



# Comparing Perceptions and Practice

Why Better Land Use Data  
Is Critical to Ground Truth  
Legal Reform

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# Introduction

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California's high housing costs exacerbate income inequality and residential segregation (Ganong & Shoag, 2017) and threaten the state's economic productivity (Hsieh & Moretti, 2015) and environmental goals (Chakraborty, et al., 2010). Inadequate housing supply across multiple income levels, combined with increasing demand, is at the crux of this issue. While California's housing supply has not kept pace with demand for over a decade (California HCD, 2018), in recent years California's legislators have focused on the issue, passing a spate of new legislation in the 2017-2018 legislative cycles.<sup>1</sup> Since assuming office in January, Governor Newsom has placed housing at the center of his agenda, vowing to build 3.5 million new homes by 2025 (Salam, 2019). Governor Newsom's recently unveiled "California for All" housing plan includes \$1.75 billion to invest in new housing production, a mandate for the state to develop affordable housing on state lands, and a commitment to work with the legislature to curb rising rental costs and increase tenant protections (Office of Governor Gavin Newsom, 2019).

While the flurry of state action promises to increase the supply of housing in California, the public policy discourse has identified numerous potential constraints on housing supply in California, ranging from state and federal tax policy, high construction costs, environmental review, and even construction defect litigation (California LAO, 2015; Lewis & Neiman, 2002). Land use regulation persists in the political consciousness as one of the primary constraints on housing supply (e.g., Wiener, 2018). This is in part because of a large body of research that correlates stringency in land use regulation to high housing costs.<sup>2</sup> In California, researchers exploring the relationship between regulation and high housing costs have primarily used survey tools and case studies to

establish relationships between regulatory regimes and housing costs. But as the nature of land use regulation in California is so heterogeneous, this existing research has struggled to isolate which land use regulations may constrain supply and contribute to high housing costs.

Recognizing that existing research was unable to identify which regulations might be constraining supply, and the significance of the relevant policy debates and the need for empirical work to explore the issue, in the fall of 2016 we began case study research within California's high-cost cities to identify which laws might be constraining housing supply through the imposition of time lags on development. As of this writing, we have completed research within nine cities, five in the Bay Area and four in Los Angeles County.

Between August 2017 and October 2018, the Turner Center for Housing Innovation at UC Berkeley also surveyed cities statewide to better understand how local law and practices influenced housing development (Mawhorter & Reid, 2018). The Turner California Residential Land Use Survey tool asked city planning staff about local land use regulations and planning practices to better understand the impact of regulation on housing supply (Mawhorter & Reid, 2018). The timing of the Turner Survey allows us an opportunity to compare specific findings from this survey with our own case study research within eight jurisdictions in California.<sup>3</sup> In this paper, we analyze these datasets by grouping survey responses and our own data based on what prior research has identified as barriers to supply and what tend to be the focal points of legislative reform (lengthy time frames, prescriptive zoning standards, and public opposition). We engage in a direct comparison of the datasets along these themes and explore how the data inform the current state policy debate. We also carefully examine perceptions

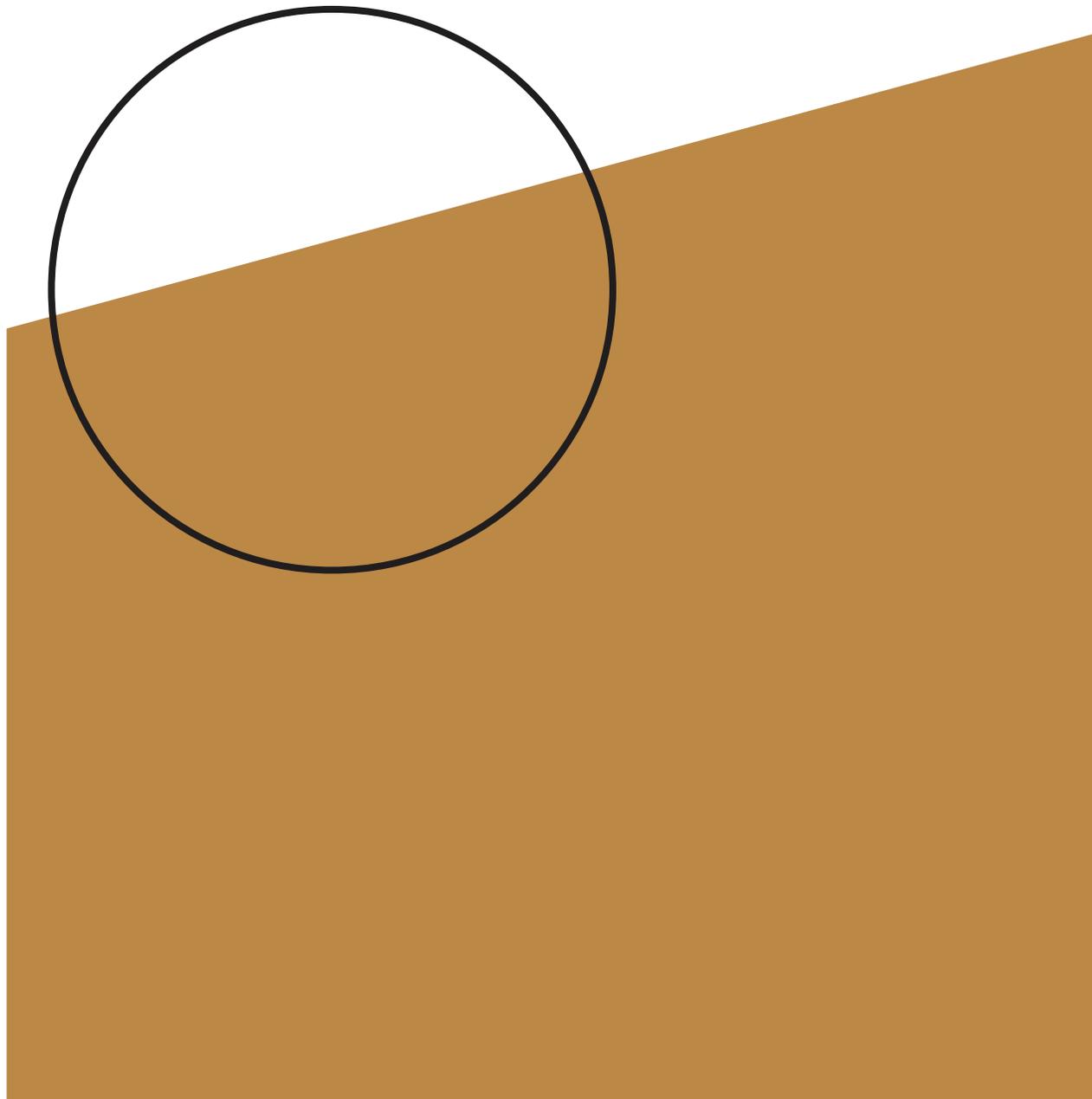
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<sup>1</sup> E.g., Senate Bill 35 (2017), Assembly Bill 2372 (2018), Assembly Bill 72 (2017), Senate Bill 1333 (2017), Assembly Bill 678 (2017), and Senate Bill 167 (2017).

<sup>2</sup> For a review of this literature, see Gyourko, J., & Molloy, R. (2014). Regulation and housing supply (Working Paper No. 20536). National Bureau of Economic Research.

<sup>3</sup> One of the cities in our case study did not respond to the Turner Survey.

of city planning staff of both the barriers to housing supply and the progress of their cities towards entitling market-rate and affordable housing units. Comparative analysis of these data sources illuminates whether perceptions of city planning staff on local land use regulatory systems align with the reality of how those systems operate in practice. If there is a gap between perceptions of local systems and actual operations, identifying the gap is particularly important to ensuring that policy reform at the state level and local level are effective. Misperceptions of on-the-ground realities risk ineffective policy implementation.



