STATE ADMINISTRATIVE REVIEW OF LOCAL CONSTRAINTS ON HOUSING DEVELOPMENT: IMPROVING THE CALIFORNIA MODEL

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Starting in the 1970s, the West Coast states coalesced around roughly similar responses to the problem of excessive local restrictions on housing supply. Local governments were charged with making plans to accommodate projected population growth, subject to review and approval by a state agency. In California, a city's housing plan must also analyze, mitigate, and remove "constraints" to the development of housing in general. This component of the plan has received little attention, and, according to a recent report of the State Auditor, it hasn't accomplished much. We argue that it could accomplish much more—if the state housing agency develops practical strategies for dealing with information asymmetries (the agency's limited knowledge of local regulatory practice) and the substitutability of constraints (knock out one, and another can be deployed in its place).

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Our response to these challenges runs on two principal tracks. First, we recommend that the state rebuttably presume that local governments in expensive areas have substantial regulatory constraints if their rank by housing price (rent) exceeds their rank by rate of housing production. These local governments would be expected to provide regulatory accommodations when actors with better information about constraints—namely, developers—show that sites that the local government has represented as available for development are impractical to develop at their nominal capacity. This is a way for the state to achieve mitigation of constraints even when it's very hard for the oversight agency to see or evaluate them.

Second, to pinpoint sources of constraint and assess compliance with applicable benchmarks, we propose that the housing agency establish several new reporting and analytical requirements. The cumulative effect of local constraints should be assessed by simulating the entitlement of "prototype projects" on a random sample of parcels. Local governments also should be required to upload standardized, geocoded zoning layers and parcel characteristics; to track and report legally salient milestones for actual development applications; and to complete a questionnaire about certain types of constraints that the other approaches are likely to miss.

A workable framework for constraints review and mitigation could reduce the stakes of the state's "housing need" determinations and provide a model for other states seeking to liberalize the supply of housing in expensive, high-opportunity metro regions.

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INTRODUCTION

Starting in the 1970s, California, Oregon, and Washington coalesced around roughly similar (and similarly inadequate) responses to the problem of excessive local restrictions on housing supply.[1] Local governments were charged with making plans to accommodate housing needs, subject to review and approval by a state agency.

In California, the centerpiece of a local government's plan, or "housing element," consists of an inventory of developable parcels and a statement about the number of units the city will allow to be developed on each parcel.[2] The city must show that it has, or will provide through rezoning, sufficient site capacity to accommodate its assigned share of regional housing need in each of four income categories.[3] The density allowed on a site is treated as a proxy for affordability.[4]

As we have explained in other work, California's theory of housing need and how to meet it suffered from some glaring weaknesses.[5] Housing need was inferred from projections of household growth, ignoring the fact that restrictions on the supply of housing in a high-demand region raise prices and slow the growth of the region's population.[6] Housing plans were evaluated by assessing the number of

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1. *See generally* Christopher S. Elmendorf, *Beyond the Double Veto: Housing Plans as Preemptive Intergovernmental Compacts*, 71 HASTINGS L.J. 79, 100–10, 114–16 (2019) [hereinafter Elmendorf, *Beyond the Double Veto*].

2. CAL. GOV'T CODE §§ 65583(c), 65583.2 (West 2021); CAL. DEP'T OF HOUS. & CMTY. DEV., SITE INVENTORY GUIDEBOOK 3 (2020), https://www.hcd.ca.gov/community-development/housing-element/docs/sites_inventory_memo_final06102020.pdf [https://perma.cc/8Z77-U2SX] [hereinafter SITE INVENTORY GUIDEBOOK].

3. SITE INVENTORY GUIDEBOOK, *supra* note 2, at 30–33.

4. *Id.* at 13.

5. Christopher S. Elmendorf et al., *Making It Work: Legal Foundations for Administrative Reform of California's Housing Framework*, 47 ECOLOGY L.Q. 973, 985–1001 [hereinafter Elmendorf et al., *Legal Foundations*].

6. Elmendorf, *Beyond the Double Veto*, *supra* note 1, at 107–10.

units that would probably get built on the sites if they were developed, without accounting for those sites' likelihood of development.[7] Nor did evaluations consider the effect of new market-rate housing (or its absence) on whether existing, more affordable units become available to new tenants or homebuyers during the planning period.[8]

These problems are not our focus here.[9] We attend instead to an overlooked backwater: the requirement that housing elements analyze, mitigate, and remove "constraints" to the development of housing in general.[10] As we explain in Part I, this requirement probably hasn't amounted to much. The state housing department lacked authority to implement it by rule, and the department's advisory guidelines told local governments only what topics to address, not how to address them.[11] However, the California Legislature in 2019 authorized the department to issue "standards, forms, and definitions" governing the analysis of constraints.[12] This opens a window to make constraints analysis and mitigation a much more meaningful part of the framework. In principle, requiring local governments to analyze and mitigate constraints, under the supervision of a state agency, is a way for states to liberalize the supply of housing in tightly constrained markets without forecasting exactly how many units of new housing will be needed at various price points over a planning period.

This Article lays down a path for making constraints analysis and mitigation an effective component of the housing element framework.

We argue that any model for state superintendence of local constraints on housing development must account for the fact that the constraining effect of a land-use regulation, process, or fee depends not just on formal characteristics of the thing itself, but also on: (1) its prevalence (whether it applies widely or only to a few parcels in a small district); (2) the stringency or permissiveness of other requirements and procedures that apply to the same parcels (constraints are substitutes); and (3) prices, construction costs, and the value of the affected parcels' existing uses.[13] To illustrate, a requirement that the developer of a housing project set aside ten or twenty percent of the units for low-income households may kill development in some circumstances—e.g., where prices are low, permitting procedures are cumbersome, or other fees and requirements are costly—but have no effect in other circumstances—e.g., where prices are high relative to construction costs and the value of existing uses.

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7. Elmendorf et al., *Legal Foundations*, *supra* note 5, at 990–93.

8. *Id.* at 982–86.

9. California has started to address some of them. *See* Elmendorf, *Beyond the Double Veto*, *supra* note 1, at 114–16 (discussing method for setting regional housing targets); SITE INVENTORY GUIDEBOOK, *supra* note 2, at 20–22, 25 (addressing likelihood of sites' development).

10. CAL. GOV'T CODE § 65583(a), (c) (West 2021).

11. *See infra* Part I.

12. S.B. 6, 2019–2020 Reg. Legis. Sess. (Cal. 2019) (adding GOV'T § 65583.3(b)) ("The department may review, adopt, amend, and repeal the standards, forms, or definitions to implement this subdivision and subdivision (a) of Section 65583.").

13. *See infra* Part II.

From the point of view of a lightly staffed state agency charged with supervising more than 500 local governments,[14] figuring out which constraints or combinations of constraints represent the most serious problem in each community, at any given time, is a Herculean undertaking. Moreover, if the agency requires removal of a targeted constraint, what's to keep the local government from enacting substitutes?

Our response to these problems runs on two principal tracks. First, we recommend that the housing agency rebuttably presume that local governments in expensive areas have substantial regulatory constraints if their rank by housing price (rent) exceeds their rank by rate of housing production.[15] These local governments should be expected to provide regulatory accommodations when actors with better information about constraints—namely, developers—show that sites that the local government has represented as available for development are impractical to develop at their nominal capacity. This is a way for the state to achieve mitigation of constraints even when it's very hard for the oversight agency to see or evaluate them.

Second, to pinpoint sources of constraint and assess compliance with applicable benchmarks, we propose that the housing department establish several new reporting and analytical requirements.[16] The cumulative effect of local constraints should be assessed by simulating the entitlement of "prototype projects" on a random sample of parcels. Local governments also should be required to upload standardized, geocoded zoning layers and parcel characteristics; to track and report legally salient milestones for actual development applications; and to complete a questionnaire about certain types of constraints that the other approaches are likely to miss.

