

SWITCHING TRACKS:

Towards transit equity in the Greater Toronto and Hamilton Area

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TABLE OF CONTENTS

AUTHORS	iii
ACKNOWLEDGEMENTS	v
EXECUTIVE SUMMARY	ix
1.0 Introduction	1
1.1 Regional problem constellations and the role of transit	1
1.2 The urgency, opportunity	3
2.0 A single but varied region	5
2.1 Different Publics	5
3.0 Transit equity, Transit justice	7
3.1 Defining the term: equity	9
4.0 Unequal distributions of transit access	11
4.1 Social consequences	12
4.2 Changing geographies	13
4.3 Moving beyond an economic calculus	14
4.4 Governance, and the creation of peripheries	15
5.0 The faces of transit inequity	18
5.1 The paradox of transit improvements	18
6.0 How do we shift from “picking winners” to creating equity?	23
7.0 Strategies, tools and tactics to bring about transit equity	25
7.1 Inclusively meeting public needs	25
7.2 Opportunities to support more equitable mobility	27
7.3 Planning and building transit with equity as a central goal	28
7.4 Understanding the scale of the problem	29
8.0 Towards transit equity in the Toronto region	30
REFERENCES	33

EXECUTIVE SUMMARY

A LARGE AND COMPLEX REGION WITH REGIONAL TRANSIT CHALLENGES TO MATCH. The Greater Toronto and Hamilton Area (GTHA), as we have come to call the Toronto region, is one of the world's preeminent, complex and diverse metropolitan areas. The planning, funding, and building of regional transit in the GTHA, which is overseen by the Province of Ontario's transit agency Metrolinx and directed by the 25-year, \$50-billion plan, The Big Move (2008), is as complex as the region itself.

IF NOT NOW, WHEN, AND HOW CAN THAT BE POSSIBLE? The GTHA, already a large and fast-growing region, is projected to add over 2.5-million people and 1.5-million jobs by 2031. Over this same period, Metrolinx is planning to build 1,200 km of rapid transit to meet current and projected transportation demands across the region. This could very well be the single greatest – and perhaps last – junction of opportunity to complete the regional transit network required for the GTHA, and to counteract the structural inequities that have been created by, and have persisted throughout, past growth-infrastructure cycles.

THE BENEFITS OF PUBLIC TRANSIT INVESTMENTS ARE NOT EQUALLY DISTRIBUTED. Like all metropolitan regions in the world, the GTHA has structural inequities created over decades, if not more than a century, of decisions being made and not made: where growth occurs; the type and density of development; where transit and other infrastructures are constructed, and; where public and private capital is invested and extracted. While the region, as a whole, stands to benefit from public transit infrastructure investments, those benefits are unequally distributed within the region.

WHAT IS EQUITY, AND HOW CAN IT BE MEASURED? Transit investments, by their very nature, have consequences beyond capital (rolling stock, terminals) and the operations (routes, headways) they support. They also build cities, enable communities, empower individuals to participate in society’s opportunities more fully. Correspondingly, we refer to “transit equity” – also called “transit justice” about which there is a large literature, and “fairness” – as the fair distribution of the benefits and costs, and in a manner that is responsive to the social and economic needs of the most number of residents, and especially those most vulnerable.

THERE ARE WINNERS AND LOSERS. Deciding transit infrastructure priorities – lines, technologies, station locations, service frequencies, budgets – preordains those who stand to win and lose from those decisions. Our international review of jurisdictions and literatures points to historical and politically-reinforced transit path dependencies in Toronto and other major metropolitan centres: investments in lines and stations – almost always rail – tend to favour the influential power elites of the region, and thereby reinforce pre-existing socio-spatial inequities. In short, transit investments have tended to benefit areas that are already doing well, while not changing the prospects for areas that are not.

THE FACES OF TRANSIT INEQUITY. Further compounding the win-lose nature of transit investments is gentrification, which redirects transit’s economic and social benefits back in favour of those with the means to locate near the best services. Most often, these are white and more affluent residents. This stratification of transit benefits further marginalizes disadvantaged groups, who are most often non-white, and, as our research shows, increasingly “women of colour.” More broadly, transit inequity is correlated with, and compounded by: class; location (centre versus suburb); ethnicity and racialization; age, and (dis)ability.

HOW DO WE SHIFT FROM “PICKING WINNERS” TO CREATING EQUITY? Interventions, whether top-down or bottom-up or combinations thereof, are required to more equitably distribute the public benefits of public transit investments – including, but not limited to, improved access to employment opportunities and services. Our review reveals that both government- (e.g. Bogotá, TransMilenio) and citizen-led interventions (e.g. Los Angeles, Bus Riders Union) have begun to bring about some degree

of transit equity, or at the very least laid claims to it in an emerging public debate around it.

STRATEGIES, TOOLS AND TACTICS TO BRING ABOUT EQUITY.

Strategies to address the “equity issue” are generally focused on the network (where the lines go), access (service), and price (affordability). Tools or levers deployed through various strategies include either, or a combination of, legal action, political action, state intervention, technical innovation, and economic incentives. These can give rise to a number of tactics including, for example, reduced or fare-free structures, the democratization of line and service planning, and the mandated consideration of social equity as a factor in determining new or expanded services.

THINKING ABOUT AND TAKING ACTION TOWARDS EQUITY, TRANSIT JUSTICE. We need begin to identify ways of thinking about transit justice and to ask important, if not uncomfortable, questions. Based on our review, we suggest asking:

1. What are the indicators for what is just?
2. At what spatial scale do we seek equity?
3. Who is included and excluded?
4. Who are the different publics? How do those people, for example, identifying themselves as “car-drivers” (gridlock), “taxpayers” (value for money), “transit riders” (service) factor into the transit equity equation and its many variables?
5. How are these and other publics brought to the table, and into the transit network?
6. What are the factors influencing public transit investments, and what are the public impacts?
7. What is at stake if public transit is not as equitable as it can or should be?

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It's time we talk
about it.

Bathurst Station, 1970



1 . 0

I N T R O D U C T I O N

The planning, funding, and building of public transit in the Greater Toronto and Hamilton Area (GTHA) is as complex as the region itself. Yet discussions inside and across the plenitude of public spheres of life and experience are often quite simplistic and have, increasingly, given rise to strong and often polarizing positions on the subject. It is at this juncture – where the governance of public transit in the Toronto region meets the people it aims to serve – that we aim to begin to unmask the complexities of providing public transit infrastructure and services for the benefit of the public. More specifically, we seek to isolate specific themes related to social in- and exclusions resulting from public policy and investment decisions, leading up to and through Metrolinx’s Regional Transportation Plan – The Big Move, and especially those made or not made in Toronto’s more vulnerable and splintered suburban areas.

