# **Equity Analysis**

## For Proposed August 2021 Service Changes

Prepared by Tim Sobota and Drew Beck March 5, 2021 Metro Transit



Metro Staff undertook an analysis to identify equity related impacts associated with the proposed service changes for August 2021. The results are as follows:

#### **Background**

The most recent Title VI maps (using Census ACS 2014-2018 estimates) defined 220 Dane County Census Block Groups comprising Metro Transit's service area. Based on population estimates for these 220 Block Groups, the percentage of minority population across the entire service area was 24.8% - while the percentage of low income population across the entire service area was 14.7%.

Routes 10 & 27 (existing) and 28 & 38 (proposed) have bus stop locations within or adjacent 62 of these 220 Block Groups.

18 of these 62 Block Groups had a minority population greater than 24.8% - while 28 of these 62 Block Groups had a low income population greater than 14.7%.

#### **Minority Population impacts**

*High minority census blocks:* The cumulative net change in the number of weekday trips (based on known count of trips eliminated on Routes 10 & 27, plus assumed count of trips created on Routes 28 & 38) serving stops in or adjacent the 18 Block Groups with a **minority population** greater than 24.8% was an **increase** of 38 trips (+1%).

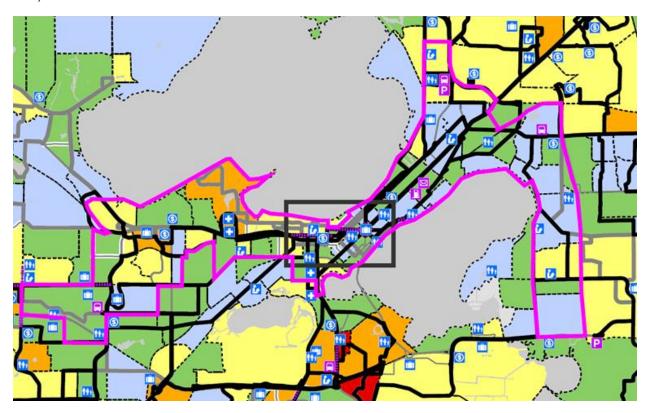
**Lower minority census blocks:** The cumulative net change in the number of weekday trips (based on known count of trips eliminated on Routes 10 & 27, plus assumed count of trips created on Routes 28 & 38) serving stops in or adjacent the 44 Block Groups with a minority population less than 24.8% was a **decrease** of 220 trips (-7%).

#### **Low Income Population Impacts**

Low income census blocks: The cumulative net change in the number of weekday trips (based on known count of trips eliminated on Routes 10 & 27, plus assumed count of trips created on Routes 28 & 38) serving stops in or adjacent the 28 Block Groups with a low income population greater than 14.7% was a decrease of 238 trips (- 8%).

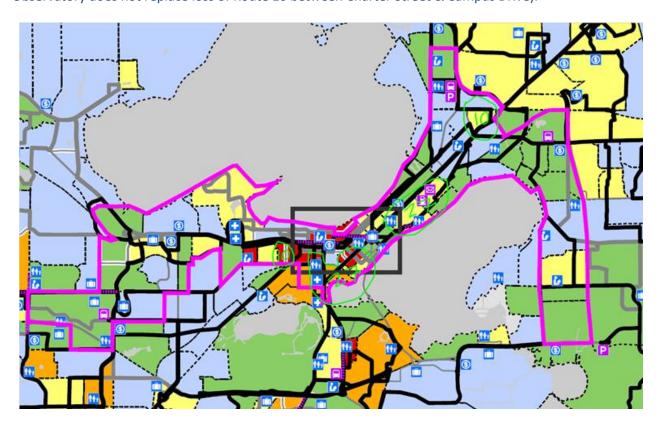
**Non-low income census blocks:** The cumulative net change in the number of weekday trips (based on known count of trips eliminated on Routes 10 & 27, plus assumed count of trips created on Routes 28 & 38) serving stops in or adjacent the 34 Block Groups with a low income population less than 14.7% was an **increase** of 56 trips (+ 2%).

