## 2015 Transit Accessibility Report: Florida

Prepared for the state of Florida by the

Accessibility Observatory at the University of Minnesota

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University of Minnesota Driven to Discover<sup>sm</sup>

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#### **1** Introduction

This report presents the results of an evaluation of accessibility to jobs by transit 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, the most significant non-home travel destination. 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: 2015 Methodology*, describes the methodology and data sources in greater detail.

## 2 Accessibility Evaluation Results

#### 2.1 Statewide Accessibility

### Florida

Job Accessibility Results – Transit, 2015

Total Jobs	7,524,616	
Average Job Density (per mi <sup>2</sup> )	139	
Total Workers	7,522,794	
Average Worker Density (per mi <sup>2</sup> )	139	
Job and worker totals are based on LEHD estimates and may not match other sources.		



#### Florida



#### 2.2 Accessibility in Metropolitan Areas

The following sections analyze accessibility in the metropolitan areas (as defined by jurisdictions of metropolitan planning organizations (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 County Punta Gorda MPO
- Collier MPO
- Florida-Alabama Transportation Planning Organization
- Gainesville MTPO
- Hernando County MPO
- Hillsborough County MPO
- Indian River County MPO
- Lake-Sumter MPO
- Lee County MPO
- METROPLAN Orlando
- Martin County MPO
- Miami-Dade MPO
- North Florida Transportation Planning Organization
- Ocala Marion County Tranportation Planning Organization
- Okaloosa-Walton Transportation Planning Organization
- Palm Beach MPO
- Pasco County MPO
- Pinellas County MPO
- Polk County Transportation Planning Organization
- River to Sea Transporation Planning Organization MPA

- Sarasota-Manatee MPO
- Space Coast Transportation Planning Organization
- St. Lucie Transportation Planning Organization

Table 1 provides the average (worker-weighted) job accessibility by transit during the AM peak period for each MPO. The following pages provide additional details and maps for each MPO.

Table 1: Average Job Accessibility by Travel Time Threshold for Metropolitan Areas (Transit, AM Peak)

MPO	10 min	20 min	30 min	40 min	50 min	60 min
Bay County Transportation Planning Organization	156	721	1,789	3,227	5,041	7,155
Broward MPO	391	2,479	8,923	23,575	50,583	93,786
Capital Region Transportation Planning Agency	162	938	2,602	5,091	8,367	12,511
Charlotte County - Punta Gorda MPO	106	431	1,039	1,803	2,687	3,737
Collier MPO	137	616	1,487	2,685	4,297	6,155
Florida-Alabama Transportation Planning Organization	166	798	1,990	3,681	5,935	8,665
Gainesville MTPO	265	1,249	3,369	6,858	10,860	15,126
Hernando County MPO	75	241	510	859	1,277	1,767
Hillsborough County MPO	331	2,183	7,504	18,021	34,899	57,854
Indian River County MPO	172	881	1,867	3,247	4,940	6,793
Lake-Sumter MPO	116	406	905	1,616	2,433	3,387
Lee County MPO	114	628	1,396	2,559	3,997	5,828
METROPLAN Orlando	280	1,605	5,231	12,731	25,773	45,780
Martin County MPO	128	471	1,118	2,037	3,133	4,448
Miami-Dade MPO	1,154	7,329	23,656	57,926	112,055	188,038
North Florida Transportation Planning Organization	275	978	2,226	4,099	6,556	9,629
Ocala - Marion County Tranportation Planning Organization	81	331	879	1,707	2,760	4,037
Okaloosa-Walton Transportation Planning Organization	185	737	1,700	2,999	4,381	5,893
Palm Beach MPO	279	1,666	5,213	12,270	23,922	41,633
Pasco County MPO	107	337	766	1,405	2,236	3,204
Pinellas County MPO	440	2,723	9,155	22,163	43,259	72,897
Polk County Transportation Planning Organization	193	786	1,745	2,981	4,722	6,614
River to Sea Transporation Planning Organization MPA	122	562	1,347	2,520	3,959	5,583
Sarasota-Manatee MPO	198	1,198	3,664	8,133	14,955	23,973
Space Coast Transportation Planning Organization	139	593	1,629	3,454	6,238	10,204
St. Lucie Transportation Planning Organization	108	509	1,223	2,361	3,603	5,068

