

Utah Economic and Business Review

Highlights

- The Utah Transit Authority has invested almost \$4.4 billion over the past 20 years in light rail and commuter rail transit along the Wasatch Front.
- In 2010, almost 100,000 people, about 10 percent of Salt Lake County's population, lived within a half-mile of an existing or future TRAX station.
- Approximately 12 percent of Salt Lake's minority population lived within a half-mile of a light rail station in 2010. Nearly one-third of the population living near a station was minority versus 26 percent countywide.
- Seventeen percent of Salt Lake County's 2010 renter population lived within a half-mile of a TRAX station. These renters represented 51 percent of the population; countywide, renters made up 29 percent of the population.
- While about one-third of all occupied dwelling units in Salt Lake County in 2010 were renter occupied, 59 percent of occupied units within a half-mile of a TRAX station were rentals.
- Just 5 percent of Salt Lake County's more affordable single-family homes were within a half-mile of a light rail station.
- In both Weber and Davis counties, about 7 percent of the total population and approximately 11 percent of the minority population lived within one mile of a FrontRunner station. Of the population near stations, over 35 percent were minorities in Weber and 21 percent were minorities in Davis, versus 22 percent and 14 percent, respectively, countywide. Twelve percent of Weber's renters and 13 percent of Davis's lived near FrontRunner stations.
- In Salt Lake County, less than 3 percent of the total population and just over 3 percent of the minority population lived within one mile of a FrontRunner station. One-third of the population near stations were minorities versus 26 percent countywide. Five percent of the county's renters lived near FrontRunner stations.
- Four percent of Utah County's total population and 8 percent of its minority population lived within one mile of a FrontRunner station. The population living near stations was 31 percent minority versus 16 percent countywide. Almost 8 percent of the county's renters lived near FrontRunner stations.

Neighborhood Characteristics of TRAX and FrontRunner Stations

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History of TRAX and FrontRunner

The Utah Transit Authority began capital expenditures toward the TRAX light rail system in 1994 and 1995. They were less than \$1.5 million in the first year and a little over \$4.1 million in the second year, but in 1996 UTA began investments in rolling stock (rail cars) and facilities (tracks, power systems, passenger stations, etc.) and total capital expenditures exceeded \$26.5 million (all amounts are constant 2013 dollars). The first TRAX line opened in December 1999 and ran between downtown Salt Lake City and Sandy. A second line, between downtown Salt Lake and Rice-Eccles Stadium at the University of Utah, opened in 2001 and was extended to the university's medical center by 2003. In 2011 UTA added the Daybreak and West Valley TRAX lines. By the end of 2013 UTA had extended light rail service west to the Salt Lake City International Airport, south to Draper, and east into Sugar House via streetcar. From 1994 through 2012, UTA invested over \$2.3 billion (in 2013 dollars) in capital expenditures for light rail (TRAX and the Sugar House streetcar) (Table 1).

UTA began capital expenditures toward the FrontRunner commuter rail system in 2002 with a \$240.7 million (in 2013 dollars) investment in facilities. Investments in rolling stock began in 2005 and service between Weber County and downtown Salt Lake City began in April 2008. UTA extended the system south, and in December 2012 service between Provo and Salt Lake City began. From 2002 through 2012, UTA invested over \$1.9 billion (in constant 2013 dollars) in commuter rail (Table 1).

UTA's 2013 budget included budgeted (not actual) capital expenditures of \$90.0 million for rail projects; \$17.1 million for the Sugar House streetcar; \$23.3 million for rail car rebuilding, track work and other rail infrastructure repairs; and \$5.4 million for rail vehicle maintenance and infrastructure repair, for a total of about \$135.9 million. This does not include all expenditures on facilities and "other" that are attributable to light rail or commuter rail. All told, UTA has invested almost \$4.4 billion over the past 20 years in light rail and commuter rail transit along the Wasatch Front.

Table 1
Annual Capital Expenditures for TRAX and FrontRunner, 1994–2012
 (Constant 2013 Dollars)

Year	Light Rail ¹				Commuter Rail			
	Rolling Stock	Facilities	Other	Total	Rolling Stock	Facilities	Other	Total
1994			\$1,390,405	\$1,390,405				
1995			\$4,132,056	\$4,132,056				
1996	\$9,741,421	\$6,232,026	\$10,568,444	\$26,541,891				
1997	\$19,572,398	\$46,281,993	\$12,574,364	\$78,428,755				
1998	\$28,779,825	\$117,989,812	\$17,281,755	\$164,051,392				
1999	\$7,801,150	\$71,762,187	\$11,749,528	\$91,312,865				
2000	\$14,651,374	\$41,896,718	\$2,304,791	\$58,852,884				
2001	\$15,859,029	\$93,242,856	\$7,533,041	\$116,634,926				
2002	\$4,838,911	\$56,261,691	\$1,745,095	\$62,845,697		\$240,688,337		\$240,688,337
2003	\$15,618,085	\$46,707,205	\$4,741,743	\$67,067,033		\$2,216,325		\$2,216,325
2004	\$9,482,588	\$14,693,452	\$112,596	\$24,288,635		\$9,744,846		\$9,744,846
2005	\$6,863,158	\$4,581,492	\$311,775	\$11,756,425	\$22,239,064	\$83,646,398		\$105,885,462
2006	\$1,919,435	\$4,863,347	\$3,346,563	\$10,129,345	\$39,404,448	\$207,989,140	\$442,794	\$247,836,382
2007	\$12,242,246	\$80,939,250	\$304,519	\$93,486,015	\$27,774,900	\$204,867,253	\$7,826,823	\$240,468,976
2008	\$182,747,298	\$192,731,833	\$3,708,624	\$379,187,754	\$40,445,432	\$154,921,063	\$12,475,623	\$207,842,118
2009	\$40,564,074	\$307,627,034	\$7,451,020	\$355,642,127	\$21,746,637	\$286,305,123	\$57,719	\$308,109,479
2010	\$50,242,432	\$263,048,894	\$38,777,055	\$352,068,381	\$2,667,383	\$247,878,329	\$20,662,757	\$271,208,469
2011	\$33,130,266	\$195,151,438	\$37,446,781	\$265,728,485	\$2,170,017	\$147,733,248	\$17,876,176	\$167,779,440
2012	\$17,375,746	\$136,496,936	\$10,759,757	\$164,632,439	\$691,855	\$116,895,431	\$1,005,270	\$118,592,555
Total	\$471,429,435	\$1,680,508,164	\$176,239,910	\$2,328,177,509	\$157,139,735	\$1,702,885,492	\$60,347,163	\$1,920,372,390

1. TRAX and the Sugar House streetcar.

Rolling stock comprises revenue vehicles (TRAX and FrontRunner cars and engines) and service vehicles (maintenance vehicles, transit police cars, etc.). Facilities comprise passenger stations, administration and maintenance buildings, tracks and power systems. "Other" includes fare collection equipment and communication and information systems.

Source: National Transit Database Historical Data Files, TS3.1 Capital Expenditures Time-Series; available at www.ntdprogram.gov/ntdprogram/data.htm

TRAX Neighborhoods

Using ArcGIS, a geographic information system application, we created half- and one-mile “neighborhoods” around each TRAX station (Figure 1). To better reflect access to the stations, these areas were created based on the road network rather than as simple circles. We used the resulting polygons to select census blocks that intersect the service areas. We then aggregated block-level 2010 Census data to determine the total population, minority population, renter population, number of total occupied housing units and renter-occupied housing units within a half-mile and a mile of each station. We also used Salt Lake County Assessor’s data to find the number of single-family homes valued at \$200,000 or less (in 2011) within the same areas.

