

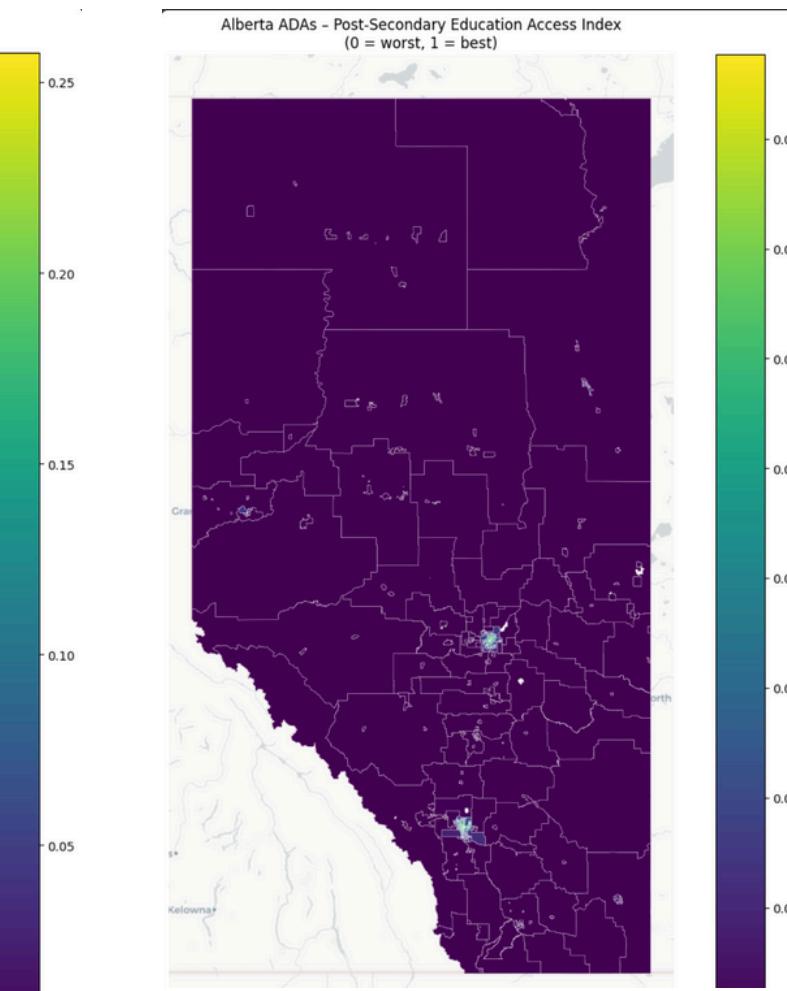
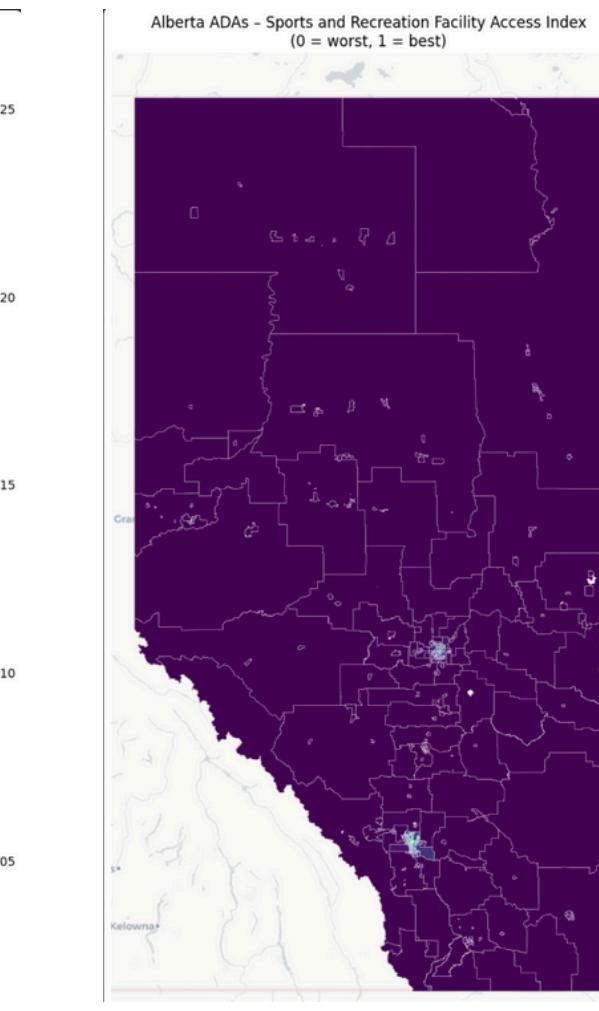
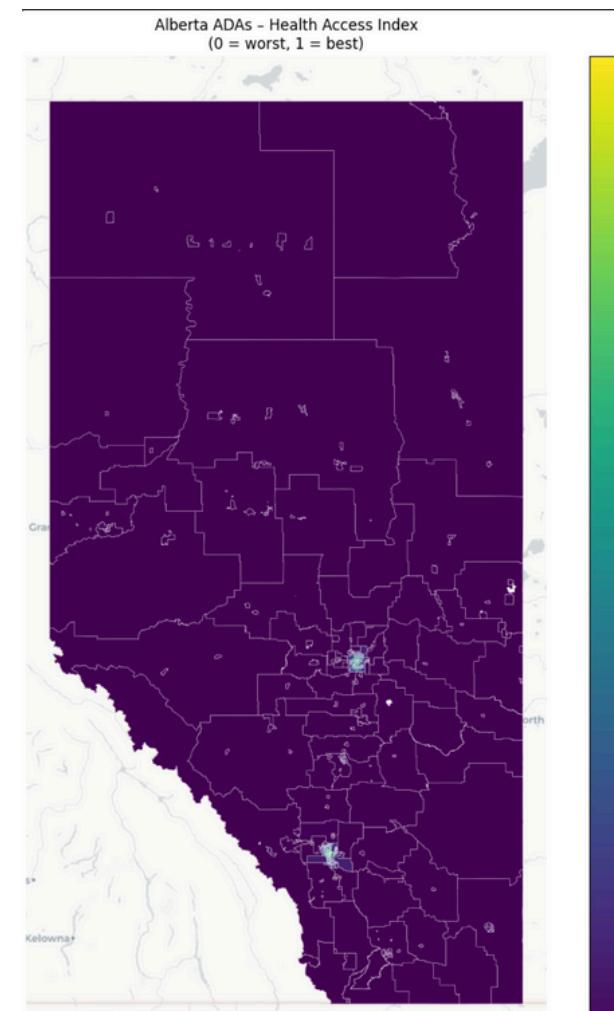
THE COST-ACCESS TRADE-OFF RESHAPING MIGRANT SETTLEMENT