A question that is central to our investigation is, “What does public transit equity mean, and how can it be achieved?” In asking this question, we make the claim that transit inequity, as both a symptom and determinant of other social inequities, does exist.

1.1 REGIONAL PROBLEM CONSTELLATIONS AND THE ROLE OF TRANSIT

The GTHA is one of the world’s preeminent, complex and diverse metropolitan areas. It is currently (2011) home over to 6.5-million people and 3-million jobs, and projected (2031) to grow to over 9-million people and 4.5-million jobs. In addition to growth statistics, the region is often described through many superlatives – home to people arriving from virtually every country in the world, hundreds of construction cranes in the sky, one of most livable cities in the world, to name just a few.

Figure 1: Big Move – “Next Wave” Projects

- 1 Brampton Queen Street Rapid Transit
- 2 Dundas Street Bus Rapid Transit
- 3 Durham-Scarborough Bus Rapid Transit
- 4 Electrification of GO Kitchener line and Union Pearson Express
- 5 GO Lakeshore Express Rail Service – Phase I (including Electrification)
- 6 GO Rail Expansion: More Two-Way, All-Day and Rush Hour Service
- 7 Hamilton Light Rail Transit
- 8 Hurontario-Main Light Rail Transit
- 9 Relief Line
- 10 Yonge North Subway Extension

While the region is undoubtedly prosperous – it is the economic engine of Canada, responsible for 20 percent of the country’s output – this prosperity is not evenly distributed. There are constellations of social and economic challenges being encountered by an increasing proportion of the population. These have been the subject of a number of recent studies intended to mobilize public awareness about, and interventions upon, issues including the supply and affordability of housing close to transit (Pembina Institute 2013), the economic and social impacts of traffic congestion (Toronto Region Board of Trade 2013), polarizing income inequality (Hulchanski, 2010), class divisions (Florida et al., 2014; Silk 2010) and the overall liveability of the region (Toronto Foundation 2013).

Presumably to address such growing regional issues in the GTHA, one goal of the Big Move plan is to have 80 per cent of residents living within two kilometers of rapid transit. Further, the plan states that “equity and social cohesion” are among the challenges to delivering effective transit services across the region. From page 8 of the Big Move:

“There are many people in the GTHA who cannot afford to own a car and many more who stretch their available resources to do so. As energy costs increase, the potential for social exclusion grows, as more people are unable to afford to participate in activities due to the high cost of travel. Access to frequent, fast and affordable transit is therefore crucial for equity and social cohesion.”

Transit investments, by their very nature, have consequences beyond just the hardware (rails, rolling stock, stations, etc.) and the systemic improvements (unitary pay systems, new and better routes, fare structures, etc.) they support. They also build cities, enable communities, and empower individuals to participate in society's opportunities more fully. Those investments rarely lead to even outcomes and sometimes create new inequities in distribution across an urban area. As the region serviced by Metrolinx is at the cusp of major investments into its transit supply and operation systems, we ask what consequences the proposed funding has for the people, communities, and sub/urban municipalities it is meant to provide with better mobility.

Our review of the literature and international case studies confirms that public transit investment can be an effective and far-reaching public policy instrument to address problems facing large urban regions. It can assist in the redistribution of public and private investment to social (e.g. lowest incomes) and spatial peripheries (e.g. suburbs), decrease commute times between lower-income housing and employment centres, and counteract gentrification by providing enhanced transit services in more neighbourhoods.

1.2 THE URGENCY, OPPORTUNITY

The Big Move plan sets out an unprecedented \$50-billion investment to build 1,220 kilometres of rapid transit across the GTHA by 2031. Over this same time period, the GTHA, already a large and fast-growing region, is projected to add over 2.5-million people and 1.5-million jobs by 2031.

Already funded and/or under-construction are several "first wave" projects under the Big Move, including express rail service between downtown Toronto and Pearson International Airport and bus rapid transit in York Region. While this "first wave" of projects will serve to improve the mobility

prospects for some residents, it is the “next wave” of projects – representing 70 per cent of the \$50-billion, but are as of yet unfunded – that is perhaps the better test. These projects (see Figure 1) will bring rapid transit deeper into the GTHA suburbs, including several low income “inner suburbs” within the City of Toronto, the vast “in-between city” where most Torontonians live.

This could very well be the single greatest – and perhaps last – junction of opportunity to complete the regional transit network required for the GTHA, and to counteract the structural inequities that have been created by, and have persisted throughout, past growth-infrastructure cycles.



2 . 0

A S I N G L E B U T V A R I E D R E G I O N

While the Toronto region is growing by leaps and bounds, we have become aware that such growth occurs increasingly in ways that create more socio-economic and socio-spatial inequalities. Research has found that the share of middle income groups in the region tends to shrink while income polarization is producing more wealthy people at one end and more poor people on the other (refer to Hulchanski 2010). Often, the areas with the fastest rising and most concentrated poverty are also the least well-served by mobility infrastructures including public transit. It is, therefore, important to ask how planned transit investments under the Big Move can serve to stave off additional inequalities, including perceived and actual suburban “transit deserts.”

The “in-between city” described by Young and Keil (2014) as neither classical suburb nor traditional downtown is especially vulnerable to, and made further vulnerable by, long-term biases in transportation and other infrastructure investments. These are places that are already disadvantaged through lacking employment opportunities, substandard housing, underfunded educational institutions, limited food retail and nutrition choices and overall disinvestment (Young, Burke Wood, Keil 2011).

2.1 DIFFERENT PUBLICS

Across the physical and political expanse of the GTHA, there is also an imagined and experienced space that is claimed by different publics. Arising from, and also giving rise to, local political movements are several publics: the “905” and “416” area codes, suburbanites, urbanites, downtown elites, bike-riding “pinkos”, taxpayers, car drivers, logistics industries, etc. These and other publics were the target of very issue-specific and often polarizing

campaigns (e.g. “Subways! Subways! Subways!”) in the Toronto municipal elections of 2010 and 2014 and in local political contests across the region.

