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Planning and Policymaking for Transit-Oriented Development, Transit, and Active Transport in California Cities

March 2020

A Research Report from the National Center
for Sustainable Transportation

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National Center
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A National Center for Sustainable Transportation Research Report

March 2020

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Planning and Policymaking for Transit-Oriented Development, Transit, and Active Transport in California Cities

EXECUTIVE SUMMARY

This report provides research findings from the first year of a two-year research project on patterns of local policymaking in California to support transit-oriented development (TOD), transit, and active transport. The project aims to assess motivations, perceived obstacles, and priorities for development near transit, in relation to patterns of local policy adoption, from the perspective of city planners in the state's four largest regions, namely the San Francisco Bay, Los Angeles, San Diego, and Sacramento metropolitan areas.

This first-stage report discusses research and policy context that helped inform the project methodology, presents findings from analysis of results from our on-line survey of city planning directors administered in the spring of 2019, and presents two case studies of TOD policymaking in urban central cities, namely Los Angeles and Sacramento. We also describe a sampling methodology for conducting case studies of TOD policymaking during the upcoming second phase of the project, based on findings from the first year of our research.

Policy context

In recent years, California has been a leader in supporting sustainable development. State policymakers have adopted multiple programs and policies to promote environmentally and economically efficient development patterns, often calling for support for TOD, or, in other words, development located near high-quality transit access. Research indicates that compact, mixed-use, mixed-income development located near transit can serve to reduce driving and associated harmful emissions, meaning TOD could help support state sustainability goals. In addition to environmental benefits, other potential, demonstrated benefits of TOD include private and public cost savings, and public health and safety improvements.

Many localities in California also support TOD goals, for reasons that include revitalization of downtown areas, mobility and accessibility improvements for residents, and provision of workforce housing. However, despite touted public and private benefits from TOD, such development has often been challenging to achieve in practice. Localities face various obstacles including market, regulatory, financial, political, and institutional hurdles that make TOD planning more challenging than planning for development in “greenfields” locations at the edge of urbanized areas. Now is a critical time to consider which planning and policy “packages” can be most effective in inducing TOD, and this research project helps address that question.

Survey findings and analysis

We surveyed city planning directors in the state's four largest regions between May and July, 2019, achieving a response rate of 44% from cities that are roughly representative of all cities in

the four regions on key characteristics of interest, including regional location, share of city land within one-quarter mile of high-quality transit (HQT) access, city population size, activity density (resident population plus workers in the city), jobs-housing balance, median income, racial/ethnic make-up, and political leanings (based on voting patterns).

Overall, the survey findings are encouraging, with 66% of respondent cities indicating they have adopted policies, programs, and plans to support TOD, and nearly as high a share with adopted policies to support transit use. Substantial complexity in TOD policymaking is also evident in the findings, as motivations, perceived barriers, and policy choices to support TOD are quite varied among cities, and few city characteristics that we measured proved to be simple explanatory factors in distinguishing patterns of city policymaking.

The motivation that survey respondents rated most often as being “very important” to their city’s elected leaders in adopting TOD policies and programs is improving community revitalization/livability (rated very important by 71% of respondents), followed by improving mobility/accessibility (63%), and then providing housing—both affordable housing and housing more generally, rated as very important by 60% and 58% of respondents, respectively. The high share of cities that rank mobility/accessibility as a very important motivation indicates that local elected leaders are aware of the strong inter-connection that exists between land use patterns and transportation behavior. Among the city characteristics we tested, Democratic voter share was a significant positive predictor of mobility/accessibility motivation, after controlling for all the other factors, while racial/ethnic diversity was significantly negatively associated. Housing-related motivations for TOD policy were also significantly associated with liberal political leanings of city residents, after controlling for the other factors we studied.

The factor cited most frequently by survey respondents as a “major obstacle” to TOD was lack of vacant land, followed by difficulty in assembling land parcels, inadequate frequency of transit service, inadequate transit facilities, and then resident concerns or opposition. Resident opposition (associated with “NIMBYism”) and lack of market interest were less likely to be ranked as major obstacles than some factors more directly under the control of public decision-makers, in particular, inadequate provision of supporting infrastructure and transit service, and legal/fiscal/planning capacity to assemble land parcels. Higher overall motivation for TOD policymaking (across multiple TOD goals) was associated with lower perception of obstacles, and also with liberal political leanings among city residents, reinforcing a continuing thread in our findings of a discernible association between political ideology, motivation to promote TOD, and in turn propensity to adopt TOD policies, programs, and plans.

The most commonly employed strategy to promote TOD, according to respondents, among a list of 22 regulatory, planning, and finance measures presented in the survey, was to provide a density bonus for affordable housing development (done by 92% of cities, and required by the state’s density bonus law). The choice to instead upzone near transit on a systematic basis (rather than case-by-case), was somewhat less popular among respondent cities, with 65% having done so. The likelihood of a city having upzoned systematically was significantly associated with mobility/accessibility and livability motivations for adopting TOD policies,

underscoring that some cities are making a “transportation-land use connection” in their policy choices.

The second most commonly used TOD strategy was mixed-use zoning, for example through a form-based code; three quarters (75%) of respondent cities have implemented this strategy. The third most commonly used strategy was adoption of Specific Plans; 70% of respondent cities have adopted at least one Specific Plan to support TOD. The fourth most commonly used strategy was to reduce parking requirements for development near transit, with 70% of respondent cities having done so.

The fifth and sixth most popular strategies relate to compliance with the California Environmental Quality Act (CEQA), which requires that all projects seeking development approval be analyzed, and if feasible, mitigated for their negative environmental impacts. Among respondent cities, 55% employ CEQA “tiering” from Specific Plans, enabling projects evaluated as part of an area plan (Specific Plan) to be approved with reduced environmental review. Meanwhile, 53% of respondent cities also utilize other mechanisms provided in state law for streamlining CEQA review of infill projects. Thus, more than half of cities utilize CEQA streamlining options, but notably, a substantially smaller share of cities (37%) have worked to facilitate permit streamlining in TOD zones in other ways, so as to expedite approval.

Finally, the seventh and eighth most popular strategies cited by respondents aim to encourage affordable housing, namely adopting development impact fees for affordable housing (with 49% of respondent cities having done so), and adopting an inclusionary housing ordinance (requiring provision of a certain number of affordable units in a residential development, or payment of an in-lieu fee), with 43% of respondent cities having adopted this policy.

We asked survey respondents how important they considered a policy to be for achieving their city’s TOD goals, if their city had adopted it. Zoning policies are considered most important—both mixed use zoning and upzoning—followed by adoption of Specific Plans and CEQA tiering from Specific Plans. Policy adoption rates do not necessarily match perceived importance. In particular, a marked discrepancy was evident between the adoption rate for density bonuses (92%) and the perceived importance of this policy for achieving city TOD goals (with 46% of respondents indicating it is “very important” for achieving TOD goals). The reverse was true for some other policy measures, for which perceived importance among respondent cities was higher than the adoption rate, suggesting that these measures may be challenging to adopt in spite of potential impact. This discrepancy was evident for upzoning, permit streamlining in TOD zones, affordable housing subsidies, pedestrian/bicycle overlay zones, parking pricing, and transportation development fees that are lowered in TOD zones, among measures evaluated.

Our survey included a series of questions relating to the adoption in 2013 of Senate Bill (SB) 743, which re-framed analysis required under CEQA of transportation-related impacts of development projects. Whereas prior to SB 743, the most commonly used standard for analyzing transportation impacts under CEQA had been to assess impacts of development upon automobile “level of service” (LOS), or in other words, on traffic delay, SB 743 resulted in state guidelines recommending analysis of impacts of development on vehicle miles traveled (VMT)

rather than on LOS. More than half (53%) of survey respondents said their city will employ both VMT and LOS standards and metrics for CEQA review, and another 27% said they will use “VMT, LOS, and other” metrics. We also asked about the potential impact of SB 743 on locally approved development impact fees. Among respondent cities, 68% have adopted development impact fees for transportation, three-quarters of which fund not just roadways but other transportation modes. A small share of cities (14%) exempts certain project types, and/or imposes a lower impact fee in areas near transit, recognizing that TOD can reduce the need to drive relative to projects in less transit-friendly locations. About one-third (36%) of respondents indicated their city either has revised or will revise its impact fees to align with SB 743, while 43% indicated they may do so. Thus, the majority of California cities are attempting to straddle and combine VMT and LOS standards and metrics moving forward, with potentially far-reaching consequences for transportation planning in the state.

State and regionally administered programs have also been influential. Considering the relative influence/importance of a number of state and regional programs and policies in influencing TOD objectives, survey respondents indicated that the Regional Housing Needs Assessment (RHNA) process, by which regional transportation agencies allocate identified housing need at all income levels among localities, is most important. We also asked about available grant programs; half or more of survey respondent cities (among those with policies to promote TOD/transit/active transport) have applied for state or regional planning grants, and the beneficiaries indicate the grants have been very important in helping achieve TOD goals. More than half (52%) of all survey respondents indicated their city has officially designated TOD zones, and of these respondents, 67% also indicated that their TOD zones coincide with priority growth zones designated in regional plans developed by Metropolitan Planning Organizations.

In sum, we find widespread local policymaking to support TOD, transit, and active transport (AT), as well as significant links made with state and regional programs to support TOD. However, great diversity and complexity are also evident. Few persistent patterns were evident in the data; indeed, correlations among propensity to adopt each of the various strategies we investigated were generally low, and factors (city characteristics, motivations, and perceived barriers to TOD) found to be significantly associated with adoption rates for each strategy type varied substantially among the types analyzed.

Connecting the survey findings to case study analysis in the next research phase

We conducted two case studies as a foray into our second year of research. Our Los Angeles case study suggests that this city exemplifies much of the promise and also perils of TOD policymaking. Having gained massive voter approval for recent sales tax measures that increase funds for transit and active transport, the city has been experiencing conflict and controversy in some locales as the new funds are being expended for certain projects such as bike lanes that have provoked objections from nearby residents. Gaining approval for adding density in single-family neighborhoods in Los Angeles also presents a continuing challenge.

Meanwhile, lower-density Sacramento has not experienced the same degree of contention over TOD policy implementation, and the city has been progressively strengthening its TOD policies.

Still, Sacramento faces significant obstacles of its own in the form of costly infrastructure deficits that must be overcome in TOD zones. For this reason, devising effective finance strategies remains a challenge.

Our next research phase will build on these results to further explore these dynamics, to learn more about how cities in California are crafting multi-faceted policy packages responsive to local conditions and constraints. Through additional case studies, we will further explore dynamics seen in our survey analysis, such as the significant association between mobility/accessibility motivation for TOD policymaking, and high upzoning adoption rates. Given the complexity of our survey findings, qualitative case study research is an appropriate method for further investigation of such complicated policy terrain.

Chapter 1. Introduction

In recent years, California state policymakers have adopted multiple programs and policies aimed at promoting environmentally and economically efficient development patterns, often through support for transit-oriented development (TOD), or, in other words, development located near high-quality transit access. California state policies that support TOD include Senate Bill (SB) 375, adopted in 2008, which calls for integrated regional-local planning for transportation and land use to support efficient development patterns, and SB 743, adopted in 2013, which re-orientes required environmental review of transportation impacts of development projects toward assessment of impacts on driving (on vehicle miles traveled (VMT)). Many localities in California also support TOD goals, for reasons that include revitalization of downtown areas, mobility and accessibility improvements for residents, and provision of workforce housing.

However, despite touted public and private benefits from TOD, such development has often been challenging to achieve in practice. Localities face various obstacles including market, regulatory, financial, political, and institutional hurdles that make TOD planning more challenging than planning for development in “greenfields” locations at the edge of urbanized areas.

This two-year research project investigates policy, planning, and finance tools that California cities are using to support TOD, transit, and active transport (AT) goals and objectives. Through an online survey of city planning directors in the state’s four largest regions, analysis of survey findings in conjunction with public use data on city characteristics, interviews with planning and finance experts, and intensive case studies of selected cities, the project seeks to:

- Identify motivations of cities for adopting TOD-supportive policies;
- Identify priorities for types of development in TOD zones;
- Identify challenges and barriers encountered by cities in implementing TOD goals;
- Identify planning, regulatory, and finance techniques that cities employ to achieve TOD, transit, and AT benefits;
- Determine which planning, finance, and regulatory techniques cities consider to be most important, especially in combination, for achieving TOD goals, and why; and
- Evaluate how answers to these questions vary depending on built-environment characteristics that distinguish cities, including existing density of development, jobs-versus-housing predominance in the city, and transit service and connectivity levels, as well as socio-economic characteristics of city residents, such as racial/ethnic composition, median incomes, and voting patterns (political leaning).

This project contributes to existing research on transit-oriented development by providing a more extensive and intensive assessment of multi-faceted TOD policymaking across multiple local jurisdictions than has generally been undertaken in the past. Much work has been conducted in the field of transportation-land use economics examining the interplay of built-environment (land use) factors in influencing travel outcomes (for example, investigating how

density, mix of uses, and streetscape design in different neighborhoods is associated with the propensity to drive or use an alternative travel mode, to access desirable destinations). A significant amount of practitioner and academic research also has investigated practical strategies that local governments employ to promote transit-oriented development. Most of this practice-oriented research is based on case studies conducted in small numbers of locations. Academic research has also investigated individual TOD financing and regulatory techniques, such as the prevalence of adoption of development impact fees or inclusionary housing ordinances, in different U.S. states and across different community types. Those studies, like ours, relied in many cases on survey research.

However, few previous studies have combined broad-based investigation of multiple facets of TOD policymaking, based on survey research, with intensive case study analysis, and this combination is a hallmark of our project. We have completed the survey research component, through which we have gathered a wealth of broad-based information on local TOD policymaking in California. We have analyzed the survey findings in relation to key characteristics of interest that we measured to distinguish cities, and we have evaluated how patterns of local policymaking connect to state and regional policies and programs to support TOD, from the perspective of our survey respondents.

This report provides results from work completed during the first year of the project. It can be considered as the first installment of the final report for the entire project. The report provides the following: a literature review and assessment of state and regional sustainable development policies in California which informed development of our research methodology; results from quantitative analysis of findings from our survey of city planning directors; and two case studies of TOD policymaking in California cities, namely Los Angeles and Sacramento.

While we have developed useful findings from our survey analysis, survey research entails a trade-off for a complex subject such as TOD policymaking. It is difficult to explore many dynamics of policymaking using the limited set of questions that can be included in a short survey. For this reason, the second year of this research project will focus on intensive case studies. This will provide a complementary follow-on allowing for deeper investigation of how and why localities put together policy packages to support TOD. In turn, the survey phase just completed has provided a framework for the upcoming phase. We will use our survey findings and analysis as a basis for developing a systematic methodology for identifying a sample of cities for case study investigation during the upcoming phase of the project.

This report proceeds as follows. The next chapter provides our literature review on TOD policymaking and discussion of state- and regional-level policies and programs in California that have been adopted to support TOD. We used this assessment to help inform the development of our survey instrument. The third chapter provides our analysis of results from our survey of city planning directors in the state's four largest regions. The fourth chapter provides preliminary case study analysis of Los Angeles and Sacramento, and the final chapter provides conclusions.

Chapter 2. Setting the context for our research

TOD benefits

Market interest in TOD¹ and multi-family housing options has grown during the past two decades in California (HCD, 2017). Factors explaining this trend include lower housing costs of more compact development, mobility/accessibility benefits available in many built-up urban areas, and demographic shifts that favor more compact homes.

TOD has been associated with various public and private benefits that can accrue from a reduced need to drive among residents in TOD zones, and lower land consumption associated with more compact development. TOD benefits can include lower greenhouse gas (GHG) emissions, improved transport and energy efficiency, air and water quality, public health and safety, livability of neighborhoods, open space conservation, and private and public cost savings for transportation (Fang and Volker, 2017). These benefits may be facilitated if more compact, mixed-use, infill development and multi-modal transport improvements allow people to drive less.

Supportive state and regional policies and programs

California's ambitious climate policy goals, first adopted in 2006 and then extended and reinforced in 2016, have catalyzed many state policies and programs to support TOD as a means for reducing VMT and associated GHGs. To reduce VMT, a key policy measure is SB 375, adopted in 2008, which calls for coordinated regional-local planning for transportation and land use within metropolitan regions, in order to achieve more efficient development patterns. SB 375 imposes a mandate for achieving GHG reduction targets through regional transportation investment plans developed by Metropolitan Planning Organizations (MPOs), which are federally-mandated transportation planning agencies in the state's urban regions. SB 375 combines the GHG reduction mandate with a requirement that MPO planning assumptions be consistent with local government land use plans for accommodating housing at all income levels, required under the state's Regional Housing Needs Assessment (RHNA) process for allocating "fair share" housing need among all local jurisdictions. MPO plans developed after

¹ This project defines TOD zones as local land area located within one-quarter mile of high-quality transit (HQT) access. This definition was based on data specification from a dataset we utilized for determining access to high-quality transit. More specifically, we used data produced by Professor Paul Ong and colleagues at UCLA, for a research project conducted in 2018 for the California Department of Transportation (Caltrans) called *Developing Statewide Sustainable-Communities Strategies Monitoring System for Jobs, Housing, and Commutes*. Professor Ong's project defined high quality transit as any existing transit rail station, or a terminal served by a ferry system, or a location with bus service maintaining average headways of 15 minutes or less during morning peak commute. For more information, see Chapter 3. Note that some state policies use a broader spatial measure of access to high-quality transit, for example state guidance for implementing Senate Bill 743 considers transit-proximate development as development occurring within one-half mile of access to high-quality transit.

passage of SB 375 have allocated more new housing and commercial development to designated TOD zones than pre-SB 375 plans had done (Barbour, 2016).

However, SB 375 does not mandate that local government plans and policies conform to regional plan goals, and for many years after the law was passed, few state programs provided concrete support to achieve the law's goals. The lack of supportive policies and programs for SB 375 was especially problematic given elimination by the state government in 2012 of local redevelopment authority, the primary means by which local governments had been funding downtown revitalization and affordable housing.

This situation of minimal state-level policy support for SB 375 changed in 2013 with passage of Senate Bill 743, which re-orient analysis and mitigation (remediation) of transportation impacts of development, required under the California Environmental Quality Act (CEQA), to focus on reducing VMT. Also in 2013, the state began funding California Climate Investments (CCI) programs on an ongoing basis using greenhouse gas cap-and-trade revenue. CCI programs provide competitive grants to locally initiated projects for housing, transit, and AT that are projected to help reduce GHG emissions.

The state government took further steps in 2017 to address mounting concerns about transportation and housing, adopting various policy measures that will influence development choices and options. State gasoline and diesel fuel taxes were increased through passage of SB 1, to provide \$5 billion annually in ongoing funds for transportation purposes, including for transit and AT, but also roadways. Meanwhile, concerned about housing affordability, state lawmakers also adopted a "package" of housing bills in 2017, including a \$4 billion housing bond measure be placed before voters (subsequently approved). Other adopted housing-related legislation stiffens enforcement of RHNA compliance, streamlines housing approval procedures, and extends inclusionary housing requirements to residential rental projects, among other objectives. In adopting these policy measures, the state government asserted a stronger role in prodding localities to support housing production.

One of the new housing laws, SB 35, requires ministerial (non-discretionary) development permit approval by localities, and exemption from CEQA review, for certain types of multi-family housing projects on urban infill sites in jurisdictions that have failed to meet their RHNA housing production targets. The law also stipulates that no parking requirements can be imposed on an SB 35-qualified development located within one half-mile of public transit. By strengthening RHNA enforcement and easing development approvals in TOD zones, SB 35 may bolster SB 375 objectives for directing new development to those zones. Another new law, SB 540, allows localities to identify Workforce Housing Opportunity Zones, in which, after adoption of a Specific Plan (local area plan) and associated environmental impact report, housing projects within plan boundaries are to be approved ministerially for a period of five years, without any additional review. Eligible plans must include minimum specified shares of housing units at affordable levels.

Meanwhile, state lawmakers have also worked to restore, in a limited fashion, local tax-increment financing authority lost with the demise of redevelopment power in 2012. (Tax-

increment authority allows implementing agencies to capture gains in property tax revenue (the “increment”) in a designated area, attributable (presumably) to investments made by the agency in the area; the gains can be used to pay off the cost of the investments.) SB 628, adopted in 2016, establishes Enhanced Infrastructure Financing Districts (EIFDs) as a new tool for localities to use to fund housing and transit priority projects, among other eligible purposes. EIFDs may not capture property tax revenue that would go to K–14 schools, as redevelopment agencies could do in the past, but nevertheless, EIFDs can engender new funds for purposes similar to redevelopment authorities, to the degree that affected taxing entities agree to cooperate in doing so. A similar provision, enacted through passage of Assembly Bill (AB) 2 in 2015, establishes Community Revitalization and Investment Authorities (CRIAs) as a tool for local governments to fund economic revitalization programs, including low- and moderate-income housing, in distressed areas, using tax-increment financing.

At the regional level, some of the state’s MPOs have also established programs to support TOD plans and projects, in order to help implement and achieve the MPOs’ regional plan objectives, developed under SB 375. The most innovative and well-funded of these programs is the San Francisco Bay Area MPO’s One Bay Area Grant (OBAG) program, launched in 2012, which funds transit station area planning, bicycle and pedestrian improvements, and other infrastructure needs in designated TOD zones across the region. The OBAG program criteria for distributing funds reward localities that have produced affordable housing in line with RHNA targets.

The San Diego Area MPO’s TransNet Smart Growth Incentive Program is a similar, if less well-funded program, first codified in 2004 through a regional half-cent sales tax measure authorized by voters to extend through 2048. Local jurisdictions apply to the program for funds for planning and capital investments in designated “smart growth” areas. Local housing goals comprise approximately 25% of the criteria used to determine which projects receive funding.