By JPK

Justina Nemhara
Precious Ajilore
Koyinsola Titiloye

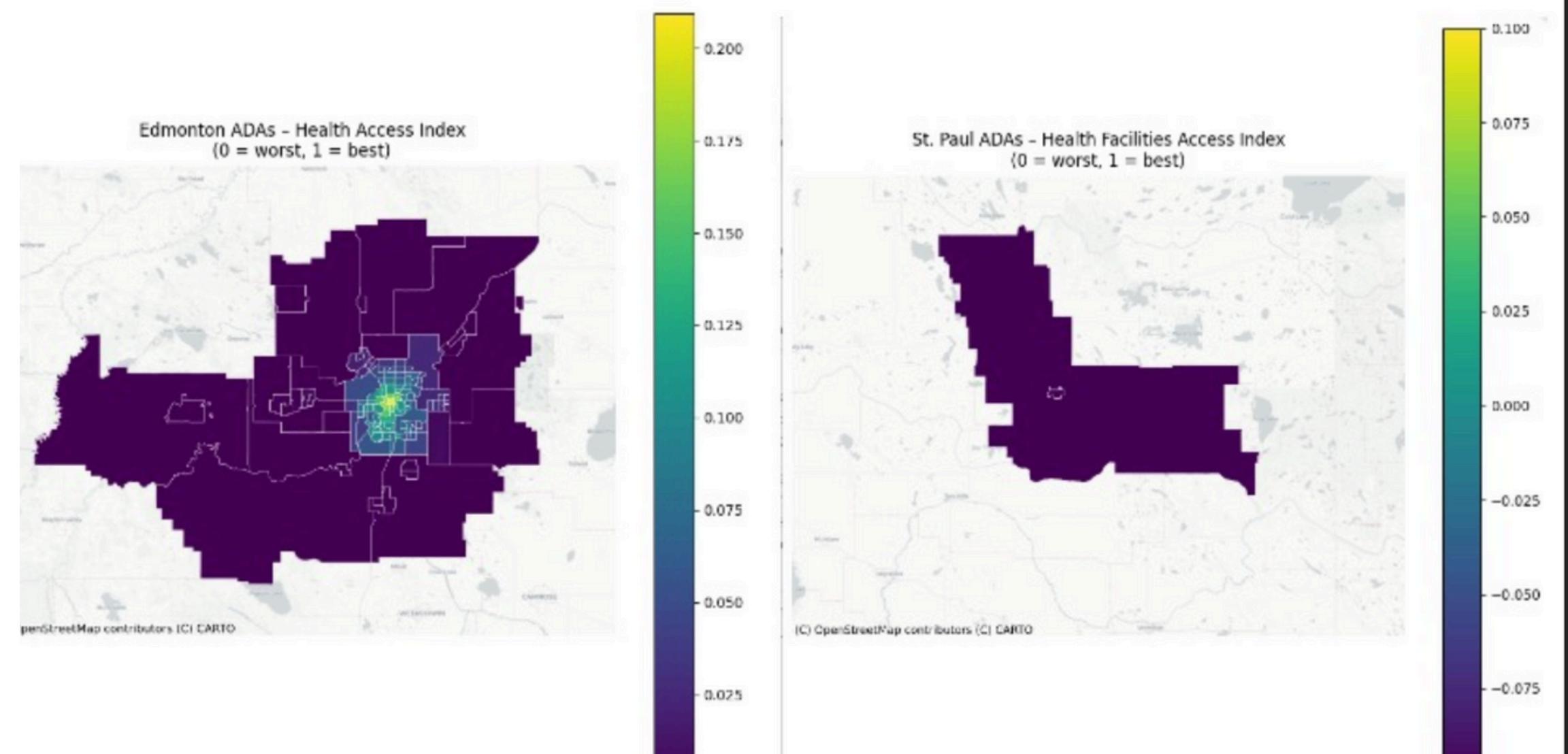
“MOVING IS NOT THE HARDEST PART OF MIGRATION, STARTING OVER IS.”