# **Bay County Transportation Planning Organization** Job Accessibility Results – Transit, 2015

Total Jobs	73,268
Average Job Density (per mi <sup>2</sup> )	183
Total Workers	68,107
Average Worker Density (per mi <sup>2</sup> )	171
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





#### **Bay County Transportation Planning Organization**

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## **Broward MPO**

Job Accessibility Results – Transit, 2015

Total Jobs	742,952
Average Job Density (per mi <sup>2</sup> )	1572
Total Workers	770,542
Average Worker Density (per mi <sup>2</sup> )	1630

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



#### **Broward MPO**



Jobs within 30 minutes (Transit, AM peak) 0 - 1,000 1,000 - 2,500 2,500 - 5,000 5,000 - 7,500 7,500 - 10,000 10,000 - 25,000 25,000 - 50,000 50,000 - 75,000 75,000 - 100,000 100,000 - 250,000 250,000 - 500,000 500,000 - 750,000 750,000 - 1,000,000 1,000,000 - 2,500,000 2,500,000 - 5,000,000 5,000,000 - 7,500,000 7,500,000 - 10,000,000 10,000,000 + State border —

MPO boundary \_\_\_\_\_

## **Capital Region Transportation Planning Agency**

Job Accessibility Results – Transit, 2015

Total Jobs	167,491
Average Job Density (per mi <sup>2</sup> )	176
Total Workers	144,596
Average Worker Density (per mi <sup>2</sup> )	152
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





## **Capital Region Transportation Planning Agency**



MPO boundary \_\_\_\_\_

## **Charlotte County - Punta Gorda MPO** Job Accessibility Results – Transit, 2015

Total Jobs	41,908
Average Job Density (per mi <sup>2</sup> )	151
Total Workers	48,337
Average Worker Density (per mi <sup>2</sup> )	175
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





### **Charlotte County - Punta Gorda MPO**



MPO boundary \_\_\_\_\_

## **Collier MPO**

Job Accessibility Results – Transit, 2015

Total Jobs	119,107
Average Job Density (per mi <sup>2</sup> )	149
Total Workers	119,769
Average Worker Density (per mi <sup>2</sup> )	150

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



### **Collier MPO**





MPO boundary \_\_\_\_\_

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# **Florida-Alabama Transportation Planning Organization** Job Accessibility Results – Transit, 2015

Total Jobs	176,309
Average Job Density (per mi <sup>2</sup> )	381
Total Workers	168,663
Average Worker Density (per mi <sup>2</sup> )	365
Job and worker totals are based on LEHD estimates ar	nd may not match other sources.





### Florida-Alabama Transportation Planning Organization



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## **Gainesville MTPO**

Job Accessibility Results – Transit, 2015

Total Jobs	103,915
Average Job Density (per mi <sup>2</sup> )	1429
Total Workers	73,019
Average Worker Density (per mi <sup>2</sup> )	1004
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Job and worker totals are based on LEHD estimates and may not match other sources.



