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Quick Facts

October 27, 2016

RTA's Master Plan Improves Transit Accessibility

SEMCOG recently analyzed transit improvements in the Regional Transit Authority's (RTA) Master Plan. The plan strives to improve the availability of transit services, as well as the effectiveness of getting to destinations by using transit, in other words, to improve "transit accessibility."

Transit Accessibility

The term "transit accessibility" is used to describe 1) the ease of getting to transit stops, and 2) the ease to reach destinations by transit.

To quantify the benefits of the RTA plan, SEMCOG conducted rigorous analyses on the plan's impact on accessibility to transit stops, jobs, and core services, such as healthcare facilities, supermarkets, libraries, parks, and schools. The computer-model-based simulation took into account existing and planned transit routes, stops, and schedules. It used detailed demographic, employment, and land data at the parcel level.

Highlights

Some of the key analytical results of implementing the RTA Master Plan are summarized below:

- More than 233,000 additional people will be within a 15-minute walking distance to transit. Among those people:
 - 148,000 (or nearly 64 percent) are of working age (18–64), and
 - More than 31,000 (or 14 percent) are of senior age (65 or older).
- Nearly 97,000 additional households will be within the 15-minute walking distance to transit.
- When park-and-ride is considered, there is a greater benefit in accessibility to transit. Over 95 percent of residents in the plan's four counties (Macomb, Oakland, Washtenaw, and Wayne) will be able to either walk to a transit stop or drive to a commuter stop within 15 minutes.
- Average job accessibility by transit for the working-age population will increase by:
 - Nearly 16 percent during morning rush time (7 a.m.), and
 - More than 27 percent at non-rush time (1 p.m.).
- Access to all core services will improve. It will provide up to 17 percent greater accessibility for those services and will have a broader reach to new riders in suburban areas.

Access to Transit Stops

RTA serves the four-county area that has 4.1 million residents and 2.3 million jobs. Figure 1 shows the areas where people can walk to a transit stop within 15 minutes. This RTA service area will expand by 15 percent under the RTA Master Plan. As a result, over 233,000 additional people, living in nearly 97,000 households, will be within a 15-minute walking distance to transit stops. Among those people who are gaining walk-access to transit, 148,000 people are of typical working-age 18-64, and 31,000 are seniors (age 65+). Over 172,000 additional jobs will be within 15-minute walk to transit stops (Table 1).

Figure 1: Areas within 15-Minute Walk to Transit Stops

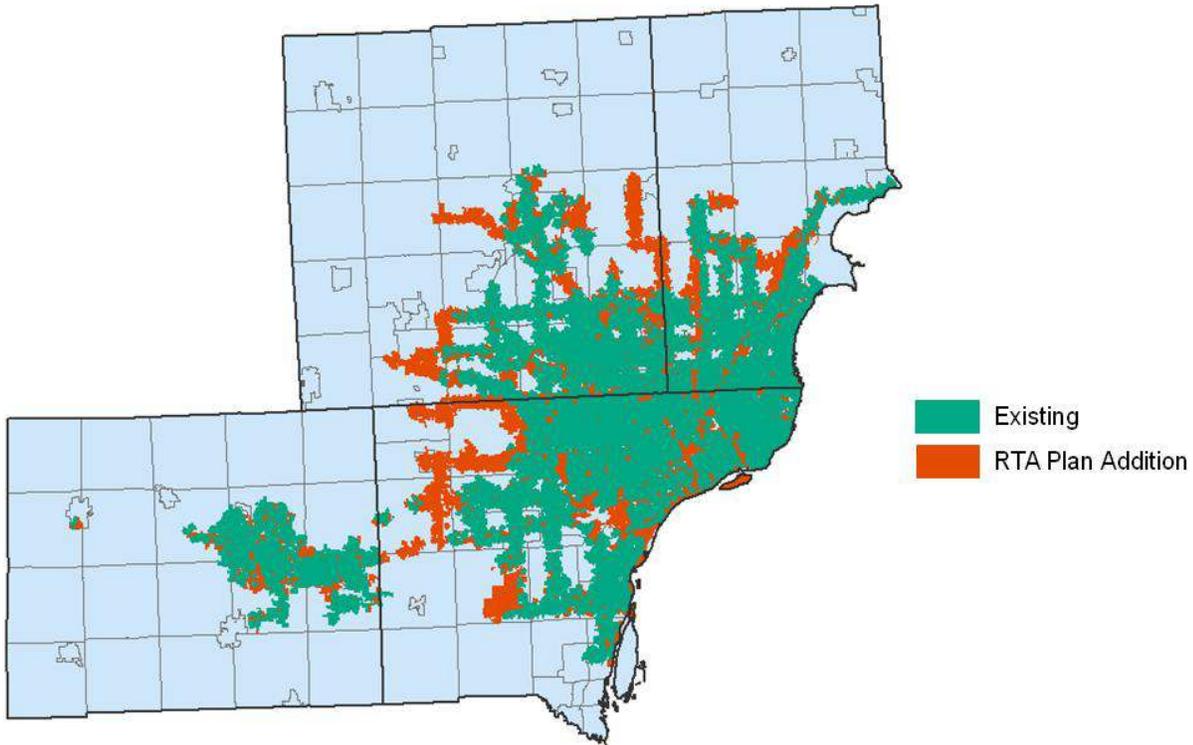


Table 1: Service Area, Population, Households, and Jobs within 15-Minute Walk to Transit Stops

