

Arguing over Transportation Sales Taxes: An Analysis of Equity Debates in Transportation Ballot Measures

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Abstract

What's a fair way to pay for urban transportation? Local option sales taxes (LOSTs) for transportation are an increasingly common mechanism for locally financing transportation in the context of declining federal and state funding. LOSTs are typically regressive, raising equity concerns. But their fairness also depends on *who* benefits from them, based on *which* projects are funded, *where* projects are located, and *when* investments occur. We examine how perceptions of these four dimensions of equity (income, geographic, temporal, and modal) are represented and debated in the ballot arguments for 38 LOST elections in California. We find that measure supporters use subtle language to imply that proposed expenditure plans achieve equity on all dimensions, promising “something for everyone.” Measure opponents, by contrast, typically attack specific perceived inequities in proposed expenditure plans. We find that tradeoffs among types of equity debated in ballot arguments frame winners and losers across multiple equity dimensions.

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Introduction

Since the 1980s, the funding gap between transportation program needs and revenue has been narrowed in many places across the United States by local option sales tax (LOST) measures for transportation. LOSTs for transportation have proven popular among voters; 62 sales taxes for transportation were put before voters in states and counties across the country in the November 2016 general election (UCLA Institute of Transportation Studies 2016). In California, the nation's most populous state, LOSTs are currently in place in 24 counties that house 88% of the state's population and produce more than \$4 billion per year for transportation construction and maintenance in California's so-called "self-help" counties (Wachs 2010).¹ Voters have demonstrated willingness to support increased taxes to pay for locally popular transportation projects when the taxes are levied in small increments (McCaffery and Baron 2006) and sunset after the projects (at least in theory) have been completed. Although growing in popularity, these sales taxes are typically regressive, which means that the relative tax burden is inversely related to income. This raises concerns about the burdens of LOSTs on low-income residents (Dill, Goldman, and Wachs 1999; Schweitzer and Taylor 2008). But the fairness of LOSTs is not simply a matter of tax incidence; in addition to who pays them, *who* benefits from these LOST-funded projects, *which* modes are funded, *where* these projects and the services they provide are located, and *when* these new or improved services commence are important equity considerations as well.

To understand how these various dimensions of equity are perceived and play out in LOSTs, we examine how fairness and equity have been presented to California voters in ballot arguments for 38 separate LOST elections over the past two decades. Many areas of California rely heavily on LOSTs for transportation funding, ranging from small cities to some of the nation's largest metropolitan areas. Drawing from the literature, we consider four dimensions of equity in analyzing ballot arguments supporting and opposing these measures—income, geographic, modal, and temporal.

For the selected ballot arguments, we examined how often equity issues were raised, and identified expenditure patterns that raised equity concerns. Through this analysis, we aimed to understand how debates over LOSTs are framed and how the issues of taxation and challenges of equity are addressed by LOST proponents and opponents.² In this article, we first review a wide

range of literature to ground both our data analysis and interpretation of results. Next, we describe our methodology and analytic process. We then present the results of our analysis, organized by each of the four types of equity described earlier. We conclude with interpretations of our findings and their implications for transportation finance and policy.

LOSTs and Equity

Theoretical Underpinnings of Equity Analysis

Equity is about fairness or justice in the distribution of resources or burdens, and is inherently more normative than is equality. Equity is a critically important concept in public policy and, while distributions can often be measured objectively, whether they are ultimately considered fair or just is often contentious and subjective. Equity considerations in the transportation literature typically stem from theories of distributional justice (Rosenbloom 2009; Taylor and Norton 2009). Researchers have considered transportation finance equity across a variety of topics including transit fares (Cervero 1981; Nuworsoo, Golub, and Deakin 2009), road pricing (Bonsall and Kelly 2005; Bureau and Glachant 2008; Eliasson and Mattsson 2006; Levinson 2010; Santos and Rojey 2004), the gas tax (Bento et al. 2009), vehicle emissions taxes (Walls and Hanson 1999; West and Williams 2005), vehicle registration fees (Dill, Goldman, and Wachs 1999), transportation finance generally (Rosenbloom 2009; West 2009; Zhu and Brown 2013), and transportation sales taxes in particular (Schweitzer and Taylor 2008).

Although many studies explicitly address questions of equity, they do so in varying ways that employ sometimes contrasting definitions and methods. Because equity can be assessed from multiple viewpoints, the same policy may be viewed as equitable by one observer but not by another (Transportation Research Board 2011). In transportation research, the equity of funding distributions among modal groups (e.g., drivers vs. transit users) (Bureau and Glachant 2008), income groups (Bonsall and Kelly 2005; Dill, Goldman, and Wachs 1999; Pucher 1981; Schweitzer and Taylor 2008), and geographies (Garrett and Taylor 1999) attract the most attention. For example, some analysts consider spending toll revenues exclusively on financing or improving the toll road to be equitable. Others, however, argue that toll revenues should be given back to the neighborhoods bisected by tolled facilities (King, Manville, and Shoup 2007), or that a fair distribution of revenues should increase the relative mobility of all travelers across different facilities and modes (Taylor and Norton 2009).

Equity Issues in LOSTs

One important drawback of sales taxes is their regressivity, meaning that they collect comparatively larger shares of household income from poorer households than from wealthier ones (Davis et al. 2015; West 2009). While fuel taxes are similarly regressive with respect to income, they are levied in rough proportion to road system use, so they are more likely than sales taxes to tax travelers in rough proportion to transportation benefits received (Schweitzer 2009). LOSTs, by contrast, are levied on nearly all consumer purchases, meaning that light users of transportation systems tend to pay more per mile travelled than heavy users, making sales taxes, in a sense, doubly regressive (Dill, Goldman, and Wachs 1999; Schweitzer and Taylor 2008).

Despite findings that sales taxes are inherently regressive, sales taxes for transportation are often perceived as fair for three reasons. First, those with similar incomes typically pay similar amounts. Second, sales taxes cannot be easily evaded and are paid by residents and nonresidents alike, both of whom contribute to transportation infrastructure wear and tear. Third, some argue that LOSTs are a more equitable source of transportation funding than fuel taxes, since those *not* traveling by car (transit users, bicyclists, pedestrians) also pay to directly fund transportation infrastructure (Dill, Goldman, and Wachs 1999; Goldman and Wachs 2003).

In addition to income and modal equity, geographic equity has proven to be a crucial element of garnering political support for successful measures. In a case study of multiple ballot measures in Sonoma County, Hannay and Wachs (2007) find that proximity to proposed projects was correlated with the percentage of “yes” votes on proposed measures, while Haas et al. (2000) conclude that LOST measures increasingly rely on “local return”—returning revenues to localities in proportion to the amount raised—to ensure geographic equity.