We proceed as follows. Part I briefly describes the current practice of constraints analysis, as revealed by the state's official guidance, by housing elements from a sample of fifteen cities, and by a recent report from the California State Auditor. Part II explains what makes it so difficult for a state agency to evaluate cities' analyses of constraints, and programs to mitigate or remove them. Part III presents our suggestions, and Part IV concludes. Technical information and programmatic details are covered in three appendices.

Although California is the focus of this Article, our analysis and recommendations have broader implications. Oregon and Washington already have similar planning frameworks in place,[17] and new efforts are underway to control

14. The California Department of Housing and Community Development (HCD) supervises the housing plans of 539 jurisdictions. *See* CAL. DEP'T OF HOUS. & CMTY. DEV., HOUSING ELEMENT UPDATE SCHEDULE FOR REGIONAL HOUSING NEED ASSESSMENT (RHNA) 1 (2019), https://www.hcd.ca.gov/community-development/housing-element/docs/6th_web_he_duedate.pdf [https://perma.cc/AZ9T-VQLF].

15. *See infra* Part III.B.

16. *See infra* Part III.C.

17. *See* Elmendorf, *Beyond the Double Veto*, *supra* note 1, at 100–13.

local barriers to housing supply in states as varied as Massachusetts,[18] Utah,[19] Virginia,[20] Connecticut,[21] and Maryland.[22] At the national level, bills have been introduced to condition federal funds on cities' development of plans to attack local land-use restrictions.[23] If California can forge a model that works, it will have an audience.

I. PRELUDE: THE PRACTICE OF CONSTRAINTS ANALYSIS

California's Department of Housing and Community Development ("HCD") implements the state's planning-for-housing law ("Housing Element Law") primarily through a set of advisory guidelines, called the Building Blocks.[24] To get a feel for the practice of constraints analysis, we studied the Building Blocks,[25] and then read and coded the most recent (Fifth Cycle) housing elements

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18. Matt Stout & Jon Chesto, *Baker Signs Economic and Housing Package, but Vetoes Some Tenant Protections*, BOS. GLOBE (Jan. 14, 2021, 7:53 PM), https://www.bostonglobe.com/2021/01/15/metro/baker-signs-economic-housing-package-vetoes-some-tenant-protections/ [https://perma.cc/996H-B7JL] (eliminating supermajority vote requirement for local rezonings and requiring cities to create multifamily housing districts near transit station).

19. Brandon Fuller & Nolan Gray, *A Red-State Take on a YIMBY Housing Bill*, BLOOMBERG CITYLAB (Feb. 20, 2019, 5:00 AM), https://www.bloomberg.com/news/articles/2019-02-20/utah-pro-housing-bill-is-zoning-reform-red-state-style [https://perma.cc/NGD3-Z7PJ].

20. Kriston Capps, *With New Democratic Majority, Virginia Sees a Push for Denser Housing*, BLOOMBERG CITYLAB (Dec. 20, 2019, 6:03 AM), https://www.bloomberg.com/news/articles/2019-12-20/inside-the-virginia-bill-to-allow-denser-housing [https://perma.cc/SSP7-SAJ3].

21. Christopher Keating, *New Coalition Lobbying Lawmakers to Change Exclusionary Zoning Rules that Limit Affordable Housing and Perpetuate Segregation*, HARTFORD COURANT (July 14, 2020, 5:29 PM), https://www.courant.com/politics/hc-pol-affordable-housing-racial-justice-20200714-6lgzuq34qzgwriehiaeinyuh3q-story.html [https://perma.cc/8T4T-8CPA]; *2021 Legislative Reforms*, DESEGREGATE CONN., https://www.desegregatect.org/hb6107 [https://perma.cc/W35R-NUJA] (last visited Sept. 3, 2021).

22. Kriston Capps, *Denser Housing Is Gaining Traction on America's East Coast*, BLOOMBERG CITYLAB (Jan. 3, 2020, 4:00 AM), https://www.bloomberg.com/news/articles/2020-01-03/maryland-s-ambitious-pitch-for-denser-housing [https://perma.cc/4U25-FUFF].

23. Sophie Kasakove, *Can Cory Booker, Elizabeth Warren, and U.S. Cities End Exclusionary Zoning?*, PAC. STANDARD (June 7, 2019), https://psmag.com/social-justice/can-cory-booker-elizabeth-warren-and-u-s-cities-end-exclusionary-zoning [https://perma.cc/CN9F-SJYB]; Shane Reiner-Roth, *YIMBY Act Passes House of Representatives, Could Pave the Way for More Affordable Housing*, THE ARCHITECT'S NEWSPAPER (Mar. 5, 2020), https://www.archpaper.com/2020/03/yimby-act-passes-house-of-representatives/ [https://perma.cc/67CA-QBRE].

24. *See Building Blocks*, CAL. DEP'T OF HOUS. & CMTY. DEV., https://www.hcd.ca.gov/community-development/building-blocks/index.shtml [https://perma.cc/R39X-Y8JB] (last visited Sept. 3, 2021) [hereinafter *Building Blocks*].

25. *See id.* at *Constraints* & *Program Requirements*. The Building Blocks addressed under constraint analysis and mitigation or removal are:

of fifteen California cities, including all of the largest cities and a mix of suburban jurisdictions.[26] Some of the Authors of this Article are also collecting project-entitlement data from those cities and, in a future paper, we will compare assertions in the housing elements' analyses of constraints with evidence from the project-entitlement data. For now, a few top-line observations will suffice.

The most striking thing about the Building Blocks is that they elicit very little quantitative information about constraints. Local governments are asked to report typical impact fees on housing developments and typical permitting times, but there's no guidance about how to determine typicality, and no requirement that cities identify or release the data on which they rely.[27] The Building Blocks basically amount to an open-ended request for self-study in four areas: Land-Use Controls, Fees and Exactions, Processing and Permitting Procedures, and Codes and Enforcement of Onsite/Offsite Improvement Standards.[28]

Within those areas, the Building Blocks do flag a number of discrete local practices or requirements that one might consider suspicious or particularly susceptible to abuse, and which cities are expected to analyze as potential constraints. These include height limits of two stories or less in multifamily districts;[29] growth-control ordinances "that specifically limit the amount or timing of residential development;"[30] voter-approval or legislative supermajority

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Land-Use Controls, CAL. DEP'T OF HOUS. & CMTY. DEV., www.hcd.ca.gov/community-development/building-blocks/constraints/land-use-controls.shtml [https://perma.cc/A33E-UDFC] (last visited Apr. 26, 2019) [hereinafter *Land-Use Controls*]; *Processing and Permitting Procedures*, CAL. DEP'T OF HOUS. & CMTY. DEV., www.hcd.ca.gov/community-development/building-blocks/constraints/processing-permitting-procedures.shtml [https://perma.cc/5CQ6-K3R9] (last visited Apr. 26, 2019) [hereinafter *Processing and Permitting Procedures*]; *Fees and Exactions*, CAL. DEP'T OF HOUS. & CMTY. DEV., www.hcd.ca.gov/community-development/building-blocks/constraints/fees-and-exactions.shtml [https://perma.cc/F5B5-A5FT] (last visited Apr. 26, 2019) [hereinafter *Fees and Exactions*]; *Codes and Enforcement for Onsite and Offsite Improvement Standards*, CAL. DEP'T OF HOUS. & CMTY. DEV., www.hcd.ca.gov/community-development/building-blocks/constraints/codes-and-enforcement-on-offsite-improvement-standards.shtml [https://perma.cc/WY25-7REP] (last visited Apr. 26, 2019) [hereinafter *Codes and Enforcement*]; and *Address and Remove (or Mitigate) Constraints*, CAL. DEP'T OF HOUS. & CMTY. DEV., https://www.hcd.ca.gov/community-development/building-blocks/program-requirements/address-remove-mitigate-constraints.shtml [https://perma.cc/6ZLA-E84W] (last visited Apr. 26, 2019) [hereinafter *Address and Remove (or Mitigate) Constraints*].