### **Gainesville MTPO**





MPO boundary \_\_\_\_\_

## Hernando County MPO Job Accessibility Results – Transit, 2015

Total Jobs	71,324
Average Job Density (per mi <sup>2</sup> )	165
Total Workers	90,519
Average Worker Density (per mi <sup>2</sup> )	209

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



### Hernando County MPO



Jobs within 30 minutes (Transit, AM peak) 0 - 1,000 1,000 - 2,500 2,500 - 5,000 5,000 - 7,500 7,500 - 10,000 10,000 - 25,000 25,000 - 50,000 50,000 - 75,000 75,000 - 100,000 100,000 - 250,000 250,000 - 500,000 500,000 - 750,000 750,000 - 1,000,000 1,000,000 - 2,500,000 2,500,000 - 5,000,000 5,000,000 - 7,500,000 7,500,000 - 10,000,000 10,000,000 +

State border —— MPO boundary \_\_\_\_

# Hillsborough County MPO Job Accessibility Results – Transit, 2015

Total Jobs	612,802
Average Job Density (per mi <sup>2</sup> )	1429
Total Workers	529,448
Average Worker Density (per mi <sup>2</sup> )	1234
Job and worker totals are based on LEHD estimates a	nd may not match other sources.



## Hillsborough County MPO





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# Indian River County MPO Job Accessibility Results – Transit, 2015

Total Jobs	44,992
Average Job Density (per mi <sup>2</sup> )	666
Total Workers	53,173
Average Worker Density (per mi <sup>2</sup> )	787
Job and worker totals are based on LEUD estimates	nd may not mat

on LEHD estimates and may not match other sources.



## **Indian River County MPO**



## Lake-Sumter MPO

Job Accessibility Results – Transit, 2015

Total Jobs	107,432
Average Job Density (per mi <sup>2</sup> )	161
Total Workers	146,078
Average Worker Density (per mi <sup>2</sup> )	218

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



### Lake-Sumter MPO



Jobs within 30 minutes (Transit, AM peak) 0 - 1,000 1,000 - 2,500 2,500 - 5,000 5,000 - 7,500 7,500 - 10,000 10,000 - 25,000 25,000 - 50,000 50,000 - 75,000 75,000 - 100,000 100,000 - 250,000 250,000 - 500,000 500,000 - 750,000 750,000 - 1,000,000 1,000,000 - 2,500,000 2,500,000 - 5,000,000 5,000,000 - 7,500,000 7,500,000 - 10,000,000 10,000,000 + State border —

MPO boundary \_\_\_\_\_

## **Lee County MPO** Job Accessibility Results – Transit, 2015

Total Jobs	202,910
Average Job Density (per mi <sup>2</sup> )	636
Total Workers	217,973
Average Worker Density (per mi <sup>2</sup> )	684

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



### Lee County MPO



## **METROPLAN Orlando**

Job Accessibility Results – Transit, 2015

Total Jobs	1,001,636
Average Job Density (per mi <sup>2</sup> )	907
Total Workers	857,977
Average Worker Density (per mi <sup>2</sup> )	777
Job and worker totals are based on LEHD estimates a	nd may not match other sources.



### **METROPLAN** Orlando





MPO boundary \_\_\_\_\_

## Martin County MPO Job Accessibility Results – Transit, 2015

Total Jobs	54,969
Average Job Density (per mi <sup>2</sup> )	261
Total Workers	53,461
Average Worker Density (per mi <sup>2</sup> )	254

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



### **Martin County MPO**



## Miami-Dade MPO

Job Accessibility Results – Transit, 2015

Total Jobs	1,020,382
Average Job Density (per mi <sup>2</sup> )	1312
Total Workers	966,301
Average Worker Density (per mi <sup>2</sup> )	1242
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Job and worker totals are based on LEHD estimates and may not match other sources.



## Miami-Dade MPO



Jobs within 30 minutes (Transit, AM peak) 0 - 1,000 1,000 - 2,500 2,500 - 5,000 5,000 - 7,500 7,500 - 10,000 10,000 - 25,000 25,000 - 50,000 50,000 - 75,000 75,000 - 100,000 100,000 - 250,000 250,000 - 500,000 500,000 - 750,000 750,000 - 1,000,000 1,000,000 - 2,500,000 2,500,000 - 5,000,000 5,000,000 - 7,500,000 7,500,000 - 10,000,000 10,000,000 + State border