In 2010, almost 100,000 people, about 10 percent of Salt Lake County’s population, lived within a half-mile of an existing or future TRAX station and nearly one-quarter of the county, 247,000 people, lived within one mile of a station (Tables 2 and 3).¹ Larger shares of the county’s minority population, approximately 12 percent (31,000) and 30 percent (79,100), lived within a half-mile and a mile, respectively, of a light rail station. Because of this, nearly one-third of the population living within a half-mile (31 percent) and a mile (32 percent) of a station was minority versus 26 percent countywide.

Renters and renter-occupied dwelling units are also more prevalent near TRAX stations than in the county as a whole. Seventeen percent of the county’s 2010 renter population lived within a half-mile of a station and 39 percent lived within one mile. These renters represented 51 percent and 46 percent, respectively, of the total populations at each distance; countywide, renters made up 29 percent of the population.

1. We use data from the 2010 Census even though many stations were not completed until later.

Similarly, 21 percent of Salt Lake County’s renter-occupied dwelling units were within a half-mile of a TRAX station and 44 percent were within one mile. While about one-third of all occupied dwelling units in the county in 2010 were renter occupied, 59 percent of occupied units a half-mile from a station and 53 percent within one mile of a station were rented. However, just 5 percent of Salt Lake County’s more affordable single-family homes (those assessed at not more than \$200,000 in 2011) were within a half-mile of a station and 19 percent were within one mile.

Note that the half-mile and one-mile neighborhoods of most consecutive TRAX stations overlap. This means that population and housing unit numbers for consecutive stations in Tables 2 and 3 will be counting some of the same persons and housing units.

For the analysis of TRAX stations’ neighborhoods we focus on the half-mile neighborhood. This is based on the assumption that TRAX riders are more likely to walk to a station compared with FrontRunner users.

The average population within a half-mile of a TRAX station was 2,845; however, values range from 0 at the Airport station to 5 and 7 people at the 5651 W Old Bingham Hwy and South Jordan Parkway stations, respectively, to 7,387 and 8,701 persons within a half-mile of the Trolley and 900 East stations on the University line. The minority share of the population within half a mile of a TRAX station averaged one-third, with a range of 8.1 percent at Draper Town Center and 10.8 percent at Kimballs Lane (on the Draper line) to 65.1 percent at the Power Station stop and 69.9 percent at 1940 W North Temple, both on the North Temple line in Salt Lake City’s minority-majority River District. Thirty-seven of the 56 stations’ neighborhoods had minority population shares above the 26 percent countywide share.

There were an average of 1,550 renters living within a half-mile of a TRAX station and they represented, on average, about half the population in the stations' neighborhoods. The number of renters per station ranged from 0 and 5 at the South Jordan Parkway and 5651 W Old Bingham Hwy stations, respectively (where the total populations were just 7 and 5), to 203 at Daybreak Parkway to 6,450 at the 900 East station on the University line. Renter shares of the population, aside from the South Jordan Parkway (0 percent) and 5651 W Old Bingham Hwy (100 percent) stations, ranged from 10 percent at Crescent View on the Draper line and 11 percent at 4773 W Old Bingham Hwy to almost 78 at percent at City Center and just shy of 100 percent at Bingham Junction. At the first four stops along the University line—Library, Trolley, 900 East and Stadium—more than 70 percent of the population within half a mile was renters. Of the 56 TRAX stations' neighborhoods, 45 had renter shares of the population greater than the countywide share of 28.7 percent.

Turning to housing units, there were an average of about 1,200 occupied housing units and 789 renter-occupied housing units within a half-mile of TRAX stations, and the average share of renter-occupied units was 60 percent. The actual number of occupied housing units ranged from just 1 (a renter-occupied unit) at 5651 W Old Bingham Hwy and 3 (all owner occupied) at South Jordan Parkway to 108 at Fort Douglas and 109 at University South Campus to 4,023 at Trolley and 4,462 at 900 East on the University line. Besides the South Jordan Parkway and 5651 W Old Bingham Hwy stations, renter-occupied units ranged from 53 at Daybreak Parkway and 82 at Draper Town Center to 3,240 at Trolley and 3,445 at 900 East on the University line. The renter-occupied share of occupied housing units within half a mile of a TRAX station ranged from 0 percent to 11 percent at both 4773 W Old Bingham Hwy and Crescent View (on the Draper line) to 100 percent at 5651 W Old Bingham Hwy, University South Campus and Fort Douglas. Forty-five of the 56 stations' half-mile neighborhoods had renter-