The Political Appeal of LOSTs

California’s transportation revenue crisis has been well documented (Perry et al. 2017). Inflation-adjusted federal funding of transportation projects has been decreasing for decades, and the funding decline has been even greater per vehicle mile of travel. The federal gas tax, traditionally used to fund transportation infrastructure, has not increased since 1993, despite inflation and increased vehicle fuel efficiency. California’s 18-cent per gallon gasoline excise tax remained unchanged between 1993 and 2016, despite inflation and increased vehicle fuel efficiency. Since the 1980s, the growing gap between transportation program needs and revenue in California has been partly met by county sales tax measures for transportation.

Studies have found that many factors influence a measure's passage, including contextual and socioeconomic factors that influence support for public finance measures in general and transportation LOSTs in particular. Such factors include voter turnout (Geys 2006), economic conditions (Bowler and Donovan 2000), marketing (Bowler and Donovan 2000; Gerber 1999), partisanship (Franko, Tolbert, and Witko 2013), in addition to equity concerns (Hamideh et al. 2008; Hannay and Wachs 2007). Hannay and Wachs (2007) and Haas et al. (2000) find that measures that dedicate funding to a mix of highway and transit projects have higher passage rates than measures focused primarily on a single transport mode.

Political science research indicates that voters' willingness to approve taxes is influenced by perceptions of the taxes' impacts (McCaffery and Baron 2006), and support for LOSTs depends in some part on favorable perceptions of existing transportation services (Green et al. 2013). Studies also attempt to understand how well LOST voters are informed, with one study finding that a portion of the electorate "will choose not to acquire information—even if the cost of information is minimal," although study results depend on the cost and quality of additional information (Feddersen and Sandroni 2006, p. 3).

Finally, these transportation measures are part of a small but (to the extent that we can discern) growing collection of voter-approved multiyear tax measures that include expenditure plans that dedicate the revenue to specific projects on a specific schedule—as opposed to providing revenue for general funds. Such expenditure plans do much to engender voter trust (Beale, Bishop, and Marley 1996; Crabbe et al. 2005), but they also tie the hands of public officials grappling with rigid expenditure plans amid ever changing conditions (Goldman 2003).

However, none of the studies examining LOSTs' political appeal have considered how equity concerns, particularly accounting for the context of expenditure plans, can influence voter perception of measures. As transportation projects and services are increasingly funded through ballot initiatives, and decision making is shifting from policy makers to the public, it is important to understand how nuanced equity issues are communicated to voters.

The Ballot Initiative Process

In California, citizens can petition to place measures on state, county, and municipal ballots. Such petitions can be the product of grassroots organizing efforts but more often are organized and led by local economic and political elites. Countywide voter initiatives in California first appeared in large urban areas. While they are now common across the nation's most populous state,

they most frequently occur in urban and suburban counties (Gordon 2004). In California, the most frequently successful countywide measures have focused on transportation funding, facilities improvement, and governance. Such direct democracy via local initiatives is not unique to California; as of 2003, 70% of the U.S. population lived in a city or county where they are permitted (Gordon 2004; Matsusaka 2003).

Most voter-approved county taxes are either general revenue taxes or special use taxes, which are restricted to specifically enumerated expenditures. General revenue taxes in California require a majority to pass, but since 1995, special use taxes have been required to meet a higher, supermajority bar for passage. In the November 2016 elections, California counties placed 23 special use taxes on the ballot, nearly half of which proposed funding transportation projects and services (Institute for Social Research & Center For California Studies 2016).³

The Role of Ballot Arguments

According to California Election Code §§ 9160-68 (1994), ballot arguments in California cannot exceed 300 words in length (Elec. Code §9162). They reflect both supporters' aspirations for and opponents' objections to measures, and, perhaps even more importantly, they also reflect what both supporters and opponents think will be the most persuasive arguments for and against a given measure in the minds of voters. The ballot arguments appear in voter guides mailed to all registered voters in the jurisdiction, along with a verbatim presentation of the proposition or initiative. These arguments are referred to as "ballot arguments," though they appear in the voter guide and not on the formal ballot.

Qualified ballot arguments may be prepared by "The board of supervisors or any member or members of the board, or an individual voter who is eligible to vote on the measure, or bona fide association of citizens, or a combination of these voters and associations" (Elec. Code §9162). Ballot arguments typically emerge after an interactive process among coalitions of businesses, labor, and other civic group supporters, together with local political leaders (Advocacy Advance 2014). Such coalitions are often formed specifically to craft arguments for or against a given measure.

Arguments can sometimes be separately submitted by more than one group of supporters or opponents (or individuals), although supporters in particular often combine forces to produce a single argument. If the County Registrar of Voters receives multiple submissions either in favor of or opposing a measure, the registrar selects the argument according to the priority of qualified authors listed earlier (Elec. Code §9166).

Copies of submitted supporting arguments are then sent to the authors of the opposing argument, and vice versa. These authors may submit, or authorize others to submit, rebuttal arguments that do not exceed 250 words in length (Elec. Code §9167). Rebuttal arguments are frequently written by different authors but mainly reaffirm points made in the initial arguments.

Method

To understand how equity issues were presented to voters vis-à-vis other issues, we chose to focus on ballot pamphlet arguments because they (1) are relatively uniformly present in all ballot measures, (2) concisely present and rebut arguments for and against the measures, (3) are most often authored by a measure's principal supporters and opponents, and (4) are mailed to every registered voter in a jurisdiction.

We initially considered examining newspaper articles and other sources in lieu of or in addition to ballot arguments, but chose not to do so because of the heterogeneity of both these sources and the counties studied. Some measures were debated in enormous urban counties, like Los Angeles, where print and television coverage is extensive. But some of the measures were voted in counties with relatively small cities served by local papers with decidedly uneven coverage of such issues, and where there is little or no local television news coverage. Newspaper articles and editorials can report on the measures with well-developed positions on them, and are typically seen by smaller, self-selected groups of people. For these reasons, we chose to focus on ballot arguments as the best representation of competing views of each measure and across multiple measures.

We began by examining all 76 LOST measures that have been put before voters in California since the first one passed in 1976. For each measure, we sought to obtain its ballot arguments, either online from electronic versions of voter information pamphlets, or in hard copy from county voter registrars. Unfortunately, many counties do not keep records of past voter guide texts, particularly for older measures, so our sample is skewed toward more recent measures. Where primary sources yielded no data, we relied on secondary sources, such as Ballotpedia and Smartvoter, which we validated by comparing text to primary source text where we had both; we found the text to be identical in all cases. In all, we gathered and analyzed arguments for 38 separate California LOST measures (identified in Table 1).

We focus on equity arguments because previous research on LOSTs has concluded that equity considerations are principal determinants of both the composition and popularity of LOSTs. In this analysis, we seek to (1) determine the frequency and type of equity issues raised, (2) determine how these

Table 1. List of Equity Discussions in Studied Ballot Arguments.