The issue or lifestyle that a particular “public” most identified with produced vastly different notions of what public transit is, how it operates and for whom, what should be built, and how it should be funded. While “the public” could, reasonably, agree that “public transit” is important and beneficial, the multitude of interests that comprise the singular public produce vastly different and oft-conflicting values and priorities on the transit planning, funding and building continuum. We are also aware, of course, that many decisions made for local transportation and transit follow a higher scale mobility logic and are not decided by municipal or regional actors alone, if at all: airports, major highways, high speed rail (Keil and Young 2008).



3 . 0

TRANSIT EQUITY, TRANSIT JUSTICE

The concept of transit justice has attracted considerable attention at national and international scales with considerable debate within North America and abroad, that those suffering economically or who are from a socially disadvantaged community have less access to transit opportunities in comparison with the wider range of transit options available to those residents who are better off (Agyeman, et al, 2003, p.289).

The modern civil rights movement has its root in public transportation, beginning in 1955 with African-American bus boycotts arising from Rosa Parks' refusal to sit at the back of a bus in Montgomery, Alabama. Many regional transportation systems are regional in name only with many comprising "separate and unequal" urban and suburban transit systems built along lines of social disparity (Bullard and Wright, 2010, p.63). An effective regional transportation system is important in connecting people with jobs, serving a rapidly aging population, and reducing traffic congestion. Public transit has positive effects on the environment and is an essential ingredient in moving low-income families from poverty and dependency to self-sufficiency. Transportation investments, if used properly, can invigorate and revitalize disadvantaged urban areas (Bullard and Wright, 2010, p.66).

Following the work on justice by Iris Marion Young (2000) and David Harvey (1997), justice cannot be restricted to redistribution and has to be gauged against the diverse needs of those that have been deprived. There is an affirmative aspect involved. In our context, generally, a person's spatial location in a transit system is differentiated by income, ethnicity, ability, access/proximity to available work and family-status. This often implies a predictable status in law, educational possibility, occupation, access to resources, political power and prestige (Young, 2000, p.95). But what is more, we will need to

discuss whether we are talking about justice for individuals, households, communities (social), neighbourhoods (spatial) or any other measure or scale along which inequalities are produced and resources are distributed. In any transit related conversation, justice invariably needs to be seen in the context how urban and regional space is produced and access to resources is influenced by that process (Soja 2010).

If justice is the general objective, equity and the equality are the more operative categories for thinking through how to address transit inequalities in a practical manner. It is important to distinguish equity from equality, in the context of public transit. As Fainstein (2010) notes, equity refers to public policies that help those who are not already better off. Equity does not require that each person be treated the same, only appropriately. This implies fairness, which is a more broadly accepted concept than equality. It has the power of gaining wider political support as demands for greater access to public transit have more currency than transportation connections that benefit those who already enjoy access (Fainstein, 2010, p.36).

Transit equity, therefore, is viewed as the outcome of removing structural obstacles from the fair distribution of goods and services by the regional transportation system. Transit equity is an intuitively meaningful concept and forms the basis of socially conscious transit planning (Marcuse et al. 2009, p.93).

In their seminal work on transit and social equity in the United States, Garrett and Taylor (1999) identified a number of the themes connected to transit injustice. Income polarization, and the changing nature of employment and the decentralization of workplaces have not been reflected in government operating and capital subsidies. Funding decisions are skewed to benefit “choice” or non-captive riders through commuter rail and express bus services to outer suburbs. Planning decisions are made that ignore existing socio-spatial inequities in older neighbourhoods. Choice riders are more sensitive to transit costs since they have greater access to alternatives so fares are disproportionately subsidized in their favour to attract them to underused services. Lower income residents have less political clout to advocate for a readjustment of funding or for a realignment of infrastructure investment priorities for their benefit. Together, these themes reinforce transit injustice.

“The allocation of transit services between rich and poor, whites and people of color, suburbanites and inner-city residents, is not happenstance, but is directly connected to social and economic polarization” (Garrett and Taylor, 1999 p.7.)

3.1 DEFINING THE TERM: EQUITY

At an even more practical level, in policy debates, equity has a more instrumental meaning. The existence of different publics, and the resulting multiplicity of values and priorities projected onto public transit, frustrates the definition of what transit equity is, could be, and should be. Conceptually and in actuality, equity manifests differently and to different degrees across the physical and public expanse of the GTHA. In defining equity, as related to public transit in the normative, we refer to Litman (2014):

“Equity (also called justice and fairness) refers to the distribution of impacts (benefits and costs) and whether that distribution is considered fair and appropriate. Transportation planning decisions can have significant and diverse equity impacts...”
(p.3)

Litman presents (see Figure 2) a multi-spectrum approach to assessing transit equity that distinguishes between three different types of equity, identifies different impacts, sets out different measurements, and ways to categorize the public. This begins to acknowledge the complexities and interconnectedness of factors influencing, and influenced by, public investments in transit.

Within this wide array of transit-using publics, metrics, and desired outcomes, there are many different ways to define and assess transit equity, and for an investigation into some of the decisions and decision-making processes that promote or hinder its achievement. While the GTHA and the Big Move are the primary subjects of this review, we will identify and compare national and international precedents with the Toronto experience, and point to potential ways forward.

Figure 2: Equity Evaluation Variables (Litman 2014, p. 2)

TYPES OF EQUITY	IMPACTS	MEASUREMENT	CATEGORIES OF PEOPLE
<p>Horizontal Equal treatment of equals</p> <p>Vertical With-Respect-To Income And Social Class Transport affordability Housing affordability Impacts on low-income communities Fare structures and discounts Industry employment Service quality in lower-income communities</p> <p>Vertical With-Respect-To Need And Ability Universal design Special mobility services Disabled parking Service quality for non-drivers</p>	<p>Public Facilities and Services Facility planning and design Public funding and subsidies Road space allocation Public involvement</p> <p>User Costs and Benefits Mobility and accessibility Taxes, fees and fares</p> <p>Service Quality Quality of various modes Congestion Universal design</p> <p>External Impacts Congestion Crash risk Pollution Barrier effect Hazardous material and waste Aesthetic impacts Community cohesion</p> <p>Economic Impacts Economic opportunities Employment and business activity</p> <p>Regulation and Enforcement Traffic regulation Regulations and enforcement Regulation of special risks</p>	<p>Per capita Per adult Per commuter or peak-period travel Per household</p> <p>Per Unit of Travel Per vehicle-mile/km Per passenger-mile/km Per trip Per commute or peak-period trip</p> <p>Per dollar Per dollar user fees Per dollar of subsidy Cost recovery</p>	<p>Demographics Age and lifecycle stage Household type Race and ethnic group</p> <p>Income class Quintiles Poverty line Lower-income areas</p> <p>Ability People with disabilities Licensed drivers</p> <p>Geographic location Jurisdictions Neighborhood and street Urban/suburban/rural</p> <p>Mode and Vehicle Type Pedestrians People with disabilities Cyclists & motorcyclists Motorists Public transit</p> <p>Industry Freight Public transport Auto and fuel industries</p> <p>Trip Type Emergency Commutes Commercial/freight Recreational/tourist</p>