Figure 1
Half-Mile and One-Mile TRAX Station Neighborhoods

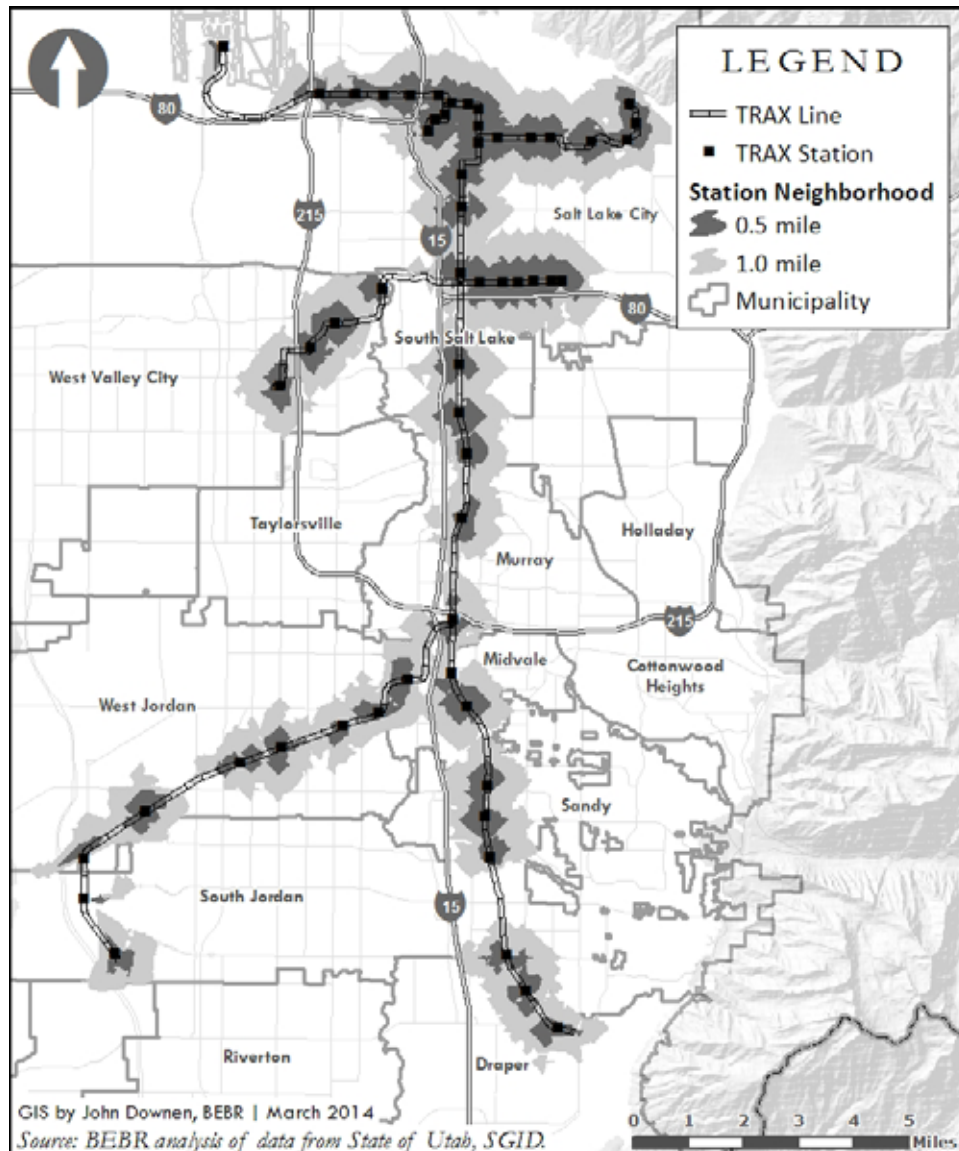


Table 2: Characteristics of TRAX Station Neighborhoods, 2010: Half-Mile Buffer

Station Name (North to South)	Population					Housing Units			
	Total	Minority	Share	Renters	Share	Occupied	Renter-Occupied	Share	Homes ≤\$200,000
Airport/North Temple									
Airport	0	0	–	0	–	0	0	–	0
1940 W North Temple	1,944	1,358	69.9%	1,327	68.3%	662	518	78.2%	3
Power Station	1,534	999	65.1%	850	55.4%	548	252	46.0%	5
Fairpark	1,341	721	53.8%	488	36.4%	514	193	37.5%	59
Jackson/Euclid	3,775	2,127	56.3%	2,315	61.3%	1,425	977	68.6%	342
North Temple Bridge/Guadalupe	2,683	1,105	41.2%	1,918	71.5%	1,299	1,046	80.5%	55
Intermodal Hub									
Arena	3,752	1,147	30.6%	2,198	58.6%	1,729	1,516	87.7%	1
Planetarium	3,621	1,269	35.0%	2,144	59.2%	1,610	1,435	89.1%	0
Old Greektown	3,817	1,368	35.8%	2,314	60.6%	1,746	1,554	89.0%	9
Salt Lake Central	2,887	1,076	37.3%	1,557	53.9%	1,143	994	87.0%	1
North-South									
Temple Square	4,366	805	18.4%	3,194	73.2%	2,705	2,091	77.3%	8
City Center	4,802	944	19.7%	3,728	77.6%	3,104	2,549	82.1%	0
Gallivan Plaza	3,554	1,096	30.8%	1,944	54.7%	1,843	1,420	77.0%	0
University									
Library	4,280	1,207	28.2%	3,273	76.5%	2,762	2,257	81.7%	22
Trolley	7,387	2,162	29.3%	5,657	76.6%	4,023	3,240	80.5%	167
900 East (Red Line)	8,701	2,182	25.1%	6,450	74.1%	4,462	3,445	77.2%	271
Stadium	4,508	861	19.1%	3,273	72.6%	2,332	1,823	78.2%	129
University South Campus	1,493	420	28.1%	432	28.9%	109	109	100.0%	0
Fort Douglas	1,614	438	27.1%	429	26.6%	108	108	100.0%	0
University Medical Center	2,433	756	31.1%	1,010	41.5%	463	390	84.2%	0
North-South									
Courthouse	2,496	544	21.8%	1,675	67.1%	1,677	1,237	73.8%	0
900 South	1,992	856	43.0%	1,494	75.0%	1,001	825	82.4%	164
Ballpark	2,333	1,262	54.1%	1,805	77.4%	943	749	79.4%	104
Central Pointe	1,596	500	31.3%	1,021	64.0%	888	644	72.5%	111
Sugar House									
Main St	2,448	905	37.0%	1,370	56.0%	1,143	754	66.0%	229
300 East	4,883	1,936	39.6%	2,714	55.6%	2,134	1,240	58.1%	740
500 East	4,967	1,743	35.1%	2,657	53.5%	2,086	1,085	52.0%	740
700 East	4,184	1,219	29.1%	2,192	52.4%	1,716	846	49.3%	556
900 East (SH)	4,237	978	23.1%	2,380	56.2%	1,973	1,191	60.4%	235
McClelland St	4,263	949	22.3%	2,519	59.1%	2,178	1,374	63.1%	129
West Valley									
River Trail	999	511	51.2%	464	46.4%	286	121	42.3%	49
Redwood Junction	2,648	1,635	61.7%	1,745	65.9%	798	492	61.7%	184
Decker Lake	3,418	1,926	56.3%	1,983	58.0%	1,077	579	53.8%	118
West Valley Central	4,425	2,199	49.7%	2,348	53.1%	1,400	717	51.2%	335
North-South									
Millcreek	716	249	34.8%	466	65.1%	355	257	72.4%	86
Meadowbrook	939	424	45.2%	607	64.6%	324	191	59.0%	20
Murray North	1,273	402	31.6%	875	68.7%	611	420	68.7%	14
Murray Central	1,085	241	22.2%	647	59.6%	515	345	67.0%	26
Fashion Place West	1,774	254	14.3%	402	22.7%	656	146	22.3%	125
Daybreak									
Bingham Junction	634	208	32.8%	632	99.7%	314	313	99.7%	0
Historic Gardner	1,001	398	39.8%	660	65.9%	357	247	69.2%	9
West Jordan City Center	2,158	818	37.9%	592	27.4%	677	209	30.9%	69
2700 W Sugar Factory Rd	4,043	847	20.9%	1,253	31.0%	1,330	503	37.8%	176
Jordan Valley	3,582	951	26.5%	573	16.0%	1,023	143	14.0%	243
4773 W Old Bingham Hwy	4,492	744	16.6%	516	11.5%	1,121	125	11.2%	40
5651 W Old Bingham Hwy	5	3	60.0%	5	100.0%	1	1	100.0%	0
South Jordan Parkway	7	1	14.3%	0	0.0%	3	0	0.0%	0
Daybreak Parkway	1,037	179	17.3%	203	19.6%	306	53	17.3%	53
North-South									
Midvale Fort Union	1,785	494	27.7%	1,026	57.5%	757	441	58.3%	183
Midvale Center	4,216	1,098	26.0%	1,991	47.2%	1,679	851	50.7%	537
Historic Sandy	3,776	1,265	33.5%	1,947	51.6%	1,307	706	54.0%	278
Sandy Expo	2,066	477	23.1%	629	30.4%	629	208	33.1%	224
Sandy Civic Center	1,630	310	19.0%	289	17.7%	522	88	16.9%	191
Crescent View	3,817	594	15.6%	385	10.1%	1,124	127	11.3%	11
Kimballs Lane	2,238	242	10.8%	408	18.2%	729	176	24.1%	95
Draper Town Center	847	69	8.1%	246	29.0%	270	82	30.4%	10
Total	99,478	30,992	31.2%	50,357	50.6%	40,302	23,850	59.2%	5,809
County totals	1,029,655	267,770	26.0%	295,419	28.7%	342,622	112,203	32.7%	110,482
Share of County	9.7%	11.6%		17.0%		11.8%	21.3%		5.3%

Note: The total is less than the sum of the stations because many stations' neighborhoods overlap.

