

Recent Immigrant Settlement and Local Transit Agencies' Approaches to Transit Planning

Implications for Transit Equity in Three Canadian Prairie Cities

By Abigail McLaren
University of Manitoba, City Planning Department

Reason for Research

- Between 2021 to 2022, immigration accounted for 93.5% of Canada's population growth.¹
- The proportion of immigrants representing Winnipeg's population exceeded the national average, and Regina and Saskatoon saw "[n]ew immigrants represented almost one-third" of their immigrant populations.²
- Studies have found immigrant settlement has shifted towards suburban areas due to presence of cultural community, familial ties, and housing affordability – regardless of poor transit typical of decentralized areas.
- Recognizing that transportation needs differ across immigrant groups, lack of transit presence may impact population retention and newcomers' quality of life.

Research Questions

- 1 Where are immigrants settling in Winnipeg, Regina, and Saskatoon, and what are the impacts of transit routes changes on areas with higher recent immigrant populations in these cities?
- 2 What changes have been made to transit routes in Winnipeg, Regina, and Saskatoon over time, and what key information do local transit agencies use to determine and design service revisions?
- 3 What are the policy implications of changing settlement patterns for transit agencies in prairie cities?

Methods

Spatial Analysis

- Mapping was used as a data visualization tool.
- Census tract (CT) data represented recent immigrants' settlement patterns per city from 2001 to 2021.
- Sample areas of analysis included six CTs from each city; three CTs demonstrating the highest average rate of recent immigrants over time, and three CTs demonstrating the greatest increase of recent immigrant population shares between 2001 and 2021.
- Transit route data highlighted provision over time in relation to these sample areas.

Semi-Structured Interviews

- Participants included transit agency staff from each city.
- Five respondents total; one planner, two engineers, and two transit managers.

Findings

Key Takeaways from Spatial Analysis

All three cities have seen recent immigrant settlement shift towards suburban and greenfield areas; however, **Winnipeg continues to see the highest averages and greatest increase of recent immigrant populations in core CTs.**

The transit network of each city is delivered according to a hub-and-spoke model, where nearly all routes converge at their respective central business districts (CBDs). Winnipeg has nearly four times the number of routes than Regina. **Across cities and over time, the number of routes or route changes did not drastically change – the most notable increase in new routes occurred at a suburban CT in Saskatoon.**