4 . 0

UNEQUAL DISTRIBUTIONS OF TRANSIT ACCESS

A person's location relative to the transit system is generally determined by financial resources, ethnicity, ability to work, proximity to available work, and their political influence (Young, 2000). In effect, transit access and the lack thereof often compounds social and economic situations. An equitable transportation system is important for connecting people with jobs, serving a rapidly aging population, reducing traffic congestion and as a pathway for low-income families to go from poverty and dependency to self-sufficiency. Without equity as a determinant of the regional transit system, such a system may be "regional" in name only (Bullard and Wright, 2010).

The problems of transportation inequity are becoming more visible throughout the world because of the work of community activists, researchers and civic leaders. This body of work highlights the importance of understanding how transit inequality is tied to social inequity, and how they are distributed on the ground. Broader socio-economic factors, such as the changing nature of employment and location of workplaces, planning policies that encourage separation of land uses, immigration trends that see new immigrants landing in outer suburban neighbourhoods, and the displacement of vulnerable persons by the loss of affordable housing in inner cities through gentrification, interact in complex ways to reshape the accessibility of the existing transit network. Knowing where the gaps are for the most vulnerable helps to identify where to locate new infrastructure to reduce transit inequity.

STAKING OUT LA'S STREETS FOR TRANSIT JUSTICE

The LA Bus Riders Union is a coalition of community activists and labour groups to challenge an uneven distribution of transit investments from the bottom-up. Rail projects were noted to serve a disproportionate level of white riders in the LA region and consume a disproportionate amount of both the capital and operations budgets. Bus riders, on the other hand, are 90% visible minority, with an average income of \$14,000. They are more likely to have a disability than the general population. Operations funding gaps were filled by cutting bus service and raising fares, which produced a double hit on low income and minority riders. The cuts meant they received less service than before rail projects opened, in comparison to riders benefitting from the new transit investments. Low income riders were also more likely to have multiple jobs at off-peak travel times where cuts were disproportionately targeted. More affluent riders were also in a better position to absorb fare increases that have a relatively lower impact on their disposable income. The solutions they campaign for include:

1. Creating auto-free / pedestrian only / bus only corridors and centres
2. Creating bicycle and pedestrian connectors to transit stops
3. Improving night and weekend service
4. Improving express service – especially for suburb-to-suburb travel
5. Consider the spatial element of affordable housing on high pollution corridors through planning policies and how they connect to transit investments
6. Reverse service cuts
7. Foster safety through respecting bus riders and not criminalizing visible minority riders

4.1 SOCIAL CONSEQUENCES

Researchers and civic leaders in Melbourne and Hobart, Australia are working to identify spatial gaps in the existing transportation network, tie them to social inequity, and develop strategies to address them (Currie, 2010). This work helps to understand that transit injustice has a spatial element, and provides a way to make it visible.

Researchers in the United Kingdom are investigating how the design of transportation networks – both the capital and operational aspects – can contribute to the social exclusion of low-income persons who work outside the traditional 9-5 model, younger and older persons who have

mobility needs not always tied to employment, and persons with disabilities who have specific needs relating to accessing the network. Transit networks that emphasize the needs of the traditional 9-5 worker may inadvertently disadvantage these other publics. Understanding the nature of how and when these different publics use transit and what their specific needs are help to ensure that transit policies and plans do not produce an inequitable result. Researchers are also looking at the social consequences of road pricing on low-income persons and persons with a disability where it has been implemented as a means to address congestion and pollution (Lucas, 2006).

Community activists in Los Angeles, California are actively working to counter inequities in transportation policies that are disproportionately harming visible minorities and low-income residents (Bus Riders Union, 2012). They use a range of tools like civil protests, court challenges, political activism and community awareness campaigns to mobilize popular support for more equitable policies. The Los Angeles experience shows the importance of considering the needs of different types of riders in order to plan and deliver a socially-just transit product.

4.2 CHANGING GEOGRAPHIES

Researchers around the world are engaged with examining social, economic, and demographic changes that are having a profound impact on worsening transit equity in suburban areas (Young and Keil, 2010; Phelps and Wood, 2011; Cidell, 2012; Addie, 2013). Others are connecting the older, radial based transit systems as being out of step with the needs of today, where living in close proximity to a station may not lead to a useful destination for employment or other needs, based on travel patterns that are becoming increasingly decentralized (Thompson and Matoff, 2003). Research is also evolving to measure transit inequality in order to map it spatially (Currie, 2010; Silk, 2010). Important work is also being done to examine the emerging spatial impacts of inter-generational inequity (Moos, 2014).

Residents are increasingly making suburb-to-suburb trips, and making multiple daily trips to sustain part-time and piecemeal employment to

“In the case of Toronto, the existing transportation situation has become a bottleneck for the continued globalization of the region, because global and local circuits of mobility are not well coordinated and various scales of decision making do not visibly interact for the regional good.”

(Keil and Young, 2008, p. 729)

make ends meet. Income opportunities are increasingly shaped by access to higher education, itself an uneven process, and reproducing inequities across generations. Youth are moving to central neighbourhoods to find employment in emerging service and creative industries, but are also more affected by the shift to piecemeal, temporary and contracted out work. Youth are also more likely to rely on public transit and eschew driving (Marzoughi, 2008; Sivak and Schoettle, 2011, 2012; Kuhnimhof et al., 2012). New immigrants are increasingly locating to suburban areas and living in shared accommodation situations to get established and find work. They are also more likely to use public transit than immigrants have in the past (Heisz and Schellenberg, 2004). The convenience of a transit station nearby that only serves to funnel riders to the central business district does not meet all of these different mobility needs.