Source: BEBR analysis of data from U.S. Census Bureau, 2010 Census and Salt Lake County Assessor.

Table 3: Characteristics of TRAX Station Neighborhoods, 2010: 1-Mile Buffer

Station Name (North to South)	Population					Housing Units			
	Total	Minority	Share	Renters	Share	Occupied	Renter-Occupied	Share	Homes ≤\$200,000
Airport/North Temple									
Airport	0	0	–	0	–	0	0	–	0
1940 W North Temple	5,509	3,858	70.0%	3,102	56.3%	1,733	993	57.3%	206
Power Station	6,854	4,756	69.4%	3,581	52.2%	2,092	1,141	54.5%	385
Fairpark	8,754	5,324	60.8%	4,449	50.8%	2,964	1,560	52.6%	1,022
Jackson/Euclid	11,400	6,579	57.7%	6,482	56.9%	4,177	2,637	63.1%	1,429
North Temple Bridge/Guadalupe	12,847	4,626	36.0%	8,179	63.7%	5,878	4,516	76.8%	778
Intermodal Hub									
Arena	12,732	3,667	28.8%	8,460	66.4%	6,638	5,069	76.4%	346
Planetarium	9,147	3,207	35.1%	6,086	66.5%	4,379	3,585	81.9%	224
Old Greektown	7,991	3,460	43.3%	4,513	56.5%	3,394	2,524	74.4%	476
Salt Lake Central	8,550	4,241	49.6%	4,482	52.4%	3,395	2,308	68.0%	633
North-South									
Temple Square	15,431	3,806	24.7%	10,506	68.1%	8,490	6,642	78.2%	209
City Center	14,744	3,453	23.4%	10,155	68.9%	8,429	6,771	80.3%	104
Gallivan Plaza	13,621	3,419	25.1%	9,574	70.3%	7,919	6,479	81.8%	41
University									
Library	16,998	5,013	29.5%	12,113	71.3%	9,330	7,505	80.4%	519
Trolley	21,449	5,807	27.1%	15,662	73.0%	11,490	8,978	78.1%	965
900 East (Red Line)	21,565	4,969	23.0%	14,717	68.2%	11,263	8,272	73.4%	1,062
Stadium	12,383	2,389	19.3%	7,474	60.4%	5,886	3,939	66.9%	448
University South Campus	7,629	2,136	28.0%	5,535	72.6%	2,722	2,410	88.5%	76
Fort Douglas	5,537	1,691	30.5%	3,498	63.2%	1,565	1,306	83.5%	0
University Medical Center	3,683	843	22.9%	1,096	29.8%	878	420	47.8%	0
North-South									
Courthouse	11,814	3,894	33.0%	8,547	72.3%	6,521	5,466	83.8%	298
900 South	8,815	4,084	46.3%	5,664	64.3%	3,713	2,859	77.0%	718
Ballpark	9,152	4,117	45.0%	5,498	60.1%	3,843	2,447	63.7%	1,161
Central Pointe	6,546	2,701	41.3%	3,924	59.9%	2,896	1,867	64.5%	944
Sugar House									
Main St	10,850	4,598	42.4%	6,301	58.1%	4,572	2,734	59.8%	1,751
300 East	14,808	5,094	34.4%	7,866	53.1%	6,380	3,442	53.9%	2,757
500 East	16,247	4,897	30.1%	8,333	51.3%	7,048	3,685	52.3%	2,748
700 East	16,275	4,344	26.7%	8,288	50.9%	7,355	3,913	53.2%	2,359
900 East (SH)	15,428	3,535	22.9%	7,341	47.6%	6,727	3,387	50.3%	1,640
McClelland St	14,515	3,046	21.0%	6,670	46.0%	6,345	3,073	48.4%	1,052
West Valley									
River Trail	2,309	1,209	52.4%	1,119	48.5%	698	307	44.0%	429
Redwood Junction	7,840	4,368	55.7%	4,289	54.7%	2,567	1,279	49.8%	654
Decker Lake	11,852	6,466	54.6%	6,212	52.4%	3,879	1,947	50.2%	1,120
West Valley Central	17,298	8,799	50.9%	8,383	48.5%	5,643	2,814	49.9%	2,036
North-South									
Millcreek	7,827	3,767	48.1%	4,117	52.6%	2,221	1,553	69.9%	272
Meadowbrook	9,376	4,086	43.6%	7,061	75.3%	3,849	2,873	74.6%	409
Murray North	6,268	2,154	34.4%	4,430	70.7%	2,525	1,728	68.4%	224
Murray Central	7,174	1,560	21.7%	3,881	54.1%	2,872	1,600	55.7%	686
Fashion Place West	7,039	1,505	21.4%	2,664	37.8%	2,676	1,016	38.0%	729
Daybreak									
Bingham Junction	4,303	2,251	52.3%	2,817	65.5%	1,534	959	62.5%	166
Historic Gardner	7,952	3,567	44.9%	3,531	44.4%	2,522	1,132	44.9%	351
West Jordan City Center	7,541	2,318	30.7%	1,902	25.2%	2,298	600	26.1%	348
2700 W Sugar Factory Rd	8,933	1,887	21.1%	1,726	19.3%	2,758	637	23.1%	886
Jordan Valley	9,170	2,353	25.7%	2,045	22.3%	2,691	606	22.5%	870
4773 W Old Bingham Hwy	10,570	1,892	17.9%	1,600	15.1%	2,704	429	15.9%	200
5651 W Old Bingham Hwy	806	147	18.2%	70	8.7%	197	14	7.1%	0
South Jordan Parkway	7	1	14.3%	0	0.0%	3	0	0.0%	0
Daybreak Parkway	4,877	669	13.7%	1,061	21.8%	1,345	278	20.7%	224
North-South									
Midvale Fort Union	4,140	1,103	26.6%	1,783	43.1%	1,571	694	44.2%	658
Midvale Center	14,018	4,720	33.7%	6,948	49.6%	5,137	2,444	47.6%	1,723
Historic Sandy	9,912	2,919	29.4%	4,206	42.4%	3,396	1,407	41.4%	1,077
Sandy Expo	8,487	1,904	22.4%	2,910	34.3%	2,930	1,022	34.9%	1,116
Sandy Civic Center	5,191	758	14.6%	1,036	20.0%	1,758	309	17.6%	734
Crescent View	11,254	1,664	14.8%	2,385	21.2%	3,701	1,126	30.4%	405
Kimballs Lane	9,385	1,194	12.7%	1,599	17.0%	2,913	580	19.9%	415
Draper Town Center	5,809	500	8.6%	737	12.7%	1,706	239	14.0%	100
Total	246,935	79,145	32.1%	114,714	46.5%	93,053	48,921	52.6%	21,453
County totals	1,029,655	267,770	26.0%	295,419	28.7%	342,622	112,203	32.7%	110,482
Share of County	24.0%	29.6%		38.8%		27.2%	43.6%		19.4%

Note: The total is less than the sum of the stations because many stations' neighborhoods overlap.

Source: BEBR analysis of data from U.S. Census Bureau, 2010 Census and Salt Lake County Assessor.