County	Measure name	Year	Geographic equity	Income equity	Modal equity	Temporal equity	Total types of equity
Alameda	Measure BI	2012	Yes	Yes	Yes	No	3
Alameda	Measure BB	2014	No	Yes	Yes	No	2
Contra Costa	Measure J	2004	Yes	Yes	Yes	No	3
Contra Costa	Measure X	2016	Yes	Yes	Yes	No	3
Fresno	Measure C	2002	Yes	No	Yes	No	2
Fresno	Measure C	2006	Yes	No	Yes	Yes	3
Humboldt	Measure U	2016	Yes	No	No	No	1
Los Angeles	Measure R	2008	Yes	Yes	Yes	Yes	4
Los Angeles	Measure J	2012	Yes	Yes	No	Yes	3
Los Angeles	Measure M	2016	Yes	Yes	Yes	Yes	4
Madera	Measure T	2006	Yes	No	No	No	1
Marin	Measure A	2004	Yes	Yes	No	No	2
Marin/Sonoma	Measure R	2006	No	Yes	Yes	No	2
Merced	Measure V	2016	No	No	No	No	0
Monterey	Measure Z	2008	Yes	No	No	No	1
Monterey	Measure X	2016	No	Yes	No	Yes	2
Orange	Measure M2	2006	Yes	No	Yes	Yes	3
Placer	Measure M	2016	Yes	Yes	Yes	Yes	4
Sacramento	Measure B	2016	Yes	Yes	Yes	Yes	4
San Benito	Measure P	2016	Yes	No	No	No	1
San Diego	Measure A	2016	Yes	Yes	Yes	No	3
San Francisco	Proposition K	2003	Yes	No	Yes	No	2
San Joaquin	Measure K	2006	Yes	Yes	Yes	No	3
San Luis Obispo	Measure J	2016	No	No	No	No	0
San Mateo	Measure A1	1988	No	No	No	No	0
San Mateo	Measure A2	2004	Yes	No	Yes	No	2
Santa Barbara	Measure A	2008	Yes	Yes	Yes	Yes	4
Santa Clara	Measure B	2008	Yes	No	Yes	No	2
Santa Clara	Measure B	2016	Yes	No	Yes	No	2
Santa Cruz	Measure J	2004	Yes	No	Yes	No	2
Santa Cruz	Measure D	2016	No	No	Yes	No	1
Sonoma	Measure B	2000	No	No	No	No	0
Sonoma	Measure C	2000	No	No	Yes	No	1
Sonoma	Measure M	2004	Yes	No	Yes	No	2
Sonoma/Marin	Measure Q	2008	No	No	Yes	No	2
Stanislaus	Measure L	2016	Yes	Yes	Yes	No	3
Tulare	Measure R	2006	Yes	No	No	No	1
Ventura	Measure AA	2016	Yes	Yes	Yes	No	3
Total			28	17	26	9	

issues are framed and debated by measure supporters and opponents, and (3) identify how equity concerns result from planned patterns of expenditures.

To assess the various equity dimensions of LOSTs, we drew on the literature reviewed earlier to consider four dimensions of equity: (1) income, (2)

geographic, (3) modal, and (4) temporal. Income equity concerns the relative distribution of costs and benefits across different income groups.

Geographic equity is measured as the spatial distribution of sales tax burden and benefits, typically by jurisdiction. For example, does spending mirror population distribution within a county focus on areas of greatest demonstrated need, or is it evenly distributed across space? Modal equity concerns how sales tax revenues are divided across transport modes, including highway spending that supports construction and maintenance of highways and regional arterials, funding for the repair and maintenance of local streets and roads, and transit spending on capital purchases and transit service operation, and cross-modal facilities such as transit centers.⁴ Finally, temporal equity is invoked when measure costs and benefits accrue at different rates over time, which is most often an issue when some projects or programs are scheduled for implementation earlier and others much later. Such issues are raised when, for example, the east side of a county slated to wait 20 years for a desired project, while another popular project on the west side of the county is scheduled for immediate construction.

While conceptually distinct, the four conceptions of equity overlap in many cases. For example, because poverty is often spatially concentrated, investments in a low-income area may address both geographic and income equity concerns.

To assess the types and frequency of equity issues raised in LOST elections, we performed a discourse analysis (Bazeley 2013) of official ballot arguments for and against LOST measures in California. Atlas.ti, a qualitative data analysis software program, was used to organize and analyze ballot arguments and particularly to identify statements in ballot arguments that raise issues related to the four types of equity discussed earlier. We determined whether equity issues were raised by measure supporters or opponents, and recorded the language used to articulate such arguments. The data were coded to identify the equity dimension discussed, and we used subheading codes for specific types of arguments that exemplified the four types of equity (Spencer and Ritchie 2002). After the research team reviewed and agreed on the coding structure, a single researcher coded all ballot arguments to assure consistency. While we focus primarily on equity issues raised in ballot arguments, we should note that equity concerns played a secondary role in most of the ballot arguments, compared with issues such as congestion, economic development, and questions of whether the additional tax was necessary to achieve transportation goals.

Findings

Income, geographic, modal, and temporal equity issues were all raised in ballot arguments, but with varying frequency. Table 1 shows that, among the 38

ballot arguments studied, geographic and modal equity were raised nearly twice as often (28 and 26 times, respectively) compared with income equity, which was raised in 17 measures, and temporal equity, which came up in nine ballot arguments. Most measures raised multiple types of equity, only four measures raised no equity issues. Seven measures raised one type of equity issue, 12 measures raised two types of equity issues, 10 measures raised issues pertaining to three types of equity, and five measure ballot arguments raised concerns across all four equity dimensions.

Typically, equity arguments related to specific projects were more often raised in the “against” arguments. In contrast, pro-arguments supporting the measures generally eschewed specific equity discussions in favor of conveying to voters that the measures include “something for everyone”—residents of different parts of the county, drivers, cyclists, and so on. In addition, assertions of equity may not actually use the term *equity*. When equity issues were raised in supporting arguments, it was typically using language that preemptively signaled that there are no equity concerns, by, for example, using the word “affordable.”

Income Equity

Fifteen LOST ballot measures addressed income equity in their supporting arguments, opposing arguments, or both. While income equity arguments were raised—most directly by opponents referring to the added tax burdens on specific groups, and less directly by supporters who touted public transit subsidies—they were addressed in general terms. Supporting arguments rarely address directly the effects of LOSTs on low-income communities.

Supporters of four measures (Alameda B1, 2012; Alameda BB 2014; Sonoma/Marin R 2006; Ventura AA, 2016) argued that the sales tax revenues would be used to keep public transit “affordable,” indirectly signaling income equity via discussions of transportation pricing. Supporters of three other measures, all in Los Angeles, stress that measures will keep transit fares low, and two promote the benefit of enhanced services for those dependent on transit (San Benito P, 1026; Monterey Z, 2008). None of these measures, however, specifically mentioned transit affordability for low-income riders. Rather, they argued either for general transit affordability or for specific groups such as seniors, students, and the disabled.