Thus, various state and regional policies and programs have been enacted to support TOD, transit, and AT goals and objectives for achieving more sustainable development. However, even if California policymakers support TOD in theory, the question arises how successful TOD policies have been in practice. The next section considers this question.

How feasible is TOD?

During the past two decades, market interest in transit-oriented infill development has risen in California, with multi-family housing units growing steadily in share among all housing units constructed statewide (HCD, 2017). Recent surveys of localities conducted by the Governor’s Office of Planning and Research (OPR) indicate that most responding jurisdictions address infill development in their General Plans (the document that identifies and governs each locality’s planning and development goals and policies), and they report using a variety of tools to support infill, including, in particular, density bonuses, coordination of environmental review, and reduced parking requirements (OPR, *2018 Annual Survey Results*).

Nevertheless, TOD has proved difficult to achieve in practice on a wide-scale basis using conventional, traditional development planning and finance techniques (Carlton and Fleissig,

2014). Localities point to barriers to achieving infill development, in particular, lack of adequate infrastructure and transit funding, and parcel assembly problems (OPR, 2012). One research study for the San Francisco Bay Area MPO's regional plan concluded that infill growth targets in the plan would be hard to achieve without further policy action at multiple levels (EPS, 2015). This situation helps explain why the California Air Resources Board (CARB), tasked with administering the state's climate policies, including SB 375, recently concluded that development patterns in the state since adoption of SB 375 run counter to achieving the law's objectives (CARB, 2018).

In general, TOD involves more complicated planning, finance, and regulatory techniques, and entails higher costs for land and construction, than greenfields development (Fleissig and Carlton, 2009). TOD financing and planning often presents city leaders with complicated trade-offs to negotiate among policy goals and stakeholder interests, for example, in considering how to keep housing affordable in TOD zones while also upgrading infrastructure to support market-rate development. TOD policymaking shines a lens on the opportunities as well as challenges of the classic "3 E's" prism of sustainable development—the aim to integrate and simultaneously maximize benefits for social equity (e.g., through affordable housing provision), benefits for the environment (e.g., by inducing greater use of transit and AT, and reducing the need to drive), and benefits for economic wellbeing (e.g., through jobs and housing development).

A review of literature on TOD implementation points to six inter-related factors as potentially posing the most significant challenges and opportunities: physical capacity for new development, based on current zoning and developable land available; infrastructure needs, opportunities, and deficits in TOD zones; market feasibility in connection to costs of development; financing tools available for public benefits to support TOD; planning and regulatory complexities for TOD zones; and public concerns about new development (see EPS, 2015, for a similar categorization). These issues are now considered each in turn.

Physical and infrastructure challenges in TOD zones

Research indicates that substantial physical capacity may exist in California's metropolitan areas to absorb new infill development at densities matching the surrounding area (Landis and Hood, 2005). However, market feasibility can nevertheless be challenging due to high costs of construction. Higher-intensity housing can be more costly to construct than low-density housing more prevalent in greenfields areas (California Tax Credit Allocation Committee et al., 2014). High development costs in infill zones can trace to high land costs, remediation costs for preparing land, construction costs for multi-story buildings, and costs for providing underground or podium parking that may be required for such projects. Another challenge in infill areas is difficulty in assembling land parcels when available parcels are small and/or non-contiguous or oddly shaped.

Research comparing public costs for infrastructure and services in infill areas versus costs in greenfields areas has produced somewhat mixed results. Some research indicates that public costs of supporting infill development may be lower, especially in the long run, in terms of ongoing maintenance and operation for public facilities and services, but infrastructure costs

can sometimes be higher in the short run if substantial upgrades are needed (for example, to replace an inadequate or outdated sewer line, if that necessitates ripping up the street) (Carruthers and Ulfarsson, 2003; Burchell et al., 2005; Smart Growth America, 2013; Anderson et al., 2015; EPS, 2014).

TOD financing mechanisms

Infrastructure for infill can be challenging to finance. The passage of Proposition 13 in 1978 severely curtailed local property tax rates and revenue in California, ushering in an era in which new development has widely been expected to “pay for itself” in terms of covering costs of needed infrastructure and public services (Fulton and Shigley, 2012). To support new construction in undeveloped “greenfields” areas, the post-Proposition 13 ethos translated to greater reliance by local governments on funding sources for public infrastructure derived directly from users of the infrastructure; these funding sources have included, in particular, user fees, development impact fees, and other exactions obtained from developers, businesses, and property owners (Raetz et al., 2019; EPS, 2014).

However, conventional approaches to infrastructure finance developed for greenfield areas can be more difficult to apply in infill areas. Public benefits may be difficult to monetize, and funding mechanisms rarely generate sufficient revenue for facility upgrades to pay for themselves (EPA, 2013). Development impact fees, which are one-time charges for new development, provide an example. By law, development impact fees must be assessed strictly based on a demonstrated “rational nexus” between the cost of infrastructure needed to support the new development and the level of fee imposed on a given property owner.² That premise translates more easily to improvements made for a new subdivision development—for example in assessing costs of providing new water and roadway facilities for the subdivision—than in a built-up urban context where existing infrastructure needs to be upgraded, and benefits would extend to both new and existing residents, complicating the nexus calculations. Nexus requirements mean that new development can only cover a portion of costs for addressing existing deficits in a community. To the degree that an infrastructure upgrade (to enhance transit access, for example) affects network connectivity and service provision beyond the particular TOD zone, nexus calculations can become even more complicated.

Another finance mechanism commonly used to provide infrastructure and facilities for new greenfield subdivision development has been the Community Facilities District (CFD), also called Mello-Roos district (in California). Local governments establish a CFD as a special tax district to finance specific public facilities and services needed by a particular area. A CFD must be approved by a vote of either property owners (voting by acre if fewer than twelve), or of at least two-thirds of registered voters within the district. For greenfields development, this voting requirement is not onerous, especially when few property owners and residents currently live in the area. The voting requirements are more complicated in infill zones. But in spite of the

² According to California’s Mitigation Fee Act, along with state and federal court rulings, the fees must be adopted based on demonstrated findings of a “nexus” (or reasonable relationship) between the development paying the fee, the size of the fee, and the use of fee revenues.

greater organizational challenge in infill zones, cities are becoming increasingly interested in using the CFD mechanism in that context (Anderson et al., 2015).

TOD financing trade-offs and tensions

Financing TOD infrastructure can present city leaders with complicated trade-offs to negotiate among policy goals. Although much research demonstrates potential for synergistic benefits from co-locating compact housing and jobs near transit and AT access, if a city seeks to improve multiple aspects of a TOD zone all at once, financing can be a challenge.

The aim to simultaneously improve affordable housing and transit/AT access in a TOD zone provides a good example of TOD finance challenges. On the one hand, affordable housing and transit provision are mutually beneficial to co-locate for environmental and economic reasons, along with social equity reasons. Low-income households are demonstrated to utilize transit at higher rates than others (Chapple et al., 2017), and affordable housing can attract firms that seek a location attractive to their workforce. However, in considering how to fund both affordable housing and transit facilities and service, local policymakers must weigh and balance costs and benefits of funding strategies for both, within limits set by market feasibility for TOD in the city.

As an example, one option to improve transit and AT amenities in a TOD zone that a city might choose would be to impose a development impact fee on new development. Legally, fee levels need not be uniform throughout a city, and can be set to account for lower impacts (e.g., for transportation) in TOD zones. In this fashion, the fee can become an instrument for incentivizing development in TOD locations. Indeed, AB 3005, a California law adopted in 2008, requires that local agencies that impose transportation impact fees on housing developments in order to mitigate vehicular traffic impacts must reduce the impact fees for developments located within one-half mile of a transit station with direct access to the station, and that have convenience retail uses within one-half mile of the housing development, and that provide either the minimum number of parking spaces required by the local ordinance, or no more than one onsite parking space for zero to two bedroom units, and two onsite parking spaces for three or more bedroom units, whichever is less.

However, even an impact fee set at a lower level in a TOD zone may serve to dampen or discourage development (Ratez et al., 2019). Impact fees can be particularly onerous for affordable housing developers, who face high cost hurdles as it is, due to reduced revenues they can obtain from affordable units, as well as added risk, complexity, and delay tracing to the high number of funding sources that typically must be combined for such development, and extra costs often imposed for providing service and design amenities (Carlton and Fleissig, 2014).

To encourage affordable housing development along with the transit upgrade, the city could waive the transportation impact fee for developers of affordable housing; indeed, many cities do so. In that case, however, the associated costs of the needed infrastructure must be covered by citywide revenue sources, instead of just by other fee recipients. The city might look to other

financing methods, such as by proposing a city-wide bond measure for the purpose. For this approach to succeed, public officials would need to convince voters across the entire city to support the bond measure, even if many of them perceive no direct benefit from improvements in TOD zones (for example, if they live far away). The vote hurdle to pass a local bond measure is set high in California, generally at a two-thirds threshold.

If city-wide funding is politically infeasible to achieve, the city could seek to adopt a special tax or “benefit assessment district” (BID) applicable only to the TOD zone (or for any other designated sub-area in the jurisdiction). This approach might be more successful in targeting voters only in the zone, but it would also direct cost recovery back to the TOD zone alone, thereby making infill less likely to be produced. (A benefit assessment district assesses an annual charge to properties that benefit from a specific improvement; the technique is commonly used for lighting, landscaping, and streetscape improvements that benefit multiple properties.)

This discussion indicates how city policymakers and planners may face a complicated balancing act in considering how to finance TOD improvements.

Regulatory approaches in TOD zones

Cities can also use regulatory methods to support TOD. Examples include multi-use zoning, upzoning (allowing higher densities), imposing lower parking requirements for new developments near transit, and imposing design standards that promote pedestrian and bicycle access. Reducing parking minimums may be particularly appropriate for affordable housing located near transit, given high demonstrated rates of transit ridership among low-income households who live near transit (Belzer and Nemirow, 2015).

Cities can also use zoning to promote affordable housing, such as through “incentive zoning” that provides a density bonus for developers willing to build affordable. Indeed, a state law adopted in 1979 requires that localities adopt ordinances making density bonuses and other incentives, such as reduced parking requirements, available to developers who provide affordable units as part of a housing project. This sort of incentive zoning approach is effective mainly in TOD zones where market interest in development is already high, however (Thaden and Wang, 2017). Note that offering density bonuses and reduced parking requirements in a TOD zone only works as an effective incentive if the area has been under-zoned for density, and over-zoned for parking requirements, compared to market preferences.

A city might choose to impose mandatory requirements, rather than a voluntary incentive, for affordable housing production and preservation. Many California cities have adopted inclusionary housing ordinances, requiring developers to provide a certain percentage of affordable units (either on-site, off-site, and/or through payment of an in-lieu fee as an alternative compliance mechanism, if the city permits this option). In recent years, some localities have adopted affordable housing impact fees as an alternative to on-site housing affordability requirements; these fees are similar to transportation impact fees only they are directed toward affordable housing production instead. Cities generally impose these fees on

commercial development, establishing a nexus rationale based on the need to provide workforce housing.

A potential problem with such measures is that they may result in less housing production, even of affordable units, if fees or on-site requirements mean that developers cannot afford to produce enough for-profit units to defray the costs, or if developers can make a higher profit elsewhere. Many cities limit their impact fee levels not just so as to induce more development but also to ensure it is not diverted to competing neighboring jurisdictions.

Conditions of approval

In addition to direct regulatory constraints and costs imposed on development, permitting standards and planning procedures have also sometimes been implicated as cost factors for infill development in California. Many communities apply discretionary review requirements at multiple points in the development entitlement process, to address concerns about project design, contribution to public benefits, and other issues. Such review processes can add substantially to uncertainty and delay (California Tax Credit Allocation Committee et al., 2014; HCD, 2017).

Some research indicates that discretionary review procedures help explain why the development entitlement process (the time needed for a developer to obtain a building permit) takes about two and a half months longer, on average, in coastal communities in California than in the typical U.S. metropolitan area (seven months compared to four-and-a-half months) (Reid et al., 2016). Land use entitlement processing and environmental approvals for housing projects in California's ten largest cities took, on average, two and one-half years to complete during the period between 2004 and 2013 (LAO, 2015).

Thus, complicated permitting, as well financing, issues may impede development in TOD zones. Considering the situation overall, two expert TOD consultants noted that, "The latest generation of plans, policies, and entitlement processes for urban, walkable, and mixed-use TOD have burdened projects with extra costs compared to competing real estate investments" (Carlton and Fleissig, 2014, p. 10). These authors further contend that, "Zoning that requires idealized TOD may increase costs, dampen profits, and actually decrease the potential that TOD will be implemented" (Fleissig and Carlton, 2009, p. 21). Another consultant noted that, in his firm's experience, "soft costs", including entitlement costs for environmental clearance, discretionary review, and provision of public benefits through impact fees and similar payments required from development, are significantly higher (at 35 to 40 percent of the level of "hard" costs) for projects in the San Francisco Bay Area, compared to projects in Arizona and Texas, where soft costs are about 15 or 20 percent as high as hard costs (EPS, 2015).

Planning processes and public concerns in TOD zones

Finally, another cost factor for infill development arises in the form of the generally greater need, compared to greenfield development, to organize and manage public planning processes to address concerns and expectations among current residents. Ignoring resident concerns can

be consequential, if residents subsequently seek means to delay, alter, or even halt a project, such as by raising objections during the environmental review process required under CEQA.

Some research indicates that most CEQA complaints in the state are lodged against infill projects, often regarding traffic congestion impacts (Hernandez et al, 2015). Even as rising traffic congestion in built-up areas has led many Californians to lend support for enhancing non-auto modes (such as by voting for bond measures to fund transit and AT improvements), in practice these same residents may oppose practical steps to accomplish this objective near their own home, for example if street space is set to be re-allocated from car use to other modes (such as by introducing a bike path or transit-only lane) (Henderson, 2011).

Over the years, lawmakers have introduced various modifications to CEQA intended to facilitate streamlining of review requirements for infill projects, in order to reduce the potential for uncertainty and delay in the process. However, these provisions have been criticized as being generally too restrictive and confusing to have induced widespread change in practice by local government agencies (Hernandez et al, 2015; SCAG, n.d).

Increasingly, public concerns have been raised not just about impacts of new TOD development on public facilities like roadways, schools, and parks, but also effects on housing affordability. If new and/or renovated housing caters to an upscale, high-priced market segment, current residents living in more affordable units in the same TOD zone may fear gentrification and displacement. Research on housing supply constraints in California, as well as the basic economic logic of supply and demand, indicate that efforts to increase the state's overall supply of housing could help reduce overall housing prices (LAO, 2015; HCD, 2017). However, effects at the neighborhood scale are less straightforward. Recent research shows that neighborhoods with fixed-rail transit (i.e., TOD zones) in the San Francisco Bay and Los Angeles regions have experienced gentrification (influx of wealthier, more highly educated, and more white residents), but not always displacement (the loss of affordable housing or low-income households from the TOD zones) (Chapple et al., 2017). Residents of TOD zones are likely to benefit from improved mobility, neighborhood revitalization, reduced transportation costs, and other amenities that may spill over from new development, but in some cases disadvantaged groups can suffer adverse consequences, for example if development fails to bring appropriate housing and job opportunities, or if it results in gentrification that displaces low-income and minority residents.

TOD practitioners contend that effective planning processes must do more even than just address resident concerns. Effective TOD planning must also engage multiple public, private, and non-profit stakeholders at various scales (Carlton and Fleissig, 2014). This argument is based on how transportation-land use interactions play out in relation to transit ridership. High transit ridership has been shown to benefit from high development density (hence accessibility) located at both origin and destination points along transit lines (Cervero, 1998). Furthermore, transit and AT facilities benefit from co-location in densely developed areas, to produce synergies that can effectively draw people out of cars. Achieving these synergies can be important for gaining public acceptance for TOD; if dense development is constructed with no

transit and AT options located nearby, local traffic congestion may only increase. As one TOD practitioner team noted,

Cities...have learned that trip reduction is not simply a function of higher densities. By itself, higher densities only generate more traffic. Trip reduction is the outcome of a well-planned and coordinated package of [transportation demand management] TDM strategies including tighter parking supplies, charging market rates for on-street parking, the ready availability of high frequency transit that serves regional travel needs, last-mile services connecting to transit, and coordinated education and outreach services to teach people how to use alternatives to driving alone (Singleton and Lightbody, 2015, p. 6).

For these reasons, effective TOD planning processes need to transcend the local TOD zone level alone, so as to coordinate goals and strategies with neighboring jurisdictions located along shared transit corridors, and with regional transportation agencies (e.g., transit agencies and regional transportation planning agencies), to maximize livability benefits in a wider context (Fleissig and Carlton, 2009). Various institutional organizational disconnections make such coordinated planning difficult to achieve, however. For example, incompatible funding timelines and investment incentives of transit providers, on the one hand, and land developers, on the other, can hinder effective strategies (such as when federal government funding incentives induce transit agencies to build new stations in low-cost, low-density areas that suffer from lack of developer interest) (Fleissig and Carlton, 2009).

Summing up TOD challenges

These dilemmas of TOD policymaking show that it exemplifies fundamental challenges of sustainable development. TOD policy must effectively address policy objectives reflecting the classic “3 E’s” prism and balance costs and benefits at multiple scales. Residents of TOD zones sometimes question why they should tolerate new development that provides benefits at a wider scale (such as by helping decrease GHGs, measured regionally), but which also entails local costs (such as increased local traffic congestion or loss of views). Meanwhile, residents of outlying non-TOD areas may resist being asked to contribute to public improvements made in TOD zones.

Chapter 3. Survey findings on TOD/transit/AT policymaking

This chapter presents findings from an online survey of city planning directors that we developed and implemented in 2019 in California’s four largest metropolitan regions. Overall, the survey findings indicate high levels of TOD policymaking, but also a good deal of complexity, as motivations, perceived barriers, and policy choices to support TOD are quite varied among cities, and few measures of key city characteristics employed for analysis proved to be simple explanatory factors.

Survey details

We surveyed planning directors³ from May through July 2019, in all 333 cities located within the four largest metropolitan areas in California (namely the San Francisco Bay, Los Angeles, San Diego, and Sacramento metro areas). We received responses from 147, or 44%, of all cities in the four regions surveyed. Survey respondent cities were roughly representative of all cities in the four regions studied, when considering the key characteristics of interest that we used to evaluate and distinguish cities in our analysis, namely:

- Metropolitan region location⁴
- Level of high-quality transit (HQT) service coverage in 2017-18⁵
- Relative housing unit growth rate in HQT areas in the city from 2011 to 2014 versus the city-wide housing unit growth rate during the same period (i.e., percent point difference between housing unit growth in HQT areas versus city-wide)

³ We sent the survey to city planning directors or their equivalent, i.e., to the director of the city department responsible for planning functions. Recipients were able to pass the survey on to another staff person to complete.

⁴ We defined metropolitan region based on the jurisdictions of the Metropolitan Planning Organizations (MPOs) in the four regions, namely the Metropolitan Transportation Commission (MTC), in the 9-county San Francisco Bay area; the Southern California Association of Governments (SCAG), in the 6-county Los Angeles metropolitan area; the San Diego Association of Governments (SANDAG), in the single-county San Diego metropolitan area; and the Sacramento Area Council of Governments (SACOG), in the 6-county Sacramento area.

⁵ This measure and the next were calculated from data produced by Professor Paul Ong and colleagues at UCLA, for a research project conducted in 2018 for Caltrans called Developing Statewide Sustainable-Communities Strategies Monitoring System for Jobs, Housing, and Commutes. Professor Ong’s project dataset includes land area, housing, and jobs in 2010, and incremental job and housing growth from 2011 to 2014, measured at the Census block group level, as well as portion of block group land area located within one-quarter mile of high quality transit, defined as any existing transit rail station, or a terminal served by a ferry system, or a location with bus service maintaining average headways of 15 minutes or less during morning peak commute. Ong measured transit service levels using General Transit Feed Specification (GTFS) information obtained from 127 transit agencies in California, covering 97 percent of the unlinked passenger trips traveled statewide. Ong’s housing unit data were obtained from State Parcel Dataset Counts. For the analysis in this report, geographic correspondence data obtained from the Missouri Census Data Center were employed to develop aggregate estimates for HQT-related data measures at the city level, using Professor Ong’s block group-level data.

- City-wide housing unit growth rate from 2010 to 2017⁶
- City population size in 2017⁷
- Activity density (number of residents plus workers per square mile of land area) in 2017
- Jobs-housing balance in 2017
- Median income of residents in 2017
- City resident share comprised by people of color (not non-Hispanic white) in 2017
- City resident voter share that voted Democratic in the 2016 U.S. presidential election.⁸

Our survey sample was somewhat over-represented by cities with higher HQT coverage, especially when considering population-weighted results (meaning we received more survey responses from larger cities that have good HQT coverage). The survey sample was also slightly over-represented by very low and very high population cities, and by denser, higher-growth-rate, less wealthy, more liberal, and more ethnically diverse cities, compared to all cities in the regions studied.

Basic patterns of TOD and transit policy adoption

The survey employed two key gateway questions, presented at the start, to determine whether a respondent city has adopted plans, policies, or programs to support TOD and/or transit provision. Of the respondents, 97, or 66%, indicated that their city has adopted policies, plans, or programs to support TOD/transit/AT, and 78 respondents, or 53%, indicated that their city has adopted policies to expand transit facilities. Based on responses to these two gateway questions, respondents were then presented with either our full set of survey questions on TOD/transit/AT policymaking, or only a more limited set of questions presented to respondents from cities that have not adopted such policies.