# Background

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Analyzing the relationship between land use law and housing development in California requires first understanding the complexity and heterogeneity of the state's land use regime and how both influence the ability of researchers to understand the impact of law on housing supply and costs.

## Regulation of Land Use in California

In California, the state constitution grants local governments considerable power to shape their land use regulations.<sup>4</sup> California law permits cities to employ a range of tools to review and approve housing development based on a hierarchical system of land use law.<sup>5</sup> While cities must have a General Plan to direct the long-term physical development of a city, the legislature does not dictate local decision-making about the content of that document, aside from the requirement of several mandatory elements (that include land use, housing, circulation, conservation, noise, safety, open space, and environmental justice) (Cal Gov't Code §§ 65300, 65302).

California's signature housing legislation—Housing Element law—overrides local authority to a certain extent by requiring local governments to zone for their share of the unmet regional housing need (Cal. Gov't Code § 65584). The state oversees compliance with Housing Element obligations through an update and certification cycle (generally every eight years) and annual reporting obligations (Cal. Gov't Code § 65585, Cal. Gov't Code § 65400).<sup>6</sup> Nevertheless, until recently, the state has not been able to easily enforce these obligations in the courts (Koseff, 2019). Moreover, Housing Element law does little to constrain or standardize the tools that cities use to conduct land use planning and approve project entitlements.

As a result, cities employ highly diverse land use taxonomies that can make it difficult for researchers to draw equivalencies.

Another significant state law, the California Environmental Quality Act of 1970 (CEQA), imposes environmental review and mandatory information disclosure with public participation on all proposed development projects that are subject to discretionary review at the local level. CEQA provides notice and information to the public about potentially significant environmental impacts of proposed development and, where feasible, requires that impacts be mitigated. However, some attribute slow infill development timelines (and in some cases the death of proposed projects) to CEQA compliance and CEQA litigation (e.g., California LAO, 2015). Balancing the need for more information about potentially significant impacts against the need to reduce process for certain types of projects, the state provides for statutory exemptions from CEQA in the Public Resources Code. Thirty-three categorical exemptions have also been developed in the California Code of Regulations (commonly referred to as the CEQA Guidelines).

Thus, although housing and displacement pressures present regional issues, California's land use law and policy is fragmented and poorly coordinated, causing some commentators to note that housing policy in California “is largely an amalgamation of the separate policies of its 475 cities and 58 counties” (Lewis & Neiman, 2002). This fragmented legal regime also presents considerable challenges for researchers attempting to measure the impact of individual land use regulations.

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<sup>4</sup>See *DeVita v. County of Napa*, 9 Cal. 4th 763, 782 (1995).

<sup>5</sup>We focus exclusively on components of California land use law that are specifically implicated in this research study. We do not attempt to discuss the breadth and applicability of the complex body of law that practitioners and academics describe as “land use law” within California. For relevant treatises, see Barclay, C. T., & Gray, M. S. (2014). *California land use & planning law*. Solano Press.; Kostka, S. (2014). *Practice under the California Environmental Quality Act*. Continuing Education of the Bar, California.

<sup>6</sup>Assembly Bill 879 (2017) and SB 35 (2017) augmented these reporting obligations to require new reporting of entitlements issued, not just building permits.

Yet understanding which land use regulations may present barriers to housing supply within specific local contexts is necessary to examine the efficacy of a spate of recently enacted and proposed legislative activity in this area. Recent legislative activity has taken two approaches. The first aims to strengthen Housing Element law as the primary mechanism for California to meet its housing goals.<sup>7</sup> The second type of legislation aims to constrain local discretion in implementing zoning and land use policy, primarily around approval time frames and density restrictions. Both approaches, however, require better and current data.

The Housing Element's utility as a document to encourage housing production, for example, depends on the accuracy of its underlying data because the state must rely on this data when determining whether local decision-making complies with legal requirements. Recognizing the limitations of existing data reporting that focused on building permit issuance rather than entitlement approvals, recently enacted legislation aims to strengthen the underlying reporting requirements by requiring jurisdictions to provide data on local implementation, including the number of project application and approvals, processing times, and approval processes (AB 879, 2017). The effective operation of California's Housing Element system depends on the use of data to evaluate local government compliance with state mandates.

Another category of enacted legislation is a direct response to findings that protracted approval processes generally decrease permitting levels and increase housing costs (e.g., Jackson, 2016 and Quigley, et. al., 2009). For example, Assembly Bill 1397 (Low, 2017) requires cities to zone more appropriately for their share of regional housing needs by identifying available sites with the potential for residential development, and in certain circumstances requires by-right development on identified sites. Assembly Bill 72 (Santiago, 2017) enhances the Department of Housing and Community Development's (HCD's) ability to find a jurisdiction out of compliance with state housing law at any time and refer any violations of state housing law to the Attorney General.<sup>8</sup> The Housing Accountability and Affordability

Act of 2017 (SB 35) aims to decrease supply barriers by reducing processing times for code-compliant projects that contain either 10 or 50 percent on-site affordable housing, depending on the jurisdiction's progress in meeting its regional housing need (SB 35, 2017). The project must also meet other qualifying criteria, like the payment of prevailing wage (Cal. Gov't Code § 65913.4). SB 35 requires that local governments approve these projects within strict time frames (Cal. Gov't Code § 65913.4).

Other legislation targets a city's discretion around base zoning—primarily by increasing the density and height limitations that existing research has found to limit housing supply (Jackson, 2016). The California Sustainable and Affordable Housing Act of 2018 (AB 2372) expands the application of the state density bonus—which grants developers development standard waivers in exchange for the provision of the affordable housing—to base zones where density is limited by a floor area ratio (FAR) and not just dwelling units per acre. Proposed legislation like SB 50 (Wiener, 2019) would enable projects within a half-mile or quarter-mile radius of a major transit stop to receive waivers from maximum controls on density, automobile parking requirements greater than one-half parking spots per unit, and height and FAR requirements. Projects within “job-rich” areas—based on indicators such as proximity to jobs, high area median income (AMI) relative to the relevant region, and high-quality public schools—are also entitled to the density and parking incentives. Better data is essential to understanding how effective both current legislation and existing proposals might be.

## Existing Methodologies to Understand Regulatory Constraints on Housing Supply

To better understand the most significant land use regulatory constraints of supply in California, researchers have primarily applied two methods: surveys and case studies. Surveys have been the most common tool to study land use regulation in California. Surveys enable researchers to gather information at a point in time about land use regulation from a large geographic

<sup>7</sup>See *Committee for Responsible Planning v. City of Indian Wells*, 209 Cal. App. 3d 1005, 1013 (1989).

<sup>8</sup>The Huntington Beach lawsuit (Koseff, 2019) is the first violation prosecuted under this statute.

sample. Researchers then aggregate survey responses to create a regulatory index<sup>9</sup> or construct a weighted measure of stringency using factor analysis<sup>10</sup> to look for relationships between regulations and housing cost or supply.