Opposing arguments in seven of the 38 ballot measures directly stated that an increased sales tax would disproportionately harm low- and middle-income residents. Opponents of three measures (two in Alameda County and one in Monterey County) specifically addressed the regressivity of sales taxes by encouraging voters to “Reject this regressive tax increase!” (Alameda, BB,

2014) and warned that Measure B1 (2012) was “A MASSIVE TAX INCREASE: Disproportionately harming working families.”⁵ Other measures referenced decreases in real wages associated with the increasing sales tax rates. For example, opponents of Placer County’s Measure M (2016) plainly stated in their opening, “Measure M is a SALES TAX INCREASE that will damage our economy, hurting those who can least afford it,” while opponents of San Diego’s Measure A (2016) referenced general concerns facing “working families in a ‘high-tax state.’” Arguments against Santa Barbara’s Measure A (2008) and Stanislaus County’s Measure L (2016) focused on the disproportionate impacts of the sales tax on seniors and working families. Opponents of Los Angeles Measure M linked income equity issues with greater social inequality, stating that “Measure M taxes people who cannot afford it, spreads social and racial injustice, and makes discrimination worse.”

Income equity was most frequently associated with discussions of transit funding, affordable transit fares, and transit project selection. Opponents of Measure X (2016) in Contra Costa County argued that the measure did not dedicate enough funding to transit, while burdening lower-income residents who rely on the mode. Opponents of LOSTs in Los Angeles (M, 2016), San Mateo (A, 2004), and Sacramento (B, 2016) argued that measure funding was dedicated to transit projects—including a Bay Area Rapid Transit (BART) extension in San Francisco, commuter rail investments in Sacramento, and expansion of rail transit in Los Angeles, respectively—that would come at the expense of bus services heavily used by lower and middle-class residents. Sacramento Measure B (2016) opponents decried projects that benefit the politically influential at the expense of low-income residents:

But Measure B isn’t a comprehensive transportation plan for addressing our transportation needs. Instead, it’s a patch-work scheme developed by politicians and their cronies that will lead to more congestion and will fund the wrong kind of transit spending, while imposing higher taxes on vulnerable low- and middle-income families.

Rebuttal arguments supporting ballot measures generally ignored income equity concerns raised by the opposition, beyond reiterating the affordability of subsidized transit fares. Only the rebuttal arguments in support of Measure BB in Alameda County (2014) alluded to the income equity arguments of opponents, stating that it “will expand services and keep transit affordable for seniors, young, and disabled people . . . and provide transportation independence for our most vulnerable populations.”

While income equity issues were raised either directly or indirectly in ballot arguments, the discussion of income equity in voter guides does not appear

to influence a LOST's success at the ballot box. Measures in which the ballot arguments reference income equity were slightly more likely to fail, regardless of whether the argument stressed potential inequities (four measures passed, and six failed), or described the measure as increasing the affordability of transportation services (three measures passed, and four failed).

Geographic Equity

Geographic equity concerns the degree to which LOST measure revenues are perceived as fairly distributed spatially throughout the jurisdiction. For example, some ballot arguments assert that the funding for projects in a given part of the county should be proportional to the number of residents in that area; to others, fairness means investing equally in all parts of the county regardless of the population distribution. Table 2 shows that raising geographic equity concerns in ballot arguments was not strongly associated with the overall popularity of the measures among voters. Ballot measure supporters repeatedly used certain terms and concepts to signal positive geographic equity implications of proposed measures by promising flexible funding to cities and towns to repair local roads and reduce local congestion at their discretion, and by touting the benefits of the measure for every community in the jurisdiction.

In sum, 24 supportive ballot arguments raised geographic equity compared with just five opposing arguments (Contra Costa J, 2004; Fresno C, 2006; Los Angeles J 2012; Los Angeles M 2016; San Mateo A2, 2004; Fresno C, 2002). Supportive arguments raised geographic equity far more than opposition arguments to assuage concerns over the fair spatial allocation of revenue.

Geographic equity arguments that stressed the return of money to local jurisdictions promised to reduce local congestion, and endorsed the notion that "every community" benefited were almost always used in favor of a measure. Most supporting arguments were general, stating "local road repairs benefit everyone—drivers, cyclists, walkers, seniors, kids, and businesses" (Stanislaus L, 2016).

By contrast, opponents typically focused on specific geographic inequities, such as expenditures favoring wealthy neighborhoods at the expense of low-income areas, or did not benefit parts of the county at all. For example, opponents of Measure A in San Mateo (2004) argued that residents of the coastal portion of the county were not getting their fair share of benefits:

. . . the county bus service has been reduced to pay for the expansion of low-use systems such as BART, isolating residents who live on the coast side, as well as county youngsters and students, senior citizens, and low income residents . . .

Table 2. Number of Measures with Supporting and Opposing Geographic Equity Arguments.

Geographic equity argument type	Supporting	Opposing	Measure failed	Measure passed
Local Return: Any mention of revenues being returned directly to cities	8	1	3	6
Local Roads: Any mention of revenue being used to fix local roads outside of the context of “local return” funds	24	1*	10	14
Local Congestion: Any mention of congestion on local roads (in contrast to more frequent mentions of congestion on major highways)	3	0	2	1
Urban versus Rural Residents: Arguments that the measure does not distribute funding equitably between urban and rural residents	1	2	1	2
Does Not Help Part of the County: Ballot argument language that identifies a specific area of the county that is not benefitting (enough) from the expenditures proposed under the measure	0	3	1	2
Extra-County: Argument that the measure revenues benefit people who do not live in the county	0	1	0	1
High- versus Low-Income Residents: Argument that projects are concentrated in either the wealthier or poorer areas of the county (implies income equity concerns)	0	2	0	2
“Every Community”: Language implies that benefits of the measure are distributed throughout the county	9	0	5	4
Totals	45	10	22	32

Note. Ballot arguments for a given measure may include more than one type of geographic equity argument; therefore, totals may sum to greater than the ballot argument sample size of $n = 38$.

*Funding for local road maintenance was only discussed in the opposing arguments for Santa Barbara Measure A, as opponents declared that the measure would dedicate too much funding for local improvements at the expense of regional projects that would reduce congestion.

Opponents of Los Angeles Measure J (2010) argued that the proposed investments were not aligned with population distribution, while the San Fernando Valley represents 37% of the county’s population, it was slated to receive only 13% of LOST-generated revenues.

Geographic equity was sometimes also framed in terms of a division between rural and urban communities in the county. Balancing investment across urban and rural communities was specifically raised in support of one measure (Tulare R, 2006) and in opposition to two others (Fresno C, 2006; Los Angeles J, 2012). For example, opponents of Fresno County’s Measure C (2006) argued that the proposed measure—in contrast to a previous one—did not allocate enough highway funding to urban areas:

Old Measure C spent 70% of its freeway monies in the urban region. Where 70% of our community lives. Where 70% of the sales taxes are collected . . .

This Measure C returns just 50% of freeway monies to the urban community. Taxpayers haven't moved out of the cities . . . Why abandon the old formula?

Modal Funding Equity

Discussions in ballot arguments of modal funding equity typically addressed the benefits of funding roads versus public transit or funding one mode of transit versus another. While the debate over road versus public transit investments played a central role in many of the ballot measure arguments—and has been central to transportation policy debates for years—this analysis revealed a nuanced set of arguments regarding different transit modes that often overlap with income and geographic equity issues as well.