<u>"Minority" Block Groups</u> (map below) show a small increase in the number of weekday trips (+38), under the proposed route & schedule changes, while "Non-Minority" Block Groups would have a decrease roughly five times larger than this in the number of weekday trips (-220).



<u>"Low Income" Block Groups</u> (map below) show a decrease in the number of weekday trips of -238 under the proposed route & schedule changes, while "non-Low Income" Block Groups would have an increase in the number of weekday trips (+56).

"Low Income" Block Groups with substantial decreases in weekday trips are those east of North Street (Route 28 only replaces about half of lost Route 10 trips); Isthmus and West Wash/Regent areas (Route 38 only replaces Route 10 on south half of Isthmus, but not loss of Route 27; Route 38 only replaces Route 10 near parts of West Wash but not remainder of West Wash to/from Regent; Route 38 via Observatory does not replace loss of Route 10 between Charter Street & Campus Drive).



#### Conclusion

**Minority status:** The analysis showed that *non*-high-minority census tracts see a decrease in weekly bus trips of (-7%), while high-minority census tracts see an increase of +1%. Because the relative difference between the two is 6% in favor of high minority census tracts, this change does not have a disparate impact.

**Income status:** *Non*-low income census tracts see an increase of +2% in weekly bus trips, while low income census tracts see a decrease of (-8%) in weekly bus trips. Because the relative difference between the two is 6%, which is more than our 2% threshold for a disparate impact, a disparate impact is borne by the aggregate of low income census tracts.