Most studies of land use regulation in California have found variable rates of regulation across the state as well as within the same metropolitan region. Generally these studies have found jurisdictions in the Bay Area to be the most heavily regulated and jurisdictions in the Central Valley to be the least regulated, with Southern California occupying a middle ground (e.g., Lewis & Neiman, 2000, p. 74; Jackson, 2016, pp. 130, 131). These studies have also found that not all regulations impact supply in the same way (Levine, 1999, pp. 2047, 2056; Lewis & Neiman, 2000, p. 74; Jackson, 2016, pp. 91, 45, 54).<sup>11</sup>

Case study methodologies are less common in California, most likely due to the resource-intensive nature of extracting project-level data from individual jurisdictions. As a result, case studies are often limited to particular geographies and lack some of the generalizability of survey tools (Landis, 2000, pp. 95-96).<sup>12</sup> Past case study research has found variability in land use regulation across the state and has analyzed how this variability impacts residential developments (Landis, 2000, p. 97). One case study found differing levels of regulation of building form, causing large, low-density projects to be concentrated in the Central Valley, with densities in the Bay Area that are much higher and densities in Southern California in between (Landis, 2000, p. 99). Approval time frames were the shortest in the Bay Area and the longest in Southern California (5.7 months versus 14.3 months) (Landis, 2000, p. 102). Affordable housing took nearly twice as

long to approve as market-rate projects (Landis, 107). Notably, the authors found that approval processes did not lead to downzoning or density reductions, nor did they result in the consistent loss of units (Landis, 2000, pp. 103,108).

Although these different methods yield different data, to date, direct comparison of survey findings to case study findings has been difficult because often these tools measure different aspects of regulation. Past surveys have analyzed how the presence of regulations relate to macro-level outcomes like supply and costs, while case studies analyze how regulations impact outcomes at the project level. Timing of surveys and case studies may also not align, making comparative analysis challenging. For this analysis, we are able to engage in comparative analysis because of both similar timing and similar lines of inquiry. Thus, we can compare components of each study to help determine whether we can either glean more from regional trends that might appear in the survey data set or whether there is a disconnect between subjective perceptions and what is actually happening within specific local contexts. The former tests the reliability of the survey data to inform important policy questions around land use tools; the latter informs important policy questions about the significance and need for more accurate data reporting.

Before analyzing our findings, we first discuss our methods.

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<sup>9</sup> Examples of the aggregate approach include Madelyn Glickfield and Ned Levine's series of growth management surveys. See Levine, N. (1999). The effects of local growth controls on regional housing production and population redistribution in California. *Urban Studies*, 36, 2047, 2050.

<sup>10</sup> Examples of the weighted factor-based approach include the Wharton Residential Land Use Regulatory Index (WRLURI) and the Berkeley Land Use Regulatory Index (BLURI). See Gyourko, J., Saiz, A., & Summers, A. (2008). A new measure of the local regulatory environment for housing markets: The Wharton Residential Land Use Regulatory Index. *Urban Studies*, 45, 693, 706; Measuring land use regulations and their effects in the housing market. *Housing markets and the economy*, 272, 280. Lincoln Institute of Land and Policy (Ed.).

<sup>11</sup> Glickfield & Levine's series of surveys of growth management measures in California found that the rezoning of residential land to agricultural or open space use had the strongest effect on supply. Lewis & Neiman did not find a significant correlation between any individual growth containment regulation and supply. Analyzing prior growth management surveys, Kristoffer Jackson found that cities that reduced permitted densities experienced a 36 percent decline in multifamily building permits.

<sup>12</sup> John Landis explored land use regulations and residential development in California through a case study of 46 housing developments approved between 1995-1997 in 31 cities and counties. For each jurisdiction, Landis asked planners to identify the "typical" development in that community. The research team then conducted interviews and examined case files to analyze how land use regulation is implemented at the project-level.

# Methodology

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Our case study analyzes how all residential development of five or more units navigated the entitlement process in selected California jurisdictions from 2014–2016.

These cities include San Francisco, Oakland, San Jose, Redwood City, Palo Alto, Los Angeles, Santa Monica, Pasadena, and Long Beach. To collect this data, we reviewed a jurisdiction’s website to see what information could be readily obtained through public notices, environmental review documents, commission and council agendas, lists of approved developments, and parcel information maps, among other relevant information. When necessary, we requested data through public record requests. We also searched property addresses within a jurisdiction’s database to gather parcel-level information, such as lot size and census tract. We gathered approximately 25 characteristics per development relating to current site usage, proposed project characteristics, types of entitlements and environmental review, approval timeline, and appeals and litigation rates. Our dataset includes all projects that received a final entitlement in these years. To ensure that we were accurately measuring entitlement approval time frames for new residential construction, we did not include developer-initiated modifications to projects that were approved before 2014. For large, master-phased projects, we counted each sub-phase entitled in our years as a separate project.<sup>13</sup>

Eight of our nine cities—all except Santa Monica—responded to the Turner Survey. To compare the data sets, we first examined the Turner Survey tool to find overlap in our respective lines of inquiry. We then selected questions from the Turner Survey that directly overlapped for comparative analysis. Where the different methodologies limit our ability to draw conclusions from comparative analysis, we focused on general relational consistency between the survey responses and what we found through our own work.

Throughout the analysis, we note qualifications where discrepancies limit conclusions.

# Findings

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## Approval processes may take longer than planners estimate.

Existing literature relates protracted approval processes with increased housing costs and decreased housing supply. Both the Turner Survey and our case studies explored data to understand the typical time to secure approval for the most common application types.

### Several cities still tend to underestimate how long approvals take for projects that are inconsistent with base zoning.

Survey responses reveal variability within a jurisdiction across approval types and variation across jurisdictions for the same approval types, starting from the time the application is deemed complete (Figure 1). San Francisco has the longest approval times; however, because the survey responses max out at greater than one year, it is not possible to tell how much processing times differ within the city. We found, for example, that within cities where processing time frames took more than one year, the amount of time beyond one year could be substantial. Most jurisdictions reported processing code-consistent projects<sup>14</sup> and projects requesting a Conditional Use Permit (CUP) or variance in similar time frames. In all jurisdictions except San Jose and Redwood City, rezonings take longer to approve than the other approval types.

With few exceptions, case study time frames are much longer than responses to the Turner Survey. Some of this variation is likely due to the fact that the case study measures time frames from the file date of the application rather than the date the application is deemed complete for the purposes of the Permit Streamlining Act.<sup>15</sup>

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<sup>13</sup> A detailed explanation of our methods is available in O’Neill, M., Gualco-Nelson, G., & Biber, E. (2019). Developing policy from the ground up: Examining entitlement in the Bay area to inform California’s housing policy debates. *Hastings Environmental Law Journal*, 25, 1.

<sup>14</sup> These are projects that are consistent with the base zoning.

<sup>15</sup> The Permit Streamlining Act applies to certain non-legislative local land use decisions—such as conditional use permits—and requires cities to make those decisions within prescribed time limits. See Cal. Gov’t Code § 65941; *Land Waste Mgmt. v. Contra Costa Bd. of Supervisors*, 222 Cal. App. 3d 950, 959 (1990). On the date that the jurisdiction deems the application to be complete, the approval deadline starts running.

