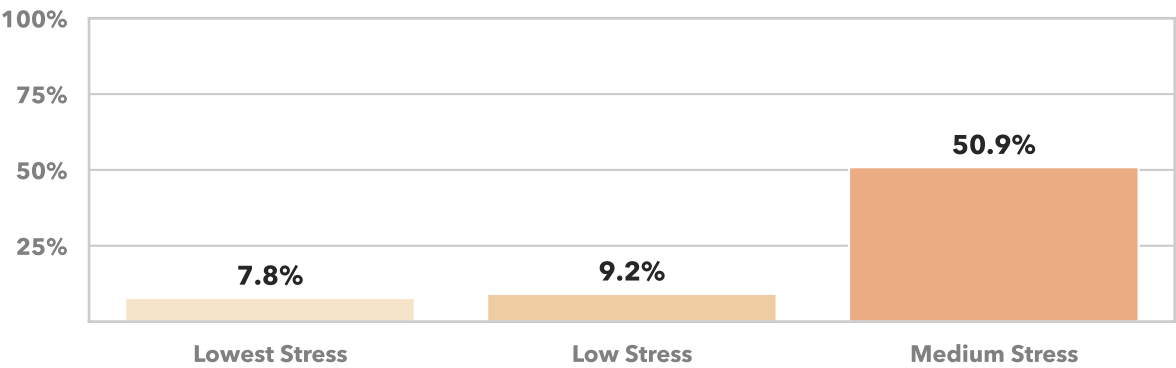


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



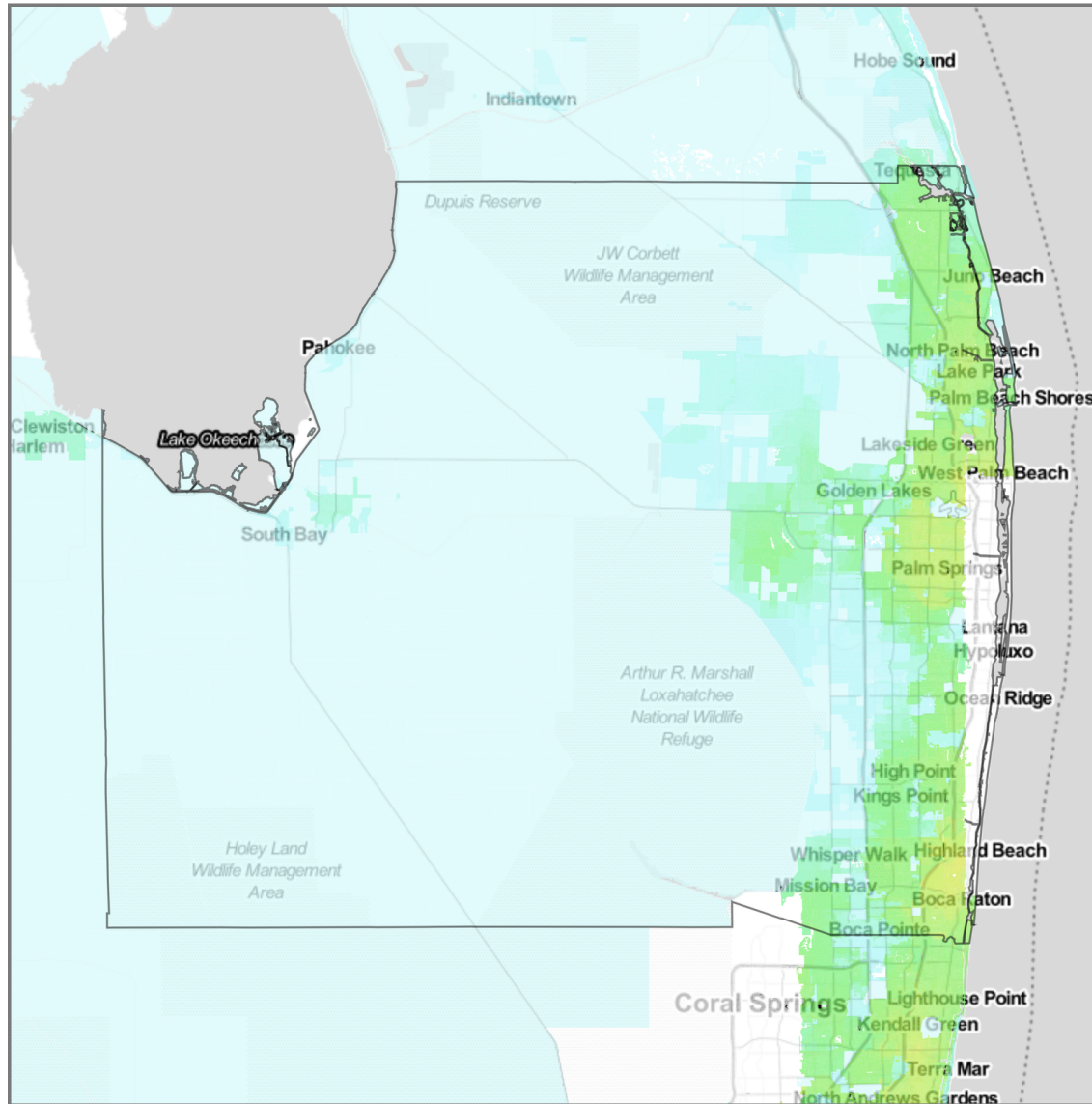
Palm Beach MPO

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)

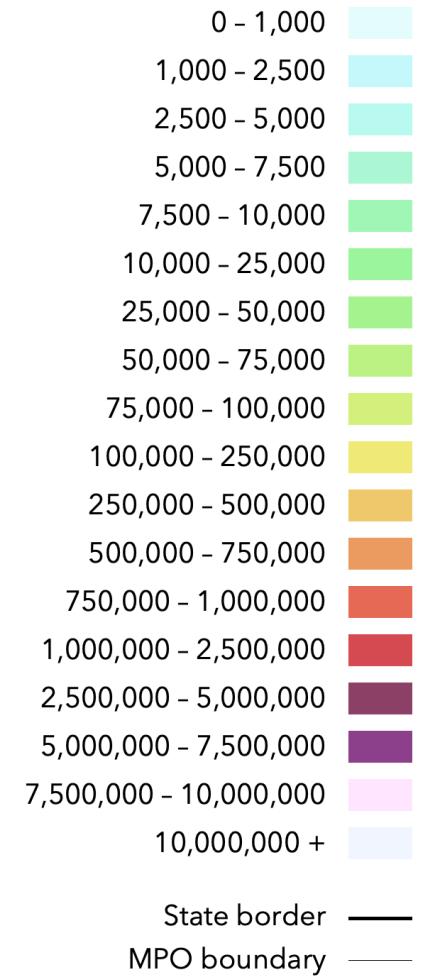


Palm Beach MPO

69



Jobs within 30 minutes
(Biking, medium stress)



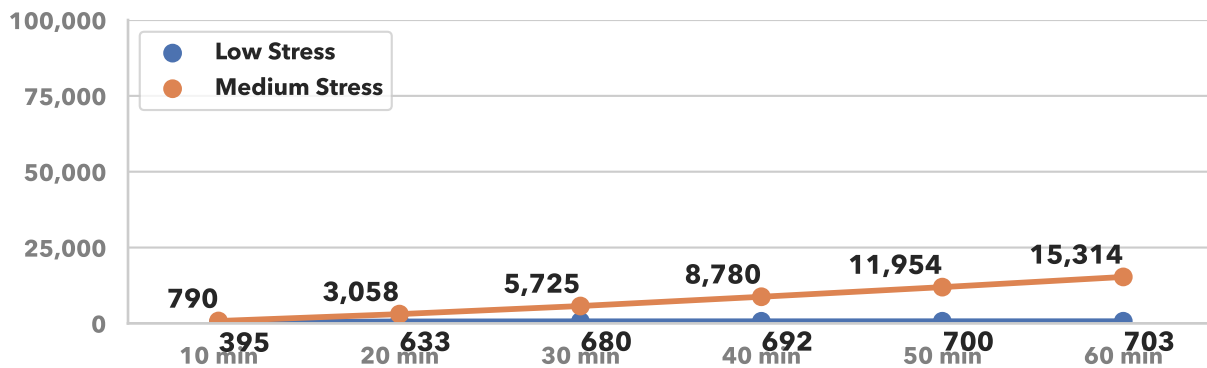
Pasco County MPO

Job Accessibility Results—Bike, 2020

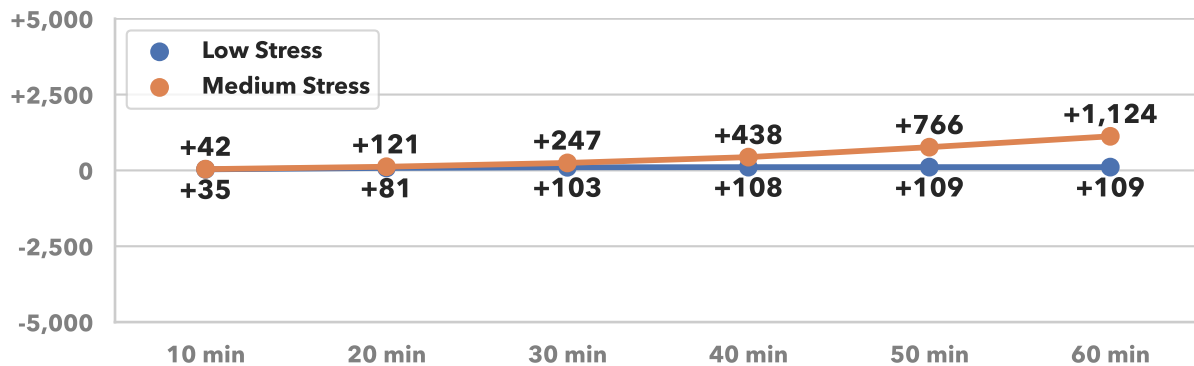
Total Jobs	124,669
Average Job Density (per mi ²)	421
Total Workers	209,809
Average Worker Density (per mi ²)	709