Figures 1 & 2

Transit Presence in Winnipeg Sample Areas, 2003 & 2021

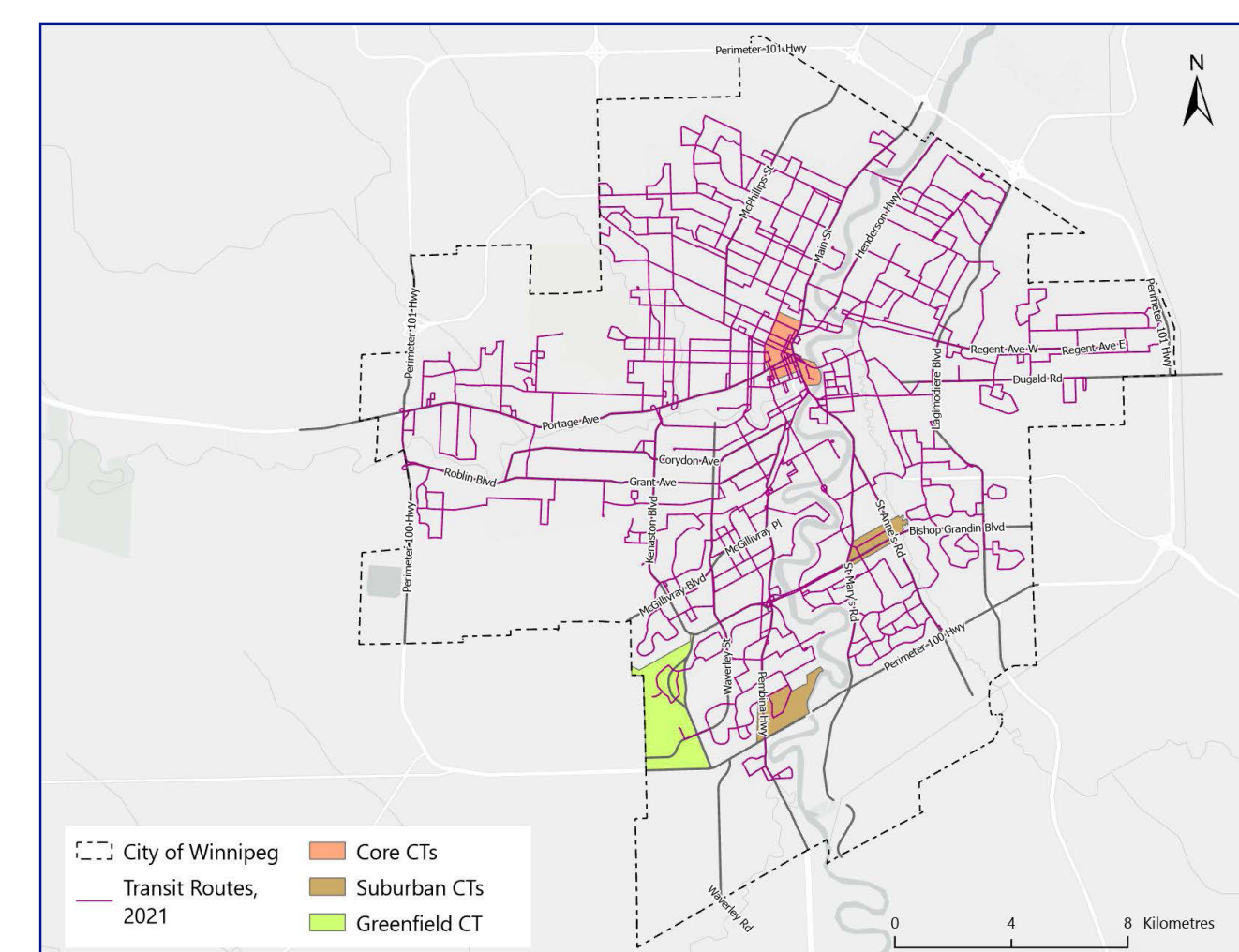
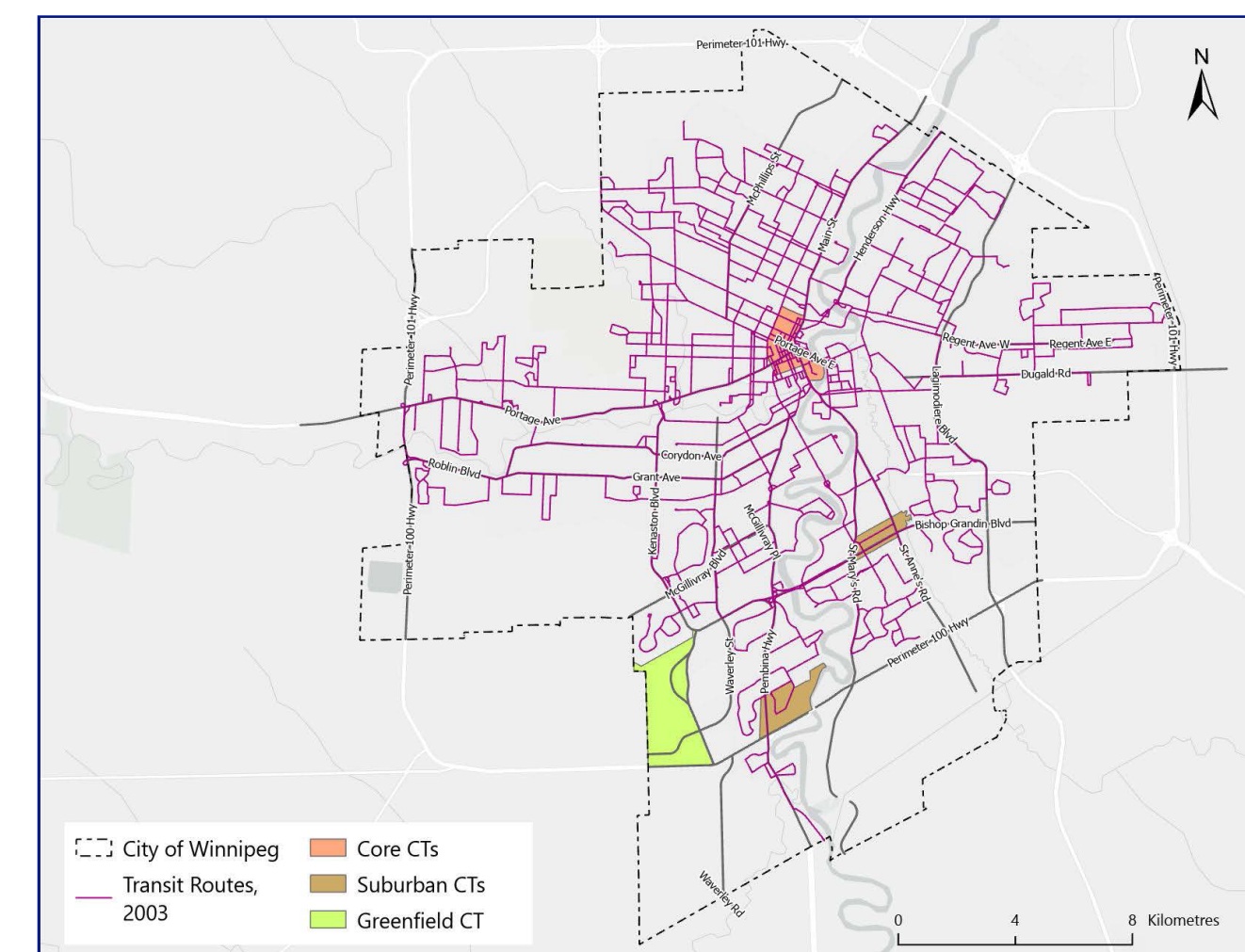