**Figure 1: Terner Survey and Case Study Values for Approval Times**

	<i>Consistent</i>		<i>CUP and Variance</i>			<i>Rezoning and Plan Amendments</i>			<i>EIR</i>	
	<i>Termer</i>	<i>Case Study</i>	<i>Termer</i>	<i>Case Study CUP</i>	<i>Case Study Variance</i>	<i>Termer</i>	<i>Case Study Rezoning and Plan Amend.</i>	<i>Case Study Development Agreement</i>	<i>Termer</i>	<i>Case Study</i>
<b>San Francisco</b>	> 1 year	2.5 years	> 1 year	2.7 years	3 years	> 1 year	4.7 years	n/a	> 1 year	4.7 years
<b>Oakland</b>	2 to 6 months	7.1 months	6 to 12 months	12.6 months	9.7 months	Varies	1.8 years	n/a	Varies	1 year
<b>San Jose</b>	SFH = < 2 months, MF = 6 -12 months	8.7 months	SFH = 2-6 months, MF = 6 -12 months	4.9 years	n/a	6 to 12 months	3.7 years	n/a	6 to 12 months	3.8 years
<b>Redwood City</b>	6 to 12 months	6.9 months	6 to 12 months	1.9 years	6.3 months	6 to 12 months	n/a	6 months	> 1 year	9 years
<b>Palo Alto</b>	SFH = 2-6 months, MF = 6 -12 months	1 year	SFH = 2-6 months, MF = 6 -12 months	n/a	10 months	> 1 year	n/a	n/a	> 1 year	1.6 years
<b>Los Angeles</b>	2 to 6 months	11.4 months	6 to 12 months	1.8 years	1.4 years	> 1 year	1.7 years	2 years	> 1 year	3.6 years
<b>Pasadena</b>	2 to 6 months	1.3 years	6 to 12 months	n/a	1.2 years	none	3.5 years	3.5 years	> 1 year	2.3 years
<b>Long Beach</b>	6 to 12 months	10.2 months	6 to 12 months	n/a	4 months	> 1 year	1.9 years	2 years	> 1 year	2 years

The case study disaggregates certain types of approvals like CUPs and variances to unpack how the legal distinction between the two impacts time frames, if at all. A variance is a request to deviate from base zoning, which is usually accompanied by a hardship finding.<sup>15</sup> CUPs, on the other hand, are not necessarily inconsistent with base zoning; instead, the approval just requires additional findings or conditions of approval.<sup>16</sup> Interestingly, CUPs took longer to approve than variances in nearly all the jurisdictions. This suggests that legislation like SB 35—which waives CUP requirements for code-compliant projects—could have a significant impact in these jurisdictions. Unsurprisingly, rezonings and General Plan Amendments took the longest to process in all jurisdictions. Development Agreements are another important approval type in many jurisdictions, and these typically took as long as rezonings.

Comparing EIR approval times is more difficult because of the survey response structures; however, EIRs took the longest of any approval type in both scenarios. Our work has found EIRs to be very infrequent relative to the usage of exemptions and Mitigated Negative Declarations.<sup>17</sup>

**In some cities, affordable housing projects navigate the approvals process faster, but several cities still tend to underestimate how long approvals take.**

Existing research distinguishes between approval processes for affordable housing and market-rate housing, and generally finds that 100 percent affordable developments take longer to approve than market-rate developments (Landis, 2000). With the exception of Long Beach and Palo Alto, survey respondents generally reported no difference in approval times or that affordable housing was approved faster. While the survey did not specify a baseline for the comparison, we use survey responses to time frames for zoning-consistent projects for comparison.

The case study shows that affordable housing is approved considerably faster than zoning-consistent projects in San Francisco, Palo Alto, and Long Beach; however, the affordable projects in Palo Alto and Long Beach were either off-site inclusionary housing obligations or former redevelopment projects, which might have influenced time frames. Affordable housing takes considerably longer in San Jose than zoning-

<sup>15</sup> Variances are available where the owner of the land would suffer a unique hardship from strict application of the zoning ordinance because the topography, size, location, or surroundings of the owner’s parcel are different than other parcels subject to the zoning ordinance. Cal. Gov’t Code § 65906. This requires a city to make precise hardship findings, which can be difficult to justify based on site conditions.

<sup>16</sup> A local ordinance typically contains a list of uses that are permitted, conditionally permitted, and not permitted in each zone. Conditionally permitted uses require a CUP. For more information, see Barclay, C. T., & Gray, M. S. (2014). California land use & planning law. Solano Press.

<sup>17</sup> For a summary of Bay Area findings, see O’Neill, M., Gualco-Nelson, G., & Biber, E. (2019). Developing policy from the ground up: Examining entitlement in the Bay area to inform California’s housing policy debates. Hastings Environmental Law Journal, 25, 1. For a summary of Southern California findings, see O’Neill, M., Gualco-Nelson, G., & Biber, E. (2019). Examining the local land use entitlement process in California to inform policy and process. Retrieved from <https://www.law.berkeley.edu/wp-content/uploads/2019/02/Examining-the-Local-Land-Use-Entitlement-Process-in-California.pdf>.

**Figure 2: Terner Survey Time Frames for Affordable Housing**

	Consistent		100% Affordable		Mixed-Income	
	<i>Terner</i>	<i>Case Study</i>	<i>Terner</i>	<i>Case Study</i>	<i>Terner</i>	<i>Case Study</i>
<b>San Francisco</b>	> 1 year	2.5 years	3 months faster	1.14 years	Little to no difference	2.5 years to approve
<b>Oakland</b>	2 to 6 months	7.1 months	Little to no difference	7.3 months	Little to no difference	2 years
<b>San Jose</b>	SFH = < 2 months, MF = 6 -12 months	8.7 months	Little to no difference	2.6 years	Little to no difference	1.9 years
<b>Redwood City</b>	6 to 12 months	6.9 months	Little to no difference	no projects	Little to no difference	7.2 months
<b>Palo Alto</b>	SFH = 2-6 months, MF = 6 -12 months	1 year	3 + months slower	5.7 months	Little to no difference	no projects
<b>Los Angeles</b>	2 to 6 months	11.4 months	Little to no difference	1 year	Little to no difference	1.1 years
<b>Pasadena</b>	2 to 6 months	1.3 years	Little to no difference	1.3 years	Little to no difference	1.1 years
<b>Long Beach</b>	6 to 12 months	10.2 months	1-2 months slower	5.6 months	Little to no difference	no projects

consistent projects. Planners in San Jose estimated that they were approving these projects over twice as fast as the timelines our data uncovered.

In sum, jurisdictions generally think they are approving projects faster than they actually are (with the exception of affordable housing). Some of this variation could be due to the different start-date milestones—the deemed complete date versus application file dates. However, it appears that many jurisdictions are underestimating approval time frames, particularly in Southern California. Los Angeles and Pasadena responded with faster time frames for zoning-consistent projects than did Redwood City when nearly five and 10 months separated them in our case study. These gaps indicate potentially pervasive data issues, unless there are long time frames between the filing of applications and when the application is deemed complete (before the Terner Survey starts measuring time frames). This highlights the need for better data on entitlement to understand the actual development experience within local contexts.

**Regulation of building form differs in these selected jurisdictions.**

Jurisdictions closely regulate building form through development standards like density. As discussed above,

requesting deviations from these standards often increases the approval time, which increases the cost of development. Alternatively, rigid adherence to these standards can reduce the building envelope, and increase development costs on a per-unit basis.

Although all of our study jurisdictions regulate density, the concept of density is not static across all jurisdictions or even within a single jurisdiction. Traditionally, zoning codes regulate density based on dwelling units per acre or FAR—a measure of how much the total building square footage can exceed the total square footage of the parcel (Recode LA, 2014). However today, with the proliferation of form-based or hybrid zoning codes (Recode LA, 2014) and mixed-use use districts, density is effectively an amalgamation of multiple restrictions on building form. Height, parking, setbacks, and open space requirements are acting to

Alternatively, respondents could have been aggregating other building form variances (that also affect density, like parking, height, or open space). To test this, we analyze these variances next.

**Height variances were less common than density variances.**

constrain density even when there is not an underlying density limitation.