Finally, there is a growing interest in understanding how complex global forces are producing a local hierarchical structure that privileges some and disconnects other through a splintering of urban realm, both socially and spatially (Graham, 2000; Graham and Marvin, 2001). We can see the social impacts of this in Toronto in the polarization of income levels with the decline of the middle class (Hulchanski, 2010). Another indication is the rise of temporary, short-term, part-time employment which forces some workers to make multiple work-related transit trips. The trips made by these workers in evening hours and on weekends are disadvantaged by a system that is designed for a 9-5, Monday-to-Friday work schedule (Florida et al, 2014).

4.3 MOVING BEYOND AN ECONOMIC CALCULUS

We are no longer in a world where planning decisions are based on a simple notion of equal access. Equal does not necessarily mean equitable. Building transit is, on the surface, a positive element for a number of social, economic and environmental reasons. But doing so without considering some important implications (e.g. Who stands to benefit?) can reinforce structural inequities according to neighbourhood, class and income. We are in a sustained era when government investments have to be justified on a

business case – hindering the ability of transit investments to identify, align with, and support social needs.

Governments are under pressure to ensure transit investment decisions are made on the basis of demography and economic attractiveness. These criteria amount to a strategy of “picking winners” as already successful areas of the city tend to be served first in the building and maintaining of public transit: the well-to-do residential areas (like Toronto’s Yonge Street corridor), employment centres (like the downtown) and transportation hubs like the airport (which will soon be serviced by a special rail line). Such “path dependencies” are further reinforced by the movement of governments towards public-private partnerships in the delivery of transit capital and service improvements. Under this model, economic or “value for money” considerations take precedence over social factors or the “public good” (Siemiatycki, 2011).

4.4 GOVERNANCE, AND THE CREATION OF PERIPHERIES

Less attractive areas have historically been neglected in the distribution of transit investment and upkeep. The “in-between city” described by Young and Keil (2014) as neither suburb nor downtown – largely equivalent to the post-war suburbs with their mix of single family homes and tower neighbourhoods – is especially vulnerable to, and made further vulnerable by, long-term biases in transportation and other infrastructure investments. These are places that are already disadvantaged through a lack of employment opportunities, substandard housing, underfunded educational institutions, limited food retail and nutrition choices and overall disinvestment. Prime spaces are supported through investment, but the capillaries of the system that are essential for transit equity – bringing transit to the door – are left to waste away. The biggest problem with the emphasis on picking winners is that, in an interconnected region, transportation flow is constrained by pinch-points where the premium networks intersect with less valued urban space (Keil and Young, 2008).

Because of the permanence of building infrastructure, it is important to ask upfront about how investment and inequity are linked. We need to

bring in many voices to understand the myriad of ways in which inequity is produced and how it can be addressed. A central issue is that governance and government, while related, are not synonymous. Ekers, Hamel and Keil (2012) have argued within the context of suburban governance that formal government is just one of three interconnected governing forces. The demands of satisfying capital accumulation is a second form of governance. The third form is private authoritarianism which stems from the devolution or abdication of state power to private actors. This can take the form of public-private partnerships where the public maintains some input, privatized concessions like Highway 407, or even private control of urban space as with gated communities. As privatization of transportation services has increased in the region on a wide spectrum - from taxi services such as Uber to the delivery of suburban bus services through business models such as VIVA - the impact of such a shift on transit equity will surely have to be monitored closely in the years to come.

In an interconnected region that is increasingly tied to global networks, it becomes practically impossible to isolate modes for the benefit of one over another. In an automobile context, this feeds concerns about social justice. As the region is becoming more polarized economically, and governance is more fragmented with competing actors, it becomes paramount to ground public transportation planning in a political framework that acknowledges the inherent unevenness of the distribution of benefits (Young & Keil, 2010). As Hulchanski has illustrated, income distribution in the City of Toronto is becoming polarized. The increasing polarization, tied to external forces including neoliberalism and globalization, is causing the social fabric of the city to fray, putting the sustainability of the city at risk (Walks, 2010).

Public-private partnerships (P3s) between the public and private sector have been increasing in popularity as means to deliver new public infrastructure. Yet, P3s play a role in increasing the fragmentation on governance. Proponents of P3s argue that these arrangements serve as a way to reduce political interference, promote competitive bidding processes to lower costs, reduce government exposure to project cost overruns, leverage private sector expertise and efficiencies to achieve lower life-cycle costs through technical

“Many of the problems associated with poor transport and accessibility are beyond the capacity of local authorities to resolve as they relate directly to the broader social and economic climate”
(Lucas, Grosvenor and Simpson, 2001, p. 41)

innovation, and reduce government exposure to debt (Siemiatycki, 2006). P3s however, are not guaranteed to result in greater efficiencies, lowered costs, and reduced risk. Contractual agreements can preclude governments from increasing public participation in projects and from prioritizing social need. (Siemiatycki, 2009). Transit inequity could further be reinforced by the fact that P3s, inherently, are positioned by governments to be attractive to private investment. As Siemiatycki points out, private sector partners have “selected the most profitable projects with the lowest risks, reinforcing existing landscapes of uneven geography, timing, and project types” (Siemiatycki, 2011, p. 1720).

While governance fragmentation is taking place, there is a restructuring of the role of public transit as a tool to promote regional economic competitiveness in a neoliberal environment which competes to attract global capital (Addie, 2013). The residents in the “in-between city” are not the beneficiaries, and see such projects as an extension of an elite class trying to entrench their position of power and contribute to the growing social inequities (McFarlane & Rutherford, 2008). The policy conundrum in promoting public transit is that for people living in areas lacking in public infrastructure, policies that are geared towards privatized modes of travel (e.g. cars) are more politically popular (Walks, 2008, 2014).

The economic argument for enhanced workforce mobility and goods transportation is often made without considering the location of the workers and the consumers. Building infrastructure without considering the impact on different residents has the potential for long term negative impacts on large parts of the region. Outdated views of urban-regional transportation dynamics and more or less willful disregard of less vocal and powerful groups in the transportation debate may lead to decisions on network build-out, network design and modal choice that exacerbate inequality. In an environment of inter- and intraregional competitiveness, oriented to market or use-value considerations, “transit as a public service for all” may be less successful without a clear expression of improved equity as an outcome.

5 . 0

THE FACES OF TRANSIT INEQUITY

The concept of transit inequity grew out of the Environmental Justice movement that emerged in the United States in the 1980s, which itself was anchored on the foundation laid by the Civil Rights Movement (Agyeman et al., 2003).