We started our analysis by considering a simple question. Variations in TOD/transit/AT policymaking by city and region could be expected to reflect differences in HQT coverage, i.e., “higher transit” cities might reasonably be expected to have adopted more TOD and transit-related policies. Additionally, TOD/transit policymaking might be expected to reflect differences across the regions in their provision of networked transit service.

We found, however, that while the expected relationship between transit coverage and TOD policymaking is evident in the data, it was not strong. We found only a weak correlation between cities’ high-quality transit coverage (their HQT land shares) and their choice to adopt policies to support TOD and transit (based on city responses to our two gateway questions). This finding indicates that propensity to adopt TOD/transit policies is by no means just a simple function of the level of high-quality transit coverage in a given city.

⁶ This measure was calculated based on the difference between housing units measured in the 2010 US Census and the 2017 5-year American Community Survey (ACS).

⁷ Data used to construct the preceding measures were obtained from the US Census ACS 2017 5-year dataset.

⁸ Vote data was obtained from the California Secretary of State’s Office, and our variable was constructed as the share of all voters in the 2016 US presidential election that voted for Hillary Clinton.

Furthermore, we found that propensity to adopt TOD policies by region did not map neatly onto differences in high quality transit access by region. Comparing transit coverage by region, the Los Angeles area has the highest HQT coverage, followed by the San Diego area, then the San Francisco Bay Area, and finally the Sacramento area. Specifically, average city HQT land share for all cities in the Los Angeles region is 20% (21% in our sample of survey respondent cities, and 16% across all cities in the region when results are weighted for city land area). In the San Francisco Bay Area, the average HQT land share for all cities is 13% (11% for our survey sample, and 12% across all cities in the region when weighted for city land area). For the San Diego area, the overall average share is 17% (19% in our sample, and 16% for all cities weighted by land area). For the Sacramento area, the overall average share is 5% (6% in our survey sample, and 9% across all cities weighted by land area).

As can be seen in Figure 1, differences by region in average levels of TOD policymaking do not map neatly onto average HQT land shares for the cities in our sample. San Francisco Bay and San Diego area cities were most likely to have adopted TOD policies, programs, and plans, and Los Angeles area cities the least likely. However, considered in relation to average high-quality transit coverage in respondent cities by region, Sacramento area cities were by far the most likely to have adopted TOD policies, programs, and plans, followed by San Francisco Bay and San Diego area cities, and lastly by Los Angeles area cities. Indeed, although Los Angeles area cities have, on average, the highest transit coverage, they were also least likely to have adopted TOD policies, programs, and plans.

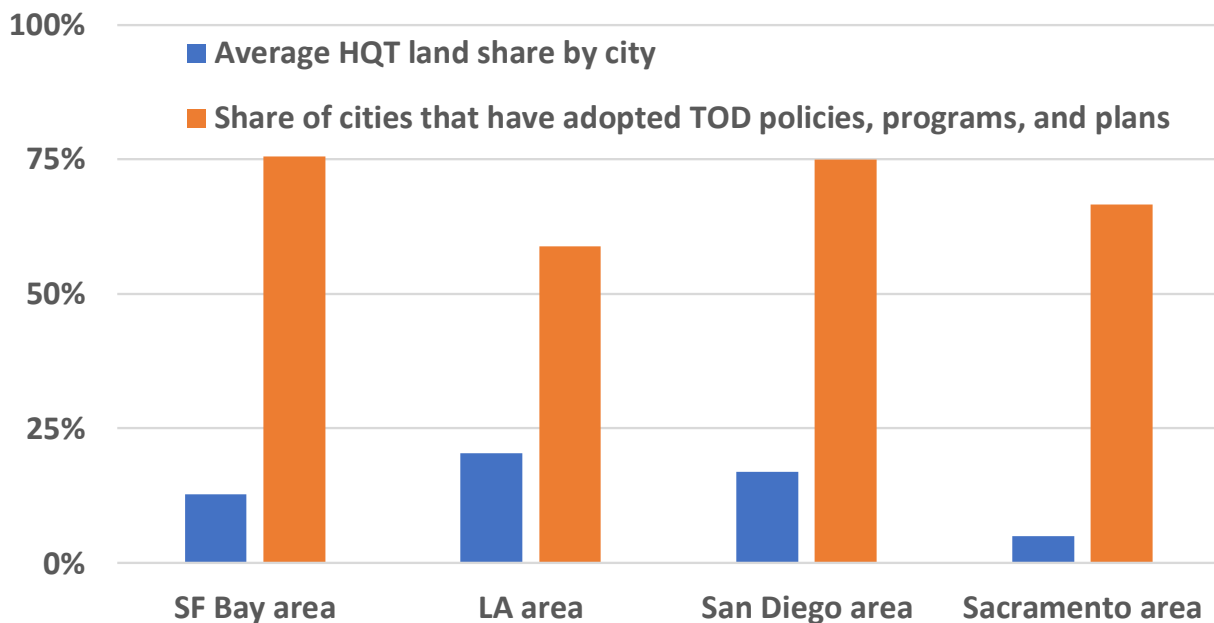


Figure 1. Comparison by region of average high-quality transit (HQT) land share by city, and share of cities that have adopted policies, programs, and plans to support TOD.

So if high-quality transit coverage does not adequately explain TOD/transit policymaking, can other factors distinguishing cities do so? Factors that we found to be statistically significantly

associated ($p < .10$) on a bi-variate basis with greater likelihood of TOD policymaking include larger population size, higher activity density, lower median incomes, and higher Democratic (i.e., more liberal) voting propensity of city residents. To tease out which factors were the strongest predictors, while controlling for the others, we conducted logistic regression analysis. Our results, presented in Table A1, indicate that larger city population size and lower city median income were the only significant predictors at probability $< .10$, when controlling for the other variables. This finding indicates that propensity to adopt TOD policies cannot be easily attributed to simple explanatory factors used in this analysis. (We used the same specifications of city characteristics for other regressions discussed in this chapter; see the Appendix A. Regression Tables that show regression results for data specifications).

What factors help predict whether cities have adopted policies, programs, and plans to promote transit provision, as opposed to TOD? On a bivariate basis, we found that city population size and lower median incomes were statistically significantly associated ($p < .10$) with likelihood of having done so. The same two variables were also statistically significant in logistic regression analysis, along with two others, namely jobs-housing balance—indicating that job-rich cities are more likely to have adopted transit-supportive policies—and location in the Los Angeles metro area (negatively associated, meaning that Los Angeles area cities are less likely than cities in the other regions to have done so) (see regression #2 in Table A1). The significant coefficient on the region location indicator shows that some factor(s) that varies by region, not captured in our suite of independent variables, helps explain different patterns of policymaking.

Our survey also asked whether cities have adopted policies, programs, and plans to support provision of bicycle and pedestrian facilities. Almost all (95%) of respondent cities indicated they have done so. This very high affirmative response rate no doubt reflects the passage in 2008 of the California Complete Streets Act, which requires that localities include complete streets policies, designed to safely accommodate users of all transportation modes, as part of their General Plans (the policy documents guiding long-range physical planning for each locality). Because bike/ped planning is nearly ubiquitous in our survey results, we did not scrutinize distinctions among cities on this policy/planning element.

Motivations, opportunities, obstacles, and priorities for local TOD/transit policymaking

After posing the initial gateway questions, our survey then went on to inquire about perspectives on TOD policymaking, asking about motivations, opportunities (market interest, specifically), obstacles, and priorities for types of development near transit. Questions on motivations and obstacles were presented to all survey respondents (not just the more limited number who indicated they have adopted TOD and/or transit policies). Additional questions about market interest in TOD, resident concern and opposition to TOD projects, and development priorities and infrastructure deficits near transit, were posed only to those survey respondents who answered affirmatively to our gateway questions (whether their city has adopted TOD and/or transit policies, programs, and plans).

Motivations

The motivation that survey respondents were most likely to rate as being “very important” to their city’s elected leaders in adopting TOD policies and programs was improving community revitalization/livability (rated very important by 71% of respondents), followed by improving mobility/accessibility (63%), and then providing housing – both affordable housing and housing more generally – rated very important by 60% and 58% of respondents, respectively (Figure 2). The finding that nearly two-thirds of cities ranked mobility/accessibility as very important indicates that local elected leaders are aware of the strong inter-connection that exists between land use patterns and transportation behavior, and that they think about land use as a mobility strategy. Given that many state-level sustainable development policies, including SB 375 and SB 743, seek to more strongly connect compact land use strategies to transit/AT strategies to induce more environmentally friendly mobility patterns, this finding should be encouraging to supporters of such policy approaches. At the same time, the finding suggests that many local leaders are concerned about mobility for city residents (e.g., due to rising traffic congestion), and they are seeking to promote “demand-side” solutions that improve accessibility and reduce the need to drive, rather than rely on providing new roadway capacity to increase travel speeds.

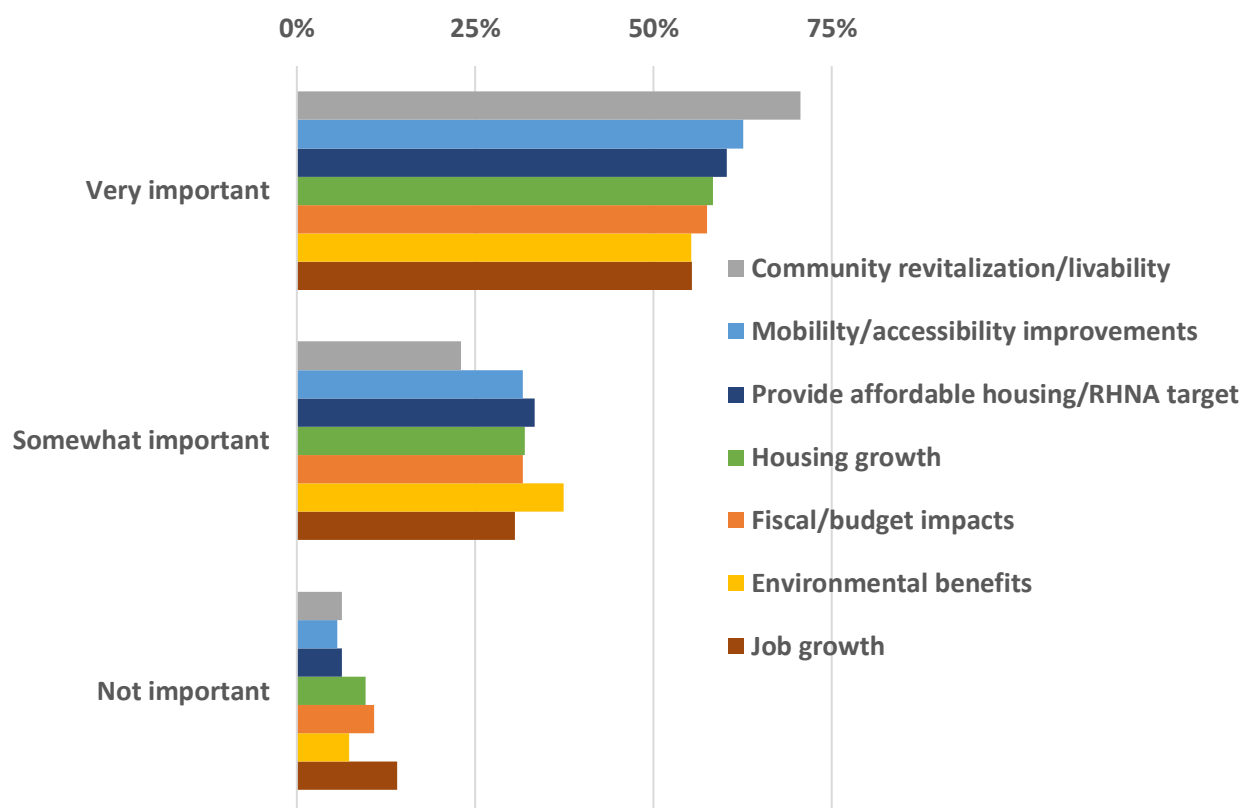


Figure 2. Motivations for adopting TOD policies. Survey question: Please indicate the importance to your city's elected leaders of the following motivations and objectives for adopting TOD policies and programs.

Using logistic regression, we investigated city characteristics associated with the propensity to rate mobility/accessibility as a “very important” motivation for TOD policies, according to respondents. We found that Democratic voter share in 2016 was significantly positively associated, and racial/ethnic diversity of city residents (percent non-white or Hispanic) was significantly negatively associated at $p < .10$, after controlling for all the others (see regression #3 in Table A1). The finding on political leanings indicates that ideological outlook is associated with attitudes toward development policy. Liberal-minded local elected officials are evidently more likely to link land use and mobility (or more properly, accessibility) in considering TOD policymaking. More conservative cities and their elected officials appear, by contrast, to be more likely to separate mobility concerns from land use policymaking.

Three other TOD motivations we asked about were also significantly associated with liberal political leanings of city residents, namely to promote housing growth, affordable housing, and environmental benefits (based on logistic regression results using the same factors shown in Table A1). Housing growth motivation was also associated with larger city population size, higher density, more transit coverage, lower median incomes, and slower housing growth rates among cities, in our multivariate regression analysis. It is notable that housing growth motivation was *not* significantly associated with a city’s jobs-housing balance in the regression analysis, meaning that job-rich cities don’t feel more pressure than others to increase housing provision. In addition to liberal political leaning, affordable housing motivation was also associated with higher city housing growth rates and lower median incomes, indicating that leaders of slower-growth, wealthier cities are less worried about affordable housing. Meanwhile, in addition to liberal political leaning, environmental motivation was significantly associated with population diversity (higher resident shares comprised by non-Hispanic whites).

The other motivations we inquired about were not associated in the same way with the political leaning of city residents, and instead with other factors. Livability/revitalization motivation was highest for poorer cities (those with lower resident median incomes), after controlling for the other factors of interest. Job motivation was higher in more diverse cities (those with lower white non-Hispanic population shares).

Figure 3 shows how motivations for TOD policymaking vary by region. Motivations for promoting housing growth, affordable housing, mobility/accessibility, and environmental benefits were especially high in the San Francisco Bay and San Diego areas, while motivations for promoting job growth and addressing fiscal impacts were especially high in the Sacramento and Los Angeles areas.

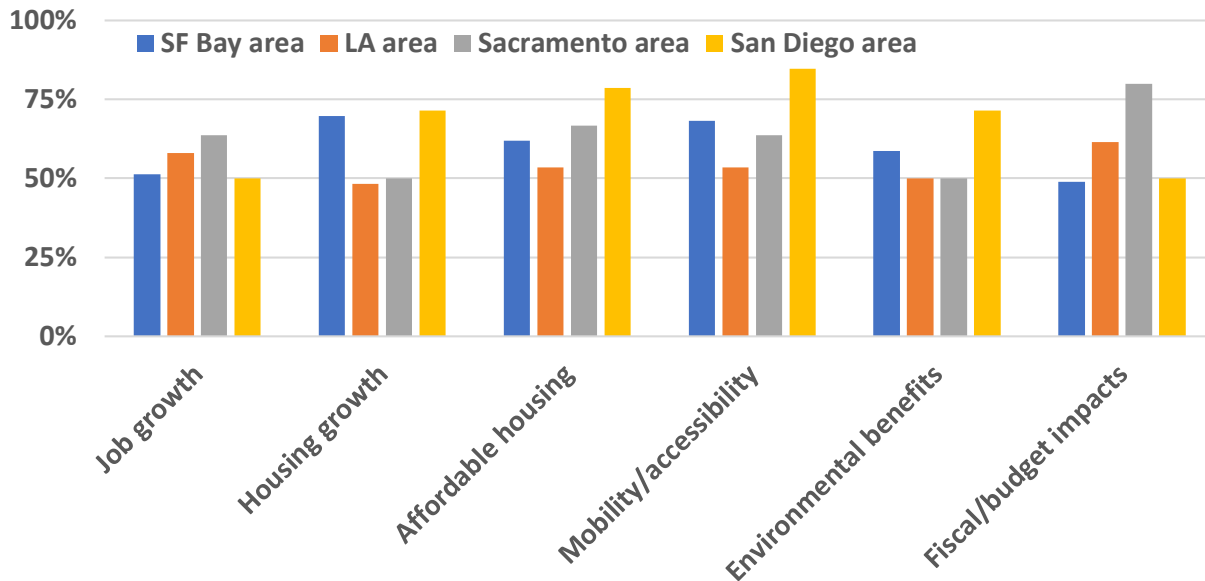


Figure 3. Share of cities by region in which respondents indicate that city leaders consider a motivation for adopting TOD policies to be “very important”.

Perceived obstacles

The second foundational aspect of TOD/transit/AT policymaking that we asked about in our survey was perceived obstacles. As Figure 4 indicates, the factor most likely to be cited by survey respondents as a “major obstacle” to achieving development near transit in their city was lack of vacant land, followed by difficulty in assembling land parcels, inadequate frequency of transit service, inadequate transit facilities, and then resident concerns or opposition.

Difficulty assembling land parcels has been a problem for cities especially since the dissolution in 2012 by the California state government of local government redevelopment authority. Redevelopment authority, which utilizes tax increment financing, was until 2012 the main means by which cities had worked to revitalize deteriorated downtown areas and also to produce affordable housing, with a mandatory 20% set-aside of redevelopment funds required to be used for the purpose. Although various state legislative proposals have been introduced since 2012 to restore local tax increment financing authority, none would have fully restored the powers lost to localities.

For transit services and facilities, it is important to note that many if not most cities in California do not run their own independent transit authority. In this regard, inadequate transit service and facilities may be perceived by city planners and officials as being beyond their control, if an independent (sub)regional transit agency controls such decision-making. Nevertheless, it is also useful to note that only a small share of respondents considers inadequate multi-agency planning coordination to be a major obstacle to TOD policymaking.

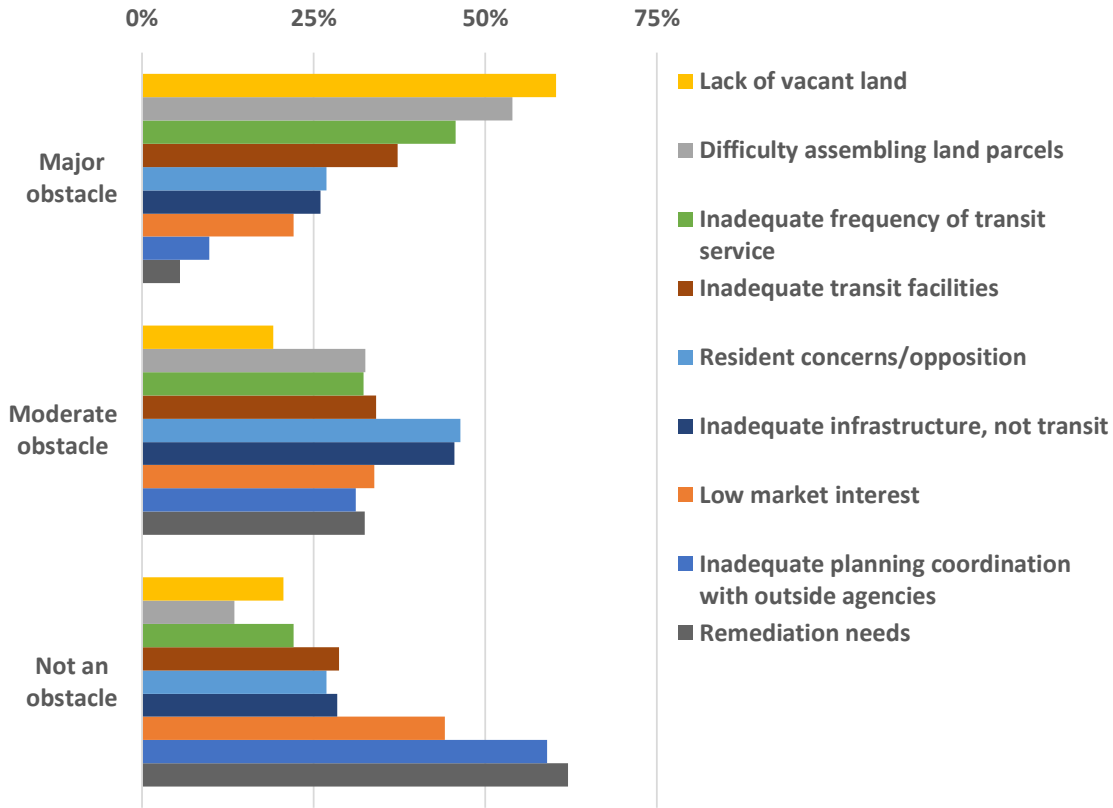


Figure 4. Perceived obstacles to achieving development near transit. Survey question: *What do you think are the major barriers/obstacles to achieving development in areas near transit in your city?*

It is notable that among the factors most likely to be considered “major obstacles” by survey respondents, two factors often cited in public discussions as potentially inhibiting the success of TOD, namely resident opposition (associated with “NIMBYism”) and lack of market interest in TOD, were ranked below some other factors more directly under the control of public decision-makers, namely provision of transit facilities and service, and legal/planning authority to assemble parcels. Resident concerns or opposition was considered a “major obstacle” by about one-quarter (27%) of respondents, with an additional 46% considering this to be a “moderate obstacle.” A logistic regression of the likelihood of perceiving resident concerns or opposition to be a “major obstacle” revealed only city population size to be a significant predictor among the variables we tested. Meanwhile, lack of market interest was cited as a “major obstacle” by 22% of respondents, with an additional 34% indicating that lack of market interest was a “moderate obstacle.” Logistic regression analysis indicates that poorer cities were most likely to perceive lack of market interest as a major barrier.

