2016 Transit Accessibility Report: Florida

Prepared for the state of Florida by the

Accessibility Observatory at the University of Minnesota

May 16, 2017



University of Minnesota Driven to Discoversm

Authors

Andrew Owen

Director, Accessibility Observatory University of Minnesota

Brendan Murphy

Lead Researcher, Accessibility Observatory University of Minnesota

Contents

1	Introduction	1
2	Accessibility Evaluation Results 2.1 Statewide Accessibility	2 2
	2.2 Accessibility in Metropolitan Areas	4 60
3	Data Sources and Methodology3.1 Travel Times by Transit3.2 Geography3.3 Population and Job Distribution3.4 Accessibility Calculation	62 63 63 63

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: Transit 2016 Methodology*, describes the methodology and data sources in greater detail.

2 Accessibility Evaluation Results

2.1 Statewide Accessibility

Florida

Job Accessibility Results – Transit, 2016

Total Jobs	7,758,933
Average Job Density (per mi ²)	145
Total Workers	7,758,710
Average Worker Density (per mi ²)	145
Job and worker totals are based on LEHD estimates a	nd 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-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 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
- Sarasota-Manatee MPO
- Space Coast Transportation Planning Organization
- St. Lucie Transportation Planning Organization

Table 1 provides the average (worker-weighted – see Section 3.4) 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)

МРО	10 min	20 min	30 min	40 min	50 min	60 min
Bay County Transportation Planning Organization	153	783	2,110	4,155	7,007	10,648
Broward MPO	375	2,595	9,734	25,826	54,852	101,008
Capital Region Transportation Planning Agency	194	1,250	4,225	10,062	18,406	28,375
Charlotte-Punta Gorda MPO	85	425	1,091	1,998	3,067	4,285
Collier MPO	186	714	1,926	3,933	6,994	11,341
Florida-Alabama Transportation Planning Organization	174	916	2,606	5,558	10,025	16,048
Gainesville MTPO	476	3,591	12,438	24,457	39,505	54,888
Heartland Regional TPO	96	384	730	1,111	1,480	1,835
Hernando/Citrus County MPO	58	252	623	1,192	2,004	3,074
Hillsborough MPO	335	2,233	7,785	18,731	36,151	60,442
Indian River County MPO	122	618	1,382	2,435	3,768	5,373
Lake-Sumter MPO	113	382	833	1,474	2,226	3,130
Lee County MPO	131	753	2,147	4,474	7,906	12,804
METROPLAN Orlando	300	1,732	5,684	14,021	29,041	52,714
Martin MPO	162	552	1,355	2,565	3,936	5,594
Miami-Dade MPO	1,167	7,439	24,328	59,088	113,824	191,265
North Florida Transportation Planning Organization	277	1,289	4,128	10,233	20,567	35,312
Ocala - Marion County Tranportation Planning Organization	102	482	1,361	2,813	4,743	7,072
Okaloosa-Walton Transportation Planning Organization	202	863	2,162	4,047	6,271	8,777
Palm Beach MPO	278	1,581	5,051	12,122	23,946	41,976
Pasco County MPO	111	354	829	1,531	2,439	3,492
Pinellas County MPO	437	2,676	9,058	21,825	42,565	71,964
Polk County Transportation Planning Organization	160	746	1,948	3,791	6,474	9,808
River to Sea Transporation Planning Organization	125	663	1,864	3,962	7,074	11,158
Sarasota-Manatee MPO	203	1,187	3,612	8,103	14,919	24,001
Space Coast Transportation Planning Organization	133	563	1,573	3,376	6,272	10,518
St. Lucie Transportation Planning Organization	108	544	1,277	2,472	3,760	5,290

Bay County Transportation Planning Organization Job Accessibility Results – Transit, 2016

Total Jobs	76,628
Average Job Density (per mi ²)	192
Total Workers	70,003
Average Worker Density (per mi ²)	176
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





Bay County Transportation Planning Organization

 $\overline{}$

Broward MPO

Job Accessibility Results – Transit, 2016

Total Jobs	763,097
Average Job Density (per mi ²)	1614
Total Workers	788,764
Average Worker Density (per mi ²)	1668
The sector description is the sector of the	and see a set see a table

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, 2016

Total Jobs	173,445
Average Job Density (per mi ²)	181
Total Workers	149,055
Average Worker Density (per mi ²)	158
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





Capital Region Transportation Planning Agency



MPO boundary _____

Charlotte-Punta Gorda MPO

Job Accessibility Results – Transit, 2016

Total Jobs	43,345
Average Job Density (per mi ²)	155
Total Workers	50,362
Average Worker Density (per mi ²)	181
Job and worker totals are based on LEHD estimates a	nd may not match other sources.