26. The fifteen jurisdictions we selected are those that were previously selected for a study of the development-entitlement process led by two Authors of this Article. *See* Moira O'Neill, Giulia Gualco-Nelson & Eric Biber, *Examining the Local Land Use Entitlement Process in California to Inform Policy and Process* (Berkeley Law Center for Law, Energy & the Environment, Working Paper No. 2), https://www.law.berkeley.edu/research/clee/research/land-use/getting-it-right/ [https://perma.cc/N9YR-D99W]. They are: Redwood City, Palo Alto, Oakland, San Francisco, Los Angeles, Long Beach, Santa Monica, Pasadena, Sacramento, Folsom, San Diego, Redondo Beach, Fresno, and Mountain View.

27. *Processing and Permitting Procedures*, *supra* note 25; *Fees and Exactions*, *supra* note 25.

28. *See Building Blocks*, *supra* note 24.

29. *Land Use Controls*, *supra* note 25.

30. *Id.*

requirements for land-use changes;[31] urban growth boundaries and annexation restrictions;[32] adequate public facilities ordinances;[33] parking requirements that exceed suggested maximums;[34] fees that exceed 10–15% of total development costs;[35] a conditional use permit requirement for multifamily housing in a multifamily zone;[36] inclusionary zoning requirements;[37] and requirements for environmental or design review.[38] Although the Building Blocks instruct that such policies should be analyzed as potential constraints, cities are not asked to report the amount of potentially buildable land or units of zoned capacity that may be impacted by each policy.

If a city's analysis reveals that a potential constraint is an "actual constraint," the housing element is supposed to include a program to mitigate or remove the constraint.[39] But, critically, the Building Blocks do not articulate any general standard or even a theory for distinguishing "potential" from "actual" constraints. Nor does the constraint-removal Building Block provide a general standard for determining whether a city's mitigation plan is sufficient.[40] It provides instead a long menu of suggestions, such as "reduce parking requirements," "provide flexible standards for second units to encourage their development," "reduce procedural requirements for growth control ordinances," "reduce or waive fees and exactions for particular types of developments," "expedite permit processing," and "increase use of ministerial processing for a variety of housing types."[41] A few suggestions are more specific. For example, local governments are encouraged to reduce minimum lot sizes to 5,000 square feet or less, front-yard setbacks to 15 feet or less, and minimum lot widths to 50 feet or less.[42]

In the fifteen housing elements we reviewed (mostly from cities in the famously supply-constrained San Francisco and Los Angeles metro regions), serious programs to mitigate and remove constraints were basically nonexistent.[43] At most, cities would identify an area of concern, such as parking standards, and say that changes will be considered in the context of some future community process.[44] Many cities in our sample concluded that they had no "actual" governmental constraints at all, notwithstanding that numerous academic studies have found that California's coastal metro areas have some of the most constrained housing markets

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31. *Id.*
32. *Id.*
33. *Id.*
34. *Id.*
35. *Fees and Exactions*, *supra* note 25.
36. *Processing and Permitting Procedures*, *supra* note 25.
37. *Id.*
38. *Id.*
39. *Address and Remove (or Mitigate) Constraints*, *supra* note 25.
40. *Id.*
41. *Id.*
42. *Id.*
43. *See supra* note 26.
44. *See, e.g.*, CITY OF SAN DIEGO, GENERAL PLAN, HOUSING ELEMENT 2013–2020, at HE-109 (2013), https://www.sandiego.gov/sites/default/files/legacy/planning/genplan/heu/pdf/housingelementfull.pdf [https://perma.cc/L3P7-P8PB].

in the nation.[45] The typical housing element's analysis of constraints consists only of a general narrative description of local practice with respect to zoning, fees, permitting, and infrastructure standards. Housing elements also highlight policies that nominally facilitate affordable housing development (special coordinators in the planning department, reduced fees, etc.), but without providing any evidence of the policies' impact.

A recent report from the California State Auditor reaches similarly pessimistic conclusions about the current state of constraints analysis and mitigation.[46] Comparing four pairs of cities, the Auditor found major differences with respect to parking and discretionary permit requirements, yet all of the cities had been certified by HCD as substantially compliant with the Housing Element Law.[47]

What explains the apparent weakness of constraints analysis and mitigation? We can't be sure, but we think three kinds of explanations have some force. First, politics. The housing elements we reviewed were drafted and adopted in the wake of the Great Recession of 2008–2009.[48] The Governor, who oversees HCD, may have had little appetite to push hard on supply-constrained jurisdictions at this time. Or perhaps his overall sense of fatalism about the housing supply problem (conveyed publicly the month before he left office[49]) was communicated privately to HCD and resulted in rubber-stamping of weak housing elements.

The second explanation is about law, not politics. Going back to 1980, HCD has been limited to issuing advisory guidelines, not rules, under the Housing

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45. *See, e.g.*, Joseph Gyourko, Jonathan Hartley & Jacob Krimmel, *The Local Residential Land Use Regulatory Environment Across U.S. Housing Markets: Evidence from a New Wharton Index*, 124 J. URB. ECON. 1, 9, tbl.4 (2021); Salim Furth, Housing Supply in the 2010s 32, tbl.2 (Feb. 2019) (unpublished working paper) (on file with the Mercatus Center at George Mason University), https://www.mercatus.org/system/files/furth-housing-supply-mercatus-working-paper-v1.pdf [https://perma.cc/KC7A-4RL5]; Cecile Murray & Jenny Schuetz, Is California's Apartment Market Broken? The Relationship Between Zoning, Rents, and Multifamily Development 5–10 (July 2019) (unpublished working paper) (on file with the UC Berkeley Terner Center for Housing Innovation), http://californialanduse.org/download/Is%20California's%20Apartment%20Market%20Broken%20Schuetz%20Murray%202019.pdf [https://perma.cc/YN3P-JUFK]; Edward Glaeser & Joseph Gyourko, *The Economic Implications of Housing Supply*, 32 J. ECON. PERSP. 3, 4–19 (2018); *see also* Issi Romem, *Paying For Dirt: Where Have Home Values Detached From Construction Costs?*, BUILDZOOM (Oct. 18, 2017), https://www.buildzoom.com/blog/paying-for-dirt-where-have-home-values-detached-from-construction-costs (reporting estimates of the ratio of housing prices to construction costs within and across metro areas) [https://perma.cc/KE2Z-6J2Z].

46. CAL. STATE AUDITOR, REPORT 2020-108, CALIFORNIA'S HOUSING AGENCIES 38–45 (2020), https://www.auditor.ca.gov/pdfs/reports/2020-108.pdf [https://perma.cc/M8GJ-TAG3].

47. *Id.* at 36–38.

48. The housing elements in our sample were adopted from 2013 to 2015, but the planning and drafting process began a couple of years earlier.

49. *Transcript: NPR's Full Interview with California Gov. Jerry Brown*, NAT'L PUB. RADIO (Dec. 11, 2018, 4:55 PM), https://www.npr.org/2018/12/11/675647260/transcript-nprs-full-interview-with-california-gov-jerry-brown [https://perma.cc/RWJ5-QWMF].

Element Law.[50] HCD's ability to standardize the analysis of constraints was also limited by a statute authorizing cities to adopt their general plan (of which the housing element is a part) "in any format deemed appropriate or convenient by the [city's] legislative body."[51] Further complicating matters, California's Administrative Procedures Act requires even non-binding guidance with policy content to be issued through a singularly cumbersome notice-and-comment process, which agencies avoid whenever possible.[52] The upshot is that if the Building Blocks had prescribed clear requirements and standards for the analysis of constraints, they would have been vulnerable to attack as *ultra vires*, contrary to the planning statute, and procedurally invalid.