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

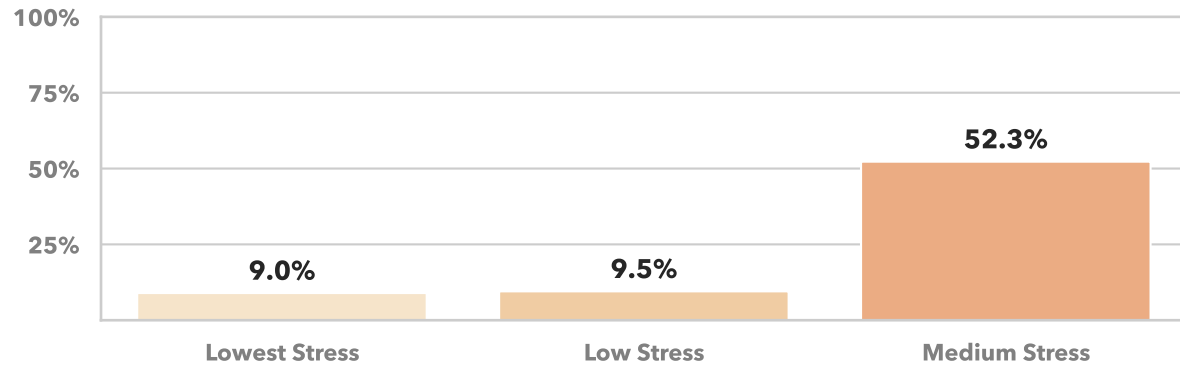


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

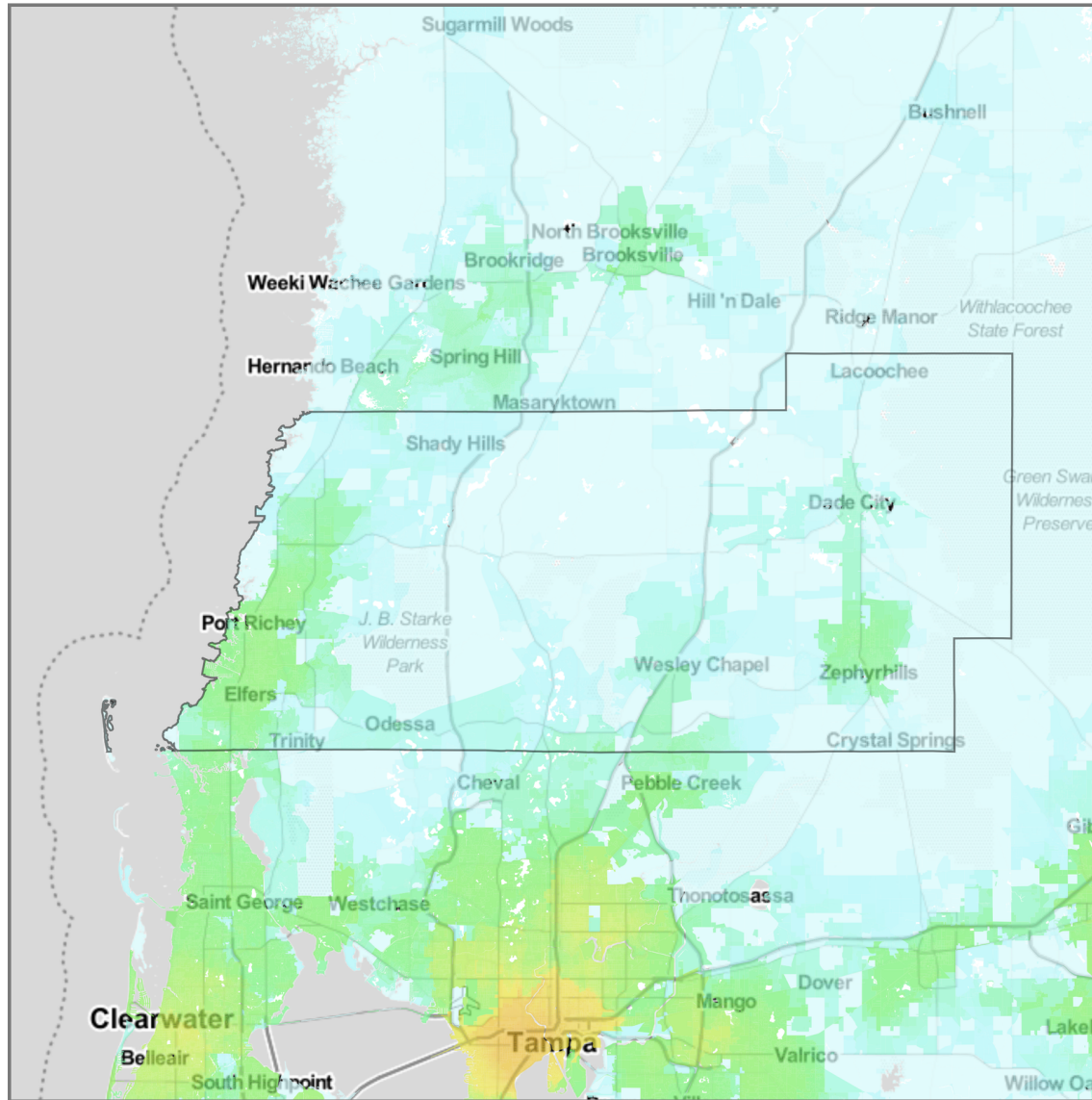


Pasco County MPO

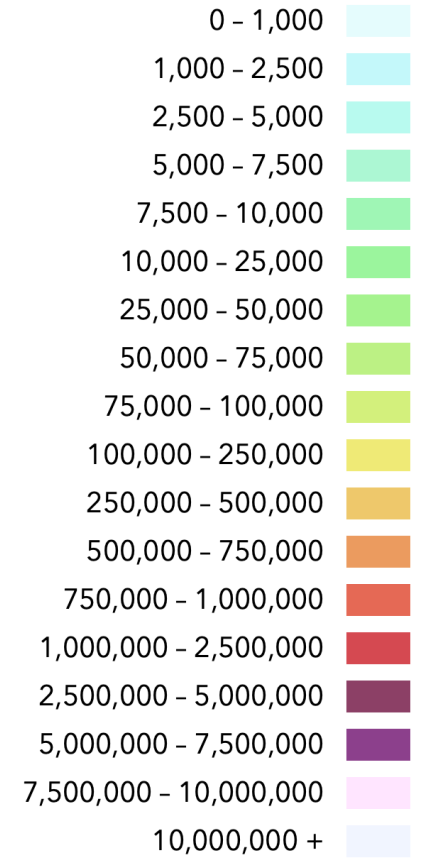
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Pasco County MPO



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

Pinellas County MPO

Job Accessibility Results—Bike, 2020

Total Jobs 455,311

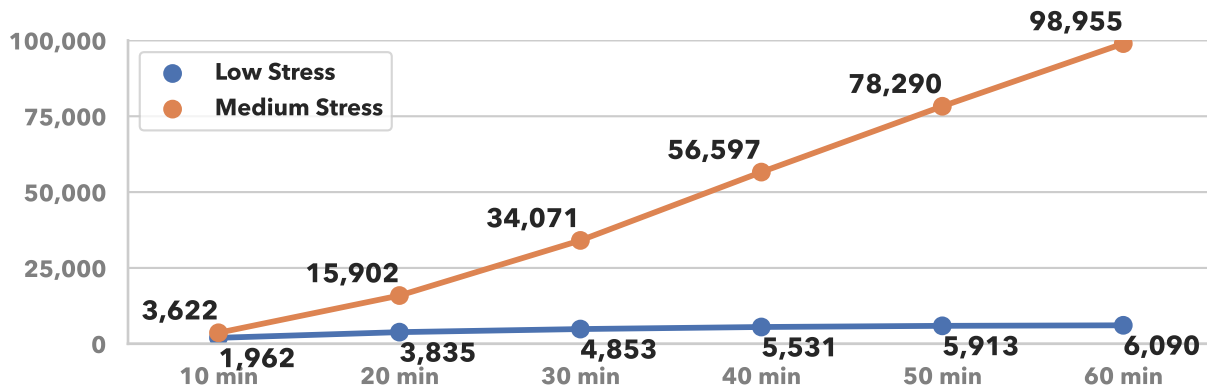
Average Job Density (per mi²) 4056

Total Workers 423,080

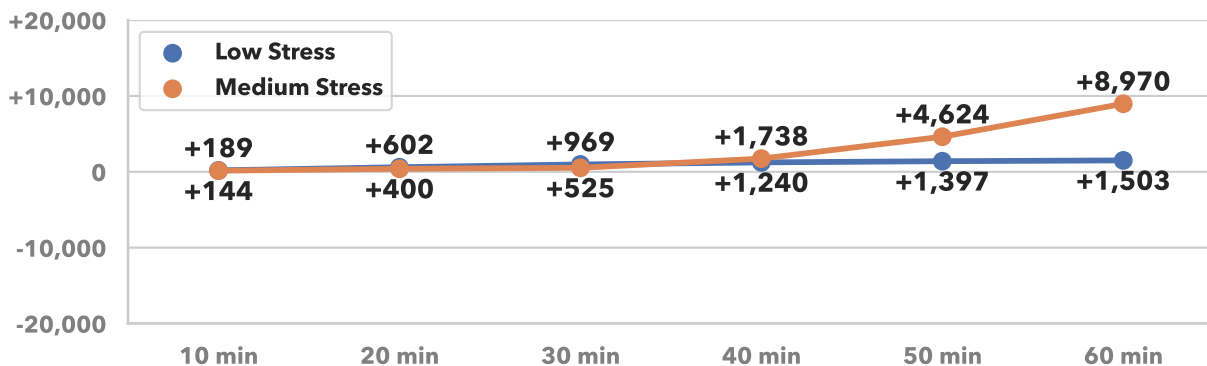
Average Worker Density (per mi²) 3769

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

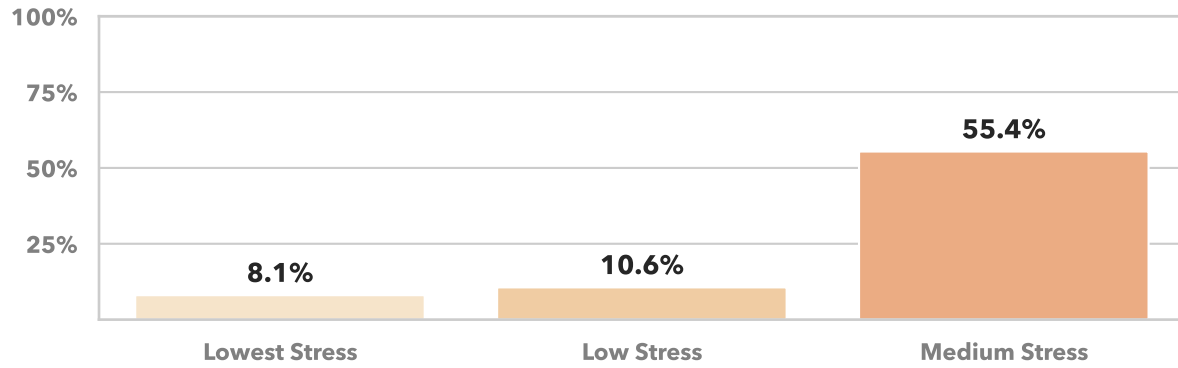


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

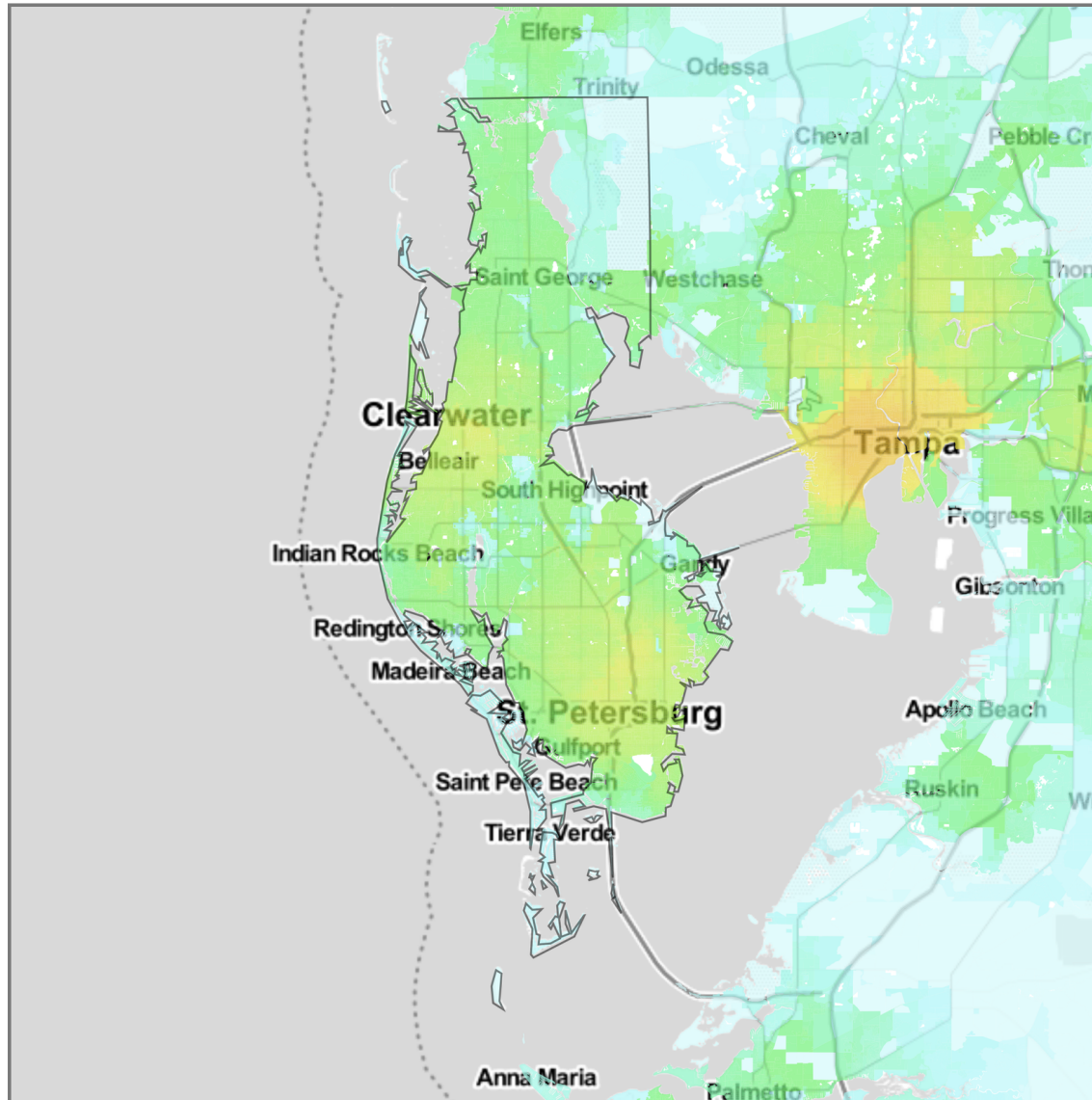


Pinellas County MPO

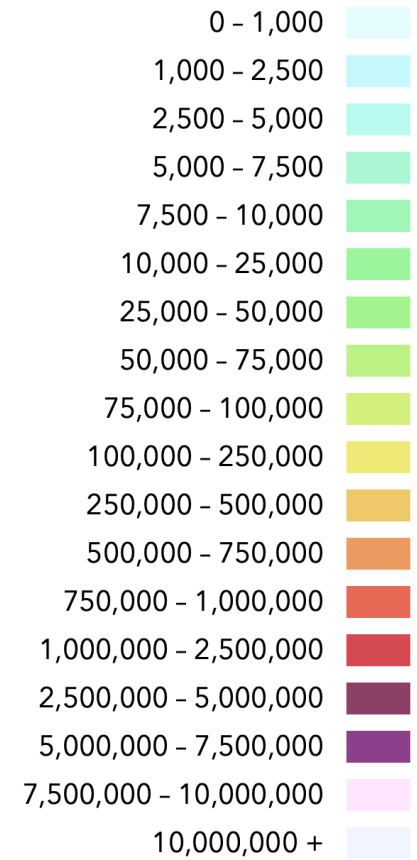
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Pinellas County MPO