- Immigration = access to new opportunity
- But access is not equally distributed
- High-density areas = better services, but not everyone can live there



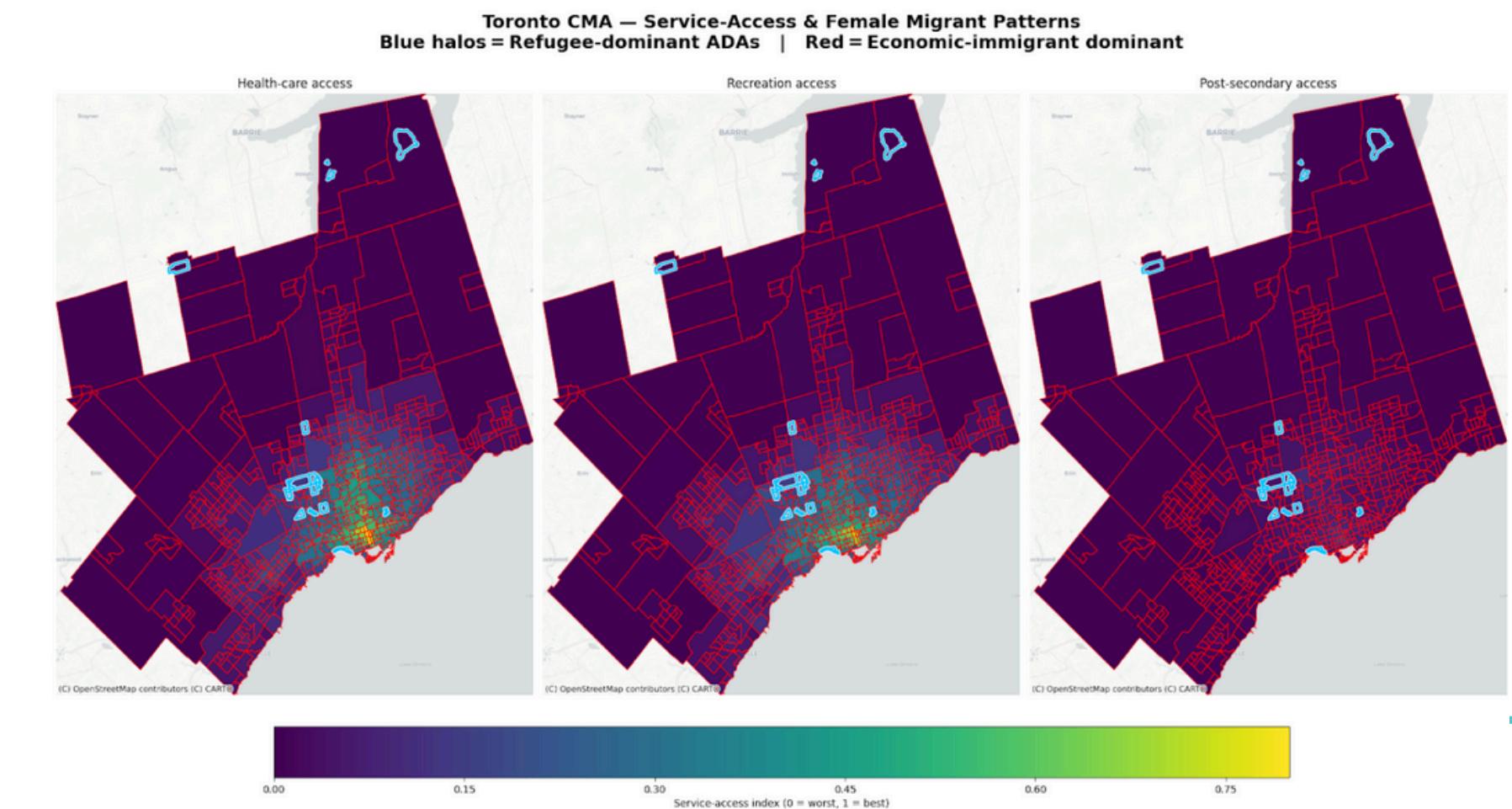
REFUGEE SETTLEMENT IN ALBERTA - JUSTINA'S STORY

- Justina's parents came to Canada as refugees in 2001. They initially settled in Toronto but moved to St. Paul, Alberta, due to job competition.
- Access to essential services like healthcare and education drops sharply outside Edmonton and Calgary.
- St. Paul and other rural communities are true service deserts, scoring zero on access indices.
- Maps show this stark contrast in accessibility across Alberta.