The remaining explanation for the weakness of housing elements' constraints analysis and programs is epistemic: it is really hard for a lightly staffed state agency, charged with reviewing the housing plans of 539 local governments,[53] to determine whether one or another "potential constraint" is operating as a substantial or unreasonable drag on housing production. We elaborate this point in the next section.

The epistemic problem is now the central issue. In 2018, California elected a new governor, who as a candidate called for roughly quadrupling the rate of housing production.[54] In 2019, the Legislature passed a bill authorizing HCD to issue "standards, forms, and definitions" for the analytic side of the housing element, including the analysis of constraints.[55] The bill exempts these standards, forms, and definitions from the California APA and clarifies that they supersede the background principle that local governments may write their general plans in any format they choose.[56] It remains to ask whether the epistemic barriers can be overcome.

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50. William C. Baer, *California's Fair-Share Housing 1967–2004: The Planning Approach*, 7 J. PLANNING HIST. 48, 59–60 (2008); CAL. GOV'T CODE § 65585(a) (West 2021).

51. GOV'T § 65301(a).

52. *See* Michael Asimow, *California Underground Regulations*, 44 ADMIN. L. REV. 43, 44–55 (1992).

53. For a list of the 539 jurisdictions subject to review, see CAL. DEPT. OF HOUS. & CMTY. DEV., HOUSING ELEMENT UPDATE SCHEDULE FOR REGIONAL HOUSING NEED ASSESSMENT (RHNA) 1 (2019), https://www.hcd.ca.gov/community-development/housing-element/docs/6th_web_he_duedate.pdf [https://perma.cc/E4VE-BWBF].

54. Liam Dillon, *Gavin Newsom Calls for California to Nearly Quadruple its Annual Housing Production*, L.A. TIMES (Oct. 31, 2017, 9:01 PM), https://www.latimes.com/politics/essential/la-pol-ca-essential-politics-updates-201710-htmlstory.html?p=gavin-newsom-calls-for-california-to-nearly-quadruple-its-annual-housing-production [https://perma.cc/H3UE-XMBP].

55. S.B. 6, 2019–2020 Reg. Legis. Sess. (Cal. 2019) (adding GOV'T § 65583.3(b)) ("The department may review, adopt, amend, and repeal the standards, forms, or definitions to implement this subdivision and subdivision (a) of Section 65583."); GOV'T § 65583(a) (stating that the housing element shall contain, among other things, "[a]n assessment of housing needs" and "[a]n analysis of potential and actual governmental constraints upon the maintenance, improvement, or development of housing for all income levels").

56. *See* S.B. 6, *supra* note 55.

II. THE EPISTEMIC CHALLENGE OF CONSTRAINTS ANALYSIS

Even in a congenial legal and political environment, any protocol for policing local constraints must come to terms with several big epistemic challenges, which this Part describes.

A. Prevalence (Geographic Extent)

Whether a constraint represents a substantial or a trivial barrier to housing production in a jurisdiction depends in part on the amount of buildable land to which it applies. Imagine a "manorial estates" zone, which allows only single-family homes and prescribes a minimum lot size of 20,000 square feet. The existence of this zone would be a minor matter if it encompassed (say) 0.1% of a target city's buildable land; yet if all of the city were so zoned, it would be a massive constraint.

We suspect that uncertainties about prevalence may explain why HCD didn't make a big deal of the fact that many Fifth Cycle housing elements reported minimum lot sizes in excess of 5,000 square feet, or multifamily zones with height limits of two stories or less (against the Building Blocks' recommendations).[57] Yet

57. All of the fifteen housing elements we reviewed reported some zones with a minimum lot size exceeding 5,000 square feet and/or maximum heights of two stories or less—if they reported this information at all. Two larger cities, San Francisco and San Diego, did not include a summary table addressing the zoning standards called out in the Building Blocks (perhaps due to the complexity of their codes). *See* CITY OF SAN DIEGO, GENERAL PLAN, HOUSING ELEMENT 2013–2020 (2013), https://www.sandiego.gov/sites/default/files/legacy/planning/genplan/heu/pdf/housingelementfull.pdf [https://perma.cc/DM9Z-CTTC]; CITY OF S.F., GENERAL PLAN, 2014 HOUSING ELEMENT (2015), https://generalplan.sfplanning.org/2014HousingElement-AllParts_ADOPTED_web.pdf [https://perma.cc/DZ2Q-RE42]. For height limits and minimum lot sizes in the other cities, see CITY OF PASADENA, HOUSING ELEMENT, 2014–2021 B-14 tbl.B-6 (2014), https://www.cityofpasadena.net/wp-content/uploads/sites/30/Adopted-Housing-Element-2014-02-04.pdf?v=1627167878027 [https://perma.cc/Y6LV-YXZ2]; CITY OF LONG BEACH, 2013–2021 HOUSING ELEMENT 60 tbl.28 (2014), https://www.longbeach.gov/globalassets/lbds/media-library/documents/orphans/adopted-2013-2021/adopted-housing-element_revised-cover-with-border-a [https://perma.cc/B9SH-LDTJ]; CITY OF REDONDO BEACH, 2013–2021 HOUSING ELEMENT 49–50 tbls.H-37 & H-38 (2014), https://web.archive.org/web/20150724094935/http:/www.redondo.org/civica/filebank/blobdload.asp?BlobID=2868 [https://perma.cc/ZT4W-NER5]; CITY OF SANTA MONICA, 2013–2021 HOUSING ELEMENT 96 tbl.4-2 (2013), https://www.smgov.net/uploadedFiles/Departments/PCD/Plans/General-Plan/Housing-Element/City%20of%20Santa%20Monica%20HE%202013-2021%20FINAL.pdf [https://perma.cc/6WR6-AJSP]; FRESNO, GENERAL PLAN, 2015–2023 HOUSING ELEMENT 4-17 tbl.4-9 (2017), https://www.fresno.gov/darm/wp-content/uploads/sites/10/2018/01/FresnoHEAdoptedApril2017smallfile.pdf [https://perma.cc/EZM2-SZC9]; CITY OF MOUNTAIN VIEW, 2015–2023 HOUSING ELEMENT 98 (2014), https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=15284 [https://perma.cc/8K2R-A6X7]; CITY OF SACRAMENTO, 2013–2021 HOUSING ELEMENT H 8-9 tbl.H 8-2 (2013), https://www.cityofsacramento.org/-/media/Corporate/Files/CDD/Planning/Long-Range/Housing-Element/SacHEU_CompleteHE_FINAL_2013-12-17_web1.pdf?la=en [https://perma.cc/7V6M-XPHK]; CITY OF PALO ALTO, 2015–2023 HOUSING ELEMENT 107 tbl.4-4 (2014), https://www.cityofpaloalto.org/files/assets/public/planning-amp-development-services/3.-comprehensive-plan/comprehensive-plan/certified-15-23-housing-element.pdf [https://perma.cc/7VVS-N67H]; CITY OF FOLSOM,

it's a serious shortcoming of the Building Blocks that they do not ask local governments to characterize the share of buildable land affected by various restrictions.

B. The Substitutability of Constraints

If a local government wants to limit housing development, there are zillions of ways to do so.[58] Imagine that HCD makes a city reduce large minimum-lot sizes. The city could respond by raising parking requirements, reducing allowable heights, adding a stringent floor-to-area ratio, capping density, or establishing prohibitive impact fees or affordability requirements, any of which could stanch development on the now-permitted smaller lots.

Because use limits, height and bulk limits, density limits, fees, exactions, open-space requirements, affordability requirements, demolition controls, and cumbersome permitting processes are *functional substitutes* from the point of view of a local government that wants to thwart new development, it makes little sense to analyze "potential constraints" one by one. What matters is the cumulative, interactive effect of multiple potential constraints.

For similar reasons, it would not make sense for HCD to rely on one of the constraint indices that economists have used to summarize the panoply of local restrictions that may exist in a given jurisdiction.[59] Once a local government that wants to constrain development sees how various land-use practices are measured and weighted to construct the index, the city could reverse engineer its regulatory regime to improve its score on the index while continuing to thwart development.

