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Equity in practice? Evaluations of equity in planning for bus rapid transit

Orly Linovski[a,*], Dwayne Marshall Baker[b], Kevin Manaugh[c]

[a] Department of City Planning, University of Manitoba, 211 Russell Building, Winnipeg, MB R3T 2N2, Canada
[b] Department of Geography, University of South Carolina, United States
[c] Department of Geography & McGill School of Environment, McGill University, Canada

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ABSTRACT

The distribution of transportation benefits is mediated through planning professionals and elected officials, who frame the goals of these investments and can prioritize the importance of fairness in decision-making. Despite increasing evidence of the importance of transportation equity, there are broad questions about how equity principles factor into planning processes. This work provides an empirical analysis of the role of transit equity in planning for BRT investments in three Canadian metropolitan areas. Our findings show that transit equity rarely figured into the design and planning of BRT systems and there is a lack of clarity in both defining equity and determining how it should be integrated in planning processes. Most definitions of transit equity focused on the equal distribution of resources for all groups, rather than consideration of transit-dependent riders. Equity outcomes were also in conflict with other goals, as BRT systems were viewed largely as a tool for encouraging development and focused on attracting car drivers to transit. This paper argues that there needs to be a better understanding of the values and priorities of those involved in professional and political decision-making processes if transit equity goals are to be realized.

A rich literature addresses issues of transit equity and justice, emphasizing the importance of accessibility as a right and developing different frameworks for assessing and integrating equity considerations (Thomopoulos et al., 2009, Martens and Golub, 2012, Golub and Martens, 2014, Hananel and Berechman, 2016). In practice, however, researchers have noted a shift away from an explicit commitment to accessibility for low income residents and those without a car (Grengs, 2004, Taylor and Morris, 2015). This raises broader questions about how society understands the value of transport accessibility and the translation of equity principles into decision-making processes (Pereira et al., 2017). Arguably, the distribution of transportation benefits is mediated through planning professionals and elected officials, who are instrumental in framing the goals of these investments and prioritizing the importance of fairness in decision-making. Despite this, there is relatively little known about how elected officials and planning professionals view transportation equity, especially in light of the increasing evidence that poor transit service exacerbates problems of social and economic isolation in a variety of contexts (Garrett and Taylor, 1999, Church et al., 2000, Delbosc and Currie, 2011, Jones and Lucas 2012).

Many transport equity analyses have focused on mode type in the provision of public transit, with uneven investments in rail infrastructure serving wealthier communities at the expense of improved bus service (Grengs, 2002). Despite this, recent evidence shows the socio-economic divide between passengers by mode type has increased since the 1970s; relative to auto drivers, the median

* Corresponding author.
E-mail address: orly.linovski@umanitoba.ca (O. Linovski).

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income of bus passengers has decreased while that of rail riders has increased (Taylor and Morris, 2015). In the U.S. context, the orientation towards rail rather than bus investments has been attributed to the need to appeal to a much broader constituency to fund transportation investments, undermining equity goals especially for low-income neighborhoods (Pendall et al., 2012, Taylor and Morris, 2015), along with little funding available for service, rather than capital, improvements (Garrett and Taylor, 1999).[1] While rail requires costly infrastructure, usually justified by higher ridership projections, bus rapid transit (BRT) has been touted as a middle ground, requiring less capital investment than rail while offering similar travel time and land development benefits, and increased service flexibility (Polzin and Baltes, 2002). Canadian cities are increasingly planning for and building BRT systems, both in large metropolitan areas and mid-sized regions (Ruffilli, 2010). Although federal policy analysis notes the potential for both modes to improve mobility for lower-income groups (Ruffilli, 2010, 3), it is largely unknown whether BRT projects, with their purported ease of implementation and lower costs, are designed to promote equitable outcomes.