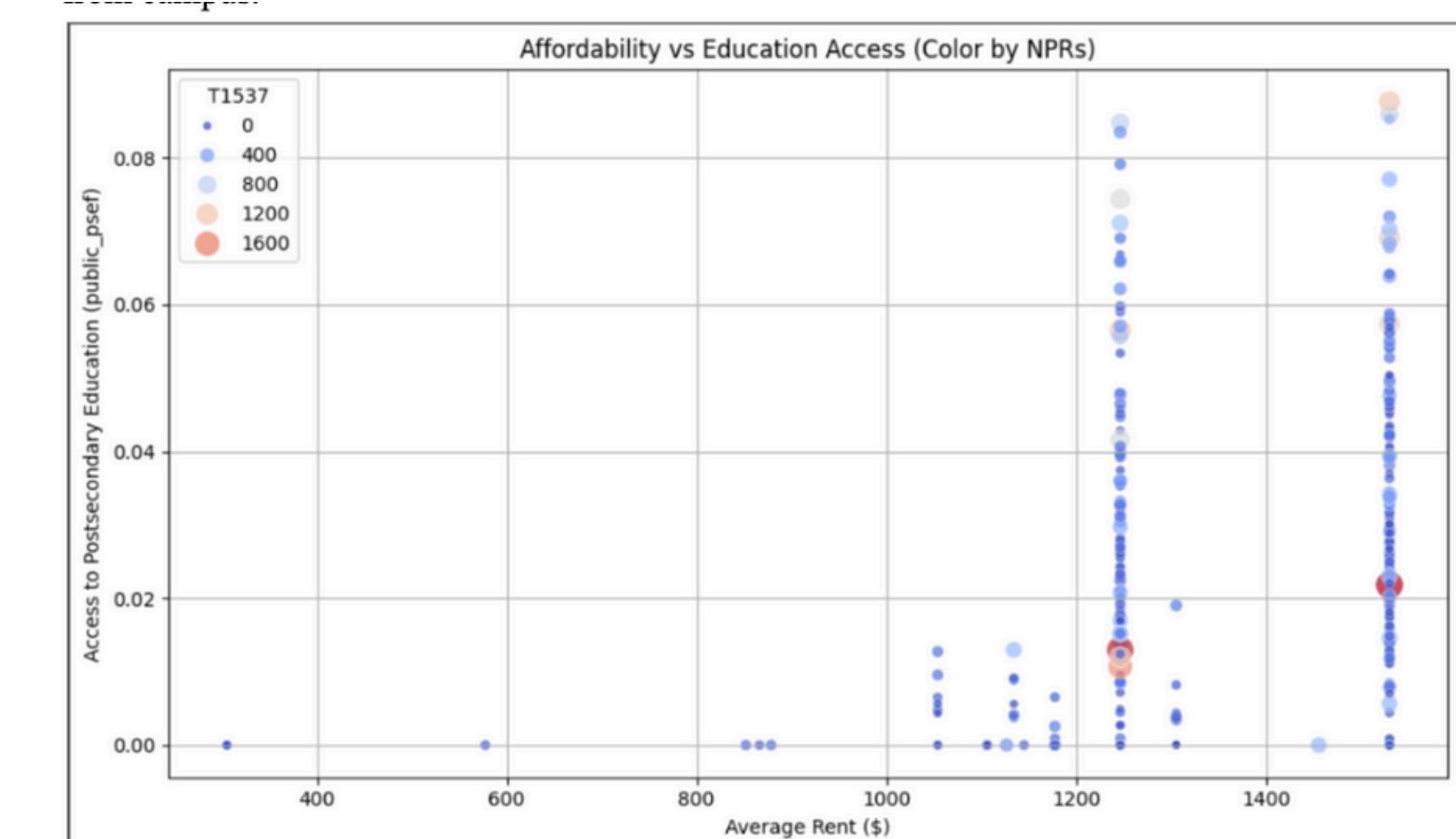
FROM TORONTO TO EDMONTON: TRADE-OFFS BETWEEN COST AND ACCESS - PRECIOUS' STORY

- In Toronto, Precious lived downtown for walkable access to healthcare, services, and transit, a necessity for refugee claimants like my family.
- But rising housing costs pushed us to choose: stay where services are or move somewhere affordable.
- Data shows refugee-dominant areas in Toronto have significantly better access to postsecondary education than economic immigrants in the suburbs ($p = 0.032$).



WHEN AFFORDABILITY COMES AT A COST- KOYINSOLA'S STORY

- Access to postsecondary education is highly centralized in Alberta, virtually nonexistent outside of Edmonton and Calgary.
- Most affordable areas show zero public access scores, forcing international students into hard trade-offs.
The data reveals most non-permanent residents settle in high-rent zones not by choice, but out of necessity, because that's where universities and essential services are concentrated.



WHAT OUR STORIES TELL

These three stories, although with different starting points, trace a single path

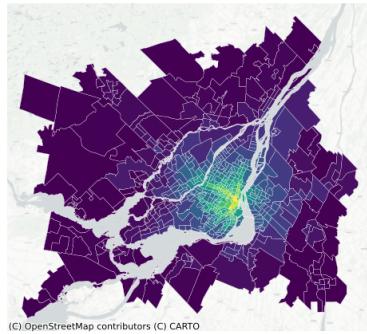
For policymakers these observations should be a guide for where the access indexes collapse and which areas will feel it first.

Planners can therefore target the lowest-scoring suburban and rural ADA's for improvements like primary-care clinics and frequent bus services.

If Canada wants sustainable growth, we must plan for equity, not just enrollment.

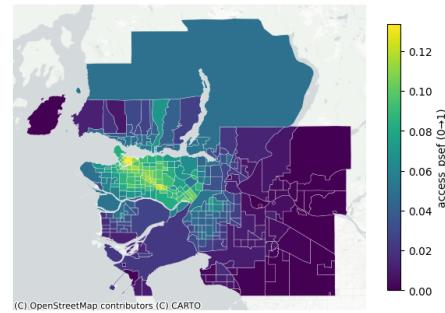
THANK YOU!