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

Polk County Transportation Planning Organization

Job Accessibility Results—Bike, 2020

Total Jobs 239,099

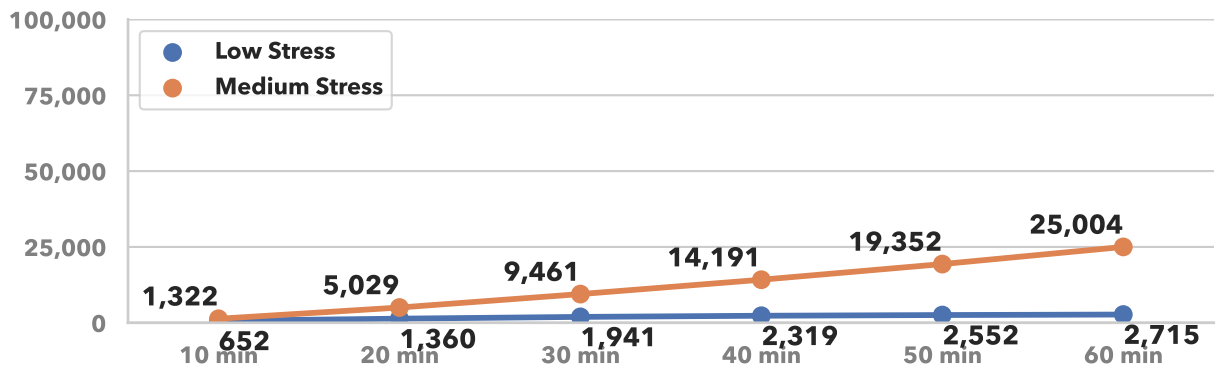
Average Job Density (per mi²) 308

Total Workers 282,967

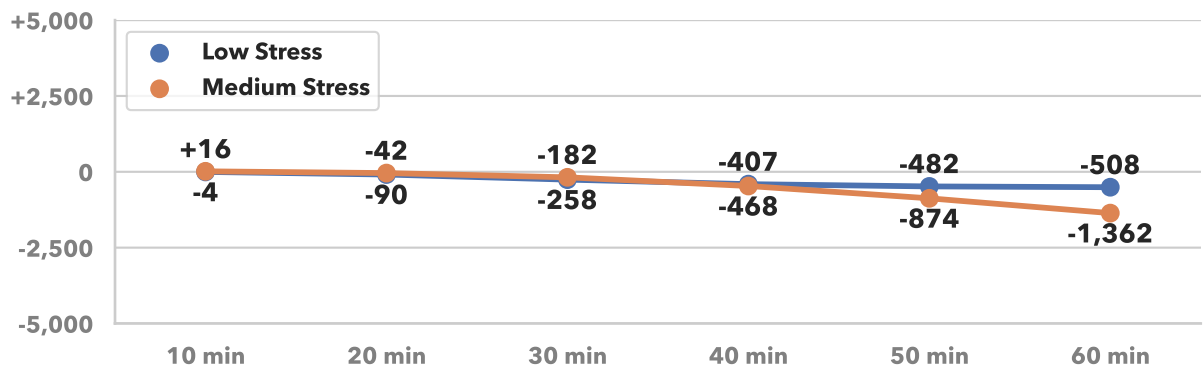
Average Worker Density (per mi²) 364

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

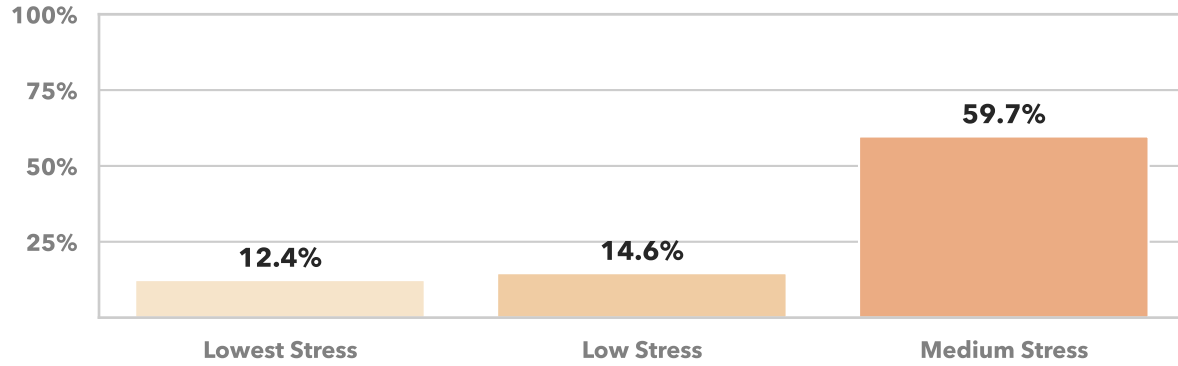


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

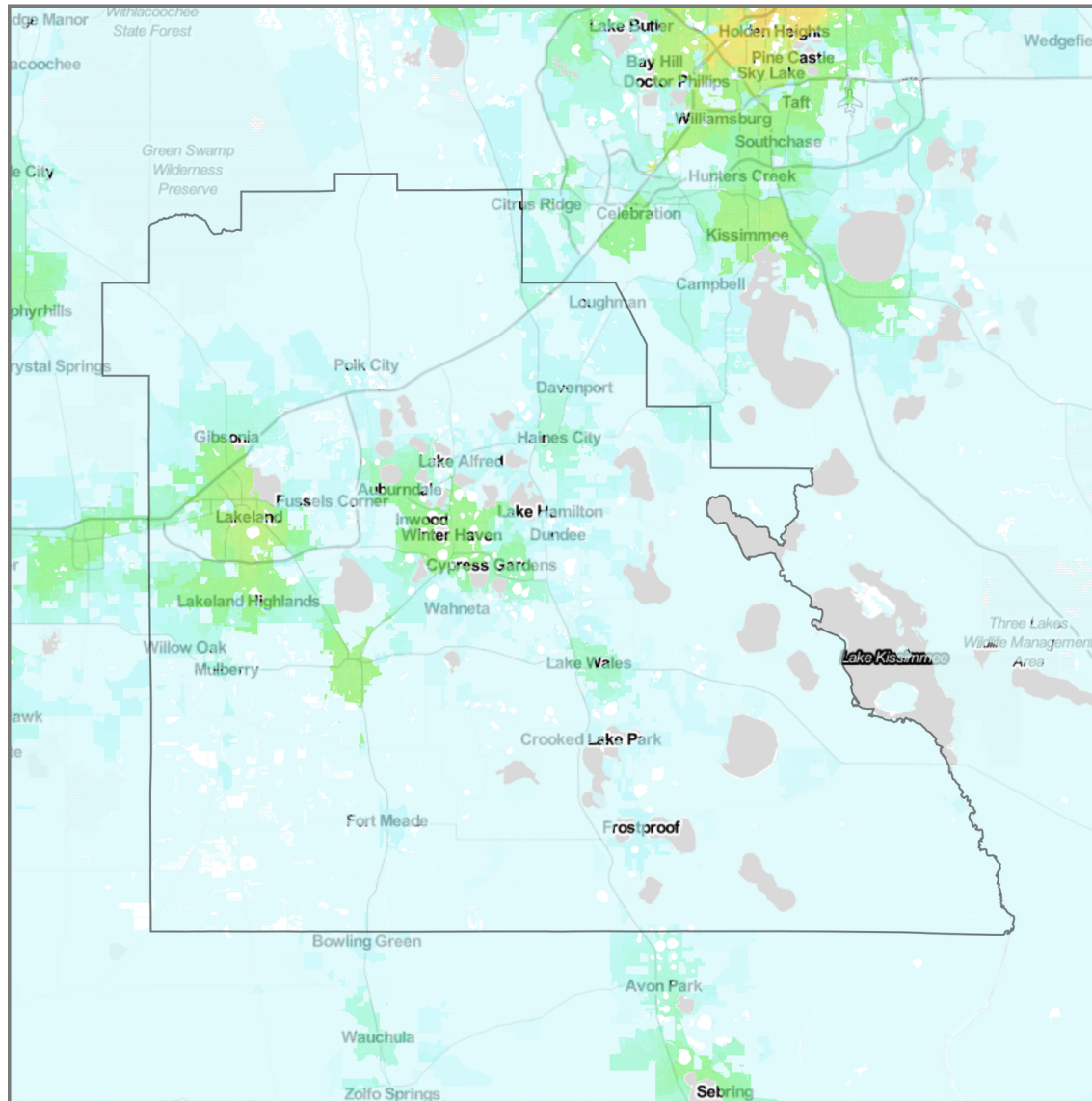


Polk County Transportation Planning Organization

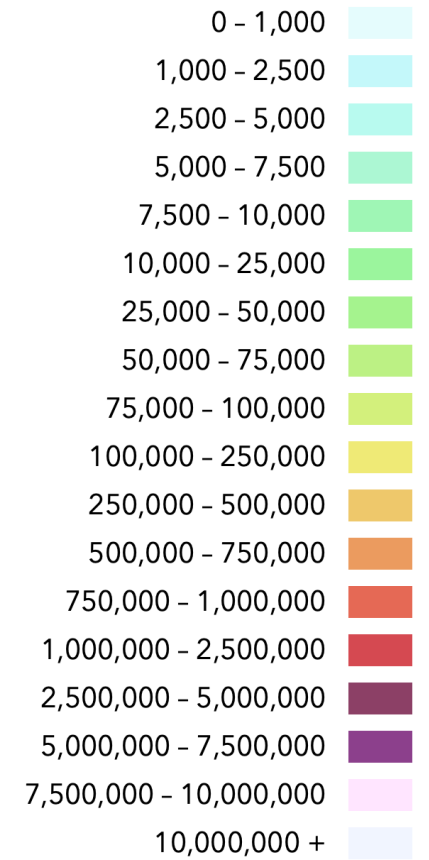
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Polk County Transportation Planning Organization