Resident concerns and opposition

We asked two stand-alone questions about resident concerns and opposition in our survey, to gain more information on this topic from our respondents. For respondents that have adopted TOD policies, programs, and plans, the survey asked what share of TOD projects in the city has

generated significant concerns or opposition from nearby residents and/or firms and workers. About one-fifth of respondents (19%) indicated “none,” another 26% indicated “a few,” and another 36% indicated “some.” Meanwhile, 10% indicated “most” and another 9% indicated “almost all or all.” Logistic regression to investigate city characteristics associated with a survey respondent indicating that “most” or “almost all or all” TOD projects or plans had generated significant concerns or opposition revealed that high-quality transit coverage was the only statistically significant independent variable among those tested. This is a notable finding – the more high-quality transit coverage in a city, the more that resident opposition to TOD can be expected to emerge, evidently. This situation means that even as cities seek to improve transit, they should anticipate potential controversies that may arise about new development nearby.

We also asked respondents what share of TOD projects in their city has generated local concerns specifically about gentrification or displacement of current residents. Nearly half (44%) of respondents indicated “none,” 26% indicated “a few,” 21% indicated “some,” and 9% indicated “almost all or all.” Logistic regression indicates that larger, job-rich cities are most likely to experience concerns about gentrification and displacement.

Market interest

Our survey inquired about the level of market interest for development near transit in respondents’ cities. One-fifth (21%) of respondents indicated that market interest is low throughout their city, 17% indicated “low in some areas, moderate in others,” 18% indicated “moderate throughout city,” 28% indicated “moderate in some areas, high in others,” and the remaining 15% indicated “high throughout city.” Thus, well over half (61%) of respondents indicated that market interest was at least moderate throughout their city, an encouraging finding for proponents of TOD, confirming the earlier survey finding that lack of market interest is not perceived as a top barrier for most surveyed cities. Ordered logit regression indicated that respondents from larger, denser cities, and especially those located in the San Francisco Bay Area, perceive market interest to be high for development near transit.

Desired development near transit

Our survey gauged the type(s) of development that cities prioritize for areas near transit. As Figure 5 indicates, the most favored type of development for respondent cities was residential development, considered “top priority” for 75% of respondents. This choice was followed by affordable housing, and then retail development, in considering the type of development most often rated “top priority” by respondent cities.

The emphasis on housing development responds to widespread concerns in California about lack of adequate housing supply to meet demand, resulting in high prices across the state. Many recent legislative proposals, such as the controversial Senate Bill 50 introduced in 2019, have aimed to remove constraints on the ability of developers to construct homes near transit. SB 50 would have mandated upzoning for housing near transit. Many local governments opposed the bill, perceived as an intrusion into local control of land use. Our survey findings

indicate that despite such concerns about state policy intervention, localities are seeking to respond to market demand to increase housing options near transit.

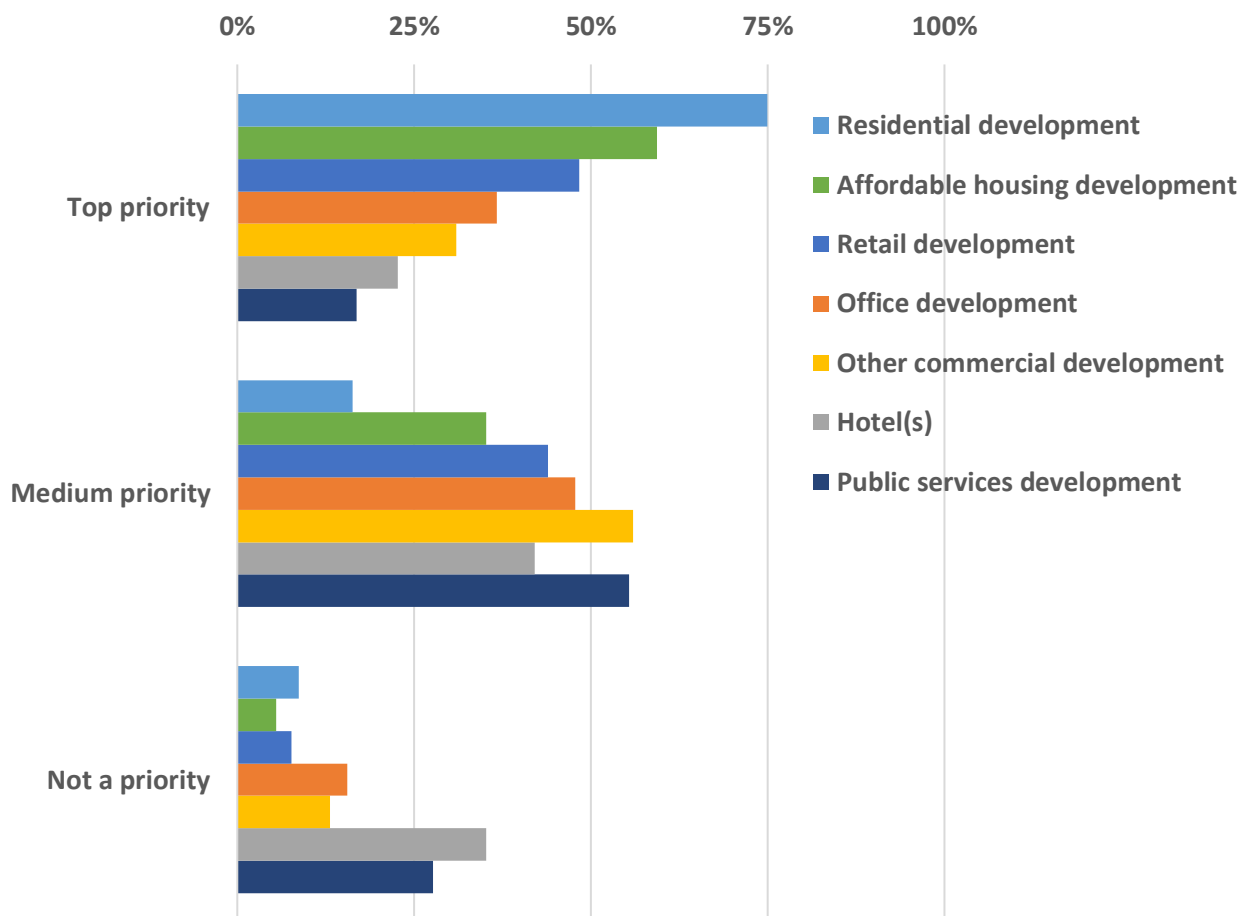


Figure 5. Priority development type near transit. Survey question: *What type(s) of development does your city prioritize for areas near transit?*

Regression analysis showed that none of the city characteristics we tested significantly predict why some cities prioritize housing growth near transit more than others – indeed, as Figure 5 shows, the trend is nearly ubiquitous. Notably, job-rich cities do not prioritize housing growth near transit more than other cities; jobs-housing balance was not significantly correlated even on a bivariate basis with the likelihood that a city prioritizes housing growth near transit. This could be a concern if this finding indicates that job-rich areas such as Silicon Valley are not especially cognizant of the need to provide housing options for city workers.

Infrastructure deficits

Our survey asked about infrastructure deficits that cities have identified. First, we asked whether the respondent city has identified infrastructure deficits near transit; two-thirds (67%) of respondents (among those not answering “don’t know”) said “yes” and the other third said “no” (28% said they don’t know). As Figure 6 indicates, among respondents who indicated their city has identified an infrastructure deficit, 93% of the identified deficits are for bicycle and

pedestrian facilities, 88% for roadways, 80% for sewer/waste management facilities, 79% for transit facilities, 74% for parks, and 69% for water facilities. Thus, deficits are more likely to be identified for facilities other than transit.

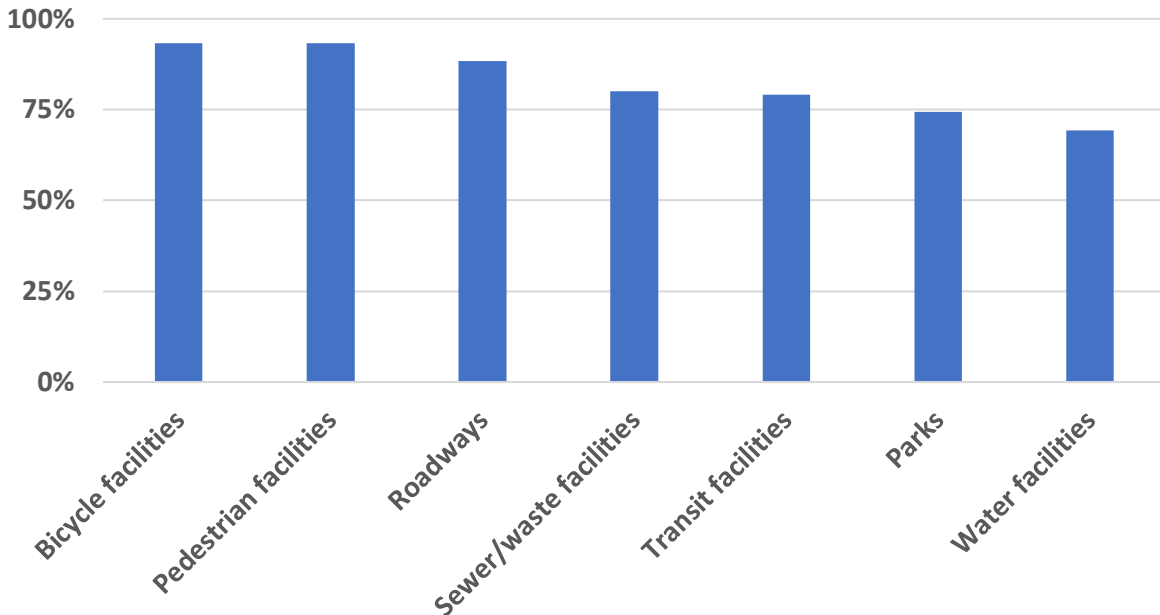


Figure 6. Identified infrastructure deficits near transit.

Finally, we asked whether providing adequate funding for the improvements poses a significant challenge to achieving the city’s TOD goals (Figure 7). Respondents consider addressing transit facilities deficits, followed by roadways and parks, as posing the greatest funding challenges.

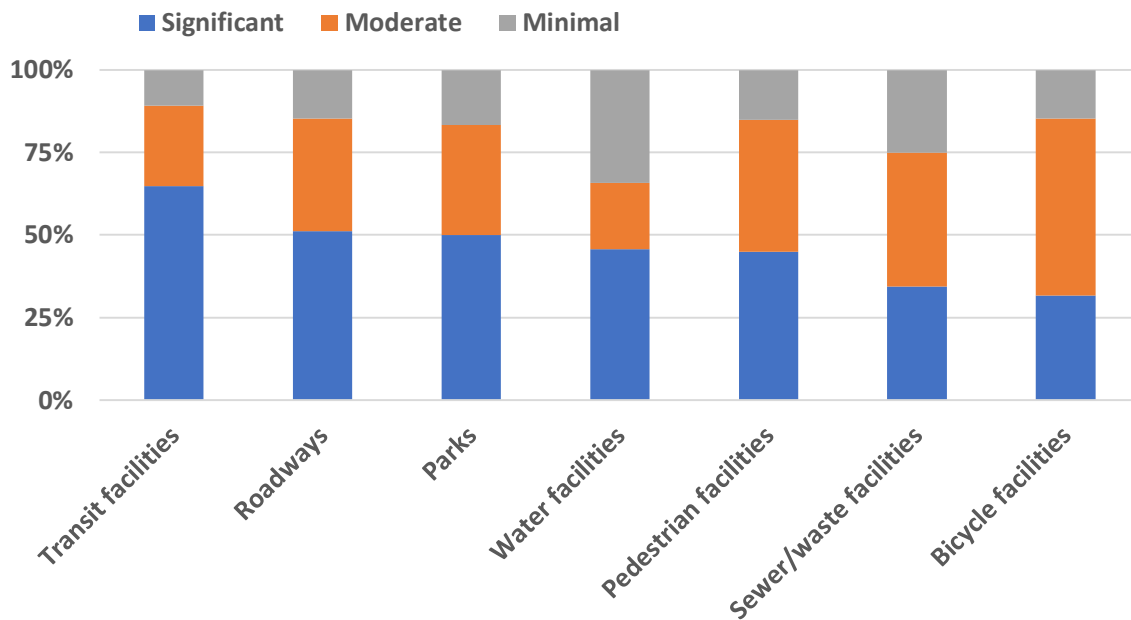


Figure 7. Perceived funding challenges posed by identified infrastructure deficits near transit.

Integrated analysis of motivations and barriers

Combining analysis of motivations and perceived barriers to TOD with evidence on policymaking revealed some interesting patterns. We re-examined factors associated with the likelihood that a city has adopted TOD policies, programs, or plans, this time adding into the regression not just our measured city characteristics but also the information obtained from survey respondents on motivations and perceived obstacles to TOD (these two questions were presented to all survey-takers). City population size proved to be a significant indicator, as well as jobs-housing balance and location in the San Francisco Bay area. Among motivating factors, housing growth was significantly positively associated, and among perceived obstacles, inadequate transit facilities and resident concerns/opposition were significantly negatively associated. By contrast, inadequate infrastructure other than transit facilities was a factor significantly positively associated with propensity to adopt TOD policies, programs, or plans. See regression #1 in Table A2. for these results.

We detected an interesting, inverse relationship between the overall propensity for respondents to indicate their city leaders are motivated to adopt TOD policies, programs, and plans, and whether the city perceives major obstacles exist to development near transit; in other words, we found that higher motivation overall is associated with fewer perceived obstacles. We evaluated this relationship by creating an index for the number of cited motivations deemed by respondents to be a “top priority” for their city’s elected officials, and another index for the number of cited obstacles to TOD rated by survey respondents to be “major obstacles.” The likelihood that cities have adopted TOD policies, programs, and plans was positively associated with higher motivation at a statistically significant level ($p < .05$), and negatively associated with more perceived barriers ($p < .10$), when the two index variables were employed in a regression.

When city characteristics were also added into the regression as control variables, the inverse relationship between the motivation index and the obstacles index remained, but the indices were no longer statistically significant. However, a regression of factors that help explain the motivation index (the number of cited motivations rated as “top priority” for adopting TOD policies, programs, and plans) provided more definitive results, showing that higher motivation was significantly associated with fewer perceived obstacles, and also with more liberal political leanings among city voters, as well lower median incomes among city residents (see regression #2 in Table A2.). This analysis provides further evidence of an association between political leanings and city leaders’ attitudes toward TOD, in turn translating to policy activity.

Patterns of policy adoption

For survey respondents who indicated their city has adopted policies/programs/plans to support TOD or transit, we asked about specific strategies they have adopted, from a list we provided of 22 possible regulatory, planning, and finance measures that could be adopted “to support development near transit.” We analyzed what city characteristics, and what motivations and perceived barriers to TOD, are associated with adoption of each of the policies; results are described below for the most popular policies. Few persistent patterns were evident

in the data, however; indeed, correlations among propensity to adopt each of the various strategies were generally low, and factors (city characteristics, motivations, and perceived barriers to TOD) we found to be significantly associated with adoption of each strategy type vary substantially among the strategies analyzed. These findings indicate that adoption of TOD policies, programs, and plans is a complex affair not easily reducible to simple explanation based on the characteristics we measured to distinguish cities.

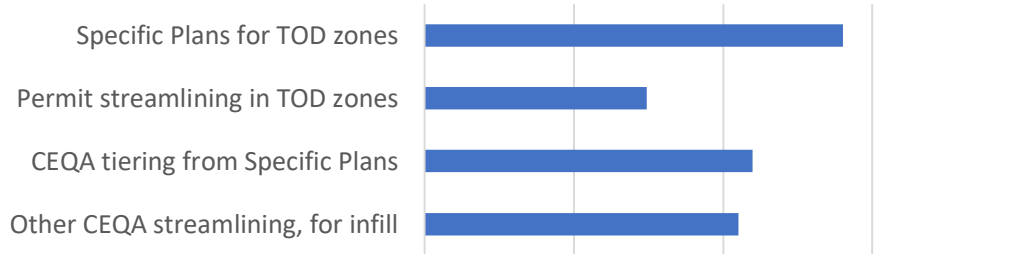
Two further avenues of research are warranted, given this situation. First, factor analysis might help in determining whether any underlying “latent variables” derived from combinations of our independent explanatory variables could help explain policymaking patterns better than OLS and logistic regression analysis. Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. The observed variables are modeled as linear combinations of the potential factors. Second, our case study research will enable us to investigate further some of the relationships we found in our data between city characteristics, motivations and perceived barriers to TOD, and policy/program choices (described below).

Popular policy/program choices

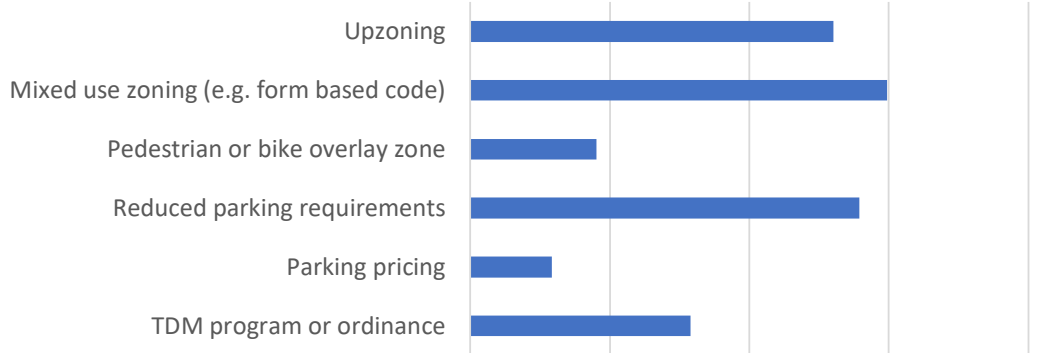
As Figure 8 indicates, the most commonly used strategy cited by our survey respondents is to provide a density bonus for affordable housing development (used by 92% of cities). The high rate of implementation of this measure reflects the state’s density bonus law, first adopted in 1979 and expanded multiple ways since then. It requires that localities must grant a density bonus above local density standards in exchange for the provision of affordable housing or senior housing units. Depending on the percentage of affordable units provided, the project may receive a density increase of up to 35%. In addition, the law provides for incentives, concessions, waivers or reductions of development standards, and reduced parking requirements, upon request from a developer.

Compared to the widespread practice of providing density bonuses, the choice instead to upzone near transit (allowing for greater density) on a systematic basis (rather than case-by case, as with density bonuses), was less popular among respondent cities, with 65% having done so. We regressed the likelihood of having upzoned systematically on the survey information about cities’ motivations and perceived obstacles to TOD, and found that upzoning was significantly associated with mobility/accessibility and livability motivations. We also regressed this variable on city characteristics and found only population size to be a significant predictor. Upzoning can be a controversial strategy locally, though we found very low correlation in our data between propensity to upzone and levels of concern/opposition to development projects raised by city residents (as determined by survey responses). The association that we did find between upzoning and mobility/accessibility motivation reinforces the argument made earlier that some cities are making the “transportation-land use connection” in their policy choices. Cities that have upzoned and that rate high on mobility/accessibility motivation would be good candidates for us to pursue for case studies in the second half of our project this coming year.

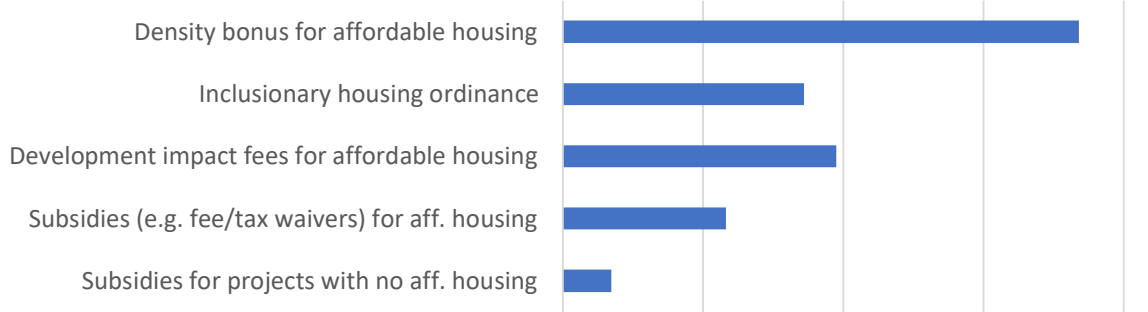
Planning and CEQA strategies



Regulatory strategies



Strategies for affordable housing



Finance strategies

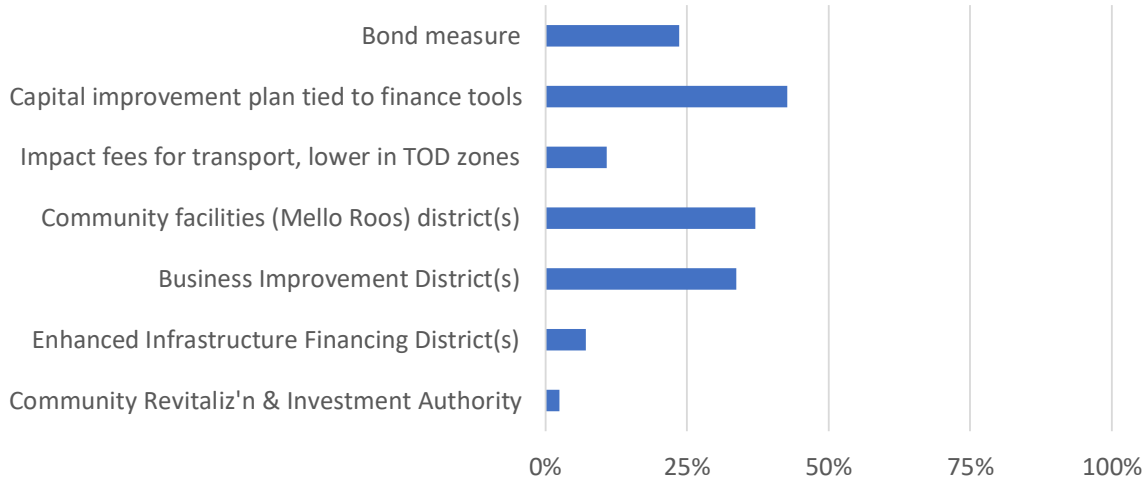


Figure 8. Policy/strategy adoption to promote development near transit.

