



Technical Report—Public Transportation Strategic Plan

North Carolina Department of Transportation

Public Transportation Division

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I. Commuter Transit Market Analysis

The transit market analysis was conducted to identify areas where there may be an opportunity to increase transit service for commuter travel. Overall findings from this analysis indicate in many areas of the state commuter travel patterns are regional, longer distance commuting markets exist in many regions, and there are emerging markets where new local bus service may be warranted.

By identifying commuting patterns through this analysis, transit demand can be approximated and new or expanded services can be considered, particularly for supporting economic and workforce development, access to jobs, and congestion management.

Methodology

The analysis was conducted using ArcGIS and the US Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data to approximate current volumes and directionality of commuting travel.

The LEHD program is part of the Center for Economic Studies at the US Census Bureau. The LEHD program combines federal, state, and Census Bureau data on employers and employees under the Local Employment Dynamics (LED) Partnership. Under the LED partnership, states share Unemployment Insurance earnings data and the Quarterly Census of Employment and Wages (QCEW) data with the Census Bureau. The LEHD program combines these administrative data, additional administrative data, and data from censuses and surveys to create partially synthetic data on workers residential patterns.

When using LEHD data it is important to note that they do not include self-employed, sole proprietors, federal military, and railroad workers. Employers with multiple work sites, such as a school district, may not provide data on their multiple work locations. Consequently, the LEHD data should not be considered a perfect tool for predicting work trips. The data must be used carefully and supplemented with local knowledge. This LEHD analysis used 2014 data, which was the most recent data available, and includes all jobs (part time and full time).

Commuter Market Analysis Results by Analysis District

This analysis was conducted for 15 different geographic regions of the state, shown in Figure 1-1. Each of the 15 areas is referenced as an “analysis district” and each analysis district was divided into sub-districts to conduct this analysis and



better understand regional and sub-regional travel patterns. For each region, the data have been analyzed to consider: 1) travel between sub-districts and; 2) internal trips within each sub-district. In some cases, a more detailed evaluation of commuter travel was conducted to explore smaller area commuter opportunities.

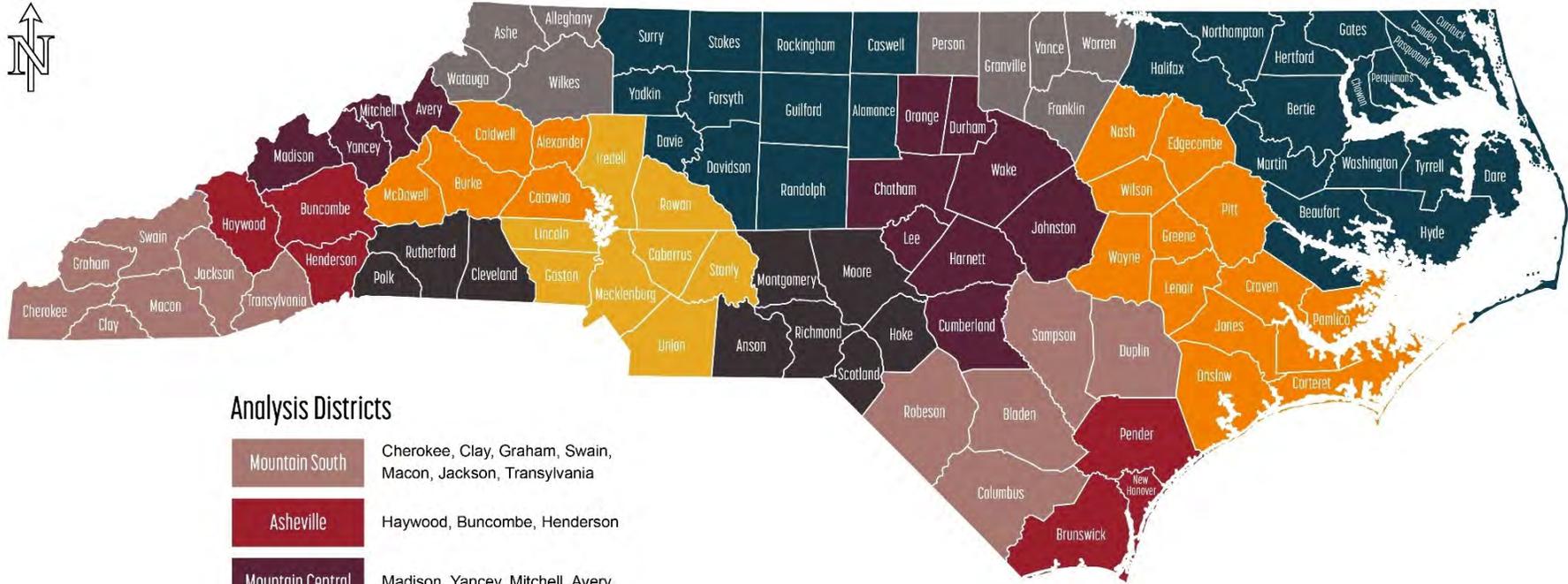
This section of the report presents the commuter market analysis results for each of the 15 geographic regions. For each district a matrix showing total number of jobs for each home-work pair. The cell outlined in yellow in the sample commute travel matrix below shows that there are 1,194 jobs located in the Buncombe East sub-district that are filled by workers that reside in the Buncombe Central sub-district. (Cells highlighted in red represent home-work pairs with significant amounts of jobs.)

Table 1 - 1: Example of commute travel matrix (jobs by home location – work location pairs)

Asheville District		Work Sub-District										
		Haywood North	Haywood Central	Haywood South	Buncombe North	Buncombe East	Buncombe South	Buncombe West	Buncombe Central	Henderson Central	Henderson East	Henderson West
Home Sub-District	Haywood North	230	944	259	30	13	87	102	286	48	23	12
	Haywood Central	173	3569	1323	106	121	501	515	1418	262	110	81
	Haywood South	123	2150	1371	75	77	386	358	1019	173	102	56
	Buncombe North	17	192	48	1691	342	1178	875	5387	281	198	126
	Buncombe East	3	117	18	200	1951	999	425	3515	268	242	68
	Buncombe South	9	191	63	312	550	4175	896	6715	883	774	333
	Buncombe West	29	511	184	585	459	2236	2620	7264	559	442	243
	Buncombe Central	13	342	91	917	1194	3446	1583	18744	816	565	297
	Henderson Central	5	248	61	244	229	1736	445	2088	8600	1547	1008
	Henderson East	6	91	39	165	135	1249	314	1919	1758	1165	371
Henderson West	2	92	26	72	84	899	242	1092	1405	591	647	



Figure 1 - 1: Analysis Districts (established for regional analyses)



Analysis Districts

Mountain South	Cherokee, Clay, Graham, Swain, Macon, Jackson, Transylvania
Asheville	Haywood, Buncombe, Henderson
Mountain Central	Madison, Yancey, Mitchell, Avery
Mountain North	Ashe, Alleghany, Wilkes, Watauga
Foothills	Polk, Rutherford, Cleveland
Hickory	Caldwell, Alexander, Catawba, Burke, McDowell
Piedmont	Surry, Yadkin, Davie, Stokes, Rockingham, Forsyth, Guilford, Alamance, Davidson, Randolph, Caswell
Charlotte	Lincoln, Gaston, Iredell, Rowan, Cabarrus, Union, Mecklenburg, Stanly
Sandhills	Anson, Montgomery, Richmond, Moore, Hoke, Scotland
Eastern - South	Robeson, Columbus, Bladen, Sampson, Duplin
Wilmington	Brunswick, New Hanover, Pender
Triangle	Durham, Orange, Wake, Chatham, Lee, Harnett, Cumberland, Johnston
Kerr	Person, Granville, Vance, Warren, Franklin
Eastern Urban (US 70 / 264)	Wayne, Pitt, Greene, Lenoir, Jones, Onslow, Carteret, Wilson, Nash, Edgecombe, Pamlico, Craven
Eastern - Northern	Halifax, Northampton, Hertford, Gates, Martin, Bertie, Chowan, Washington, Beaufort, Hyde, Tyrrell, Perquimans, Currituck, Camden, Pasquotank, Dare



Asheville

Table 1 - 2: Asheville commute travel matrix (jobs by home location – work location pairs)

Asheville District		Work Sub-District										
		Haywood North	Haywood Central	Haywood South	Buncombe North	Buncombe East	Buncombe South	Buncombe West	Buncombe Central	Henderson Central	Henderson East	Henderson West
Home Sub-District	Haywood North	230	944	259	30	13	87	102	286	48	23	12
	Haywood Central	173	3569	1323	106	121	501	515	1418	262	110	81
	Haywood South	123	2150	1371	75	77	386	358	1019	173	102	56
	Buncombe North	17	192	48	1691	342	1178	875	5387	281	198	126
	Buncombe East	3	117	18	200	1951	999	425	3515	268	242	68
	Buncombe South	9	191	63	312	550	4175	896	6715	883	774	333
	Buncombe West	29	511	184	585	459	2236	2620	7264	559	442	243
	Buncombe Central	13	342	91	917	1194	3446	1583	18744	816	565	297
	Henderson Central	5	248	61	244	229	1736	445	2088	8600	1547	1008
	Henderson East	6	91	39	165	135	1249	314	1919	1758	1165	371
	Henderson West	2	92	26	72	84	899	242	1092	1405	591	647



Figure 1 - 2: Significant commuting within sub-districts

Sub-District Commuter Flow Analysis

Asheville District (Source: LEHD 2014, All Jobs)

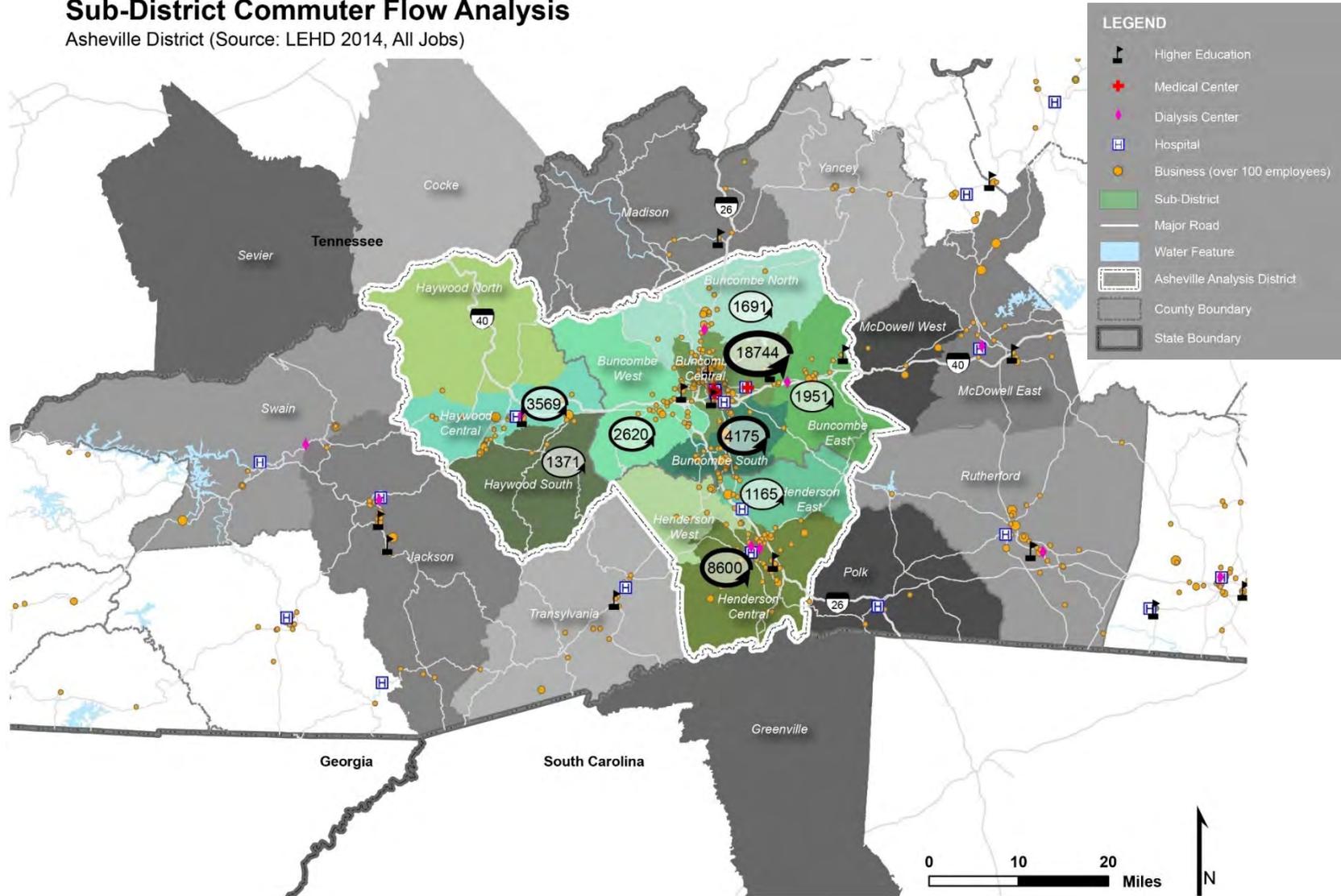
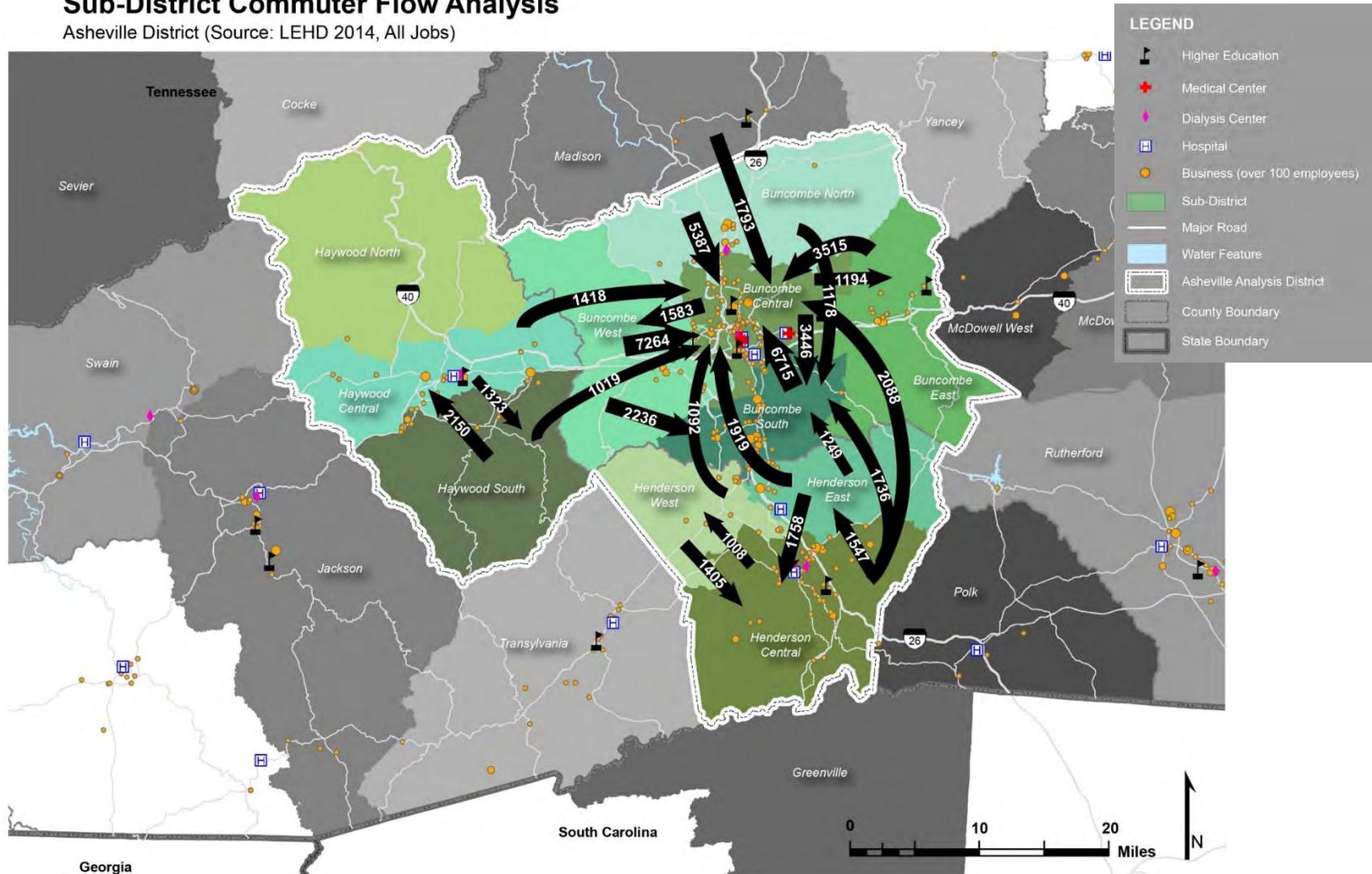




Figure 1 - 3: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Asheville District (Source: LEHD 2014, All Jobs)





Charlotte

Table 1 - 3: Charlotte commute travel matrix (jobs by home location – work location pairs)

Charlotte District	Work Sub-District												
	Lincoln West	Lincoln Central	Lincoln East	Gaston North	Gaston East	Gastonia	Mecklenberg Northwest	Mecklenberg North	Mecklenberg Northeast	Mecklenberg East	Mecklenberg South	Mecklenberg Southwest	Charlotte
Lincoln West	258	1110	94	249	73	315	76	121	117	38	60	77	489
Lincoln Central	211	3988	797	648	421	1312	438	729	709	180	259	490	2395
Lincoln East	25	455	1036	79	132	247	420	853	530	118	189	300	2143
Gaston North	46	890	335	2947	1755	5665	890	595	985	293	397	1008	4095
Gaston East	20	258	141	753	3264	4359	1431	607	1220	373	587	1454	6319
Gastonia	13	516	180	1869	3014	12249	1323	537	1459	469	675	1804	6416
Mecklenberg Northwest	4	119	150	228	680	853	3446	1379	3659	833	1043	2694	14616
Mecklenberg North	14	236	282	126	256	504	1212	7962	4328	637	1162	1221	11502
Mecklenberg Northeast	2	159	126	172	366	867	2653	2693	11467	1754	1806	2890	25131
Mecklenberg East	1	61	45	68	166	356	880	735	2989	4109	1775	1671	15049
Mecklenberg South	3	59	39	56	137	330	1044	569	2388	1684	5966	3205	17161
Mecklenberg Southwest	3	50	45	72	209	502	1460	566	1740	791	1739	5619	12271
Charlotte	5	275	185	274	864	1626	5872	3416	12897	5757	7688	10096	85216
Union West	2	68	36	43	98	277	726	429	2092	2456	3735	2560	12972
Union North	1	19	14	16	43	131	310	194	1143	1697	944	826	5759
Union East	0	14	12	8	24	79	85	100	239	376	180	236	1370
Monroe	0	25	9	15	45	125	117	96	421	643	418	440	2250
Stanly North	0	10	12	18	25	37	90	83	322	137	102	140	888
Stanly South	1	13	11	23	27	44	101	131	436	295	122	202	1719
Cabbarus East	1	17	22	19	49	85	219	273	895	223	218	286	2263
Cabbarus South	0	18	26	18	49	95	366	351	1911	518	228	416	4300
Concord	4	36	69	39	117	200	640	1205	3371	565	470	718	7095
Kannapolis	2	29	66	30	107	140	422	1052	1822	319	372	551	4254
China Grove	2	23	29	21	93	129	159	534	790	91	86	178	1101
Salisbury	1	51	62	33	129	222	181	341	594	127	136	222	1498
Rowan West	0	5	9	5	24	49	30	98	102	27	21	46	289
Rowan East	2	30	26	17	88	127	114	177	387	89	80	104	873
Iredell North	1	27	16	9	33	55	72	95	97	37	39	66	436
Iredell Central	3	112	70	35	113	206	293	644	632	137	218	296	2051
Iredell South	5	175	290	81	131	274	543	3580	1997	183	280	379	2736



(Table 1-3 continued)

Charlotte District	Work Sub-District																
	Union West	Union North	Union East	Monroe	Stanly North	Stanly South	Cabbarus East	Cabbarus South	Concord	Kannapolis	China Grove	Salisbury	Rowan West	Rowan East	Iredell North	Iredell Central	Iredell South
Lincoln West	13	9	0	14	3	6	0	12	39	30	6	16	15	1	2	23	52
Lincoln Central	69	75	7	73	24	24	7	36	152	152	16	82	57	6	7	107	404
Lincoln East	35	65	11	14	10	9	3	19	123	73	12	30	18	2	4	59	419
Gaston North	85	120	12	76	26	23	13	55	213	193	22	97	67	11	17	153	341
Gaston East	107	90	16	83	33	23	3	54	200	188	32	102	70	5	14	130	233
Gastonia	150	149	28	133	44	33	16	67	314	288	40	146	119	18	18	178	392
Mecklenberg Northwest	167	236	27	177	60	27	27	119	504	479	40	215	31	12	3	132	469
Mecklenberg North	146	152	27	202	54	34	29	139	819	842	106	279	33	36	7	331	2498
Mecklenberg Northeast	333	376	78	369	95	81	109	444	1924	1495	93	397	26	64	22	267	835
Mecklenberg East	747	895	102	540	66	81	58	266	652	610	44	233	15	24	5	214	264
Mecklenberg South	720	441	69	509	34	21	14	81	263	277	21	140	7	14	7	99	207
Mecklenberg Southwest	251	164	25	157	32	15	15	56	254	317	23	104	9	9	10	102	203
Charlotte	1415	1272	202	1012	209	134	83	543	1810	1766	116	668	35	45	44	425	1015
Union West	4459	1938	393	3064	109	79	61	114	399	407	31	148	10	15	15	121	212
Union North	1248	2068	249	2006	61	121	52	140	306	223	11	73	2	8	1	43	89
Union East	682	613	1217	2472	33	85	31	45	129	132	8	47	2	3	6	28	46
Monroe	1061	805	536	3205	29	49	25	48	121	166	9	60	0	5	5	42	73
Stanly North	62	65	26	133	4013	1155	126	85	298	315	35	323	23	168	7	40	66
Stanly South	130	212	95	379	2342	2408	151	297	426	372	35	199	18	71	9	32	60
Cabbarus East	82	125	12	128	203	130	790	420	2032	1459	132	445	35	96	10	51	166
Cabbarus South	121	193	25	136	99	131	186	995	1536	808	61	207	13	25	8	69	173
Concord	133	191	32	221	201	105	410	685	4723	2953	212	755	48	96	22	150	633
Kannapolis	97	110	29	166	163	74	251	327	2712	4115	526	1042	81	136	7	137	746
China Grove	32	27	12	47	104	56	180	145	1086	1907	1469	2038	284	301	18	254	895
Salisbury	49	41	25	68	191	72	58	95	529	769	588	8058	714	847	34	419	530
Rowan West	11	8	3	16	29	11	8	11	75	91	121	1013	560	115	14	351	392
Rowan East	28	38	16	54	267	55	95	92	428	614	461	3910	235	1529	14	169	265
Iredell North	10	12	4	23	10	6	1	7	34	43	26	81	39	11	589	2107	275
Iredell Central	57	46	9	121	23	16	13	53	259	275	84	515	298	53	313	11391	2562
Iredell South	61	61	19	113	35	26	54	166	834	789	349	797	257	76	96	3736	10920



Table 1 - 4: Total workers (trips) coming into destination sub-districts (from surrounding sub-districts*)

Destination	Trips (incoming)
Gastonia	38,083
North Mecklenberg	32,616
Northeast Mecklenberg	67,185
East Mecklenberg	27,204
South Mecklenberg	35,506
Southwest Mecklenberg	52,192
Charlotte	281,823
Kannapolis / Concord	48,225
Salisbury	25,729
Iredell Central	26,246
Iredell South	28,834

*includes areas considered in the District Analysis; figure does not reflect all jobs within the sub-district



Figure 1 - 4: Significant commuting within counties

Sub-District Commuter Flow Analysis

Charlotte District (Source: LEHD 2014, All Jobs)

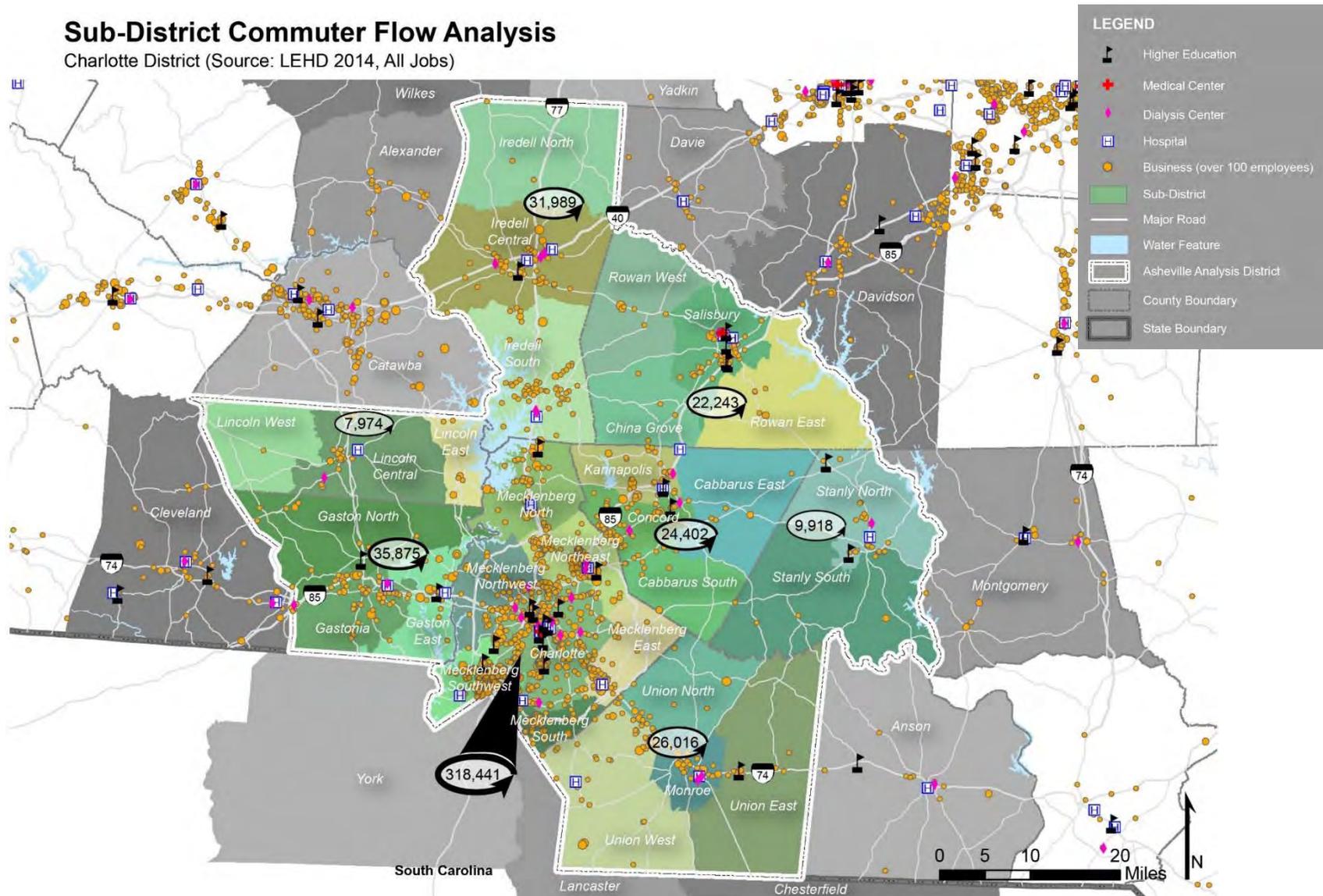




Figure 1 - 5: Significant commuting within sub-districts (areas for potential local service)

Sub-District Commuter Flow Analysis

Charlotte District (Source: LEHD 2014, All Jobs)