Table 4
Characteristics of FrontRunner Station Neighborhoods, 2010: Half-Mile Buffer

Station Name (North to South)	Population					Housing Units			
	Total	Minority	Share	Renters	Share	Occupied	Renter-Occupied	Share	Homes ≤\$200,000
Weber County	231,236	50,598	21.9%	57,717	25.0%	78,748	21,619	27.5%	41,450
Pleasant View	903	101	11.2%	155	17.2%	259	42	16.2%	0
Ogden	989	381	38.5%	716	72.4%	503	463	92.0%	25
Roy	1,466	323	22.0%	174	11.9%	526	54	10.3%	70
Total	3,358	805	24.0%	1,045	31.1%	1,288	559	43.4%	95
Share of County	1.5%	1.6%		1.8%		1.6%	2.6%		0.2%
Davis County	306,479	43,430	14.2%	57,342	18.7%	93,545	20,474	21.9%	39,765
Clearfield	2,821	815	28.9%	1,837	65.1%	1,053	699	66.4%	242
Layton	1,624	551	33.9%	810	49.9%	538	269	50.0%	15
Farmington	888	67	7.5%	249	28.0%	399	144	36.1%	0
Woods Cross	1,526	182	11.9%	308	20.2%	515	118	22.9%	272
Total	6,859	1,615	23.5%	3,204	46.7%	2,505	1,230	49.1%	529
Share of County	2.2%	3.7%		5.6%		2.7%	6.0%		1.3%
Salt Lake County	1,029,655	267,770	26.0%	295,419	28.7%	342,622	112,203	32.7%	110,482
No. Temple Bridge/Guadalupe	2,138	1,079	50.5%	1,544	72.2%	976	746	76.4%	106
Salt Lake Central	2,887	1,076	37.3%	1,557	53.9%	1,143	994	87.0%	0
Murray Central	1,549	379	24.5%	1,122	72.4%	725	557	76.8%	10
South Jordan	953	204	21.4%	770	80.8%	413	356	86.2%	0
Draper	1,373	210	15.3%	607	44.2%	468	276	59.0%	14
Total	8,304	2,681	32.3%	5,006	60.3%	3,397	2,602	76.6%	130
Share of County	0.8%	1.0%		1.7%		1.0%	2.3%		0.1%
Utah County	516,564	81,856	15.8%	143,386	27.8%	140,602	44,549	31.7%	67,528
Lehi	923	144	15.6%	175	19.0%	277	52	18.8%	7
American Fork	343	44	12.8%	43	12.5%	88	12	13.6%	2
Orem Central	1,528	273	17.9%	181	11.8%	202	81	40.1%	14
Provo Central	3,461	1,491	43.1%	1,950	56.3%	1,112	657	59.1%	253
Total	6,255	1,952	31.2%	2,349	37.6%	1,679	802	47.8%	276
Share of County	1.2%	2.4%		1.6%		1.2%	1.8%		0.4%

Source: BEBR analysis of U.S. Census Bureau, 2010 Census data and county assessor data.

occupied shares of housing units that were above the countywide share of 32.7 percent.

Although all of the occupied housing units within a half-mile of the University South Campus and Fort Douglas stations are renter-occupied units, less than 30 percent of the population at each station is renters. This discrepancy is due to the fact that at both stations the remaining population lives in university student housing, which is considered group quarters. The group quarters population is enumerated separately from the population living in households—those in owner- and renter-occupied housing units. In the half-mile neighborhood of the University Medical Center station there are just 73 owner-occupied units but 1,423 non-renters; 1,184 of these are students living in dormitories.

There were an average of 130 affordable homes (with a 2011 assessed value of \$200,000 or less) within a half-mile of a TRAX station. Excluding the unpopulated neighborhood of the Airport station, there were 10 stations with no affordable single-family homes within a half-mile. Some of these were downtown (Planetarium, City Center, Gallivan Plaza and Courthouse) and some were at the University of Utah (University South Campus, Fort Douglas and University Medical Center). The remaining three were at Bingham Junction, 5651 W Old Bingham Hwy and South Jordan Parkway. The stations with the largest number of affordable single-family homes were 700 East, 500 East and

300 East on the Sugar House streetcar line, with 556, 740 and 740 affordable homes, respectively. There were also 537 affordable homes within half a mile of the Midvale Center station.

The data for TRAX stations' one-mile neighborhoods are presented in Table 3.

FrontRunner Neighborhoods

Weber County

Working from north to south, we begin with FrontRunner stations in Weber County (Figure 2). In 2010, 3,358 people lived within a half-mile of a FrontRunner station, 1.5 percent of the total population, and almost 16,500 people, about 7 percent of the county, lived within a mile of a station (Tables 4 and 5). A larger share of the county's minority population, almost 12 percent (5,865), lived within a mile of a station. The share of the county's minority population within a half-mile of a FrontRunner station was nearly the same (1.6 percent) as the share of the total population. For both neighborhood sizes the minority share of the population living near a station was slightly higher than the countywide share: 24 percent within a half-mile and more than 35 percent within a mile versus 22 percent for the county. For the half-mile distance this was due to the Ogden and Roy stations' 38 percent and 22 percent

minority shares, respectively. For the one-mile neighborhoods just Ogden's 55 percent minority share was enough to make the sum of all stations' minority populations greater than the county share. The minority shares of Pleasant View's and Roy's one-mile neighborhoods were below average.

Renters and renter-occupied dwelling units are also more prevalent near FrontRunner stations than in the county as a whole. Less than 2 percent of Weber County's 2010 renter population lived within a half-mile of a station and 12 percent lived within one mile. These renters represented 31 percent and 43 percent, respectively, of the total populations at each distance; countywide, renters made up 25 percent of the population. Similarly, 3 percent of Weber's renter-occupied dwelling units were within a half-mile of a FrontRunner station and 14 percent were within one mile. While about 27 percent of all occupied dwelling units in the county in 2010 were renter occupied, 43 percent of occupied units a half-mile from a station and 50 percent within one mile of a station were rented. These results were driven solely by the Ogden station's neighborhoods' extremely high renter and rental rates. Renters made up more than 70 percent of the population and renter-occupied units accounted for more than 80 percent of total occupied housing units at both neighborhood sizes. Both Pleasant View and Roy had below-average renter and rental shares at both