Montréal CMA - access_psef (auto-scaled 0.000→0.832)



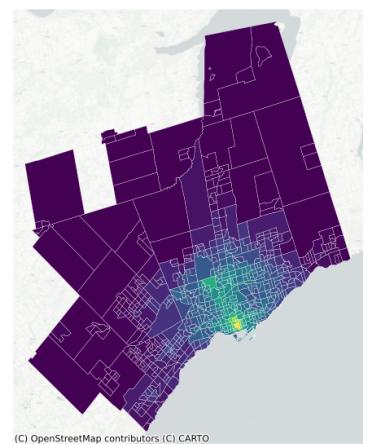
(a) Montreal CMA

Vancouver CMA - access_psef (auto-scaled 0.000→0.133)



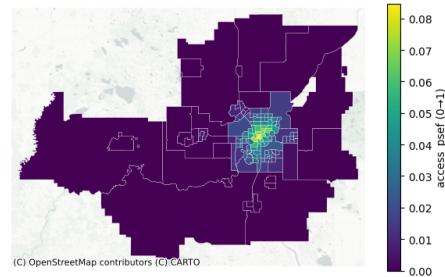
(b) Vancouver CMA

Toronto CMA - access_psef (auto-scaled 0.000→0.158)



(c) Toronto CMA

Edmonton CMA - access_psef (auto-scaled 0.000→0.085)



(d) Edmonton CMA

Figure 1: Service Access Maps for Select Canadian CMAs

Note on the maps: We let the colour bar stretch to each city's own score range so you can still see the high vs. low pattern inside low-scoring CMAs like Edmonton. That means colours aren't meant to be compared across cities; they just highlight the contrasts within each map (this is what the auto-scaled means).

Table 1: Alberta Accessibility Indices (0 = worst, 1 = best)

	access_hf	access_srf	access_psef
count	526.000	525.000	519.000
mean	0.039	0.036	0.016
std	0.052	0.048	0.020
min	0.000	0.000	0.000
25%	0.000	0.000	0.000
50%	0.011	0.012	0.006
75%	0.062	0.060	0.027
max	0.264	0.258	0.088

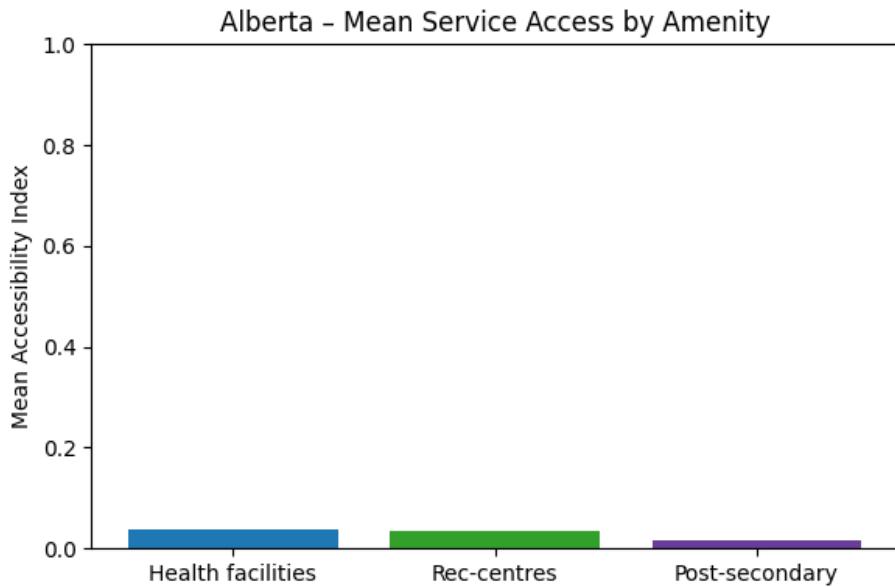


Figure 2: Accessibility indices for key services across Alberta (0 = worst, 1 = best)

- **Severely limited access overall:** Mean values are extremely low (0.039, 0.036, and 0.016 respectively), indicating most Albertans have very poor access to these services.
- **Widespread inaccessibility:** The 25th percentile is 0 for all services, meaning at least 25% of areas have effectively no access at all.
- **Urban-rural divide:** The maximum values (0.264, 0.258, 0.088) likely represent a few urban centers like Edmonton and Calgary, while most ADAs have negligible access scores.

- **Post-secondary education is least accessible:** With the lowest scores across all metrics (mean 0.016, max 0.088), higher education facilities are particularly difficult to reach without a car.

This data highlights why newcomers without vehicles tend to concentrate in major urban areas, as the vast majority of Alberta's ADAs offer virtually no viable public transit or pedestrian access to these essential services.

Affordable? Maybe. Accessible? Not Yet: The Cost–Access Trade-Off Reshaping Migrant Settlement

Justina Nemhara, Precious Ajilore, Koyinsola Titiloye (JPK)

University of Alberta,

Immigration is more than just *moving*; it is the process of restarting lives from scratch, finding safety, and seizing new opportunities. Edmonton serves as a destination for refugees, economic migrants, and international students alike, but is the city equipped to support newcomers equitably, regardless of where they settle?

We address this question by weaving together lived experience and objective data to measure disparities in three essential services: health care, recreation, and post-secondary education. A striking pattern emerges: areas with **high immigrant density enjoy the best access scores**. Yet many newcomers are pushed toward lower-density zones by housing costs, job competition, and affordability constraints. In these peripheral areas, our indices show that access to critical services fades toward zero.