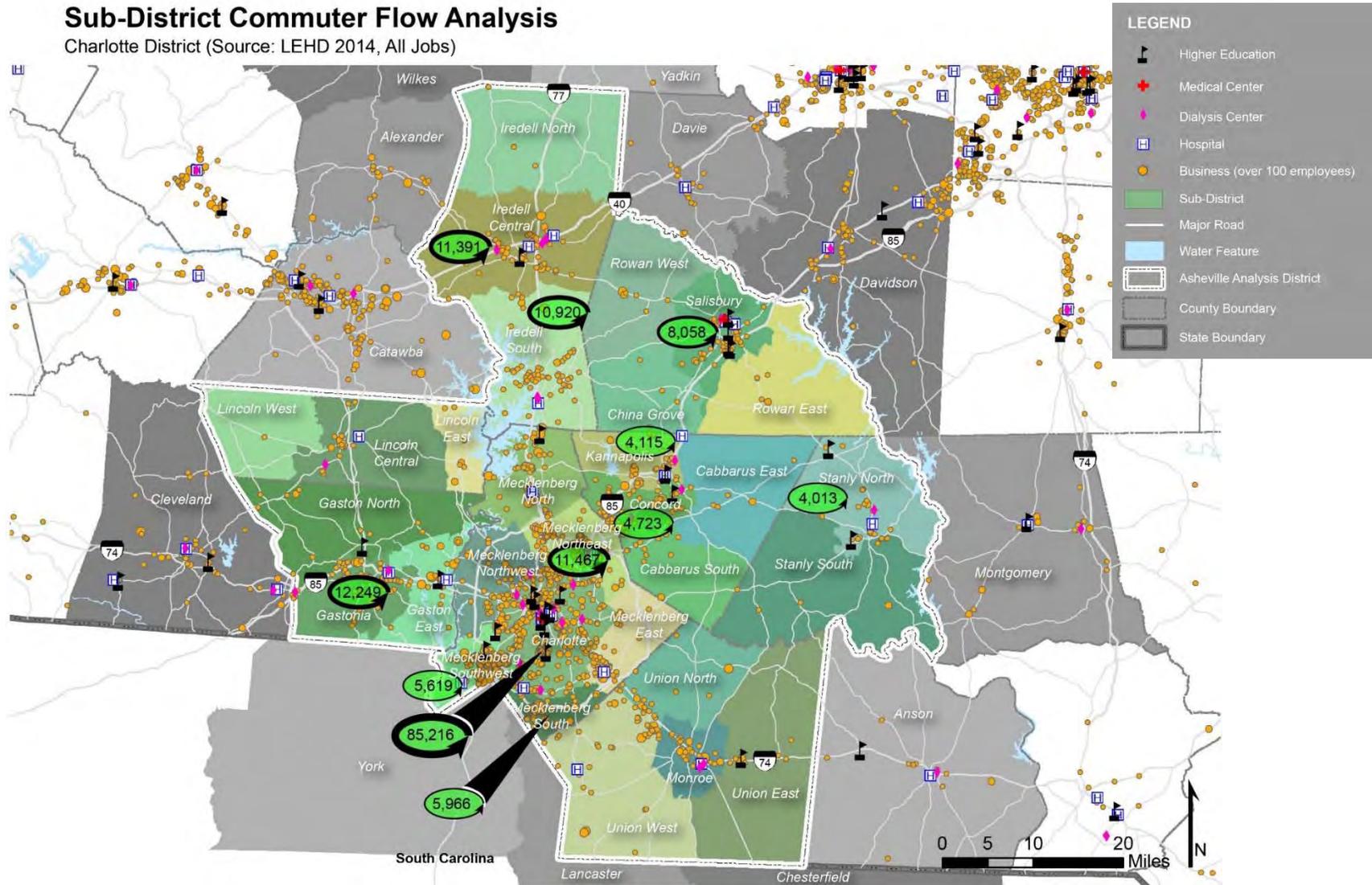
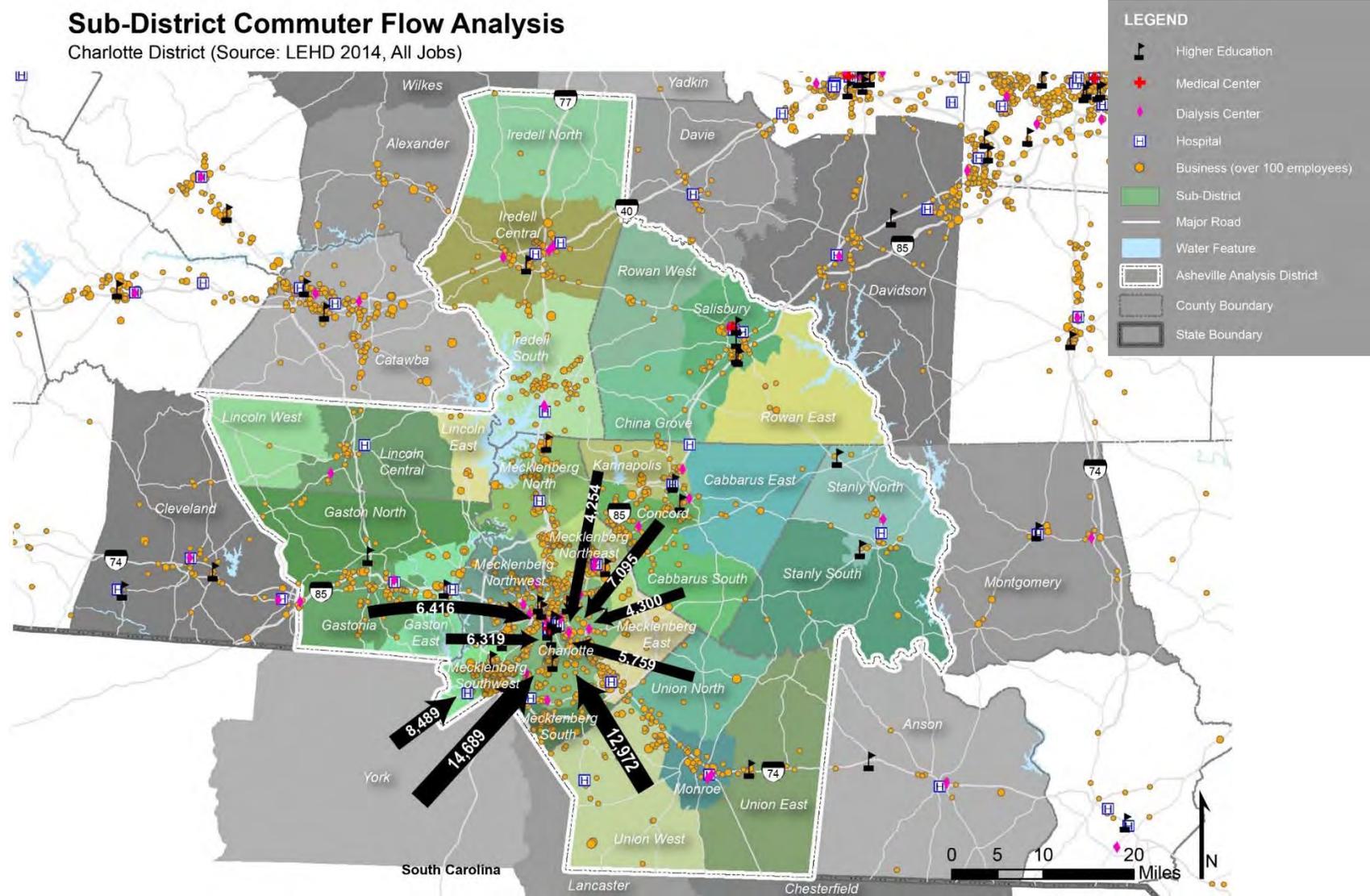




Figure 1 - 6: Significant commuting between sub-districts





Eastern Northern

Table 1 - 5: Eastern Northern commute travel matrix (jobs by home location – work location pairs)

Eastern Northern	Work Sub-District																			
	Halifax North	Halifax South	Northampton	Hertford	Bertie	Martin	Gates	Chowan	Perquimans	Pasquotank	Camden	Currituck--Beaches	Currituck West	Washington	Tyrrell	Dare--Beaches	Dare--Manteo	Hyde	Beaufort North	Beaufort South
Halifax North	5409	644	894	140	99	62	8	50	11	55	4	5	26	24	4	59	14	21	93	15
Halifax South	563	916	151	72	174	65	1	39	4	31	1	1	17	15	2	24	7	3	47	6
Northampton	1051	167	1442	573	243	101	12	42	7	39	3	2	22	15	1	39	9	12	50	9
Hertford	131	60	276	3334	565	87	90	56	3	39	4	4	25	14	1	24	8	11	62	6
Bertie	53	39	132	975	2067	358	14	233	14	70	3	2	13	75	4	44	10	30	156	10
Martin	64	76	91	190	374	3227	3	78	16	87	4	11	15	276	6	41	10	31	531	31
Gates	20	11	11	417	57	21	698	79	42	279	14	13	30	10	8	96	36	13	37	5
Chowan	19	17	49	230	173	67	91	2028	215	415	12	8	42	91	8	109	43	8	91	8
Perquimans	16	4	21	120	69	40	35	323	866	1183	50	18	114	30	18	219	44	6	61	2
Pasquotank	44	16	49	240	103	68	31	231	262	6741	279	65	512	53	18	530	83	12	108	9
Camden	11	1	9	58	17	22	16	37	49	877	474	13	318	10	3	168	32	3	23	1
Currituck--Beaches	0	2	0	4	6	3	1	5	3	12	0	136	30	3	1	72	11	0	9	1
Currituck West	24	12	19	118	36	40	10	63	27	612	62	144	2045	29	8	1160	147	15	52	8
Washington	18	8	15	98	86	223	2	210	31	84	2	11	24	1299	96	197	59	18	288	5
Tyrrell	4	3	14	60	49	24	18	69	19	51	2	14	34	106	419	244	133	40	24	4
Dare--Beaches	30	15	27	165	81	44	25	131	26	378	12	270	529	55	34	6155	919	51	103	8
Dare--Manteo	7	2	12	53	27	9	10	43	13	127	7	13	112	14	23	896	1169	36	33	3
Hyde	7	5	19	86	49	39	8	51	18	43	9	10	47	38	21	155	87	698	169	6
Beaufort North	79	30	66	134	95	300	16	115	27	126	3	6	13	194	11	58	10	121	5627	502
Beaufort South	26	22	36	46	38	88	3	25	3	32	3	5	8	31	1	18	5	10	946	542



Figure 1 - 8: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Eastern Northern District (Source: LEHD 2014, All Jobs)

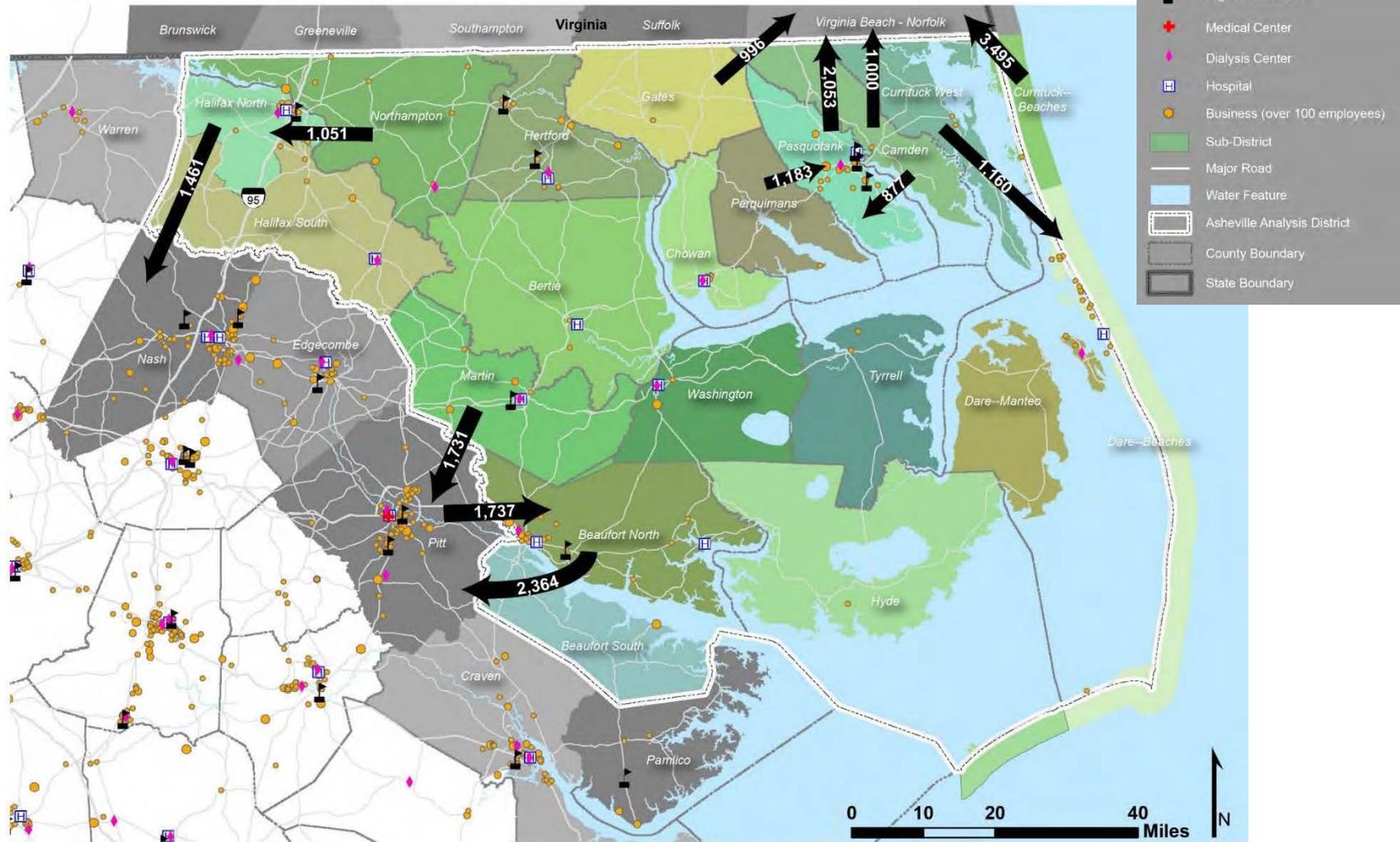
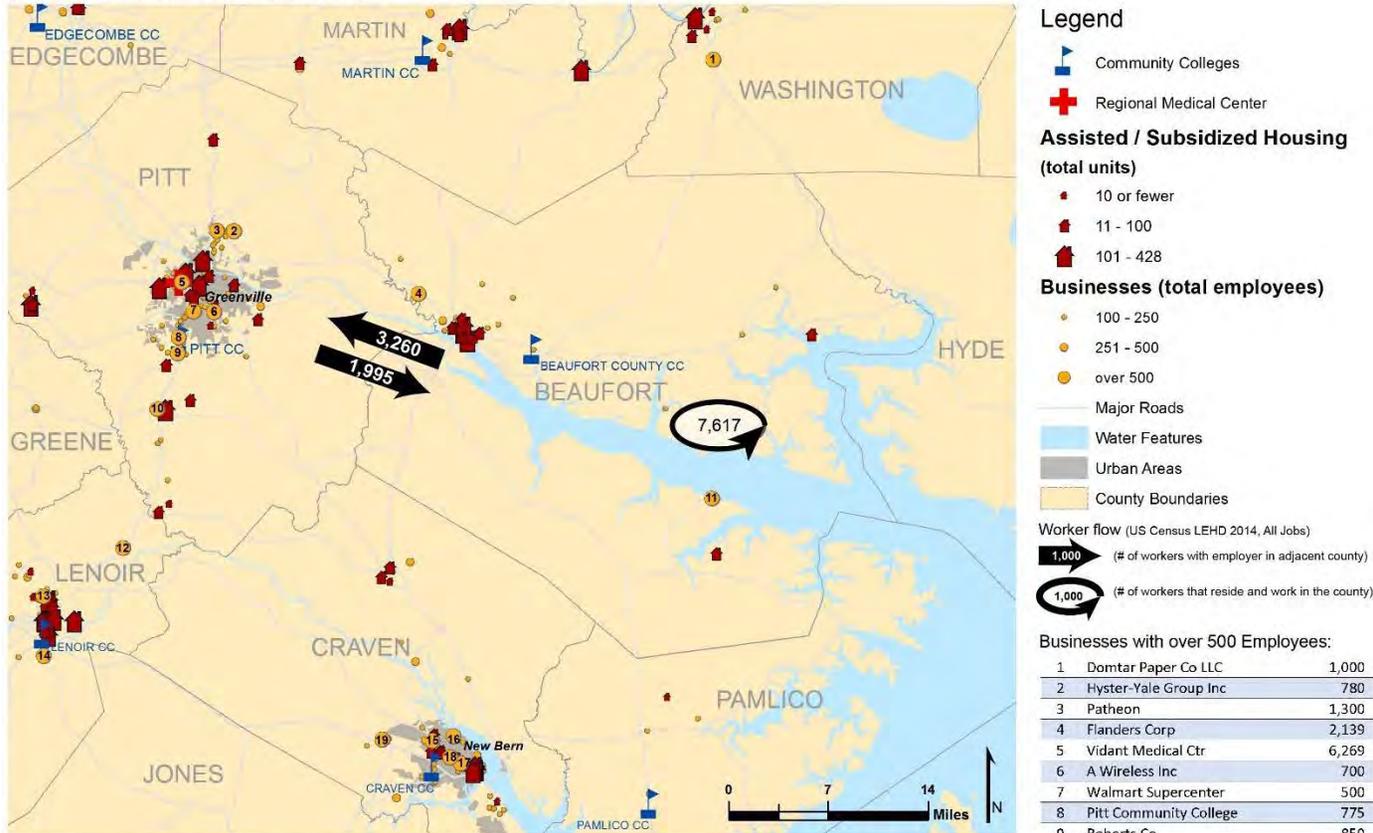




Figure 1 - 9: Significant job locations and commuting patterns for Beaufort County

Beaufort County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Legend

- Community Colleges
- Regional Medical Center

Assisted / Subsidized Housing (total units)

- 10 or fewer
- 11 - 100
- 101 - 428

Businesses (total employees)

- 100 - 250
- 251 - 500
- over 500

- Major Roads
- Water Features
- Urban Areas
- County Boundaries

Worker flow (US Census LEHD 2014, All Jobs)

- 1,000 (# of workers with employer in adjacent county)
- 1,000 (# of workers that reside and work in the county)

Businesses with over 500 Employees:

1	Domtar Paper Co LLC	1,000
2	Hyster-Yale Group Inc	780
3	Patheon	1,300
4	Flanders Corp	2,139
5	Vidant Medical Ctr	6,269
6	A Wireless Inc	700
7	Walmart Supercenter	500
8	Pitt Community College	775
9	Roberts Co	850
10	Facilico Inc	1,000
11	PCS Phosphate	1,040
12	Du Pont	1,750
13	Lenoir Memorial Hospital	802
14	Master Brand Cabinets Inc	550
15	BSH Home Appliances Corp	800
16	Cabo Yachts	500
17	Carolina East Health System	1,666
18	Excel Learning Ctr	500
19	Moen Inc	800

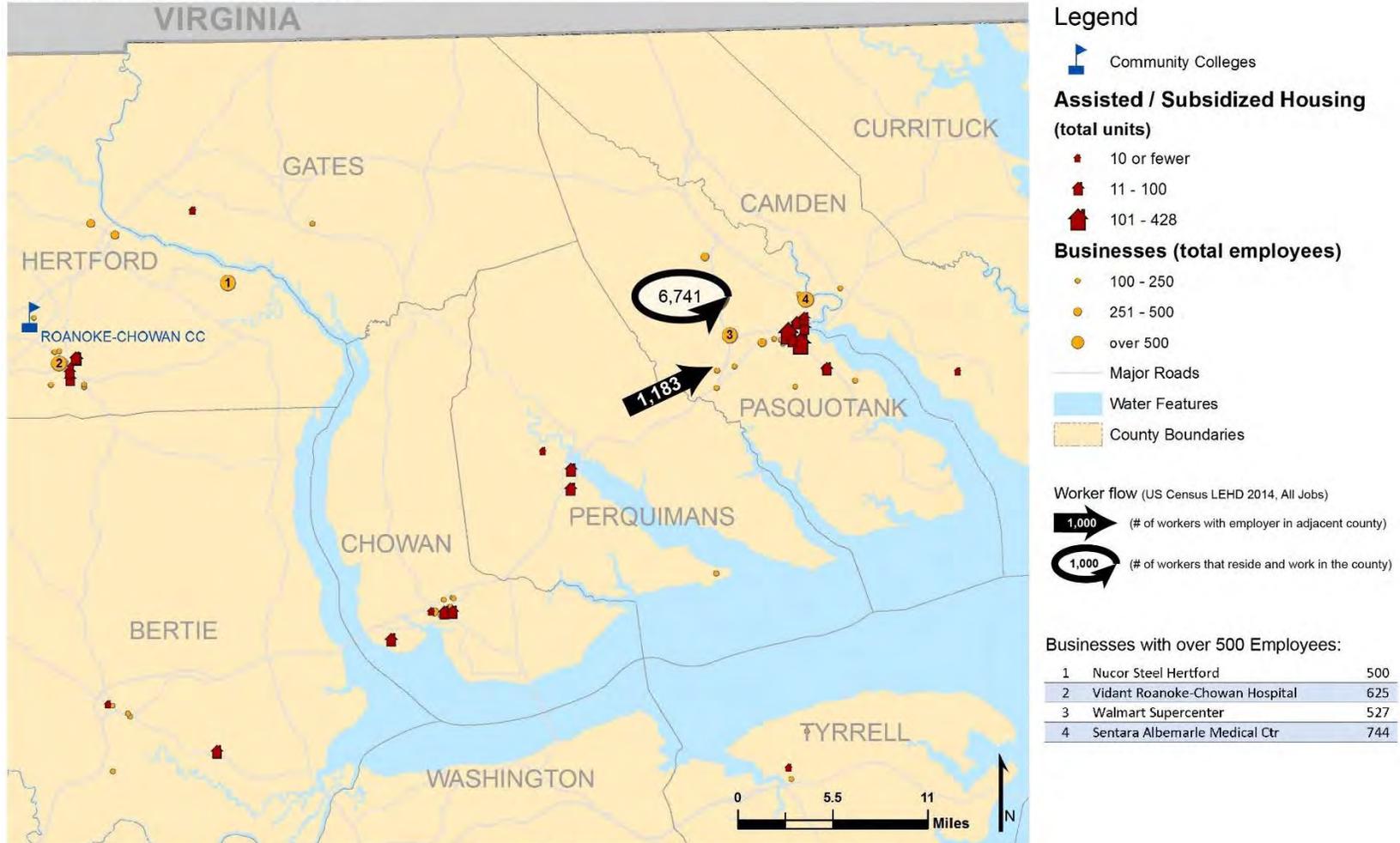
Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--InfoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017



Figure 1 - 10: Significant job locations and commuting patterns for Pasquotank County

Pasquotank County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



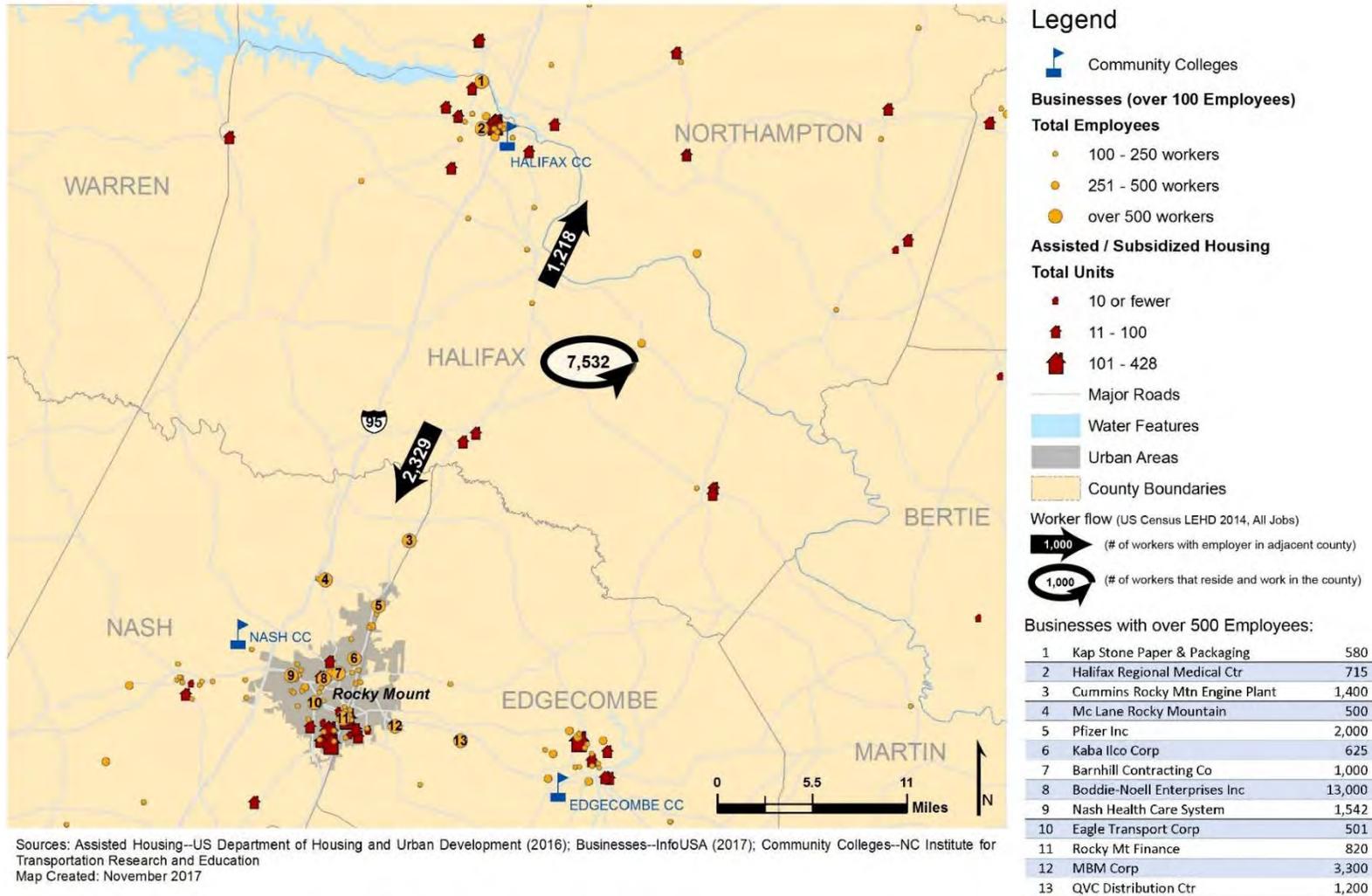
Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--InfoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017



Figure 1 - 11: Significant job locations and commuting patterns for Halifax County

Halifax County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Sources: Assisted Housing—US Department of Housing and Urban Development (2016); Businesses—InfoUSA (2017); Community Colleges—NC Institute for Transportation Research and Education
 Map Created: November 2017



Eastern South

Table 1 - 6: Eastern South commute travel matrix (jobs by home location – work location pairs)

Eastern South District		Work Sub-District										
		Robeson Central	Robeson South	Robeson North	Columbus East	Columbus West	Bladen South	Bladen North	Sampson West	Sampson East	Duplin North	Duplin South
Home Sub-District	Robeson Central	10636	562	1237	60	281	238	621	45	225	101	79
	Robeson South	3685	939	396	29	130	68	201	15	106	54	31
	Robeson North	2124	130	1207	24	85	75	453	18	172	53	30
	Columbus East	184	16	20	1064	1315	119	73	5	72	40	63
	Columbus West	574	75	77	485	5120	316	186	24	142	80	73
	Bladen South	589	43	95	232	446	1550	487	11	181	90	108
	Bladen North	361	25	94	57	136	715	742	47	324	71	83
	Sampson West	68	10	18	10	54	33	174	1528	1756	194	138
	Sampson East	66	8	19	22	65	73	340	607	4920	737	456
	Duplin North	54	7	33	18	72	43	149	98	634	3670	810
	Duplin South	42	7	30	32	33	30	138	32	355	1111	1989



Figure 1 - 12: Significant commuting within counties (white/black arrows) and within sub-areas (green/black arrows)

Sub-District Commuter Flow Analysis

Eastern South District (Source: LEHD 2014, All Jobs)

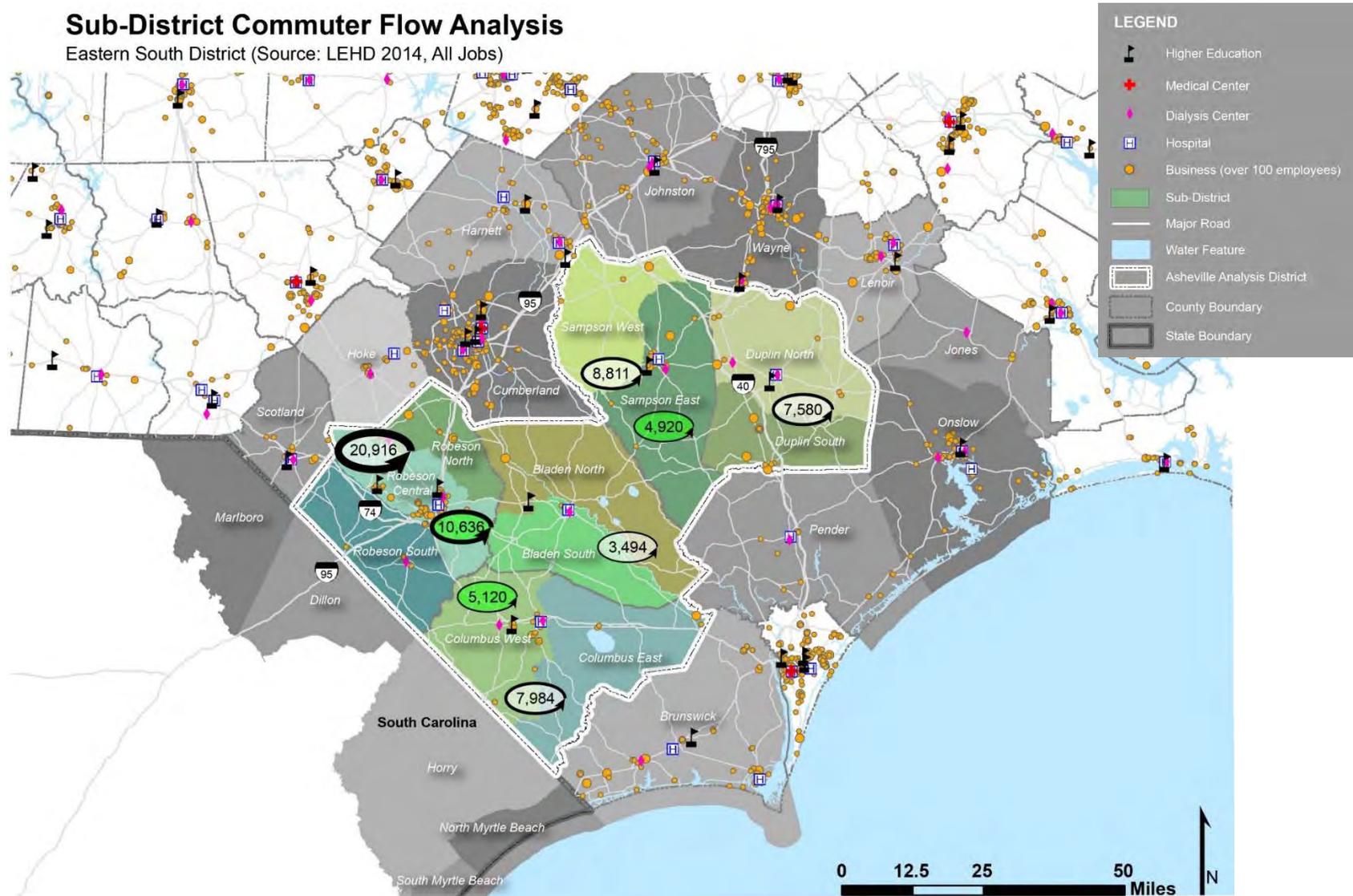




Figure 1 - 13: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Eastern South District (Source: LEHD 2014, All Jobs)