The second most commonly used TOD strategy, according to survey respondents, on the list that we presented, was mixed use zoning, for example through a form-based code; three quarters (75%) of respondent cities have implemented this strategy. Multivariate regression analysis revealed that the likelihood of having adopted mixed use zoning is associated with environmental benefits motivation among cities, and also with city population size.

Along with the widespread use of density bonuses and the less widespread though still common practice of upzoning near transit, this finding on the popularity of mixed use zoning suggests that local TOD planners are combining “D-variable” policies associated with reducing the need to drive (some commonly examined “D-variables” characterizing the built environment have been associated in academic research with reducing the need to drive, especially when present in combination; they are density, diversity (land use mix), destination accessibility (often measured in terms of distance to jobs or shopping), shorter distance to transit access, and pedestrian/bicycle friendly street design) (Ewing and Cervero, 2010).

The third most commonly used strategy, according to our survey respondents, was adoption of Specific Plans, which are area-wide (neighborhood-scale) plans aimed at tailoring various zoning and other policy measures to address specific local conditions; 70% of respondent cities have adopted at least one Specific Plan to support TOD. Regressing this measure – likelihood of having adopted Specific Plans for TOD zones – on survey information about motivations and obstacles to TOD revealed that livability motivation was a significant positive predictor, while mobility/accessibility motivation and transport facilities deficits were negatively correlated significant predictors. Only one city characteristic, greater racial/ethnic diversity, proved to be a significant predictor.

We asked a few additional, separate survey questions relating to adoption of Specific Plans. For respondents who indicated their city has adopted Specific Plan(s), we asked how extensively their city has coordinated with transit agencies in developing them. About one-third (39%) indicated “extensively,” another 53% indicated “somewhat,” and the remaining 7% indicated “not much.”

In another question that relates to the likelihood of adopting Specific Plans in transit zones, we asked survey respondents whether their city has “officially designated specific areas (zones) where TOD is meant to be supported in areas near high quality transit.” More than half (52%) of respondents indicated their city had done so. Of these respondents, 67% also indicated that their designated TOD zones coincide with priority growth zones designated in their MPO’s Sustainable Communities Strategy required under SB 375. In implementing SB 375, many of the state’s MPOs have worked with localities to designate priority growth zones to funnel resources to support TOD, creating an on-the-ground link between regional and local sustainable development strategies. The high rate of coincidence found in our survey results between regional and local growth zone designations indicates that this regional-local alignment strategy has been widely implemented. Another 31% of survey respondents indicated that some of their designated TOD zones coincide with the MPO’s zones, and others do not, while the remaining 2% indicated that their local TOD zones don’t coincide with the relevant MPO’s designated

priority growth zones. Regional-local alignment is least prevalent for cities in the Los Angeles metro area compared to cities in the other three regions studied.

The fourth most commonly used strategy cited by our survey respondents was to reduce parking requirements for development near transit; 70% of respondent cities have done so. This finding indicates that city leaders and planners in California are cognizant of the substantial impact of parking provision not just on the propensity to drive but also upon costs for construction in transit-rich urban zones. In multi-variate regression analysis, we found that the choice to reduce parking requirements was significantly associated with lower jobs-housing balance (less job-rich cities), lower transit facilities deficits (lower perceived obstacle from inadequate transit facilities), and greater likelihood of perceiving inadequate multi-jurisdictional planning to be a significant barrier.

The fifth and sixth most popular strategies among those we asked about in our survey relate to compliance with CEQA, which requires that all projects seeking development approval be analyzed, and if feasible, mitigated for their negative environmental impacts. Among respondent cities, 55% employ CEQA tiering from Specific Plans, a strategy that enables development projects evaluated as part of an area plan (Specific Plan) to be approved with reduced environmental review. Meanwhile, 53% of respondent cities also utilize other mechanisms for streamlining review of infill projects that have been incorporated into CEQA. These findings indicate that more than half of cities utilize CEQA streamlining options, but notably, a substantially smaller share of cities (37%) have undertaken other actions to facilitate permit streamlining in TOD zones, so as to expedite the approvals process. Regression analysis indicated that utilizing CEQA streamlining provisions is significantly associated with perceived higher market interest in TOD.

Finally, we note that the seventh and eighth most popular strategies cited by respondents are aimed at encouraging affordable housing provision, namely adopting development impact fees for affordable housing (with 49% of respondent cities having done so), and adopting an inclusionary housing ordinance (requiring provision of a certain number of affordable units in a residential development, or payment of an in-lieu fee), with 43% of respondent cities having adopted this policy. It is notable that the adoption rate of these policy measures to promote affordable housing was lower than the share of cities rating affordable housing as a “very important” motivator for TOD policymaking (60%) and as their “top priority” option for development near transit (59%). As discussed earlier, more than half of respondents indicated that at least one development project in their city had raised concerns among nearby residents about displacement and gentrification. However, we found that adoption of these two housing policy measures, namely development impact fees for affordable housing and inclusionary housing ordinances, was not significantly correlated with the likelihood that city residents had raised concerns about displacement and gentrification.

Regression analysis indicated that the likelihood of having adopted development impact fees for affordable housing was significantly associated with city population size, lower racial/ethnic diversity, higher affordable housing motivation, less vacant land (higher vacant land barrier),

and lower mobility/accessibility motivation. The likelihood of having adopted an inclusionary housing ordinance was significantly associated with being a job-rich city (higher jobs-housing balance), with less high-quality transit coverage, more liberal political leanings, higher relative housing growth rates in transit-proximate areas compared to city-wide, higher perceived market interest in TOD, and higher perceived obstacles due to NIMBYism and lack of adequate multi-jurisdictional planning coordination.

These highly complex and varied relationships between policy motivations, city characteristics, and policy adoption bear further investigation in the upcoming case study phase of the project. Given this complexity, it is useful to consider the responses provided to a direct question we posed to survey takers about how difficult their city's elected officials and planners find it to balance and integrate policies to promote affordable housing, other development, and multi-modal transport improvements. About one-third (36%) responded that it is very difficult, another 40% that is somewhat difficult, and only one-quarter (24%) that it is not difficult.

Perceived importance of TOD/transit/AT strategies

We asked survey respondents, if they indicated that their city has adopted a particular strategy, how important they consider it to be for achieving their city's TOD goals. As Figure 9 indicates, zoning policies were considered most important – both mixed use zoning and upzoning. This finding reinforces the concept that local authority over land use, zoning in particular, lies at the heart of effective TOD policymaking. This presumption also helped motivate introduction of SB 50 in the state legislature – the notion that zoning changes alone might substantially affect the provision of housing near transit. However, many city leaders have countered that locally tailored zoning strategies are likely to be more effective than a one-size-fits-all approach mandated from the state government level.

The third and fourth policy types considered most important by survey respondents were Specific Plans and CEQA tiering from Specific Plans. This finding tends to confirm the value of local planning as in addition to regulatory approaches for achieving TOD goals. It takes time and resources for cities to develop plans, but this strategy evidently also pays off. One likely reason is that through the planning process city residents and other stakeholders can voice their concerns, enabling policy approaches that may have a better chance of success due to buy-in from more stakeholders.

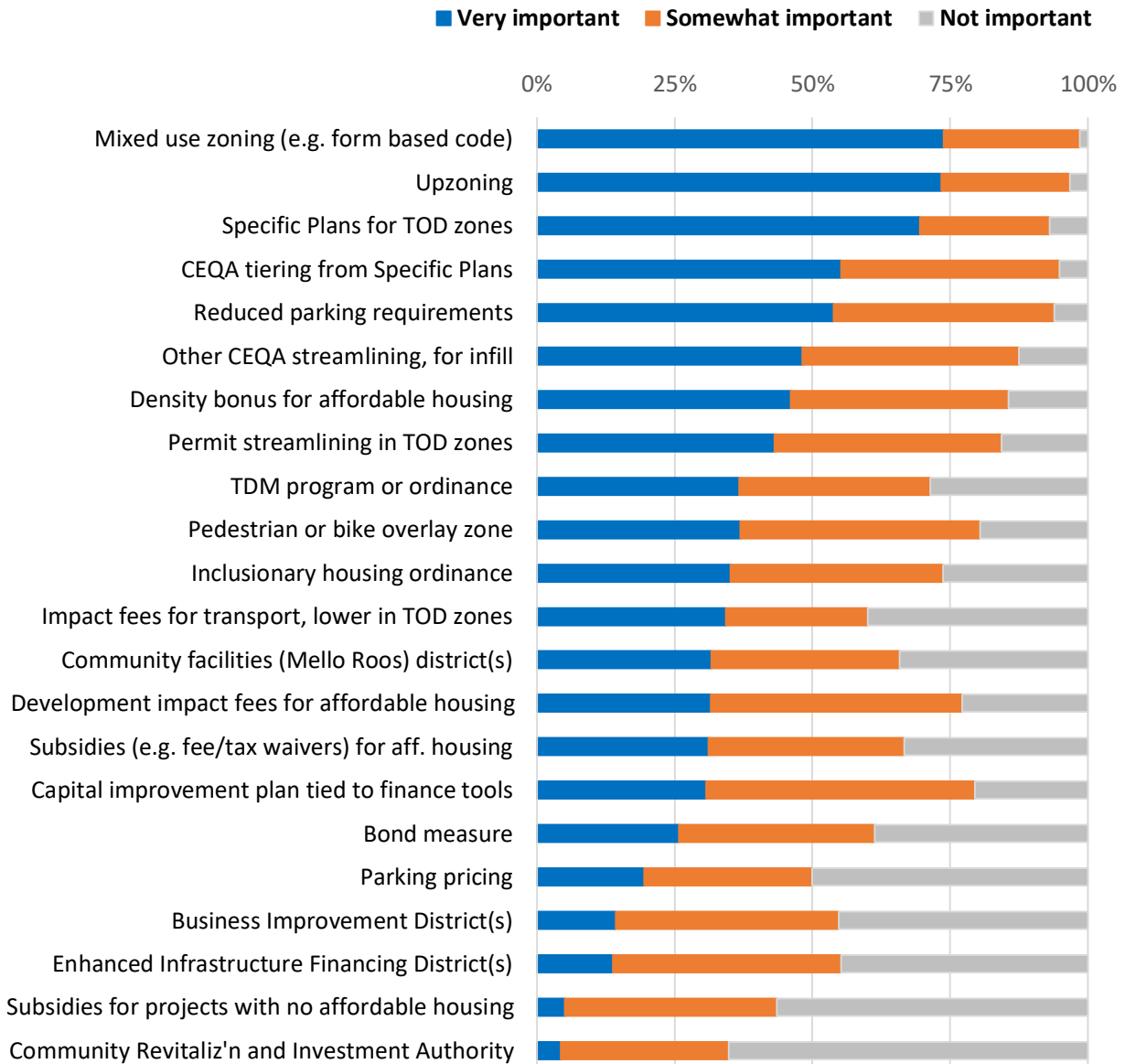


Figure 9. Perceived importance of adoption of specific TOD policies and strategies for achieving TOD goals. *Survey question: (For adopted strategies) How important is this policy for achieving your TOD goals?*

Putting together our findings on policy adoption rates and perceived importance, we can more clearly discern which policies are considered very important to cities that have adopted them, even if relatively few have done so. Figure 10 shows individual policies/strategies ranked in order of their adoption rates.

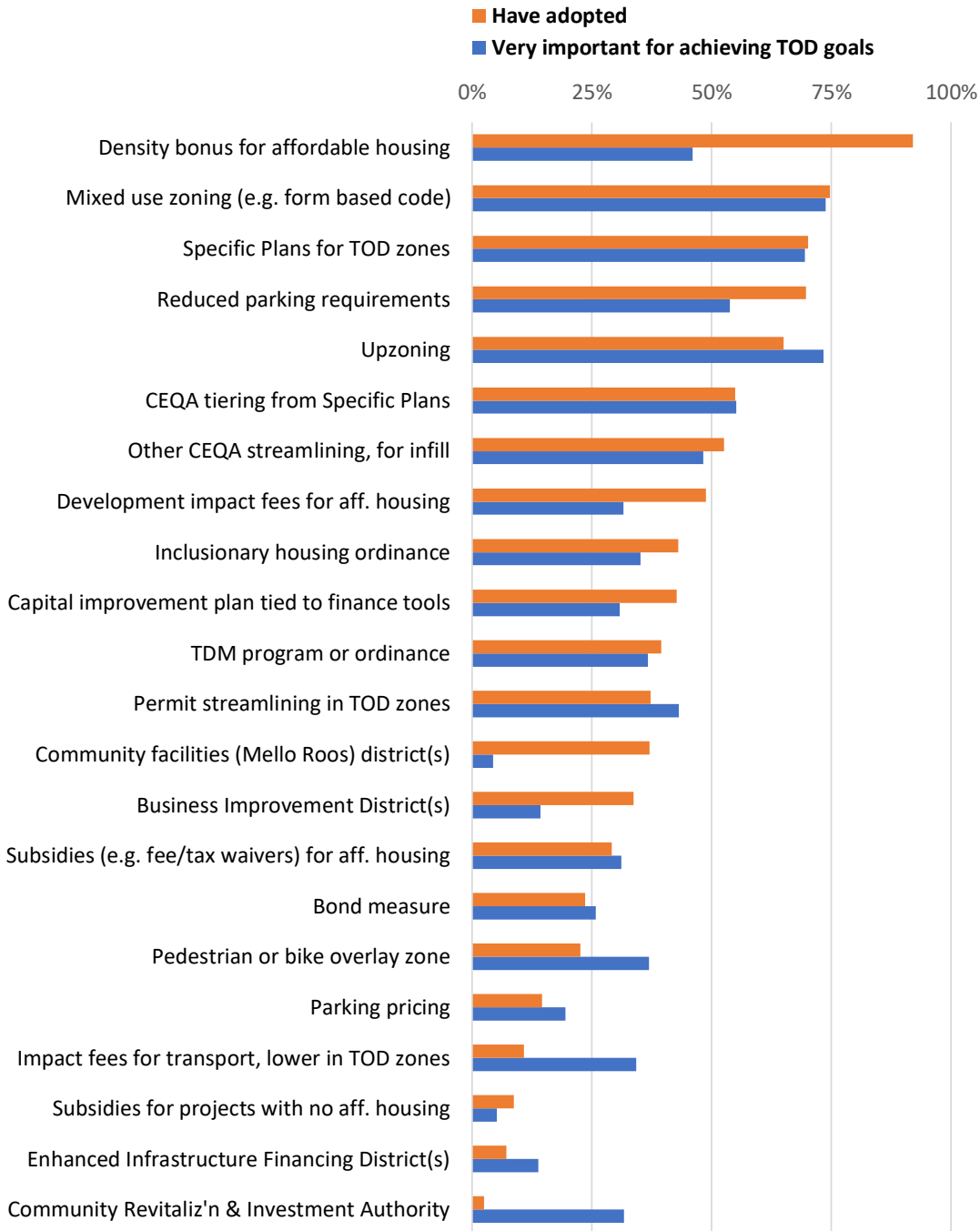


Figure 10. Adoption rates and perceived importance of TOD policies/strategies.

A marked discrepancy is evident between the adoption rate for density bonuses and the perceived importance of this policy measure for achieving city TOD goals. This finding reflects the point made earlier that cities are mandated to offer density bonuses by state law. Given that all cities must do so, this incentive may be consequently less attractive to developers as a lure for housing development in TOD zones in any given city. For other policy measures, we see the opposite relationship, in which the perceived importance of the policy measure is rated

higher than the adoption rate among cities. This relationship suggests that these policy measures may be challenging to adopt in spite of their potential impact. This discrepancy characterizes upzoning, permit streamlining in TOD zones, subsidies for affordable housing, pedestrian/bicycle overlay zones, parking pricing, and transportation development fees that are lowered in TOD zones, among other policy measures analyzed.

Overall propensity to adopt TOD policies, programs, and plans

As a measure of each city's overall propensity to adopt more or fewer policies, programs, and plans to support TOD, we created an index that simply counts how many of the strategies we inquired about have been adopted by each city, based on the survey responses. We found that only city population size, location in the Los Angeles area (negatively associated), and market interest were significant predictors of overall levels of policy adoption, based on a regression that included our city characteristics of interest, summary index variables for motivations and perceived obstacles (counting the number of motivations considered "very important" to city leaders, according to survey respondents, and the number of perceived obstacles), and also considering the level of market interest that respondents indicated exists for TOD in their city (see regression #1 in Table A3.). Expanding the analysis to include individual motivations and barriers rather than our index variables, we found that city population size, slower housing growth rates, location in the San Francisco Bay and Los Angeles areas (negative association), greater market interest, more affordable housing motivation, lower transit facilities deficits (perceived as a barrier), and higher infrastructure deficits other than transit, were significant predictors of higher levels of policy adoption (see regression #2 in Table A3.). Again, these complicated relationships bear further investigation.

Transportation impact fees and assessment of impacts

Our survey included a series of questions that relate to the adoption in 2013 of SB 743, which re-framed analysis required under CEQA of transportation-related impacts of development projects. Whereas previously, the most commonly used standard for analyzing transportation impacts under CEQA had been to assess impacts of development upon automobile "level of service" (LOS), or in other words, on traffic delay, SB 743 required the development of a new metric more aligned with promoting the state's goals for sustainable transport and development. In 2018, final state guidelines for SB 743 implementation were adopted that call for analyzing impacts of development on VMT rather than on LOS. This new state CEQA policy approach overturns the apple cart in terms of what sorts of projects are likely to be evaluated as potentially causing significant negative environmental impacts, thereby requiring mitigation efforts, if feasible. The adopted SB 743 guidelines streamline environmental review procedures for low-VMT projects, such as TOD, while ensuring that high-VMT projects, such as sprawl-type, low-density developments, will be more likely to require more substantial review of impacts and greater mitigation efforts.

LOS standards have been deeply embedded in transportation planning in California for decades, not only forming the basis for CEQA review of individual projects but also appearing in many if not most mobility elements (chapters) in adopted local General Plans, the documents that

guide development decision-making in jurisdictions across the state. Furthermore, many locally adopted development impact fees for transportation (fees assessed on new development in direct proportion to mitigation of associated impacts) have been based on achieving or maintaining locally stipulated LOS standards.

Thus, SB 743 could have far-reaching consequences on transportation planning. Cities are not prohibited from continuing to employ LOS standards as part of imposed conditions of development approval, including assessment of impact fees, but such policy measures cannot be based on achieving CEQA compliance and they will need to be aligned with (potentially conflicting) VMT analysis and mitigation under CEQA, as stipulated now by SB 743.

Because of the potentially far-reaching consequences of SB 743, we asked survey respondents how and whether their cities intend to implement the new state guidelines, and whether the cities foresee altering their adopted development impact fees for transportation, as a result.

Based on responses to our survey, 68% of cities have adopted development impact fees for transportation (note that these questions were presented to all respondent cities, not just those which have adopted TOD policies, programs, and/or plans). Cities in the Los Angeles region were least likely to have done so, among the four regions studied. Logistic regression analysis of characteristics associated with the likelihood of a city having adopted an impact fee for transportation indicated that larger, faster-growth, more politically conservative cities with lower median incomes were most likely to have done so.

Of cities with adopted impact fees, three-quarters (76%) provide funds for transit, bicycle, and/or pedestrian facilities in addition to roadway improvements, according to survey respondents. Two-thirds (65%) of the adopted fees are based at least in part on determination of auto LOS impacts. More than half (55%) of respondents from cities with transportation impact fees indicated that concern about setting fee levels too high to attract development, and/or competition for development with neighboring cities, has influenced the levels of fees they have chosen to adopt.

A small share of cities (14%) with impact fees exempts certain project types, and/or imposes a lower impact fee in areas near transit, according to survey respondents. Since 2008, cities have been required under AB 3005 to impose lower transportation impact fees for housing developments located within one-half mile of transit stations, though the law does not stipulate by how much the fees should be lowered. Based on logistic regression analysis, we found that larger city population size and faster housing growth rates in transit-proximate parts of town were significant predictors of the likelihood that cities have incorporated these possibly TOD-friendly elements into their impact fee structure. The set of cities that have adopted such elements would form a good basis for conducting case studies.

We asked what metrics (LOS, VMT, and/or other) cities plan to employ “as a basis for applying conditions of development approval” after the SB 743 CEQA guidelines go into effect in 2020. We worded the survey question in this fashion for two reasons. Cities can choose whether to adopt state-recommended guidance for CEQA review procedures (most cities do so to help

strengthen legal defensibility of their CEQA analyses). Therefore, some cities may elect not to follow the state’s guidance to substitute analysis of VMT impacts for analysis of auto LOS impacts. Secondly, cities can also employ LOS and/or other metrics as part of non-CEQA based conditions of development approval they choose to impose, including for impact fees. If cities choose to blend metrics, they may need to revisit their impact fees, other conditions of approval, and even their General Plans to try to avoid possible conflicts between VMT impacts analysis and mitigation under CEQA, on the one hand, and LOS impacts analysis and mitigation on a non-CEQA basis, on the other.