Supporting arguments: Modal balance and mode choice. Supporting arguments frequently presented the measure as modally inclusive, stating that the measure will balance investment in roads and transit and provide a choice of transportation alternatives. Supporting arguments rarely pitted modes against one another. Instead, the inclusive language in supporting arguments typically painted a “win-win” picture to satisfy all constituents, including those who “choose” to drive a car instead of taking transit. The ballot arguments for Placer County’s Measure M (2016) were representative of the language used to sell modal choice:

Sick of growing traffic on highways and roads, robbing us of time with family?
. . . Want alternatives to automobile commuting; by train to Sacramento, or even biking or walking? Vote Yes on Measure M.

Overall, supporters of only six of the 38 measures analyzed pointed specifically to a need for transportation “alternatives” or “balanced” spending between transit and automobile interests, perhaps because such language might introduce the idea that there is an opportunity cost of funding one mode at the expense of another. For example, supporters of Sonoma County’s Measure M (2004) specifically pointed to the need to “provide alternatives to those who cannot or choose not to drive cars,” and described the expansion of bus service as critical for people without alternative transportation options. Supporters of Proposition K (2003) in San Francisco highlighted the need to “deliver a balanced selection of transportation alternatives to San Francisco neighborhoods and residents.”

However, even when measure supporters and opponents agreed on the importance of balanced modal funding, they sometimes disagreed over what constitutes balance. For example, supporters of Contra Costa’s Measure J

(2004) stressed that the measure would “relieve congestion in every major commute corridor in Contra Costa County,” providing a balance of road improvements and mass transit solutions, while opponents maintained that “Measure J would not make buses a viable transportation alternative Contra Costa’s transportation plan should reasonably balance highways, local streets, public transit.”

Opposing arguments: Variation and some vitriol. Opposing arguments citing modal equity concerns adopted diverse, often adversarial, approaches. Some argued generally against transit funding, asserting that proposed increases in funding for transit necessitated decreased funding for streets and highways. More general modal equity arguments typically adopted one of two tactics. First, they argued that modal funding would be out of proportion with modal usage, and cited travel behavior statistics (the veracity of which we did not verify). For example, opponents of Measure M2 in Orange County (2006) bemoaned the disproportionate share of funding allocated to transit: “38% of funds are for transit costing 10 to 100 times as much for the same transportation (person-miles) as roads, and providing less than 2% of our total transportation.” Second, opponents of transit funding relied purely on rhetoric, often heated, to attack public transit. For example, opponents of Ventura County’s Measure AA (2006) declared that the proposed measure would support “\$191 million for more empty rider-less buses to clog streets and freeways,” and attacked rail spending by arguing that “Except for proponents, no one believes we have a train crisis in the County.”

A minority of measure opponents took the opposite stance and objected to the measure for not dedicating enough revenue to transit. For example, opponents of Santa Cruz’s Measure J (2004) contended that a transportation tax ought to dedicate revenue to public transit, arguing that the measure was really a “30-year sales tax to widen Highway 1 The tax sacrifices bus, rail, and other transportation needs, for the sake of widening.”

In addition to these general objections, opponents frequently objected to inequitable funding related to either specific modes or projects. For example, commuter rail investment drew the ire of measure opponents in Santa Barbara and Orange Counties, who argued that commuter rail investment was “unecological,” would not deliver “real benefits” (Santa Barbara, A, 2008), and provided huge subsidies for rail commuters instead of promised subsidies for seniors using transit (Orange, M2, 2006). Similarly, funding buses as opposed to roads and highways appears particularly to provoke measure opponents. In Sonoma County, opponents of Measure M (2004) argued that buses are already heavily subsidized by existing taxes, saying “If buses are so great let them pay their own way.” Arguments against bus funding in Fresno County’s Measure C (2006) stated,

Measure C spends 30% of funds on alternative transportation that studies show is used by no more than 2% of the population. They want to force you onto public busses by congesting our streets. Are you going to ride the bus?

Modal arguments against LOSTs extended beyond road versus transit debates to the merits of funding one transit mode over another. These debates tended to be highly place-specific, reflecting the transportation dynamics of particular counties, and they typically occurred in counties having multiple transit operators and modes. For example, opponents of San Mateo's Measure A2 (2004) contended that too much funding was dedicated to extending BART and to providing ferry service between the county and downtown San Francisco. Opponents argued that both projects were "boutique" transit services that would serve small numbers of commuters at a high cost per passenger, and that funding would be better spent on expanding bus services that would serve a larger number of residents at a lower cost per trip.

Opponents of Orange County's Measure M2 (2006) raised issues of modal cost-effectiveness, arguing that investment in the Metrolink commuter rail provided "massive subsidies for a handful of railway commuters . . ." and ". . . will carry only 0.2 percent of all trips . . . OCTA considers Metrolink the backbone transit system, but 0.2 percent is hardly a wishbone."

Temporal Equity

Issues of temporal equity arose in ballot arguments in several subtle and complex ways, but did not appear to influence passage or failure. Of the eight measures in which opponents argued that there were temporal equity issues, four measures passed and four failed. Temporal equity concerns include doubts that, while a measure may fund projects that strike a popular balance along other dimensions of equity, it would take too long to reach actual project delivery to do so. Where project timelines were specified, opponents often argued that later projects might never be delivered because the county would run out of money first.

Some LOST expenditure plans presented a temporal "tiering" of projects, in which specific projects were prioritized to receive funding earlier and others later. In some counties, additional projects were listed in the ballot measure expenditure plan as conditioned upon the availability of funding after the priority projects were completed. For example, Fresno County's 2006 Measure C listed projects according to priority tiers. The second-tier projects will only be built if additional Measure C revenue remains after the first tier projects are completed. Opponents of the measure make clear their skepticism of the promises in the expenditure plan's tiering:

There's a map showing new projects to be bought with your sales tax dollars. But read the fine print. Only half the map's road improvements will be built. And most will be built with \$500 Million of state and federal gas taxes our local governments receive without Measure C.

Other LOST expenditure plans listed projected timelines of major capital projects included in the measure, and measure opponents urged voters to consider that scheduling a project later was a lesser commitment to building it because funds would be scarce in later years. Similar temporal debates surround prioritization given to short-term maintenance versus longer-term new construction. In Sacramento Measure B (2016), both opponents and supporters debated the temporal equity of a proposed "Fix It First" policy that ostensibly prioritized repairs and maintenance over new capital projects. Supporters of the measure argued:

Measure B requires cities and the county to "Fix It First," which means they must fill potholes, repave streets and fix bridges before they can spend more money on new freeway or transit projects. Measure B requires 75% of all funds to be used for "Fix It First" repair and maintenance work during the first five years. Measure B will bring aging streets and roads up to modern standards that serve all users, including bicyclists, families and school children, and transit riders.