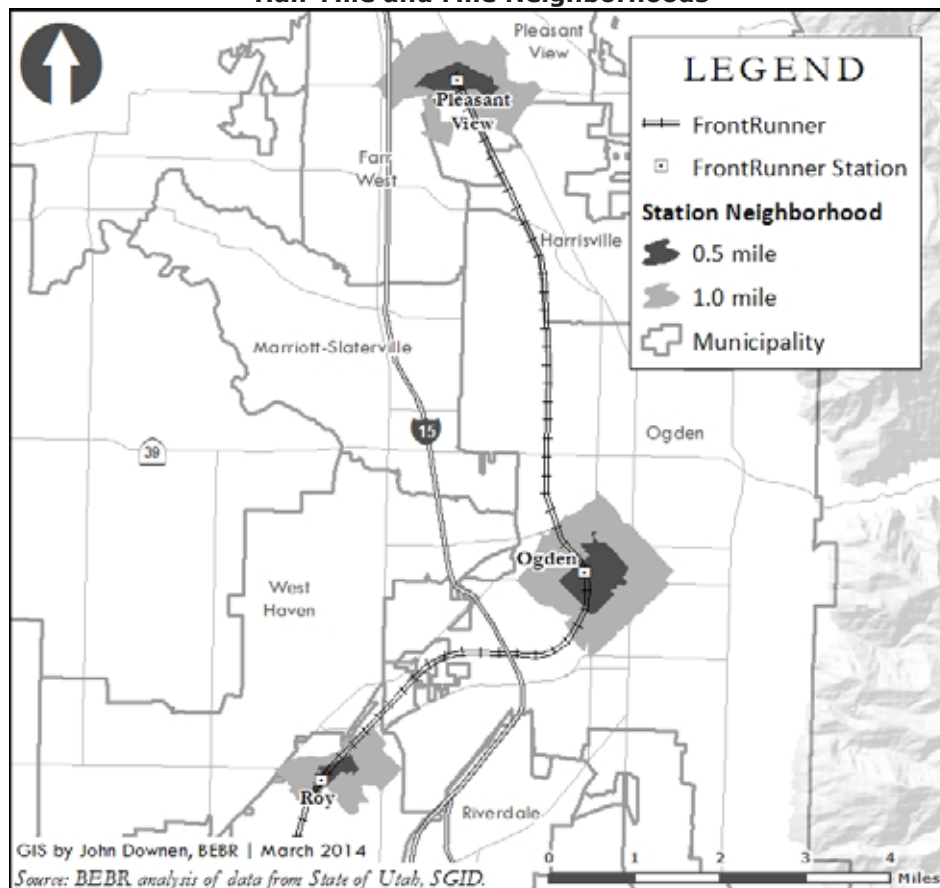
neighborhood sizes. Just 0.2 percent of Weber County's more affordable single-family homes (those assessed at not more than \$200,000 in 2011) were within a half-mile of a station, and 3.5 percent were within one mile.

Davis County

Davis County has four FrontRunner stations, in Clearfield, Layton, Farmington and Woods Cross (Figure 3). In 2010, 6,859 people lived within a half-mile of a FrontRunner station, 2 percent of the total population, and almost 22,500 people, about 7 percent, lived within a mile of a station (Tables 4 and 5). Larger shares of the county's minority population lived near a station, with almost 4 percent (1,615) within a half-mile and 11 percent (4,713) within a mile. For both neighborhood sizes the minority share of the population living near a station was higher than the countywide share: 23 percent of those within a half-mile and 21 percent of those within a mile, versus 14 percent for the county. For the half-mile neighborhoods, this was driven by Clearfield and Layton, which had minority shares more than twice the county average. For the one-mile neighborhoods, all stations had above-average minority shares.

Renters and renter-occupied dwelling units are also more prevalent near FrontRunner stations than in the county as a whole. Close to 6 percent of Davis County's 2010 renter

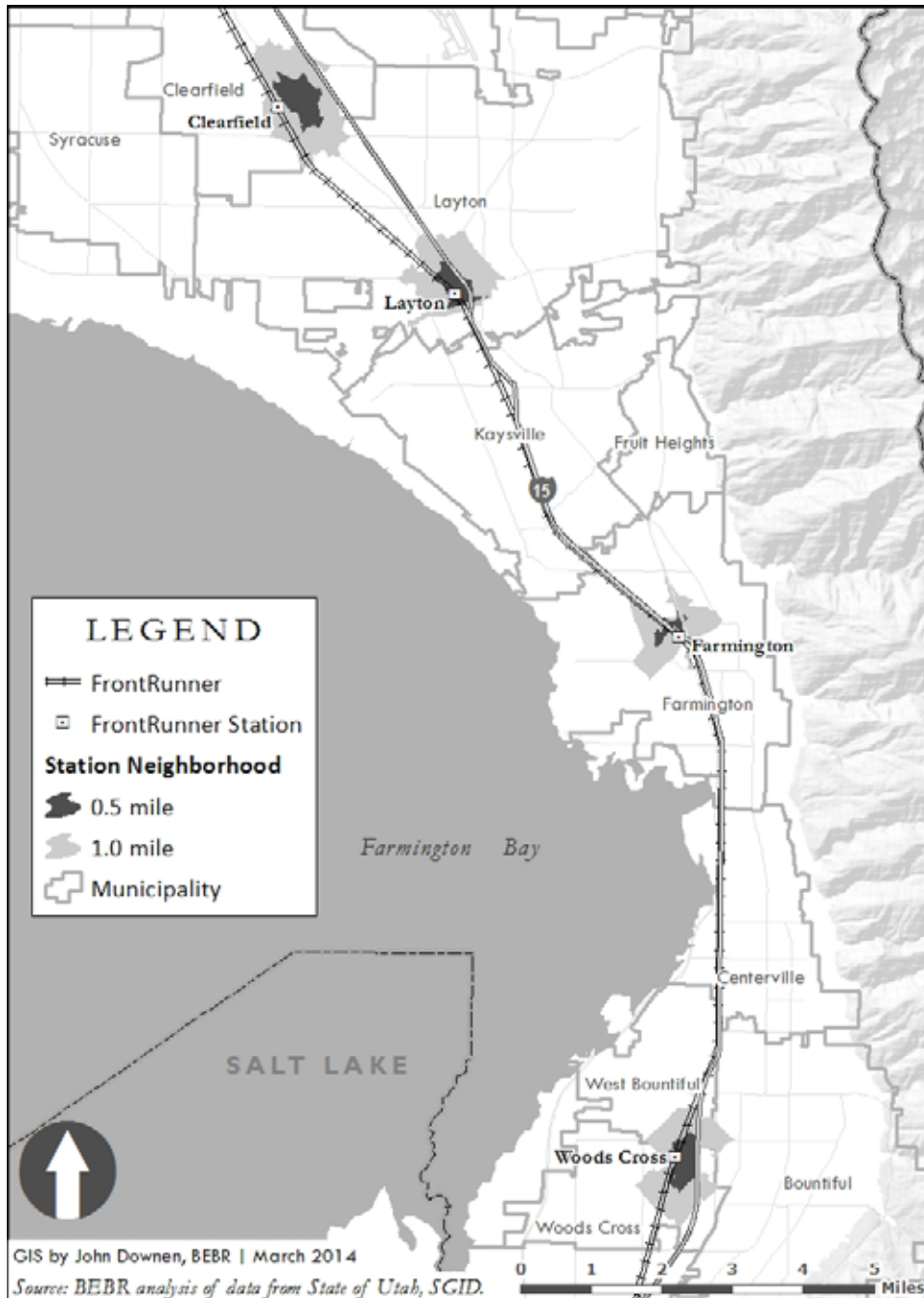
**Figure 2
Weber County FrontRunner Stations:
Half-Mile and Mile Neighborhoods**



population lived within a half-mile of a station and 13 percent lived within one mile. These renters represented 47 percent and 34 percent, respectively, of the total populations at each distance; countywide, renters made up just 19 percent of the population. Similarly, 6 percent of Davis's renter-occupied dwelling units were within a half-mile of a FrontRunner station and 14 percent were within one mile. While 22 percent of all occupied dwelling units in the county in 2010 were renter occupied, 49 percent of occupied units a half-mile from a station and 38 percent within one mile of a station were rented. For both metrics, renter share

of the population and renter-occupied share of occupied housing units, almost all station neighborhoods had above-average shares. The exception was Farmington, which had a below-average share of renters in its one-mile neighborhood. Just over 1 percent (529) of Davis County's affordable single-family homes (those assessed at not more than \$200,000 in 2012) were within a half-mile of a station and 6 percent (2,539) were within one mile. These are the largest shares—and numbers—of the four counties.