This work provides an empirical analysis of the decision-making processes for BRT investments in three Canadian metropolitan areas (Ottawa, ON; Winnipeg, MB; and, York Region, ON), focusing on professional practices and how decision-makers interpret equity goals. It is guided by several related questions: How do transit professionals and political actors define transit equity? Are equity impacts assessed and incorporated in decision-making and planning processes? What goals are established in designing BRT systems and how do they prioritize different user-groups? And, lastly, what are the implications of these understandings for achieving equitable outcomes?

The focus on plans and practitioners in route and alignment decision-making acknowledges the critical role these actors play in potentially achieving equitable outcomes. In applying different equity perspectives to transportation investments, Pereira et al. (2017, 181) argue that justice is assessed not by differences in levels of accessibility but rather how policies and institutions respond to these inequalities, and whether they prioritize accessibility for the most disadvantaged groups. While others have noted that equity is rarely the primary focus of transportation project evaluations (Thomopoulos et al., 2009, Di Ciommo and Shiftan, 2017), the extent to which it is considered at the planning stage has not been evaluated in the Canadian context, which unlike the U.S. or U.K. has no federal legislation requiring equity in the distribution of resources (Markovich and Lucas, 2011).

1. Context: Transport equity in theory and practice

Since the 1960s, there has been an interest in the distributive effects of transportation infrastructure, focusing on fairness in the distribution of mobility or accessibility benefits, as well as negative environmental and other costs. This rich literature has shown that disadvantaged communities are often poorly served by public transit, affecting access to employment, housing, and overall mobility (Sanchez, 1999, Golub et al., 2013). Certain groups, such as low-income women and single mothers, experience even greater inequity in the distribution of transportation mobility benefits (Blumenberg, 2004). In response to this, scholars have been increasingly interested in both understanding the processes that lead to these inequities, as well as strategies for integrating equity concerns into decision-making processes.

Scholars have proposed a variety of theoretical conceptualizations of transit equity, which have different impacts on how equity is assessed and measured. Discussions of equity in the context of transport must clearly define what ‘good’ is being distributed and to whom it is being distributed (Taylor, 2004, Taylor and Norton, 2009). Fundamentally, transportation equity addresses the distribution of both the benefits (such as improved accessibility to locations or reduced travel time), and costs (such as financial costs or negative environmental impacts) of transportation systems, and the different populations over which these are spread. Researchers have suggested various ways to measure and implement equity in transportation investment and outcomes. One common distinction is horizontal and vertical definitions of equity (Khisty, 1996, Litman, 2002). Horizontal equity refers to transit benefits being distributed equally across all groups or spaces. Horizontal equity can be measured by determining transit service levels, such as frequency and number of routes, their relation to population or employment levels (Delbosc and Currie, 2011) and the spatial distribution of the transit system (Welch, 2013, Feng and Zhang, 2014).

In contrast, vertical equity requires both a basic level of access for all, as well as additional resources to allow for communities with the most need to acquire this minimum level (Wee and Geurs, 2011). This involves both identifying and measuring community characteristics to determine a given community’s ability to access transit, as well as determining what the base level should be (Martens and Golub, 2012). Assessments of equitable distribution of transit goods can be based on identifying and measuring characteristics such as race and social class (Wee and Geurs, 2011); income, employment, immigration status, and housing costs (Foth et al., 2013); access for non-work related trips (Wachs and Kumagai, 1973, Grengs, 2015); and, levels of transit service quality (Currie, 2010). Recently, there has been a shift to focus on a capabilities approach, which prioritizes outcomes and the ability of individuals to achieve those outcomes (Martens and Golub, 2012, Hananel and Berechman, 2016). While these frameworks have different implications for the assessment of equity, the focus of this research is on the prioritization and integration of equity measures at the decision-making and planning stages rather than an evaluation of outcomes.

[1] Canadian cities have historically not used ballot measures to approve transportation funding. The first Canadian transit referendum in the post-war period occurred in Vancouver in 2015 and was soundly defeated. It was initiated by the province, against the wishes of local municipalities, and would have allowed for a 0.5% sales tax for transportation (Bula, 2015). Whether other Canadian governments will undertake the plebiscite route for transportation funding remains to be seen.