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

River to Sea Transportation Planning Organization

Job Accessibility Results—Bike, 2020

Total Jobs 193,737

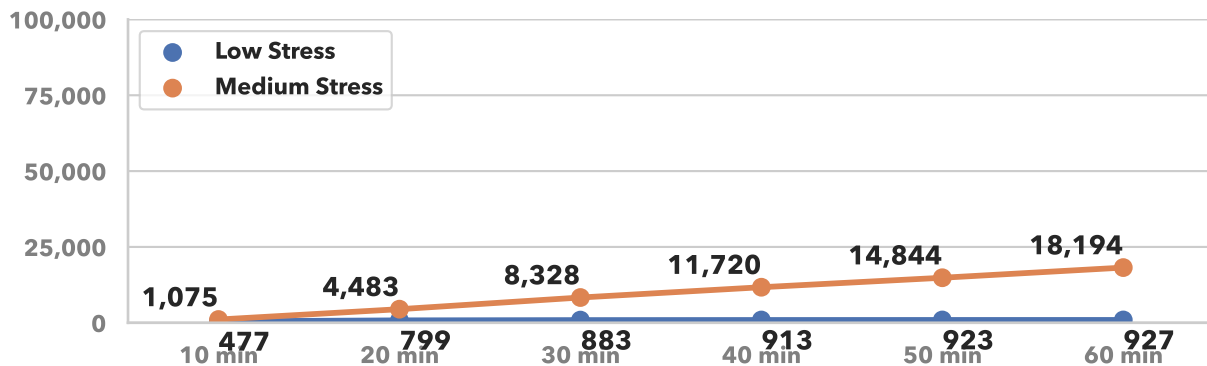
Average Job Density (per mi²) 370

Total Workers 256,491

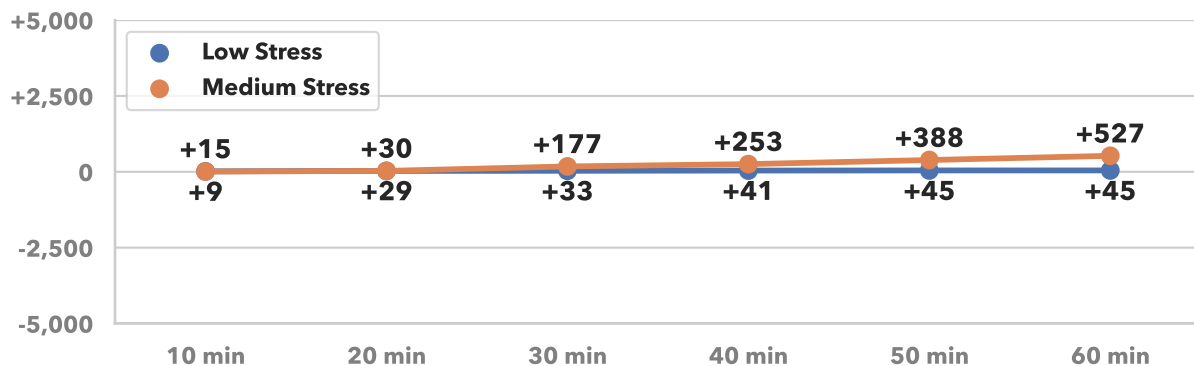
Average Worker Density (per mi²) 489

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

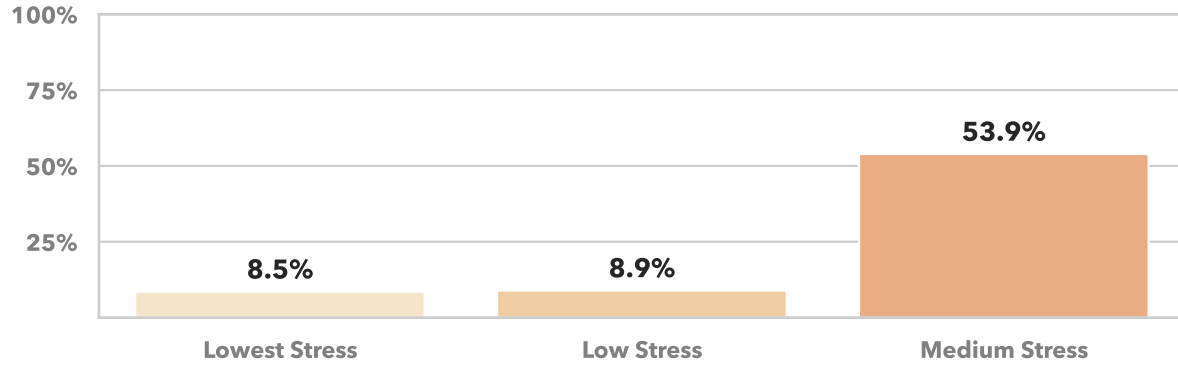


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

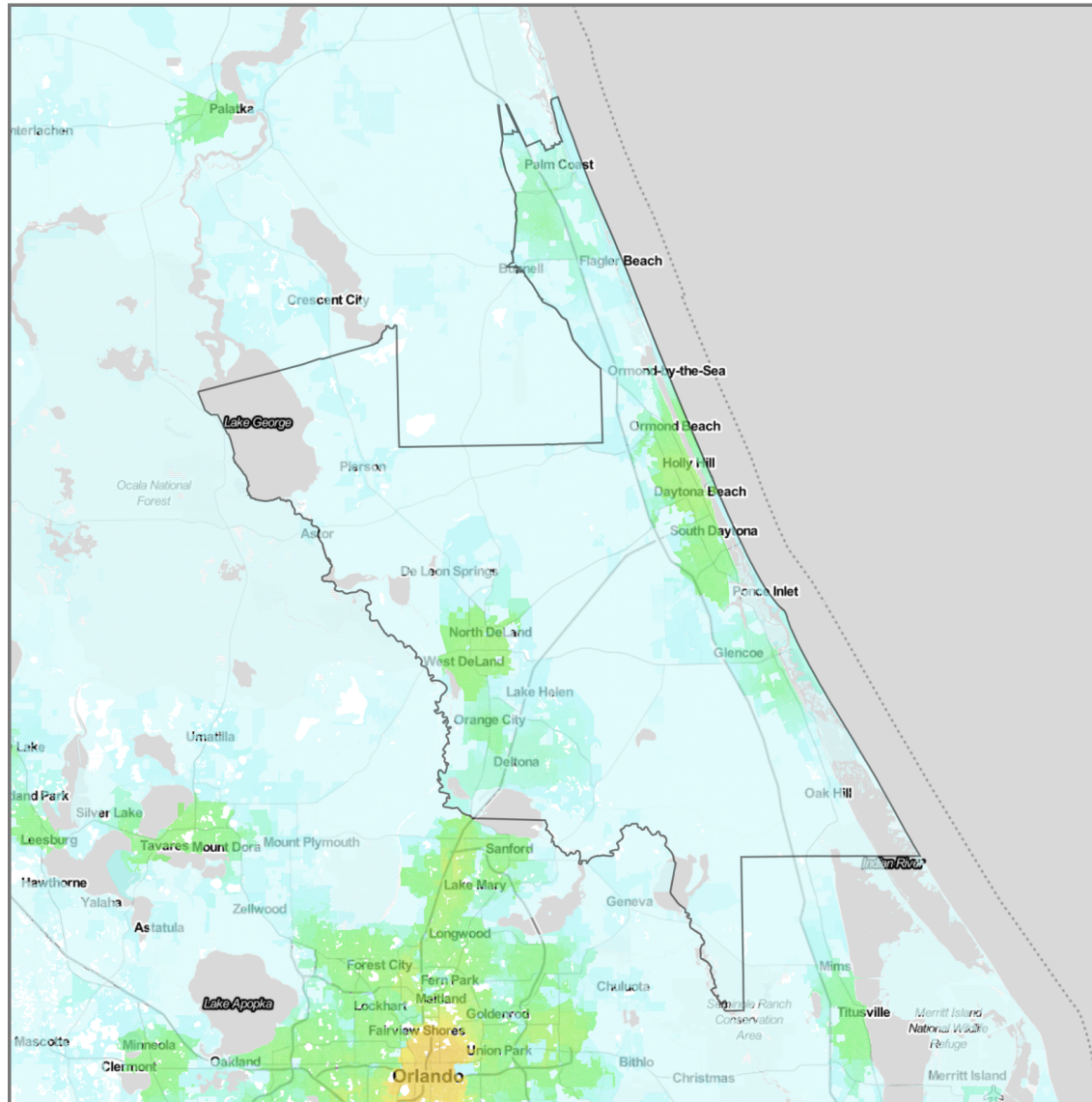


River to Sea Transportation Planning Organization

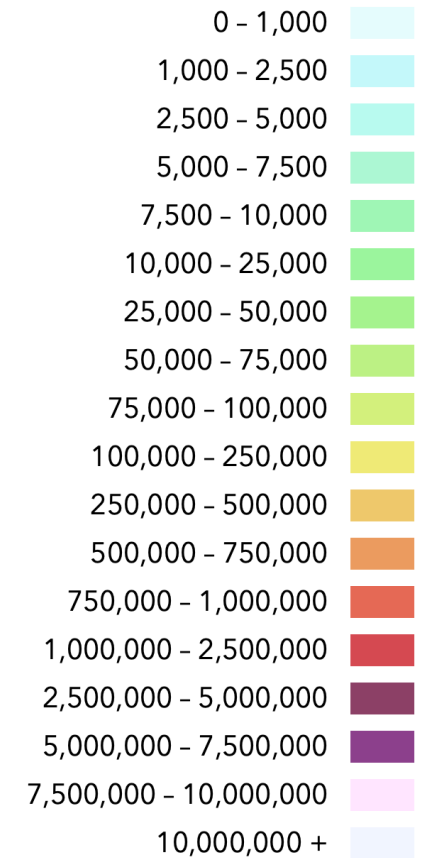
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



River to Sea Transportation Planning Organization



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

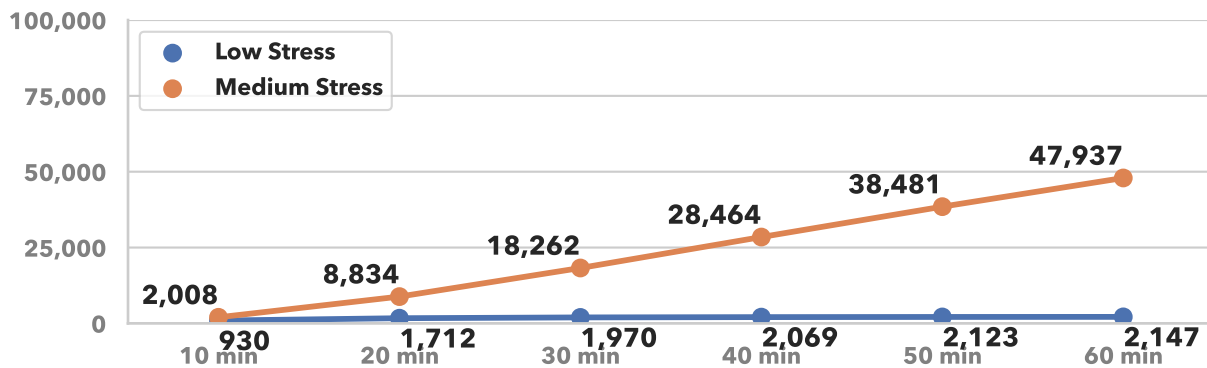
Sarasota-Manatee MPO

Job Accessibility Results—Bike, 2020

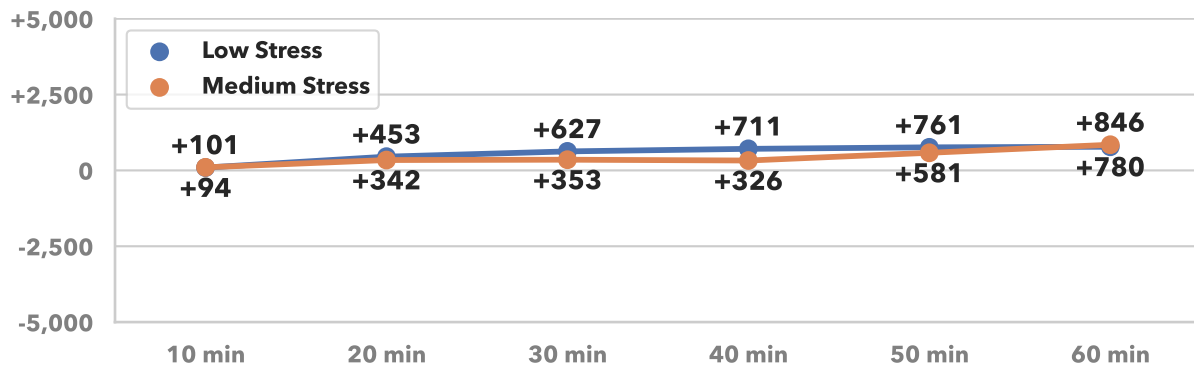
Total Jobs	293,908
Average Job Density (per mi ²)	570
Total Workers	305,360
Average Worker Density (per mi ²)	592