This spatial cost–access trade-off not only diminishes quality of life; it also increases vulnerability and imposes unfair burdens on people simply trying to build better futures.

Research question. How does the cost–access trade-off shape *where* different migrant streams can realistically live and study in Canada?

Justina's parents came to Canada in 2001 as refugees seeking asylum from political turmoil in Zimbabwe. They then had her, a second-generation immigrant in Toronto, Ontario. Due to increasing job competition they later found work in St. Paul, Alberta and relocated there. Shortly after, the realities of living in rural areas as an immigrant were made clear to them: public transit and access to plentiful resources were a thing of the past. Their experience is not unique.

Many immigrants tend to initially settle in large cities like Toronto, Montreal, or Vancouver (Frenette 2018). However, they eventually relocate to smaller centers, which can be partially attributed to under-employment and growing competition among immigrants in metropolitan areas (Financial Accountability Office of Ontario, 2023). This secondary migration can expose newcomers to structural barriers such as car-dependency and limited access to essential services.

Despite being home to over 1.7 million first- and second-generation immigrants, Alberta's accessibility to services shows an underwhelming lack of support for their communities. Figure 1 illustrates this imbalance: in Edmonton's core, the bright yellows and blues indicate higher accessibility scores, but with each kilometre outward, the colours darken to purple, signalling true service

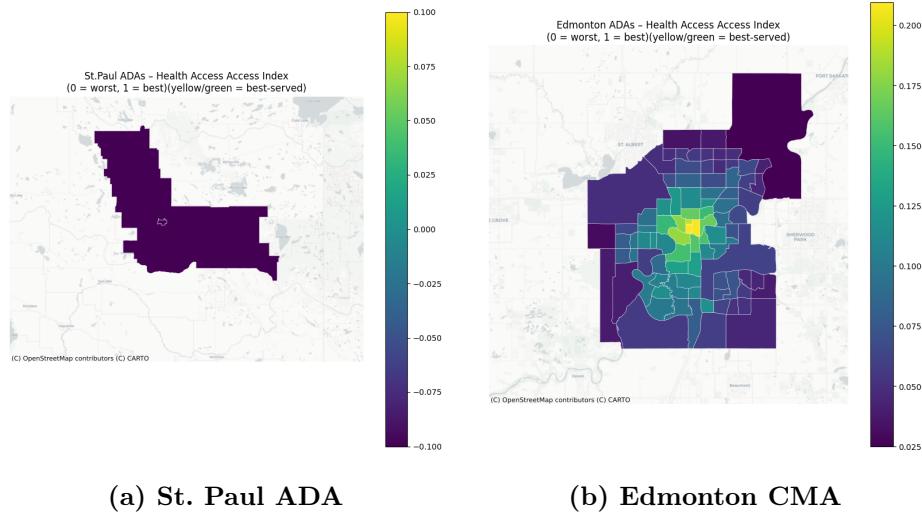


Fig. 1: Alberta ADAs– Health-Access Index. Yellow/blue = high access; purple = low.

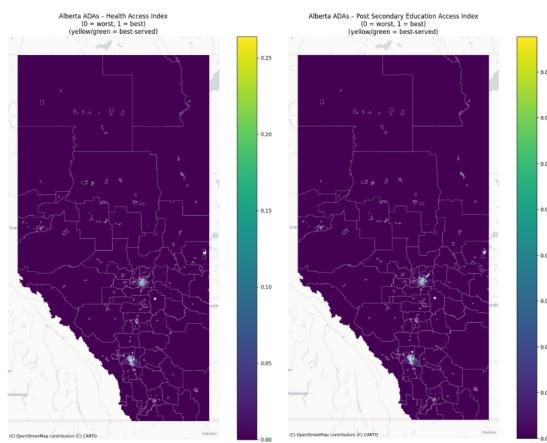


Fig. 2: Choropleth comparing health and post-secondary education-access indices for ADAS in Alberta.

deserts. Two hours away in St.Paul, only scores of 0.00 are reported—no public access at all. Nearly every ADA outside Edmonton and Calgary shares this fate. The issue is not abstract; it deprives rural families of healthcare and education, the very pillars of successful integration. Our analysis, therefore, exposes a critical gap: Alberta’s non-metropolitan areas are unprepared for incoming migrants and are already failing those who live there. For a province that benefits from immigration and anticipates more, this trajectory is unsustainable and inequitable.

Like Justina’s family, Precious’ family began its Canadian journey in Toronto. They arrived in 2017 as asylum claimants, without a car, settled near the downtown metro system so that every step of resettlement, medical exams, IRCC appointments, and legal consultations was accessible by bus or on foot. That spatial necessity is represented in the data.

Figure 4 shows the Toronto ADAS by the 0-to-1 service (health, sports & recreation, and post-secondary)-access index and outlines those in which refugee women outnumber economic immigrant women (blue halos). Every refugee-dominant polygon lies inside the high-density core, where all three service indices peak. ADAS, outlined in red, dominated by economic immigrants, form an outer suburban ring in which scores fade to zero.