Figure 3
Davis County FrontRunner Stations:
Half-Mile and Mile Neighborhoods



**Table 5
Characteristics of FrontRunner Station Neighborhoods, 2010: 1-Mile Buffer**

Station Name (North to South)	Population					Housing Units			
	Total	Minority	Share	Renters	Share	Occupied	Renter-Occupied	Share	Homes ≤\$200,000
Weber County	231,236	50,598	21.9%	57,717	25.0%	78,748	21,619	27.5%	41,450
Pleasant View	3,061	453	14.8%	581	19.0%	1,013	179	17.7%	32
Ogden	7,949	4,395	55.3%	5,816	73.2%	3,226	2,690	83.4%	628
Roy	5,452	1,017	18.7%	647	11.9%	1,914	197	10.3%	775
Total	16,462	5,865	35.6%	7,044	42.8%	6,153	3,066	49.8%	1,435
Share of County	7.1%	11.6%		12.2%		7.8%	14.2%		3.5%
Davis County	306,479	43,430	14.2%	57,342	18.7%	93,545	20,474	21.9%	39,765
Clearfield	7,658	2,005	26.2%	3,625	47.3%	2,711	1,351	49.8%	1,031
Layton	5,740	1,293	22.5%	1,881	32.8%	1,936	680	35.1%	648
Farmington	2,553	375	14.7%	381	14.9%	701	188	26.8%	1
Woods Cross	6,502	1,040	16.0%	1,744	26.8%	2,079	640	30.8%	859
Total	22,453	4,713	21.0%	7,631	34.0%	7,427	2,859	38.5%	2,539
Share of County	7.3%	10.9%		13.3%		7.9%	14.0%		6.4%
Salt Lake County	1,029,655	267,770	26.0%	295,419	28.7%	342,622	112,203	32.7%	110,482
No. Temple Bridge/Guadalupe	8,889	3,576	40.2%	5,566	62.6%	4,007	2,776	69.3%	881
Salt Lake Central	8,550	4,241	49.6%	4,482	52.4%	3,395	2,308	68.0%	628
Murray Central	8,260	1,852	22.4%	4,104	49.7%	3,166	1,646	52.0%	554
South Jordan	2,616	454	17.4%	1,376	52.6%	1,038	624	60.1%	10
Draper	1,384	210	15.2%	618	44.7%	471	279	59.2%	41
Total*	27,227	9,158	33.6%	14,278	52.4%	10,850	6,664	61.4%	2,029
Share of County	2.6%	3.4%		4.8%		3.2%	5.9%		1.8%
Utah County	516,564	81,856	15.8%	143,386	27.8%	140,602	44,549	31.7%	67,528
Lehi	1,806	254	14.1%	316	17.5%	529	90	17.0%	127
American Fork	1,607	215	13.4%	366	22.8%	456	132	28.9%	242
Orem Central	4,505	967	21.5%	1,374	30.5%	1,089	524	48.1%	396
Provo Central	13,691	5,343	39.0%	9,009	65.8%	4,685	3,337	71.2%	1,037
Total	21,609	6,779	31.4%	11,065	51.2%	6,759	4,083	60.4%	1,802
Share of County	4.2%	8.3%		7.7%		4.8%	9.2%		2.7%

* Total is less than the sum of the stations because the No. Temple Bridge and Salt Lake Central stations' neighborhoods overlap.
Source: BEBR analysis of U.S. Census Bureau, 2010 Census data and county assessor data.

Salt Lake County

Salt Lake County, and Salt Lake City in particular, is the hub of the FrontRunner system. Most FrontRunner riders use it to commute to Salt Lake City and County from Weber, Davis and Utah counties. The five stations in the county are North Temple Bridge/Guadalupe; Salt Lake Central, which is the destination and source of trains bound from and to Davis, Weber and Utah counties, as well as the TRAX Blue line and several bus routes; Murray Central; South Jordan; and Draper (Figure 4). In 2010, 8,300 people lived within a half-mile of a FrontRunner station in Salt Lake County, about 1 percent of the total population, and over 27,000 people, about 3 percent, lived within a mile of a station (Tables 3 and 4). Similar shares of the county's minority population lived near a station, with 1 percent (2,681) within a half-mile and a little over 3 percent (9,158) within a mile. For both neighborhood sizes the minority share of the population was higher than the countywide average: about one-third in both cases versus 26 percent for the county. Note, however, that this was due to high minority shares at just two stations: North Temple/Guadalupe and Salt Lake Central. The other three stations' neighborhoods had below-average minority shares.

Renters and renter-occupied dwelling units are more prevalent near FrontRunner stations than in the county as a whole. Close to 2 percent of Salt Lake County's 2010 renter population lived

within a half-mile of a station and 5 percent lived within one mile. These renters represented 60 percent and 52 percent, respectively, of the total populations at each distance; countywide, renters made up 29 percent of the population. While 1 percent of the county's occupied housing units were within a half-mile of a FrontRunner station and 3 percent were within one mile, 2 percent and 6 percent, respectively, of renter-occupied dwelling units were. Thus renter-occupied units represented more than three-quarters of all occupied housing units within a half-mile of a station and more than 60 percent of occupied units within a mile, whereas they make up about one-third of all occupied housing units in the county as a whole. All five stations had both renter and rental shares well above the county averages. Just 0.1 percent of Salt Lake County's affordable single-family homes (those assessed at not more than \$200,000 in 2011) were within a half-mile of a station and less than 2 percent were within one mile. These are the lowest shares of the four counties.

Utah County

Utah County has four FrontRunner stations, in Lehi, American Fork, Orem and Provo (Figure 5). In 2010, 6,255 people lived within a half-mile of a FrontRunner station, about 1 percent of the total population, and 21,600 people, about 4 percent, lived within a mile of a station (Tables 4 and 5). Twice the shares of the county's minority population lived near a station, with 2

percent (1,952) within a half-mile and 8 percent (6,779) within a mile. As in the other counties, for both neighborhood sizes the minority share of the population living near a station was higher than the countywide share: 31 percent versus 16 percent. This was due to relatively high concentrations at the Orem and Provo stations.