Table 1

Rate of Recent Immigrant Population and Transit Routes per Sample Areas

Geography	Sample Area	Population						Transit					
		Percent of CT Population that are Recent Immigrants						Population Change	# of routes in first year	# of routes in 2021	Change in # of routes between first year and 2021	Percent of routes shared between first year and 2021	
		2001	2006	2011	2016	2021	Average						
Core CTs	Winnipeg	A	2.8	6.6	n/a	20.0	20.4	12.5	+17.6%	43	45	+2	73.3%
		B	10.0	18.9	21.1	19.4	21.0	18.0	+11.3%	30	31	+1	83.9%
		C	11.7	19.6	30.2	20.1	17.5	19.8	+5.8%	44	37	-7	89.2%
Suburban CTs	Winnipeg	D	3.1	6.4	11.1	15.1	15.6	10.3	+12.5%	4	4	0	0%
		E	3.8	8.4	12.8	16.9	16.2	11.6	+12.4%	8	8	0	87.5%
		F	1.7	2.7	9.3	11.9	13.7	7.9	+12.0%	2	3	+1	66.7%
	Regina	A	1.4	1.2	8.3	15.6	11.6	7.6	+10.2%	2	4	+2	50%
		B	0.4	0.4	1.4	9.0	12.4	4.7	+12.0%	2	3	+1	66.7%
		C	3.1	2.7	7.7	14.8	15.8	8.8	+12.7%	10	6	-4	33.3%
Saskatoon	A	0.8	0.8	7.9	12.3	10.5	6.4	+9.7%	10	6	-4	50%	
	B	4.2	2.8	5.2	10.5	12.7	7.1	+8.5%	8	11	+3	0%	
	D	11.0	6.9	15.7	12.0	15.7	12.7	+4.7%	8	15	+7	6.7%	
Greenfield CTs	Winnipeg	F	n/a	n/a	n/a	n/a	17.1	17.1	n/a	0	3	+3	0%
		D	n/a	n/a	n/a	n/a	17.4	17.4	n/a	0	4	+4	0%
		E	n/a	n/a	n/a	n/a	12.8	12.8	n/a	0	2	+2	0%
	Regina	F	n/a	n/a	n/a	n/a	12.6	12.6	n/a	0	4	+4	0%
		E	n/a	n/a	n/a	17.0	15.2	16.1	-1.3%	0	1	+1	0%
		F	n/a	n/a	n/a	n/a	14.6	14.6	n/a	0	0	0	0%

Key Takeaways from Semi-Structured Interviews

Stakeholder Input

- Noted by all participants as the most important criterion in route revision and evaluation; although none shared specified how or when feedback is solicited.
- Use of public engagement depends on the scale of the revision – it is mandatory for all large-scale, major route revisions, but not for small-scale, incremental revisions.