Linking temporal and geographical equity, ballot arguments have also debated whether expenditures will reflect the needs of future residents across the county in question over the life of the measure. Santa Barbara Measure D (2006) and Measure A (2008) divided investments between the northern and southern portions of the County, readjusting investment in the 2008 measure to distribute revenues equally between these two areas. Despite this, opponents of the measure argued that the "population will change over time so dividing it north and south 50/50 may not hold over 20 years."

Accountability and trust. Related to, but often not addressed directly as a matter of temporal equity, is a looming issue of accountability and trust. If taxpayers enact a measure that lists projects, dates, and revenues to be spent, what are the prospects that, over time, officials may ignore voters' wishes and reallocate money for other purposes? Many of the measures, particularly the most recent ones, specify how plans may be changed over time. Some require that nontrivial changes be submitted to the voters; others allow changes to be made by supermajority votes of county supervisors after public hearings but limit allowed changes in either frequency or expenditure amount.

While accountability and trust that public officials will adhere to the wishes of the voters underlie debates on almost every issue, accountability concerns are presented in LOST ballot arguments as matters of “fairness” and equity in case measures are not literally carried out. What if foregone projects deprive one group or area or mode while cost overruns or delays make it likely that other groups get more than their fair share of resources made available over the life of the proposed measure?

LOST measure proponents often attempt to convince voters that they will deliver the projects they promise in the expenditure plan. This can be a hard sell, as illustrated by arguments against Placer County’s Measure M (2016):

The Ballot Summary and Argument in Favor list a grab bag of popular transportation projects that may never be constructed, even if we vote to raise our taxes again. Don’t be fooled into thinking that a vote for Measure M will magically produce enough money to pay for everything on their list. Their own figures show those projects will cost more than Measure M will produce! They [the Placer County Transportation Planning Agency] are hoping to obtain funds from other sources, but we expect them to come back asking for another tax increase.

Accountability issues were particularly prominent in counties that had a previously enacted LOST because earlier actions clearly influenced perceptions of new or renewal measures. Proponents frequently pointed to popular projects funded in whole or in part by the current or previous LOST when arguing for a new measure. Opponents, by contrast, pointed out unkept promises from previous measures. For example, Sacramento’s Measure B “Fix It First” policy—discussed earlier—raised many questions about accountability and trust. Opponents were skeptical about whether the “Fix It First” policy would have any teeth in the face of public officials who wanted to fund popular new projects:

What proponents won’t tell you is that there’s already a half-cent sales tax, Measure A, that raises a gusher of revenue for roads/transit: \$109 Million last year, \$659 Million since 2009 and will generate \$3 to \$4 Billion through 2039. Our roads are in poor shape because Measure A funds are spent mostly on new construction while maintenance is badly neglected. Measure B will double the transportation tax but won’t fix the problem—it compounds it. Measure B is cleverly crafted by politicians to give the misleading impression that it will fix our roads. In fact, the “Fix It First” promise lasts only five years and can be waived by the politicians at any time. Measure B expenditures are heavily weighted towards big-budget construction projects that will enrich politically connected contractors but won’t fix our roads.

Interaction Among Equity Concerns

Because there are inevitably winners and losers in the collection and distribution of tax revenues for any purpose, it is not surprising that virtually all of the LOST measures analyzed here engendered equity debates. The arguments raised by opponents of some measures drew attention to multiple types of equity issues and employed complex arguments to show how equity issues are often intertwined.

The ballot arguments reviewed in this research exhibit a lively comingling of the four types of equity issues analyzed here. Proposed expenditures frequently prompt multiple equity concerns, most vividly in debates over measures that dedicate substantial shares of revenues to large-scale capital projects. For example, dedicating a large proportion of revenue to a major highway expansion typically raises equity objections because (1) the investment may not benefit residents who live far from the highway (geographic equity), (2) funding highways at the expense of public transit and social service transportation penalizes low-income residents who cannot afford a car (income equity), and/or (3) the investment does not benefit those who ride or would ride transit (modal equity). In addition to multifaceted equity claims, ballot arguments may also pit one type of equity against another. Such competing equity claims were observed most frequently in larger urban counties with multiple modal interests competing for funding.

As noted earlier, opponents of Los Angeles Measure J (2012) and San Mateo Measure A2 (2004) argued that the proposed expenditure plans prioritized large transit capital projects that would benefit wealthy communities at the expense of poor communities burdened by the tax increase. Opponents of San Mateo Measure A2 argued that the measure dedicated too much revenue to BART rail transit, and too little to local bus service—with the former favoring wealthier riders and parts of the county over poorer bus users, taxpayers, and communities.

Table 3 illustrates the frequency with which ballot arguments noted that a specific investment decision raised concerns across multiple equity dimensions simultaneously. This table includes ballot arguments that link multiple dimensions of equity to specific investments in the expenditure plan.⁶

The evolving demographics of urban areas over the decades-long lifespan of transportation sales taxes often raises both geographic and temporal equity concerns. Opponents of Los Angeles Measure J (2012), for example, argued that returning a large proportion of the money to cities within the county to meet their self-defined transportation needs “disenfranchises growing cities and unincorporated communities” by “tying funding to frozen 2004 population levels,” which they argue would reduce the per capita

Table 3. Interactions Among Various Types of Equity Objections in the Ballot Arguments.

Type of equity	Income	Geographic	Modal	Temporal
Income		San Mateo 2004 Los Angeles 2016	Alameda 2012 Los Angeles 2016 Contra Costa 2016 San Mateo 2004 Alameda 2014	Los Angeles 2016
Geographic			San Mateo 2004 Contra Costa 2004 Placer 2016 Stanislaus 2016 Los Angeles 2008 Los Angeles 2016 San Francisco 2003	Santa Barbara 2008 Sacramento 2016 Los Angeles 2008 Los Angeles 2012 Los Angeles 2016
Modal				Orange 2006 Los Angeles 2016
Temporal				

funding to cities experiencing above-average population growth. Opponents of Santa Barbara Measure A (2008) raised similar objections to an expenditure plan that divided investments according to the then-equal population split between the northern and southern portions; funding would not, however, adjust to population shifts over the life of the proposed 30-year measure. These arguments combining temporal and geographic equity objections reveal the tension between expenditure plans that increase voter confidence in a measure's accountability but which tie the hands of officials seeking to adjust expenditures in response to changing circumstances.

Competing equity claims were vividly illustrated by opponents of Los Angeles Measure M (2016), which dedicated a substantial portion of funding in the early years of the measure to funding new rail transit projects. Opponents objected to this prioritization of rail projects on multiple equity grounds, arguing,

Measure M postpones transportation projects for blue collar neighborhoods—but projects for affluent communities move to the front of the line. MTA has a poor record of safety and a history of prioritizing wealthy communities, violating civil rights, and disenfranchising the poor and people of color who need effective transit the most.