Charlotte-Punta Gorda MPO





MPO boundary _____

13

Collier MPO

Job Accessibility Results – Transit, 2016

Total Jobs	125,470
Average Job Density (per mi ²)	158
Total Workers	125,803
Average Worker Density (per mi ²)	158

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



Collier MPO





MPO boundary _____

15

Florida-Alabama Transportation Planning Organization Job Accessibility Results – Transit, 2016

Total Jobs	182,228
Average Job Density (per mi ²)	394
Total Workers	168,636
Average Worker Density (per mi ²)	365
Job and worker totals are based on LEHD estimates ar	nd may not match other sources.





Florida-Alabama Transportation Planning Organization



Gainesville MTPO

Job Accessibility Results – Transit, 2016

Total Jobs	105,983
Average Job Density (per mi ²)	1458
Total Workers	73,540
Average Worker Density (per mi ²)	1013

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



Gainesville MTPO



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 _____

19

Heartland Regional TPO Job Accessibility Results – Transit, 2016

Total Jobs	66,118
Average Job Density (per mi ²)	34
Total Workers	81,486
Average Worker Density (per mi ²)	41
Job and worker totals are based on LEHD estimates an	nd may not match other sources.



Heartland Regional TPO





State border —— MPO boundary _____

Hernando/Citrus County MPO

Job Accessibility Results – Transit, 2016

Total Jobs	72,194
Average Job Density (per mi ²)	166
Total Workers	97,632
Average Worker Density (per mi ²)	225
Job and worker totals are based on LEHD estimates a	nd may not match other sources.



Hernando/Citrus County MPO





MPO boundary _____

Hillsborough MPO Job Accessibility Results – Transit, 2016

Total Jobs	633,555
Average Job Density (per mi ²)	1476
Total Workers	550,669
Average Worker Density (per mi ²)	1285
The second	and so a second second

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



Hillsborough MPO





State border —— MPO boundary ____

Indian River County MPO Job Accessibility Results – Transit, 2016

Total Jobs	45,420
Average Job Density (per mi ²)	671
Total Workers	50,734
Average Worker Density (per mi ²)	751
Job and worker totals are based on LEHD estimates a	nd may not match other sources.



Indian River County MPO



Lake-Sumter MPO

Job Accessibility Results – Transit, 2016

Total Jobs	110,894
Average Job Density (per mi ²)	166
Total Workers	146,538
Average Worker Density (per mi ²)	220

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, 2016

Total Jobs	213,026
Average Job Density (per mi ²)	668
Total Workers	227,679
Average Worker Density (per mi ²)	715
Job and worker totals are based on LEHD estimates a	nd may not match other sources.



Lee County MPO



METROPLAN Orlando

Job Accessibility Results – Transit, 2016

Total Jobs	1,040,872
Average Job Density (per mi ²)	943
Total Workers	893,266
Average Worker Density (per mi ²)	808
Job and worker totals are based on LEUD estimates	and may not match other

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



METROPLAN Orlando





MPO boundary _____

Martin MPO

Job Accessibility Results – Transit, 2016

Total Jobs	58,079
Average Job Density (per mi ²)	277
Total Workers	55,348
Average Worker Density (per mi ²)	264

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



Martin MPO



Miami-Dade MPO

Job Accessibility Results – Transit, 2016

Total Jobs	1,051,693
Average Job Density (per mi ²)	1349
Total Workers	1,004,042
Average Worker Density (per mi ²)	1287
The second	and the second second second

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



Miami-Dade MPO





MPO boundary _____

North Florida Transportation Planning Organization Job Accessibility Results – Transit, 2016

sources.