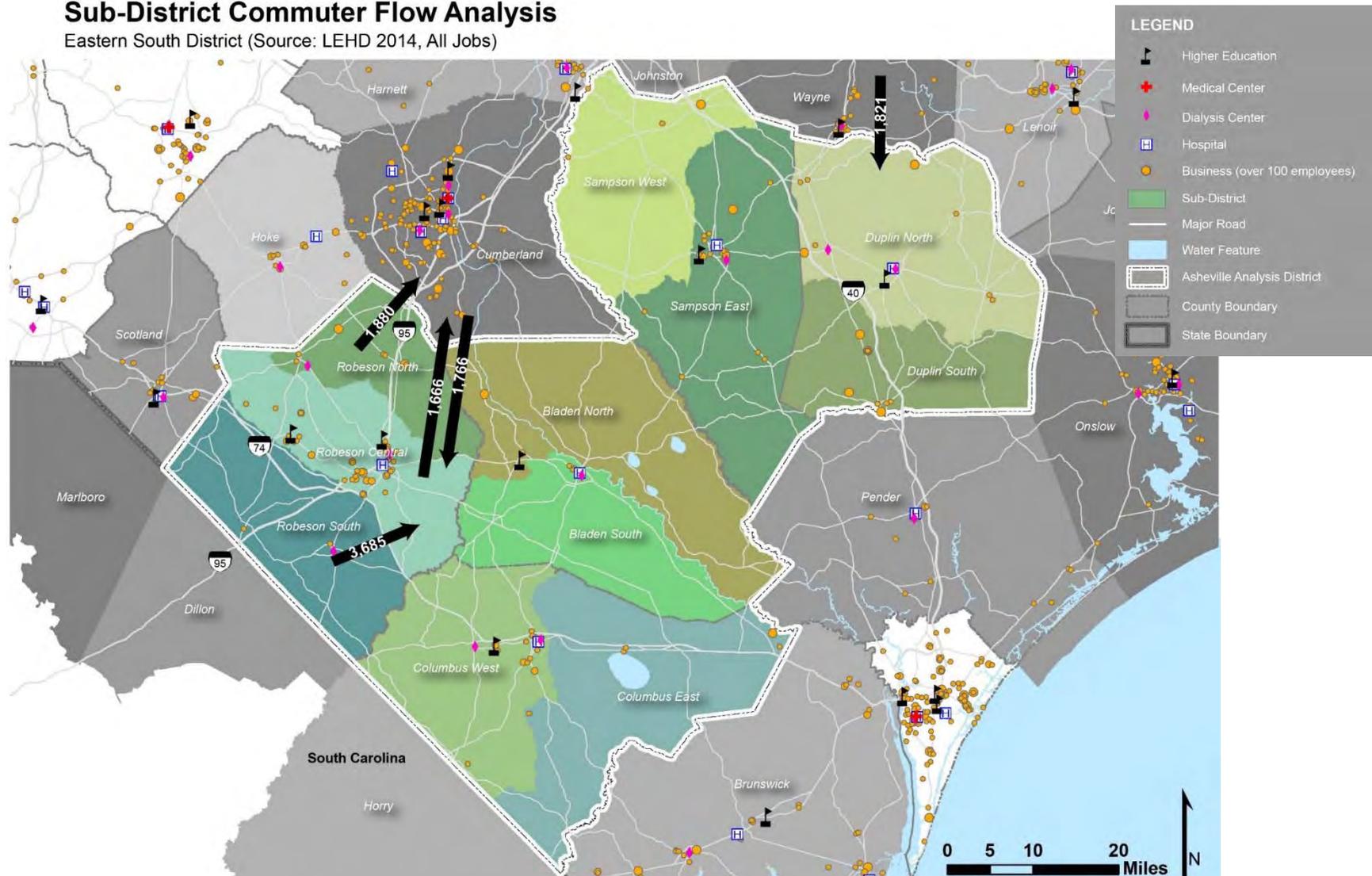
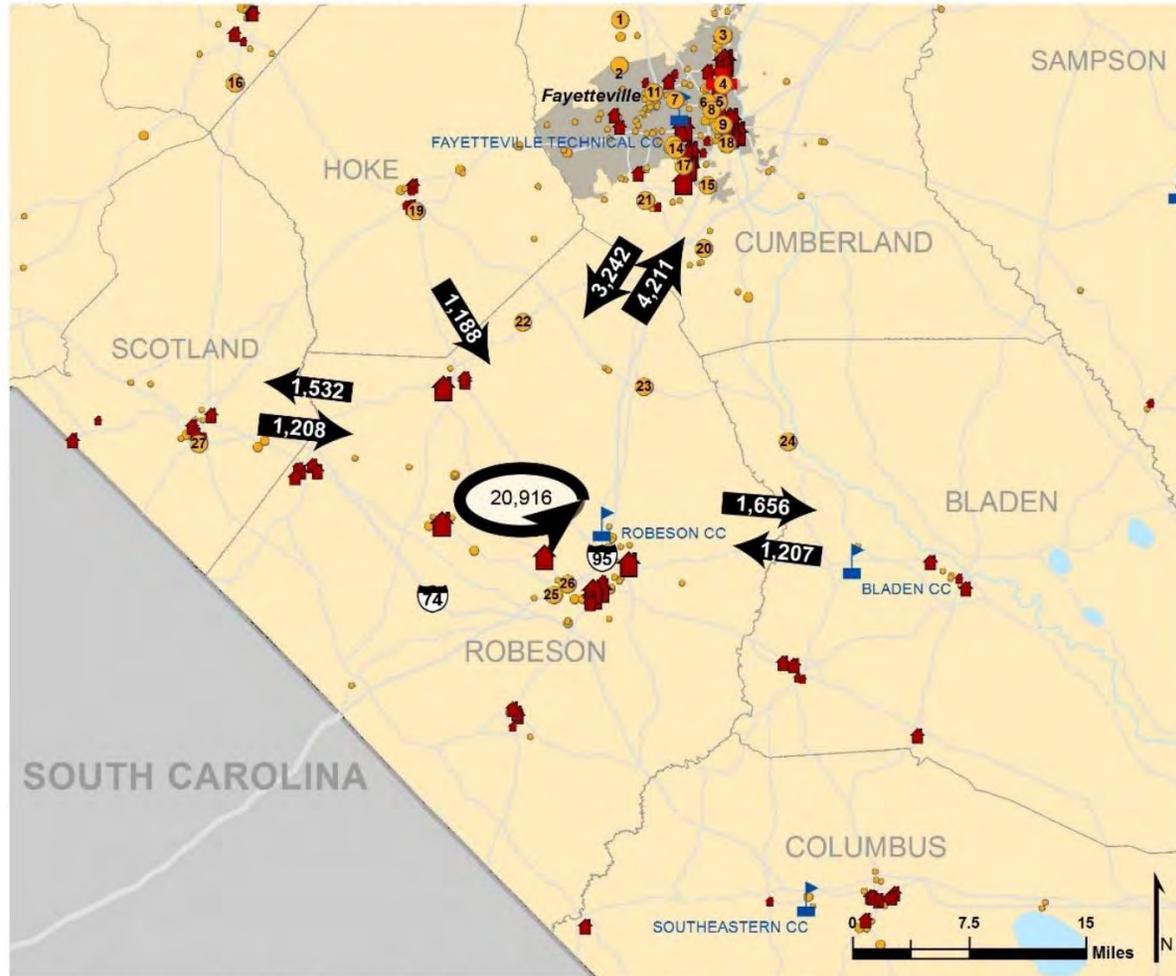




Figure 1 - 14: Significant job locations and commuting patterns for Robeson County

Robeson County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Legend

- Community Colleges
 - Regional Medical Center
 - Assisted / Subsidized Housing (total units)**
 - 10 or fewer
 - 11 - 100
 - 101 - 428
 - Businesses (total employees)**
 - 100 - 250
 - 251 - 500
 - over 500
 - Major Roads
 - Water Features
 - Urban Areas
 - County Boundaries
- Worker flow (US Census LEHD 2014, All Jobs)
- 1,000 (# of workers with employer in adjacent county)
 - 1,000 (# of workers that reside and work in the county)

Businesses with over 500 Employees:

1	North Carolina Food Svc	500
2	Airborne One	500
3	Methodist University	530
4	US Veterans Medical Ctr	875
5	Cumberland Social Svc Dept	700
6	Fayetteville State University	864
7	Fayetteville Technical Cmnty	1,300
8	NAACP	800
9	Sheriff Office	750
10	Cumberland County Law Enfrcmnt	614
11	Walmart Supercenter	500
12	Cumberland County Sheriff	500
13	Cape Fear Valley Health Syst	4,800
14	Cape Fear Valley Home Car	4,500
15	Edton Corp	773
16	Lee Electrical Construction	550
17	Mann-hummel Purolator Filters	1,000
18	Public Works Commission	561
19	Unilever Home & Personal Care	500
20	Walmart Distribution Ctr	1,300
21	Walmart Supercenter	500
22	Mountaire Farms- North Carolina	1,300
23	Prestage Foods	588
24	Smithfield Farmland	6,000
25	Kayser-Roth Corp	500
26	Public Schools Of Robeson Cty	3,000
27	Scotland Health Care System	735

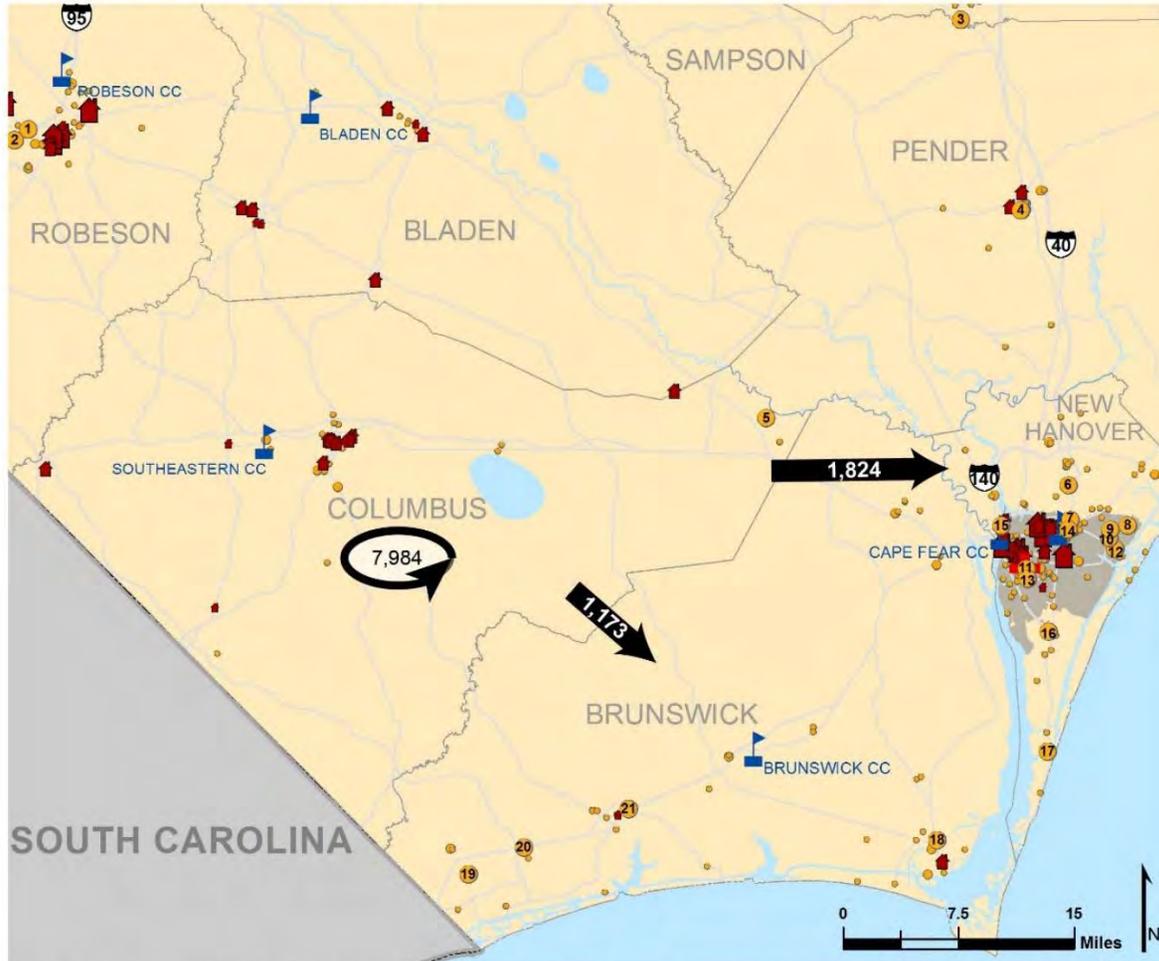
Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--InfoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017



Figure 1 - 15: Significant job locations and commuting patterns for Columbus County

Columbus County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Legend

- Community Colleges
- Regional Medical Center
- Assisted / Subsidized Housing (total units)**
 - 10 or fewer
 - 11 - 100
 - 101 - 428
- Businesses (total employees)**
 - 100 - 250
 - 251 - 500
 - over 500
- Major Roads
- Water Features
- Urban Areas
- County Boundaries

- Worker flow (US Census LEHD 2014, All Jobs)**
- (# of workers with employer in adjacent county)
 - (# of workers that reside and work in the county)

Businesses with over 500 Employees:

1	Public Schools Of Robeson Cnty	3,000
2	Kayser-Roth Corp	500
3	Murphy Family Ventures LLC	900
4	Cape Fear Community College	800
5	International Paper Co	1,200
6	SGS Analytical Perspectives	43,000
7	Corning Inc	1,700
8	Landfall Golf	600
9	Guilford Performance Textiles	2,650
10	DAK Americas LLC	700
11	New Hanover Regional Med Ctr	4,445
12	Chemtex International Inc	800
13	Reeds Jewelers Inc	700
14	Walmart Supercenter	602
15	Pharmaceutical Product Devmnt	11,000
16	Walmart Supercenter	580
17	All Pro Movers	4,000
18	Duke Energy	1,000
19	Baldwin Contracting	2,000
20	Ocean Ridge Plantation	700
21	Walmart Supercenter	525

Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--InfoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017



Eastern Urban

Table 1 - 7: Eastern Urban commute travel matrix (jobs by home location – work location pairs)

Eastern Urban District		Work Sub-District													
		Nash--Rocky Mount	Nash West	Edgecombe East	Edgecombe--Rocky Mount	Wilson South	Wilson North	Wayne South	Wayne Central	Wayne North	Greene	Greenville	Pitt West	Pitt East	
Work Sub-District	Nash--Rocky Mount	7993	1481	1103	629	157	1202	25	205	29	29	501	128	88	
	Nash West	4928	3343	547	333	321	1670	50	204	14	19	407	109	49	
	Edgecombe East	2886	371	4973	268	96	967	32	176	32	27	818	500	166	
	Edgecombe--Rocky Mount	2224	250	587	339	31	313	12	60	3	14	165	38	23	
	Wilson South	384	186	99	19	873	2922	47	231	39	13	213	100	51	
	Wilson North	1605	501	367	118	1291	10408	113	462	58	53	683	358	113	
	Wayne South	128	61	39	1	47	331	2837	4592	591	56	245	86	33	
	Wayne Central	138	55	24	6	48	354	961	5429	496	63	238	62	26	
	Wayne North	107	53	30	9	104	749	726	4429	1137	70	192	84	33	
	Greene	112	39	75	12	57	353	92	452	94	1268	782	526	195	
	Greenville	418	57	426	62	65	594	88	298	38	264	14656	4784	2313	
	Pitt West	184	19	322	24	28	395	45	125	18	147	4076	2638	852	
	Pitt East	184	34	168	17	35	307	40	147	24	73	6258	2056	2046	
	Lenoir East	193	54	72	29	23	330	143	543	59	252	943	299	259	
	Lenoir West	80	13	25	4	9	93	138	521	91	90	218	77	49	
	Jones	19	4	7	1	2	24	19	49	7	21	167	49	26	
	New Bern	79	19	37	8	7	88	42	158	18	30	626	147	163	
	Craven South	61	12	23	4	10	95	36	125	14	17	400	80	109	
	Craven North	30	3	13	3	5	28	23	52	8	12	302	112	80	
	Onslow--Jacksonville	105	19	31	6	5	110	37	209	52	12	235	39	55	
	Onslow North	21	5	5	1	2	31	13	44	12	7	64	12	13	
	Onslow--Topsail	18	3	6	0	0	20	6	35	7	2	43	5	15	
	Lejeune	26	8	7	4	2	31	18	42	11	3	75	8	6	
	Carteret--Morehead City	60	13	23	3	6	98	61	187	27	32	534	79	85	
	Carteret--Beaches	10	2	8	1	0	14	13	26	4	7	99	28	15	
	Downeast	10	0	4	0	3	12	16	17	12	20	76	26	24	
	Beaufort City	21	0	4	0	3	20	9	25	4	4	61	15	10	
	Pamlico	47	13	23	4	11	58	16	34	6	20	149	31	31	



(Table 1 – 7 continued)

Eastern Urban District	Work Sub-District															
	Lenoir East	Lenoir West	Jones	New Bern	Craven South	Craven North	Onslow-- Jacksonville	Onslow North	Onslow-- Topsail	Lejeune	Carteret-- Morehead City	Carteret-- Beaches	Downeast	Beaufort City	Pamlico	
Nash--Rocky Mount	91	5	4	64	14	7	83	1	2	3	36	8	0	11	4	
Nash West	111	7	4	60	15	4	62	3	4	5	38	5	2	12	6	
Edgecombe East	66	5	2	56	6	7	55	2	5	5	20	5	0	4	6	
Edgecombe--Rocky Mount	41	1	0	20	5	2	27	1	0	1	8	1	1	1	1	
Wilson South	89	8	4	71	19	6	59	4	6	7	19	10	1	0	9	
Wilson North	375	31	17	204	44	19	153	7	9	13	58	16	4	12	30	
Wayne South	575	141	11	61	28	12	102	3	11	4	19	6	0	1	6	
Wayne Central	546	126	9	63	27	13	91	3	7	10	16	3	0	1	4	
Wayne North	406	92	3	56	25	6	76	8	5	8	13	2	0	1	0	
Greene	1043	74	13	84	21	23	66	2	3	3	13	2	1	4	12	
Greenville	1080	75	20	385	78	68	246	7	17	21	84	13	3	10	34	
Pitt West	405	21	7	115	32	23	89	3	4	9	26	5	1	5	17	
Pitt East	644	45	13	159	40	75	118	9	3	9	44	11	2	6	39	
Lenoir East	7418	467	68	161	41	35	119	8	1	5	38	4	0	6	14	
Lenoir West	2046	655	35	61	16	21	59	5	2	5	16	5	0	3	9	
Jones	484	85	408	704	133	55	379	37	5	45	109	17	7	28	47	
New Bern	536	41	118	7485	1076	424	408	42	20	50	333	41	7	39	228	
Craven South	177	22	44	3118	2410	187	493	40	20	75	1017	108	21	168	142	
Craven North	111	11	16	1774	329	622	137	14	13	14	96	10	3	11	123	
Onslow--Jacksonville	267	34	98	546	419	49	15656	378	345	1520	496	67	1	41	17	
Onslow North	74	6	60	164	169	12	2504	897	57	311	556	237	3	8	7	
Onslow--Topsail	59	14	6	100	63	6	2236	28	761	238	115	16	1	11	5	
Lejeune	65	7	3	79	38	1	226	12	5	44	92	9	2	16	6	
Carteret--Morehead City	260	34	40	923	804	70	1067	257	38	100	6202	1134	99	1031	74	
Carteret--Beaches	47	6	13	156	90	10	223	44	8	29	501	400	11	106	17	
Downeast	70	14	13	133	64	18	95	10	9	6	579	86	437	446	49	
Beaufort City	38	4	3	117	133	8	117	14	6	16	958	117	68	817	16	
Pamlico	91	16	18	928	224	69	50	6	1	0	70	1	24	25	1237	



Figure 1 - 16: Significant commuting within counties

Sub-District Commuter Flow Analysis

Eastern Urban District (Source: LEHD 2014, All Jobs)

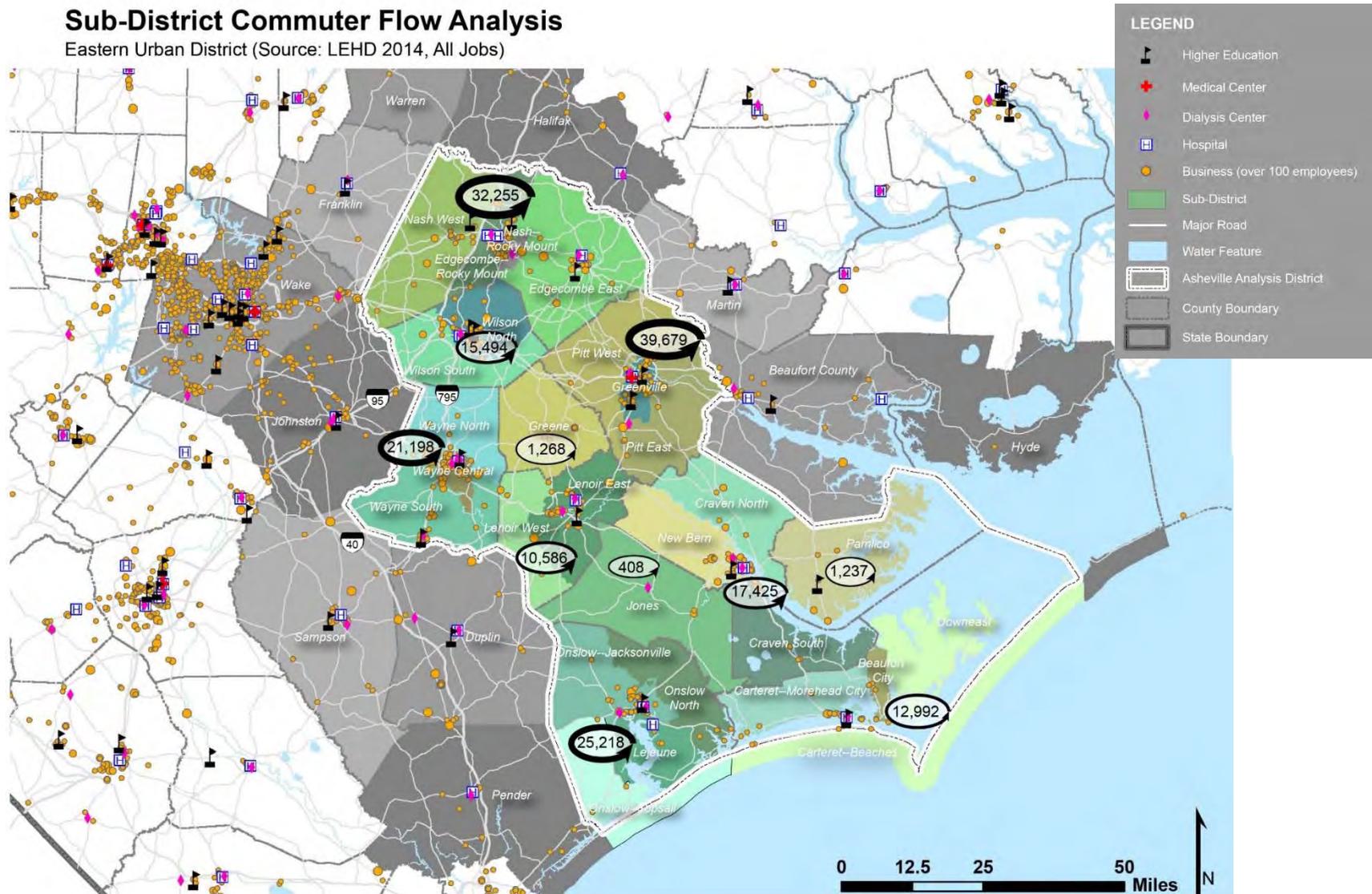




Figure 1 - 17: Significant commuting within sub-districts

Sub-District Commuter Flow Analysis

Eastern Urban District (Source: LEHD 2014, All Jobs)

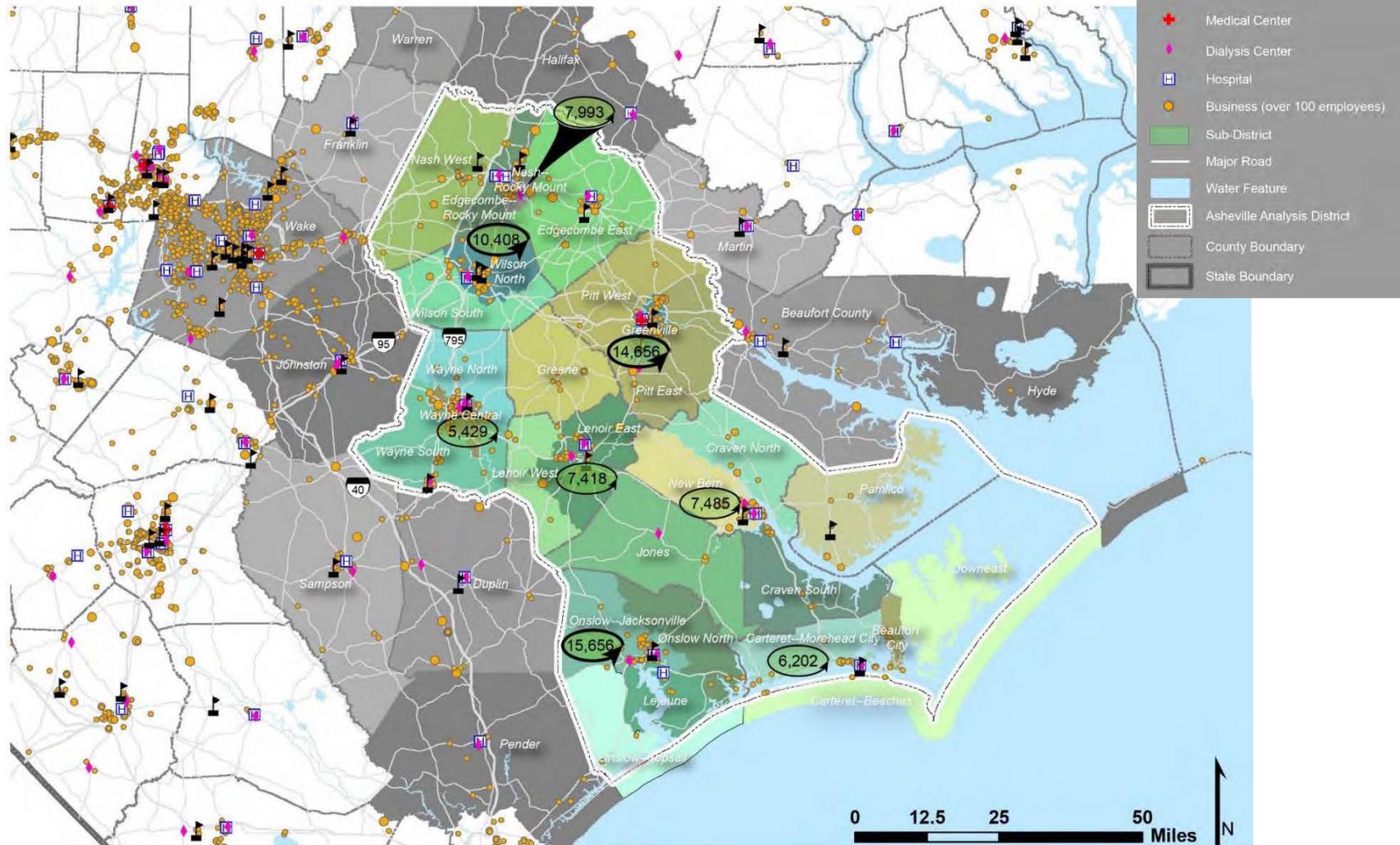




Figure 1 - 18: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Eastern Urban District (Source: LEHD 2014, All Jobs)