There was an awareness of structural and systematic biases in the economy that have produced an unfair distribution of environmental costs and economic benefits. In essence, those who pay the price do not always share in the benefits. There is an inherently spatial element to this process that can be traced to certain groups – publics – who were systematically burdened with those negative environmental costs. Community leaders in the Environmental Justice movement in the United States saw that an unfair sharing of costs and benefits produces injustice where certain publics – such as persons of a visible minority, women or low-income persons – were bearing a disproportionate share of the costs that can be traced to specific geographic areas. In his study of transit equity in São Paulo, Brazil, Vasconcellos (2005) found that the lowest income residents bore the highest transportation costs proportionate to their income, experienced the highest degree of “externalities” (e.g. exposure to pollution and rates of injury or death related to mobility), and had the longest travel times compared to the wealthiest residents. Yet, transportation policies were skewed to promoting car use that worsened these conditions of inequity.

5.1 THE PARADOX OF TRANSIT IMPROVEMENTS

Building transit can play an important role in addressing social inequity but it is also important to understand that investing in transit infrastructure may

trigger forces that can produce injustice. While building transit is good, it is not necessarily good for all. Somewhat paradoxically, transit improvements (e.g. mixed-traffic to dedicated lanes) can have the effect of displacing those residents most in need of the service in the first place. For reasons such as convenience and choice in travel, proximity to work and the benefit of reduced travel times, those with financial means and social status are able to relocate into neighbourhoods to access amenities like transit. Once in the neighbourhood, they reshape it for their needs. It has the effect of displacing existing residents where their neighbourhoods are no longer affordable or provide for their needs.

Gentrification is a process that can counteract the equalizing forces of transit investments in lower income neighbourhoods. Private transit-oriented development along new or improved transit lines “threatens less profitable land uses – lower-rent apartments, cheap shops, functional industrial spaces” (Kipfer 2012, N.P.), which displaces lower income residents to neighbourhoods with less transit service and fewer amenities. As Marcuse (2013) argues, “[i]f the concern is with social justice and the housing of those most in need, gentrification is by definition unjust”. He could easily be talking about social justice and transit investment.

It is out of the activist legacy of environmental justice that political movements like the Los Angeles Bus Riders’ Union found traction. Community activists in Los Angeles saw first-hand how low income residents and visible minorities were far more likely to rely on the local bus network for travel, but investments in transit were being directed to more affluent, white neighbourhoods. When budgetary pressures triggered cuts in service, a disproportionate number of the cuts were targeted to the bus network used by low income and visible minority groups. This is one of the ways by which transit injustice is produced through space, with an uneven distribution of benefits and costs.

The practice in Los Angeles was different from earlier efforts at transit activism in Toronto, such as the successful Streetcars for Toronto Committee

Decisions on [public works] investments therefore demand the most deliberate efforts to improve rationality-to help assure one, that the distribution of the benefits and the costs among the city’s publics is consciously intended and democratically warranted, two, that levels and priorities of investments are so staged as to induce the desired repercussions in the private markets, and three, that public resources are used for those projects and programs promising the highest social payoffs.”
(Webber, 1963, p. 233)

in the 1970s. They were concerned about service quality (cutbacks) and spatial access (loss of service), but the notion of disparity between the different types of users was not a top consideration. They were primarily looking at equal access, not equitable access.

Today, transit activism in Toronto continues through the work of community-, rider- and labour-based groups including the Fair Fare Coalition, TTC riders and the Greater Toronto Workers Assembly. In sum, the positions of these groups call for public awareness and action by governments to:

1. Introduce more and better service to all city neighbourhoods;
2. Make transit fully accessible to persons with disabilities; and
3. Make fares more affordable up to and including providing transit for free as proposed by the Greater Toronto Workers Assembly, viewing transit as “an essential right, like public education, libraries, water, doctors and hospitals” (Greater Toronto Workers Assembly, 2014).

There are invisible barriers reinforcing transit injustice that are not always apparent. Access to quality public transit is an essential vehicle to facilitate the rights of men, women and children in everyday life of the city. As Levy (2013) argues, transportation reflects the right to participate in a city and allows residents to take advantage of the opportunities the city offers. But she contends from her review of transit options in the global south that transit planning rarely considers the needs of a diverse array users, who have different needs that are formed through age, gender and social relations. Being blind to users does not mean that the needs of users are reflected equally. The needs of men in the workforce take precedence, whom usually have access to a private vehicle. Women, elderly, children and persons with disabilities each have travel needs that are shaped and defined in the context of broader social, economic, political and environmental factors. By not providing for their needs, the lack of transit options has the effect of denying their right to the city.

We also need to consider that space can also shape the person, and that has the impact of further splintering the notion of the public. There is an indication of an emerging political bias in inner suburban areas that can produce more conservative political views shaped by the expectations of private space (Walks, 2008). This sentiment is echoed by Sewell (2014) who argues that suburban residents of Toronto do not find a connection between public space and the public good, because they live a lifestyle that does not engage them in a shared sense of community beyond their own private space. Suburban residents are likely to see themselves as living in a different kind of place than a city, as a way to differentiate themselves and their experiences in the face of forces shaping their everyday lives, including global communication, capital, trade and social flows (Cidell, 2011). There is an emerging field of interest about the changing connectivity patterns at national and global scales, which are affecting equity in mobility at the local scale (Cidell and Prytherch, 2015).

Toronto is not immune from economic, political and social forces that produce transit injustice around the world. In an international comparative study of access to public transit in the Toronto and Frankfurt regions, Christian Mettke (2014: 187-190) has found that the “diversifying processes of post-suburbanization and ‘post-suburban realities’ in the GTA collide with the inertia of the public transit system.” He summarizes the situation in Toronto in these terms: First, there is a system-wide lack of access for transit users with physical disabilities, an important measure of transit access overall; second, there exists significant “by-passing” issues in the Toronto network, predominantly affecting the (inner) suburbs; third, the lack of fare integration hurts people commuting from outside the TTC system; fourth, the timing of connections remains a problem in the system overall putting those in the ‘transit deserts’ at a disadvantage; fifth, safety is generally not an issue in the Toronto public transit system; sixth, the decision-making process over future network improvements is characterized by a democratic deficit that has plagued the entire region and cemented existing inequities in service.

We are seeing stark spatial patterns emerging where there are clear winners and losers, as illustrated through David Hulchanski’s seminal work (2010) on “Toronto’s Three Cities”. There are numerous issues at play, such as the changing nature of work. From a transit equity viewpoint, we can identify

patterns spatially where certain groups lack good access to transit (Silk, 2010). Lower-income residents, new immigrants and visible minorities are increasingly living in areas without access to good transit. Seniors and children, and women as primary caregivers to both groups, have particular issues that make them more vulnerable to transit inequities. Changing demographics and societal preferences are affecting the affordability and desirability of areas with good transit access.