HOUSING ELEMENT 3-101 to 3-103 tbls.3-41a, 3-41b & 3-42 (2013), https://www.folsom.ca.us/home/showdocument?id=210 [https://perma.cc/U4T3-BGB7]; CITY OF REDWOOD CITY, 2015–2023 HOUSING ELEMENT H-69 tbl.H-45 (2014), https://www.redwoodcity.org/home/showpublisheddocument/5127/635782757008700000 [https://perma.cc/S8AZ-KEKK]; CITY OF SAN JOSE, 2014–2023 HOUSING ELEMENT ch. IV-14 tbl.IV-8 (2015), https://www.sanjoseca.gov/home/showpublisheddocument/16025/636681585185400000 [https://perma.cc/YW6Q-HWY4]; CITY OF L.A., 2013–2021 HOUSING ELEMENT app.E at E-2 to E-3 (2013), https://planning.lacity.org/odocument/2f8beb19-2e69-4b41-b46c-b219c65beaa5/E.pdf [https://perma.cc/E68Z-KD8R]; CITY OF OAKLAND, 2015–2023 HOUSING ELEMENT 261–62 tbl.6-3 (2014), https://cao-94612.s3.amazonaws.com/documents/oak050615.pdf [https://perma.cc/T8FR-DJ7C]. In no case did HCD's review letter on the housing element call out the existence of minimum lot sizes exceeding 5,000 square feet, or multifamily zones with height limits of two stories or less, or the housing element's failure to report this information at all.

58. *See, e.g.*, Sara C. Bronin, Zoning by a Thousand Cuts: The Prevalence and Nature of Incremental Regulatory Constraints on Housing (July 20, 2021) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3792544 [https://perma.cc/DAG3-BLZA] (detailing through census of Connecticut jurisdictions the numerous forms of municipal control over residential development).

59. For example, the Wharton Residential Land Use Regulatory Index, see Gyourko et al., *supra* note 45, or the California-specific index recently compiled by Salim Furth & Olivia Gonzalez, see *California Zoning: Housing Construction and a New Ranking of Local Land Use Regulation*, MERCATUS CTR. (Aug. 2019), https://www.mercatus.org/publications/urban-economics/california-zoning-housing-construction-and-new-ranking-local-land-use [https://perma.cc/9E3E-TWEF].

HCD's Building Blocks recognize the problem of substitutability. They insist that "housing element[s] . . . analyze the cumulative effect of development standards on the development of housing . . . after considering how all standards . . . relate to each other."[60] But the Building Blocks provide no instruction about *how* to assess cumulative effect, and the Fifth Cycle housing elements we reviewed were largely silent on the topic.

C. Prices and Existing Uses

The third great challenge for analyzing constraints is that in supply-constrained, "NIMBY-influenced" markets, the effect of a regulation that increases the cost of development is a priori uncertain. What matters is not the cost of regulatory compliance as such, but whether the cost of compliance causes the price a developer could afford to pay for sites while earning a normal, risk-adjusted rate of return to fall below the value of the sites' existing uses.

So long as developers' bids surpass the value of current uses, rational site owners will sell to developers, and so long as developers expect to make money on their projects, developers will launch new projects down the regulatory-approval stream.[61] It follows that where the difference between housing prices and construction costs is very large, and the value of existing uses is low, local governments may be able to charge substantial fees or impose equivalent burdens without deterring development of a site. But if housing prices fall, construction costs rise, or existing uses become more valuable, the same fees may suddenly become a severe constraint. In this sense, the question of a fee or requirement being a constraint is not yes or no; it is one of degree and contingent on the place and time.

To be clear, the existence of a big gap between housing prices and the labor-and-materials cost of construction does indicate that *something* has been constraining the supply of housing. Economists often use the ratio of housing price to replacement cost ("PR ratio") as an indicator of cumulative supply constraint, and we will too.[62] The logic behind it is straightforward. In a competitive market, developers earn only the normal, risk-adjusted rate of return on the capital they invest. If a demand shock causes the price of housing to rise above the cost of construction, developers competing with one another will bid up the price of sites (think of a farm on the urban perimeter). As developers' bids surpass the value of current uses (the capitalized stream of income from the farm), site owners will sell

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60. *Land-Use Controls*, *supra* note 25.

61. A caveat: site owners may delay selling if they anticipate that developers will bid substantially more in the future. And developers may delay developing if they anticipate that the regulatory environment will be more favorable in the future (or prices higher, or construction costs lower).

62. *See generally* Glaeser & Gyourko, *supra* note 45; Romem, *supra* note 45. The denominator in Glaeser & Gyourko's study is the "minimal profitable production cost" ("MPPC") rather than replacement cost. MPPC is replacement cost adjusted for (1) the cost of sites in an unconstrainted market, which Glaeser & Gyourko peg at 25% of replacement cost, and (2) the average "entrepreneurial profit" earned by homebuilders, which they peg at 17% of land plus construction cost in an unconstrained market. Glaeser & Gyourko, *supra* note *45*, at 8–11. Thus, $MPPC = (replacement\ cost) * 1.25 * 1.17$, or roughly 1.5 times replacement cost. *Id.*

and developers will build housing, causing the price of housing to fall. Developers will keep building, and housing prices will keep falling, until the price that developers can afford to pay for sites—while earning a normal rate of return—falls below the current use value of the sites. In equilibrium, the PR ratio is a little above 1.0.[63] How close it gets to 1.0 depends on the opportunity cost of sites—that is, their value for uses other than new housing.[64]

Local regulations that require developers to pay large fees or provide in-kind benefits are constraints in the sense that they put a floor on the PR ratio. To illustrate, if the labor-and-material cost of building a home is $100,000, the opportunity cost of sites is $10,000, and the developer's return on investment is 20%, developers will keep supplying more homes until prices fall to $1.2 * (\$100{,}000 + \$10{,}000) = \$132{,}000$. Here the equilibrium PR ratio is about 1.3. But if the local government were to extract a $50,000 fee for the privilege of building, the floor price for housing would become $1.2 * (\$100{,}000 + \$10{,}000 + \$50{,}000) = \$192{,}000$, for a PR ratio of about 1.9.

On the other hand, if the PR ratio is already very high for reasons independent of the fee—e.g., restrictive zoning—a $50,000 fee may have little effect on development, particularly in the near term. In California's most expensive cities, the PR ratio is well above 3.0.[65] A PR ratio of 3.0, with construction costs of $100,000 per unit and developers earning 20%, implies that there's as much as $150,000 of "surplus" that the city may be able to extract without deterring development.[66] Developers will keep supplying homes so long as the total cost of the fee and the site for their project is less than $150,000.

The constraining effect of the $50,000 fee in this example may vary across sites and over time. Sites that are vacant or have low-value existing uses will probably be developed notwithstanding the fee. Other sites that would have been profitable to develop in the absence of the fee (sites whose existing use is worth $100,000–$150,000) will not be developed. As the low-opportunity-cost sites get developed, the combination of falling housing prices plus the higher opportunity cost of the remaining redevelopable parcels will make the fee progressively more constraining.

HCD's Building Blocks acknowledge that the "market conditions . . . affecting a jurisdiction's fee structure vary."[67] Local governments are asked to report total fees as a percentage of "overall development costs."[68] But the Building Blocks

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63. *See* Glaeser & Gyourko, *supra* note 45, at 10–11; Romem, *supra* note 45.

64. One study reports that in unconstrained markets, the cost of a site for developing a single-family home is usually about 20% of the labor and materials cost of the project. Glaeser & Gyourko, *supra* note 45, at 8. In urban areas, where most potentially redevelopable sites have existing commercial or residential uses, the opportunity cost of sites will be higher, but that cost can also be spread across many units of new housing if the sites are zoned for high-density development. *See id.* at 4 n.1.