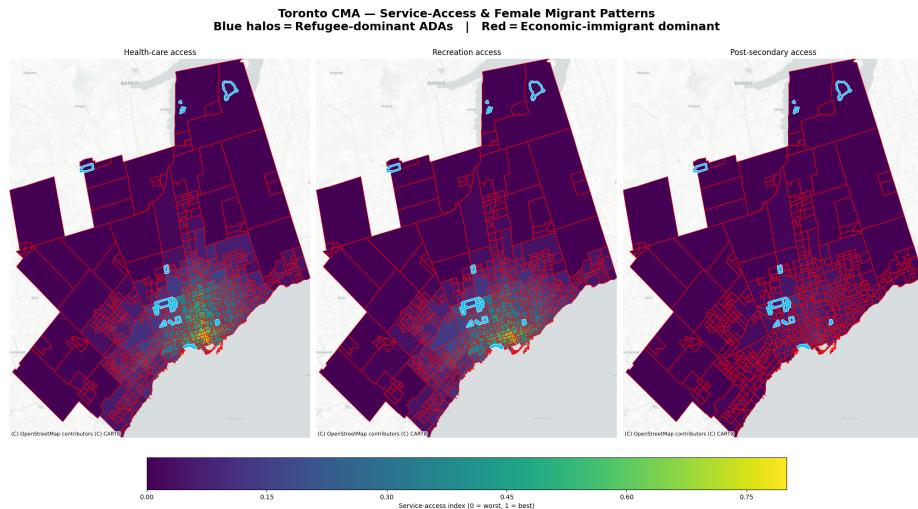


Fig. 3: Choropleth comparing service-access indices for refugee- and economic-immigrant dominant ADAS in Toronto.

Figure 5 quantifies the pattern. We obtained Mann-Whitney results that show no significant equity gap for health care ($p = 0.446$) or recreation ($p =$

0.185); Both groups share a median index <0.01, suggesting that hospitals and recreation centers are distributed independently of the migrant category. Post-secondary access, however, diverges sharply: refugee-dominant ADAS records a median index of 0. 055, more than double the 0.026 observed in suburban economic-immigrant areas ($p = 0.032$). The entire distribution for refugee areas is shifted upward, confirming that colleges and universities remain highly centralized.

Toronto CMA — Service-Access Equity by Female Migrant Group (Index 0-1)

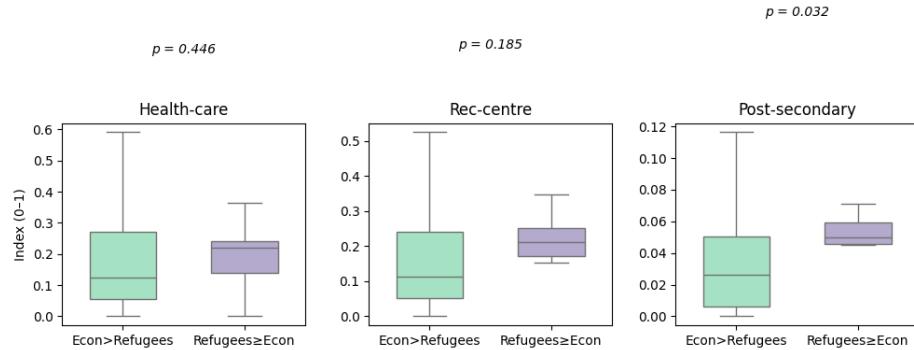


Fig. 4: Box-plots comparing service-access indices for refugee- and economic-immigrant dominant ADAS in Toronto.

The choropleth (Fig. 3) shows that every refugee-dominant ADA lies inside Toronto's high-density core, which is saturated with transit stations, hospitals and campuses. Economic-immigrant women, who are heavily located in the outer suburbs, have much weaker access to higher education.

For newcomers like my family, this situation imposes a clear trade-off: either pay downtown rents or endure commutes that can exceed two hours. In our case, the cost proved unsustainable. When I was accepted at the University of Alberta, Edmonton's lower housing costs convinced me to make the move, even though the city's overall access indices are weaker, as the next section shows.

Thus, Toronto's dense core currently shields refugee communities from service gaps, but rising living costs are pushing immigrants outward faster than services can follow. Unless Edmonton invests strategically in infrastructure for services by prioritizing access to suburban areas, it risks reproducing the very post-secondary divide that now fragments cities like Toronto.

Those same trade-offs sent thousands of migrants westward, a pattern Koyinsola quantifies next. In January 2023, Koyinsola left Lagos for Edmonton, attracted by the University of Alberta's comparatively affordable tuition. However, this was only one piece of a system of spatial challenges that newcomers like Precious and Koyinsola barely see until we arrive. When I started searching for housing, work placements, and a family doctor, it became clear that the cost of a "cheaper" degree was paid by a gap in proximity to essential services that aid in the resettlement of international students.

The data represent this trade-off. Figure B, which maps Alberta's post-secondary access index, shows that almost the entire province registers 0.00; true public-access deserts. This mirrors Precious' findings in Toronto: as migrants are pushed from dense cores like Edmonton or Calgary (the bright spots on the map), formal services disappear.