### Appendix – Data used for the Analysis

550250001002 550250002011 550250003001 550250003002	Univ Row Rosa	31.35%	1	8.93%	0	0.4		0	48				
550250003001 550250003002	Rosa				- 0	-94	0	U	40	-46	0	0	-46
550250003002		15.47%	0	8.45%	0	-94	0	46	48	0	0	0	C
	Sheboygan	54.03%	1	26.86%	1	-94	0	46	48	0	0	0	C
FF00F0C	Hill Farms E	27.77%	1	2.51%	0	0	0	46	0	46	0	0	46
550250003003	Hill Farms W	30.97%	1	8.52%	0	0	0	46	0	46	0	0	46
550250003004	Eau Claire W	45.54%	1	25.18%	1	-94	0	46	48	0	0	0	(
550250004021	Science	6.92%	0	1.28%	0	0	0	46	0	0	46	0	46
550250004081	W Transfer	23.71%	0	14.37%	0	0	0	46	0	0	46	0	46
550250008001	Bluff N	32.59%	1	26.90%	1	-94	0	46	48	0	0	0	(
550250008003	Midvale E	10.14%	0	12.59%	0	-94	0	46	48	0	0	0	
550250009021	Breese	14.45%	0	62.53%	1	-48	0	46	0	0	-2	-2	
550250009022	Old Univ	18.52%	0	14.88%	1	-48	0	46	0	0	-2	-2	
550250009023	Highland E	42.01%	1	50.16%	1	-48	0	46	0	-2	0	-2	
550250009024	Highland W	18.38%	0	13.27%	0	-94	0	46	48	0	0	0	
550250011011	Mills N	23.10%	0	80.50%	1	-94	-20	46	48	0	-20	-20	
	Camp Randall	25.95%	1	83.49%	1	-94	-20	46	24	-44	0	-44	
550250011012	Mem Union	48.53%	1	92.59%	1	-47	-20	23	24	-20	0	-20	
											-		
550250011022	Observatory	25.80%	1	0.00%	0	-94	-20	46 0	48	-20	0	12	
550250012001	Bayview	45.73%	1	30.84%	1	0	-12	-	-	-12		-12	
550250012004	Mills S	15.88%	0	37.11%	1	70	-12	0	0	0	-12	-12	
550250016031	State S	19.49%	0	84.24%	1	-70	-8	46	24	0	-8	-8	
550250016032	Frances	42.78%	1	88.26%	1	-94	-8	46	48	-8	0	-8	
550250016042	Gorham W	7.99%	0	61.28%	1	-46	-8	46	0	0	-8	-8	
550250016043	State N	24.09%	0	91.61%	1	0	0	0	0	0	0	0	
550250016051	Wash S	11.46%	0	44.57%	1	-48	-12	0	48	0	-12	-12	
550250016052	Wilson W	18.14%	0	25.73%	1	-48	-12	0	48	0	-12	-12	
550250016061	Dayton E	28.94%	1	56.83%	1	-71	-4	23	48	-4	0	-4	
550250016062	Wash N	12.25%	0	65.99%	1	-48	-12	0	48	0	-12	-12	
550250016063	Kohl Ctr	22.20%	0	0.00%	0	0	-12	0	0	0	-12	0	
550250016064	Dayton W	14.27%	0	0.00%	0	-47	-4	23	24	0	-4	0	
550250017041	Capitol W	22.97%	0	26.89%	1	-47	-10	23	24	0	-10	-10	0
550250017042	Capitol S	19.11%	0	13.18%	0	-24	-12	0	48	0	12	0	12
550250017051	Capitol E	9.85%	0	12.51%	0	0	-12	0	48	0	36	0	36
550250017052	Blair W	11.72%	0	19.14%	1	-46	-8	46	0	0	-8	-8	0
550250017053	Capitol N	6.21%	0	24.78%	1	-46	-8	46	0	0	-8	-8	0
550250018021	Tenney N	14.21%	0	9.39%	0	-46	-8	46	0	0	-8	0	-8
550250018022	Blair E	18.40%	0	17.43%	1	-46	-8	46	0	0	-8	-8	0
550250018041	Tenney S	14.53%	0	13.17%	0	-23	-4	23	0	0	-4	0	-4
550250018042	Fordem W	32.88%	1	14.02%	0	-46	-8	46	0	-8	0	0	-8
550250019001	Eastwood	12.65%	0	8.19%	0	-48	0	0	20	0	-28	0	-28
550250019002	Willy S	7.49%	0	7.60%	0	-48	0	0	48	0	0	0	0
550250019003	Willy W	8.89%	0	17.52%	1	-48	-12	0	48	0	-12	-12	O
550250019004	Willy N	20.30%	0	17.76%	1	-48	-12	0	48	0	-12	-12	C
550250019005	Winnebago	4.36%	0	2.57%	0	-48	-12	0	0	0	-60	0	-60
550250020002	Atwood N	20.13%	0	14.31%	0	0	0	0	20	0	20	0	20
550250020003	Atwood S	8.00%	0	2.56%	0	0	0	0	20	0	20	0	20
550250020004	Union Crns	20.12%	0	6.53%	0	-94	-12	0	20	0	-86	0	-86
550250021001	N Transfer	28.78%	1	6.24%	0	0	-20	46	0	26	0	0	26
550250021002	North E	10.14%	0	20.94%	1	-94	-12	46	0	0	-60	-60	C
550250021003	North W	6.46%	0	7.15%	0	-94	-20	46	0	0	-68		
550250021004	Fordem E	11.70%	0	6.26%	0	-46	-20	46	0	0	-20	0	-20
550250022002	Aberg	37.66%	1	13.45%	0	0	-20	46	0	26	0	0	26
550250027002	Cot Grv N	9.00%	0	8.45%	0	0		0	20		20		
550250027003	E Transfer	2.81%	0	14.37%	0	0	0	0	20		20		
550250028001	Cot Grv S	5.36%	0	4.17%	0	0	0	0	20		20		
550250028002	Turner N	7.93%	0	5.47%	0	0	0	0	12		12		
550250029001	Turner S	30.21%	1	20.10%	1	0	0	0	12	12	0	12	
550250029001	Pflaum S	20.72%	0	8.65%	0	0	0	0	12	0	12	0	
550250029002	Tompkins	10.43%	0	8.93%	0	0	0	0	12	0	12	0	
			1		1	-48	0	46	48	46	0	46	
550250032001	UW Hosp	67.05%		21.33%		-48 -94							
550250101001	Shorewood E	22.44%	0	5.87%	0		0	46	48	0	0		
550250101002 : 62	andrewood W	14.29% 24.80%	0 18	3.35% 14.70%	0 28	-94 -2731	-402	46 1587	48 1364		-220		