65. *See* Romem, *supra* note 45.

66. $1.2 * (\$100{,}000\ [construction\ cost] + \$150{,}000\ [fees + site\ cost]) = \$300{,}000$.

67. *Fees and Exactions*, *supra* note 25.

68. *Id.*

do not wrestle with the crucial question of whether local fees, *in combination with other requirements*, cause the prices that developers could pay for sites (while earning a normal rate of return) to fall below the value of existing uses.[69] Perhaps that's understandable: this question is not easy to answer. The answer requires an understanding of the distribution of existing uses across sites, of the private costs of regulatory compliance, and of developers' own forecasts about the trajectory of housing prices and construction costs. That's a lot to ask of local governments or HCD. But it would be a waste of effort for HCD to crack down on fees and exactions where they're not actually operating to deter development.

D. The Elusive Outcomes Benchmark

There is, at first glance, a simple, administrable solution to the problems of prevalence, cumulative effect, and prices: the state should just measure performance—housing outcomes—and reward or punish local governments accordingly. Poor performers could be subjected to a remedial regime in which the state assumes control over development in their territory. This general approach has normative heft (outcomes are what matter for social welfare) and it seems practical too, as it does not require state overseers to figure out the intricate inner workings of local development regulation regimes.

But it turns out that evaluating local governments based on housing outcomes is quite tricky, owing to variation across jurisdictions in demand, site characteristics, and the value of existing uses, and also because of regional market dynamics. Let us consider two possible metrics of performance: the "PR ratio," described above, which is a standard measure of constraint in the economics literature,[70] and the rate of housing-stock growth.

The PR ratio is a good measure of overall supply constraints within a metro area, but it's not a great tool for parceling out blame among the cities and suburbs within the area. If a small city within a generally constrained region becomes an exemplary producer, its prices probably won't fall very far. As the city's prices begin to fall, people from around the region looking for cheaper housing will flock to it. This will cause prices (and thus PR ratios) to fall a little *throughout the metro area*, but they'll only fall *further* in the city that's doing a good job if housing there is an

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69. The Building Blocks do assert that fees exceeding "10%-15% of development costs" are "atypical" (implying that this is cause for concern), *id.*, yet the informational value of this statistic as a measure of constraint is questionable at best. For one thing, the cost of developing a housing project can be jacked up by other, non-fee requirements, such as affordable housing mandates, union labor requirements, and cumbersome permitting processes. It would be odd to give local governments a pass on high fees if the local government manages to keep fees below the 15% threshold by driving up other costs, or by replacing some of the fees with in-kind exactions. Second, and more fundamentally, a fee that totals 15% of labor and material costs may have virtually no deterrent effect on the development of run-down sites in high-price cities (where the price of finished housing amply exceeds the costs of construction, including opportunity costs), while bringing redevelopment to an absolute standstill on sites with fairly valuable current uses, where the opportunity cost of redevelopment is much higher. To figure out whether the fee is a big constraint or a little constraint, one has to account for the features of the potentially developable parcels in the jurisdiction.

70. *See generally* Glaeser & Gyourko, *supra* note 45; Romem, *supra* note 45.

imperfect substitute for housing elsewhere in the metro area. Because housing markets within a metro area are linked, the PR ratio for any given city reflects not only that city's performance, but all the good and bad done by all the other cities in the region. It would seem a little unfair to hold cities responsible for the sins of their neighbors.[71]

A further concern is that the "cost" in the PR ratio is itself affected by local development regulations. If new buildings must be decked out with underground parking, balconies, fancy cladding, and other bells and whistles, this will inflate the denominator in the PR ratio. Rewarding or punishing local governments based on their PR ratio could have the perverse effect of encouraging local governments to impose ever more costly building and design standards, substituting this type of constraint for size and density restrictions. Accordingly, if the PR ratio is used to assess overall constraint, the denominator should probably be the cost of building a no-frills structure of the same size as the building in question, rather than the cost of building the structure that was actually built. Call this the "least-cost PR ratio." But local governments in fancy areas would likely complain that the least-cost PR ratio overstates the degree of constraint in their housing market, as the high prices in their area may well reflect the voluntary decisions of developers to provide a luxury product. Not all bells and whistles are mandated by law.

So perhaps we should assess local governments as constrained or not based on their rate of housing stock growth, rather than their PR ratio. This sidesteps the denominator problem with the PR ratio. And growth rates are more clearly within each city's control. Of course, cities can control their growth rates only if the price of new housing in their territory materially exceeds the cost of no-frills construction.[72] This condition may not hold in some of California's inland and rural communities, but it's clearly met in expensive coastal California.[73]

But what should the growth rate be? Or, equivalently, at what point could one say that a city's growth rate is so low as to deem the city "constrained" for purposes of housing element review?

One option is to benchmark housing production against the local government's "RHNA number." This would be ill-advised. California grounds its official regional housing needs assessments ("RHNAs") on forecasts of population growth;[74] RHNAs do not reflect what is or should be economically feasible to build.

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71. Then again, the housing element law was recently amended to make local governments responsible for mitigating "nongovernmental" as well as "governmental" constraints. Assemb. B. 879, 2017–2018 Reg. Legis. Sess. (Cal. 2017) (amending CAL. GOV'T CODE § 65583(c)(3)). Perhaps supply constraints in neighboring jurisdictions could be considered a "non-governmental constraint" from the target jurisdiction's perspective.

72. If the price of new housing in a city is less than the cost of building a unit of housing in the city, no one will build housing in the city even if the city removes all regulatory barriers. In this sense, rate of housing-stock growth is beyond the city's control.

73. *See* Glaeser & Gyourko, *supra* note 45; Romem, *supra* note 45. We took Romem's 2016 estimates at the zip-code level, aggregated up to cities, and found that more than 65% of California local governments had PR ratios greater than 1.5. See Appendix A for methodological details. *See also* https://arizonalawreview.org/data-for-state-administrative-review-of-local-constraints-on-housing-development-improving-the-california-model/.

74. *See* Elmendorf, *Beyond the Double Veto*, *supra* note 1, at 100–10, 114–16.

Moreover, the allocation of the RHNA among local governments within a region is made by a political body, the regional "council of governments,"[75] and invariably reflects political considerations. Wealthy jurisdictions have often received very small RHNA shares, even though the demand for housing in such locales is extremely high.[76]

Another possibility is to benchmark California local governments against their peers across the nation, deeming a California locality constrained if it does not permit as much new housing as its counterparts in other states.[77] We'll call this the "normal production" benchmark. It has the pragmatic virtue of demanding ordinariness rather than heroism from California's local governments (surely the ordinary should be achievable), but it has some serious vices, too. For starters, the nationally typical metro region grows primarily through suburban sprawl,[78] whereas California has embraced a policy of concentrating new development near transit and centers of employment.[79] Requiring California's local governments to mimic their national peers under the auspices of "addressing and removing constraints" would misallocate new housing between exurban jurisdictions and central cities.

It's also the case that expensive metro regions everywhere produce too little new housing, period.[80] The metro areas with the highest PR ratios, where new housing would be most socially valuable, produce a lot less housing than metros with PR ratios between 1.0 and 1.5.[81] If one benchmarked California's expensive,

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75. CAL. GOV'T CODE § 65584.04 (West 2020).

76. NEXT10, MISSING THE MARK: EXAMINING THE SHORTCOMINGS OF CALIFORNIA'S HOUSING GOALS 6 (2019), https://www.next10.org/housing-goals [https://perma.cc/3DKS-RJA5]; HEATHER BROMFIELD & ELI MOORE, UNFAIR SHARES: RACIAL DISPARITIES AND THE REGIONAL HOUSING NEEDS ALLOCATION PROCESS IN THE BAY AREA (Hass Institute Research Brief, 2017), https://belonging.berkeley.edu/unfairshares [https://perma.cc/4SQN-7PPA].