Total Jobs	640,995
Average Job Density (per mi ²)	619
Total Workers	597,258
Average Worker Density (per mi ²)	578
Job and worker totals are based on LEHD estimates a	and may not match other





North Florida Transportation Planning Organization

39

Ocala - Marion County Tranportation Planning Organization

Job Accessibility Results – Transit, 2016

Total Jobs	92,214
Average Job Density (per mi ²)	142
Total Workers	108,168
Average Worker Density (per mi ²)	168

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





Ocala - Marion County Tranportation Planning Organization



Jobs within 30 minutes



Okaloosa-Walton Transportation Planning Organization

Job Accessibility Results – Transit, 2016

Total Jobs	104,371
Average Job Density (per mi ²)	184
Total Workers	87,290
Average Worker Density (per mi ²)	155
Job and worker totals are based on LEHD estimates a	and may not match other sources.





Okaloosa-Walton Transportation Planning Organization



MPO boundary _____

Palm Beach MPO

Job Accessibility Results – Transit, 2016

Total Jobs	549,830
Average Job Density (per mi ²)	720
Total Workers	532,683
Average Worker Density (per mi ²)	697

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, 2016

Total Jobs	107,865
Average Job Density (per mi ²)	365
Total Workers	178,181
Average Worker Density (per mi ²)	601
Joh and worker totals are based on LEHD estimates a	and may not match o

estimates and may not match other sources. on I FHD



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, 2016

Total Jobs	413,768
Average Job Density (per mi ²)	3686
Total Workers	388,064
Average Worker Density (per mi ²)	3458
lab and warkentatele and based an IFUD actionates	

LEHD estimates and may not match other sources.



Pinellas County MPO





MPO boundary _____



Polk County Transportation Planning Organization Job Accessibility Results – Transit, 2016

Total Jobs	209,496
Average Job Density (per mi ²)	269
Total Workers	245,026
Average Worker Density (per mi ²)	316
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 Job Accessibility Results – Transit, 2016

Total Jobs	174,481
Average Job Density (per mi ²)	332
Total Workers	225,468
Average Worker Density (per mi ²)	430
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





River to Sea Transporation Planning Organization

Sarasota-Manatee MPO

Job Accessibility Results – Transit, 2016

Total Jobs	253,206
Average Job Density (per mi ²)	492
Total Workers	269,552
Average Worker Density (per mi ²)	523
Job and worker totals are based on LEHD estimates a	nd may not match other sources.



Sarasota-Manatee MPO





MPO boundary _____

Space Coast Transportation Planning Organization Job Accessibility Results – Transit, 2016

Total Jobs	185,395
Average Job Density (per mi ²)	451
Total Workers	211,504
Average Worker Density (per mi ²)	513
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





Space Coast Transportation Planning Organization

57

St. Lucie Transportation Planning Organization Job Accessibility Results – Transit, 2016

Total Jobs	68,403
Average Job Density (per mi ²)	306
Total Workers	102,514
Average Worker Density (per mi ²)	458
Job and worker totals are based on LEHD estimates a	nd may not match other sources.





St. Lucie Transportation Planning Organization

2.3 Accessibility by County

	Travel time (minutes)					
County	10	20	30	40	50	60
Alachua	380	2,830	9,758	19,168	30,952	42,991
Baker	62	285	553	844	1,113	1,409
Bay	153	783	2,110	4,155	7,007	10,648
Bradford	58	229	517	724	913	1,160
Brevard	133	564	1,575	3,379	6,272	10,513
Broward	375	2,594	9,733	25,824	54,850	101,009
Calhoun	46	111	195	308	448	570
Charlotte	86	426	1,096	2,005	3,078	4,299
Citrus	38	190	434	736	1,144	1,659
Clay	148	496	1,187	2,113	3,262	4,507
Collier	186	713	1,923	3,926	6,977	11,309
Columbia	105	403	953	1,550	2,101	2,662
DeSoto	81	339	732	1,174	1,522	1,809
Dixie	19	65	116	159	198	270
Duval	342	1,712	5,703	14,510	29,591	51,244
Escambia	209	1,214	3,543	7,678	13,995	22,587
Flagler	33	105	300	592	1,015	1,506
Franklin	78	216	352	454	532	593
Gadsden	102	283	508	743	973	1,174
Gilchrist	28	67	132	184	247	290
Glades	28	69	111	202	266	335
Gulf	59	187	360	510	619	698
Hamilton	16	63	115	136	175	334
Hardee	89	343	598	934	1,192	1,382
Hendry	167	618	1,075	1,381	1,748	2,111
Hernando	73	298	762	1,525	2,634	4,111
Highlands	85	356	697	1,129	1,574	2,016
Hillsborough	335	2,233	7,784	18,730	36,150	60,439
Holmes	39	133	232	314	386	450
Indian River	121	610	1,364	2,404	3,720	5,305
Jackson	86	259	468	727	974	1,270
Jefferson	32	90	156	212	253	285
Lafayette	36	93	126	201	273	332
Lake	122	416	901	1,563	2,322	3,247
Lee	132	769	2,182	4,556	8,027	12,948
Leon	235	1,586	5,442	13,051	23,958	37,003
Levy	31	97	179	249	323	414