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

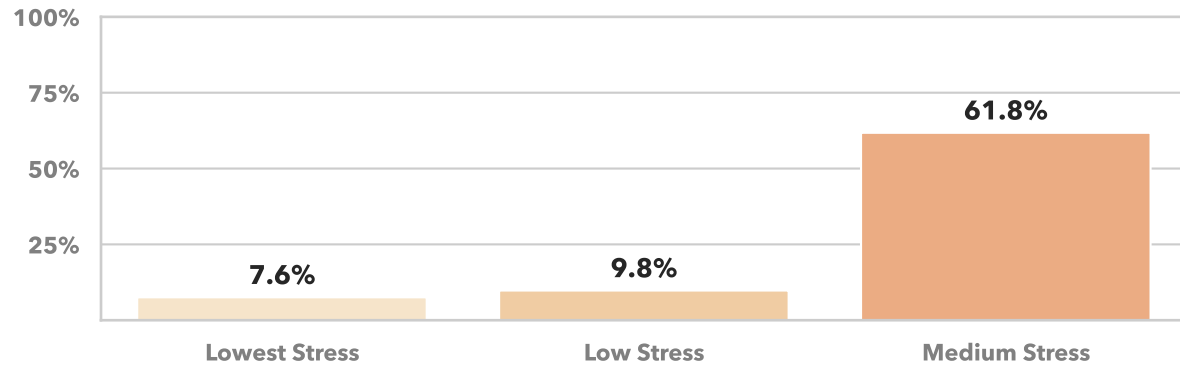


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

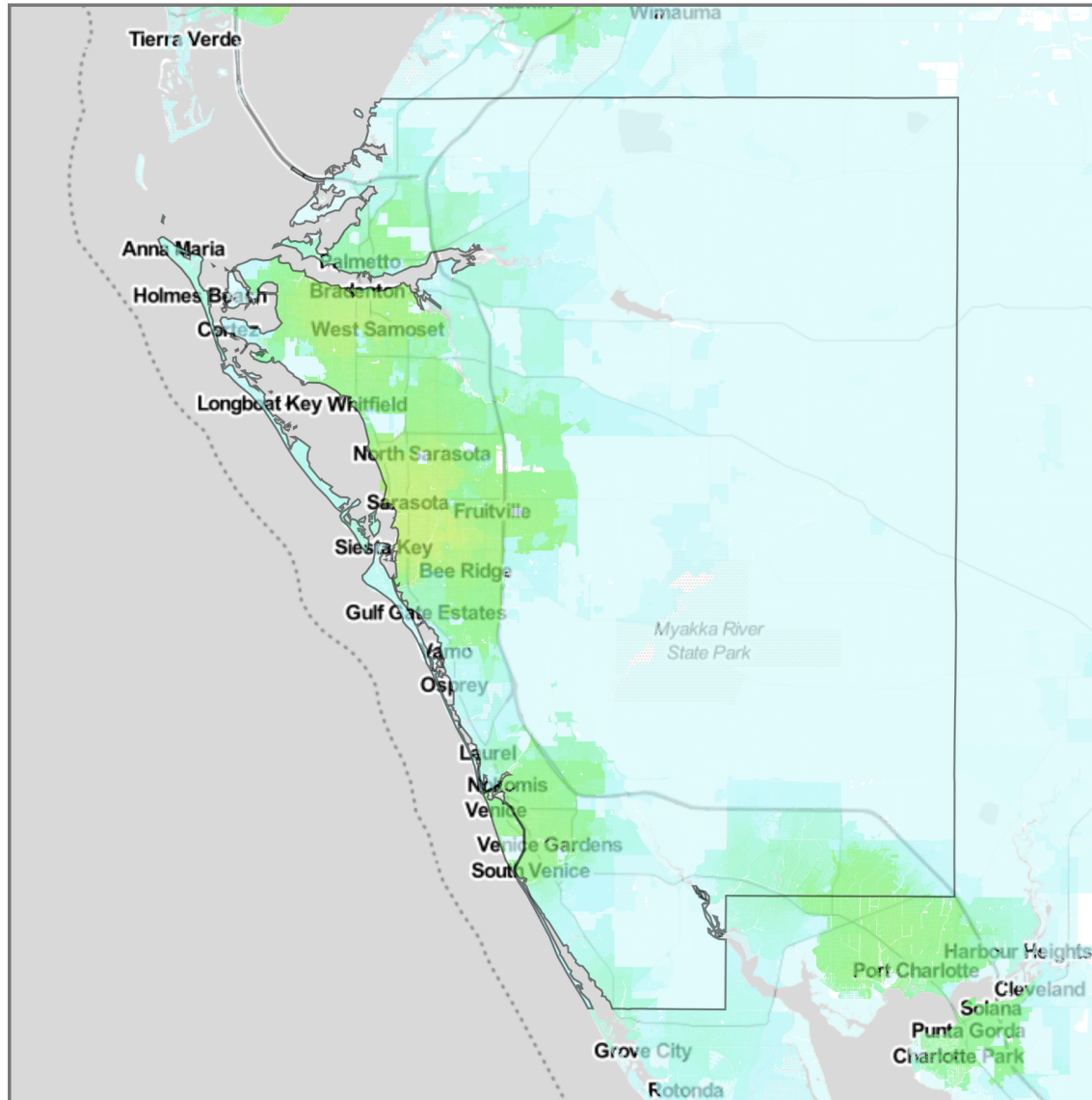


Sarasota-Manatee MPO

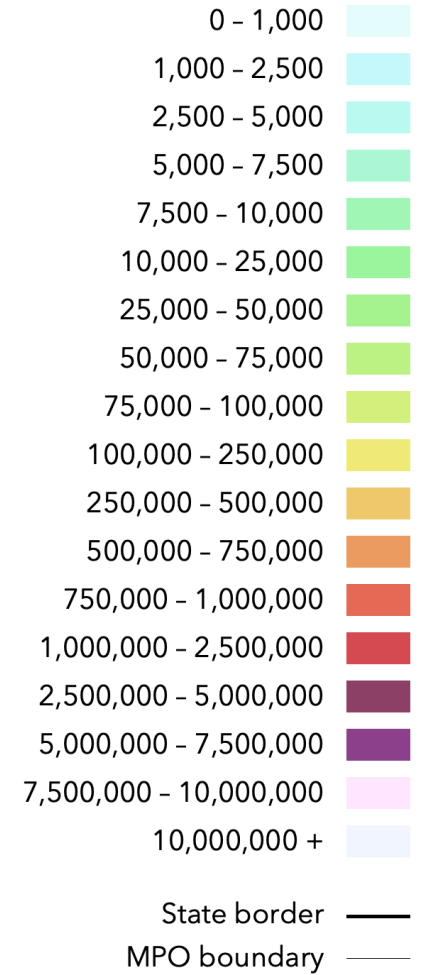
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Sarasota-Manatee MPO



Jobs within 30 minutes
(Biking, medium stress)



Space Coast Transportation Planning Organization

Job Accessibility Results—Bike, 2020

Total Jobs 209,421

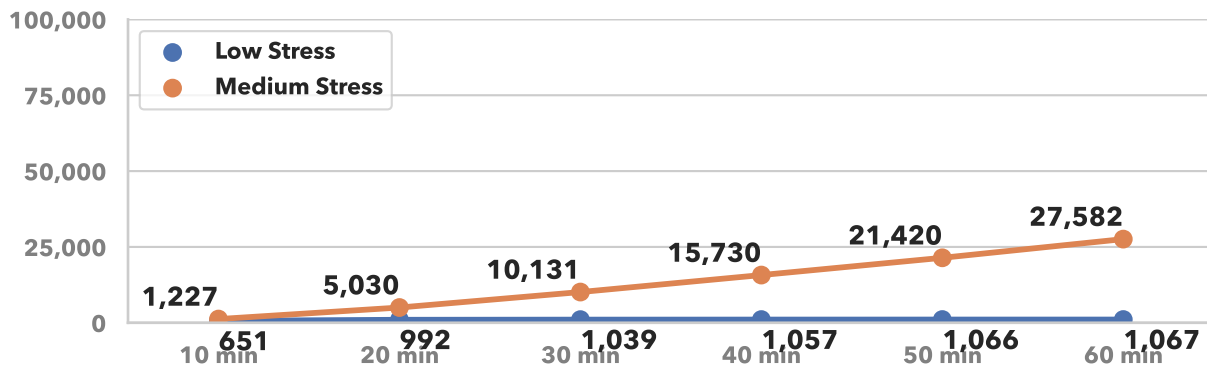
Average Job Density (per mi²) 508

Total Workers 235,713

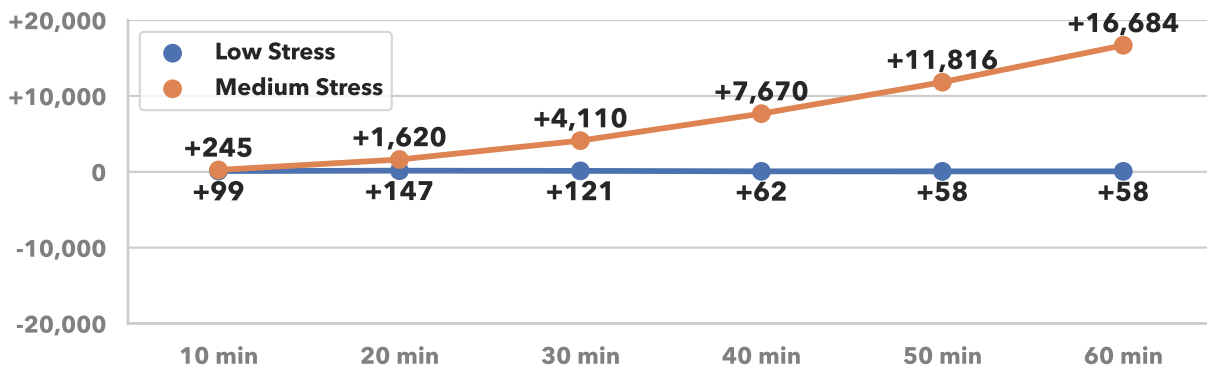
Average Worker Density (per mi²) 572

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

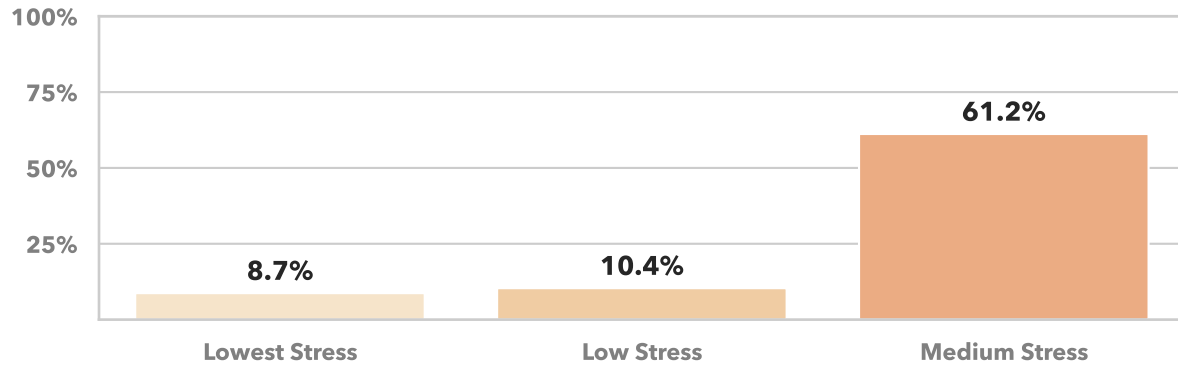


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)