We are living in a splintering urban world, where there are clear bifurcations between upper and lower incomes. The process of splintering works at a global scale but has a direct impact on everyday life. This is apparent in the changes in social structure, where there is a clear polarization in income levels and a sharp rise in precarious work. With transit justice as a goal, not only do strategies have to be considered that reflect the disparities in the urban region, but transit investments need to be made with strategies to mitigate the production of injustice.



6 . 0

HOW DO WE SHIFT FROM “PICKING WINNERS” TO CREATING EQUITY?

Equity in transit comes from an understanding of the uneven way by which different publics have access, and of the forces that produce such distributions. One approach is to prioritize transit investments to counteract poor access to transit, lack of affordable housing, and poor access to employment. By looking at the existing transit network in relation to socio-economic indicators of inequality, plans and policies can be produced to address the inequalities (Currie, 2010; Martin Prosperity Institute, 2011; Golub and Martens, 2014).

Building new transit infrastructure does not produce a more just transportation network. Once transit plans have been made that address a spatial form of transit injustice, authorities need to provide the policy tools, bylaws and regulations to support it. The gentrification affect is one such example that requires a proactive, top-down approach by government. In Denver, Colorado, where the region is in the midst of building a large, regional transit network, civic leaders are working on ways to protect existing low-income housing along new transit lines. They have implemented planning tools to protect existing affordable housing, and ensuring land redevelopment does not price existing low-income residents out of newly-accessible neighbourhoods. They are also looking at ways to incorporate affordable housing in new developments (Pendall, Gainsborough, Lowe, and Nguyen, 2012). This top-down approach illustrates the importance

GATE CRASH NOW! CITIZEN-LED TRANSIT ACTIVISM

Planka.nu is a citizen-led, disruptive approach to promoting transit equity. Reacting to the high cost of public transit fares in Stockholm, Sweden and how increases disproportionately affect youth, the Syndicalist Youth League (a left-leaning youth activist organization) called for a fare-free transit system to address income inequality and climate change. They banded together with other youth and Green Party organizers to form Planka.nu – roughly translated as “gate crash now” – as a membership-based collective to ‘go on strike’ by evading fares. In exchange for a modest membership fee, members are protected by a form of group insurance to cover fines for fare evasion. The group also engages in more conventional political activism and public awareness, and Planka.nu has supported a global network of activists working for fare-free transit, including a group in Toronto.

of government actors being proactive in a way that considers the wider social impact of building transit. Essentially, planning policies that are crafted with the acknowledgement that infrastructure projects have a tendency to produce winners and losers are able to include ways to address or mitigate inequities.

7.0 STRATEGIES, TOOLS AND TACTICS TO BRING ABOUT TRANSIT EQUITY

7.1 INCLUSIVELY MEETING PUBLIC NEEDS

Levy (2013) has framed transit equity as the ability serve the needs of multiple publics who have different needs and abilities to access transit. But that also extends to the planning side. She calls for a more inclusive, participatory planning process that builds a type of constructive engagement that acknowledges and strives to mitigate the uneven power relationships. There is an important role for bottom-up community actors who are disadvantaged to mobilize together and form a common front. We can bring attention to the Los Angeles Bus Riders Union or the Planka.nu organized fare evasion group in Stockholm, Sweden.

Kaufmann (2000), in a study of public transit usage in French and Swiss cities, concluded that the availability of a high quality public transit network is necessary but not sufficient to encouraging higher public transit usage. Public transit investments made without considering the travel patterns and preferences of the potential users will prove to be ineffective at raising the modal share of transit. This is particularly evident in suburb-to-suburb travel that does not benefit from more traditional radial connections to the core. The actual needs of riders – and potential riders – must be a central factor in planning and building transit. That information must come from the riders themselves. The implication, therefore, is that transit investments in isolation do not inherently improve urban mobility.

“Being mobile is not just about geographical space but also, and probably above all, about social space.” (Cattan, 2008, p. 86 [in Levy, 2013, p. 61]).

TRANSIT EQUITY BY DESIGN

Bogotá is the capital of Columbia, with a population of 6.5 million. It covers approximately 1700 km². It is located in the Columbian Andes, on a largely flat plateau. Most of the poorest residents live on the outer edge of the urban region. There were 10 attempts between 1947 and 1997 to build a heavy rail (subway) line that, for a number of reasons that include capital costs, competing political visions for lines and opposition from the existing private transit operators, never materialized.

TransMilenio is a bus rapid transit system in Bogotá, Columbia that was introduced in 1997 as a response to poor existing transit options and the inability to build a long-promised subway. It is noteworthy for its high ridership level, cost-effective construction, flexible operation and success at improving transportation options and travel times for low income residents on the outskirts of the city. The first phase opened in 2002. It provides 41 km of exclusive rights-of-way with permanent stations. Operations are covered through farebox revenue.

TransMilenio uses 60' articulated buses on the trunk routes, and 40' buses on feeder routes. Ridership in January 2006 was 1,050,000 per day, and forecasted to rise to 1,400,000 upon completion of Phase II. Phase I and II include 82 km of dedicated busways. Up to 41,000 passengers per hour per direction (pphd) ride the busiest part of the network at peak times. Service runs from 5am to 1am. Headways are 2 minutes per line at peak, max 10 minutes off-peak. Service is blended with local, express (serving 50% of stations) and 'super' express (20% of stations). Average speed of 21 km/h local, 32 km/h express. The lines use exclusive rights-of-way in road medians. Construction included improvements to walking and cycling facilities. Stations are spaced on average 500m. The boarding standard is much higher than typically considered acceptable in North America, with 110 standing, 48 seated in a 60' bus. With a North American boarding standard, the system should be able to handle 28,000 pphpd. Fare payment is handled by an electronic fare card used upon entry into stations.

Most aspects of TransMilenio were built and are operated through a myriad of private contractors, including vehicle acquisition, maintenance and operation, fare collection and fare card technology, and maintaining stations and roadways. TransMilenio is responsible for overseeing the contractors and, as directed by the city government, implementing transit policies. A separate branch under the city is responsible for overseeing the construction and maintenance of the physical infrastructure. The city government oversees the two branches, sets transportation policy and regulations including fares, coordinates projects and plans for future expansion.