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

Table 2: (continued)

Liberty	95	138	184	277	365	434
Madison	60	228	472	690	779	884
Manatee	179	1,008	3,066	6,806	12,596	20,415
Marion	102	482	1,360	2,811	4,741	7,068
Martin	162	552	1,355	2,566	3,935	5,592
Miami-Dade	1,169	7,464	24,457	59,294	114,138	191,681
Monroe	363	1,269	2,087	2,950	3,893	4,502
Nassau	95	306	719	1,113	1,493	1,863
Okaloosa	215	980	2,475	4,660	7,226	10,114
Okeechobee	82	358	703	1,092	1,446	1,832
Orange	375	2,260	7,534	18,809	39,070	70,550
Osceola	147	614	1,785	3,808	7,224	12,445
Palm Beach	278	1,581	5,051	12,122	23,946	41,976
Pasco	111	354	829	1,531	2,439	3,492
Pinellas	431	2,639	8,930	21,533	42,025	71,112
Polk	160	746	1,948	3,791	6,473	9,807
Putnam	129	351	667	1,108	1,557	2,025
Santa Rosa	84	258	577	1,014	1,552	2,141
Sarasota	226	1,354	4,122	9,311	17,085	27,343
Seminole	196	1,029	3,206	7,688	16,060	30,621
St. Johns	165	468	978	1,780	2,838	4,150
St. Lucie	108	543	1,277	2,471	3,759	5,288
Sumter	66	199	468	993	1,709	2,500
Suwannee	50	216	422	657	895	1,158
Taylor	58	254	513	832	1,123	1,445
Union	29	88	130	174	208	259
Volusia	140	752	2,114	4,500	8,042	12,702
Wakulla	26	77	197	358	496	637
Walton	92	189	407	673	1,025	1,436
Washington	33	275	492	669	832	945

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: 2016 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 20th, 2016, 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.

	Agency	Dates		
	Bay Town Trolley	January 1, 2015 - January 1, 2017		
	Broward County Transit	December 13, 2015 - June 18, 2016		
	Central Florida Regional Transit Authority	December 22, 2015 - April 16, 2016		
	Collier Area Transit - CAT	January 31, 2015 - December 31, 2015		
	Emerald Coast Rider	July 1, 2015 – July 1, 2016		
	Escambia County Area Transit	August 1, 2015 - August 1, 2017		
	Florida Department of Transportation	December 21, 2015 - December 31, 2016		
	Hillsborough Area Regional Transit	December 6, 2015 - July 16, 2016		
	Jacksonville Transportation Authority	November 19, 2015 - April 3, 2016		
	Lakeland	July 3, 2015 - December 31, 2015		
	LeeTran	August 6, 2015 - September 30, 2015		
	Manatee County Area Transit	January 1, 2013 - December 31, 2017		
	Miami Dade Transit	March 29, 2015 - December 31, 2015		
	Orange Line Bus (Citrus County Transit)	January 1, 2015 - July 1, 2016		
	PSTA	December 20, 2015 - March 20, 2016		
	Palm Tran	May 3, 2015 - December 31, 2016		
	Regional Transit System	January 4, 2016 - August 14, 2016		
	SFRTA/Tri-Rail	April 20, 2012 - December 31, 2015		
	Sarasota County Area Transit	April 16, 2016 - December 2, 2016		
	Space Coast Area Transit	July 12, 2014 - January 1, 2017		
	StarMetro	April 4, 2015 - May 1, 2015		
	SunTran (City of Ocala)	July 1, 2015 – July 1, 2017		
	Sunshine Bus Company	July 1, 2015 – July 1, 2017		
	The Hernando Express	January 1, 2015 - January 1, 2017		
	Votran	March 19, 2015 - June 6, 2015		

Transit Schedules Included

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 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 2016¹.

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)². 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.

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.

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

²http://lehd.ces.census.gov/data/