Land Use & Development Patterns

- All respondents agreed that changes to land use and infrastructure influence route revisions, where participants from two agencies specified greenfield development as a main cause.

Funding

- Noted by all participants as the primary reason for route revision; respondents across all agencies agreed that routes change based on budget constraints, or as new capital funding is available.

Data Analysis

- Route evaluation is loosely based on analyses of ridership, capacity, and scheduling performance data.
- Only one respondent mentioned their agency considers land use, zoning, population target data.

Improved Efficiency

- Participants from each agency noted that moving towards a primary-feeder network was an effective means of improving efficiency; however, in all cases, these revisions exist only in 25-year plans.

- Service to greenfield areas may be less efficient since most coverage is provided via extended existing routes, as per limited agency resources.

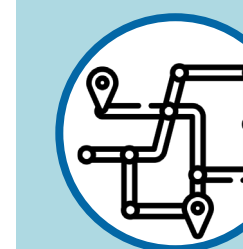
Occurrence of Route Revisions

- Based on responses, it remains unclear how often routes are revised.

Discussion & Analysis



Transit presence is not the strongest draw for settlement in most cities. Since car ownership among immigrants is found to increase after the first five years of arrival Canada³ and recent immigrants are found to live in areas with existing **social networks**⁴ and suburban areas despite poorer access to transit,^{5,6} findings suggest that recent immigrants within each city are relying on carpooling or other modes apart from transit.



When interview respondents mentioned transit revision and city growth, most referenced **new development rather than population growth**; however, not all new greenfield CT sample areas were serviced. Without strategies to identify ridership demographics and travel needs, agencies may struggle to incorporate equity goals in transit planning.



In most cases, the concept of **equal service was preferred over equitable service.** Interview responses suggest that the agencies across the three cities do not have formalized process or policies outlining how to facilitate public engagement or develop route evaluation criteria which seeks to include marginalized groups.

Conclusion

As immigration continues to lead population growth in Canada, prairie cities such as Winnipeg, Regina, and Saskatoon should consider how transit planning will be impacted.

- Transit agencies should intentionally seek out the voices of recent immigrant who may be transit dependent in public engagement.
- Transit agencies should consider new ways to collect ridership data that looks beyond commuting needs.
- Transit agencies should continue to focus on developing inclusive evaluation criteria and revision processes.

References

- 1 Statistics Canada. (2022a, September 28). *Canada's population estimates: Age and sex, July 1, 2022*. The Daily. <https://www150.statcan.gc.ca/n1/en/daily-quotidien/220928/dq220928c-eng.pdf?st=zmiQdaW>
- 2 Statistics Canada. (2022b, October 26). *Immigrants make up the largest share of the population in over 150 years and continue to shape who we are as Canadians*. The Daily. <https://www150.statcan.gc.ca/n1/en/daily-quotidien/221026/dq221026a-eng.pdf?st=ObxcmNY>, p.11.
- 3 Heisz, A., & Schellenberg, G. (2004). Public Transit Use Among Immigrants. *Canadian Journal of Urban Research*, 13(1), 170–191.
- 4 Chatman, D. G., & Klein, N. J. (2013). Why do immigrants drive less? Confirmations, complications, and new hypotheses from a qualitative study in New Jersey, USA. *Transport Policy*, 30, 336–344.
- 5 Allen, J., Farber, S., Greaves, S., Clifton, G., Wu, H., Sarkar, S., & Levinson, D. M. (2021). Immigrant Settlement Patterns, Transit Accessibility, and Transit Use. *Journal of Transport Geography*, 96, 103187.
- 6 Amar, A. K., & Teelucksingh, C. (2015). Environmental Justice, Transit Equity and the Place for Immigrants in Toronto. *Canadian Journal of Urban Research*, 24(2), 43–63.