TransMilenio has a high satisfaction rate (76%) and it has succeeded in connecting its low-income population to the city centre. The success of the BRT system is partly related to engaging in an objective, mode-agnostic planning strategy:

“The major lesson from Bogotá appears to be that decision-makers need to be encouraged to make public transit planning decisions based on an objective comparison of the different modal alternatives” (Cain et al, p.41).

7.2 OPPORTUNITIES TO SUPPORT MORE EQUITABLE MOBILITY

An important way to improve mobility is to provide options to reduce travel and spread out the peak demand. Cervero (1988) found that mixed-use developments improves mobility in three ways: 1) It reduces private vehicular travel, by spreading out peak travel demand; 2) It provides greater opportunities for carpooling and car sharing, and; 3) It allows for taking care of errands, which are responsible for the car being indispensable for suburban travel (pp. 432-433). Spreading out peak travel happens by allowing for mixed use functions that are not tied to the same peak travel patterns. Retail, hospitality, entertainment, office, school and residential each have different peak travel times. The combination results in a lower peak than a single use development.

Stone and Mees (2010) investigated the decline in public transit ridership rates in Australia since 1950. They point out that public transit usage rates have dropped faster than the decline in overall urban density and there is ample opportunity to increase ridership in the short term. In order to do so, there must be a recognition that capital investment needs to be supported by operation funding. Building a rail or bus line that provides low frequency service or is not well integrated with the neighbourhood feeder routes will not be an effective solution.

Planners must also be aware of and provide solutions which address the increasing prevalence of suburb-to-suburb trips that are not met today. One way to meet that need is for operators and planners to shift away from providing specific trips for targeted riders and adopt a network approach which provides a service mesh across the service area that facilitates flexible travel pattern. In order for the approach to work four components must be in place:

1. The route structure should be simple and direct
2. Service levels must be stable through the service day
3. Transferring between vehicles must be easy and convenient
4. Fare systems must accommodate free transfers

7.3 PLANNING AND BUILDING TRANSIT WITH EQUITY AS A CENTRAL GOAL

The TransMilenio bus rapid transit system in Bogotá, Columbia has proven to be a very successful model to address transit inequity. The system was designed from the outset to address inequity and bring transit into neighbourhoods poorly served by the existing transportation network. Frequent, all day service, express options and an integrated feeder network have succeeded in connecting Bogotá's low-income neighbourhoods to the city centre and improving the mobility options those residents living within them.

INCOME-BASED TRANSIT FARE PRICING

Gearing the cost of transit to riders' ability to pay, especially for residents in the lowest income brackets, is widely considered as an option to improve transit equity. This approach is not widely implemented by transit authorities, however, due to implementation challenges such as determining who qualifies and establishing a separate payment system. But there are some precedents in North America.

The **City of San Francisco** in 2005 launched the MUNI Lifeline Fast Pass program, providing reduced fares for qualified low-income residents. For example, being eligible would be a one-person household earning \$22,980 or less, or a four-person household earning \$47,100 or less (2014 dollars). The reduced-cost pass applies to MUNI busses and trains operating within the city, but not BART (Bay Area Rapid Transit) subways.

Sound Transit, serving the tri-county area of Seattle, introduced on March 1, 2015 a discounted fare of \$1.50 for adult riders with incomes at or below 200% of federal poverty level. For example, a four-person household earning \$47,700 or less would qualify under the program. The program is being financed through a 25-cent fare increase for all other riders.

7.4 UNDERSTANDING THE SCALE OF THE PROBLEM

There have always been competing dynamics behind suburbanization, such as the relocation of industry out of the core, the escape from the perceived ills of urban living, and the longing for a romanticized pastoral past. These resulted in a more diverse and dynamic landscape than had commonly been accounted for (Harris 2010, 2014; Keil 2013). Harris (2015) speaks of three competing suburban stereotypes: “the desire to enjoy quiet privacy in a low-density residential environment near the urban fringe. Second, they assume that most suburbs have actually conformed to this ideal. Third, academics and planners alike agree on a stereotypical judgment: suburbs are to be deplored” (p. 30). Considering the complexity of the suburban landscape in a post-suburban world, it is not surprising that the planning, provision and support for public transportation, along with many other forms of civic infrastructures, is also complex. As Keil and Young (2008) have demonstrated, transportation infrastructure in Toronto is becoming polarized with privileged projects, locales and residents being prioritized and others experiencing the brunt of under-investment, disinvestment and fragmented service.

“TransMilenio and the associated non-motorized transportation improvements have proven to be successful in reducing social exclusion by raising the level of access between the city’s centrally located employment centers and its deprived, peripheral areas” (Cain et al, 2007, p. 38)

8 . 0

TOWARDS TRANSIT EQUITY IN THE TORONTO REGION

While transit equity is a complex and layered concept, its importance is quite clear. Incorporating equity as a central consideration in the planning and building of public transit will serve to correct several structural inequalities – attributed to geographical, economic and social circumstances. Our research has shown that, when equity is an explicit goal, public investments in public transit are made to more appropriately distribute the costs and benefits of the transit system.

Building transit is but one aspect of achieving transit equity. In the GTHA context, there are many factors intersecting beyond the Big Move plan that influence outcomes. Planning decisions stemming from the Provincial Policy Statement and the Growth Plan for the Greater Golden Horseshoe influence settlement patterns and, in combination with market forces and other external factors, determine the social and economic inclusiveness of communities. The implementation of Provincial growth management strategies by municipalities further influences the prospects for equity. Local politics, for example, can contribute to gentrification and NIMBY effects at the neighbourhood level.

The GTHA is faced with important and increasing challenges that transcend the transit system. It is possible, however, for regional transit investments and priorities to begin to counteract the effects of income polarization and the resulting social and economic impacts for the region's most vulnerable residents. Rather than recommending specific strategies and tactics to improve transit equity in the GTHA, we instead see more value in posing some important questions.

1. What are the indicators for what is just?
2. At what spatial scale do we seek equity?
3. Who is included and excluded?
4. Who are the different publics? How do those people, for example, identifying themselves as “car-drivers” (gridlock), “taxpayers” (value for money), “transit riders” (service) factor into the transit equity equation and its many variables?
5. How are these and other publics brought to the table, and into the transit network?
6. What are the factors influencing public transit investments, and what are the public impacts?
7. What is at stake if public transit is not as equitable as it can or should be?

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