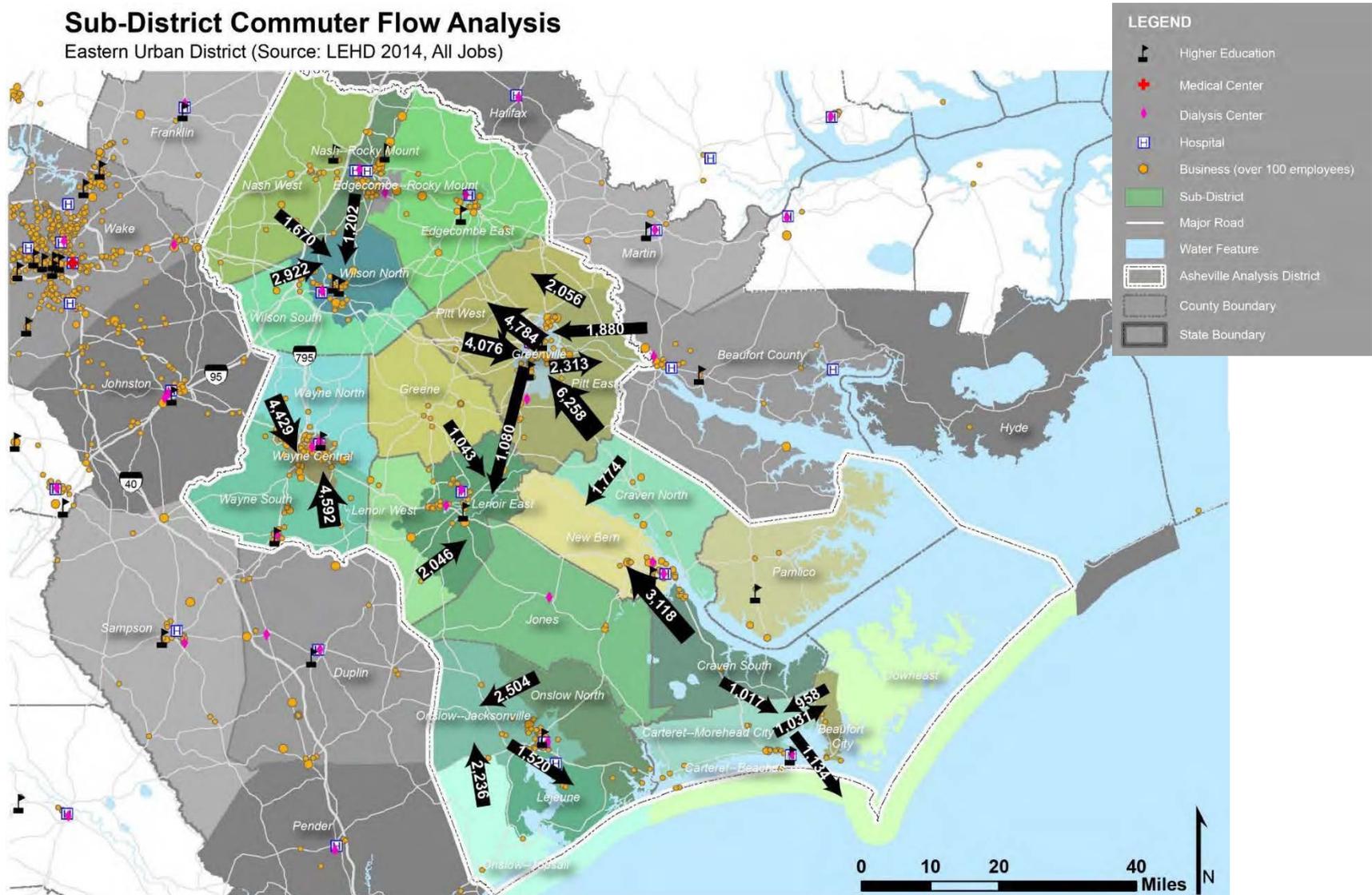
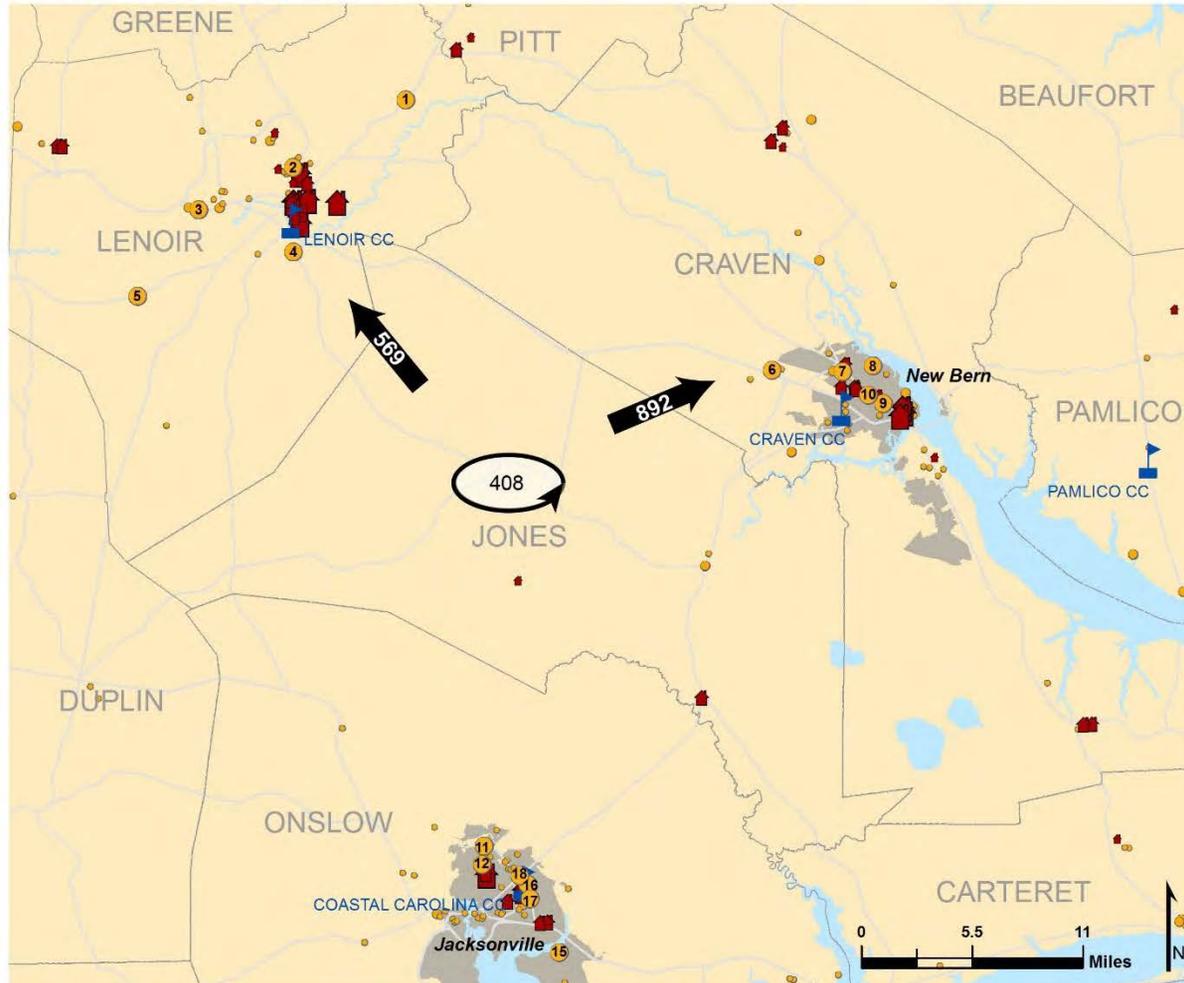




Figure 1 - 19: Significant job locations and commuting patterns for Jones County

Jones County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--InfoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017

Legend

Community Colleges

Assisted / Subsidized Housing (total units)

- 10 or fewer
- 11 - 100
- 101 - 428

Businesses (total employees)

- 100 - 250
- 251 - 500
- over 500

Major Roads

Water Features

Urban Areas

County Boundaries

Worker flow (US Census LEHD 2014, All Jobs)

1,000 (# of workers with employer in adjacent county)

1,000 (# of workers that reside and work in the county)

Businesses with over 500 Employees:

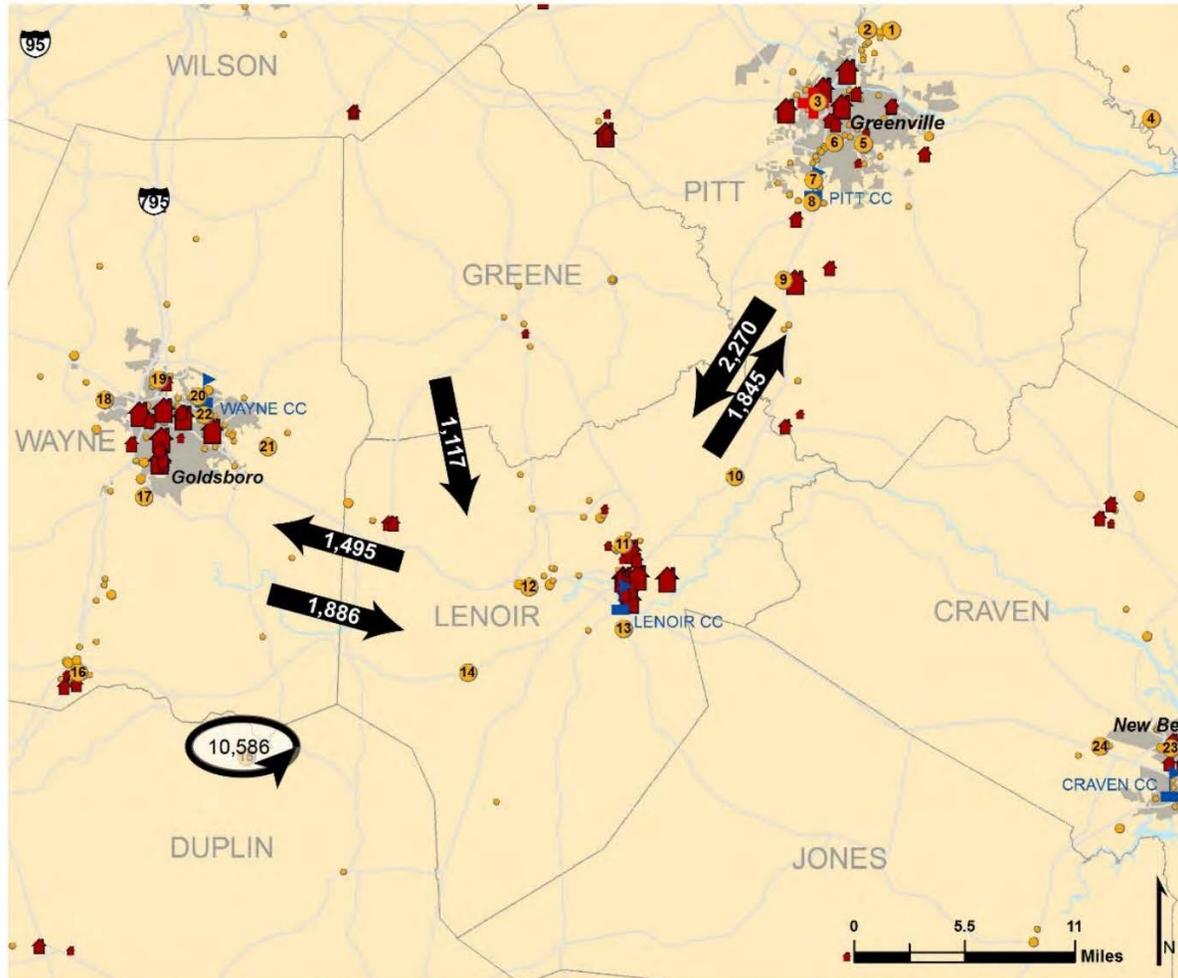
1	Du Pont	1,750
2	Lenoir Memorial Hospital	802
3	Electrolux Major Appliances	1,000
4	Master Brand Cabinets Inc.	550
5	Spirit Aerosystems Hold	600
6	Moen Inc	800
7	BSH Home Appliances Corp	800
8	Cabo Yachts	500
9	Carolina East Health System	1,666
10	Excel Learning Ctr	500
11	Convergys Corp	600
12	Alorica	500
13	College Store	800
14	Coastal Carolina Cmnty College	501
15	Naval Hospital Camp Lejeune	1,287
16	Onslow Memorial Hosp-Imaging	1,000
17	Onslow Memorial HOSPITAL	922
18	Walmart Supercenter	600



Figure 1 - 20: Significant job locations and commuting patterns for Lenoir County

Lenoir County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Legend

- Community Colleges
- Regional Medical Center

Assisted / Subsidized Housing (total units)

- 10 or fewer
- 11 - 100
- 101 - 428

Businesses (total employees)

- 100 - 250
- 251 - 500
- over 500

- Major Roads
- Water Features
- Urban Areas
- County Boundaries

Worker flow (US Census LEHD 2014, All Jobs)

1,000 (# of workers with employer in adjacent county)

1,000 (# of workers that reside and work in the county)

Businesses with over 500 Employees:

1	A Wireless Inc	700
2	BSH Home Appliances Corp	800
3	Butterball LLC	2,400
4	Case Farms Goldsboro Div	500
5	Cooper-Standard	650
6	Flanders Corp	2,139
7	Electrolux Major Appliances	1,000
8	Facilico Inc	1,000
9	Du Pont	1,750
10	Moen Inc	800
11	Lenoir Memorial Hospital	802
12	Master Brand Cabinets Inc	550
13	Hyster-Yale Group Inc	780
14	Goldsboro Milling Co	1,000
15	Mt Olive Pickle Co	501
16	Roberts Co	850
17	Oberry Center Personnel	945
18	Spirit Aerosystems Hold	600
19	Patheon	1,300
20	Vidant Medical Ctr	6,269
21	Pitt Community College	775
22	Tands Inc	3,000
23	Walmart Supercenter	500
24	Wayne Memorial Hospital	1,556

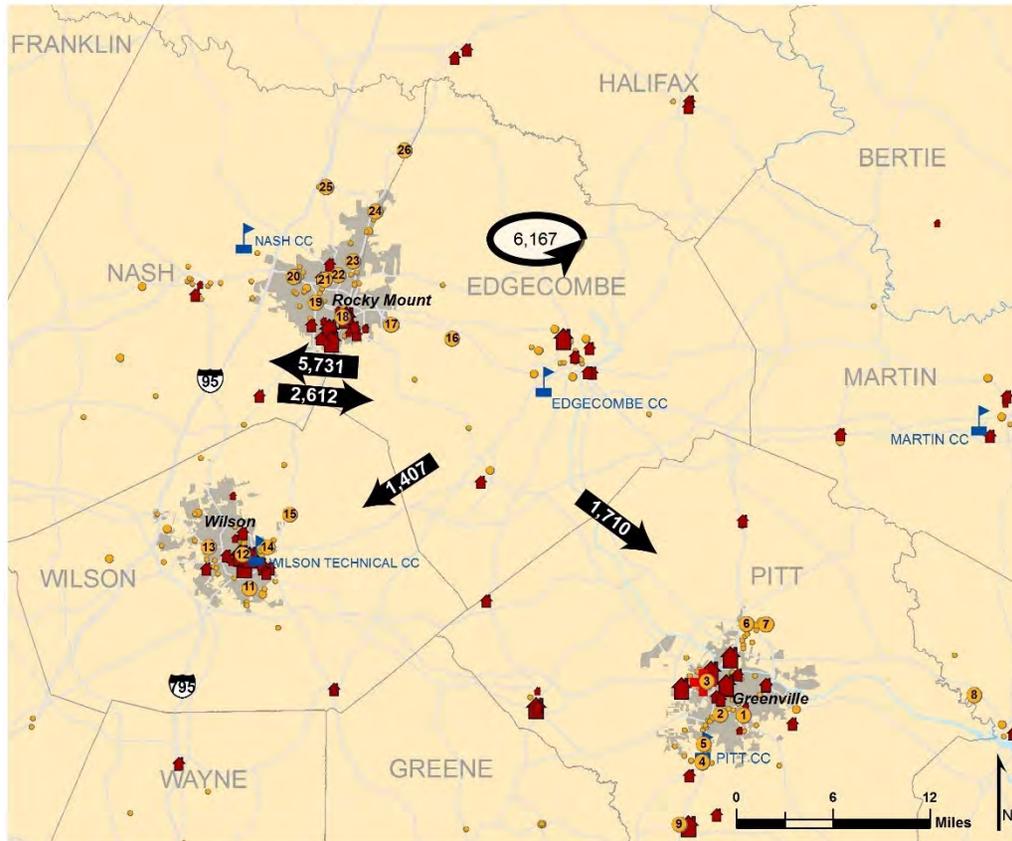
Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--InfoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017



Figure 1 - 21: Significant job locations and commuting patterns for Edgecombe County

Edgecombe County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--infoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017

Legend

- Community Colleges
- Regional Medical Center
- Assisted / Subsidized Housing (total units)**
 - 10 or fewer
 - 11 - 100
 - 101 - 428
- Businesses (total employees)**
 - 100 - 250
 - 251 - 500
 - over 500
- Major Roads
- Water Features
- Urban Areas
- County Boundaries
- Worker flow (US Census LEHD 2014, All Jobs)**
 - 1,000 (# of workers with employer in adjacent county)
 - 1,000 (# of workers that reside and work in the county)

Businesses with over 500 Employees:

1	A Wireless Inc	700	13	Walmart Supercenter	500
2	Walmart Supercenter	500	14	Wilson Utilities Director	600
3	Vidant Medical Ctr	6,269	15	Bridgestone Firestone	2,000
4	Roberts Co	850	16	QVC Distribution Ctr	1,200
5	Pitt Community College	775	17	MBM Corp	3,300
6	Patheon	1,300	18	Rocky Mt Finance	820
7	Hyster-Yale Group Inc	780	19	Eagle Transport Corp	501
8	Flanders Corp	2,139	20	Nash Health Care System	1,542
9	Facilco Inc	1,000	21	Boddie-Noell Enterprises Inc	13,000
10	BB&T	500	22	Barnhill Contracting Co	1,000
11	Global Laboratory Svc Inc	30,000	23	Kaba Ilco Corp	625
12	Wilson Energy	2,500	24	Pfizer Inc	2,000
13	Walmart Supercenter	500	25	Mc Lane Rocky Mountain	500
			26	Cummins Rocky Mtn Engine Plant	1,400



Foothills

Table 1 - 8: Foothills commute travel matrix (jobs by home location – work location pairs)

Foothills District		Work Sub-District							
		Polk North	Polk South	Rutherford West	Rutherford South	Rutherford East	Cleveland West	Cleveland Central	Cleveland East
Home Sub-District	Polk North	136	363	47	130	19	0	24	10
	Polk South	125	1306	39	272	17	5	75	22
	Rutherford West	26	129	371	1010	68	16	104	17
	Rutherford South	35	348	246	7679	285	181	1177	230
	Rutherford East	5	27	39	786	124	51	174	27
	Cleveland West	0	18	5	341	46	900	2130	317
	Cleveland Central	6	37	12	663	29	950	7362	1330
	Cleveland East	2	25	8	125	9	169	1580	2040



Figure 1 - 22: Significant commuting within counties (white/black arrows) and within sub-areas (green/black arrows)

Sub-District Commuter Flow Analysis

Foothills District (Source: LEHD 2014, All Jobs)

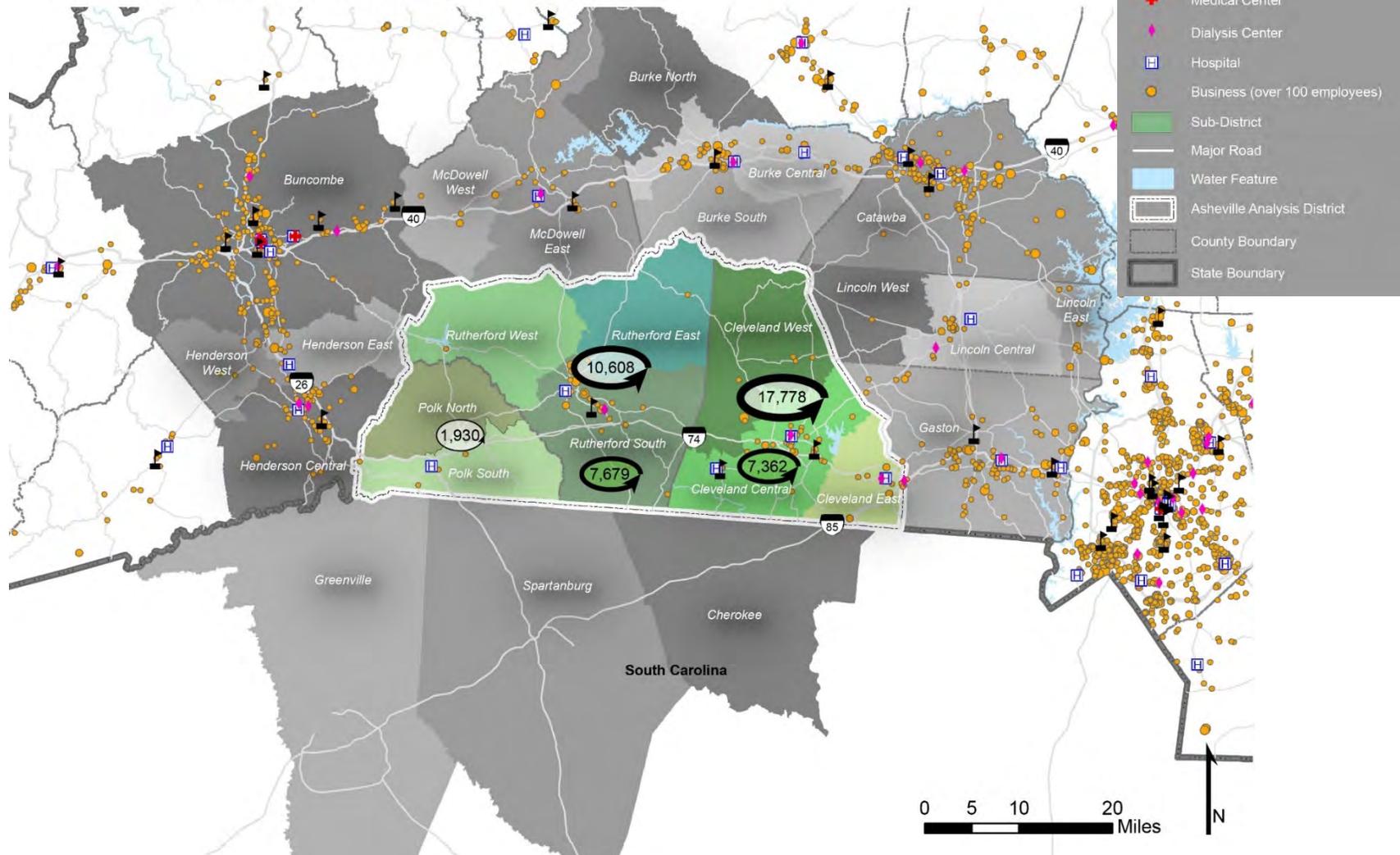
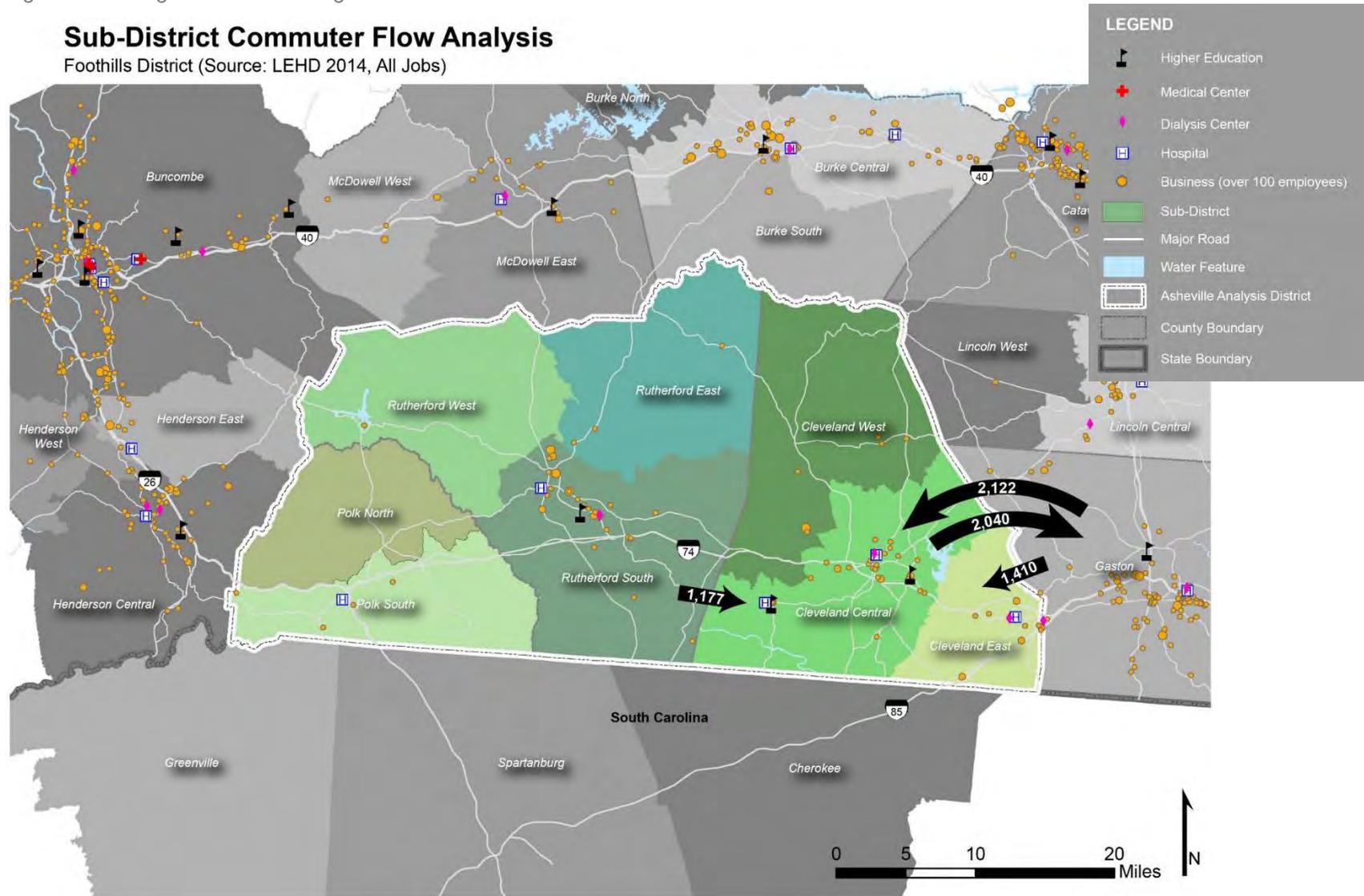




Figure 1 - 23: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Foothills District (Source: LEHD 2014, All Jobs)





Hickory

Table 1 - 9: Hickory commute travel matrix (jobs by home location – work location pairs)

Hickory District		Work Sub-District												
		Burke Central	Burke South	Burke North	Caldwell North	Caldwell South	Caldwell Central	McDowell East	McDowell West	Catawba West	Catawba North	Catawba East	Alexander South	Alexander North
Home Sub-District	Burke Central	7684	375	105	61	735	569	460	37	161	4205	127	104	174
	Burke South	2827	377	47	10	152	156	282	33	45	1058	31	21	40
	Burke North	1396	74	116	13	154	189	119	17	2	359	16	8	35
	Caldwell North	292	17	15	240	742	1182	32	3	9	565	28	39	33
	Caldwell South	1594	47	25	211	3880	2688	94	6	110	4688	109	178	190
	Caldwell Central	593	22	15	194	1489	2242	66	3	26	1267	37	128	103
	McDowell East	935	31	14	6	70	96	5612	927	80	475	21	14	26
	McDowell West	106	4	1	0	23	12	956	518	28	85	2	1	9
	Catawba West	398	22	1	5	179	86	19	4	590	3942	370	83	44
	Catawba North	1996	64	8	69	1061	613	149	26	956	24079	1252	765	410
	Catawba East	193	6	1	15	92	83	36	8	428	3299	1361	119	44
	Alexander South	315	9	3	20	250	180	38	7	78	2945	153	1450	1079
	Alexander North	152	5	1	11	82	113	23	2	21	1028	62	817	1207



Figure 1 - 24: Significant commuting within counties

Sub-District Commuter Flow Analysis

Hickory District (Source: LEHD 2014, All Jobs)

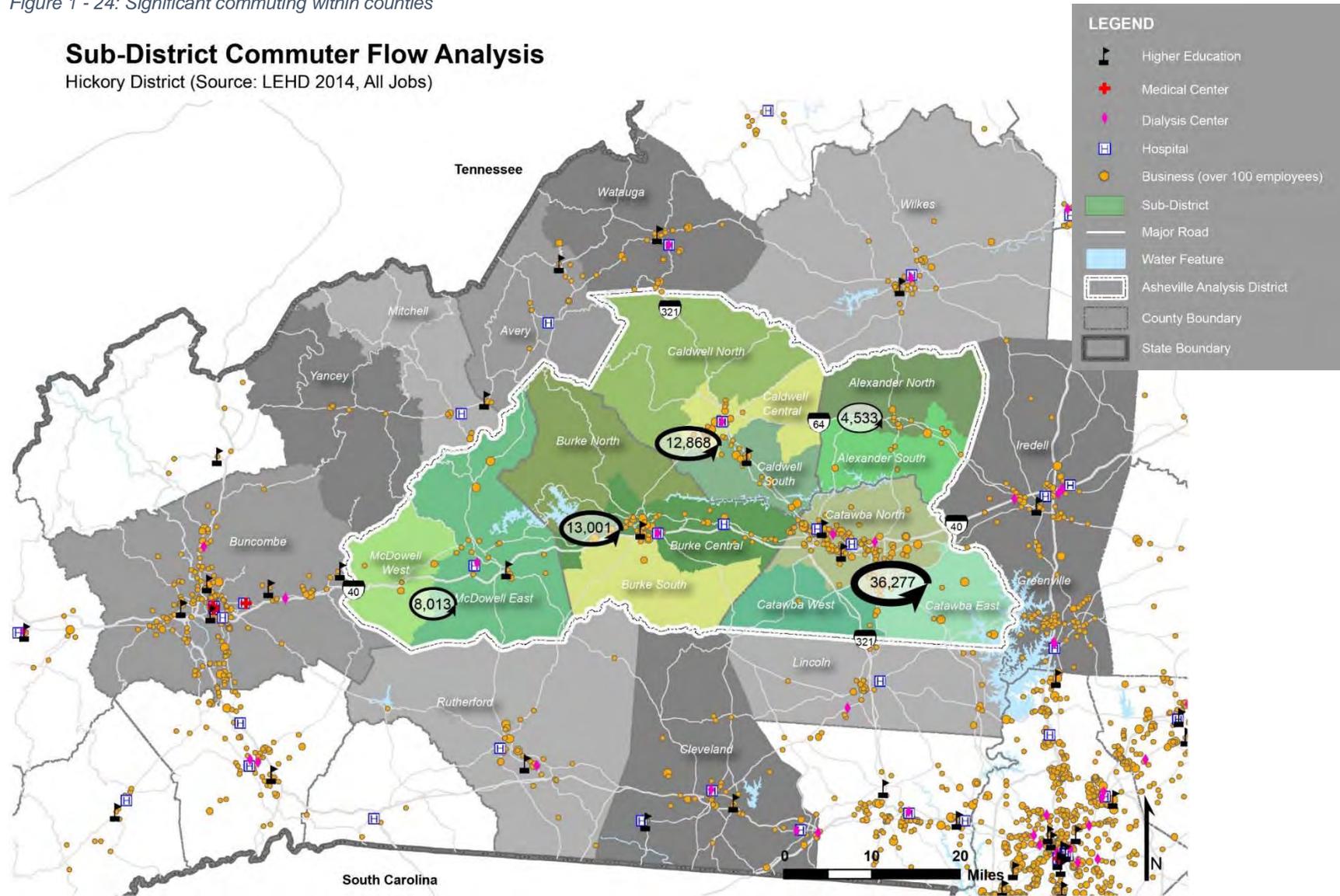




Figure 1 - 25: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Hickory District (Source: LEHD 2014, All Jobs)