The proliferation of specific planning has also nuanced our understanding of density restrictions. Many cities enact specific plans to focus development in a particular part of the city that is close to public transportation or a major jobs center. These plans often relax development constraints—height, density, or setbacks, for example—in that particular zone to facilitate future development. One technique is to use form-based zoning or a hybrid of form-based and conventional zoning (e.g., San Francisco Planning Code § 843.24; Redwood City Downtown Precise Plan § 2.0.4). While conventional zoning focuses on permitted use and performance standards, form-based codes focus on a desired building form rather than building use. Form-based codes prescribe regulations for the purpose of achieving the desired built environment and focus less on formal separation of uses and density restrictions. A conventional residential zone, for example, might limit density based on a certain number of units per acre. By contrast, a form-based zone will prescribe how the building should look, but not necessarily how many units are inside the building. As a result, in a form-based zone, a setback waiver is effectively a density waiver, whereas a setback waiver in a conventional zone may have no impact on density. To complicate matters further, non-specific plan zones remain largely conventional zones, which means that density is still regulated on a units per acre basis. This intra-jurisdictional variation makes analysis challenging even within a single city.

Analyzing rates of variances—a process by which a developer requests an exception to the zoning code based on hardship<sup>18</sup>—can help policymakers understand the biggest constraints on building envelope. Similarly, rates of density bonus waivers and concessions—wherein a developer receives a waiver from the code in exchange for the provision of affordable housing (Cal. Gov't Code §§ 65915–65918)—also help illuminate

where new supply has difficulty adhering to the existing regulations.

The Turner Survey asked respondents the frequency with which residential development applicants request variances or exceptions to zoning standards. The survey also asked about the number of projects that received a density bonus concession between 2015 and 2017. Our case study examined how frequently cities approve these requests for these variances and exceptions. The difference in the inquiry can help explain some of the variation in our respective findings.<sup>19</sup>

**Planners reported a higher volume of density and FAR variances than are ultimately approved.**

Figure 3 below compares survey responses to the most commonly granted variances (for density and FAR) and density bonus exceptions. Our data suggests that density and FAR variances are relatively infrequent across all jurisdictions. Survey-reported values are much higher, which could suggest that applicants request these variances more frequently than they are granted. We also found that jurisdictions reported awarding more density and FAR waivers through the density bonus process than we observed in our dataset. Variations in findings around the density bonus could be due to the mismatched survey time frames (our case study examines 2014-2016, and the Turner Survey analyzes 2015-2017).

Survey respondents also might have analyzed variance data over different denominators—total residential projects entitled or total variances requested or granted—both of which could skew response rates. We analyzed variances against the total number of projects entitled.

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<sup>18</sup> Hardship generally refers to the application of the zoning code to a particular parcel or project in a way that produces unfair, disproportionate, and exceptional economic burdens or limitations on development. See Cal. Gov't Code Section 65906.

<sup>19</sup> We note a few qualifications: First, San Jose approves most residential projects over five units through a Planned Development rezoning process which allows for changes from the base zone like setbacks, height, and parking. San Jose Muni Code §§ 20.10.070; 10.120.510(A)(2). It therefore functions similar to a variance, but differs in important ways that are difficult to separate out for individual cases. We therefore did not count these approvals as variances, and San Jose rarely grants formal variances. Second, because we did not study the entitlement of individual single-family homes (only single-family home subdivisions of 5 or more homes), we omit categories specific to single-family homes only.

**Figure 3: Frequency of Density/FAR Variances and Density Bonus Waivers**

	Variances (VAR)		Density Bonus (DB)			
	<i>Termer (Requests)</i>	<i>Case Study (Approvals)</i>	<i>Termer</i>		<i>Case Study</i>	
	Frequency Density/FAR VAR	Frequency Density/FAR VAR	# DB Projects	Frequency of Exception	# DB Projects	Frequency of Exception
<b>San Francisco</b>	6-25%	5%	15	Most projects	3	
<b>Oakland</b>	Missing	0%	2	half of projects	3	
<b>San Jose</b>	6-25%	0%	2	half of projects	1	All projects
<b>Redwood City</b>	0-5%	0%	3	All Projects	1	
<b>Palo Alto</b>	0-5%	0%	1	All projects	0	
<b>Los Angeles</b>	51-75%	2%	175	Most projects	235	Most projects
<b>Pasadena</b>	0-5%	0%	No answer	Missing	4	Most projects
<b>Long Beach</b>	6-25%	0%	0		0	

Height is another important density restriction. Survey responses reported lower rates of height variances than rates of density variances, which could reflect the fact that some zoning codes prohibit height variances in certain parts of the city (e.g., San Francisco Planning Code § 305). However, jurisdictions commonly granted height exceptions through the density bonus process. Height variances might also encompass exceptions for building protrusions rather than base building height—for example, elevator penthouses and other architectural elements. We included these in our

calculations as well. All height variances observed in San Francisco and Redwood City were for these protrusions.

**In some cities, planners reported a higher volume of parking variances than were ultimately approved.**

Most jurisdictions prescribe parking ratios, requiring a certain number of parking spaces per dwelling unit or per bedroom (e.g., Santa Monica Muni. Code § 9.28; Los Angeles Muni. Code § 12.21.A.4). Not only do

**Figure 4: Frequency of Height Variances**

	Variances (VAR)		Density Bonus (DB)			
	<i>Termer (Requests)</i>	<i>Case Study (Approvals)</i>	<i>Termer</i>		<i>Case Study</i>	
	Height	Height	# DB Projects	Frequency of Height Exception	# DB Projects	Frequency of Height Exception
<b>San Francisco</b>	0-5%	5%	15	most projects	3	all projects
<b>Oakland</b>	Missing	7%	2		3	all projects
<b>San Jose</b>	6-25%	0%	2		1	
<b>Redwood City</b>	0-5%	15%	3		1	all projects
<b>Palo Alto</b>	0-5%	0%	1		0	
<b>Los Angeles</b>	SFH = 0-5%, MFH = 26-50%	3%	175	half of projects	235	half of projects
<b>Pasadena</b>	0-5%	0%	No answer		4	few projects
<b>Long Beach</b>	6-25%	5%	0		0	

high parking ratios reinforce dependence on vehicles and increase vehicle miles traveled (VMT), the cost of building parking spaces adds to the overall cost of development.<sup>20</sup> And while parking is not traditionally thought of as a density restriction, in areas where it is not possible to excavate to build underground parking (or doing so is very costly), the provision of parking reduces the size of the buildable envelope.

Parking requirements are traditionally conceived as ratios for the provision of spaces; however, zoning ordinances also regulate parking layouts (whether parking should be screened from the street, located above or below ground) and space configurations (tandem or lifters). We included variances from these standards in our numbers as well.

Of the four jurisdictions that actually reported variable variance rates, parking was the most commonly requested variance in San Francisco, Los Angeles, and Long Beach. We found parking variances to be most commonly granted in Palo Alto and Oakland. Surprisingly, only 3 percent of entitled projects in Los Angeles received a parking variance (or about 16 percent of total variances). We also found relatively few parking concessions granted through the density bonus process in Los Angeles, which is likely due to the fact that the local Los Angeles density bonus ordinance imposes more negotiation and process on parking concessions relative to waivers for setbacks, height, or open space (Los Angeles Muni. Code § 12.22.25(g)(3)).

Zoning ordinances also regulate loading zones—or areas adjacent to a curb reserved for the exclusive use of vehicles during the loading or unloading of passengers or materials (San Jose Muni. Code § 11.04.070). While not explicitly parking variances, exceptions from loading standards were more common than parking exceptions in Oakland and San Francisco.