	Existing Service	Master Plan	Change	Percent Change
Area (Square Miles)	570	657	87	15.3%
Population	2,558,328	2,791,499	233,171	9.1%
Age 0-17	616,720	670,407	53,687	8.7%
Age 18-64	1,609,855	1,757,955	148,100	9.2%
Age 65+	331,753	363,137	31,384	9.5%
Households	1,043,801	1,140,486	96,685	9.3%
Transit Dependent	169,214	177,460	8,246	4.9%
In Poverty	178,637	184,853	6,216	3.5%
Jobs	1,697,646	1,870,514	172,868	10.2%

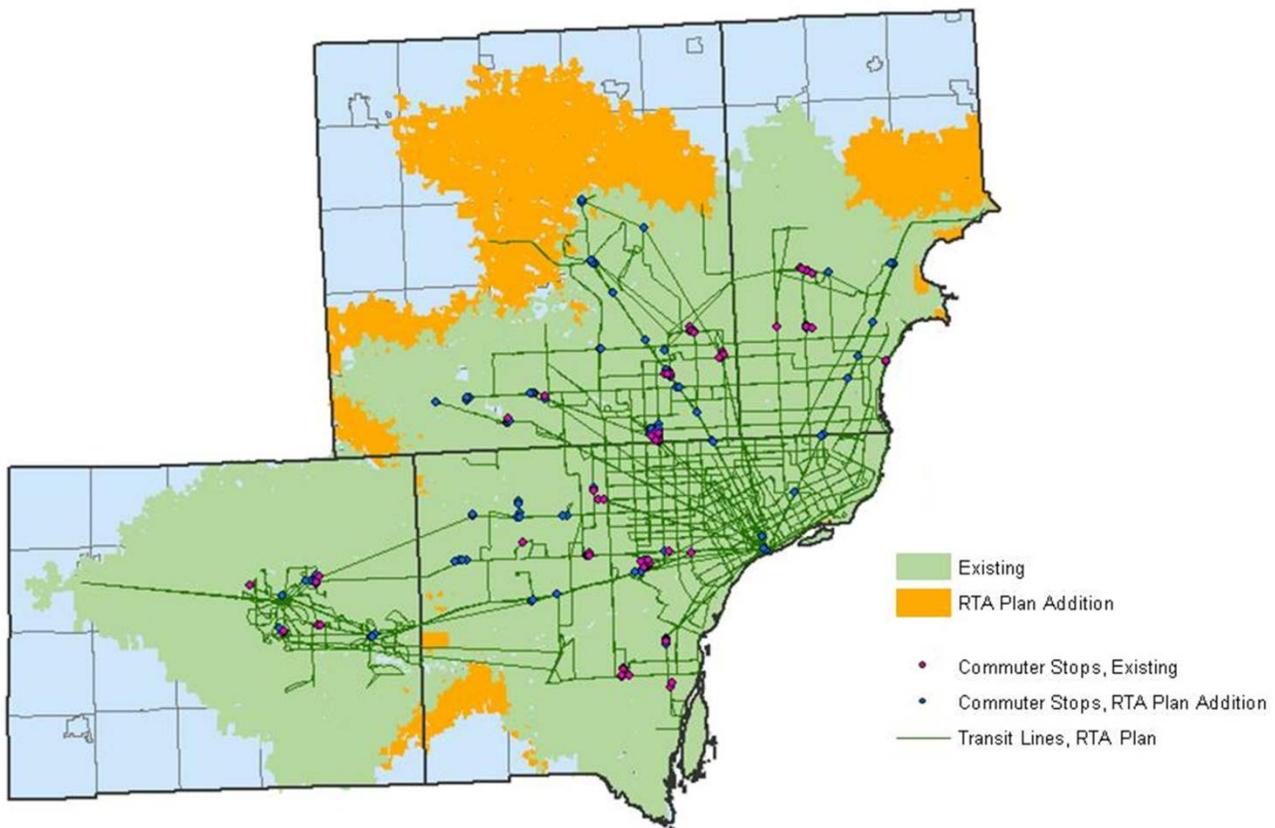
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In the RTA Master Plan, the number of commuter stops – where people can drive to park and ride transit – will nearly triple. When park-and-ride is considered, there is a greater benefit in accessibility to transit (Figure 2). Over 95 percent of residents in the four-county area will be able to either walk to a transit stop or drive to a commuter stop within 15 minutes. More rural areas will also see greater access to services with the increase in commuter stops and service.