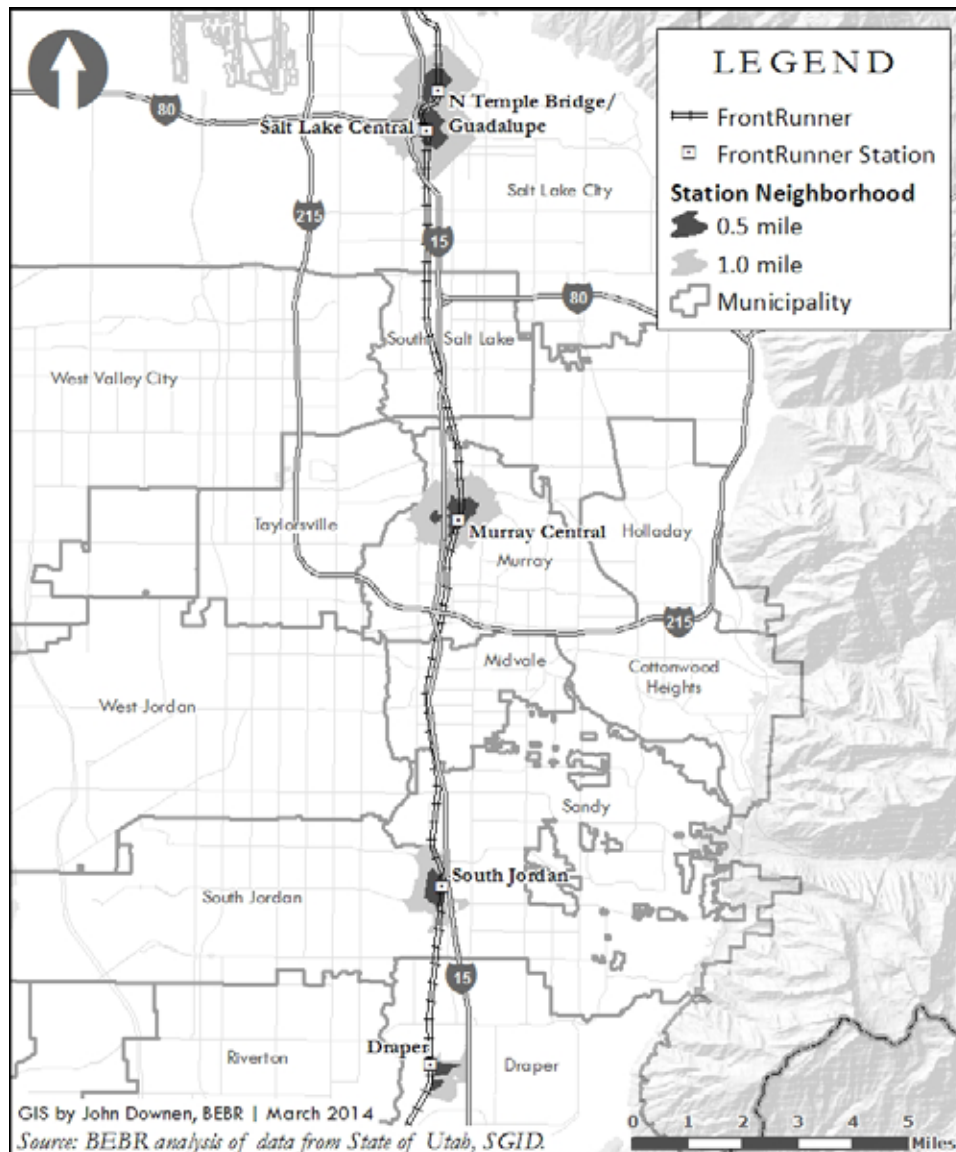
There is also a higher share of renters and renter-occupied dwelling units near FrontRunner stations than in the county as a whole. Less than 2 percent of Utah County's 2010 renter population lived within a half-mile of a station and almost 8 percent lived within one mile. These renters represented 38 percent and 51 percent, respectively, of the total populations at each distance. Countywide, renters made up 28 percent of the population. While 1 percent of the county's occupied housing units were within a half-mile of a FrontRunner station and 5 percent were within one mile, almost 2 percent and 9 percent, respectively, of renter-occupied dwelling units were. Thus renter-

occupied units represented almost half of all occupied housing units within a half-mile of a station and 60 percent of occupied units within a mile, whereas they make up 32 percent of all occupied housing units in the county as a whole. These above-average concentrations of renters and renter-occupied housing units near FrontRunner stations were driven by the Provo and Orem stations, which are near the student populations of BYU and UVU. The Lehi and American Fork stations were below the county averages for shares of minorities, renters and renter-occupied housing units. Just 0.4 percent of Utah County's affordable single-family homes (those assessed at not more than \$200,000 in 2011) were within a half-mile of a station and less than 3 percent were within one mile.

Conclusion

UTA has spent over \$4.3 billion over the past 20 years to provide light rail and commuter rail services to the Wasatch Front. The

Figure 4
Salt Lake County FrontRunner Stations:
Half-Mile and Mile Neighborhoods

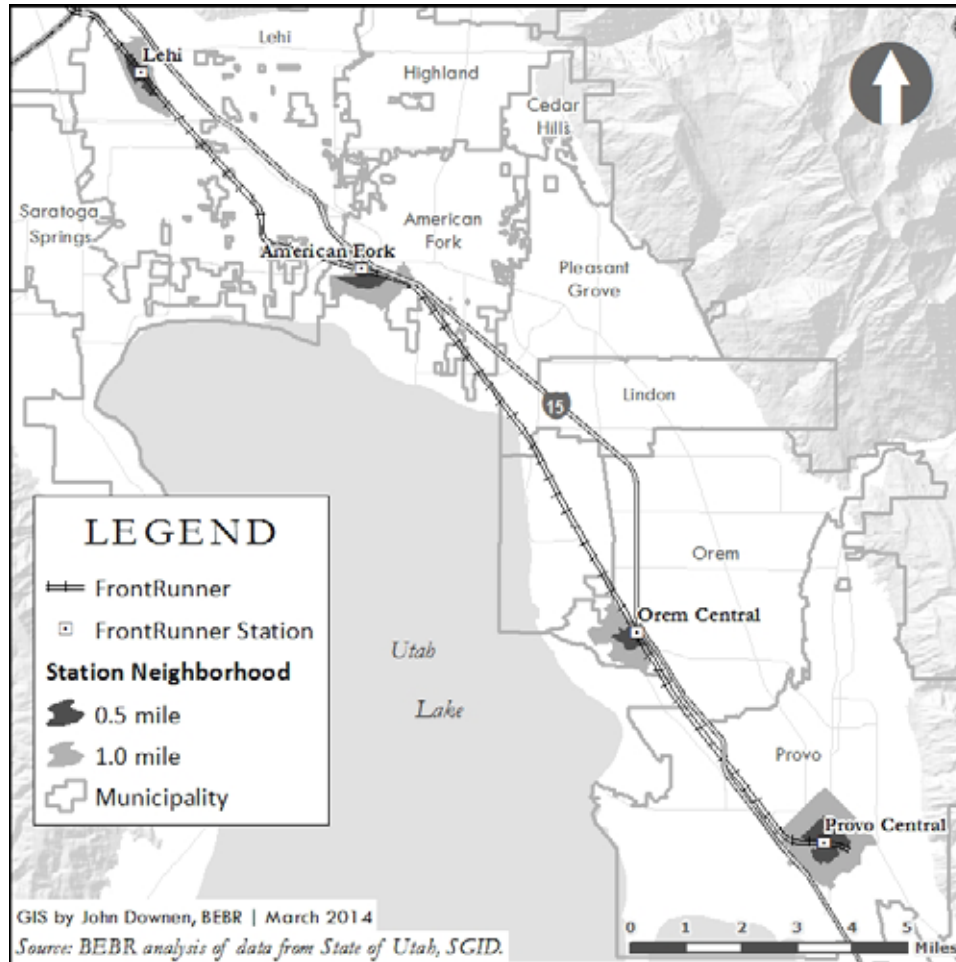


neighborhoods around TRAX and FrontRunner stations tend to show higher concentrations of minorities, renters and renter-occupied housing units than are found in the counties at large. This implies that, geographically speaking, minorities and renters

may have disproportionately better access to these modes of commuting than the population as a whole, which could improve their access to employment opportunities.

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Figure 5
Utah County FrontRunner Stations:
Half-Mile and Mile Neighborhoods



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