77. For a proposal to this effect, see Salim Furth et al., Comment on the U.S. Department of Housing & Urban Development's Proposed Rule Affirmatively Furthering Fair Housing (Mar. 12, 2020), https://www.mercatus.org/system/files/furth_hamilton_pinto_and_peter_-_pic_-_comments_on_hud_proposed_rule_for_affirmatively_furthering_fair_housing_pic_-_v1.pdf [https://perma.cc/FS4U-5N5L]. We discuss this proposal in Appendix A. *See infra* note 231.

78. *See* Issi Romem, *Mapping America's Metropolitan Growth: Islands of Density in a Sea of No Growth*, ZILLOW (Dec. 6, 2019), https://www.zillow.com/research/housing-stock-islands-of-density-25866 [https://perma.cc/Y3PY-XEG2]; Issi Romem, *Can U.S. Cities Compensate for Curbing Sprawl by Growing Denser?*, BUILDZOOM (Sept. 14, 2016), https://www.buildzoom.com/blog/can-cities-compensate-for-curbing-sprawl-by-growing-denser [https://perma.cc/5Z2P-SJA3]; Issi Romem, *Has The Expansion of American Cities Slowed Down?*, BUILDZOOM, (May 15, 2016), https://www.buildzoom.com/blog/cities-expansion-slowing [https://perma.cc/ZEC8-AXVZ].

79. *See, e.g.*, S.B. 375, 2007–2008 Reg. Legis. Sess. (Cal. 2008).

80. *See* David Schleicher, *Stuck! The Law and Economics of Residential Stagnation*, 127 YALE L.J. 78 (2017); Glaeser & Gyourko, *supra* note 45; Chang-Tai Hsieh & Enrico Moretti, *Housing Constraints and Spatial Misallocation*, 11.2 AM. ECON. J.: MACROECONOMICS 1 (2019).

81. *See* Glaeser & Gyourko, *supra* note 45, at 15–19; Romem, *supra* note 45.

high-demand coastal cities against expensive, high-demand cities around the nation, one might well conclude that California is doing more or less fine.

Even if the benchmark were a true national average—reflecting the practices of all local governments in the United States, or all local governments in growing regions, not just local governments in expensive areas—getting California's local governments to meet the benchmark would not be enough to remedy the enormous housing shortfall that California has accrued since the 1960s. The economist Salim Furth recently estimated housing-supply responses at the zip-code level to increased demand between 2012 and 2018, conditioning on population density.[82] Aggregating up from zip codes, Furth and Gonzales found that California produced, in total, only 200,000 fewer units during this period than would have been produced if the supply response were nationally typical.[83] This suggests that California's current normal production deficit is about 35,000 units per year. Yet analysts peg California's accrued deficit at 2 million units or more,[84] a figure that the legislature has ratified.[85] To remedy the deficit, California's local governments must become supranormal accommodators of new housing. In 2017, the legislature called for a doubling of the state's rate of production from roughly 90,000 to 180,000 units per year.[86] Governor Newsom has called for a four-fold increase.[87] Average is not good enough.[88]

Still another possibility is to set the production benchmark on the basis of what California's relatively successful local governments have achieved, a kind of intrastate norming. For example, during the 2014–2019 period, the median California local government increased its housing stock at an annual rate of 0.4%,

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82. Furth, *supra* note 45.

83. Furth & Gonzalez, *supra* note 59, at 15.

84. *See, e.g.*, LEGISLATIVE ANALYST'S OFFICE, CALIFORNIA'S HIGH HOUSING COSTS: CAUSES AND CONSEQUENCES 21 (2015), https://lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.pdf [https://perma.cc/N454-4JDW] (estimating that California would have needed to produce 2.7 million more units from 1980 to 2010 to keep prices from rising faster than the national average); MCKINSEY GLOBAL INSTITUTE, A TOOL KIT TO CLOSE CALIFORNIA'S HOUSING GAP: 3.5 MILLION HOMES BY 2025 2 (2016), https://www.mckinsey.com/~/media/mckinsey/industries/public%20and%20social%20sector/our%20insights/closing%20californias%20housing%20gap/closing-californias-housing-gap-full-report.pdf [https://perma.cc/GW6E-KNK4] (estimating accrued deficit of 2 million units, based on ratio of population to housing stock in comparator states).

85. S.B. 167, 2017–2018 Reg. Legis. Sess. (Cal. 2017) (adding CAL. GOV'T CODE § 65589.5(a)(2)).

86. *Id.*

87. Dillon, *supra* note 54.

88. We explored modelling housing-stock growth as a function of base-year rents in the jurisdiction, and a regional "shift share" term capturing the amount of employment growth that would occur in the region if every sector of the economy expanded at the nationally typical rate for that sector. (One would expect more housing production where rents are high and in regions benefiting from positive employment shocks.) Fitting the model with national data from 2013–2018, we found that the average California municipality permitted about the same amount of housing that the model predicted. In short, the "nationally typical" relationship between rents, employment demand, and housing stock growth is too attenuated. California's current housing crisis seems to reflect not its current regulatory atypicality, but rather historical underproduction and an exceptionally strong economy.

and the 75th percentile jurisdiction grew by about 0.9% annually.[89] If every jurisdiction in the bottom 75% had hit the 75th percentile benchmark, about 40,000 more dwelling units would have been produced each year. Not enough. If the bottom 90% had achieved the housing-growth rate of the state's 90th percentile jurisdiction, that would have yielded about 120,000 more per year. That's more than double the state's annualized rate of production. Even so, it's about what's needed to keep pace with population growth.[90] Moreover, these back-of-the-envelope calculations assume that every jurisdiction in the state has enough housing-market demand for substantial growth, yet as we show in Appendix A, many cities and counties in the bottom third by rents likely have little growth potential, even in the absence of governmental constraints.[91]

There is a further difficulty. Among cities where housing prices materially exceed the cost of no-frills construction, the amount of potentially developable housing varies for reasons that have nothing to do with governmental constraints. In expensive cities, very dense, high-rise modes of construction can be economically feasible, and sites with valuable existing uses are often profitable to redevelop if the regulatory environment is accommodating. In cities with only moderately high prices, mid-rise, wood-frame structures may be the densest feasible construction form, and sites with existing uses, such as single-family homes, may be unprofitable to redevelop even if the law allows it. In even less-expensive places, only townhomes or bungalow courts may "pencil" for profit-minded developers, and only on vacant, easily developed sites.

Because of the variation across cities in prices and parcel characteristics, intrastate norming ought to be based not on the rate of housing-stock growth, but on the *ratio* of housing production to a theoretical construct we'll call the "locally unconstrained feasible units" ("LUFU"). This is the total number of units or square feet that would pencil on a given site at a given moment in time—based on prices, construction costs, and interest rates—summed across all parcels of buildable land in the jurisdiction's territory, and assuming that all local government regulations on housing development had been wiped away. Think of it as an envelope of potential housing units across the jurisdiction, one defined by economics rather than zoning.

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89. Data on housing stock growth are from the Building Permit Survey of the U.S. Census and annual reports filed by cities and counties with the California Department of Housing and Community Development. See Appendix A for details. As used here, a "jurisdiction" is a city or county subject to housing element review and reporting. Growth rates for counties exclude the incorporated areas, i.e., the cities that submit their own housing elements.

90. The state's official projections call for 180,000 new units annually to keep pace with population growth. CAL. DEP'T OF HOUS. & CMTY. DEV., CALIFORNIA'S HOUSING FUTURE: CHALLENGES AND OPPORTUNITIES 3, 5 (2018), https://www.hcd.ca.gov/policy-research/plans-reports/docs/SHA_Final_Combined.pdf [https://perma.cc/X9QD-HYZD]; CAL. GOV'T CODE § 65589.5(a)(2)(D) (West 2020).