**Setbacks are the most commonly granted variance and are the second most frequently requested variance after parking.**

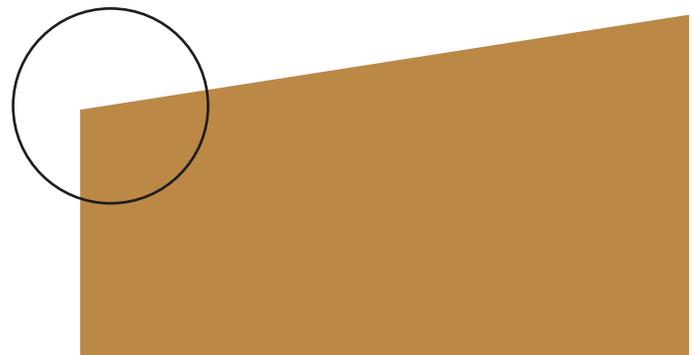
Setbacks can directly impact building density by reducing the area of the lot that can be developed. After parking, setbacks were the most commonly requested variance

according to the survey results, and they were the most commonly granted variance in our case study. In San Francisco, 71 percent of all projects received a variance for setbacks—most commonly rear yard. Setback variances were also more common in jurisdictions with overall low variance rates like Redwood City and Pasadena. Setbacks were the most common variance in Los Angeles, totaling nearly three times the number of total parking variances granted and four times the number of density variances granted.

The findings around setbacks are particularly important given that density is typically conceptualized as a units per acre, FAR, or height limitation, as recent legislation like SB 50 demonstrates (SB 50, 2019).

**The range of variances granted compared to those reported suggest that local planners and decision-makers may not be fully aware of the ways in which their base zoning codes can be inflexible in accommodating new development.**

As previously discussed, the heterogeneity of land use regulation in California makes it difficult to generalize across jurisdictions. Nowhere is that more apparent than in the range of variances that local governments grant—from wind currents in San Francisco (San Francisco Planning Code § 825(c)) to commercial storefront depths in Pasadena (Pasadena Muni. Code § 17.37.070(C)) to street tree requirements in Los Angeles (Los Angeles Muni. Code § 13.07(E)(7)). While the Turner Survey focused on common and relatively standard variances, we also found frequent instances of variances for open space and dwelling unit exposure requirements.



<sup>20</sup> A 2014 study found that the cost to build one aboveground parking space in San Francisco was \$29,000 and \$27,000 in Los Angeles. These costs increase if the parking is provided underground. See Shoup, D. (2011). The high cost of free parking (pp. 90). Routledge.

**Figure 5: Frequency of Parking Variances**

	Variances		Density Bonus			
	<i>Terner</i> (Requests)	<i>Case Study</i> (Approvals)	<i>Terner</i>		<i>Case Study</i>	
	Parking	Parking	# Density Bonus Projects	Frequency of Parking Exception	# Density Bonus Projects	Frequency of Parking Exception
<b>San Francisco</b>	SFH = 26-50%, MFH = 76-95%	8%	15	Few projects	3	Few projects
<b>Oakland</b>	Missing	11%	2	Half of projects	3	Most projects
<b>San Jose</b>	6-25%	0%	2	Half of projects	1	
<b>Redwood City</b>	0-5%	8%	3	Few projects	1	
<b>Palo Alto</b>	0-5%	40%	1		0	
<b>Los Angeles</b>	SFH = 51-75%, MFH = 26-50%	3%	175	Most projects	235	Few projects
<b>Pasadena</b>	0-5%	3%	No answer		4	
<b>Long Beach</b>	SFH = 0-5%, MFH = 26-50%	0%	0		0	

Open space requirements refers to a prescribed number of square feet of outdoor area that a developer must provide on-site (not to be confused with open space dedications or park fee exactions that can be required through other ordinances or the subdivision process).<sup>21</sup> These open space requirements are sometimes calculated on a per-unit basis—100 square feet of open space per unit, for example—and sometimes on a building square footage basis. Likewise, different standards might apply depending on whether the open space is provided privately to units or as common space to the whole building (e.g., Santa Monica Muni. Code § 9.21.090; Pasadena Muni. Code § 17.50.160; Los Angeles Muni. Code § 12.21.G; San Francisco Planning Code § 135; Oakland Planning Code § 17.19.03). In San Francisco and Oakland, roughly 12 percent of developments received an open space variance—a higher percentage than received height or density variances. In Los Angeles, 3 percent of developments received an open space variance.

Dwelling unit exposure regulates the orientation of certain windows—commonly bedroom windows—towards the outdoors. San Francisco, for example, requires that qualifying windows face an unobstructed open area in a public street or open space of a certain size (San Francisco Planning Code § 140). This regulation impacts density because it impacts how closely units can be situated next to adjoining structures. Thirty-five percent of all developments in San Francisco received a dwelling unit exposure variance. Light and air separations—which similarly regulate how close windows can be located to adjoining structures—were also granted in Pasadena and Los Angeles. In Los Angeles, this variance was as common as density, height, and open space variances.

On balance, our case-study-collected data and survey responses differ the most in the area of variances. While this could be the result of different methodologies and the time-bound nature of the case study inquiry, several observations suggest that differences

<sup>21</sup> For more information on these types of exactions, see Barclay, C. T., & Gray, M. S. (2014). California land use & planning law. Solano Press, 105.

**Figure 6: Frequency of Setback Variances**

	Variances		Density Bonus			
	<i>Termer</i> (Requests)	<i>Case Study</i> (Approvals)	<i>Termer</i>		<i>Case Study</i>	
	Setbacks	Setbacks	# Density Bonus Projects	Frequency of Setback Exception	# Density Bonus Projects	Frequency of Setback Exception
<b>San Francisco</b>	SFH = 6-25%, MFH = 76-95%	71%	15	Few projects	3	Most projects
<b>Oakland</b>	Missing	9%	2	Half of projects	3	
<b>San Jose</b>	6-25%	0%	2	Half of projects	1	
<b>Redwood City</b>	0-5%	8%	3	Few projects	1	
<b>Palo Alto</b>	SFH = 6-25%, MFH = 0-5%	40%	1		0	
<b>Los Angeles</b>	SFH = 0-5%, MFH = 26-50%	8%	175	Most projects	235	Few projects
<b>Pasadena</b>	0-5%	15%	No answer		4	
<b>Long Beach</b>	6-25%	0%	0		0	

are most likely due to the fact that local data might not be the most accurate. First, we often found variances where the jurisdiction reported no requests. Second, many jurisdictions reported the same rate for every type of variance on the survey, or no responses at all. While the survey rates encompassed a range—and in theory the jurisdictions’ responses could differ from each other within that range—given the variation in the types of variances granted in other cities, this could be a result of missing or incomplete data. This finding is perhaps most troubling because it indicates that planning staff and decision-makers might not understand in what ways their base zoning standards are inflexible.

**Perceptions of public opposition differed from case study observations of administrative appeals and litigation.**

Existing research also identifies public opposition to new development as a primary barrier to housing supply (California LAO, 2015). Opposition either blocks new development outright or creates uncertainty about the likelihood of obtaining project approval. Measuring

opposition empirically is difficult because it can surface in so many ways, and there may be conflicting views among different stakeholders for the same project. The public can express opposition during meetings and hearings, applying pressure on city officials to deny project approvals or require downsizing. Certain members of the public can also appeal a project after entitlements are approved and eventually can litigate a project in court. Survey tools typically focus on perceptions of public opposition; the Termer Survey also incorporates questions about public support and perceptions of rates of actual litigation.