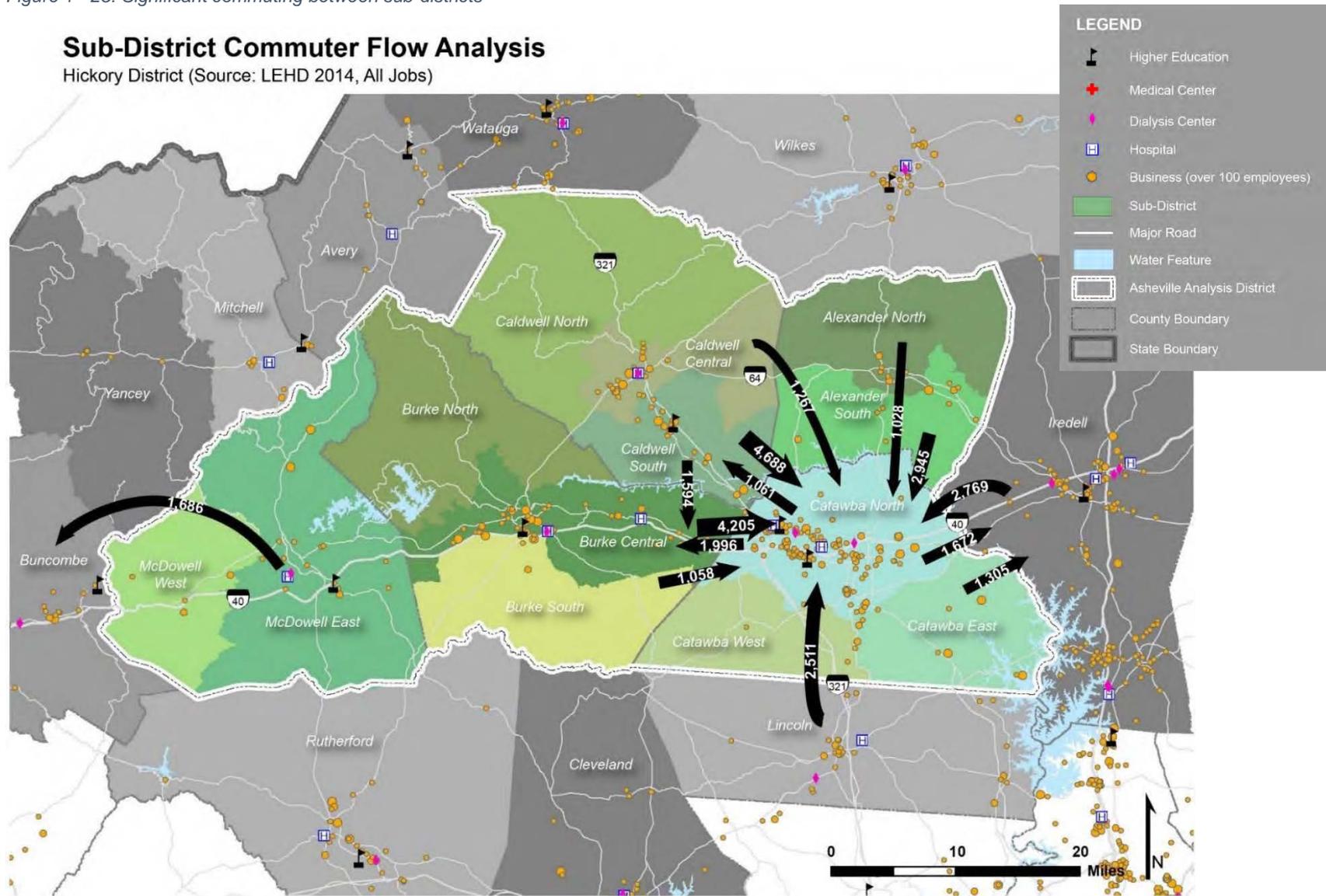
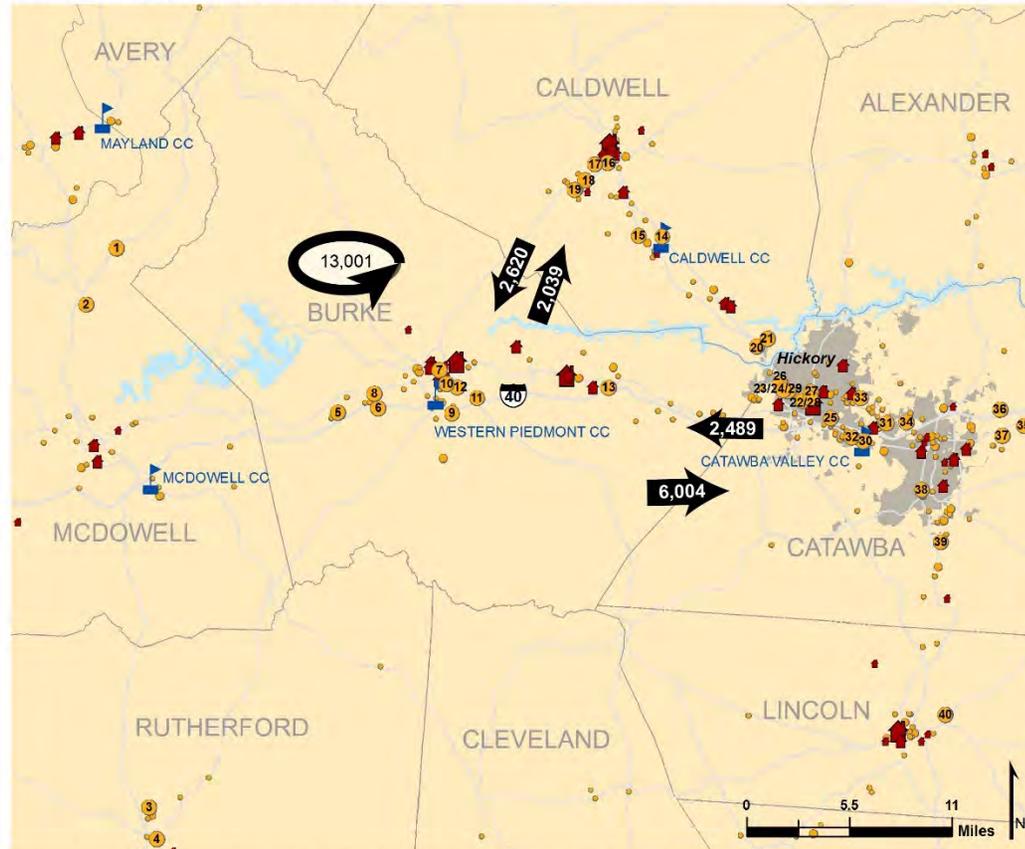




Figure 1 - 26: Significant job locations and commuting patterns for Burke County

Burke County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--InfoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017

Legend

- Community Colleges
- Assisted / Subsidized Housing (total units)**
 - 10 or fewer
 - 11 - 100
 - 101 - 428
- Businesses (total employees)**
 - 100 - 250
 - 251 - 500
 - over 500
- Major Roads
- Water Features
- Urban Areas
- County Boundaries

- Worker flow (US Census LEHD 2014, All Jobs)
- 1,000 (# of workers with employer in adjacent county)
 - 1,000 (# of workers that reside and work in the county)

Businesses with over 500 Employees:

1	Baxter Healthcare	2,001	21	Merchants Distributors Inc	1,700
2	Coats North America	781	22	Alex Lee Inc	10,500
3	Broyhill Furniture Industries	506	23	Century Furniture	510
4	Trelleborg Coated Syst US Inc	750	24	Century Furniture LLC	1,000
5	Heritage Home Group	550	25	Comm Scope Holding Co Inc	23,000
6	Continental Automotive Systems	600	26	Corning Optical Comms LLC	14,000
7	Fulenwider Enterprises Inc	1,000	27	Frye Regional Medical Ctr	1,185
8	Leviton Manufacturing Co Inc	500	28	Hickory Personnel Dept	640
9	Pharmacy-J Iverson Riddle	1,100	29	Institution Food House Inc	700
10	Case Farms Morganton Div	700	30	Catawba Valley Community Clg	782
11	Blue Ridge Healthcare Hospital	1,198	31	Catawba Valley Medical Ctr	2,000
12	Broughton Hospital	1,208	32	Hickory Furniture Mart	501
13	Valdese Weavers LLC	500	33	Sherrill Furniture Co	1,425
14	Caldwell Community College	700	34	Vanguard Furniture Co Inc	500
15	Kincaid Furniture Co Inc	1,700	35	Advance Pierre Foods	700
16	Caldwell Memorial Hospital	901	36	CT Management Inc	650
17	Fairfield Chair Co	700	37	Draka Holdings USA	540
18	Bernhardt Furniture Co	1,200	38	Catawba County Government	1,001
19	Broyhill Furniture Industries	700	39	Mccreary Modern Inc	500
20	Huffman Hosliery Mills Inc	500	40	Carolinas Health Care Syst	513



Kerr

Table 1 - 10: Kerr commute travel matrix (jobs by home location – work location pairs)

Kerr District		Work Sub-District							
		Franklin North	Franklin South	Vance North	Vance South	Warren	Granville North	Granville South	Person
Home Sub-District	Franklin North	1111	761	82	417	59	119	54	18
	Franklin South	606	1921	74	369	39	195	176	32
	Vance North	55	91	461	1536	112	620	127	69
	Vance South	151	167	791	3463	197	1147	174	87
	Warren	88	126	195	793	1545	373	88	68
	Granville North	39	70	307	677	56	2961	529	158
	Granville South	68	209	89	294	27	739	1341	89
	Person	10	9	6	49	14	223	168	4856



Figure 1 - 27: Significant commuting within counties

Sub-District Commuter Flow Analysis

Kerr District (Source: LEHD 2014, All Jobs)

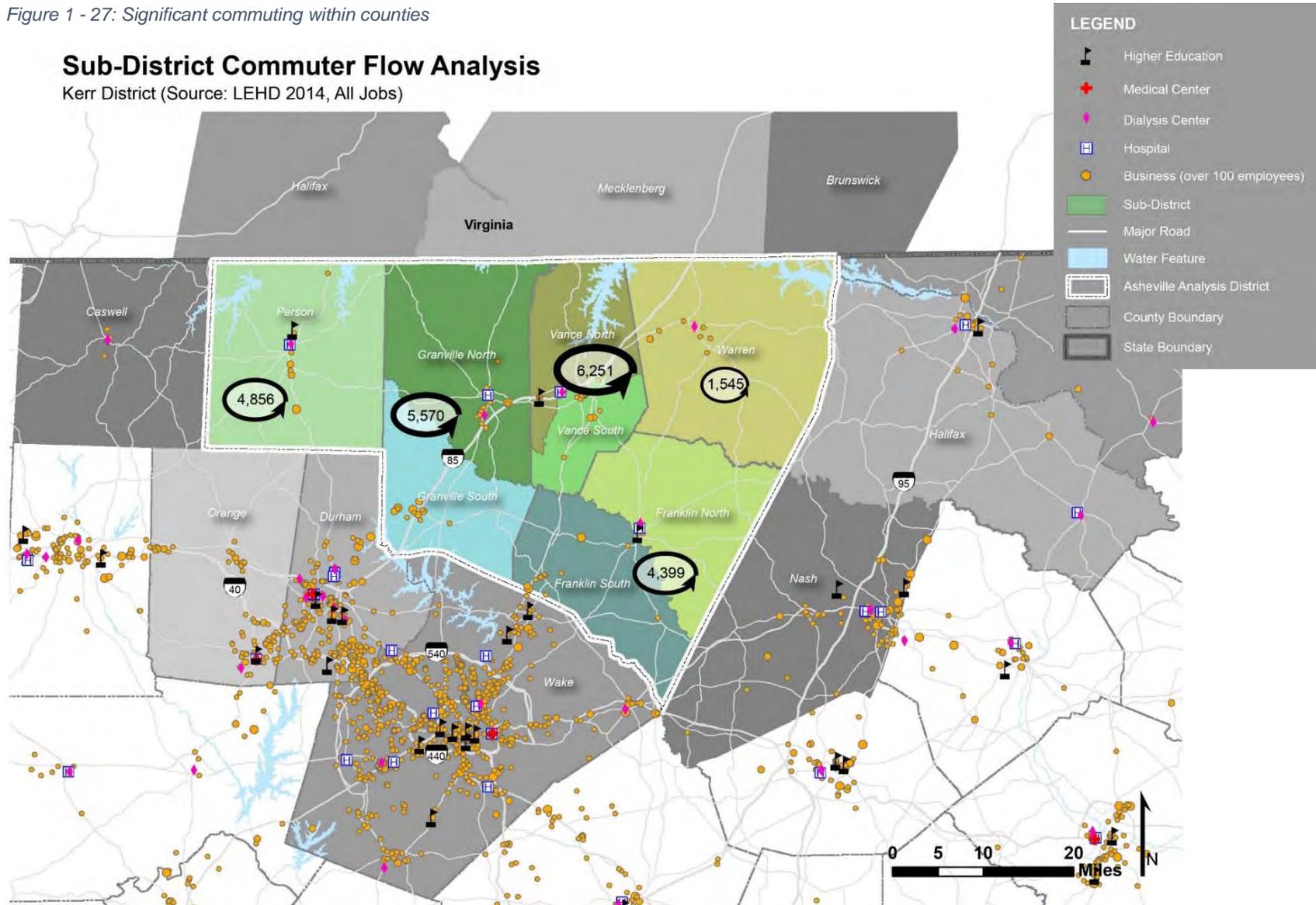
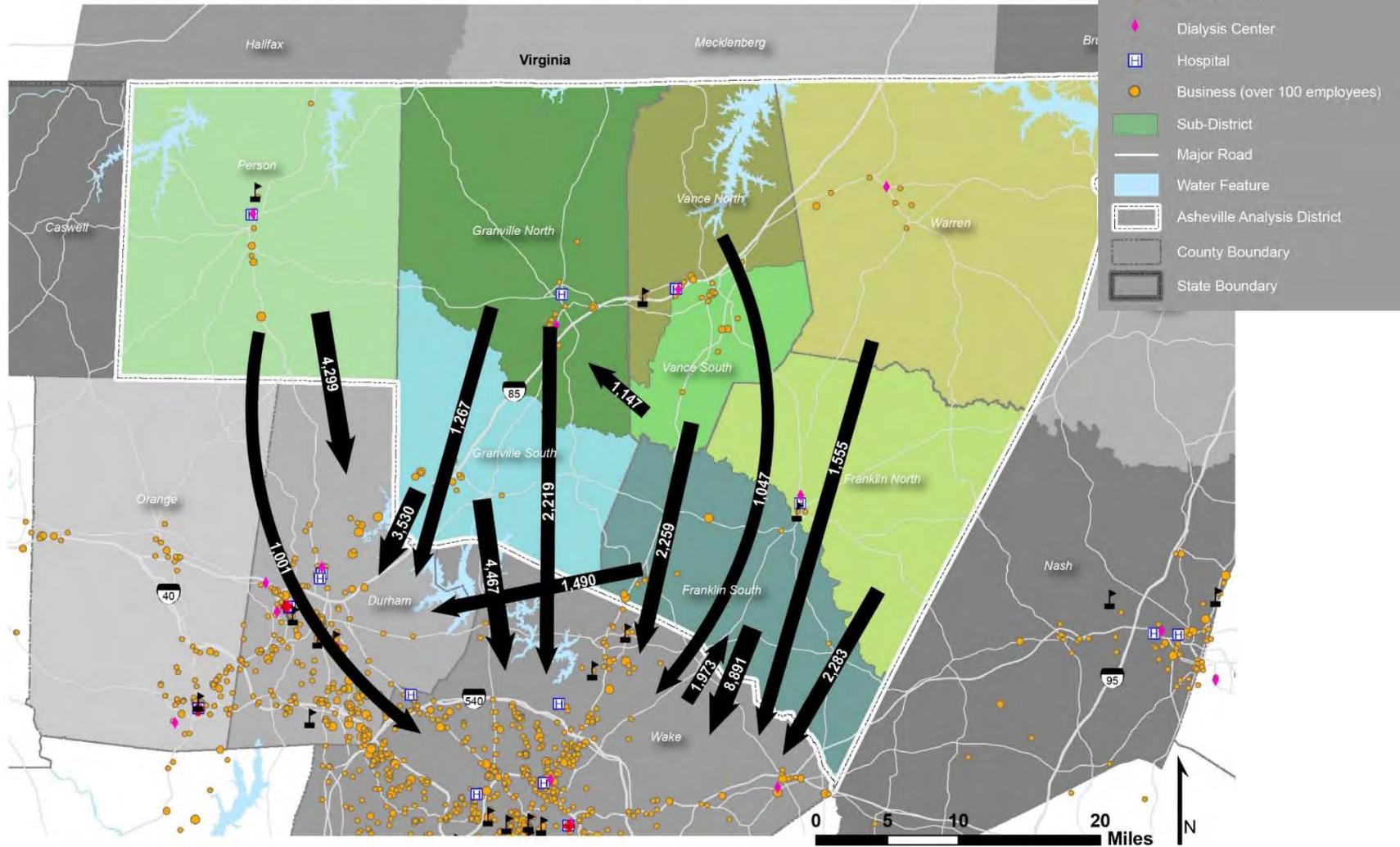




Figure 1 - 28: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Kerr District (Source: LEHD 2014, All Jobs)





Mountain Central

Table 1 - 11: Mountain Central commute travel matrix (jobs by home location – work location pairs)

Mountain Central District		Work Sub-District											
		Madison West	Madison Central	Madison East	Yancey West	Yancey North	Yancey South	Mitchell West	Mitchell Central	Mitchell East	Avery West	Avery South	Avery East
Home Sub-District	Madison West	217	249	68	2	11	2	0	3	24	1	1	1
	Madison Central	54	441	87	2	12	1	0	1	15	3	1	1
	Madison East	26	253	298	15	22	38	0	4	20	2	3	1
	Yancey West	5	25	31	127	134	178	2	6	95	3	7	3
	Yancey North	13	24	26	154	338	387	10	16	295	27	32	7
	Yancey South	8	29	29	130	233	407	13	23	269	15	25	6
	Mitchell West	1	5	9	18	28	31	49	65	213	12	20	9
	Mitchell Central	0	9	3	28	20	38	51	106	295	10	21	11
	Mitchell East	4	8	8	38	72	96	38	99	1173	58	92	40
	Avery West	0	0	5	10	6	23	3	2	97	780	251	394
	Avery South	3	0	1	4	10	6	7	8	119	181	193	167
	Avery East	0	0	2	3	4	1	1	0	19	142	67	183



Figure 1 - 29: Significant commuting within counties

Sub-District Commuter Flow Analysis

Mountain Central District (Source: LEHD 2014, All Jobs)

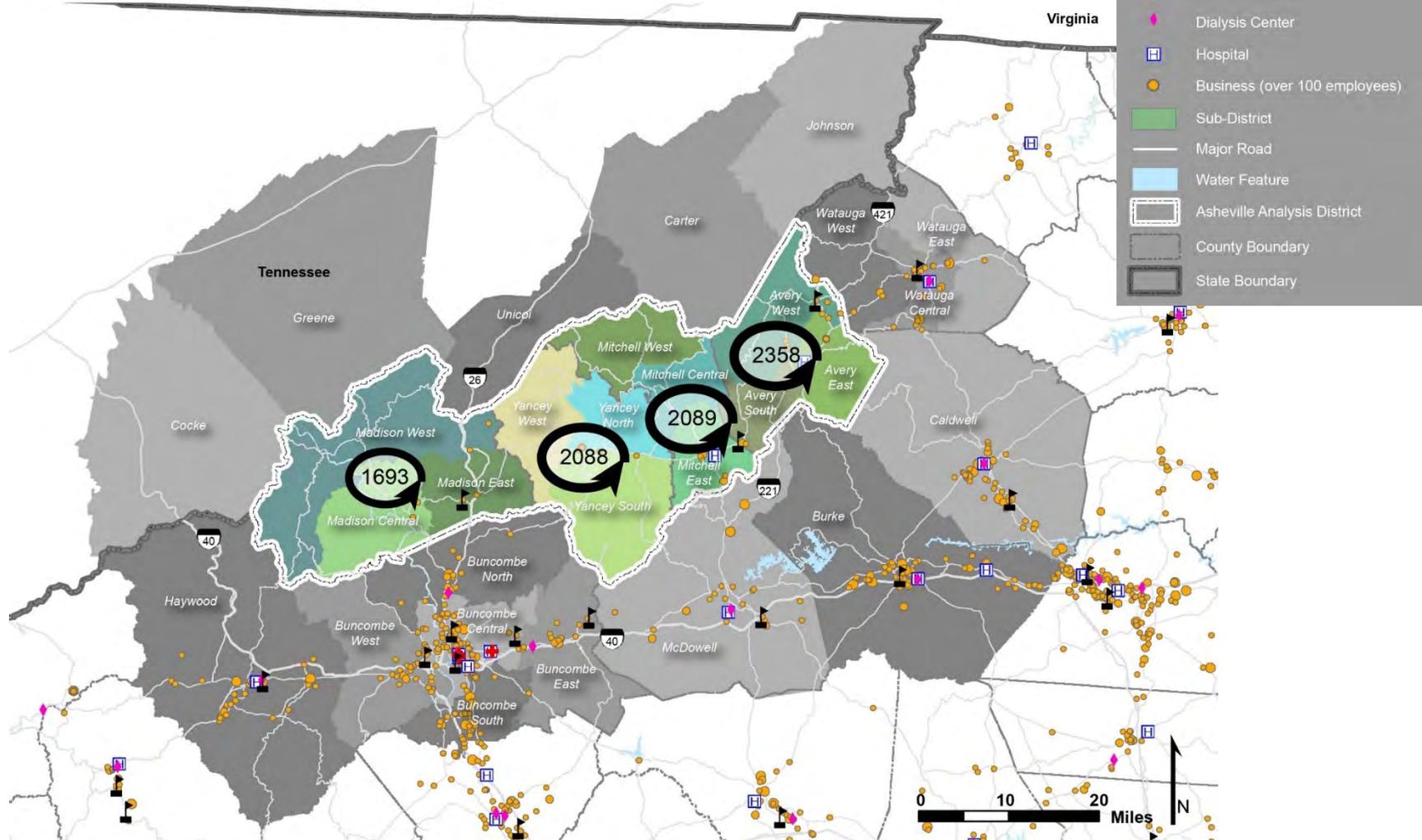
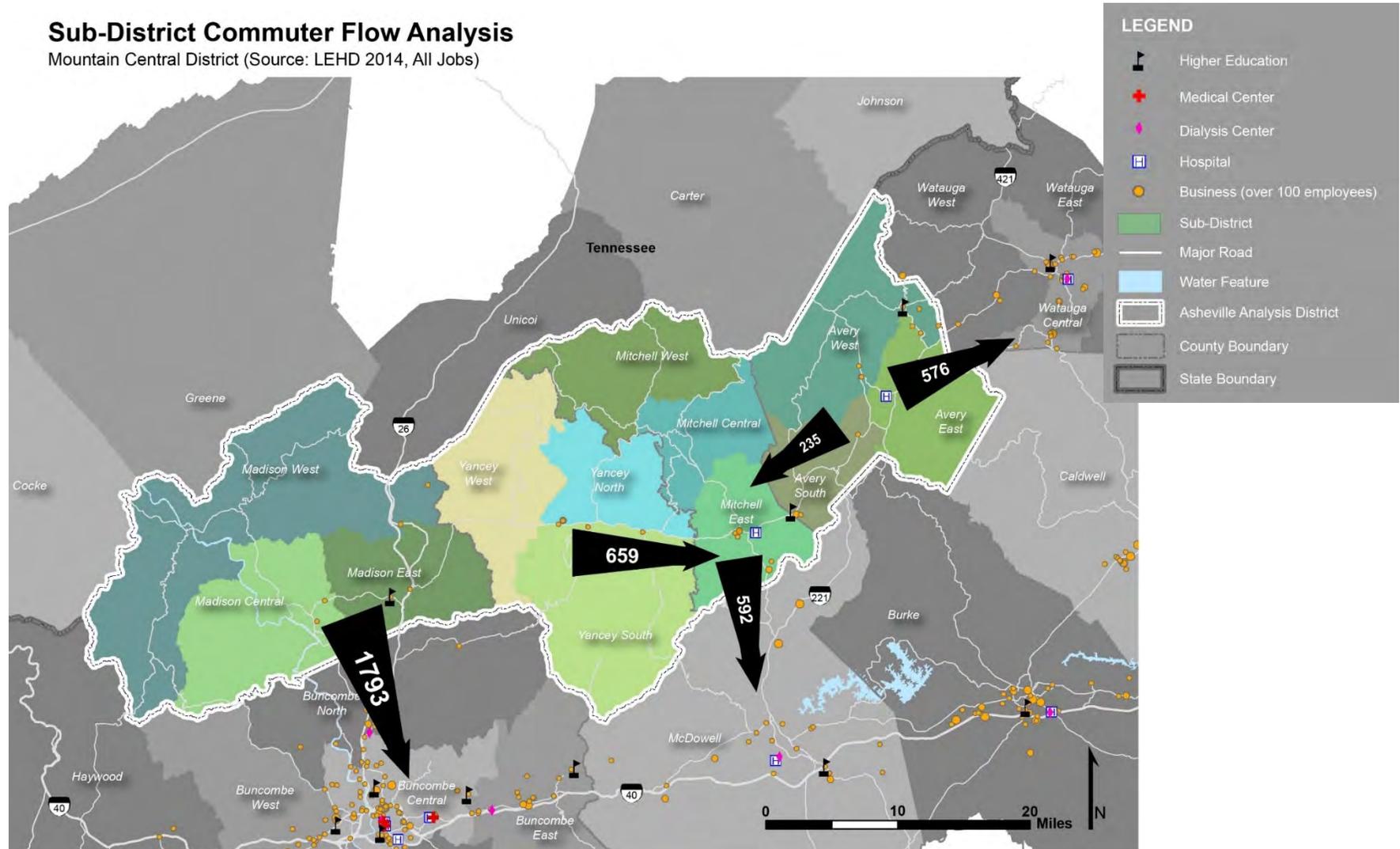




Figure 1 - 30: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Mountain Central District (Source: LEHD 2014, All Jobs)





Mountain North

Table 1 - 12: Mountain North commute travel matrix (jobs by home location – work location pairs)

Mountain North District		Work Sub-District											
		Watauga West	Watauga Central	Watauga East	Ashe West	Ashe Central	Ashe East	Wilkes West	Wilkes East	Wilkesboro	Alleghany West	Alleghany--Sparta	Alleghany East
Home Sub-District	Watauga West	607	2212	74	1	44	3	4	8	87	0	16	2
	Watauga Central	285	4077	177	6	86	5	5	6	120	1	11	1
	Watauga East	172	2068	233	15	88	11	3	4	90	2	10	1
	Ashe West	41	677	62	142	747	126	2	6	121	1	14	4
	Ashe Central	20	336	22	53	1549	166	1	6	189	4	32	4
	Ashe East	17	214	10	31	945	280	6	5	123	13	53	10
	Wilkes West	4	103	8	4	79	2	149	185	1963	3	29	4
	Wilkes East	7	98	14	0	74	4	86	873	2709	3	52	9
	Wilkesboro	13	251	20	7	141	12	151	321	5627	5	65	9
	Alleghany West	0	19	0	1	86	9	2	9	67	74	266	82
	Alleghany--Sparta	1	16	0	0	36	0	4	4	48	33	386	91
	Alleghany East	0	16	5	0	21	4	2	9	39	57	329	179



Figure 1 - 31: Significant commuting within counties

Sub-District Commuter Flow Analysis

Mountain North (Source: LEHD 2014, All Jobs)