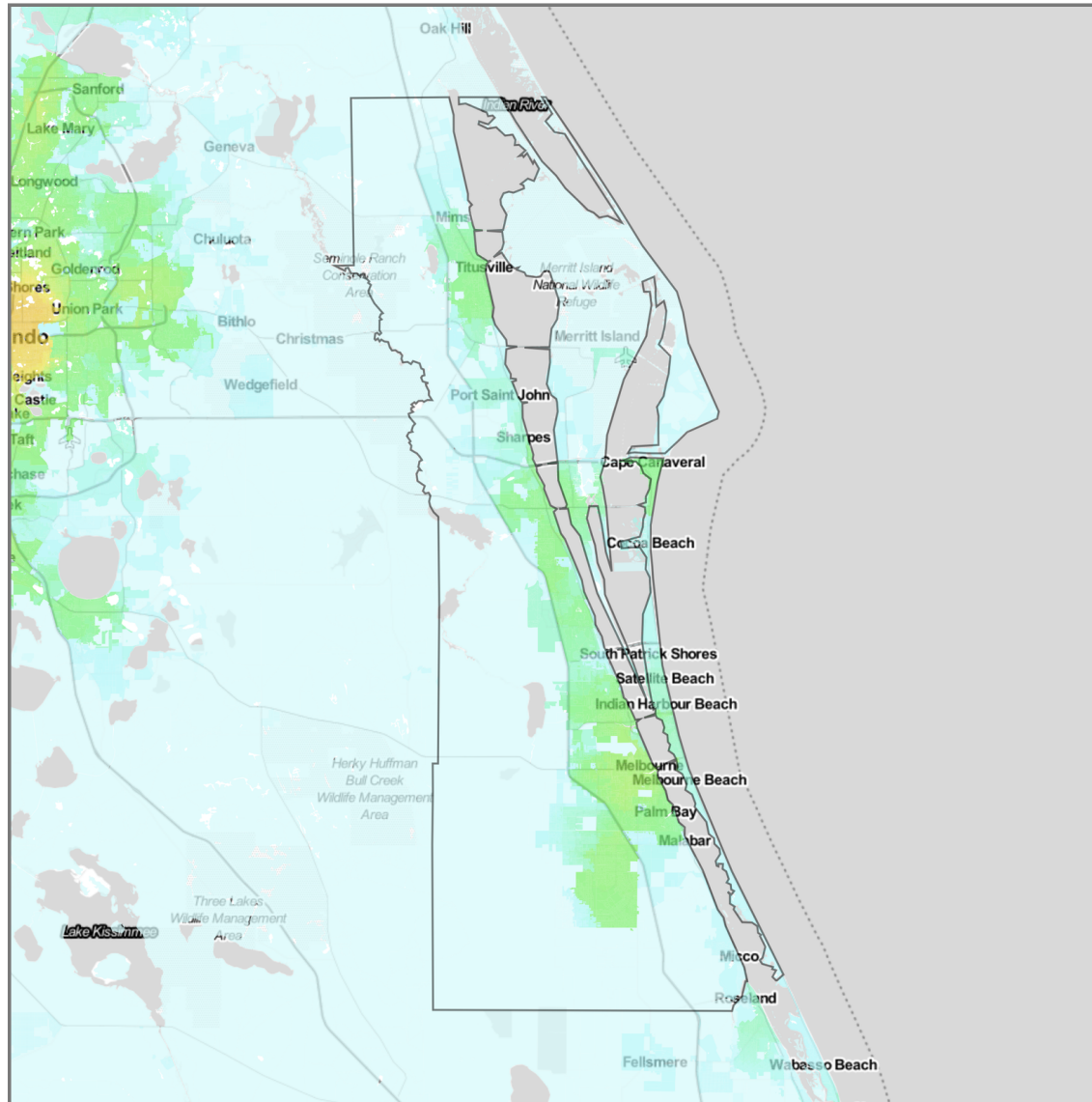


Space Coast Transportation Planning Organization

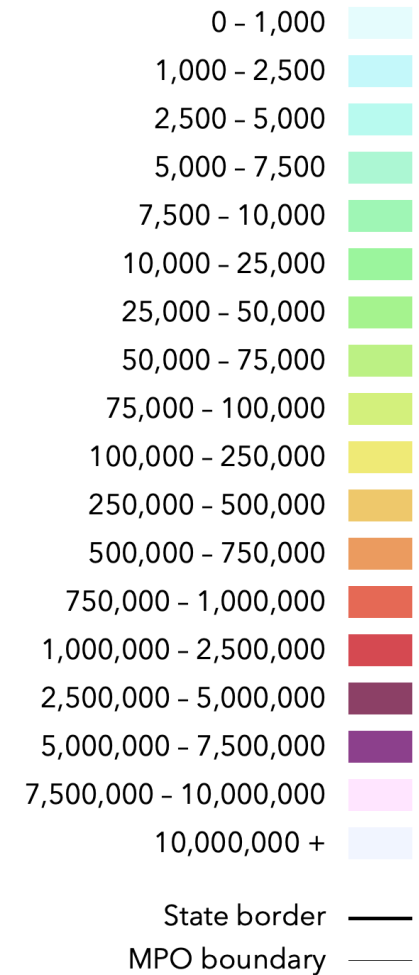
Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)



Space Coast Transportation Planning Organization



Jobs within 30 minutes
(Biking, medium stress)



St. Lucie Transportation Planning Organization

Job Accessibility Results—Bike, 2020

Total Jobs 76,933

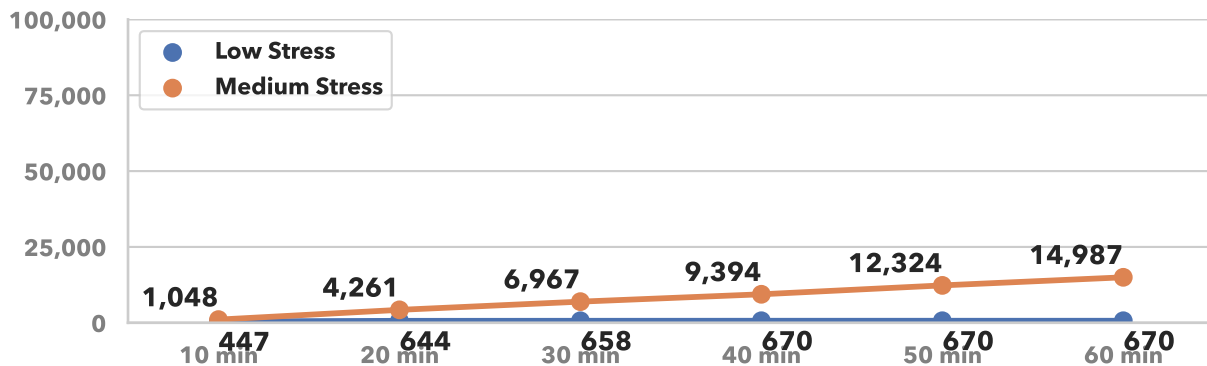
Average Job Density (per mi²) 343

Total Workers 119,004

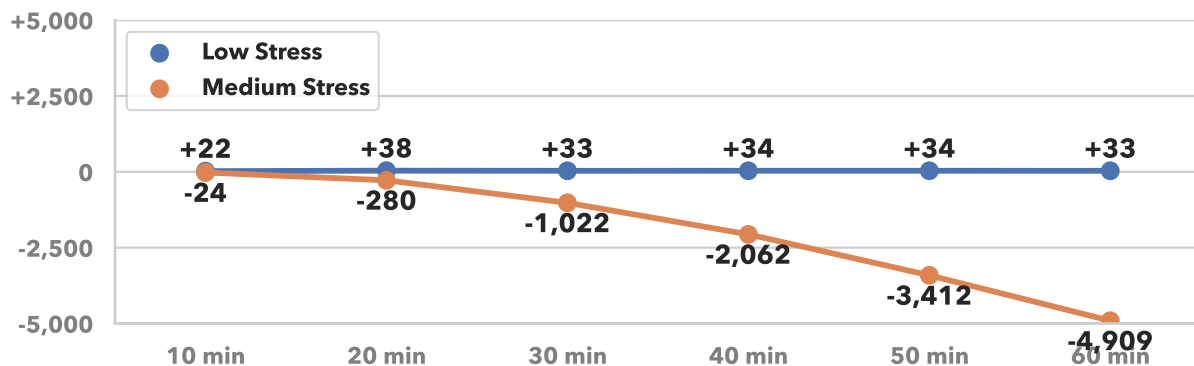
Average Worker Density (per mi²) 531

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

Average Job Accessibility by Travel Time Threshold (worker-weighted)

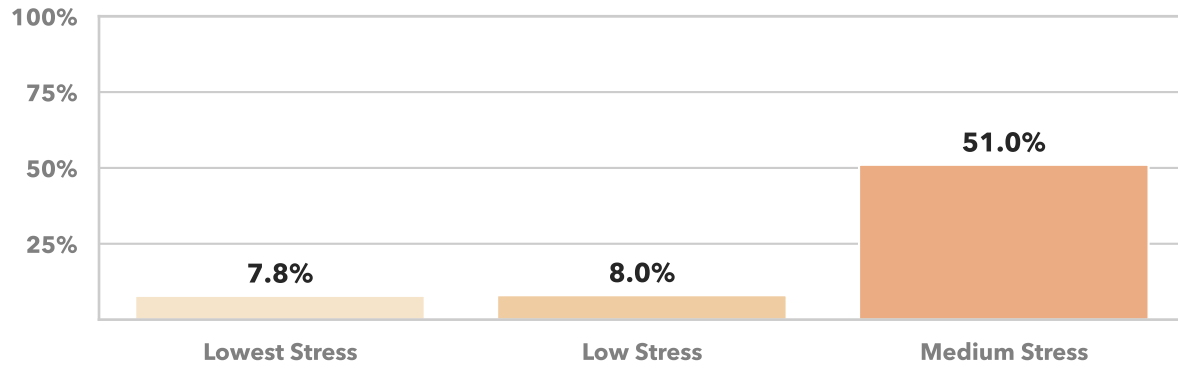


1-Year Change in Biking Job Accessibility by Travel Time Threshold (worker-weighted)



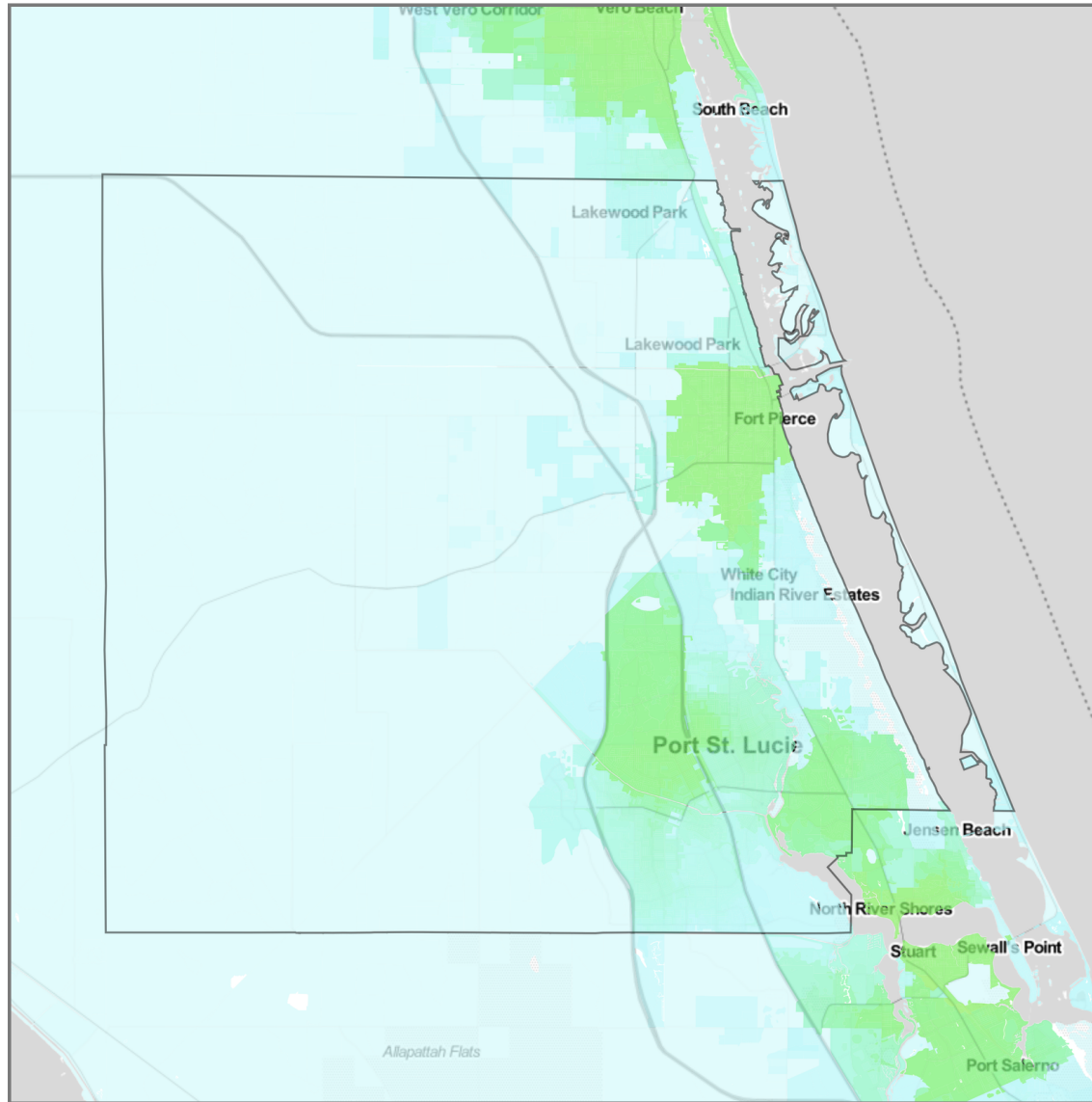
St. Lucie Transportation Planning Organization