Discussion

Frequency of Equity Arguments

Although equity was rarely the most prominent issue presented in ballot arguments, it frequently arose either explicitly or implicitly. Thirty-three of the 38 (86%) measure ballot arguments directly mentioned or alluded to equity issues. Income equity issues were mentioned in the ballot arguments for 15 measures, 10 of which directly posited how measures would affect lower-income residents and two of which specifically characterized seniors as low-income residents. As discussed in the literature review, sales taxes are regressive with respect to income. Yet, only five measures addressed such income inequity issues in the ballot arguments by saying that sales tax finance disproportionately burdens low-income residents.

While previous studies found that geographic equity concerns can contribute to measure failure (Haas et al. 2000), such outsized influence was not obviously reflected in the ballot argument language analyzed here. Twenty-eight measures mentioned geographic equity (Table 1); most of those referring to spatial impacts were made by supporters arguing that all areas of the county will benefit from a proposed measure. By contrast, concerns over geographic *inequity* were raised in arguments for just nine of the 38 analyzed ballot measures (Table 2). How does the apparent primacy of geographic equity in the literature square with the relative dearth of complaints over geographic inequity in the ballot arguments? One possible explanation is that the importance of geographic equity to the success of LOST measures has become conventional wisdom among those crafting ballot measures such that—at least for the more recent measures studied here—geographic equity concerns are largely addressed before the measures ever appear on the ballot. Alternatively, it may also suggest that ballot argument language does not fully reflect the role of geographic equity in shaping negotiations over expenditure plan specifics.

Modal funding equity was the most frequently raised equity topic, perhaps because LOST expenditure plans increasingly specify lists of projects with corresponding funding amounts. Such lists cast differences in funding allocations across modes in sharp relief and form the basis for arguments over the funding of one mode relative to another. In addition, many expenditure plans summarize the overall modal funding breakdown of the measure, which makes it easier for proponents and opponents to debate modal funding split.

Temporal equity concerns were raised in eight LOST measures. For the purposes of our analysis, we defined temporal equity concerns as debates over the timing of proposed measure benefits to particular constituent groups.

This was most often tied to the timing of expenditure plan projects—though this may not capture all the temporal equity issues inherent to these measures. For example, temporal equity may also encompass project tiering, future reprogramming flexibility through the use of amendments, and accountability issues that result from previous measures not delivering what promised.

Relating Voter Support to Equity Concerns

In this research, we sought to understand how equity concerns are raised and debated in an increasingly popular form of urban public finance: the local-option sales tax. Although previous research has suggested that equity objections can sink these measures, to our surprise, we found equity debates aplenty in the ballot arguments analyzed, but no statistically significant relationship between the frequency or types of equity issues raised in ballot arguments, and the passage rates of the measures. This finding runs counter to the literature on LOSTs, which suggests that equity issues are paramount in the crafting and voter approval of the measures (Haas et al. 2000; Hannay and Wachs 2007). How can we square claims of the central role of equity with our findings here?

First, it may be that equity issues are so important to the electoral success of LOSTs that no measure makes it to the ballot without having been thoroughly vetted among competing transportation interest groups in a given county. While residual equity concerns make their way into the ballot arguments, most concerns may be addressed through the process of assembling coalitions of supporting interest groups.

Second, because equity manifests in multiple forms in LOST measures, no one type of equity objection may be enough to sink a given measure, as other dimensions of equity may have been adequately addressed. Recall that, when they arise, equity concerns often pit one type of equity against another. While measure proponents typically seek to assuage equity concerns by returning some flexible funds to local jurisdictions to be used at their discretion, supermajority support may necessarily rest on some groups or locations receiving less than what they consider their “fair share.”

Third, transportation investments are almost always made in service of multiple policy goals, and equity concerns are typically presented in the context of achieving or hindering these goals. Yet we were not able to determine how such goals (“Measure X will reduce traffic congestion”) interacted with equity claims about them (“Our part of the county has to wait too long for our congestion relief project”).

Fourth, support for public finance measures in general, and transportation LOSTs in particular, depends on many factors beyond equity, including past

transportation investments, the perceived severity of the transportation problems to be addressed, faith in local institutions responsible for transportation, and so on, in addition to more standard measures of elections and voter behavior, such as partisanship, turnout, and ballot composition that resources did not permit us to collect and analyze for the 38 ballot measures considered here.

Argumentation and Debate

While all of the LOST measures analyzed asked voters to raise their sales tax to support transportation expenditures, the expenditure plans presented in ballot arguments varied so substantially from one measure to the next that we consider them to be largely independent of one another. Despite their heterogeneity, we observed remarkable similarity in both tone and the substance of the arguments (“it’s unfair to this part of the county,” “too much/too little to public transit/highways,” etc.).

We observed a rhetorical divide between the ways measure supporters and opponents confronted potential equity issues raised by LOSTs. Supporting arguments praised the measures for providing funding to meet the many transportation needs of county residents; a minority of them touched on equity issues to preemptively posit that equity is well-addressed. This was often done subtly, and certain words or phrases recur in many supporting arguments: “affordable” is used to preempt concerns about income equity, “local” and “balance” are used to signal a fair geographical distribution, “balance” and “choice” often preface discussions of funding distributions among competing modes, and the word “every” is frequently used to present the measure as inclusive from all perspectives of equity. This careful and consistent use of terminology speaks to the daunting challenge for supporters who seek to pre-empt equity criticisms by opponents, but without explicitly raising equity questions.

We also found two distinct rhetorical strategies in ballot argument equity discussions. Some equity arguments attempted to persuade voters using statistics and claims regarding probable policy outcomes, such as by comparing the proposed modal funding distribution to current modal travel volumes. Other ballot arguments took a more visceral, rhetorical approach, appealing to the emotions or specific group identities of voters. Bus transport in particular draws the ire of measure opponents, while rail transit is frequently dismissed by opponents as an expensive means of providing transportation only for the wealthy. Both sides used rhetorical cues to garner support for or opposition against measures. Measure supporters, for example, noted benefits for disadvantaged groups toward whom most voters are sympathetic, particularly seniors.

Place Specificity Guides Debates over Modal Investment

Ballot arguments tend to reflect a county's existing transportation system, travel patterns, and local political economy. These establish the local context underpinning LOST measure arguments. With respect to mode, opponents frequently argued that the proposed distribution of funding among modes was inequitable because it was out of proportion with modal usage. County transit systems differ in their extent and needs, and arguments raised in measures consistently reflect whether the county is primarily urban, suburban, or rural—with urban counties most likely to have larger transit systems that include rail. This results in greater variation in equity debates in urban settings where more modes compete for money. It may be that disproportionate funding of public transit in urban areas is a concession to equity concerns: the arguments proffered in multiple measures make clear the perceived connection between low income residents and special interest population groups (such as seniors, disabled, and students) and the need for public transit access. It is important to note, however, that none of the ballot arguments reference the benefits or disparate burden of the sales tax measure of the proposed projects on minority communities.