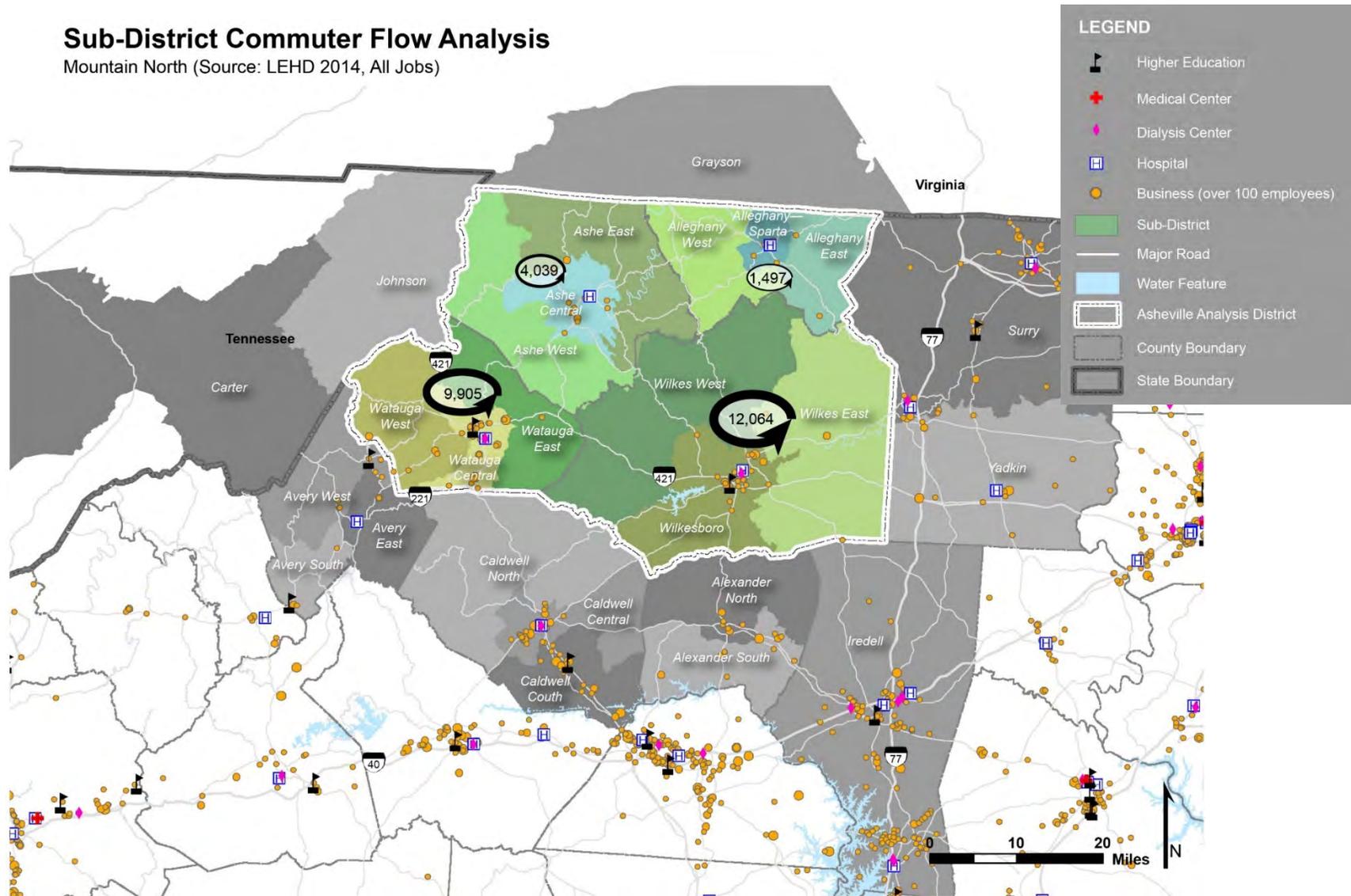
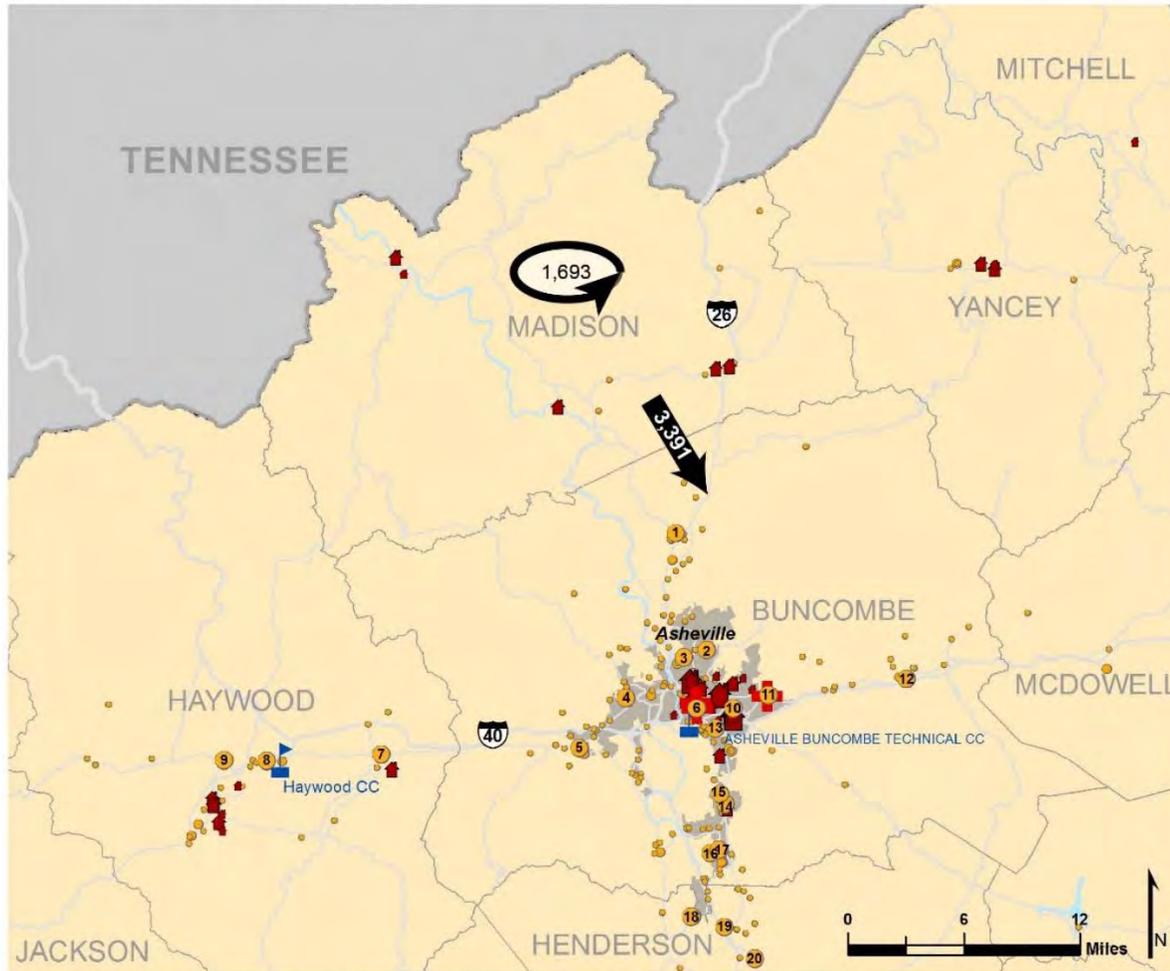




Figure 1 - 33: Significant job locations and commuting patterns for Madison County

Madison County Transit Commuting Opportunities

(Worker flow data from LEHD 2014, All Jobs)



Legend

- Community Colleges
- Regional Medical Center
- Assisted / Subsidized Housing (total units)**
 - 10 or fewer
 - 11 - 100
 - 101 - 428
- Businesses (total employees)**
 - 100 - 250
 - 251 - 500
 - over 500
- Major Roads
- Water Features
- Urban Areas
- County Boundaries
- Worker flow (US Census LEHD 2014, All Jobs)**
 - (# of workers with employer in adjacent county)
 - (# of workers that reside and work in the county)

Businesses with over 500 Employees:

1	Arvato Digital Svc LLC	530
2	Omni Grove Park LLC	800
3	University Of NC-Asheville	781
4	M B Haynes	600
5	Asheville-Buncombe Technical	500
6	Mission Hospital	6,000
7	Ever Green Packaging	1,112
8	Haywood Regional Medical Ctr	760
9	Lake Junaluska Assembly Inc	600
10	Walmart Supercenter	500
11	US Veterans Medical Ctr	1,716
12	Ingles Markets Inc	26,500
13	Care Partners Health Svc	1,200
14	Braiform Inc	500
15	Sitel Corp	600
16	Eaton Corp	700
17	Medical Action Industries Inc	815
18	Continental Teves Inc	500
19	Meritor Inc	700
20	Park Ridge Health	1,141

Sources: Assisted Housing--US Department of Housing and Urban Development (2016); Businesses--InfoUSA (2017); Community Colleges--NC Institute for Transportation Research and Education
 Map Created: November 2017



Mountain South

Table 1 - 13: Mountain South commute travel matrix (jobs by home location – work location pairs)

Mountain South District		Work Sub-District										
		Cherokee West	Cherokee East	Graham	Clay	Swain South	Swain North	Macon	Transylvania East	Transylvania West	Jackson North	Jackson South
Home Sub-District	Cherokee West	260	1150	35	96	50	0	69	11	6	84	4
	Cherokee East	272	2749	170	299	122	0	169	33	7	139	13
	Graham	35	144	994	16	208	0	50	17	0	177	20
	Clay	79	546	31	997	45	0	186	19	2	66	7
	Swain S	17	86	49	14	1973	2	195	73	13	1220	56
	Swain N	0	0	0	0	2	0	3	3	0	4	1
	Macon	40	166	29	50	231	0	6391	94	34	721	164
	Transylvania E	2	19	7	2	28	2	48	3023	281	72	53
	Transylvania W	0	9	6	0	12	0	16	729	392	32	171
	Jackson North	22	109	69	30	1236	5	504	75	21	4068	190
	Jackson South	4	16	16	5	67	0	194	26	12	417	386



Figure 1 - 34: Significant commuting within counties

Sub-District Commuter Flow Analysis

Mountain South District (Source: LEHD 2014, All Jobs)

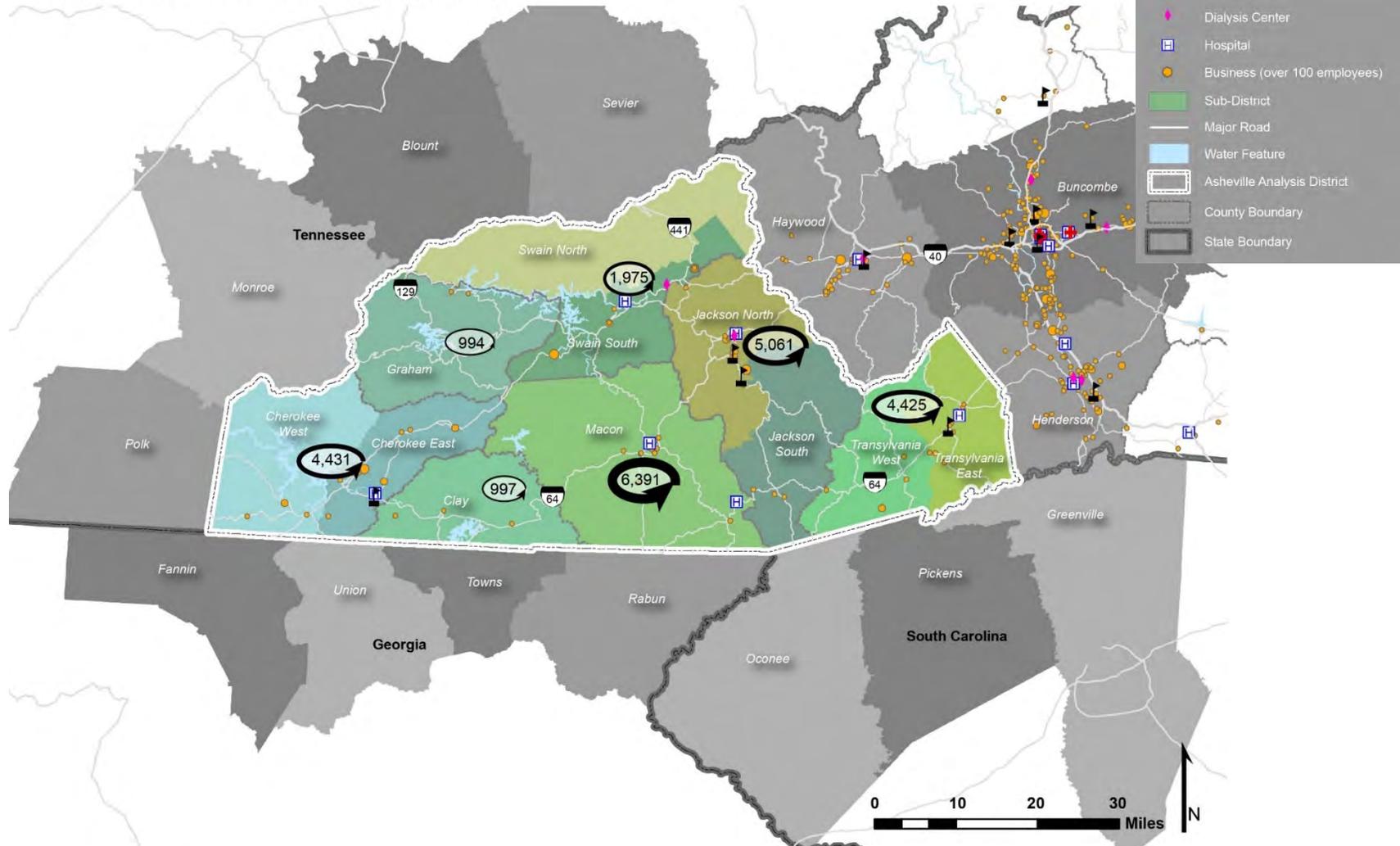
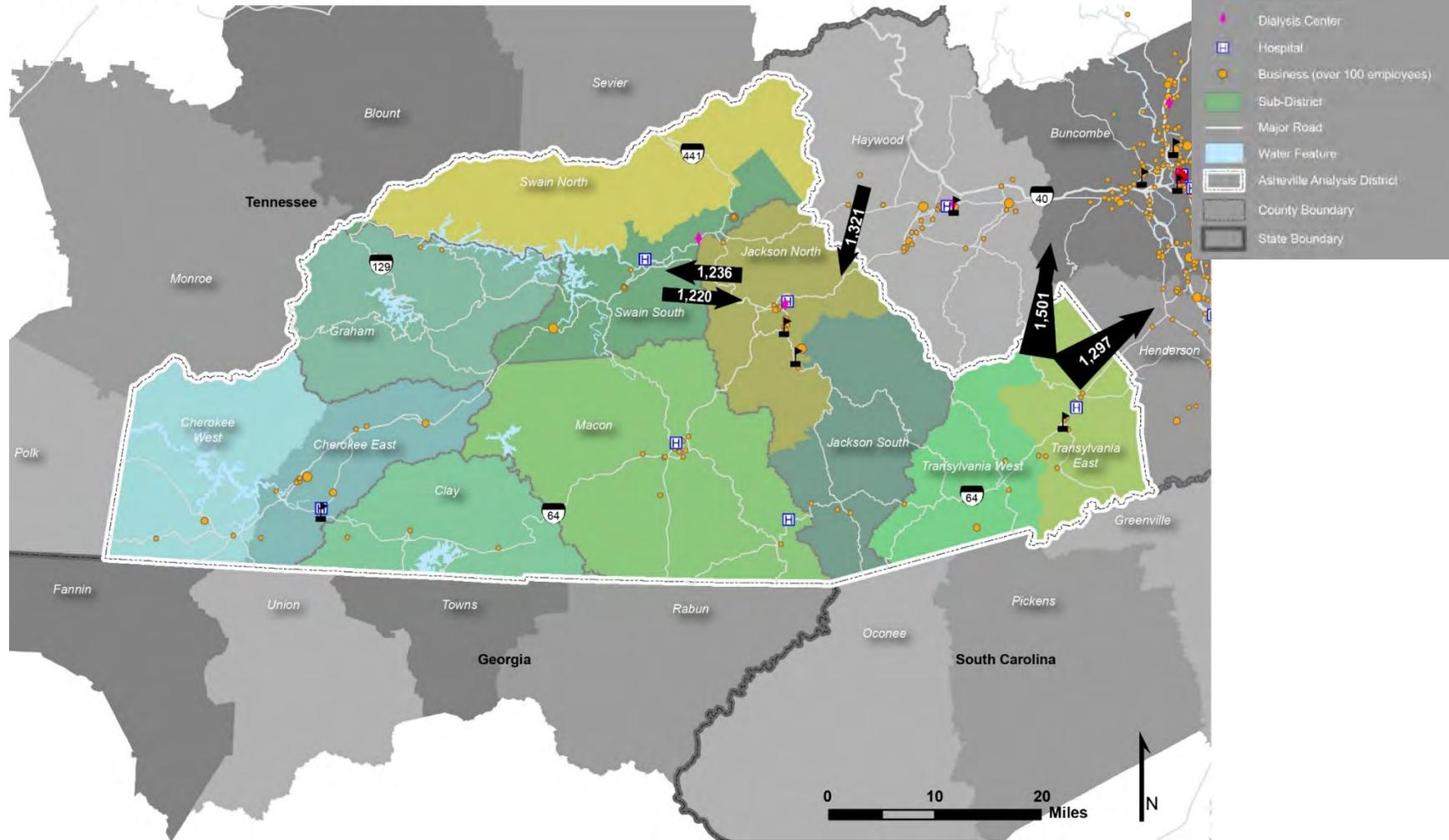




Figure 1 - 35: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Mountain South District (Source: LEHD 2014, All Jobs)





Piedmont

Table 1 - 14: Piedmont commute travel matrix (jobs by home location – work location pairs)

Piedmont District		Work Sub-District													
		Surry West	Surry Central	Surry--Mt. Airy	Surry East	Yadkin West	Yadkin East	Davie West	Davie--Mocksville	Davie East	Lewisville	Clemmons	Rural Hall	Winston-Salem	Kernersville
Surry West	112	690	711	52	201	9	4	16	5	7	24	36	303	11	
Surry Central	37	1893	855	76	529	21	0	30	11	10	37	61	546	44	
Surry--Mt. Airy	63	1445	5774	460	279	31	14	71	21	41	86	205	2091	78	
Surry East	14	379	542	330	101	13	6	17	15	16	28	119	989	22	
Yadkin West	11	839	210	26	2575	227	29	133	64	53	142	83	1469	85	
Yadkin East	1	169	125	21	935	348	11	101	56	107	119	154	1861	79	
Davie West	0	43	60	5	179	30	380	1044	252	16	130	29	835	49	
Davie--Mocksville	0	27	40	0	66	6	155	783	168	16	122	16	674	35	
Davie East	1	31	61	5	84	20	102	655	787	76	389	93	2644	136	
Lewisville	0	35	49	11	71	46	7	63	98	488	344	264	5617	223	
Clemmons	0	26	51	5	101	29	16	141	201	192	1009	183	5906	216	
Rural Hall	0	20	54	33	45	11	7	51	42	137	186	630	4931	325	
Winston-Salem	2	218	335	59	229	107	62	283	529	905	1829	1247	49150	3088	
Kernersville	3	48	77	19	70	11	11	69	35	124	204	216	6158	2511	
Davidson West	0	11	19	2	10	2	36	64	48	23	68	18	857	82	
Davidson North	2	18	33	3	19	20	25	80	95	101	314	150	5525	463	
Davidson South	1	33	43	6	28	10	37	94	63	35	78	25	1693	207	
Davidson East	0	30	47	12	31	12	13	40	46	26	99	70	2355	427	
Stokes North	5	95	247	138	83	4	3	31	5	19	32	167	1233	161	
Stokes South	4	124	347	147	102	29	11	71	43	104	173	702	4886	364	
Rockingham West	0	4	14	2	7	0	0	4	6	4	13	20	336	201	
Rockingham North	0	2	19	3	13	1	2	9	4	1	16	20	365	107	
Rockingham South	0	9	20	2	9	0	4	5	4	1	9	16	292	103	
Caswell	0	5	13	0	13	1	0	3	5	4	11	12	234	37	
Guilford North	0	19	25	2	11	3	0	8	10	14	33	50	1537	498	
Guilford South	0	25	31	1	15	3	4	8	6	9	30	19	816	171	
Guilford East	1	26	28	5	14	2	2	12	8	11	42	19	950	184	
High Point	0	65	73	9	34	7	3	45	19	33	81	67	3899	858	
Greensboro	0	97	173	14	68	3	5	77	36	67	162	74	4686	1228	
Alamance North	0	2	15	0	5	1	0	7	4	5	7	7	154	19	
Alamance Central	0	21	72	5	27	4	5	14	9	9	32	20	663	94	
Alamance South	0	6	22	0	8	0	1	5	3	3	13	4	191	19	
Randolph West	3	27	53	7	17	3	7	18	16	11	37	15	673	249	
Randolph South	0	7	15	0	5	0	0	4	3	5	15	5	153	42	
Randolph East	1	21	42	5	20	4	7	22	9	8	29	15	515	107	



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
PUBLIC TRANSPORTATION STRATEGIC PLAN
Connecting North Carolinians to Opportunities

(Table 1 – 14 continued))

Piedmont District	Work Sub-District																				
	Davidson West	Davidson North	Davidson South	Davidson East	Stokes North	Stokes South	Rockingham West	Rockingham North	Rockingham South	Caswell	Guilford North	Guilford South	Guilford East	High Point	Greensboro	Alamance North	Alamance Central	Alamance South	Randolph West	Randolph South	Randolph F-
Surry West	0	7	9	8	6	29	4	1	1	0	4	4	2	25	39	0	8	0	6	3	1
Surry Central	6	18	19	13	20	44	8	3	1	1	9	12	3	55	76	1	16	1	9	0	3
Surry--Mt. Airy	11	25	54	28	85	232	25	11	5	1	11	27	5	116	213	0	29	0	30	5	3
Surry East	6	19	6	5	37	154	6	1	3	0	5	5	3	32	43	0	7	1	6	1	4
Yadkin West	6	33	60	41	14	45	50	26	45	2	30	16	19	145	315	0	53	1	52	4	18
Yadkin East	9	41	29	20	10	73	33	22	17	0	25	13	14	141	230	1	38	2	25	1	10
Davie West	22	23	69	47	12	34	18	15	25	2	23	10	4	86	238	2	29	1	72	1	8
Davie--Mocksville	11	36	37	47	2	12	8	14	6	1	15	14	9	80	145	0	20	0	62	1	2
Davie East	8	81	105	70	4	33	15	19	24	4	65	9	13	204	369	1	39	2	64	1	10
Lewisville	10	59	68	63	14	73	23	10	26	2	75	36	21	329	758	8	51	3	53	2	19
Clemmons	18	132	107	103	7	38	23	17	23	3	96	37	23	434	851	4	62	2	55	1	23
Rural Hall	8	78	65	68	60	276	31	10	20	1	100	44	17	371	755	3	55	4	37	2	21
Winston-Salem	121	864	578	723	60	520	133	93	113	17	1073	226	149	4209	5814	47	529	13	405	27	123
Kernersville	34	121	140	262	35	124	110	15	38	3	761	99	104	2124	3149	10	117	0	170	4	29
Davidson West	610	611	1850	609	1	9	7	9	12	6	45	32	19	367	378	3	44	0	163	12	36
Davidson North	241	1503	1059	877	3	29	12	15	19	6	183	49	39	990	1097	0	73	2	210	12	53
Davidson South	440	1020	5568	1763	8	30	14	13	33	5	100	73	37	1362	1135	7	141	1	772	99	174
Davidson East	129	511	1455	4477	2	28	16	27	51	6	313	182	71	5836	2588	5	135	5	1622	68	190
Stokes North	1	24	39	26	676	324	460	39	28	2	92	31	24	161	458	1	32	3	23	1	8
Stokes South	10	74	67	68	383	1346	133	43	39	5	196	58	28	339	801	2	83	2	64	3	25
Rockingham West	5	5	21	24	215	45	2375	896	794	12	543	72	230	590	2423	11	235	6	79	3	42
Rockingham North	4	8	19	40	64	26	876	2877	1896	68	139	77	338	366	1754	36	384	10	68	1	40
Rockingham South	4	6	24	28	22	22	329	838	2695	74	249	146	405	423	2779	30	424	7	63	6	39
Caswell	4	4	19	19	9	12	69	191	374	1124	71	47	151	174	706	150	1294	97	39	2	39
Guilford North	3	38	58	76	3	22	150	67	134	7	1528	141	269	2008	6653	29	295	17	168	8	62
Guilford South	4	32	81	126	5	13	43	47	82	4	388	1152	496	1633	7426	70	891	46	414	24	250
Guilford East	6	21	90	81	2	23	99	82	279	19	570	528	1471	1516	9084	245	1742	67	253	8	125
High Point	29	145	602	1191	6	47	101	99	159	14	1166	522	402	14925	11720	74	1014	45	1864	55	298
Greensboro	38	153	360	566	14	63	254	297	544	44	3093	2077	2280	10587	53204	277	2529	85	1321	58	406
Alamance North	2	6	15	21	0	5	4	15	54	48	46	178	154	174	753	478	3718	203	31	4	33
Alamance Central	8	29	70	79	1	20	51	94	209	87	197	849	602	847	3635	1183	18876	1117	188	19	213
Alamance South	2	7	19	21	0	4	11	22	42	16	52	177	155	224	935	205	4228	901	56	5	134
Randolph West	57	127	583	1418	1	22	12	23	45	9	369	333	163	5533	4329	15	402	32	6935	464	1845
Randolph South	10	32	176	104	1	1	6	7	3	0	41	52	28	376	525	4	107	10	2417	669	1109
Randolph East	29	22	154	176	1	15	20	19	42	8	158	359	144	1098	2887	12	357	66	5250	552	3935



Table 1 - 15: Total commuters (trips) to destination sub-district (from surrounding sub-districts*)

Destination	Trips (incoming)
Greensboro	134,502
Winston-Salem	121,002
High Point	60,051
Alamance Central	42,100
Randolph West	25,010

*includes areas considered in the District Analysis; figure does not reflect all jobs within the sub-district



Figure 1 - 36: Significant commuting within counties

Sub-District Commuter Flow Analysis

Piedmont District (Source: LEHD 2014, All Jobs)

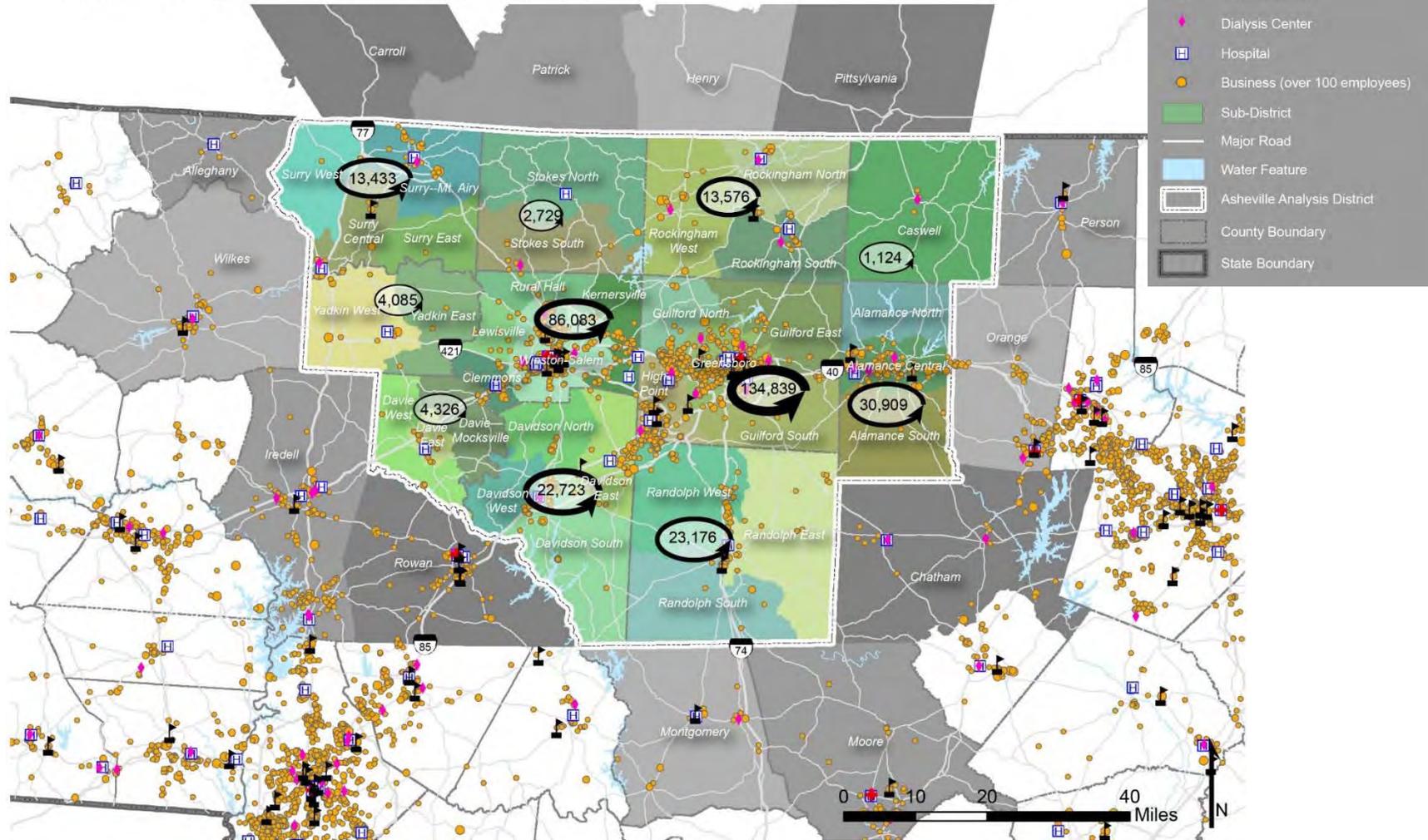




Figure 1 - 37: Significant commuting within sub-districts (potential for local transit service)

Sub-District Commuter Flow Analysis

Piedmont District (Source: LEHD 2014, All Jobs)