Weighted Job Accessibility Ratio, Bike Networks to Open Streets (LTS 4)

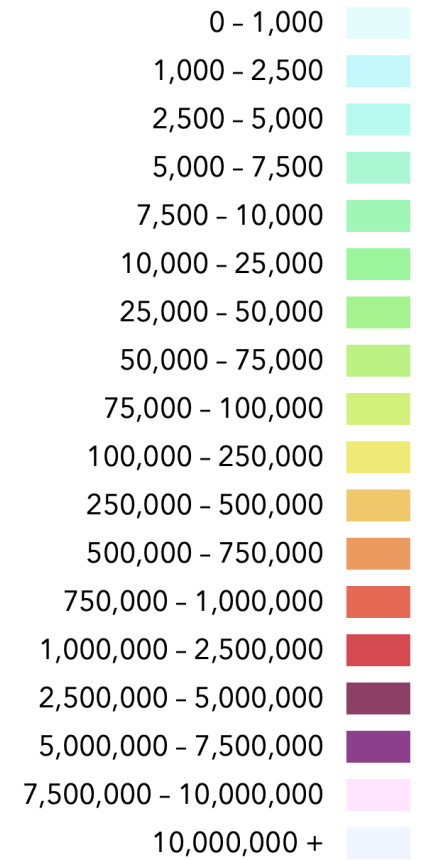


St. Lucie Transportation Planning Organization

90



Jobs within 30 minutes
(Biking, medium stress)



State border —
MPO boundary —

2.3 Accessibility by County

Table 5 provides the average job accessibility by bike for each county on low-stress bicycle networks, and Table 6 provides the average job accessibility by bike for each county on medium-stress bicycle networks. Table 7 and Table 8 show the 1-year change in access to jobs on LTS 2 and LTS 3 networks, respectively.

Table 5: Average Job Accessibility by Travel Time Threshold for Counties (Bike, Low Stress)

County	10 min	20 min	30 min	40 min	50 min	60 min
Alachua	2,645	11,984	25,128	37,973	45,395	48,270
Baker	182	212	212	212	212	212
Bay	665	1,247	1,415	1,478	1,485	1,485
Bradford	180	271	274	275	275	275
Brevard	650	992	1,039	1,057	1,066	1,067
Broward	2,089	4,389	4,876	5,014	5,079	5,102
Calhoun	67	96	101	101	101	101
Charlotte	498	916	988	992	992	992
Citrus	161	314	379	424	469	482
Clay	739	1,474	1,722	1,837	1,967	2,066
Collier	880	1,970	2,467	2,707	2,782	2,796
Columbia	339	584	593	594	594	594
DeSoto	264	327	328	330	330	330
Dixie	108	202	228	229	230	230
Duval	1,266	2,449	2,879	3,059	3,150	3,183
Escambia	837	1,457	1,513	1,515	1,515	1,515
Flagler	231	726	1,074	1,256	1,321	1,346
Franklin	275	400	417	418	423	431
Gadsden	217	320	322	324	324	324
Gilchrist	81	92	99	100	102	123
Glades	116	131	131	131	131	131
Gulf	225	296	301	301	301	301
Hamilton	115	165	168	169	169	169
Hardee	199	224	225	225	225	225
Hendry	808	1,220	1,238	1,239	1,239	1,239
Hernando	331	650	719	724	727	729
Highlands	229	344	382	385	385	385
Hillsborough	1,691	2,903	3,134	3,185	3,202	3,204
Holmes	115	142	145	146	146	146
Indian River	483	1,193	1,905	2,387	2,680	2,839
Jackson	237	338	343	344	345	346
Jefferson	85	146	158	158	158	158
Lafayette	72	73	73	73	73	73
Lake	501	869	1,005	1,068	1,069	1,069

Table 5: (continued)

Lee	905	2,081	2,901	3,341	3,549	3,683
Leon	1,381	4,472	8,265	12,666	17,228	21,258
Levy	90	132	155	163	167	168
Liberty	31	33	33	33	33	33
Madison	138	165	167	172	185	195
Manatee	770	1,181	1,282	1,347	1,376	1,378
Marion	317	454	480	489	491	492
Martin	741	1,175	1,228	1,247	1,248	1,248
Miami-Dade	3,743	7,018	8,198	8,763	9,029	9,196
Monroe	1,921	3,449	4,232	4,717	4,788	4,796
Nassau	262	352	358	358	358	358
Okaloosa	1,391	2,683	3,148	3,377	3,516	3,599
Okeechobee	263	304	305	305	305	305
Orange	1,653	3,226	3,979	4,387	4,505	4,535
Osceola	511	1,136	1,492	1,578	1,587	1,587
Palm Beach	1,206	2,063	2,384	2,622	2,761	2,846
Pasco	395	633	680	692	700	703
Pinellas	1,937	3,791	4,810	5,483	5,877	6,061
Polk	652	1,360	1,941	2,319	2,551	2,715
Putnam	245	305	307	309	310	311
Santa Rosa	304	671	824	891	925	938
Sarasota	1,091	2,242	2,657	2,789	2,869	2,914
Seminole	1,064	2,103	2,926	3,674	4,115	4,478
St. Johns	633	1,165	1,420	1,648	1,711	1,728
St. Lucie	446	643	658	670	670	670
Sumter	342	1,020	1,257	1,301	1,302	1,303
Suwannee	128	175	185	186	190	191
Taylor	179	245	246	246	246	246
Union	95	105	105	105	105	105
Volusia	514	800	837	838	838	838
Wakulla	96	230	269	288	301	304
Walton	332	803	1,053	1,229	1,284	1,343
Washington	240	353	356	356	356	356

Table 6: Average Medium-Stress Job Accessibility by Travel Time Threshold for Counties (Bike, Medium Stress)

County	10 min	20 min	30 min	40 min	50 min	60 min
Alachua	3,214	14,623	29,970	45,893	56,860	66,379
Baker	250	536	700	753	797	826
Bay	1,240	5,563	11,078	16,107	20,252	23,549
Bradford	245	434	483	504	531	570
Brevard	1,223	5,018	10,099	15,670	21,329	27,456
Broward	3,581	15,835	32,819	53,603	78,125	104,371
Calhoun	107	199	234	235	235	237
Charlotte	945	4,181	8,217	11,977	14,635	16,591
Citrus	299	1,196	2,245	3,125	3,936	4,684
Clay	975	3,188	5,375	7,620	10,054	12,652
Collier	1,273	4,322	7,141	9,350	10,903	12,550
Columbia	545	1,632	2,554	3,650	4,811	6,125
DeSoto	882	2,116	2,536	2,794	3,049	3,125
Dixie	109	203	235	248	275	329
Duval	2,384	9,684	20,353	30,731	39,317	46,684
Escambia	1,801	7,619	14,141	20,878	25,572	28,486
Flagler	308	1,601	3,634	5,343	7,044	9,095
Franklin	344	556	627	632	637	645
Gadsden	324	776	987	1,132	1,216	1,414
Gilchrist	81	93	102	118	162	230
Glades	127	138	139	140	142	150
Gulf	257	438	460	463	465	466
Hamilton	122	179	187	189	198	203
Hardee	450	957	1,208	1,316	1,417	1,699
Hendry	1,066	2,015	2,475	2,563	2,574	2,576
Hernando	517	1,873	3,297	4,595	5,759	6,840
Highlands	580	1,989	3,458	5,333	7,392	9,278
Hillsborough	3,524	16,936	38,063	64,085	92,443	120,903
Holmes	122	175	190	195	230	280
Indian River	1,130	4,594	9,167	14,288	19,119	22,214
Jackson	383	799	884	893	898	913
Jefferson	87	158	185	206	227	248
Lafayette	82	86	91	98	99	101
Lake	802	2,951	5,369	7,654	9,598	11,007
Lee	1,451	5,555	10,746	16,231	21,902	26,628
Leon	3,042	15,204	33,444	51,505	67,181	79,642
Levy	131	232	323	426	524	608
Liberty	32	46	57	58	58	58
Madison	226	313	322	328	341	352

Table 6: (continued)

Manatee	1,613	7,450	15,125	23,502	31,986	40,111
Marion	782	3,222	6,649	10,263	14,284	18,662
Martin	1,381	4,112	7,347	11,591	15,304	18,700
Miami-Dade	7,150	27,473	58,499	95,355	135,487	182,198
Monroe	2,254	4,319	5,409	5,513	5,544	5,553
Nassau	588	1,782	2,918	3,698	4,241	4,436
Okaloosa	1,749	4,906	6,737	7,944	8,981	9,799
Okeechobee	554	1,514	2,296	2,596	2,634	2,655
Orange	3,615	16,763	37,852	65,703	98,991	135,002
Osceola	1,053	4,777	8,464	11,716	14,957	17,781
Palm Beach	2,090	9,090	19,531	31,830	47,069	62,893
Pasco	790	3,058	5,725	8,780	11,954	15,314
Pinellas	3,568	15,683	33,609	55,867	77,346	97,825
Polk	1,322	5,028	9,460	14,190	19,350	25,002
Putnam	563	1,753	2,642	2,893	2,952	2,997
Santa Rosa	455	1,725	3,068	4,408	5,778	7,327
Sarasota	2,402	10,207	21,375	33,392	44,929	55,708
Seminole	1,747	7,658	16,321	28,277	42,949	62,648
St. Johns	851	2,614	4,390	5,876	7,153	8,089
St. Lucie	1,049	4,260	6,971	9,425	12,369	15,030
Sumter	458	1,670	2,185	2,517	2,738	2,872
Suwannee	261	494	585	691	744	787
Taylor	314	782	1,119	1,267	1,344	1,367
Union	120	153	159	170	171	191
Volusia	1,196	4,928	9,038	12,679	16,019	19,556
Wakulla	137	429	607	780	888	1,116
Walton	364	1,076	1,654	2,165	2,506	2,802
Washington	340	750	935	1,063	1,138	1,189

Table 7: 1-Year Change in Time-Weighted Average Job Accessibility for Counties (Bike, Low Stress)

County	10 min	20 min	30 min	40 min	50 min	60 min
Alachua	+338	+362	+248	+1,584	+1,911	+2,192
Baker	+5	+6	+6	+6	+6	+6
Bay	-9	-23	-7	+5	+4	+2
Bradford	+3	+26	+26	+27	+27	+27
Brevard	+99	+148	+123	+64	+60	+60
Broward	+93	+268	+326	+341	+349	+366
Calhoun	+3	+6	+4	+4	+4	+4
Charlotte	-7	-76	-112	-126	-126	-126
Citrus	+12	+40	+71	+107	+151	+164
Clay	+12	+5	0	-6	-11	-25
Collier	+8	-68	-385	-419	-400	-396
Columbia	+63	+115	+116	+116	+116	+116
DeSoto	+22	+29	+30	+32	+32	+32
Dixie	+26	+107	+131	+132	+133	+132
Duval	+90	+283	+408	+475	+507	+497
Escambia	+14	-9	-15	-16	-16	-16
Flagler	+2	+37	+113	+166	+190	+190
Franklin	-6	-1	-1	0	-1	-2
Gadsden	-40	-40	-39	-37	-37	-37
Gilchrist	+8	+13	+16	+16	+17	+30
Glades	+7	-4	-4	-4	-4	-4
Gulf	+30	+34	+34	+34	+34	+34
Hamilton	-41	-51	-50	-50	-51	-51
Hardee	+5	+6	+6	+6	+6	+6
Hendry	+71	+126	+129	+129	+129	+129
Hernando	+29	+72	+83	+84	+85	+85
Highlands	0	-2	+3	+4	+4	+4
Hillsborough	+250	+599	+626	+624	+622	+622
Holmes	-6	-11	-9	-8	-8	-8
Indian River	+79	+552	+1,231	+1,699	+1,983	+2,140
Jackson	-2	+13	+15	+12	+12	+11
Jefferson	+12	+10	+9	+9	+9	+9
Lafayette	+2	+1	+1	+1	+1	+1
Lake	+52	+83	+100	+116	+117	+117
Lee	+43	+112	+122	+141	+183	+205
Leon	+163	+1,762	+4,974	+8,936	+13,210	+16,879
Levy	+2	+4	+9	+9	+11	+12
Liberty	-2	-3	-3	-3	-3	-3
Madison	-51	-53	-55	-56	-58	-56
Manatee	+38	+68	+75	+115	+136	+129