MPO boundary \_\_\_\_\_

# **North Florida Transportation Planning Organization** Job Accessibility Results – Transit, 2015

Total Jobs	614,383
Average Job Density (per mi <sup>2</sup> )	593
Total Workers	580,524
Average Worker Density (per mi <sup>2</sup> )	561
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





### North Florida Transportation Planning Organization

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### Ocala - Marion County Tranportation Planning Organization

Job Accessibility Results – Transit, 2015

Total Jobs	90,094
Average Job Density (per mi <sup>2</sup> )	140
Total Workers	105,070
Average Worker Density (per mi <sup>2</sup> )	164

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





#### **Ocala - Marion County Tranportation Planning Organization**



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# **Okaloosa-Walton Transportation Planning Organization** Job Accessibility Results – Transit, 2015

Total Jobs	101,376
Average Job Density (per mi <sup>2</sup> )	180
Total Workers	86,363
Average Worker Density (per mi <sup>2</sup> )	153
Job and worker totals are based on LEUD actimates	and may not match at

on LEHD estimates and may not match other sources.





### **Okaloosa-Walton Transportation Planning Organization**



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## Palm Beach MPO

Job Accessibility Results – Transit, 2015

Total Jobs	530,813
Average Job Density (per mi <sup>2</sup> )	694
Total Workers	511,526
Average Worker Density (per mi <sup>2</sup> )	669

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



#### **Palm Beach MPO**





## **Pasco County MPO** Job Accessibility Results – Transit, 2015

Total Jobs	105,151
Average Job Density (per mi <sup>2</sup> )	355
Total Workers	173,096
Average Worker Density (per mi <sup>2</sup> )	585
Job and worker totals are based on LEUD actimates	nd may not match

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



### **Pasco County MPO**



Jobs within 30 minutes (Transit, AM peak) 0 - 1,000 1,000 - 2,500 2,500 - 5,000 5,000 - 7,500 7,500 - 10,000 10,000 - 25,000 25,000 - 50,000 50,000 - 75,000 75,000 - 100,000 100,000 - 250,000 250,000 - 500,000 500,000 - 750,000 750,000 - 1,000,000 1,000,000 - 2,500,000 2,500,000 - 5,000,000 5,000,000 - 7,500,000 7,500,000 - 10,000,000 10,000,000 + State border

MPO boundary \_\_\_\_\_

# **Pinellas County MPO** Job Accessibility Results – Transit, 2015

Total Jobs	402,937
Average Job Density (per mi <sup>2</sup> )	3590
Total Workers	380,867
Average Worker Density (per mi <sup>2</sup> )	3393
lab and wanted at a based on IFUD attended	

on LEHD estimates and may not match other sources.



### **Pinellas County MPO**





MPO boundary \_\_\_\_\_

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# **Polk County Transportation Planning Organization** Job Accessibility Results – Transit, 2015

Total Jobs	208,669
Average Job Density (per mi <sup>2</sup> )	268
Total Workers	238,890
Average Worker Density (per mi <sup>2</sup> )	307
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





## **Polk County Transportation Planning Organization**



MPO boundary \_\_\_\_\_

## **River to Sea Transporation Planning Organization MPA**

Job Accessibility Results – Transit, 2015

Total Jobs	169,693
Average Job Density (per mi <sup>2</sup> )	324
Total Workers	221,495
Average Worker Density (per mi <sup>2</sup> )	422
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





## **River to Sea Transporation Planning Organization MPA**

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## Sarasota-Manatee MPO

Job Accessibility Results – Transit, 2015

Total Jobs	246,617
Average Job Density (per mi <sup>2</sup> )	478
Total Workers	260,604
Average Worker Density (per mi <sup>2</sup> )	505
lob and worker totals are based on LEHD estimates a	nd may not match