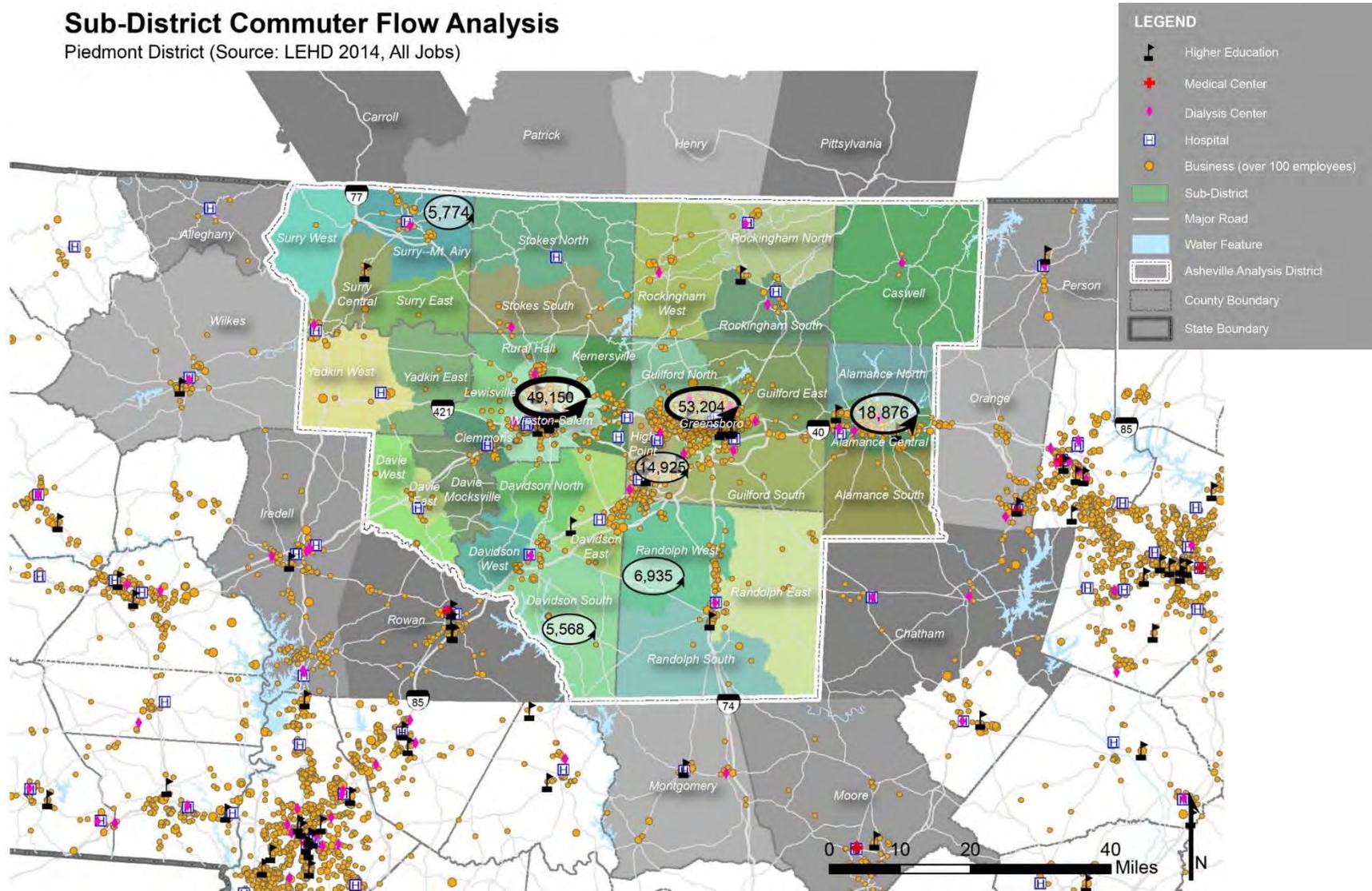
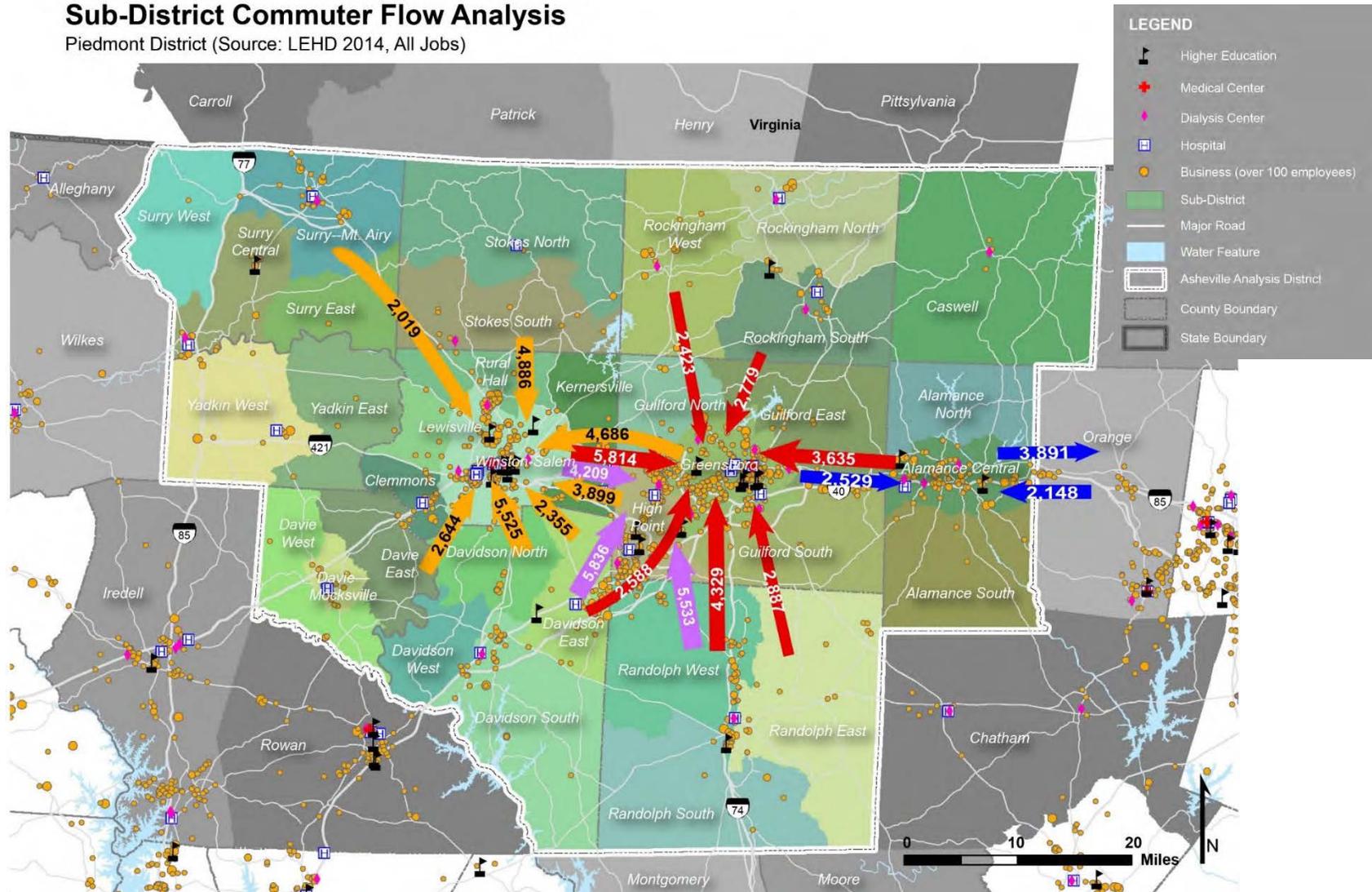




Figure 1 - 38: Significant commuting between sub-districts (red arrows for travel to/from Greensboro, blue arrows for travel to/from Alamance Central, magenta arrows for travel to/from High Point, gold arrows for travel to/from Winston-Salem)

Sub-District Commuter Flow Analysis

Piedmont District (Source: LEHD 2014, All Jobs)





Sandhills

Table 1 - 16: Sandhills commute travel matrix (jobs by home location – work location pairs)

Sandhills District		Work Sub-District								
		Anson	Richmond North	Richmond South	Scotland	Hoke South	Hoke--Fort Bragg	Montgomery	Pinehurst	Moore West
Home Sub-District	Anson	3127	13	330	24	9	0	106	148	39
	Richmond North	51	189	575	78	37	1	154	483	54
	Richmond South	410	401	5089	626	186	0	174	1266	112
	Scotland	61	23	522	4636	250	3	74	617	67
	Hoke South	54	7	148	312	2613	35	76	1236	83
	Hoke--Fort Bragg	3	0	3	5	2	0	1	10	1
	Montgomery	83	128	133	23	15	0	3660	578	248
	Pinehurst	59	75	368	340	301	9	203	10427	1370
	Moore West	25	58	151	69	56	2	501	3151	1763



Figure 1 - 39: Significant travel within counties

Sub-District Commuter Flow Analysis

Sandhills District (Source: LEHD 2014, All Jobs)

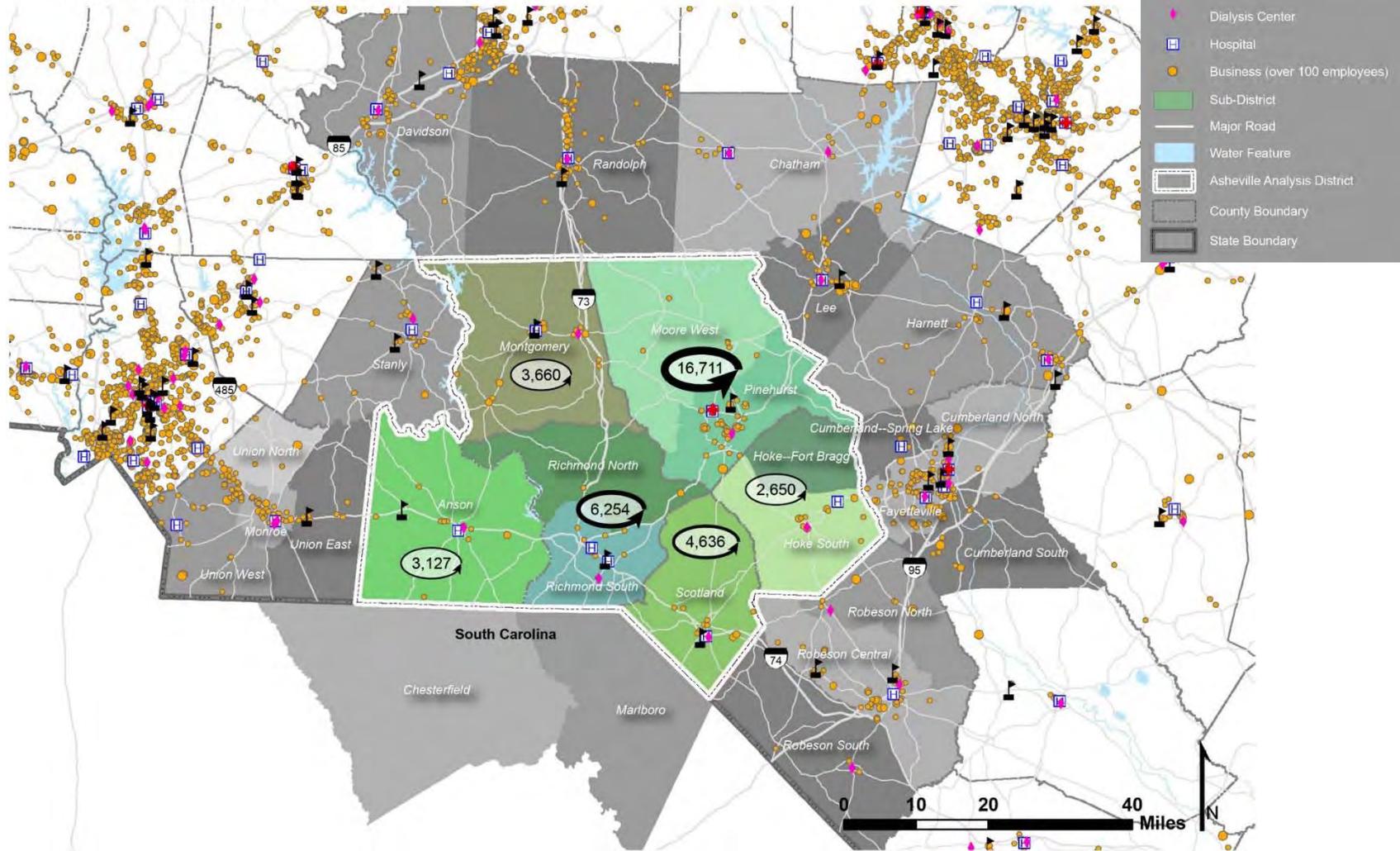
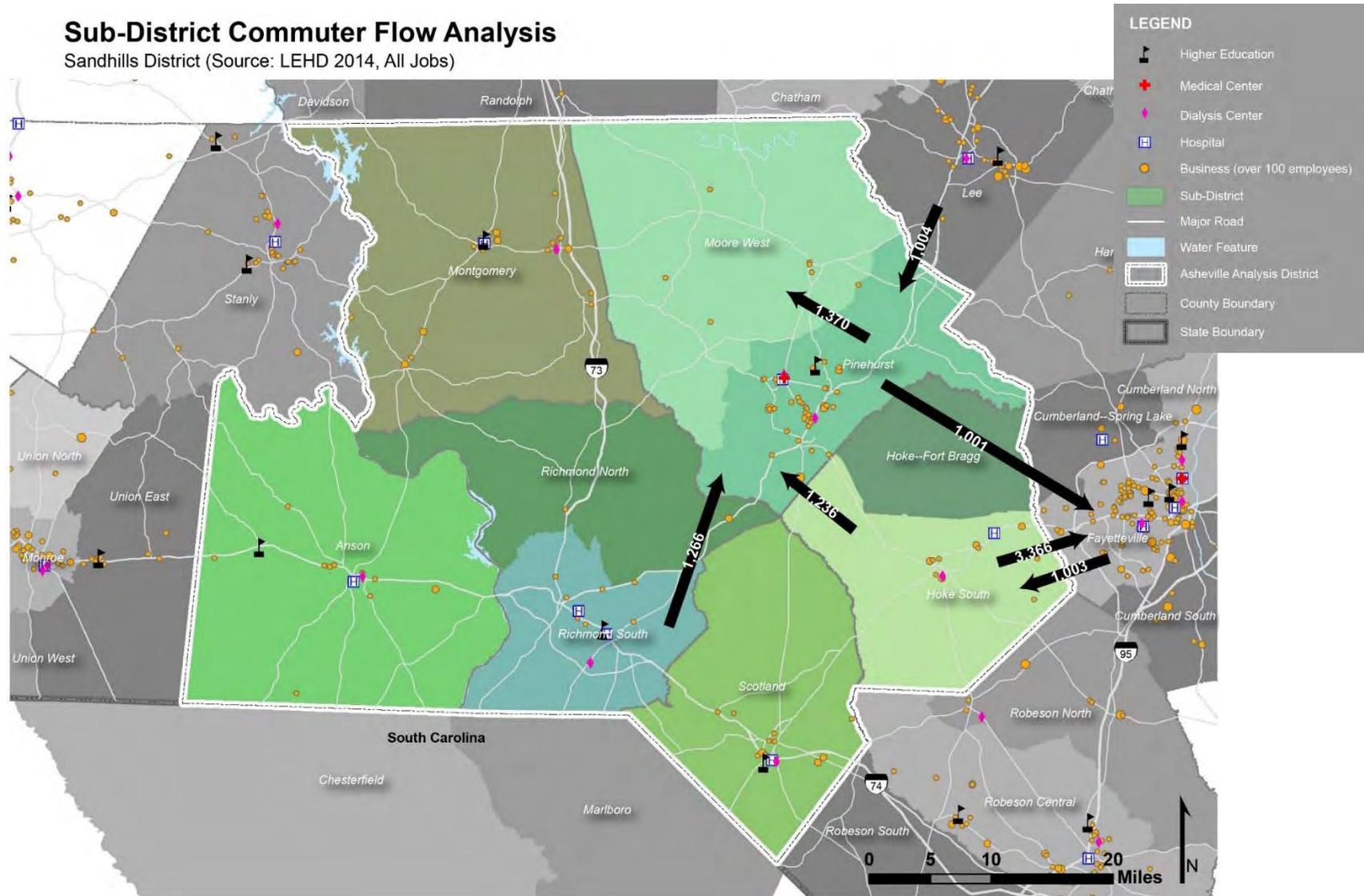




Figure 1 - 40: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Sandhills District (Source: LEHD 2014, All Jobs)





Triangle

Table 1 - 17: Triangle commute travel matrix (jobs by home location – work location pairs)

Triangle District	Work Sub-District																			
	Chatham West	Chatham North	Chatham East	Lee North	Lee South	Orange North	Orange South	Chapel Hill	Durham North	Durham East	Durham West	Durham Central	Durham RTP	Wake West--RTP	Wake North	North Raleigh	Wake East	Wake South	Wake Central	RDU
Chatham West	2301	1135	151	880	46	77	19	919	44	21	215	108	257	455	40	248	49	335	803	40
Chatham North	204	1239	147	178	12	114	32	2944	71	28	824	259	723	806	36	238	39	348	871	75
Chatham East	21	136	173	81	1	31	8	455	22	14	312	102	339	586	19	148	16	229	535	29
Lee North	144	228	293	6765	453	14	0	202	43	30	146	58	245	694	39	298	78	734	1099	71
Lee South	80	60	92	2150	273	7	1	45	9	5	31	31	59	210	12	83	29	190	380	15
Orange North	24	76	43	80	4	2464	168	1994	480	120	2632	1013	840	531	51	302	55	288	1024	65
Orange South	18	105	20	52	2	630	332	2462	104	36	1276	393	563	335	23	161	24	173	530	49
Chapel Hill	83	415	103	147	16	530	183	12288	232	79	4136	1076	1910	1290	102	559	96	529	1989	155
Durham North	14	89	42	38	2	366	36	1479	1714	275	6201	3985	1624	1063	138	705	80	524	1980	219
Durham East	15	52	48	37	2	174	31	841	511	541	3259	2715	1787	1160	170	896	66	622	1776	324
Durham West	23	227	120	85	1	469	107	5865	805	166	12001	4097	3384	2480	182	1023	118	959	3300	377
Durham Central	19	87	55	48	1	217	39	1726	954	274	5791	4754	1714	1350	171	929	94	717	2216	231
Durham RTP	5	79	57	19	0	119	21	1486	312	111	2872	1761	2235	1594	102	583	40	518	1233	245
Wake West--RTP	55	367	207	451	25	158	48	3197	544	229	5571	2120	11011	23497	761	4688	720	7510	18486	1398
Wake North	15	37	34	88	4	73	9	413	322	91	1367	743	2643	2607	3195	4684	795	1807	7709	478
North Raleigh	26	77	85	168	7	101	34	1032	537	238	3454	1788	6189	7518	1518	12728	1042	4677	22989	1574
Wake East	23	40	51	101	5	79	12	606	274	115	1326	720	1928	3571	1273	5031	3673	3534	15310	550
Wake South	78	191	166	667	37	123	40	1494	380	181	2479	1164	5285	13259	789	4966	1181	16981	24981	976
Wake Central	55	89	102	277	10	123	35	1358	377	233	2540	1470	4300	8685	1125	8218	1499	7742	36354	1100
RDU	4	16	6	24	1	10	9	265	59	33	761	341	1057	1121	78	887	88	542	2017	438
Johnston Central	15	19	21	149	11	42	6	193	127	43	381	256	659	1329	195	1180	551	2161	5668	213
Johnston West	25	58	24	176	11	51	6	241	137	51	434	219	771	1951	213	1537	400	3312	7730	222
Johnston South	9	4	2	34	3	13	2	45	25	2	60	27	63	128	33	146	58	337	689	27
Johnston North	8	10	8	34	4	16	0	42	42	10	65	48	150	252	108	351	402	465	1427	54
Harnett North	27	40	25	269	17	9	3	116	19	12	122	41	227	894	35	239	93	1974	2087	87
Harnett West	57	75	106	2207	131	21	1	159	41	21	153	85	150	448	40	278	101	681	952	54
Harnett East	27	20	13	298	12	10	4	94	28	23	99	59	149	318	34	218	88	830	1294	32
Fayetteville	70	24	17	370	32	45	2	214	74	51	346	183	299	610	82	649	147	1392	2860	87
Cumberland South	12	5	6	80	7	6	1	44	16	11	52	26	60	105	14	134	19	232	519	20
Cumberland--Spring Lake	10	6	2	57	3	6	0	21	9	5	37	17	24	93	9	82	22	193	365	16
Cumberland North	16	1	2	69	10	12	1	43	24	7	60	25	58	114	16	116	24	231	519	19



(Table 1 – 17 continued)

Triangle District	Work Sub-District											
	Johnston Central	Johnston West	Johnston South	Johnston North	Harnett North	Harnett West	Harnett East	Fayetteville	Cumberland South	Cumberland--Spring Lake	Cumberland North	
Chatham West	52	18	3	3	59	16	16	56	10	5	6	
Chatham North	37	16	1	3	40	12	8	54	13	2	6	
Chatham East	19	7	0	2	25	6	0	24	3	1	0	
Lee North	153	101	10	15	192	203	108	522	75	78	67	
Lee South	62	28	3	3	57	61	40	184	33	41	30	
Orange North	56	42	0	2	23	4	9	76	9	7	9	
Orange South	33	13	0	2	16	4	10	28	7	2	1	
Chapel Hill	94	35	1	7	68	20	20	163	37	10	17	
Durham North	69	20	6	2	17	6	36	110	25	11	15	
Durham East	46	18	0	2	9	4	32	94	13	10	10	
Durham West	99	38	5	6	25	9	39	182	38	18	21	
Durham Central	92	28	6	2	22	6	48	173	21	18	15	
Durham RTP	27	10	1	1	11	1	22	71	10	7	7	
Wake West--RTP	486	236	9	21	177	44	130	484	89	56	58	
Wake North	233	95	14	19	51	4	52	184	33	11	16	
North Raleigh	406	215	11	28	96	23	114	442	68	38	49	
Wake East	738	262	26	104	68	11	57	267	39	26	34	
Wake South	1160	870	44	34	841	81	353	537	82	64	92	
Wake Central	657	409	17	52	115	47	152	662	103	47	63	
RDU	42	24	2	3	16	2	13	54	5	3	11	
Johnston Central	6452	1408	206	342	127	40	223	262	78	42	47	
Johnston West	3550	3364	228	154	414	65	704	300	64	52	60	
Johnston South	1574	615	414	104	68	12	220	75	12	12	9	
Johnston North	1437	255	50	569	27	13	52	83	19	9	10	
Harnett North	316	232	20	16	1913	214	556	456	58	56	99	
Harnett West	194	103	14	13	981	1113	442	2260	211	662	322	
Harnett East	451	551	60	13	1225	225	2843	915	142	119	284	
Fayetteville	263	149	19	11	242	225	433	32402	2842	2052	2272	
Cumberland South	34	41	6	3	63	43	154	6545	1740	249	662	
Cumberland--Spring Lake	38	29	1	1	57	84	68	1042	117	406	96	
Cumberland North	55	48	2	3	133	75	338	5043	661	404	1561	



Table 1 - 18: Total commuters (trips) to destination sub-district (from surrounding sub-districts*)

Destination	Trips (incoming)
Chapel Hill	47,869
West Durham	66,433
Central Durham	33,821
Durham RTP and Wake West--RTP	138,892
North Raleigh	58,585
Wake South	69,337
Wake Central	191,962
Johnston Central	22,544
Fayetteville	65,314

*includes areas considered in the District Analysis;
figure does not reflect all jobs within the sub-district



Figure 1 - 41: Significant commuting within counties

Sub-District Commuter Flow Analysis

Triangle District (Source: LEHD 2014, All Jobs)

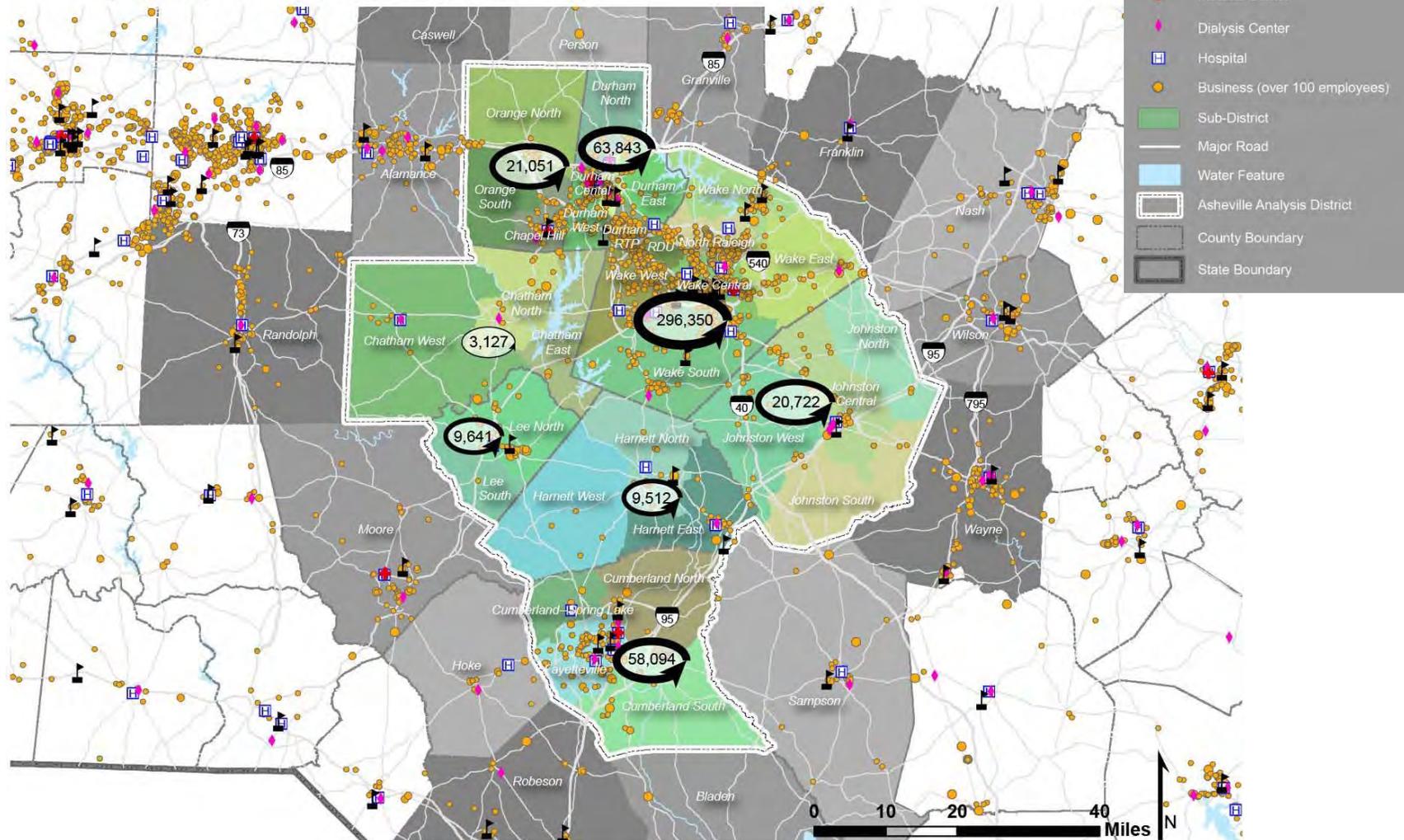




Figure 1 - 42: Commuting within sub-districts

Sub-District Commuter Flow Analysis

Triangle District (Source: LEHD 2014, All Jobs)

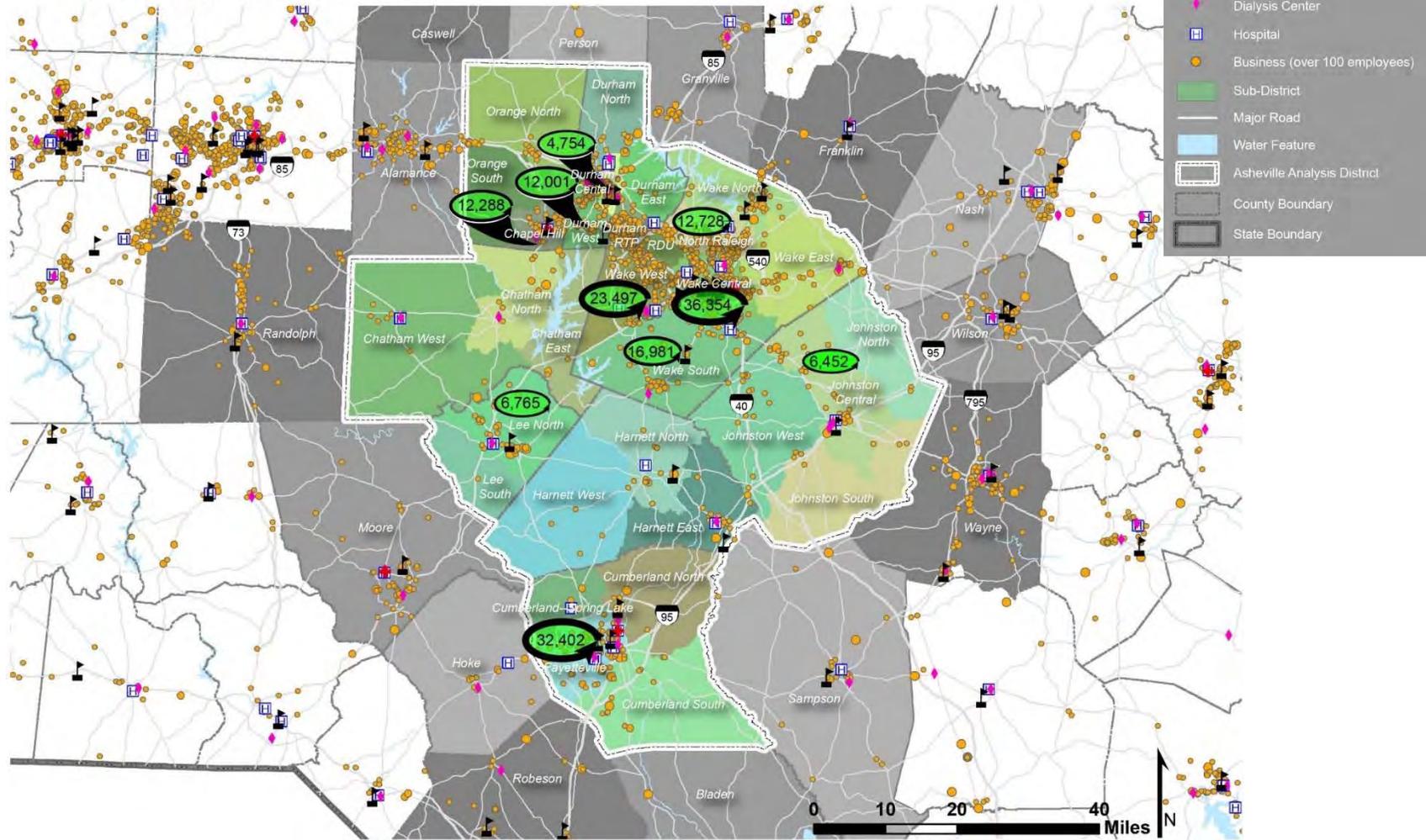




Figure 1 - 43: Trips to/from Chapel Hill sub-district

Sub-District Commuter Flow Analysis

Triangle District (Source: LEHD 2014, All Jobs)

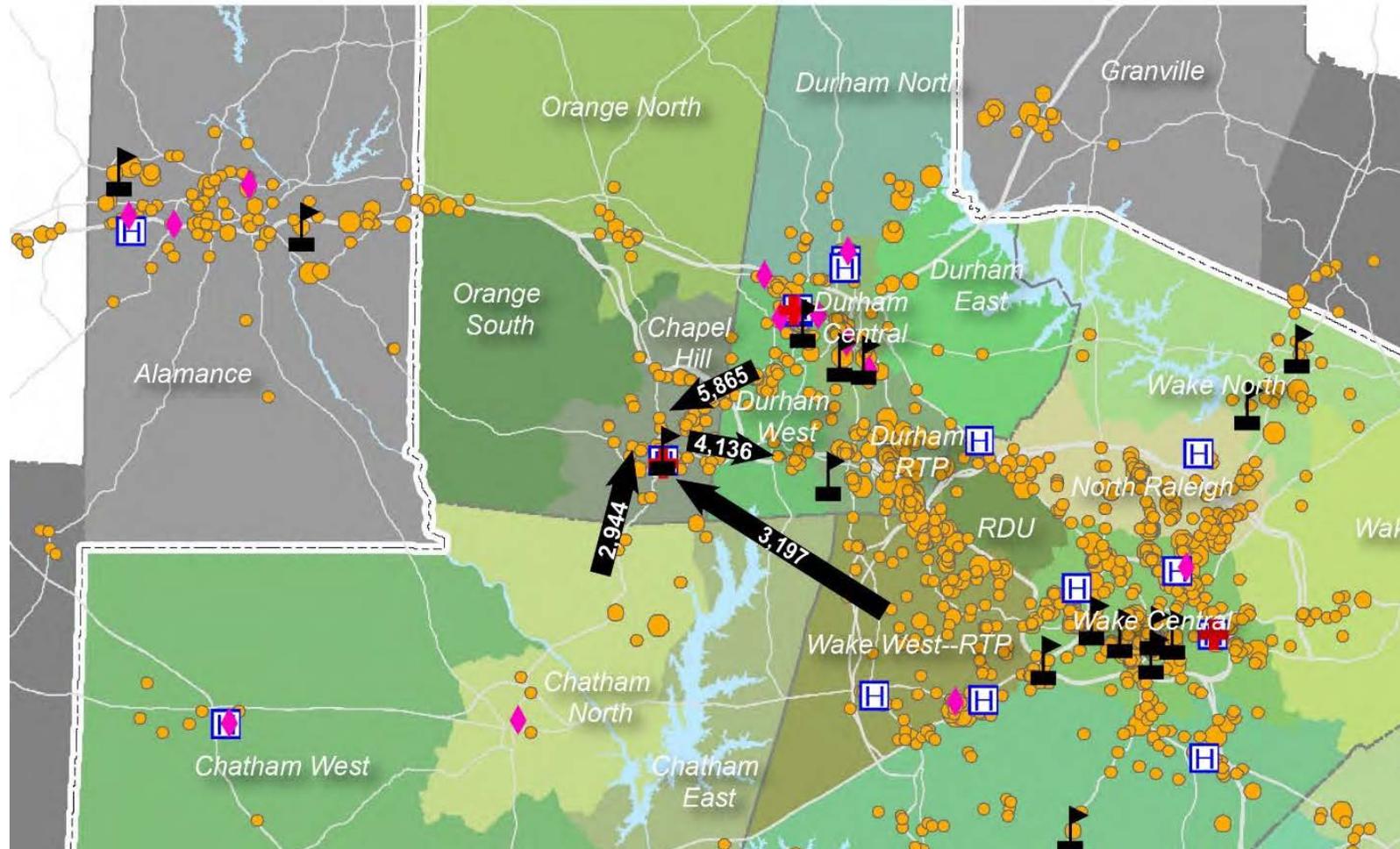




Figure 1 - 44: Trips to/from Durham West & Durham Central sub-districts

Sub-District Commuter Flow Analysis

Triangle District (Source: LEHD 2014, All Jobs)