Figure 2: Areas within 15-Minute Walk to Transit Stops or Drive to Commuter Stops



Access to Jobs

Besides measuring accessibility to transit stops, SEMCOG measured accessibility to jobs and other core services by taking transit. Accessibility to jobs measures how many jobs can be reached by taking transit during peak or non-peak commute time on a typical work day (Monday in this study), for a working-age resident within a 15-minute walk to transit stops. The results show that average number of jobs accessible by transit will increase by nearly 16 percent during morning rush hour (7 a.m.), and by more than 27 percent at non-peak hour (1 p.m.), within 90-minute total travel time (Table 2).

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Table 2: Average Number of Jobs Accessible by Transit per Working-Age Resident, within 90-Minute Total Commute Time

	Existing Service	Master Plan	Change	Percent Change
Peak Time (7 a.m.)	504,627	584,328	79,701	15.8%
Non-Peak Time (1 p.m.)	375,161	477,174	102,013	27.2%

Access to Core Services

In addition to access to jobs, SEMCOG also measured accessibility to other core services such as healthcare facilities, supermarkets, libraries, parks, and schools. The measurement is defined as the number of people or households within 30-minutes total travel time to these services by using transit. The findings are summarized in Table 3. The results show that the proposed RTA Master Plan provides greater access to all of those services. It will provide up to 17 percent (senior population access to urgent care in Table 3) greater accessibility to those services and with a broader reach to new riders in suburban areas.

Table 3: Population and Households with Access to Core Services by Transit, in 30-Minute Total Travel Time

	Existing Service	RTA Plan	Change	Percent Change
1. Access to Supermarkets				
Total Household Population	1,774,064	1,977,385	203,321	11.5%
Senior Population	222,515	251,284	28,769	12.9%
Total Households	720,600	807,795	87,195	12.1%
Transit-Dependent Households*	134,655	142,982	8,327	6.2%
Households in Poverty	145,147	152,892	7,745	5.3%
2. Access to Libraries				
Total Household Population	1,513,105	1,638,166	125,061	8.3%
Senior Population	186,294	202,952	16,658	8.9%
Total Households	614,179	666,836	52,657	8.6%
Transit-Dependent Households	121,185	125,758	4,573	3.8%
Households in Poverty	131,894	135,932	4,038	3.1%
3. Access to High Schools				
Total Household Population	1,511,202	1,621,439	110,237	7.3%
Total Households	616,260	662,523	46,263	7.5%
Transit-Dependent Households	122,071	126,098	4,027	3.3%
Households in Poverty	131,331	135,482	4,151	3.2%
Households with Children	191,646	205,821	14,175	7.4%

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4. Access to Hospitals

Total Household Population	742,883	794,378	51,495	6.9%
Senior Population	98,150	104,482	6,332	6.5%
Total Households	311,100	332,901	21,801	7.0%
Transit-Dependent Households	64,792	65,299	507	0.8%
Households in Poverty	69,129	69,251	122	0.2%

5. Access to Community Health Centers

Total Household Population	1,317,119	1,452,296	135,177	10.3%
Senior Population	158,383	176,135	17,752	11.2%
Total Households	530,796	587,784	56,988	10.7%
Transit-Dependent Households	111,818	117,698	5,880	5.3%
Households in Poverty	122,697	129,065	6,368	5.2%

6. Access to Urgent Care

Total Household Population	1,361,114	1,572,889	211,775	15.6%
Senior Population	173,307	203,349	30,042	17.3%
Total Households	558,060	646,194	88,134	15.8%
Transit-Dependent Households	106,056	114,779	8,723	8.2%
Households in Poverty	114,104	122,569	8,465	7.4%

7. Access to HealthCare - Any of above 4-6

Total Household Population	1,710,584	1,932,394	221,810	13.0%
Senior Population	215,288	245,267	29,979	13.9%
Total Households	696,884	788,238	91,354	13.1%
Transit-Dependent Households	130,941	140,260	9,319	7.1%
Households in Poverty	141,175	150,283	9,108	6.5%

8. Access to Large Parks (>200 acres)

Total Household Population	526,997	571,490	44,493	8.4%
Senior Population	64,177	71,608	7,431	11.6%
Total Households	206,891	228,711	21,820	10.5%
Transit-Dependent Households	49,854	52,539	2,685	5.4%
Households in Poverty	55,149	57,273	2,124	3.9%
Households with Children	69,294	74,282	4,988	7.2%

*Note: Transit-dependent households are households with no vehicles available and households with fewer vehicles available than workers.