A large share (36%) of survey respondents indicated they didn’t know the answer to our question about what metrics their city will employ for assessing transportation impacts of development projects, pursuant to adoption of SB 743. This likely indicates that deliberations are still underway in these cities to determine the answer. More than half (53%) of respondents who did not answer “don’t know” said their city will employ both VMT and LOS standards and metrics. Another 27% said they will use “VMT, LOS, and other” metrics. Smaller shares will use VMT only (12%) or VMT and other non-LOS metrics (5%). An even smaller share (3%) intends to stick with using only LOS or to use LOS with other non-VMT metrics. These findings suggest that most cities in the four regions studied are straddling the transition from LOS to VMT, intending to employ (and somehow align) the metrics and standards for both.

To get a sense of how extensive the effects of the transition may be on core elements of transportation planning and financing by localities, we asked whether cities plan to revise (or have revised) their transportation impact fees to address VMT impacts, pursuant to SB 743. About one-third (36%) of respondents indicated their city either has revised or will revise its fees to align with purposes of SB 743, while 43% indicated they may revise their fee, and 21% indicated they have no plans to do so.

Our analysis suggests that SB 743 may indeed influence transportation planning in ways that extend beyond just CEQA review procedures. Impact fees, if they are oriented to promoting location-efficient development, could provide consequential support for TOD, constituting a pricing policy linking efficient land use to sustainable transportation. Regression analysis indicated that larger cities with higher growth rates in transit-proximate parts of town are the most likely to modify their impact fees.

Gauging the influence of state and regional programs and policies to support TOD

The final questions in our survey probed about the influence on achieving local TOD goals of state and regional (MPO-led) programs and policies to support TOD. Figure 11 shows rates of application for and receipt of state and regional project and planning grants that are intended to support TOD.

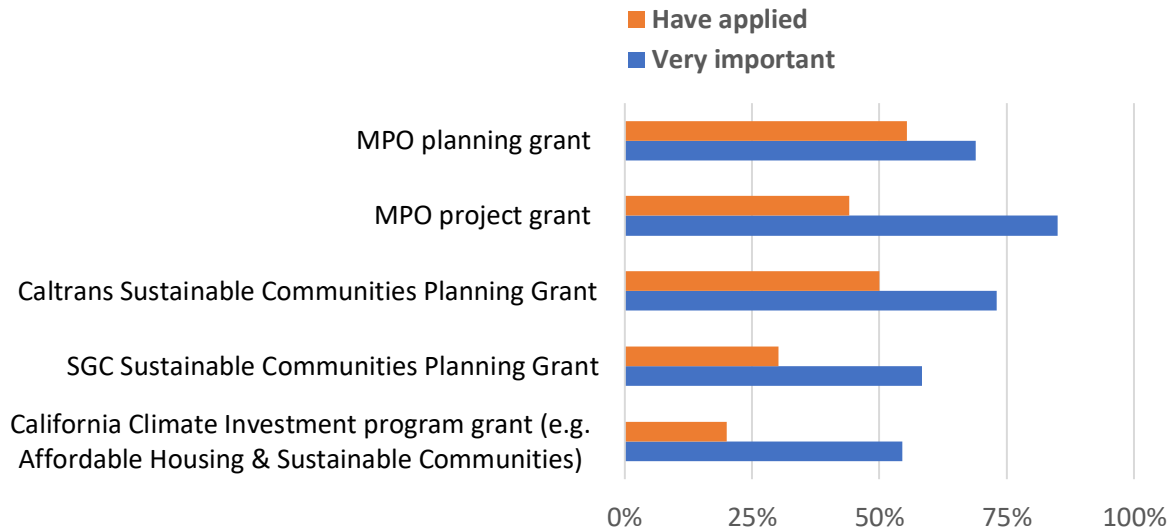


Figure 11. Rates of application and receipt of state or regional planning and project grants for TOD.

The results indicate that half or more of respondent cities (in this case, only among cities that have adopted policies to promote TOD/transit/AT) have applied for MPO and/or Caltrans planning grants, and substantial shares (over 20% of cities) have applied for grants from the other sources listed. Respondents who have received the grants indicate they have been quite important in helping their city achieve its TOD goals, especially in the case of MPO project grants (85% of respondents indicate they were “very important”), Caltrans’ Sustainable Communities Planning Grants (73% indicate they were “very important”), and MPO planning grants (69% indicate they were “very important”).

We asked survey takers to rank the relative influence/importance of certain state, regional, and local programs and policies in achieving their city’s TOD goals. Figure 12 shows the results, which indicate that policies and programs at all levels of government are considered important. Among the state policies/programs we asked about, the RHNA process, by which MPOs (or more technically, Councils of Government, which coincide with COGs in almost all of California’s metropolitan areas) allocate identified housing need at all income levels among localities, along with other housing-related requirements, were considered most important. Among local policies and program types, permit streamlining and plan-making were rated most important.

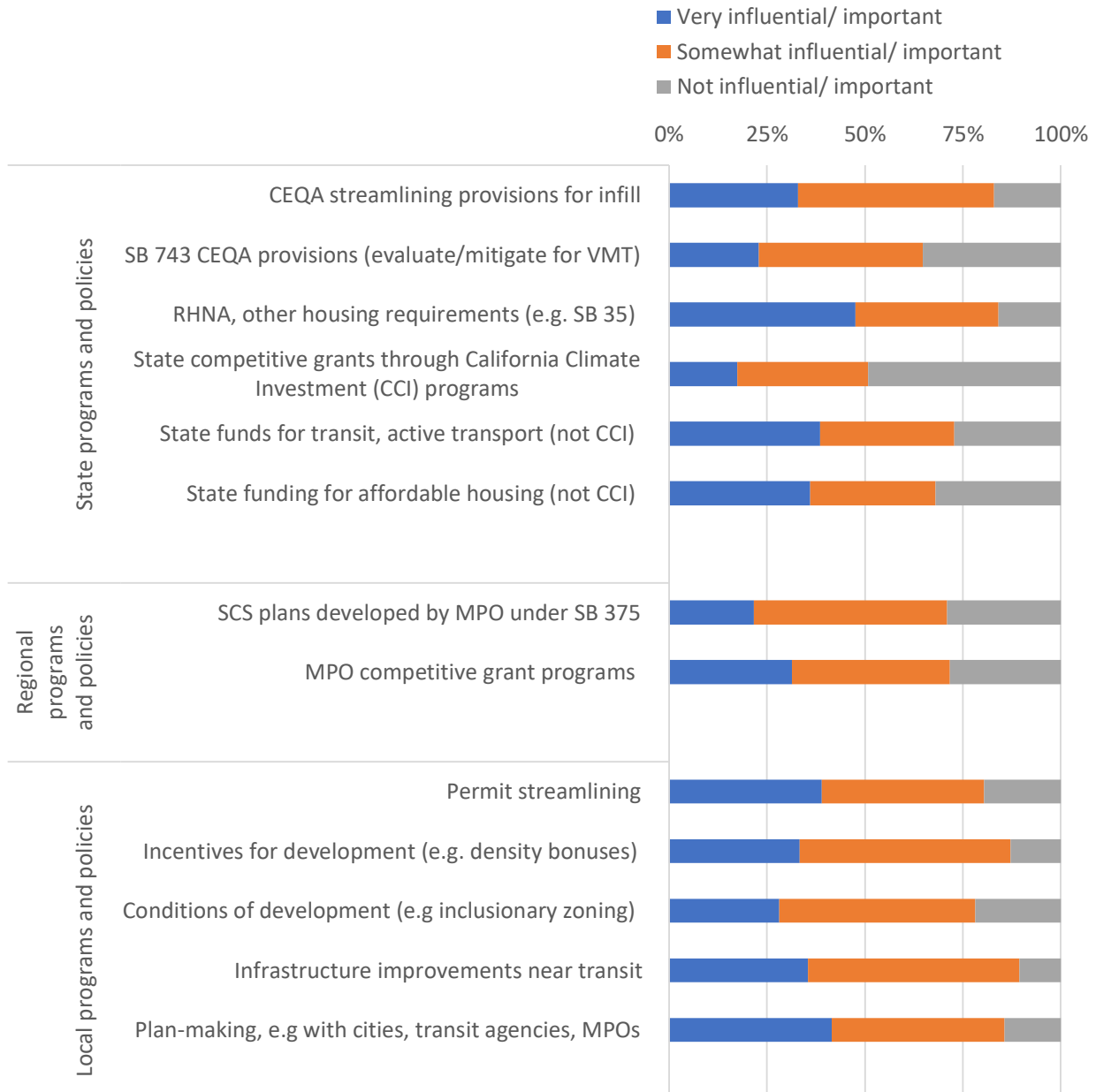


Figure 12. Rating of relative influence/importance of various state, regional, and local policies and programs for achieving TOD goals. Survey question: *How influential/important have the following state, regional, and local policies and programs been in supporting your city’s TOD goals and objectives?*

We also asked survey takers to consider whether certain specified policy tools/mechanisms need to be strengthened through state or regional policymaking, in order to support their city’s ability to achieve its TOD goals. Respondents could choose “needs to be strengthened” or “adequate as is.” Not surprisingly, more than half of respondents indicated that each tool/mechanism we asked about should be improved, but some more than others. Almost all (94%) of respondents said that locally available finance tools should be strengthened, referring

no doubt, at least in part, to widespread support for restoring local redevelopment authority. Similar shares of respondents said that state/regional funding for transit and active transport (93% of respondents), and state/regional funding for affordable housing (94% of respondents) should be strengthened. A somewhat smaller share of respondents (71%) said that CEQA streamlining for infill should be strengthened, and 57% that plan-making with other localities and agencies (e.g., transit agencies and MPOs) should be strengthened.

Conclusion

To sum up results from our survey analysis, we find encouraging signs of widespread local adoption of policies, programs, and plans to support TOD, transit, and AT, as well as significant links that have been made between state and regional programs to support TOD with local policymaking. However, in analyzing survey results, great complexity in policymaking patterns was evident. For each of the policy measures that our survey inquired about, we investigated whether city characteristics of interest that we measured, along with respondents' stated motivations for and perceived barriers to TOD are associated with the adoption of the policies. Few persistent patterns were evident in the data; indeed, correlations among propensity to adopt each of the various strategies were generally low, and factors (city characteristics, motivations, and perceived barriers to TOD) found to be significantly associated with adoption rates for each strategy type varied substantially among the strategies analyzed.

These findings indicate that adoption of TOD policies, programs, and plans is a complex affair not easily reducible to simple explanation based on the characteristics we measured to distinguish cities. Further avenues of research are warranted. In particular, we will aim through case study research in the second phase of the project to investigate further the relationships discovered in our data between city characteristics, motivations and perceived barriers to TOD, and policy/program choices.

Based on our survey analysis, we will identify case study cities from the sample of survey respondent cities that rate high on the following measures:

- High motivation for TOD policymaking, especially for achieving mobility/accessibility and affordable housing goals
- High adoption rates for policies deemed by our survey respondents to be highly important/influential compared to overall adoption rates (suggesting these policies may have high impact but may also be challenging to adopt and implement); these policies include upzoning, permit streamlining, and impact fees that vary based on transit proximity
- Intention to revise the city's transportation impact fee to conform to goals of SB 743

By considering the intersection of these variables in our respondent sample, we will identify a pool of city case study candidates to investigate further through analysis of available policy documents, so as to hone down a final sample for more intensive policy analysis and also interview research.

Chapter 4. Case studies of Los Angeles and Sacramento

As a start on our case study research for the second phase of our research project, we investigated TOD policymaking in two of California’s urban central cities, Los Angeles and Sacramento. Through online research and interviews with city planners, we investigated motivations for TOD policy, challenges the cities face, and policy and program choices for promoting TOD. Our two case studies provide information on the following elements of TOD policy for each city: plans to support TOD, regulations to support TOD, and financing strategies to support TOD.

These case studies provided an initial foray for our team to gain information and develop strategies for pursuing more extensive investigation and analysis during the project’s upcoming phase. In our upcoming research, we will develop more comparative analysis of cities’ approaches to TOD policymaking.

TOD planning and policymaking in Los Angeles

Los Angeles has a long history of planning around transit. In the early 1900s, the city built around the Pacific Electric Railway, which became the most popular method to travel within the city and surrounding regions. At its peak, the system included 1,110 miles of track and 900 trolley cars that provided a way to travel for millions (Los Angeles Streetcar, 2016). After the single-family housing boom that followed World War II, this system became obsolete as people moved away from the urban core and chose to drive private vehicles.

Now, with high market interest for developing housing within the city, mounting concerns about traffic congestion, and recognition that transit is better for the environment than cars, the City of Los Angeles is working to promote TOD. The main motivations, according to our interviews with city planners and their responses to our online survey, are to reduce greenhouse gases, improve mobility and accessibility, and support equity by providing better access to transit.

Los Angeles faces challenges in identifying available parcels where development can occur. Only a small portion of land in the city is zoned to allow multi-family housing (Mawhorter et al., 2019). Limited availability creates conflicting priorities at times, such as when the city’s valuable historic buildings are located near transit and do not support transit ridership. The Carthay Circle, for example, is a single-family home neighborhood where, in order to protect the “integrity” of the neighborhood, homeowners pushed for adoption of a historical preservation overlay zone. The zoning protects the neighborhood as a single-family area despite its proximity to a major transit stop (Lopez, 2019). A *Los Angeles Times* analysis found that 190,000 parcels in neighborhoods zoned for single-family homes are located near transit-rich areas (Zahniser and Schleuss, 2018). These conditions elucidate some of the challenges the city faces in identifying areas to build denser and more affordable housing near transit.

Los Angeles also frequently must address resident opposition to development, including TOD projects. Fix the City, for example, an organization led by westside homeowners, has become a

strong force in delaying or stopping TOD projects. Yet even with these challenges, Los Angeles has become a leader in TOD policy.

TOD plans in Los Angeles

The Los Angeles City General Plan, developed in 1995 and re-adopted in 2001, includes explicit frameworks that envisage development of transit and TOD. The land use element of the General Plan stipulates promotion of transit and TOD in “concentrated neighborhood districts, community, regional, and downtown centers, and mixed used boulevards” (City of Los Angeles, Department of City Planning, 2019, September). The land use element also calls for infill and brownfield developments to build compactly so as to consume less land and resources, and for pedestrian-oriented districts to be designated where street design can be enhanced to encourage more pedestrian usage and less car travel.

Community Plans serve as the building blocks of the land use element to the General Plan for Los Angeles, setting out permissible land uses in specific areas (City of Los Angeles, Department of City Planning, 2019, September). Thirty-six Community Planning Areas have been designated, including the Port of Los Angeles. After many years during which the plans were not updated, in February 2017 the Los Angeles City Council voted to establish a schedule for revising the Community Plans every six years and provided new funding for the plan update process (<https://www.laconservancy.org/los-angeles-community-plans>). The plan updates will include new zoning provisions, which have not been systematically addressed in the city for many decades (TPR, July 2017).

The city planning department has also adopted a Transit Neighborhood Plan (TNP) program, which works in conjunction with the Community Plans. The TNP program was launched in partnership with Metro in June 2012, to encourage livable communities around transit stations (the Los Angeles County Metropolitan Transportation Authority, branded as Metro, is a county agency which also operates in Los Angeles). TNPs are funded through an \$8 million award from Metro’s Transit Oriented Development Planning Grant Program, to support the city in enhancing access to transit, reducing GHGs, and promoting sustainable development (City of Los Angeles, Department of City Planning, 2017, October). Metro has paid three installments so far on the \$8 million-dollar grant, the first to promote development along the Crenshaw/Los Angeles International Airport (LAX) Line and Exposition Phase II corridors, the second to fund planning endeavors along and around the future Regional Connector stations and existing downtown stations, the Purple Line extension, and the Orange Line, and the third to fund plans along and around the future Metro Active Transportation Rail to River Corridor (City of Los Angeles, Department of City Planning, 2012; City of Los Angeles, Department of City Planning, 2017, October).

The TNP program provides a framework to enhance areas around transit stations, even as the authority to determine the location of a transit station is solely held by Metro. TNPs are intended to promote strategies like mixed use zoning, flexible or decreased parking requirements for buildings near transit, and pedestrian-friendly design standards and guidelines to encourage people to walk and drive less (City of Los Angeles, Department of City Planning,

2017, October). For example, the Expo area TNP, approved by the Los Angeles City Council in 2018 after a 5+-year community input process, allows for more development, especially affordable housing, in areas around five Westside Metro Expo Line stations (Linton, November 2018).

The city has addressed transportation as well as land use aspects of planning and policy to support TOD, transit, and AT. In 2015, the Los Angeles City Council approved *Mobility Plan 2035*, a new Transportation Element for the General Plan, replacing the former transportation plan in effect since 1999. Representing “a paradigm shift from previous transportation plans, which focused on reducing car congestion,” the new plan is intended to reshape transportation policies around the principles of “complete streets” providing multi-modal access (McCarty Carino, 2015). The plan envisions three networks of roads, each prioritized for a different mode; some would be modified to protect bikes and pedestrians, some would get dedicated bus lanes and others would be designed to move car traffic more quickly. The vision includes 117 miles of bus-only lanes, 300 miles of protected bicycle lanes, and traffic calming measures (Zahniser, 2015). In this fashion, the plan contemplates the creation of “enhanced networks” on specific streets for different modes (bicycle, transit, or vehicular traffic) (McCarty Carino, 2015; TPR, 2014). The integrated vision seeks to enhance “first-mile and last-mile solutions” to help Angelenos easily access public transit.

Certain concepts and priorities in *Mobility Plan 2035* set the stage for some ongoing controversies (Hernandez-Lopez, 2018). The “complete streets” concept and emphasis on reducing car trips implies that road space will be allocated for modes other than just automobiles. Plans to increase sidewalks widths, add bike lanes, and dedicate transit only road lanes could lead to “road diets” that re-allocate road space currently reserved for moving or parked cars. The plan also places a high priority on traffic safety, and in conjunction with the city’s street safety initiative called Vision Zero, aims to decrease transportation-related fatality rate to zero by 2035 (Linton, 2015). Vision Zero seeks to eliminate traffic fatalities by coordinating local efforts such as street design, traffic calming, traffic signaling, and law enforcement data gathering, among others. To the degree that these strategies slow vehicular traffic, they can sometimes provoke opposition from members of the driving public.

Although many Los Angeles residents support the city’s efforts to facilitate TOD and transit/AT, some concerted opposition has also emerged. For example, Fix the City (FTC), a group of “litigious mainly-Westside homeowners,” has sued the city over policies that support TOD (Linton, September 2019). FTC sued the city over *Mobility Plan 2035*, claiming the proposed traffic lane reductions would create more air pollution, imperil public safety, and add to traffic congestion (ibid; Dawid, 2015). FTC also sued on Hollywood’s Community Plan Update and the Expo Transit Neighborhood Plan, arguing that city regulations should first improve transportation infrastructure (presumably for cars) before permitting additional density. The city paid Fix the City a settlement over *Mobility Plan 2035* and halted the city’s efforts to update the Hollywood Community Plan (Dawid, 2015; Linton, November 2018, and September 2019).

Planned development along the Crenshaw corridor has also provoked some resident concern. As the Crenshaw line begins to extend further south, area residents have raised concerns about new development causing gentrification and displacement. Some residents formed a group called the “Crenshaw Subway Coalition” which has pushed back against the proposed redevelopment of a mall to a housing project, which will be adjacent to a new Metro station (Flores, 2019). The group supported the extension of the Crenshaw line, but is worried that this new development will displace African American residents. Damien Goodmon, the Executive Director of the Crenshaw Subway Coalition, claimed that, “Our historic Black working class community is under attack from gentrification, speculators, and developers who want to profit off the community we built” (Flores, 2019).

Racial discrimination in housing has been a problem for decades in Los Angeles, helping account for neighborhood segregation. Discriminatory real estate policies and banking practices have contributed, as have restrictive zoning laws that preserve the character of single-family neighborhoods (Boyarsky, 2019). This history of displacement could help explain why even well-intended Specific Plans may be met with skepticism about further displacement.

This discussion indicates that the development of neighborhood plans is a useful but also sometimes challenging approach for addressing TOD goals in Los Angeles. Although the city’s General Plan stipulates general goals and policies, area plans allow for a neighborhood-scale approach, which can help in addressing local concerns and differing priorities in different parts of the city.

Land use regulation for TOD in Los Angeles

In conjunction with the plans described above, Los Angeles has adopted several policies which aid in creating denser housing near transit stations. In 2017, the city adopted the Transit Oriented Community (TOC) Incentive Program, with the intent to encourage construction of affordable housing units near bus and train stations. TOC was created as a provision of Measure JJJ, approved by voters in November 2016, which called for the city to provide incentives for affordable housing provision in developments located near transit.

Under the TOC program, for residential and mixed-use projects located within a half-mile radius of a major transit stop (defined as a rail station or the intersection of at least two bus routes with frequent service during peak commute times), incentives are granted to developers if they provide a set percentage of affordable units based on their proximity to transit. The incentives are provided in four tiers that vary depending on the distance of the project site to the nearest major transit stop – the closer to a transit station, the higher the tier⁹ (City of Los Angeles,

⁹ For example, if development is proposed in an area where the intersection of two bus lines of 15-minute average peak headways is at 750–2460 feet distance, Tier 1 will be granted to the project site. If the intersection is less than 750 feet, developers can develop Tier 2 housing units which are more compact than Tier 1 (City of Los Angeles, Department of City Planning, 2018). For metro rail stations, if the intersection of a rail line and a rapid bus line is within 750 feet, project sites can be granted Tier 4, the highest tier in the TOC incentive program.

Department of City Planning, 2018).