Suburban counties are more likely to focus debates on funding transit modes, including commuter rail, and suburban *opponents* are more likely to include negative rhetoric toward transit investment. Rural counties are less likely to debate modal equity, as they are less likely to have transit service. Dedicating more funding to automobile infrastructure, rural counties are more likely to frame geographic equity debates between funding regional or local road projects (Crabbe et al. 2005).⁷

LOST opponents frequently target proposals for rail transit investment by raising a variety of inherently intertwined equity concerns. Rail is spatially fixed, requires large capital investment, and cannot easily be adapted to spatial changes in travel patterns over time. Thus, rail investment can lead to concerns not only over modal equity but also income and geographic equity. Frequently citing the relatively low percentage of trips taken by rail, opponents in many counties argued that the benefits of rail transit do not justify the costs, and that rail passengers would require significant subsidies. Some point to buses as a comparatively inexpensive alternative to rail transit, but it is not clear that these arguments reflect a genuine desire to see more tax revenue go to bus service or whether such arguments are a tactic to persuade constituents to vote against proposed rail expenditures to free up funding for street and highway investments.

Some supporters of measures are “aspirational” in that they seek to promote long-term objectives like increasing bikeways, new transit routes, and

transit oriented development. Opponents, by contrast, often argue for investments that reflect current travel patterns and population distributions, and the importance of realistically preparing for evolving transportation needs. Opponents often express concern about financially burdening future generations with sales taxes to pay for projects today; yet, the political science literature suggests that most voters are not motivated by long-term considerations but rather the near-term effects of the proposed (Jacobs 2011).

Suggestions for Further Research

This analysis not only allowed us to evaluate the role of equity in the arguments proffered by supporters and opponents of LOST measures, but it also raises additional questions about this now entrenched form of ballot box planning. First, how accurately do ballot arguments reflect the content of measure expenditure plans? Second, do ballot arguments that focus on potential geographic equity issues have more or less geographically balanced lists of investment than measures that underplay equity concerns? After reading many ballot arguments, it appears plausible that some ballot arguments advance arguments thought to appeal to voters whether or not they in fact align with a measure's expenditure plan. And finally, because LOST ordinances are often crafted with varying degrees of flexibility to enable planners and public officials to adjust project scope, timing, and even location to reflect changing conditions over the typical 30-year sales tax lifespan, it is possible that arguments that accurately characterize proposed expenditure plans may not reflect actual project delivery over the life of the sales tax. To better inform debates surrounding the equity implications of LOST measures, further research is needed into whether the projects that promise to deliver equity across delineated dimensions actually do so over the long term.

Conclusion

The regressivity of sales taxes generally, and in LOST measures in particular, are frequently cited as a principal equity concern by scholars (Dill, Goldman, and Wachs 1999; Schweitzer and Taylor 2008), but we found that, in practice, equity is rarely viewed through this, or any single lens. Instead, equity with respect to LOSTs is more commonly constructed across four planes: income, geography, travel mode, and time. While these four equity issues were frequently raised in the 38 LOST measure ballot arguments examined (see Table 1), they were rarely, if ever, the primary focus of arguments for and against LOST measures.

Nevertheless, equity arguments offer insights on broader transportation finance and policy debates. Specifically, equity is more often raised by measure opponents, and the issues debated tend to be relatively specific regarding the burdens on and benefits to classes of people, geographies, and transportation modes. When raised in supporters' arguments, by contrast, equity is most often addressed via general, even vague, assurances that the proposed measure is fair, balanced, and offers something for everyone.

With respect to public transit, the equity debates point to a fundamental tension in proposals to tax all residents to fund a service—public transit—used by a fraction of residents. One way has been to promote transit as a means to achieve “lofty goals, including congestion reduction, economic development, aesthetics, sustainability” in addition to increasing mobility among low-income and disabled travelers (Manville and Cummins 2015; Taylor and Morris 2015). But achieving such lofty goals, many of which may conflict with one another, can require both an incompatible set of projects (e.g., improved local bus service, new rail transit lines, nighttime service, express service, and so on) and promises (cleaner air, reduced congestion) that transit agencies will be hard-pressed to deliver. As a result, LOST measures that embody multiple conflicting goals often give rise to equity debates.⁸

In addition to highlighting this core tension in transportation finance, equity issues raised in ballot arguments reveal the importance of public accountability in advancing policy agendas. For example, many measure campaigns have promised reduced congestion as a key goal of LOST-funded projects (see, for example, Los Angeles County Measure M 2016). But the effect of LOST measures on traffic congestion is difficult to gauge, particularly in growing areas where travel is on the rise. With respect to the traffic-easing effects of new rail lines, research shows that new sales tax-funded rail lines do not reduce congestion on adjacent highways, even when they increase transit ridership. Because congestion relief is far from assured by LOST measures, supporters of these measures risk “crying wolf” too often, thereby jading voters to such messaging in the future (Giuliano, Chakrabarti, and Rhoads 2016). So while public accountability over what gets built is increasingly embedded into LOST expenditure plans (Albrecht et al. 2017), no LOST measure can guarantee any of the travel outcomes promised by proponents.

Finally, because the majority of LOSTs sunset, and because LOST revenues now play a central role in transportation finance in many places (Goldman 2003), public officials will need to repeatedly persuade voters to support new and renewed taxes for transportation in the years ahead—the fairness of which will continue to be debated.

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Notes

1. This figure is equivalent to \$4.5 billion in 2017 dollars; however, the amount of revenue that LOSTs generate per year is likely now higher as new measures have been enacted since 2010. Unfortunately, no reliable updated figure on current LOST revenues in California is available.
2. This research was part of a larger examination of potential equity issues in LOST funding situated within a comprehensive literature review transportation finance equity (Albrecht et al. 2017).
3. The remaining 12 other measures were divided between multiple other uses.
4. Measures also include spending on “active” modes (bicycle, pedestrian, and complete streets initiatives), as well as paratransit spending on services specifically for seniors or disabled riders, but the spending on these is relatively small, and they do not feature prominently in ballot arguments.
5. Quotations cited in this article from ballot arguments include original emphases and grammatical errors to accurately convey the tone and manner in which the authors of them addressed voters.
6. Note that the table excludes supporting arguments we described as “general equity,” which seek to preemptively assure voters that the measure is equitable across all dimensions.
7. The comparatively few ballot arguments in rural counties often do not raise any of the equity issues we discuss in this research. Instead, they often focus on whether the county is receiving its fair share of state gas tax revenues and whether this funding is being properly invested by county transportation agencies. In these counties, supporters ask not what the proposed LOST expenditure plan should look like, but whether county transportation needs warrant an increase in sales tax at all.
8. For example, commuter rail lines (such as proposed in Orange County Measure M2, 2016 and Sacramento Measure B, 2016) have been touted as a geographically equitable way to reduce traffic congestion by encouraging more suburban commuters to ride the train to work. At the same time, if one believes that transit

should provide mobility for those too young, old, disabled, or poor to drive, investing in expensive, capital-intensive commuter rail service could be seen as inequitable with both income equity and modal equity (bus vs. rail) perspectives.

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