**Due to the complexities of measuring local opposition to development, perceptions of opposition do not always align with other indicators, like the rate of administrative appeals.**

Figure 7 compares responses to the question of how often local citizens actively oppose residential development to rates of administrative appeals we uncovered in our jurisdictions.

**Figure 7: Comparison of Public Opposition and Administrative Appeals Rates**

	<i><b>Terner Public Opposition</b></i>	<i><b>Case Study Appeals Rate (% of Projects)</b></i>	<i><b>Case Study Appeals Rate (% of Units)</b></i>
<b>San Francisco</b>	76-95%	16%	31%
<b>Oakland</b>	Missing data	14%	22%
<b>San Jose</b>	51-75%	9%	14%
<b>Redwood City</b>	6-25%	15%	45%
<b>Palo Alto</b>	76-95%	0%	0%
<b>Los Angeles</b>	51-75%	20%	36%

Nearly all cities reported that citizens frequently oppose residential development. Opposition can take various forms—participation in local hearings, for example, or administrative appeals. We found administrative appeals rates ranging from no units appealed to 45 percent of units appealed. Administrative appeal rates did not entirely align with perceptions of public opposition. Redwood City had the highest rate of appeals, but one of the lowest reported rates of opposition. Los Angeles had the second highest rate of appeals on a project and per-unit basis, but a lower reported rate of opposition than San Francisco, which had a slightly lower appeal rate. Drawing conclusions about public opposition from this data is difficult; however, this data shows that jurisdictions likely weigh different factors when responding to a question about their perceptions of a development constraint, particularly when the constraint is so difficult to measure empirically. What constitutes public opposition in Redwood City might not be the same as what constitutes that opposition in Los Angeles. Litigation rates, discussed next, can provide a more direct comparison between the datasets.

**Both the perceived threat of litigation as a constraint to development and the survey respondents’ reported rates of CEQA litigation appear to be higher than actual CEQA litigation rates.**

The Terner Survey also asked respondents how often projects face CEQA lawsuits. Unlike our case study, this question was not time-bound, so our results will differ to the extent that 2014-2016 were not representative years.

Like the analysis of opposition and appeals, reported values were higher than actual litigation rates in all cities except Redwood City. Nevertheless, some general trends hold true. Long Beach reported the highest rate of CEQA litigation and had the highest rate of litigation on a per-project and per-unit basis.

Jurisdictions could also rank the extent to which the threat of CEQA litigation is a development constraint. Los Angeles reported CEQA litigation threats to be a severe constraint; however, its litigation rates were lower than Pasadena, which did not classify litigation threats as a constraint. Some of this variation might be explained by appeals; Los Angeles’s appeals rate is much higher than Pasadena’s, which could proxy for the threat of litigation. Oakland and Palo Alto had the lowest litigation rates and both classified threats as a minor constraint; however, threats are a major constraint in San Jose despite a relatively low litigation and appeals rate.

Generally our numbers are much lower than reported values in the surveys, which could suggest that perceptions of opposition are much higher than what is actually occurring. Some respondents may be reporting perceptions that are based on experiences over a longer time period, rather than recent years. Alternatively, it could suggest that researchers need to measure public opposition in different ways. The reality is important because it influences the policy solution—if planners overestimate the influence of public opposition, it might cause policymakers to focus solutions on eliminating a discretionary process, when a stringent base zoning code might actually be the primary regulatory constraint on supply.

**Figure 8: Comparison of CEQA Litigation Rates**

	<i><b>Terner</b></i>	<i><b>Case Study</b></i> <i><b>(% of Projects)</b></i>	<i><b>Case Study</b></i> <i><b>(% of Units)</b></i>	<i><b>Terner</b></i> <i><b>Are CEQA</b></i> <i><b>threats a</b></i> <i><b>constraint?</b></i>
<b>San Francisco</b>	0-5%	3%	13%	Moderate
<b>Oakland</b>	Missing	1%	1%	Minor
<b>San Jose</b>	SFH = 0-5%, MFH = 6-25%	2%	3%	Major
<b>Redwood City</b>	0-5%	8%	8%	Moderate
<b>Palo Alto</b>	SFH = 0-5%, MFH = 6-25%	0%	0%	Minor
<b>Los Angeles</b>	SFH = 0-5%, MFH = 6-25%	4%	11%	Severe
<b>Pasadena</b>	Missing	4%	17%	Not a constraint
<b>Long Beach</b>	51-75%	14%	28%	Major

**The case study found more entitled market-rate projects than what respondents reported as permitted, but similar values for affordable housing.**

The Terner Survey asks roughly how many large new construction projects and new affordable housing developments have been constructed in the respondent’s jurisdiction since January 1, 2015. While our research analyzed projects that received final entitlements in 2014-2016, comparing the two datasets can help illuminate differential rates of entitlements and building permits.

**Planners reported fewer large projects permitted and constructed than we found entitled in our study years.**

In many jurisdictions, the Terner Center findings differ from the results of our case studies. Four of the nine jurisdictions responded with fewer developments in the 20-49 unit range than we found entitled in between 2014 and 2016. Two jurisdictions reported fewer projects in the 50-149 unit range. Two jurisdictions reported fewer projects in the 150+ range. Survey

responses—which maxed out at 10+ projects—make it difficult to directly compare higher production cities like San Francisco, San Jose, Oakland, and Los Angeles. The lower rates of permitting relative to entitlement reinforce observations that not all entitled developments are ultimately built. The difference between entitlement and building permit issuance has important implications for recently enacted legislation like SB 35.<sup>22</sup>

The Terner Survey did not ask about developments with fewer than 20 units, which in many of our jurisdictions are a meaningful component of housing supply. In Los Angeles, 47 percent of all entitled developments contained fewer than 20 units. Los Angeles’s zoning ordinance provides that zoning code-compliant projects of 49 units or less are exempt from discretionary review (Los Angeles Muni. Code § 16.05). The as-of-right provision likely contributes to the high percentage of smaller entitled projects. Fifty percent of entitled developments in Pasadena contained fewer than 20 units. We also observed the greatest variation between our data and the survey data for projects in the 20-49 unit range. While market conditions that favor the construction of large projects over small projects could explain this variation, it is also

<sup>22</sup> S.B. 35, 2017 – 2018 Reg. Sess. (Ca. 2017) imposes a ministerial process on jurisdictions that have not issued building permits for their pro-rata share of RHNA. See Cal. Gov’t Code § 65913.4(a)(4)(A).

**Figure 9: Comparison of Large Projects Built and Entitled**

	<i><b>Terner (Built)</b></i>			<i><b>Case Study (Entitled)</b></i>		
	20 - 49 units	50 - 149 units	150 + units	20 - 49 units	50 - 149 units	150 + units
<b>San Francisco</b>	10+	10+	10+	22	32	22
<b>Oakland</b>	6 to 9	10+	1 to 2	16	25	20
<b>San Jose</b>	1 to 2	10+	10+	5	13	30
<b>Redwood City</b>	0	1 to 2	1 to 2	7	4	2
<b>Palo Alto</b>	1 to 2	0	0	0	1	1
<b>Los Angeles (discretionary)</b>	10+	10+	10+	156	108	76
<b>Los Angeles (ministerial)</b>	n/a	n/a	n/a	54	n/a	n/a
<b>Pasadena</b>	10+	6 to 9	1 to 2	7	2	2
<b>Long Beach</b>	3 to 5	4 to 7	no values	6	8	5

possible that planners are underestimating the importance of smaller projects.

**Perceptions of the number of affordable housing developments permitted more closely aligned with our case study findings.**

Five of the nine jurisdictions’ survey responses were consistent with the number of affordable housing developments we found entitled in our case study. This could suggest that, once entitled, affordable housing is more likely to be permitted and constructed. Alternatively, since affordable housing is relatively infrequent relative to market-rate housing, tracking this data might be simpler for cities.