The incentives offered through the TOC program include the following:

- Density: Depending on the tier, developers can increase density of housing units from 50% to 80%. The higher the tier, the higher will be the awarded density bonus.
- FAR (residential portion): Tier 1 increases by 40%, Tier 2 by 45%, Tier 3 by 50%, and Tier 4 can lead to a 55% increase in FAR.
- Residential parking: Tier 1 is designated as 0.5 parking space per bedroom, Tier 2 has 1 parking space, and Tier 3 and Tier 4 have no provision of parking space.
- Height: Tier 1 and 2 have height restrictions of 11 feet for one story, Tier 3 has a 22-foot restriction for two stories, and Tier 4 has 33 feet for three stories.
- Yard/setback: Developers have the advantage of reducing the setback of the building for residential units. Tier 1 can reduce their setback by 25% which is 1 yard. Tier 2 can have a reduction of 30% and Tier 3 and 4 can have reductions of 30% and 35% respectively.
- Open space: Depending on the tier, developers can reduce open space by 20% to 25%. The higher the tier, the greater the possible reduction in open space.
- Lot coverage: Developers can increase their lot coverage by 25% to 35%, depending on their designated tiers.

TOC projects can follow either a by-right process or a discretionary approval process (City of Los Angeles, Department of City Planning, 2017, May). By-right development refers to the ability for a developer to build or use their property without obtaining discretionary approval from the city, if the project or use follows zoning and planning regulations. Since discretionary approval is not required, CEQA review is also not required. By-right development is feasible through the TOC program if a project uses the base incentives offered—a density bonus, a FAR bonus, and/or relaxed parking requirements—available by tier to projects that meet the percentage affordable housing requirements.

In addition to the base incentives, projects may be granted up to three additional incentives in return for meeting specific affordability requirements. If a project is applying for additional incentives, then approval is required from the Department of City Planning (therefore triggering CEQA) (City of Los Angeles, Department of City Planning, 2017, May). The additional incentives in the list shown above are the height, yard/setback, open space, and lot coverage incentives.

CEQA can sometimes get in the way of a new development because of the money and resources needed to create an Environmental Impact Report, and mitigation for environmental impacts, if necessary. If developers can by-pass this requirement with a by-right process, then it becomes easier and cheaper to build. Therefore, it may be the case that developers will be reluctant to apply for the additional TOC incentives because the project will require approval, and a CEQA process.

Two years after the TOC Program was put into effect, the city assessed that the program appeared to be on track in increasing numbers of permitted affordable housing units (City of

Los Angeles, Department of City Planning, 2019, June). Hundreds of projects had requested TOC incentives from the city, and project developers were using the TOC Program far more often than other incentives, including density bonuses mandated under state law, in seeking permits for affordable housing units (Stein, 2019). By the end of 2018, proposed housing entitlements through the program represented 30 percent of all proposed housing entitlements in the city, earning the program the distinction of being the strongest driver of new housing in Los Angeles, a trend that continued into 2019 (ibid). According to a land use consultant, information on TOC is the most requested information from developers, and many who did not want to build in Los Angeles before are now interested (Lawson and Lopata, 2018). Thus, the TOC incentives appear to be working to induce TOD, giving more people the option to use transit.

In September 2019, Fix the City, the resident group described earlier, announced that it was suing the city over the TOC program, claiming that it illegally rezones parts of the city and that the higher height limits reach beyond those in voter-approved Measure JJJ (Linton, 2019, September). Fears about so-called “automatic upzoning” have been fueled in Los Angeles not just by the TOC program, but also by proposed state-level legislation that would have mandated upzoning near high-quality transit (ibid). Specifically, Democratic State Senator Scott Weiner of San Francisco, another city hard hit by rising housing costs, introduced SB 50 in December 2018, calling on cities to incentivize construction of four- and five-story apartment housing within half of a mile of a transit station and within a quarter-mile of a heavily used bus line. Many cities, however, resisted the perceived interference of the state in their local housing and zoning laws, often invoking the cherished notion of “home rule,” or local control of land use (Boyarsky, 2019). Nonetheless, several mayors in California signed on to support SB 50; Mayor Eric Garcetti of Los Angeles tentatively supported the bill.

Opponents of development for new affordable housing units in Los Angeles often cite fears of depreciated property value, congested roads, and changes to community character (Monkkonen and Manville, 2019). When homeowners resist new development, their own property values may rise, but renters and new home purchasers can suffer. In a city like Los Angeles where resident opposition can sometimes be strong, city leaders and planners must work to address sometimes competing concerns. To address the city’s housing crisis, elected officials and planners must work to ensure that new housing is provided in ways that meet the needs of multiple stakeholders.

As another regulatory complement to its TOD policies, in July 2019, Los Angeles officially made the switch from using LOS to VMT for its transportation impact assessment under CEQA, as called for under SB 743 (described in more detail earlier in this report) (Linton, 2019, August). The new procedure will make TOD projects easier to develop because housing near transit stations can generally be expected to be assessed as having a lower transportation impact, and therefore mitigation might not be necessary. The city planning and transportation department created a customized VMT threshold and assessment tool which recognizes that areas across the city vary in how car-oriented they are. Developers must use the city’s VMT calculator tool to estimate VMT impacts; after inputting their proposed project’s description and location, the tool then tells them what the estimated impact will be and what they can do to mitigate

significant impacts. Recommended mitigation strategies include reduced parking, transit subsidies, and carpool.

Financing strategies for affordable TOD in Los Angeles

To help raise funds for affordable housing, the city enacted an Affordable Housing Linkage Fee (AHLF) in June 2018.¹⁰ It is expected that the fee will collect \$1 billion over the next decade (City of LA, Housing and Community Investment Department, 2018, July). Exemptions outlined in the ordinance include projects such as hospitals, non-residential developments under 15,000 square feet, and affordable housing.¹¹ The fees are generally higher than Sacramento's (described later), reaching a high of \$18 per square foot whereas Sacramento's highest fee is \$2.77 per square foot.

Developers and business groups, including the San Fernando Valley Business Journal and Abundant Housing, came out against the fee, stating that it would discourage housing development, increase housing costs, lose jobs, and result in an "immediate recession" (Linton, 2017). However, many affordable housing advocates and community-based non-profits, including Los Angeles Community Action Network and Alliance for Community Transit, supported the policy, stating that the fee was a step in the right direction to solving the housing crisis. These advocates and non-profits contend that luxury housing developers are partly to blame for the lack of affordable housing, and therefore they should contribute to funding affordable housing (Linton, 2017). Following debate, the fee was passed unanimously by the City Council, during a meeting in which "a large crowd of supporters packed the council chambers" (Chiland, 2017). Figure 13 shows the amount of the fee depending on the market area.

Another funding source for affordable housing is Measure H, a county sales tax measured passed in 2017, which increased the sales tax by 25 cents to help address the housing problem in Los Angeles County (Ballotpedia, 2017). The levied funds can go toward many uses including rental and housing subsidies, emergency and affordable housing, and transportation.

¹⁰ Any project that meets any of these criteria is subject to the fee: a) a project that results in additional dwelling units or guest rooms; b) a project that results in additional nonresidential floor area; c) a single-family residential project that results in a net increase of more than 1,500 square feet of floor area, unless not sold within three years; or d) a change of use from nonresidential to residential (City of Los Angeles, Housing and Community Investment Department, n.d.).

¹¹ For an exemption, a housing project must include 40% moderate income units, or 20% low income units, or 11% very low income units, or 8% extremely low income units (City of Los Angeles, HCID, 2018, July).

Type of Use	Low Market Area	Medium Market Area	Medium-High Market Area	High Market Area
Type of Use	Fee Per Square Foot			
Nonresidential Uses including Hotels	\$3	\$4	n/a	\$5
Residential Uses (6 or more units in a Development Project)	\$8	\$10	\$12	\$18
Residential Uses (2-5 units in a Development Project)	\$1	\$1	\$1	\$18
Residential Uses (single-family detached home)	\$8	\$10	\$12	\$18
Development Projects that Result in a Net Loss of Housing Units (in addition to any other fees)	\$3	\$3	\$3	\$3

Figure 13. Los Angeles’ affordable housing linkage fee: schedule of fees by type of use.

Source: Los Angeles Housing and Community Investment Department, <https://hcidla.lacity.org/affordable-housing-linkage-fee-background>

Finance for transit and active transport in Los Angeles

In recent years, Los Angeles has become known as a city that aims to substantially improve transit and active transport. Proposition A, passed in 1980, added a half-cent to the county sales tax, with all funds going to Metro. Then Proposition C, passed in 1990, added an additional half-cent (Metro, n.d.),¹² and Measure R, adopted in 2009, did so again (Metro, 2008, September).¹³ In November 2016, Measure M increased the sales tax by another half-cent, for purposes similar to Measure R.¹⁴ In July 2039, the tax will be raised to one cent (Metro, 2016). Combined, these sales tax measures have provided Los Angeles with “the largest and most

¹² Metro returns 20% of the money raised back to the city for transportation purposes, 40% for construction and operation of bus and rail systems, 5% to expand bus and rail security, 10% for commuter rail, and 25% for transit related improvements on the freeway (Metro, n.d.).

¹³ The funds for Measure R are distributed as follows: 35% to new rail and bus rapid transit projects, 3% to Metrolink projects, 2% to Metro Rail system improvement projects, 20% to carpool lanes, highways and other highway related improvements, 5% to rail operations, 20% to bus operations, and 15% for local city sponsored improvements (Metro, 2008, September).

¹⁴ Measure M funds are to be allocated as follows: 27% for transit maintenance and operations; 35% for transit and first/last mile capital expenditures; 19% for roadway, active transportation, and complete streets capital expenditures; 17% for local return (local projects) and regional rail; and 2% for administration and local return (Metro, 2016).

aggressive infrastructure program in ... North America,” according to the director of Los Angeles Metro (TPR, 2019). Measure M alone is expected to generate approximately \$120 billion.

Los Angeles County residents have supported these taxes, with Measure M receiving an overwhelming 71% voter approval (Metro, 2016, August). However, even with increased transit service funded by Measures R and M, transit ridership has not increased in the City of Los Angeles and frequently used lines are often congested. Recently, Metro announced that it has increased service in the Expo Line, with trains now scheduled to arrive every 6 minutes during the morning rush hour. Despite this, riders have expressed frustration, with one user describing the trains as full of “riders wedged side-by-side, filling the walkways, with no room to move” (Flores, 2019).

The large increase in funding provided by Measures R and M will enable improvements in service. However, in a study conducted by Mike Manville, an urban planning professor at UCLA, it was found that most people who voted for Measure M did so because of political ideological beliefs rather than because they saw themselves using transit (Bliss, 2019). There can be a disconnect among Angelenos in terms of what they support theoretically and the changes they are willing to make in their own lives. Most voters saw the measure as a way to reduce congestion, increase jobs, and make driving easier, rather than as an opportunity to increase low-cost, efficient, and sustainable mobility options (Bliss, 2019). As Manville puts it, “People who vote for transit because they believe it reduces congestion are often voting for transit because they want driving to be easier” (Bliss, 2019). Even 40% of those surveyed who use transit said they would drive if they could (ibid).

The rise between 2000 and 2015 in the number of households that owned vehicles in the Los Angeles region outpaced population growth by 4% during the period (Short, 2019). If Los Angeles wants to see an increase in transit ridership, then it is going to have to make driving more costly. This is a politically difficult move, requiring people to change their driving habits in a city that has been designed for cars for many decades. Manville’s study found that people who voted for Measure M do not favor some strategies that would increase transit ridership such as priced parking, highway tolls, narrower streets for buses and bikes, and higher housing density (Bliss, 2019).

Metro will play an important role in addressing these challenges. As already mentioned, Metro has provided funds to the city to support TOD development such as the grants given for TNPs. It is also responsible for the extension of rail across the city, and it is the most prominent public transportation provider in the city. The agency also has a role in helping build affordable housing near its stations. Metro owns some land across the city, which is why it is able to extend its rail, and it is also able to use that land for housing. Originally, Metro purchased the land only with the goal of expanding transit services, but over the years, the agency has realized the potential benefits that could be derived from building mixed-use and affordable housing near their transportation network (Epstein, 2012).

In 2015, Metro prepared a study to see which of its owned property could be suitable for new housing, with the goal of finding areas where development could occur with 35% affordable

units, while at the same time maximizing revenue from market rate units (Sulaiman, 2015). Metro created a Joint-Development Agreement with developers to help build new housing around its stations (ibid). Collaborating with Metro has been an important aspect for achieving TOD success for Los Angeles city planners.

Conclusion

Los Angeles is at a transition point, facing great opportunities but also significant challenges for implementing TOD and increasing use of transit and AT. Recognizing the need to address problems such as traffic congestion and high housing prices, city voters have lent their support to policies and programs such as Measures R, M, and JJ.

However, what voters approve in theory does not always translate to approval of on-the-ground changes that affect their own experience. While the city has developed ambitious and far-reaching policies for TOD, transit, and AT expansion, implementation of these policies and programs has sometimes proved to be challenging, indicating that even though Angelenos may agree in diagnosing many of the problems they face, less consensus has been achieved about how to solve them. With substantial resources, but also facing substantial planning challenges, Los Angeles will be a crucible in the coming years for developing effective strategies for TOD.

TOD planning and policymaking in Sacramento

Sacramento's main motivations for supporting TOD, according to our interviews and survey responses from planners in the city, are to provide more housing and reduce environmental impacts. The city's goal, however, is not to build housing wherever possible but instead near transit stations, employment centers, and educational opportunities because that helps reduce VMT and promotes economic growth. The mayors of Sacramento and West Sacramento have teamed up to create the initiative "Mayor's Commission on Climate Change" which seeks to achieve carbon neutrality for both cities by 2045. TOD is considered a potentially important contributor to reaching that goal.

The city hopes that by improving services and directing incentives toward transit zones, it will spur denser and affordable development. Sacramento's leaders and residents tend to strongly support TOD policymaking, per the planner that we interviewed, which has allowed the city to pass more aggressive policies in recent years. However, the city also faces some significant challenges in meeting this goal. For example, the light rail system was created on already existing freight rails because it was cost effective and the headways necessary already existed. This historical legacy poses several challenges for TOD, because some of these light rail stations do not connect to major destinations outside the downtown area, and because many existing transit stops are located in single family and industrial zoned areas.

Due to the limited numbers of bus and light rail stations, the city wants to ensure that the land uses around those stations support multifamily housing and employment opportunities. For example, the Golden 1 Center was developed in its current location largely due to the already existing light rail stations. However, acquiring funding for infrastructure near rail presents a significant challenge for the city in meeting its TOD goals, made worse by the dissolution of

redevelopment authority in 2012. Sacramento faces significant barriers from lack of adequate infrastructure in the limited areas where the light rail stations exist, and the means to finance needed improvements. The main infrastructural needs are to improve connectivity to and from light rail stations, and underground utilities such as water.

TOD plans in Sacramento

Sacramento's General Plan, adopted in 2015, explicitly mentions TOD in the land use and mobility elements. The land use element states that "the city shall actively support and facilitate mixed-use retail, employment, and residential development around existing and future transit stations" (City of Sacramento, Community Development Project, 2015, March). Other policies that support TOD (but do not mention it) state that the city will facilitate infill development, require that new development maximize connections and remove barriers between neighborhoods and corridors, and remove physical barriers to transit. The mobility element, in turn, includes policy guidance pertaining to the improvement of transit facilities and services, improved connectivity for active transport, and the need to de incentivize single passenger car rides (City of Sacramento, Community Development Project, 2015, March).

The planner we interviewed explained that Sacramento updates its General Plan every five years. This frequent update, compared to many cities, is undertaken to ensure that Sacramento's policy guidance keeps up with changes that have been taking place. Plans are in motion to update the mobility element and land use map to better aid the city's TOD efforts, along with adding a climate action plan. A Master Environmental Impact Report (EIR) for the new General Plan will allow for streamlined approval of new TOD projects. According to our interviewee, it is important to provide this type of streamlined approval because it relieves developers of the financial burdens and cost of uncertainty associated with needing to assess environmental impacts on a project-by-project basis.

Another planning approach for TOD has been the creation of Specific Plans. Four Specific Plans in Sacramento include TOD as an objective; the Sacramento Railyards Specific Plan even states that adding TOD as one of the goals of the plan was done to stay consistent with the General Plan (City of Sacramento, 2007, December). Through promoting denser housing near transit and using design guidelines for pedestrian and bike routes, these plans aim to improve access to transit and improve ridership. These Specific Plans have also allowed the city to address localized concerns such as removing physical barriers to transit stations. A supplementary strategy has been the creation of a "Neighborhood Development Action Team" that looks at commercial corridors and conducts studies to identify what can be done to encourage neighborhood needs and inclusive economic development strategies, including TOD.

A Specific Plan that highlights some regulatory approaches for supporting TOD in the city is the Central City Specific Plan (CCSP), adopted in 2018. It aims to guide the construction of ten thousand new units in the next ten years in the downtown area, which covers 1,902 of the 64,070 total acres in the city (or 2.97%) (City of Sacramento, Community Development Department, 2018, April). Parts of this plan are mentioned often in a Sacramento Area Council of Governments (SACOG) "Transit Oriented Development Toolkit." The plan divides the central

city area into different districts with different densities, FAR (floor area ratio), and height allowed, and indicates that some densities are to be intensified near transit.¹⁵ TOD is addressed using policy guidance for improving density, intensity, and transit ridership, waiving parking requirements, creating multi-modal linkages, addressing housing adjacency and visitor use, and raising infrastructure funding. Incentives are outlined to encourage a wide variety of housing types, and standards for monitoring displacement are determined to aid in allocating resources gathered from a Housing Trust Fund which the city has established.

The plan also outlines permit streamlining strategies. For example, the city has identified “housing opportunity sites” which are generally vacant or underused; the information on these sites is made public and the development review process is streamlined in these areas. Furthermore, projects that are consistent with CCSP and its EIR may be eligible for CEQA streamlining (City of Sacramento, Community Development Department, 2018, April). Any residential project that is consistent with the CCSP can bypass the creation of an EIR and go straight to the design review approval process and site plan. If a project is mixed-use and within a designated transit priority area and is consistent with the EIR prepared for that area, then the project is exempt from further CEQA review. Lastly, if a project consists of 100 dwelling units or fewer, or is a mixed-use project of less than 100,000 square feet, then a focused EIR can be used in which only significant impacts will be discussed (City of Sacramento, Community Development Department, 2018, April).

In order to support the CCSP, the city is considering establishing a Special Planning District (SPD), a zoning tool that would: increase height and density,¹⁶ prohibit stand-alone parking lots, prohibit auto oriented uses, set a parking maximum for commercial uses, and reduce private open space requirements in urban centers and remove them completely in central business districts (City of Sacramento, Community Development Department, 2017, September). The area to be covered by the SPD includes most of the land area in the CCSP.

The General Plan envisions that the downtown area will have the highest share of growth in the city (City of Sacramento, Community Development Project, 2015, March). In order to help plan for this goal, the Grid 3.0 plan was released on August 16, 2016. This plan seeks to maximize road use efficiency for different modes of travel. First, a study was conducted on the roadways within the central city to see how to support multiple transportation modes (City of Sacramento, 2016, August). The plan, which covers 4.25 square miles, takes a “layered network” approach recognizing that certain road uses may conflict with others. For example, a road with higher speed limits for vehicles reduces bike and pedestrian safety. So, this layered

¹⁵ The lowest density allowed in a lower density district is 15 du/ac (dwelling units per acre), which equates to a townhouse. The highest density allowed in the highest density district is 250 du/ac which equates to a high-rise (City of Sacramento, Community Development Department, 2018, April). Allowed FAR ranges from .3 to 8.0.

¹⁶ The height in the General Commercial Zone would increase from 65–85 feet, 35–65 feet in the Office Zone, and 45–65 feet in the Residential Zone. The density in Office Zone allows for an increase of 36–65 du/ac.

network approach prioritizes certain uses on certain streets and provides different priority for certain uses in parallel streets (ibid).

The plan outlines different projects for each modal network. For example, for driving it describes converting some one-way streets to two-way streets; for pedestrians it outlines a connector street enhancement project that will connect pedestrian walkways so that physical barriers preventing travel by foot are removed; for bicycles one of the projects is the creation of protected bike lanes to physically separate bikes from vehicles on the street; and for transit one of the projects is to remove one lane on one-way streets and convert it to a bus-only lane (City of Sacramento, 2016, August). The plan also considers potential funding sources for these projects, predicting that most of the funding needed will have to come from local sources (ibid).

Sacramento has invested time and resources to create these plans, with the intention of reaching agreement with residents on how to guide future development. The planner we interviewed explained that for the most part, Sacramento residents support more housing and transportation projects because they understand the need for more housing and to support efficient transport. NIMBYism has not been absent in the city, however, as at least one infill project with affordable housing is being sued by a group of neighbors. However, this situation is not as prevalent as in Los Angeles. With fewer financial resources for implementation compared to Los Angeles, Sacramento has not experienced the level of conflict about development that has emerged in Los Angeles as plan goals were translated to the implementation stage for certain controversial policies, such as introducing bus-only lanes.

Land use policies to promote TOD in Sacramento

Many existing uses around the existing light rail stations are auto-centric (such as gas stations and car washes) which do not promote TOD. So, the city Council adopted a TOD Ordinance, which took effect in January 2019, to take a more aggressive approach to achieve the city's TOD goals (City of Sacramento, City Council, 2018). With this ordinance, uses that do not promote transit ridership are prohibited within a quarter mile of a transit station, and require a conditional use permit if within a half mile of a transit station. Some of the uses listed are gas stations, car washes, warehouses, and storage buildings.

Sacramento has transit stations in areas that are zoned for purposes that do not support TOD, such as industrial uses. While businesses that already exist will be grandfathered in, if they want to make changes to their buildings, they will have to comply with the uses stipulated under the ordinance (City of Sacramento, City Council, 2018). This is likely to exert a significant effect on many businesses in industrial areas, and other areas that were not zoned for mixed-use development.