Table 7: (continued)

Marion	+28	+44	+45	+45	+45	+46
Martin	+77	+129	+144	+161	+162	+162
Miami-Dade	+248	+622	+279	-955	-2,262	-3,033
Monroe	-70	-282	-865	-808	-766	-767
Nassau	-4	+2	+3	+3	+3	+3
Okaloosa	-71	-146	-154	-163	-168	-150
Okeechobee	+18	+25	+25	+25	+25	+25
Orange	+134	+500	+848	+1,080	+1,150	+1,165
Osceola	+13	+151	+359	+403	+403	+403
Palm Beach	-329	-612	-531	-362	-246	-171
Pasco	+35	+81	+103	+108	+109	+109
Pinellas	+186	+596	+967	+1,238	+1,396	+1,503
Polk	-4	-90	-258	-406	-482	-507
Putnam	-14	-17	-16	-16	-16	-16
Santa Rosa	-8	-14	-23	-15	-16	-24
Sarasota	+153	+839	+1,182	+1,307	+1,387	+1,432
Seminole	+66	+230	+455	+717	+890	+1,047
St. Johns	+27	+91	+124	+119	+112	+110
St. Lucie	+21	+37	+33	+34	+34	+34
Sumter	+25	+108	+132	+142	+142	+141
Suwannee	-20	-16	-12	-12	-12	-12
Taylor	-22	-37	-38	-38	-38	-38
Union	-15	-18	-18	-18	-18	-18
Volusia	+18	+28	+18	+17	+17	+17
Wakulla	+1	+7	+7	-8	-8	-10
Walton	+24	+39	+23	+44	+79	+124
Washington	-16	-29	-30	-31	-31	-32

Table 8: 1-Year Change in Time-Weighted Average Job Accessibility for Counties (Bike, Medium Stress)

County	10 min	20 min	30 min	40 min	50 min	60 min
Alachua	+317	+559	+372	+2,199	+1,868	+2,053
Baker	-3	+10	+4	+4	+23	+45
Bay	-20	-192	-440	-625	-873	-1,035
Bradford	+4	+53	+59	+66	+90	+119
Brevard	+243	+1,610	+4,086	+7,625	+11,748	+16,588
Broward	+46	+285	+477	+1,015	+1,425	+2,583
Calhoun	+7	+10	+10	+10	+9	+8
Charlotte	-5	-54	-85	+9	+92	+195
Citrus	+12	+80	+221	+365	+541	+665
Clay	-5	-51	-76	-145	-165	-179
Collier	-14	-132	-475	-645	-783	-573
Columbia	+64	+253	+505	+757	+948	+1,255
DeSoto	+222	+422	+264	+290	+307	+207
Dixie	+27	+107	+135	+145	+170	+222
Duval	+93	+457	+1,491	+2,546	+3,482	+3,974
Escambia	+2	-450	-1,081	-1,454	-1,561	-1,404
Flagler	+11	+69	+260	+474	+946	+1,680
Franklin	-6	+13	+6	+6	+5	+4
Gadsden	-51	-97	-114	-116	-127	-126
Gilchrist	+8	+13	+16	+26	+60	+104
Glades	+8	-5	-5	-5	-4	-3
Gulf	+28	+25	+23	+23	+23	+23
Hamilton	-47	-65	-63	-64	-68	-70
Hardee	+3	+24	+14	-2	-5	+1
Hendry	+33	+122	+146	+143	+141	+142
Hernando	+42	+147	+241	+346	+430	+440
Highlands	0	-14	-37	-36	-52	-67
Hillsborough	+243	+593	+820	+603	-402	-1,579
Holmes	-4	-14	-11	-18	-12	-1
Indian River	-46	-462	-1,054	-1,739	-1,525	-1,689
Jackson	-11	+7	+15	+14	+13	+17
Jefferson	+12	+9	+5	+8	-2	-3
Lafayette	+3	+2	+5	+4	+4	+4
Lake	+41	+137	+249	+370	+583	+735
Lee	+70	+259	+464	+656	+1,072	+1,338
Leon	+50	+1,239	+4,303	+7,615	+10,594	+12,853
Levy	+3	+8	+10	+20	+51	+70
Liberty	-2	-2	-4	-4	-4	-5
Madison	-27	-24	-26	-26	-28	-26

Table 8: (continued)

Manatee	+39	+96	+271	+517	+968	+1,291
Marion	+32	+57	+96	+160	+365	+599
Martin	+65	+220	+549	+1,570	+2,736	+3,545
Miami-Dade	+374	+1,437	+3,894	+6,165	+7,557	+10,973
Monroe	-23	+312	-119	-416	-415	-417
Nassau	-76	-143	+101	+240	+202	+144
Okaloosa	-100	-251	-367	-587	-689	-597
Okeechobee	-32	-99	-127	-127	-126	-116
Orange	+366	+3,730	+10,795	+21,698	+36,359	+54,168
Osceola	+117	+1,274	+2,873	+5,278	+8,142	+10,819
Palm Beach	-467	-622	+161	+2,469	+6,203	+10,648
Pasco	+42	+121	+247	+438	+767	+1,125
Pinellas	+142	+400	+520	+1,704	+4,522	+8,817
Polk	+16	-42	-182	-468	-875	-1,362
Putnam	-20	-13	+44	+27	+32	+44
Santa Rosa	-4	-18	-23	-6	-98	-177
Sarasota	+168	+605	+477	+208	+292	+526
Seminole	+91	+683	+1,855	+4,125	+7,097	+10,743
St. Johns	+14	+111	+185	+353	+454	+493
St. Lucie	-24	-279	-1,020	-2,055	-3,400	-4,895
Sumter	+20	+189	+272	+305	+323	+314
Suwannee	-20	-19	-12	-4	-1	+1
Taylor	-42	-139	-181	-197	-203	-204
Union	-19	-24	-24	-29	-30	-22
Volusia	+11	+28	+167	+221	+299	+333
Wakulla	-1	+10	+20	+4	+9	+56
Walton	+23	+16	-9	-16	-8	-3
Washington	-17	-20	-19	-22	-18	-39

3 Data Sources and Methodology

The following sections provide a brief overview of the data sources and methodology used to prepare this report. For a detailed description, please consult the Accessibility Observatory’s *Access Across America: Bike 2020 Methodology* report.

3.1 Bicycle Level of Traffic Stress

Bicycle Level of Traffic Stress (LTS) evaluation is a method for classifying street segments’ suitability for bicycling based on the physical characteristics of the roadway, such as speed limits, lane configurations, and the types of bicycle facilities present, if any. A value of 1 (lowest stress) to 4 (highest stress) is assigned to each street segment based on these characteristics. In this study, roadway characteristics are determined by street segment tag data in the OpenStreetMap network data used for routing computations. We define the LTS 1 network as “lowest-stress”, LTS 2 network as “low-stress”, the LTS 3 network as “medium-stress”, and the LTS 4 network as the “open streets” network — i.e. if a person feels comfortable riding a bicycle on all streets (except limited-access highways, such as interstates and freeways), including arterials, they would experience “open streets” access.

3.2 Travel Times by Bike

Travel times by biking were calculated using detailed road networks for the entire country, with individual street links and intersections classified by LTS score. A constant bicycle speed of 5 m/s (11.2 mi/h) is used. Travel times were calculated for each of the four LTS levels, which are cumulative — i.e. the low-stress network includes facilities in both LTS 1 and LTS 2 classifications, the medium-stress network includes facilities in LTS classifications 1, 2, or 3, etc.

3.3 Geography

Census blocks are the fundamental unit for travel time and accessibility calculation, and block-level accessibility results are aggregated over larger areas for analysis. When calculating accessibility for an individual origin, all potential destinations within 20 km (12.4 miles) are included, even if those destinations are located in a different state or other jurisdiction. Only locations within the United States are included. The MPO jurisdictions used for aggregate analysis are based on data provided in the US Department of Transportation’s National Transportation Atlas Database 2016¹.

3.4 Population and Job Distribution

Data describing the distribution of labor and employment in the region are drawn from the U.S. Census Bureau’s Longitudinal Employer-Household Dynamics program (LEHD)². The LEHD Origin-Destination Employment Statistics (LODES) dataset, which is updated annually, provides Census

¹http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_atlas_database/index.html

²<http://lehd.ces.census.gov/data/>

block-level estimates of employee home and work locations. This analysis uses LODS data from 2017, the most recent available as of this writing.

3.5 Accessibility Calculation

The accessibility metrics presented in this analysis are *cumulative opportunity* metrics — they reflect the total amount of opportunities (in this case, jobs) reachable within given travel time thresholds from an origin location. To calculate these metrics, the travel time calculations described above are performed first to identify the travel time from one origin to all surrounding destinations, for each LTS level. Next, the number of jobs at each destination is summed for all destinations that can be reached within a given travel time threshold, providing the accessibility value for a single origin at a single departure time, for a given LTS level.

This process provides accessibility values for individual Census blocks. To summarize this block-level data to larger areas such as MPOs and states, the accessibility values for the relevant blocks are weighted by the number of workers living in each block and then averaged. This person-weighted approach allows the summary metric to reflect the distribution of residents within the area. For example, a person-weighted accessibility value of 134,173 indicates that a typical resident within the area can reach 134,173 jobs.

In the case of accessibility by biking, local accessibility levels are very sensitive to the presence or absence of good bicycle facilities, and the willingness of a rider to use more stressful roadways. A person willing to ride on more stressful roadways will gain significantly more access to valuable destinations, while a person who is more cautious may be forced to take more circuitous routes to their destinations, or be unable to reach them entirely.

4 Comparisons With Previous Years

It is worth noting that bicycle network changes assigned to a given year may have existed previously, but never had been entered into OpenStreetMap by its user community. If, for instance, a group of community members in a city undertakes an effort to edit OpenStreetMap to include the city's bike network, which largely had not been tracked previously, then the data will reflect a large 1-year jump in kilometers of bicycle facilities, as well as potentially large changes in bicycle access. Thus, if not all existing bicycle facilities were tracked in previous years, then bicycle access may have been underreported, leading to larger changes in access than actually experienced by workers.

5 Conclusions

Insights for bicycle urban planning can be found in comparing bicycle access at different LTS tolerances. “Open streets” accessibility indicates the level of bike accessibility that everyone would experience if every street were made comfortable for biking on. Thus, comparing the access currently experienced on the low-stress network with that on the “open streets” network quantifies the degree to which job access could be improved by providing low-stress bicycle facilities on high-stress routes. This ratio is graphed in the second chart on the MPO data pages in [Section 2.2](#), and also mapped for the MPO

jurisdictions included in the study; areas with a lower ratio of low-stress access to “open streets” access are colored more intensely. Such areas may lack good connections to the low-stress bike network, and aggregate analysis at the neighborhood level may offer planners a tool to identify where investments in low-stress bicycle facilities would have the greatest benefit in improving access to destinations.

The ratios comparing low-stress and medium-stress accessibility to “open streets” accessibility allow comparisons of bicycle network performance between MPOs of different sizes. The MPOs which perform the best when comparing medium-stress access to the maximum possible bike access all have bicycle networks which, on average, allow their residents to access a greater percentage of the job opportunities which can be accessed by biking on the “open streets” network. This performance metric assesses how well an MPO’s bicycle network allows people to reach the available valuable opportunities.