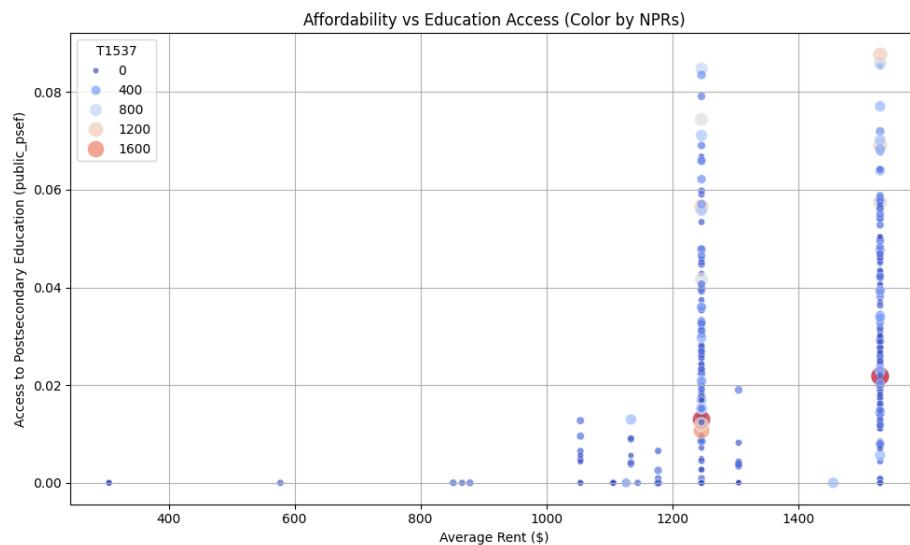


Fig. 5: Scatterplot showing affordability of housing vs education access in Alberta.

In Alberta, service access is shockingly centralized. Figure 1 plots average rent (x-axis) against post-secondary access (y-axis). Each point is an ADA, sized and coloured by the number of non-permanent residents (T1537). Most NPRS clusters are in the upper-right quadrant: high rent, high access. Affordable yet well-served areas are virtually absent, forcing many students to choose between paying around \$1,400 downtown or commuting 45–90 minutes.

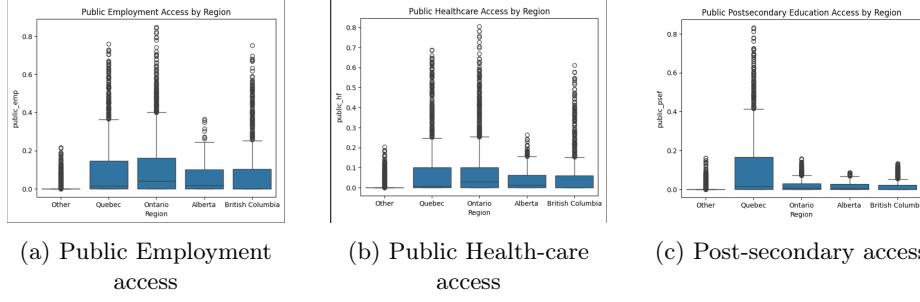


Fig. 6: Boxplots Comparing Access to Postsecondary Education, Healthcare, and Employment Across Canadian Provinces.

Beyond necessities like education and work, we examined access to sports, recreation, and cultural facilities, which are again clustered in Edmonton and Calgary. For international students already far from family support, limited access intensifies social isolation. Figure 6 compares Alberta to Quebec, Ontario, and British Columbia using box-plots: Alberta consistently trails in education and healthcare access. Despite recruiting larger cohorts of international students as federal caps tighten elsewhere, Alberta fails to scale public services to demand. If immigrants fund the universities and fill labour gaps, is it equitable that they receive the poorest infrastructure in return?

To remain competitive, Alberta must do more than market low tuition. Proactive policies should create regional transit that halves commute times and incentives for clinics and recreation outside downtown. Without such investments, the province risks replicating divides emerging in Vancouver or Toronto, without the transit networks that hold those cores together.

These three stories, although with different starting points, trace a single path: newcomers gravitate first to dense urban cores because that is where hospitals provide medical care, IRCC and Service Canada process documents, and they can attend accredited universities. However, living costs like housing push them outward and often across provincial neighbourhoods where access to these services fades to zero.

The maps, plots and tests we conducted confirm this pattern across demographics (NPRS, Refugees, students on work permits, women, etc). In Toronto, the postsecondary access index for refugee-dominant ADA is double that of surrounding suburbs; in Alberta, every ADA outside of Edmonton and Calgary is virtually a service desert. Additional evidence from the scatter plots shows that the price of proximity is paid through rent and is not evenly shared across space.

For policy-makers, these observations should guide where the access indexes collapse and which areas will feel it first. Planners can target the lowest-scoring suburban and rural ADA for improvements like primary-care clinics, frequent bus services. If these gaps continue to direct international students westward

while living costs keep exporting GTA immigrants, the growth of the divides in Edmonton will be accelerated. By grounding investments in these gaps outlined by our observations, it will ensure that we are placing equity and sustainability at the forefront of Canada's growth rather than pushing these inequities to the periphery.

Bibliography

- [1] Frenette, M. (2018). *Labour Market Integration of Immigrants in Canada's Largest Cities*. Statistics Canada. <https://www150.statcan.gc.ca/n1/en/pub/11f0019m/11f0019m2018411-eng.pdf>
- [2] Financial Accountability Office of Ontario. (2024). *Labour Market Outcomes of Immigrants in Ontario and Its Major Cities*. <https://fao-on.org/en/report/ilmo>
- [3] Preston, V., McLafferty, S., & Maciejewska, M. (2023). Regionalization and recent immigrants' access to jobs: An analysis of commuting in Canadian metropolitan areas. *Geoforum*. <https://doi.org/10.1016/j.geoforum.2023.06.006>