The ordinance also provides incentives to encourage uses that will increase transit ridership. If a project has more than 25 units, then the approval process is expedited, making the building process faster. There are also no parking requirements if a project is located within a quarter mile of a transit station, and if within a half mile then the parking requirement is reduced by 50% (City of Sacramento, City Council, 2018).

Changes have been proposed to the ordinance that would allow for office, retail, and residential development by right in certain industrial zoned areas. The methodology to determine if an area falls under the ordinance would change from as-the-crow flies distance to transit stations to how long it takes to walk and bike there.

Another TOD-friendly policy approach is Sacramento’s support for “by right” development. If a proposed project complies with the city’s zoning standards, then it is given a permit without the need for a public hearing and a decision-making process. Currently, this procedure is only allowed in the downtown area, but city leaders are seeking to expand the provision to all of Sacramento (City of Sacramento, Community Development Department, 2015, December). The city updated its zoning codes, effective April 9, 2013, allowing for this streamlined approval (City of Sacramento, Community Development Department, 2013, April).¹⁷ Since it is a staff level review, CEQA is not required for these projects, which makes the building process easier and less costly for developers.

To support affordable housing, the city offers density bonuses to developers if they include affordable units. While this program was adopted to comply with the California Density Bonus Law, it provides further bonuses for projects that contain low and very low-income dwelling units. Figure 14 outlines the density bonus incentives offered, which can be found in the Sacramento City Code website (City of Sacramento, 2014, June).

Income Level	Minimum Percentage of Target Units	Minimum Density Bonus	Density Bonus Increase for Each Additional 1% (Total Maximum Bonus for Affordable Units is 35%)
Lower	10%	20%	1.5%
Very Low	5%	20%	2.5%
Seniors	All	20%	N/A
Moderate—Common Interest Developments	10%	5%	1%

Figure 14. Sacramento’s density bonus incentives. Source: City of Sacramento, June 2014.

Financing strategies for TOD and affordable housing in Sacramento

In order to raise money for the construction of new affordable units, a Mixed Income Housing Ordinance was adopted in 2015 which applies an impact fee on all new residential units. The fees collected are transferred to the city’s Housing Trust Fund (City of Sacramento, Community Development Department, 2015, September). Figure 15 outlines the fees.

¹⁷ The updated zoning code in the downtown area allows for housing by right in commercial areas, mixed use housing by right in commercial and multi-dwelling zones, and reduced commission level review which is replaced by staff level review (City of Sacramento, Community Development Department, 2015, December).

Housing Type	Current Fee Level (FY 17/18) Fee / SF	Adjusted Fee Level (FY 18/19) Fee / SF
Single-unit and duplex dwellings (less than 20 dwelling units per net acre)	\$2.68	\$2.77
High density single-unit and duplex dwellings (20 dwelling units per net acre or more)	\$0.00	\$0.00
Multi-unit dwellings (less than 40 dwelling units per net acre)	\$2.68	\$2.77
High density multi-unit dwellings (40 dwelling units per net acre or more)	\$0.00	\$0.00
Conversion of a nonresidential building to a residential use	\$0.00	\$0.00
Dwelling units in the Housing Incentive Zone (see map below)	\$1.16	\$1.20

Figure 15. Fee schedule for Sacramento’s housing impact fee. Source: City of Sacramento, Community Development Department, September 2015.

The fee structure promotes density by setting the fee level to zero for high-density units. Some projects are exempt from the fee entirely, such as affordable housing; in 2018 the fee was reduced to zero for new affordable dwelling units.¹⁸ For a rental unit to qualify for this fee reduction, it must be subject to rent restriction for 30 years. These provisions have helped increase new affordable units in the city.

Another finance strategy for affordable housing was adopted in 2019 by the city’s redevelopment agency. The Multifamily Lending and Mortgage Revenue Bond Policies offer gap financing and the issuance of tax-exempt bonds for the development of multifamily rental housing projects (Sacramento Housing and Regional Agency, December 2017), with the goal of increasing the supply of affordable housing units.

According to the planner we interviewed, the city has set up an Enhanced Infrastructure Financing District around the railyard area, which will help bring in revenue for infrastructure.

¹⁸ The exemptions are as follows: room additions, second residential units, developments with regulated 10% low income housing units, a new single family home built by an owner-builder in their own property, projects with an in-force development agreement prior to the adoption of the ordinance, mobile home parks, development projects which have received approval before adoption of ordinance, and multi-unit dwelling developments that submitted an application before November 1, 2015 (City of Sacramento, Community Development Department, 2015, September).

However, this financing mechanism will not be as robust as the Redevelopment Agency's activities, which were halted in 2012. The planner mentioned that the city would like to find a more dedicated way to finance infrastructure, especially to support infill growth.

Transportation finance in Sacramento

In 1988, voters approved Measure A, a half-cent county sales tax to fund roadway and transit improvements. The measure was re-approved in 2009 for 30 more years. Sacramento City received over \$1 million from this tax in 2019, with funding used to improve roadway and bus and light rail operations. The extension of Measure A also established a county wide transportation mitigation fee which is used to fund transportation improvements (City of Sacramento, 2014, June).

Measure U, a one-cent sales tax, took effect on January 1, 2019, for use for any general government purpose. Some of the funds are allocated towards active transportation, for development and maintenance of on- and off-street bike trails and bicycle and pedestrian bridges (City of Sacramento, Department of Finance, 2018, September). According to the planner we interviewed, the city will also likely be bonding for a "catalytic affordable housing bond" using the income generated from Measure U.

Another method of transportation finance is the city's transportation development impact fee, adopted in 2017. The fees are based on facility improvements for roadways (including complete street components) and alternative modes of travel, needed to accommodate new development, including addressing LOS (traffic delay) impacts (Economic and Planning Systems, Inc., 2016, August). The fees apply citywide, but are reduced in the downtown area, North Natomas, and River District since they have their own financing programs to help improve infrastructure. Furthermore, a reduction is applied for projects in "transit center" areas located within one-half mile of a Sacramento Regional Transit (RT) light rail station.

Unlike Los Angeles, Sacramento has not yet transitioned to using VMT as an impact measure, pursuant to SB 743. In its update to the General Plan, the city does plan to phase out LOS and start using VMT instead (City of Sacramento, Community Development Project, 2019, January).

Collaboration with regional agencies

Sacramento collaborates frequently with regional agencies, meeting once a month with SACOG, the California Air and Resource Board (CARB), and Sacramento Regional Transit (SacRT) to discuss how they can meet TOD goals. As described by the planner that we interviewed, the city sees growth as part of the whole region rather than just the City of Sacramento. The city hopes this collaboration will help the region grow in a sustainable manner to help achieve climate goals. These agencies also help fund TOD goals through grant programs, which the city considers an important source of funding.

SacRT has been involved in helping expand the light rail stations in the city, recently completing a "Blueline Extension" to Cosumnes River College. They have also done studies on bus routes to see which lines should be removed (due to low usage), and which ones should get more buses.

This has led to an increase of headways on some routes, making bus frequencies faster. By removing some bus services to increase the frequency on other, those who used these buses now have to find a different way to move around town. This highlights some of the challenges the city faces with its limited transit stations.

SacRT is also conducting studies to add Bus Rapid Transit services along high density corridors in order to be able to provide even more high-quality transit. Even with the extensive collaboration however, planners feel that regional and state agencies can do more to help provide funding to help achieve the city's TOD goals.

Conclusion

Sacramento has been advancing policies and plans to promote TOD, benefiting from substantial support and enthusiasm among city leaders and residents. However, the city faces significant challenges and finds it necessary to combine regulatory approaches, incentives for developers, and financing tools in order to be successful with TOD. The city tries to acquire as much grant money as possible from state and regional agencies through different grant programs offered. Even with the different financing tools the city pursues, however, more grants from the state and regional agencies will be needed for Sacramento to fund the infrastructure needed in the city, according to the planner we interviewed.

Comparing Los Angeles and Sacramento, we detect that the different layouts of the cities help account for differences in their approaches to TOD. Sacramento has most of its population in the city center, while Los Angeles is more corridor-like with multiple areas of different densities outside of the city center. Sacramento may have relatively more land parcels to work with, but areas outside of the city core also sometimes lack infrastructure for more development. Sacramento faces considerable hurdles in addressing inadequate underground utilities and physical barriers that prevent bikes and pedestrians from accessing transit stations.

Meanwhile, Los Angeles is sometimes grappling with psychological barriers, as the city seeks to retrofit its built-up urban areas without engendering resistance from residents. In some respects, such as in its project approval streamlining provisions applicable to the downtown area, Sacramento's approach has been more aggressive than Los Angeles's TOD incentives, possibly reflecting lower levels of pushback from concerned homeowners. Nevertheless, Los Angeles's more comprehensive suite of TOD/transit/AT policies and plans highlights how a city can integrate multiple approaches across varied territory. The challenge in Los Angeles has not been so much how to plan for TOD, transit, and AT, but how to translate bold policies to action on the ground in a fashion that excites, rather than provokes, city residents.

Chapter 5. Conclusion

Our first year of research for this project indicates that TOD policymaking is prolific in California, with cities combining multiple policies and strategies to achieve TOD goals. However, we also found great diversity and complexity making it hard to link city characteristics to patterns of policymaking in any simple way. This situation underscores the value of our upcoming, second phase of research in which we will investigate in more depth motivations and perceived barriers related to patterns of policy adoption.

We detect a few signs of hesitation among cities to adopt the most assertive types of policies we investigated. For example, the propensity among survey respondents to state that affordable housing is major motivator and top priority for TOD zones is not matched by rates of policy adoption for most of the affordable housing policy measures we asked about. Similarly, some policies rated as highly important by adopter cities for achieving TOD goals, such as upzoning, are not matched by high rates of adoption among all cities. Upzoning can be controversial locally, as we observed in our case study investigation of Los Angeles.

Indeed, Los Angeles exemplifies much of the promise and also perils of TOD policymaking. Having gained massive voter approval for recent sales tax measures that increase funds for transit and active transport, the city has been experiencing conflict and controversy in some locales as the new funds are being expended for projects that raise objections from some nearby residents. Gaining approval for adding density in single-family neighborhoods in Los Angeles presents a continuing challenge. Meanwhile, lower-density Sacramento has not experienced the same degree of contention over TOD policy implementation, and the city has been progressively strengthening its TOD policies. Still, Sacramento faces significant obstacles in the form of costly infrastructure deficits that must be overcome in TOD zones. Devising effective finance strategies remains a challenge.

Our upcoming research will take advantage of the information gained through our survey in order to explore further these dynamics, to learn more about how cities in California are crafting multi-faceted policy packages responsive to local conditions and constraints.

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Data Management

Products of Research

An online survey between April and July 2019, of city planning directors or their equivalent in cities located in California's four largest regions—the San Francisco Bay, Los Angeles, San Diego, and Sacramento metropolitan areas (as defined by the jurisdictions of the regions' Metropolitan Planning Organizations). The survey asked about the cities' plans, policies, and programs to support transit-oriented development, transit, and active transport. We also collected public-use data on built-environment, demographic, and political (voting behavior) aspects of cities, to use in conjunction with the survey results to analyze response patterns in relation to city characteristics of interest.

Data Format and Content

Our survey responses are recorded in an Excel file, converted from the original Qualtrics survey response on-line dataset.

Data Access and Sharing

We are providing open access to an anonymous version (stripped of identifying information) of our survey results of city planning directors. We also supply the survey questions. The data can be accessed at <https://doi.org/10.25338/B8RC9H>.

Reuse and Redistribution

Anyone who makes use of the dataset should cite it as follows:

Barbour, Elisa (2019), Survey data for: Planning and policymaking for TOD, transit, and AT in California cities, v2, UC Davis, Dataset, <https://doi.org/10.25338/B8RC9H>.

Appendix A. Regression Tables

Table A1.

Dependent variable	1. Odds of a respondent city having adopted policies, programs, or plans to support TOD				2. Odds of a respondent city having adopted policies, programs, or plans to support transit provision				3. Odds of a respondent city considering mobility/ accessibility to be a top priority for adopting TOD policies/programs/plans			
	Odds Ratio	Std. error	z	P> z	Odds Ratio	Std. error	z	P> z	Odds Ratio	Std. error	z	P> z
City characteristics												
Relative rate of housing growth in HQT areas compared to entire city	0.51	0.54	-0.63		1.00	0.99	0.00		0.56	0.67	-0.49	
Housing unit growth rate 2000-2017	10.65	40.86	0.62		171.0	633.6	1.39		20.51	93.44	0.66	
City population in 2017 (natural log)	2.69	0.68	3.91	***	2.02	0.44	3.19	**	1.12	0.22	0.57	
Activity density (residents plus workers per sq mi) (natural log)	1.35	0.58	0.71		0.84	0.33	-0.43		1.16	0.52	0.33	
Portion of city land area with high quality transit access (sq root)	0.64	0.85	-0.34		3.53	4.45	1.00		0.15	0.22	-1.31	
Jobs-housing balance (natural log)	1.64	0.62	1.30		1.83	0.67	1.65	*	0.94	0.36	-0.15	
% of city voters for Hillary Clinton in 2016 presidential election	1.01	0.03	0.20		0.98	0.02	-1.03		1.06	0.03	2.13	**
Median household income of city residents (natural log)	0.15	0.11	-2.56	***	0.32	0.22	-1.68	*	0.30	0.22	-1.61	
Share of city residents = people of color (not white non-Hispanic)	0.26	0.35	-1.01		1.23	1.53	0.17		0.06	0.09	-1.85	*
Region location indicator (omitted = Sacramento metro area)												
San Francisco Bay Area	5.33	5.60	1.59		1.689	1.68	0.53		0.90	0.83	-0.11	
Los Angeles metro area	0.72	0.62	-0.37		0.202	0.17	-1.85	*	0.97	0.76	-0.03	
San Diego metro area	1.02	1.07	0.02		0.188	0.20	-1.61		4.10	4.39	1.32	
Regression statistics												
Constant	12386	105717	1.1		7364	58277	1.13		30879	263896	1.21	
(Note: * = p<.10, ** = p.<.05, *** = p.<.01)	N= 144; LR chi2(12) = 45.58; Prob > chi2 = 0.00;				N= 134; LR chi2(12) = 31.69; Prob>chi2 = 0.0015;				N= 122; LR chi2(12) = 14.25; Prob > chi2 = 0.2850; Pseudo R2 = 0.0887			
	Pseudo R2 = 0.2506				Pseudo R2 = 0.1740							

Table A2.

Dependent variable	1. Odds of a respondent city having adopted policies, programs, or plans to support TOD				2. Motivation index (# of motivations rated "top priority" for TOD/transit policymaking)			
	Odds Ratio	Std. error	z	P> z	Coef.	Std. error	t	P> t
City characteristics								
Rate of housing growth in HQT areas compared to entire city	2.06	7.27	0.21		-1.51	1.22	-1.24	
Housing unit growth rate 2000-2017	15.9	156.8	0.28		-1.97	4.05	-0.49	
City population in 2017 (natural log)	3.27	1.79	2.17	**	0.29	0.18	1.59	
Activity density (residents plus workers per sq mi) (natural log)	0.74	0.91	-0.25		-0.20	0.44	-0.45	
Portion of city land area with high quality transit access (sq root)	4.28	11.64	0.53		-0.75	1.30	-0.57	
Jobs-housing balance (natural log)	11.00	12.51	2.11	**	-0.27	0.39	-0.7	
% of city voters for Hillary Clinton in 2016 presidential election	0.93	0.06	-1.21		0.05	0.02	2.24	**
Median household income of city residents (natural log)	0.19	0.36	-0.88		-1.87	0.73	-2.56	**
Share of city residents = people of color (not white non-Hispanic)	0.23	0.88	-0.39		-0.82	1.39	-0.59	
Region location indicator (omitted = Sacramento metro area)								
San Francisco Bay Area	88.8	210.9	1.89	*	-0.76	0.94	-0.81	
Los Angeles metro area	3.95	6.89	0.79		-0.76	0.80	-0.95	
San Diego metro area	0.88	1.93	-0.06		0.69	0.93	0.74	
Survey responses: motivations/objectives for TOD policy (ordinal variable for "not", "somewhat", "very" important)								
Job growth	1.06	0.97	0.06		na	na	na	
Housing growth	6.60	7.06	1.77	*	na	na	na	
Affordable housing/RHNA	3.34	3.38	1.19		na	na	na	
Mobility/accessibility	0.97	1.33	-0.02		na	na	na	
Community revitalization/livability	1.56	1.83	0.38		na	na	na	
Environmental benefits	0.49	0.60	-0.58		na	na	na	
Fiscal/budget impacts	0.47	0.45	-0.79		na	na	na	
# motivations rated "very important"	na	na	na		na	na	na	
Survey responses: obstacles to achieving TOD goals (ordinal variable for "not", "moderate", "major" obstacle)								
Inadequate transit facilities	0.17	0.16	-1.92	*	na	na	na	
Inadequate transit service levels	1.83	1.43	0.77		na	na	na	
Inadequate infrastructure (other)	4.64	4.09	1.74	*	na	na	na	
Resident concerns/opposition	0.28	0.21	-1.69	*	na	na	na	
Difficulty assembling land parcels	0.82	0.71	-0.23		na	na	na	
Lack of vacant land	1.16	0.95	0.18		na	na	na	
Low market interest in TOD	0.67	0.42	-0.65		na	na	na	
Inadequate planning coordination	1.09	0.83	0.11		na	na	na	
Remediation needs	0.71	0.66	-0.37		na	na	na	
# obstacles rated "major obstacle"	na	na	na		-0.23	0.11	-2.0	**
Regression statistics								
Constant	33685	8E+05	0.45		22.20	8.88	2.5	
(Note: * = p<.10, ** = p.<.05, *** = p.<.01)	N= 96; LR chi2(12) = 63.68; Prob > chi2 = 0.0001; Pseudo R2 = 0.5495				N= 96; R-squared = 0.3220; Prob > F = 0.0012; Adjusted R2 = 0.2145			

Table A3.

Dependent variable	1. Number of adopted policies, programs, or plans to support TOD				2. Number of adopted policies, programs, or plans to support TOD			
	Coef.	Std. error	t	P> t	Coef.	Std. error	t	P> t
Independent variables								
City characteristics								
Rate of housing growth in HQT areas compared to entire city	3.20	4.74	0.67		4.93	6.53	0.75	
Housing unit growth rate 2000-2017	1.28	9.53	0.13		-39.72	16.74	-2.37	**
City population in 2017 (natural log)	1.84	0.53	3.45	***	2.57	0.70	3.66	***
Activity density (residents plus workers per sq mi) (natural log)	0.58	1.53	0.38		-2.14	2.11	-1.02	
Portion of city land area with high quality transit access (sq root)	-5.45	3.80	-1.43		-6.33	4.85	-1.31	
Jobs-housing balance (natural log)	-1.07	1.32	-0.81		-0.70	1.59	-0.44	
% of city voters for Hillary Clinton in 2016 presidential election	0.00	0.07	0		-0.04	0.11	-0.36	
Median household income of city residents (natural log)	-0.93	2.46	-0.38		2.66	3.13	0.85	
Share of city residents = people of color (not white non-Hispanic)	-0.77	4.13	-0.19		12.71	8.47	1.5	
Region location indicator (omitted = Sacramento metro area)								
San Francisco Bay Area	-2.97	2.60	-1.14		-5.65	3.08	-1.83	*
Los Angeles metro area	-4.21	2.39	-1.76	*	-7.14	3.79	-1.88	*
San Diego metro area	-2.87	2.88	-1.00		-5.68	4.39	-1.29	
Survey responses: motivations/objectives for TOD policy (ordinal variable for "not", "somewhat", "very" important)								
Job growth	na	na	na		-0.83	1.25	-0.66	
Housing growth	na	na	na		-2.30	1.84	-1.25	
Affordable housing/RHNA	na	na	na		5.36	2.17	2.47	**
Mobility/accessibility	na	na	na		0.82	1.58	0.52	
Community revitalization/livability	na	na	na		-0.27	2.88	-0.09	
Environmental benefits	na	na	na		1.81	1.25	1.45	
Fiscal/budget impacts	na	na	na		-1.26	1.12	-1.13	
# motivations rated "very important"	0.36	0.33	1.09		na	na	na	
Survey responses: obstacles to achieving TOD goals (ordinal variable for "not", "moderate", "major" obstacle)								
Inadequate transit facilities	na	na	na		-2.35	1.33	-1.76	*
Inadequate transit service levels	na	na	na		1.49	1.42	1.05	
Inadequate infrastructure (other)	na	na	na		2.45	1.29	1.90	*
Resident concerns/opposition	na	na	na		-1.73	1.20	-1.44	
Difficulty assembling land parcels	na	na	na		-0.55	1.09	-0.5	
Lack of vacant land	na	na	na		2.78	1.68	1.66	
Low market interest in TOD	na	na	na		1.07	1.08	0.99	
Inadequate planning coordination	na	na	na		1.29	1.34	0.96	
Remediation needs	na	na	na		-3.97	1.89	-2.10	
# obstacles rated "major obstacle"	-0.26	0.36	-0.73		na	na	na	
Survey: market interest in TOD	0.99	0.50	1.99	*	1.15	0.55	2.08	*
Regression statistics								
Constant	-4.89	27.41	-0.18		-41.43	35.74	-1.16	
(Note: * = p<.10, ** = p.<.05, *** = p.<.01)	N= 48; R-squared = 0.5341; Prob > F = 0.0165; Adjusted R2 = 0.3157				N= 48; R-squared = 0.7759; Prob > F =0.0463; Adjusted R2 = 0.4150			