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



#### Sarasota-Manatee MPO



Jobs within 30 minutes (Transit, AM peak) 0 - 1,000 1,000 - 2,500 2,500 - 5,000 5,000 - 7,500 7,500 - 10,000 10,000 - 25,000 25,000 - 50,000 50,000 - 75,000 75,000 - 100,000 100,000 - 250,000 250,000 - 500,000 500,000 - 750,000 750,000 - 1,000,000 1,000,000 - 2,500,000 2,500,000 - 5,000,000 5,000,000 - 7,500,000 7,500,000 - 10,000,000 10,000,000 + State border

MPO boundary \_\_\_\_\_

## **Space Coast Transportation Planning Organization**

Job Accessibility Results – Transit, 2015

Total Jobs	182,038
Average Job Density (per mi <sup>2</sup> )	442
Total Workers	205,194
Average Worker Density (per mi <sup>2</sup> )	498
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





## **Space Coast Transportation Planning Organization**

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# **St. Lucie Transportation Planning Organization** Job Accessibility Results – Transit, 2015

Total Jobs	67,675
Average Job Density (per mi <sup>2</sup> )	302
Total Workers	98,904
Average Worker Density (per mi <sup>2</sup> )	441
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





## **St. Lucie Transportation Planning Organization**

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### 2.3 Accessibility by County

	Travel time (minutes)					
County	10	20	30	40	50	60
Alachua	218	1,013	2,712	5,500	8,706	12,115
Baker	53	236	475	755	1,007	1,293
Bay	156	721	1,789	3,227	5,041	7,155
Bradford	59	201	457	639	815	1,017
Brevard	139	594	1,632	3,457	6,239	10,202
Broward	391	2,479	8,923	23,575	50,583	93,786
Calhoun	38	90	171	282	435	566
Charlotte	106	433	1,043	1,809	2,696	3,748
Citrus	39	175	400	665	1,004	1,381
Clay	128	509	1,151	2,012	2,986	4,034
Collier	137	616	1,485	2,683	4,292	6,146
Columbia	117	375	916	1,500	2,034	2,602
DeSoto	67	267	605	1,032	1,374	1,663
Dixie	19	80	152	213	268	365
Duval	345	1,245	2,855	5,306	8,567	12,691
Escambia	201	1,055	2,679	4,995	8,078	11,873
Flagler	28	84	249	511	896	1,344
Franklin	69	189	314	390	444	521
Gadsden	88	265	492	725	943	1,137
Gilchrist	29	64	130	180	255	297
Glades	18	58	82	148	204	245
Gulf	51	183	386	556	658	730
Hamilton	22	75	113	141	200	571
Hardee	86	332	597	982	1,299	1,490
Hendry	161	598	1,079	1,360	1,698	2,075
Hernando	99	284	583	988	1,457	2,022
Highlands	82	337	672	1,110	1,567	2,016
Hillsborough	331	2,183	7,504	18,020	34,897	57,851
Holmes	23	99	177	242	304	359
Indian River	170	871	1,844	3,208	4,881	6,711
Jackson	77	260	456	694	924	1,199
Jefferson	25	66	113	163	200	228
Lafayette	41	100	128	186	260	311
Lake	128	452	1,006	1,766	2,606	3,597
Lee	116	644	1,435	2,622	4,076	5,922
Leon	190	1,147	3,223	6,344	10,474	15,708
Levy	28	95	171	231	298	383

Table 2: Average Job Accessibility by Travel Time Threshold for Counties (Transit, AM Peak)