Four of the nine jurisdictions reported more affordable housing developments constructed since 2015 than we found entitled in 2014-2016. Some affordable developments might have been entitled before 2014 and not built until after 2015. The dissolution of Redevelopment Agencies also complicated the approval pathways for affordable housing developments in jurisdictions like San Francisco and Long Beach,<sup>23</sup> helping to explain the delta between the survey reported numbers and our entitled projects.

Survey responses to the question of projects built more closely mirrored our case study than other areas of the survey like variances and public opposition. Given Housing Element reporting obligations around permitted and constructed units, jurisdictions likely track this data better than data characteristics they are not required to report to the state. The one caveat is that jurisdictions report fewer smaller projects (20-49 unit range) than we found in our dataset. This has important policy implications and could suggest that planning resources are overly concentrated on large projects to the detriment of small projects. Small projects are an important source of new dense infill in existing residential neighborhoods, particularly in neighborhoods with lower existing density.

**Conclusion**

In some areas, both the case study and the Terner Survey identify similar trends. Both find similar numbers of affordable housing approvals, likely a product of state-mandated reporting around affordable housing approvals (Cal. Gov’t Code § 65400). Time frames were also relationally consistent—the cities with the longest time frames responded with the longest time frames overall, and the cities with the shortest time frames reported shorter time frames as well.

**Figure 10: 100% Affordable Housing Built and Entitled**

	<i><b>Terner (Built)</b></i>	<i><b>Case Study (Entitled)</b></i>
	100% Affordable Housing	100% Affordable Housing
<b>San Francisco</b>	10+	2
<b>Oakland</b>	6 to 9	4
<b>San Jose</b>	3 to 5	5
<b>Redwood City</b>	None	0
<b>Palo Alto</b>	0	1
<b>Los Angeles (discretionary)</b>	10+	22
<b>Los Angeles (ministerial)</b>	n/a	5
<b>Pasadena</b>	3 to 5	1
<b>Long Beach</b>	3 to 5	2

Where case study findings and survey findings begin to diverge is in the details. For example, while time frames were relationally consistent, respondents reported approving developments much faster than we found in our case study approach. Also, for variances—a crucial component of land use regulation for which there is little existing data—our case study found higher rates of setback variances. Planners also significantly overestimated the number of parking and density variances that were granted. These discrepancies also carried over to density bonus waivers and concessions, the functional equivalents of variances. Our case study also uncovered variances that were more frequently granted than the variances that were the focus of the Terner Survey, such as open space and dwelling unit exposure.

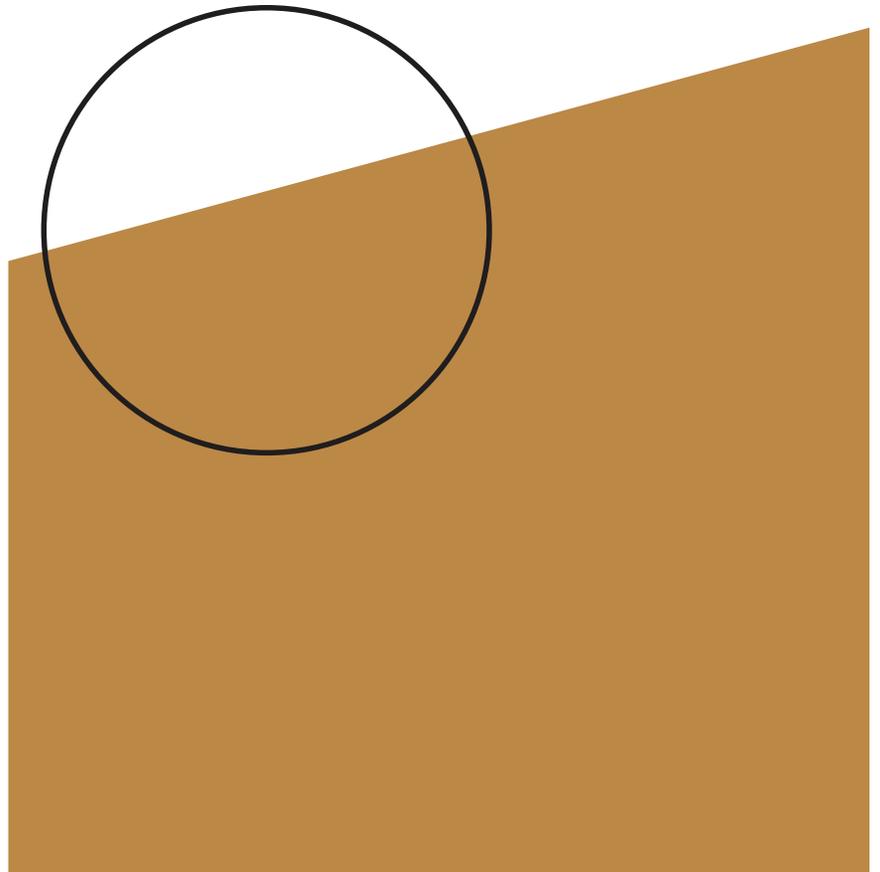
Due to variation in zoning codes, variance data is inherently difficult to track and analogize across multiple jurisdictions. The apparent gap between planners’ perceptions and what we observed in project-level data suggests that at present it is likely difficult for planners to report on these nuanced distinctions (Lewis & Marantz, 2019). This suggests a need for better systems to track and collect entitlement data to understand how local zoning codes may limit residential development by constraining building form. Such detail can also help inform proposed legislation and strengthen the reliability of Housing Element reporting.

Another important difference between the studies is that our indicators of community opposition are much lower than the reported values in the surveys. While the survey asked a question that allowed for opposition to be defined broadly—and could include community opposition in public hearings, something we did not explore—the survey findings still suggest that staff perceptions of community opposition might be higher than what is occurring as measured by administrative appeal and litigation rates.

Current legislative reforms require good data to inform implementation, and proposed legislative reform requires good data to predict efficacy and avoid unintended consequences. The effective operation of California’s Housing Element legislation depends on data to evaluate local government compliance with state mandates. Data also directly informs a local government’s ability to assess the primary constraints on residential development in their communities (Cal. Gov’t Code § 65583(a)(5)-(6)). SB 50 and similar proposals require good data to understand how process and zoning are currently functioning within city borders.<sup>24</sup> But as this paper shows, local and state decision-makers might not always have access to this data. Requiring cities to entitle more, without first understanding how their process and zoning is functioning within their borders, may lead to inefficiencies or inefficacy. To

<sup>23</sup> In Long Beach, entitlements for projects in former Redevelopment Areas were extended in our study years; however, we do not count these extensions because the project was already fully entitled outside our project years. San Francisco created a successor agency that entitles affordable housing development in former Redevelopment Areas entirely outside the purview of the Planning Department. For a more detailed explanation, see O’Neill, M., Gualco-Nelson, G., & Biber, E. (2019). Developing policy from the ground up: Examining entitlement in the Bay area to inform California’s housing policy debates. *Hastings Environmental Law Journal*, 25, 42.

ensure that cities are able to meet California’s housing mandates, future legislation should contemplate a range of reforms to improve data around land use regulation in California, including requirements for the use of consistent terminology across jurisdictions, mandating reporting on a wider range of data, making data easily accessible to the public, and assisting local governments in their data compilation, analysis, and management.



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<sup>24</sup> In May 2019, the Senate Appropriations Committee shelved SB 50 until 2020.

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