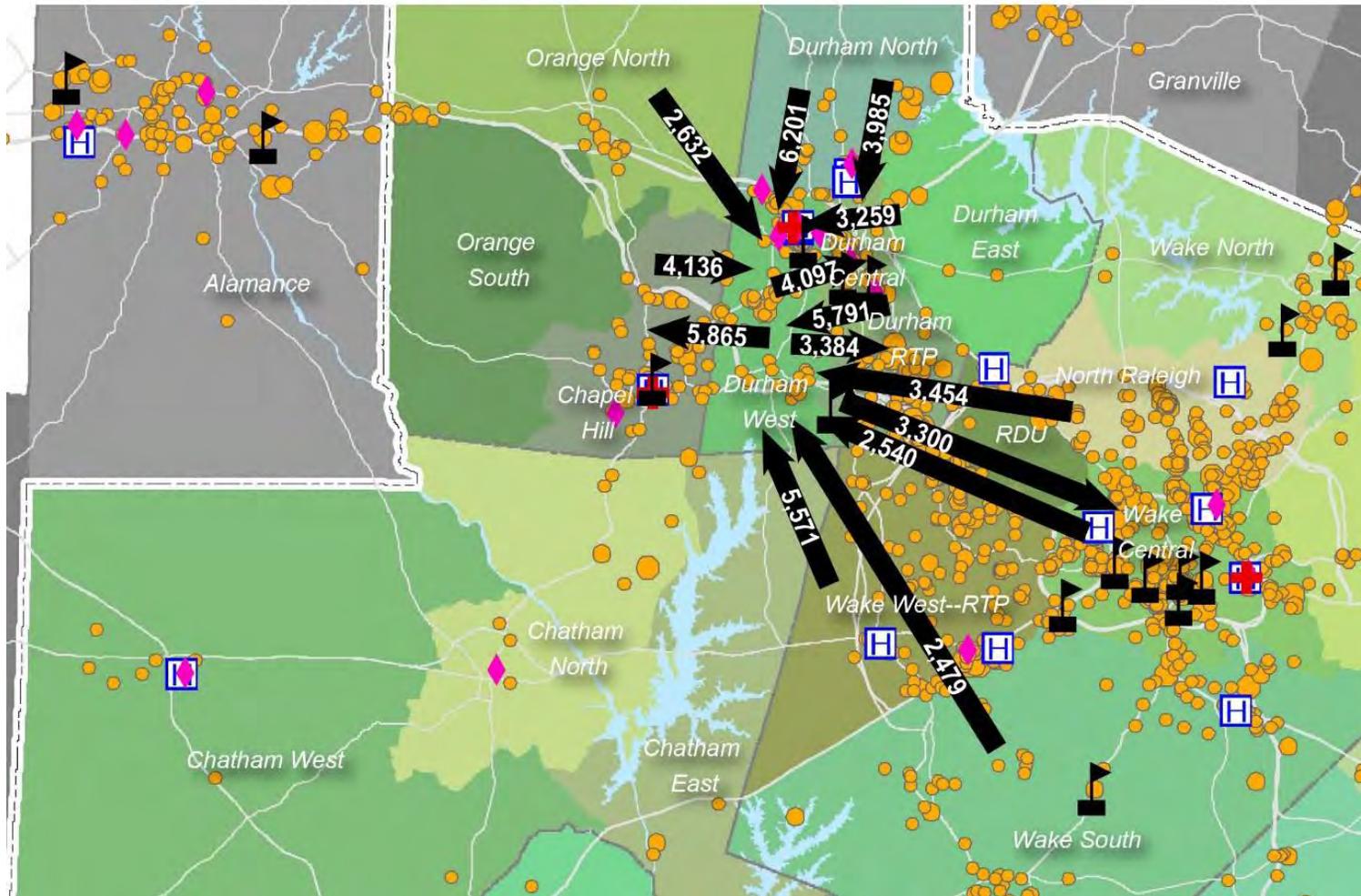




Figure 1 - 45: Trips to/from Durham—RTP and Wake West RTP sub-district

Sub-District Commuter Flow Analysis

Triangle District (Source: LEHD 2014, All Jobs)

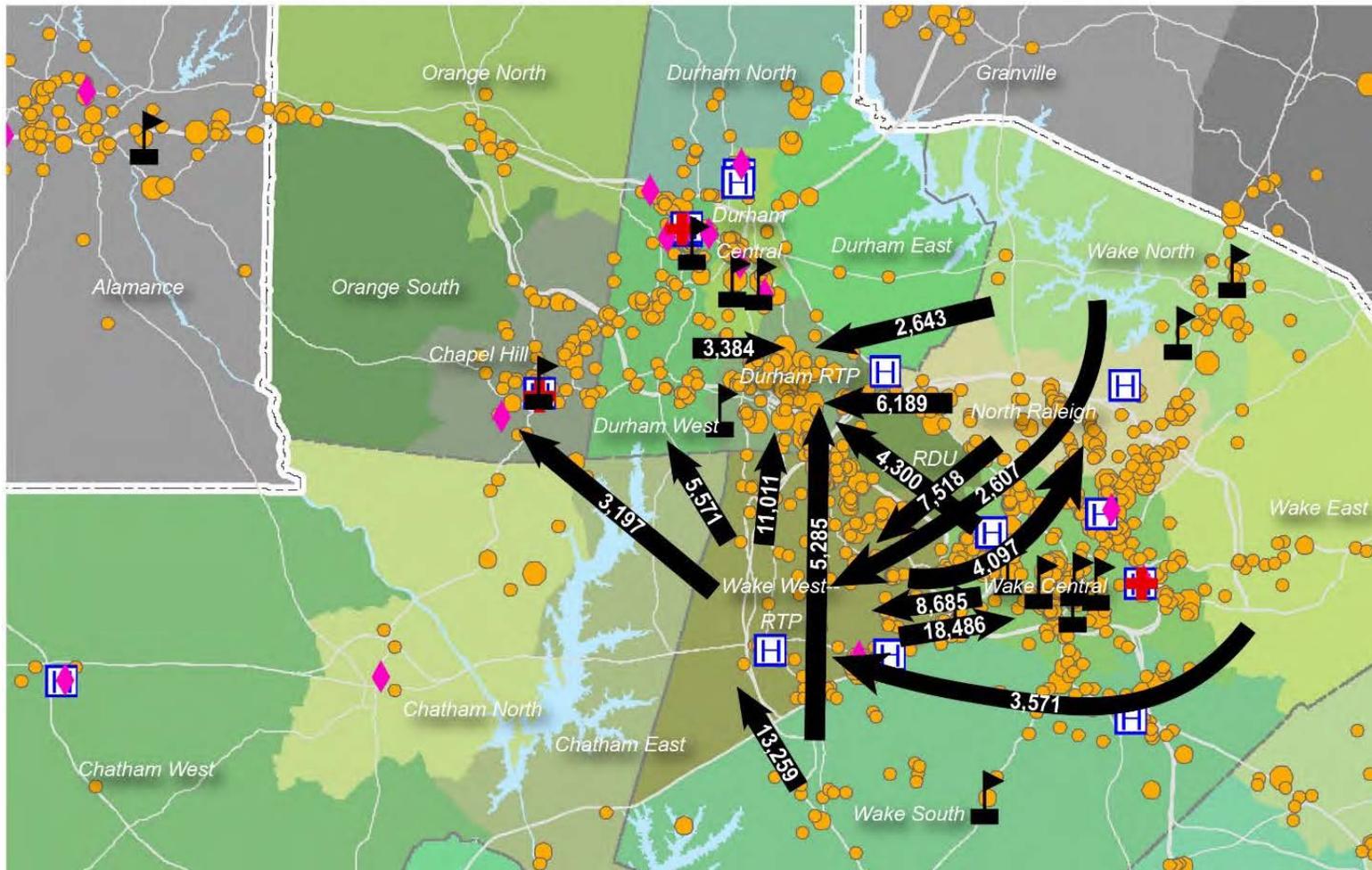




Figure 1 - 46: Trips to/from North Raleigh sub-district

Sub-District Commuter Flow Analysis

Triangle District (Source: LEHD 2014, All Jobs)

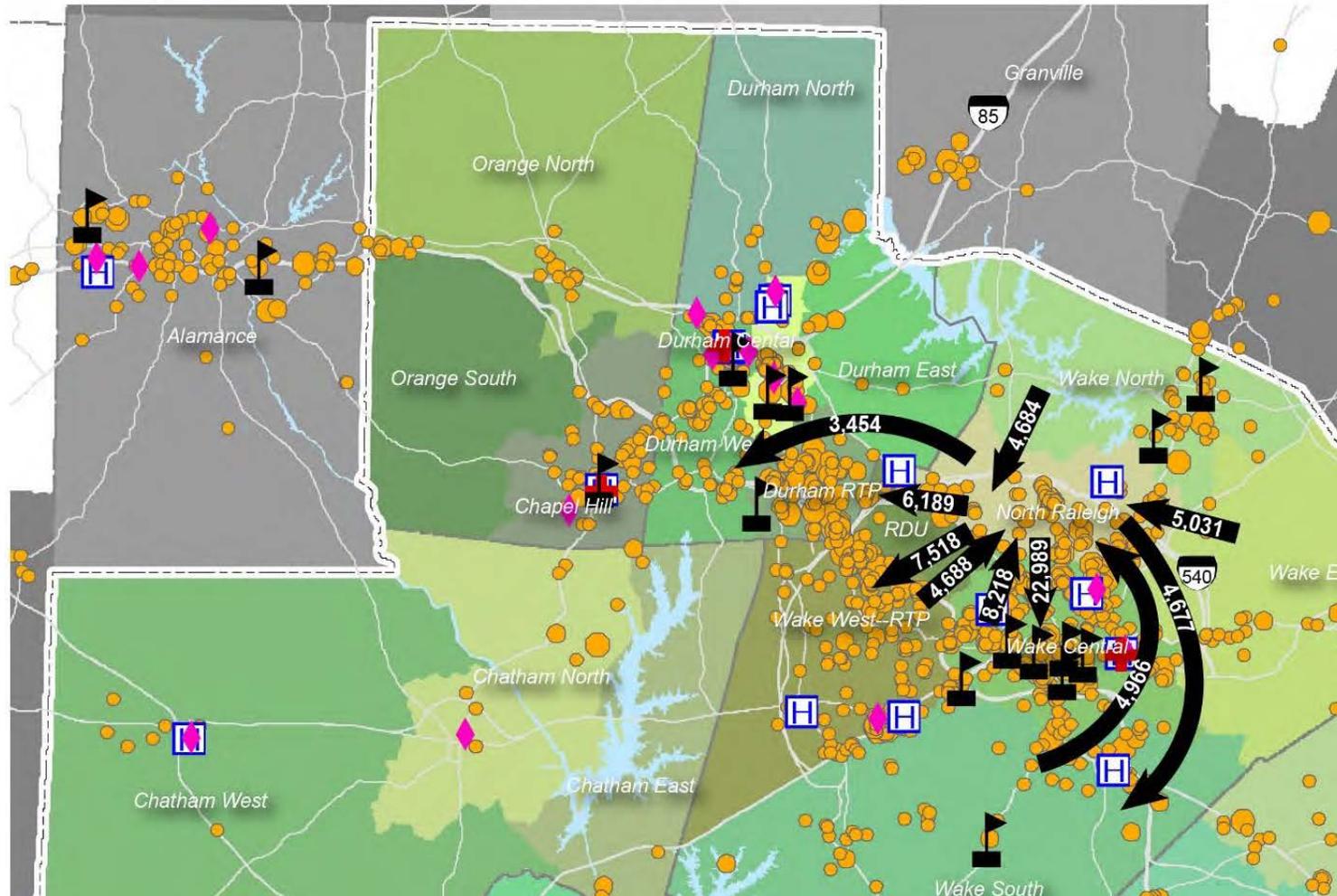




Figure 1 - 47: Trips to/from Wake South sub-district

Sub-District Commuter Flow Analysis

Triangle District (Source: LEHD 2014, All Jobs)

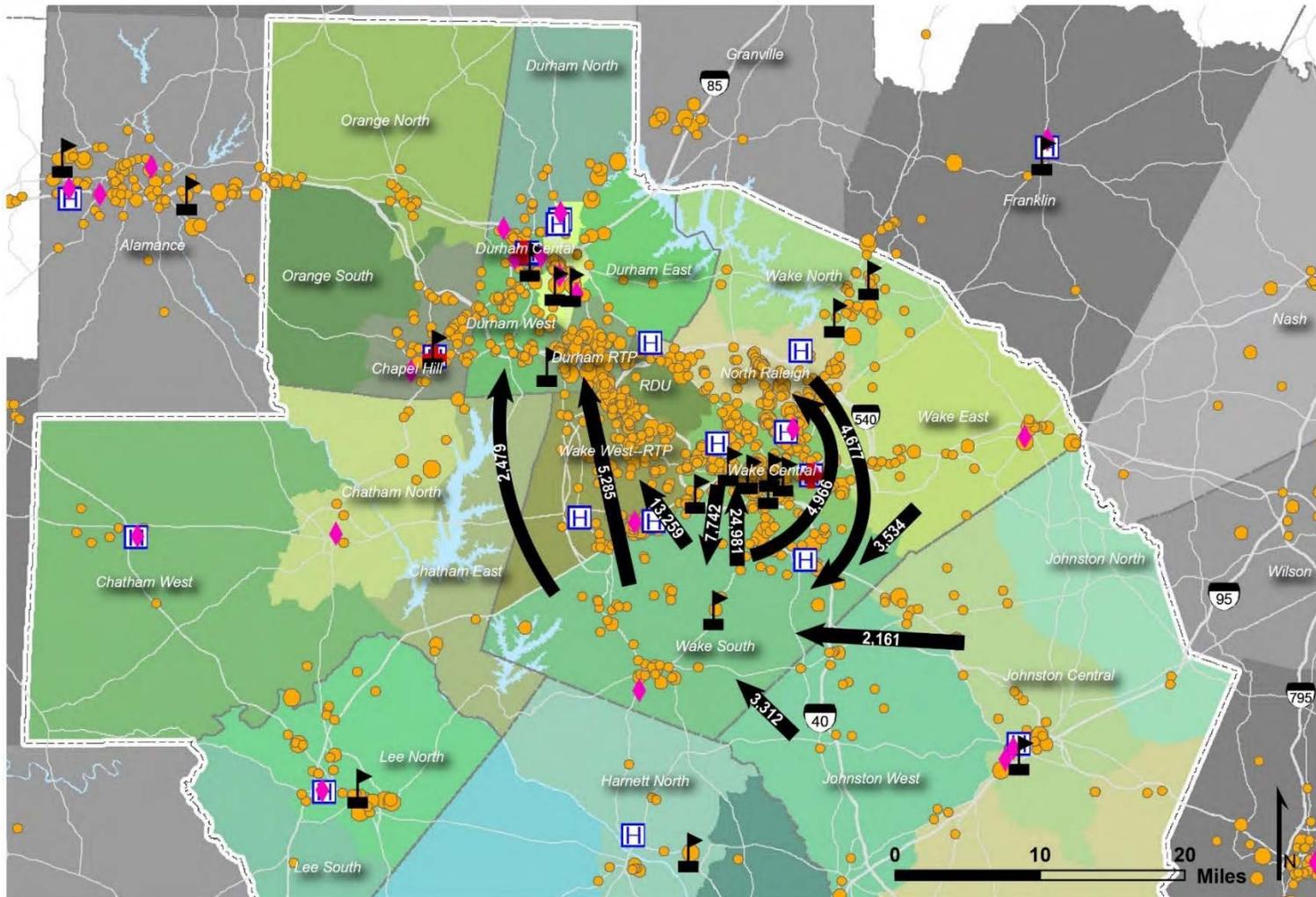




Figure 1 - 48: Trips to/from Wake Central sub-district

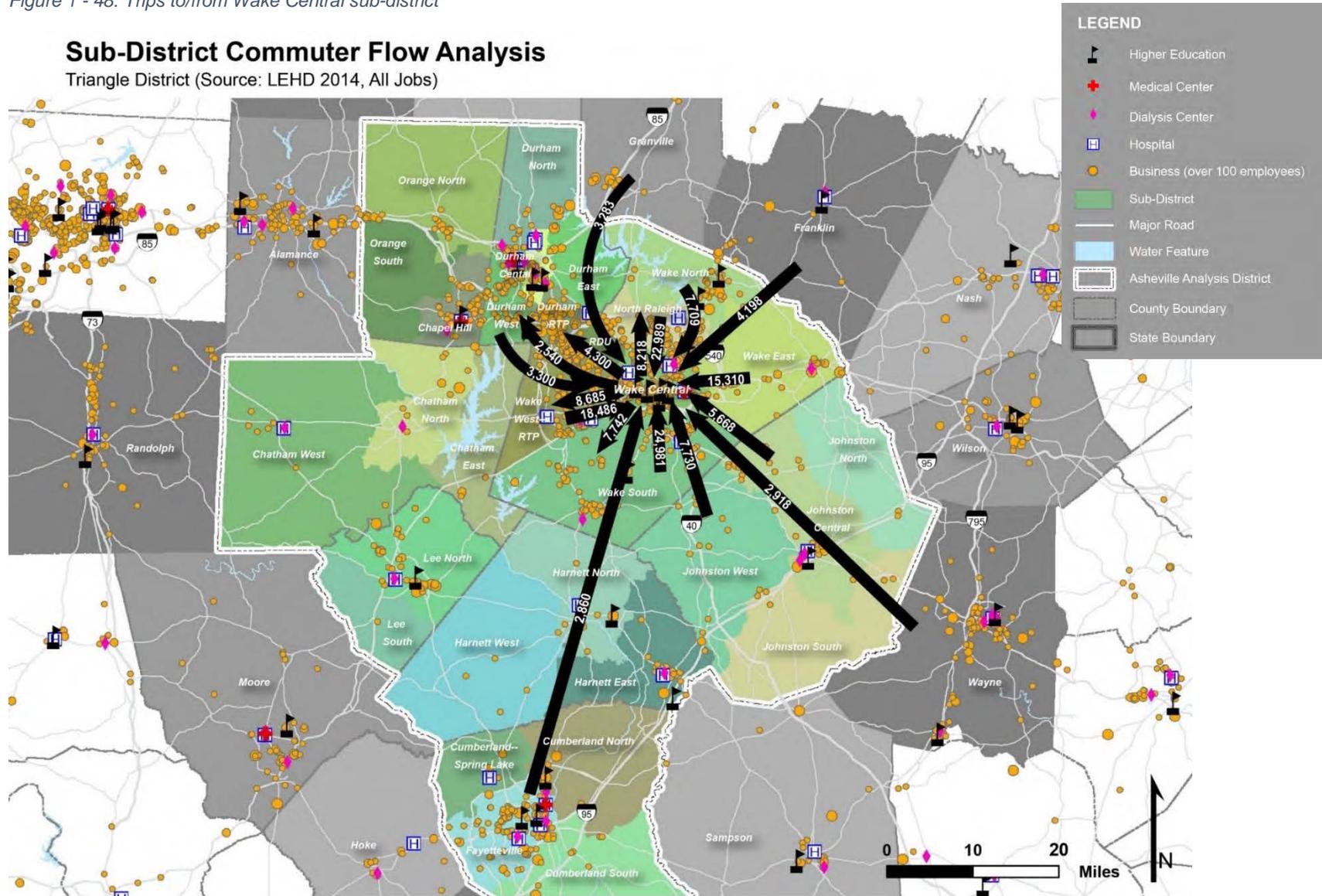
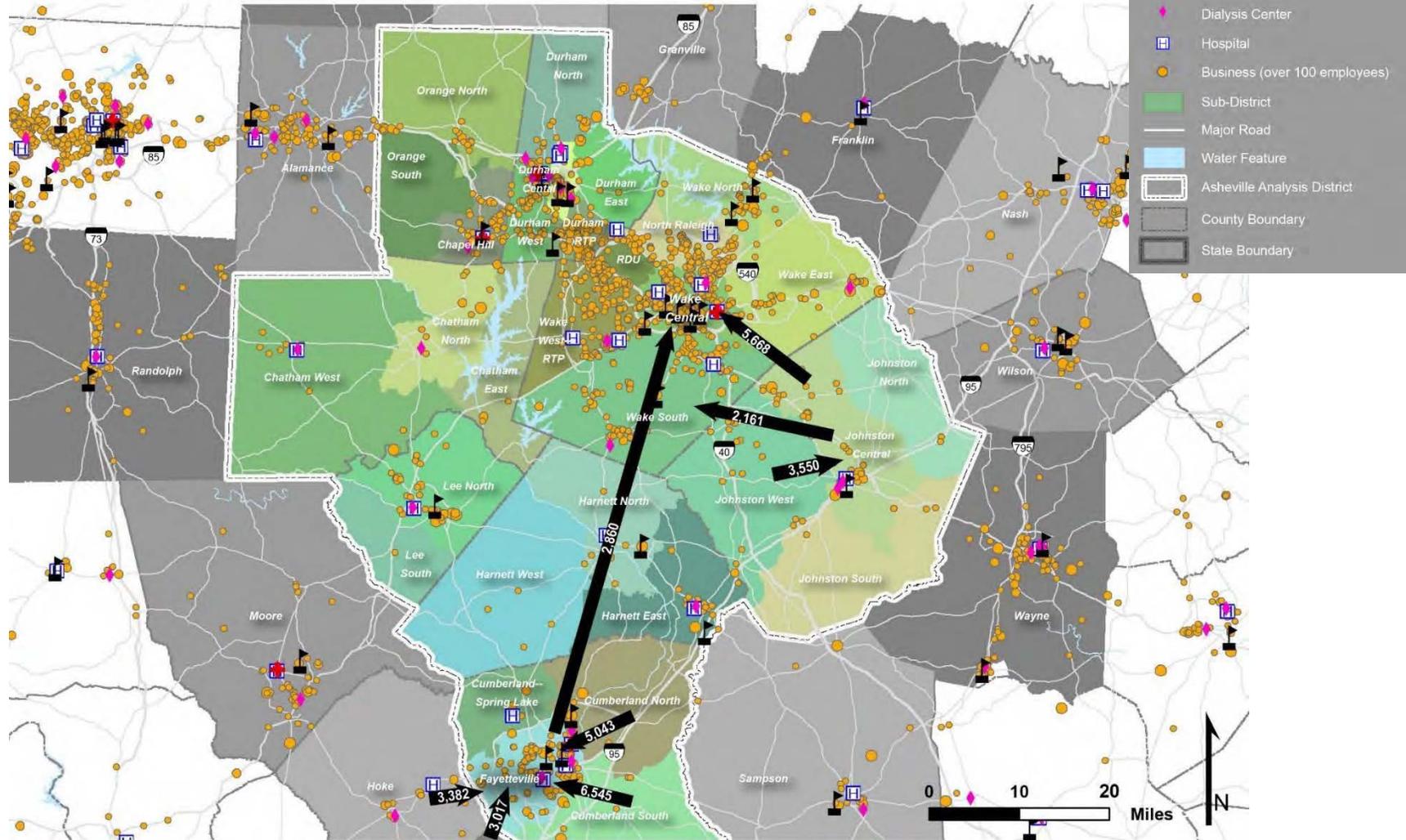




Figure 1 - 49: Trips to/from Johnston Central and Fayetteville sub-districts

Sub-District Commuter Flow Analysis

Triangle District (Source: LEHD 2014, All Jobs)





Wilmington

Table 1 - 19: Wilmington commute travel matrix (jobs by home location – work location pairs)

Wilmington District		Work Sub-District										
		Brunswick South	Brunswick Central	Brunswick North	Wilmington	New Hanover North	New Hanover--Beaches	New Hanover East	Pender West	Pender--Beaches	Pender East	Pender Central
Home Sub-District	Brunswick South	6794	1996	359	1153	234	70	673	19	53	8	57
	Brunswick Central	2487	1396	468	1362	303	51	574	20	27	21	53
	Brunswick North	871	551	1242	3512	511	96	1489	22	37	18	112
	Wilmington	682	411	886	18860	1821	1150	7614	55	170	108	375
	New Hanover North	124	84	208	2917	828	106	1832	20	63	48	209
	New Hanover--Beaches	78	51	57	1324	132	654	716	4	14	3	52
	New Hanover East	338	202	442	8311	1334	642	7403	34	171	154	323
	Pender West	43	29	66	597	187	16	343	242	23	45	672
	Pender--Beaches	92	35	84	1363	288	67	1077	34	981	350	288
	Pender East	27	21	32	563	142	20	335	24	147	169	192
	Pender Central	102	48	111	1432	433	55	851	100	83	101	1356



Figure 1 - 50: Significant commuting within counties (white/black arrows) and within sub-areas (green/black arrows)

Sub-District Commuter Flow Analysis

Wilmington District (Source: LEHD 2014, All Jobs)

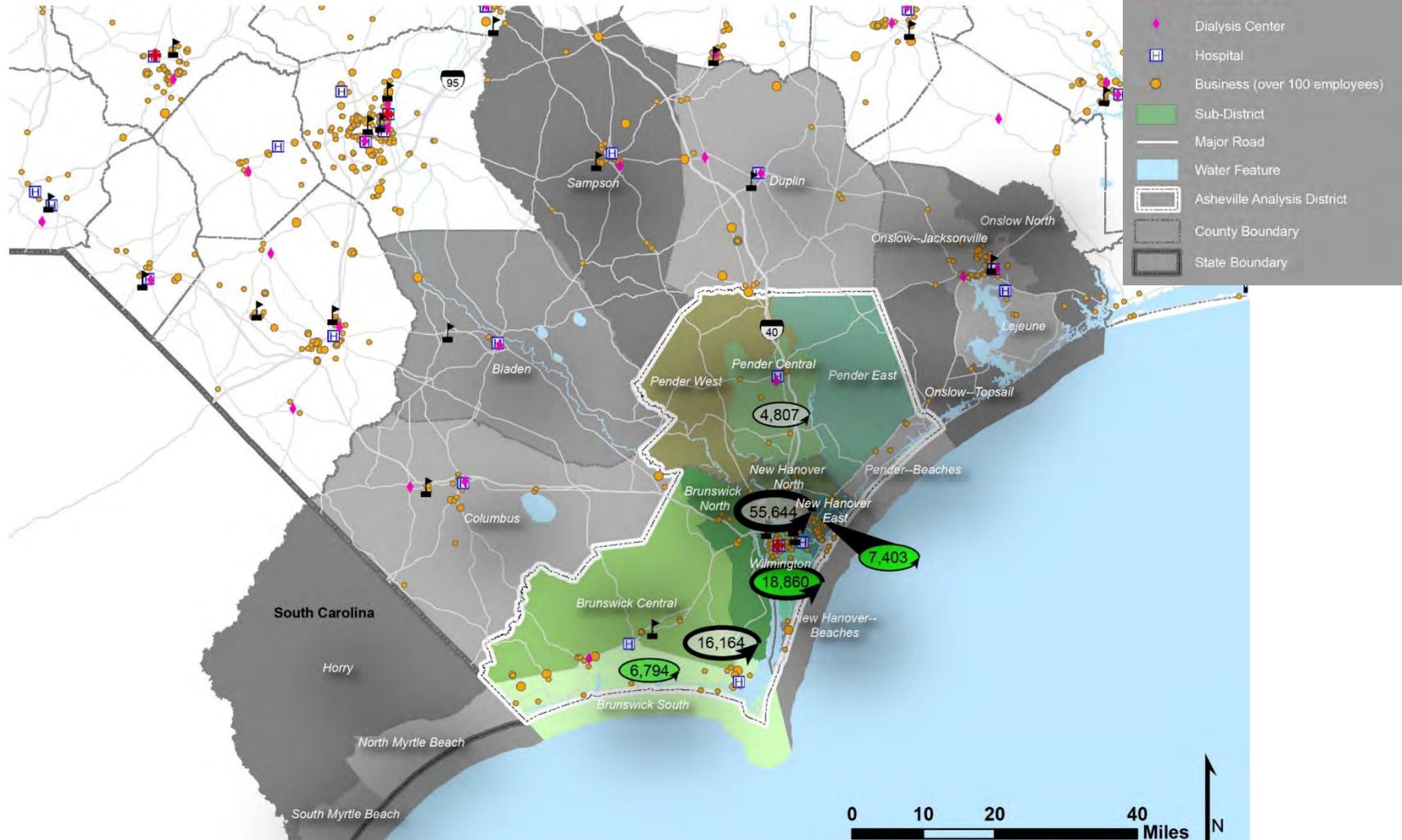




Figure 1 - 51: Significant commuting between sub-districts

Sub-District Commuter Flow Analysis

Wilmington District (Source: LEHD 2014, All Jobs)