#### Table 2: (continued)

Liberty	81	119	157	234	284	365
Madison	54	202	375	521	600	711
Manatee	196	1,186	3,603	7,851	14,284	22,783
Marion	82	332	879	1,706	2,758	4,033
Martin	128	471	1,120	2,045	3,145	4,464
Miami-Dade	1,155	7,333	23,704	57,956	112,071	188,003
Monroe	380	1,341	2,206	3,094	4,049	4,659
Nassau	78	271	639	1,000	1,364	1,711
Okaloosa	194	824	1,920	3,399	4,955	6,663
Okeechobee	75	295	635	1,024	1,382	1,749
Orange	348	2,073	6,908	17,073	34,849	62,018
Osceola	128	564	1,620	3,492	6,510	10,754
Palm Beach	279	1,666	5,213	12,270	23,922	41,633
Pasco	107	337	766	1,405	2,236	3,204
Pinellas	434	2,686	9,029	21,875	42,722	72,051
Polk	193	786	1,745	2,981	4,722	6,614
Putnam	105	325	637	1,067	1,512	1,972
Santa Rosa	81	248	551	955	1,490	2,025
Sarasota	199	1,209	3,719	8,395	15,580	25,082
Seminole	195	1,014	3,041	6,984	13,731	24,601
St. Johns	141	379	772	1,352	2,081	2,959
St. Lucie	108	509	1,224	2,360	3,602	5,066
Sumter	66	202	455	952	1,675	2,463
Suwannee	62	240	444	658	849	1,077
Taylor	53	221	473	760	1,041	1,339
Union	40	118	174	227	270	323
Volusia	139	644	1,535	2,863	4,479	6,301
Wakulla	28	83	201	347	469	604
Walton	88	192	381	633	958	1,299
Washington	45	292	506	680	833	947

#### **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:* 2015 *Methodology* report.

#### 3.1 Travel Times by Transit

Travel times by transit were calculated using General Transit Feed Specification (GTFS) data and Open-StreetMap road network data. GTFS data are included wherever feeds are made available by transit agencies, and the targeted service date for analysis was January 21st, 2015, to reflect non-holiday, normal weekday service schedules. A list of transit agencies statewide for which GTFS data were available and included in the computations is given below.

#### **Transit Schedules Included**

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Dates
January 18, 2015 - June 06, 2015
December 01, 2014 - April 18, 2015
December 07, 2014 - July 18, 2015
January 01, 2013 - December 31, 2017
August 17, 2014 - September 18, 2015
November 15, 2014 - November 13, 2016
October 05, 2014 - June 06, 2015
December 18, 2010 - October 19, 2012
April 20, 2012 - December 31, 2015
July 12, 2014 - January 01, 2017

Transit travel time calculations include both on- and off-vehicle components. This includes access from an origin to the initial stop, accessing transfers, and access to the destination from a final stop. This analysis makes the assumption that all off-vehicle portions of the trip—initial, transfer(s), and destination—take place by walking at a speed of 3.1 mph (5 km/h) along designated pedestrian facilities such as sidewalks, trails, etc. On-vehicle travel time is derived directly from published transit timetables, and an unlimited number of transfers are allowed.

#### 3.2 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 or 37.3 miles (60km) are included, even if those destinations are located in a different state or other jurisdiction. Only locations within the United States are included. The metropolitan planning organization (MPO) jurisdictions used for aggregate analysis are based on data provided in the US Department of Transportation's National Transportation Atlas Database 2015<sup>1</sup>.

#### 3.3 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)<sup>2</sup>. The LEHD Origin-Destination Employment Statistics (LODES) dataset, which is updated annually, provides Census block-level estimates of employee home and work locations. This analysis uses LODES data from 2014, the most recent available as of this writing.

#### 3.4 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. 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.

This process provides accessibility values for individual Census blocks. To summarize this blocklevel 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.

<sup>&</sup>lt;sup>1</sup>http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national\_transportation\_ atlas\_database/index.html

<sup>&</sup>lt;sup>2</sup>http://lehd.ces.census.gov/data/

In the case of accessibility by transit, local accessibility levels depend not just on the availability and routes of transit service but also on their frequency. A traveler using transit service that runs more frequently will have to spend less time waiting. In order to reflect transit frequency, transit accessibility values are calculated at each minute and then averaged to reflect typical accessibility levels during a time period of interest. The summary data in this analysis used the 7 - 9 AM time period. Because the road and highway system is available for departures at any time, accessibility by driving is calculated for individual departure times, such as 8 AM.