91. If one excludes jurisdictions in the bottom third by rent, then bringing California cities and counties that are below the 75th percentile by housing-stock growth rate up to the 75th percentile growth rate would yield about 32,000 more housing units per year, bringing below-90th jurisdictions by growth rate to the 90th percentile mark would yield about 95,000 more units per year.

The LUFU is a fictional concept because even if a local government repealed its zoning code and permitting requirements, developers would not build all then-feasible units. As production ramped up, housing prices would fall and construction labor costs would rise, which in turn would change the envelope of feasibility. Still, the fiction is very useful because it provides a way to standardize observed housing production in a way that speaks to *governmental* constraints on housing production.[92] Local governments with similar housing prices may have different housing potential if exogenous parcel characteristics (size, environmental features, value of existing uses) vary between the local governments. Dividing observed housing production by the LUFU adjusts for this underlying variation in nongovernmental constraints.

Any production-based metric of constraint should use averages of housing production taken over a number of years. New development is approved and built project-by-project, not unit-by-unit, and a given project may have hundreds or thousands of units. Because housing production is "chunky," we should expect cities with accommodating land-use policies to fall far short of expectations in some years, and to substantially outpace expectations in other years. The smaller the city, the more variable its rate of housing stock growth is likely to be.[93] Moreover, it's clear from national data that the least-constrained metropolitan housing markets are the most variable in terms of annual production.[94] Their housing production explodes during periods of economic expansion and shuts down during recessions. (Presumably, their feasible envelope drops to zero during recessions.)

The LUFU is not easy to estimate. It requires good information about parcel-level characteristics, as well as information about development costs, which developers have a competitive incentive not to reveal. But this is also an area of active research and innovation. Several firms and think tanks are developing estimates of the envelope of feasibility for select geographies, both under existing zoning and for counterfactual worlds with relaxed constraints.[95] These estimates

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92. A model of the LUFU that accounted for the general-equilibrium effects of land-use deregulation on housing prices and construction labor and material costs could in principle be developed, but it would require untestable predictions about the effects of never-observed changes in the regulatory environment, so the added sophistication would be largely smoke-and-mirrors.

93. If one averages production over a number of years, some of this variability washes out. We compared city size with rate of housing stock growth for California cities from 2012–2018, excluding cities with a PR ratio of less than 1.2. There is, as expected, a negative correlation between (a) base-year housing stock and (b) the rank distance of a city's 2012–2018 housing-stock growth rate from the median 2012–2018 growth rate, but the correlation is weak. (It's -0.07 if log (base-year housing stock) is used, and -0.11 if rank (base-year housing stock) is used.) That is, larger cities were a bit more likely than smaller cities to have grown at near the median rate, rather than at a bigger or much smaller rate, but the difference between larger and smaller jurisdictions is not substantial.

94. *See* Glaeser & Gyourko, *supra* note 45, at 15–19.

95. *See, e.g.*, Graham McDonald & Solomon Greene, *We Need Better Zoning Data to Address Pressing Housing and Development Issues*, URBAN WIRE (Jan. 15, 2019), https://www.urban.org/urban-wire/we-need-better-zoning-data-address-pressing-housing-and-development-issues [https://perma.cc/L98X-A6QK] (discussing a new initiative of the

generally rely on laborious hand coding of zoning codes, although one start-up company is trying to do it with machine learning.[96] The elusive outcomes benchmark may be within reach soon.[97]

But it's not available today in a form that would enable observed rates of housing production to be standardized and compared across the more than 500 local governments whose housing elements are subject to periodic updating and state review. In the near term, any program to benchmark local governments based on housing production would have to find some proxy for the envelope.

III. THE PATH FORWARD: A STRATEGY TO IMPROVE THE ANALYSIS OF CONSTRAINTS

This Part explains how HCD could use its new authority to redesign the analysis of constraints, accounting for prevalence, substitutability, and prices—and also the absence of a clear-cut, production-based benchmark for "good enough." Our plan has three parts: (1) norms for evaluating potential constraints and the adequacy of housing-element programs to mitigate or remove them; (2) default, outcome-based presumptions about constraint, and a protocol for mitigating constraints whose precise contours neither HCD nor the local government may understand; and (3) new reporting and analytical requirements, designed to generate a much clearer picture of constraints, and how they vary from one local government to the next.

Urban Institute using machine learning to predict zoning layers on basis of parcel and building features); Andrew Westrope, *Symbium Opens Service for Analyzing Zoning, Building Codes*, GOV'T TECH. (Mar. 3, 2020), https://www.govtech.com/biz/Symbium-Opens-Service-for-Analyzing-Zoning-Building-Codes.html [https://perma.cc/8DYJ-UE8B] (describing a project of a private firm, Symbium, to create "Google Maps-like portals" showing where accessory dwelling units can be built in eight California jurisdictions, using machine-learning technology for interpretation of zoning codes); Carol Galante, *Launching the Housing Development Dashboard*, TERNER CTR. FOR HOUS. INNOVATION AT UC BERKELEY (May 31, 2016), https://ternercenter.berkeley.edu/blog/housing-development-dashboard [https://perma.cc/7EG6-6GNK] (previewing a new project to estimate what would be economically feasible to build under various regulatory scenarios); MAPCRAFT, https://www.mapcraftlabs.com/ [https://perma.cc/ZP2N-AW4K] (last visited Sept. 3, 2021) (demonstrating estimated feasible units under varying inclusionary zoning requirements in a number of West Coast cities); SYMBIUM, https://symbium.com/ [https://perma.cc/FKT8-YX2Q] (last visited Sept. 3, 2021) (website of firm using machine learning and parcel-level maps to project capacity for accessory dwelling unit construction); CALTHORPE ANALYTICS, THE ULTIMATE TECHNICAL GUIDE TO URBANFOOTPRINT (2017), https://urbanfootprint.com/wp-content/uploads/2017/11/UrbanFootprint-Technical-Guide-v2-3.pdf [https://perma.cc/VYM5-B2Q3] (inventorying resources in consulting firm's parcel-level database).

96. SYMBIUM, *supra* note 95.

97. *Cf.* Paavo Monkkonen, Ian Carlton & Kate Macfarlane, One to Four: The Market Potential of Fourplexes in California's Single-Family Neighborhoods (July 7, 2020) (unpublished working paper) (on file with UCLA Lewis Center for Regional Policy Studies), https://escholarship.org/uc/item/8gh2x0tj [https://perma.cc/9PPQ-XMQ3] (estimating statewide market potential for fourplexes on sites now zoned for single-family homes).

A. Benchmarks

The legislature and the governor clearly want local governments to permit much more housing—enough to at least double the rate of production statewide[98]—yet there is no legislated or accepted standard for what makes a local constraint on housing development excessive or illegitimate. The housing element law's vague command is simply to remove constraints "where appropriate and legally possible."[99]

There are hints in the housing element law about what counts as a constraint that requires mitigation or removal, but as we've explained in other work, the statute equivocates between what we call the "RHNA/special-needs" and "economic" conceptions of constraint.[100] Under the RHNA/special-needs conception, the only constraints that require mitigation are those that render a local government likely to miss its RHNA targets or incapable of providing for certain special-needs populations. Under the economic conception of constraint, any unreasonable or unnecessary barrier to housing development requires mitigation, even if the local government is likely to hit its RHNA target with the barrier in place.

We have argued that HCD's new authority to issue "standards, forms, and definitions" empowers it to choose between these conceptions of constraint, at least for purposes of the analysis of constraints.[101] But that doesn't make HCD's job any easier. The choice may prove politically fraught, and if HCD were to adopt the economic conception of constraint, the choice could easily become empirically and logistically fraught as well. A lightly resourced department, with no economists on staff, is in no position to make judgment calls about which local land-use regulations have costs that outweigh their benefits. Moreover, the Housing Element Law signals that local governments are owed some discretion in deciding how to achieve state goals.[102] If HCD thinks a particular constraint is unwarranted but the local government would prefer to leave it in place and offset its effect in some other way, that is the local government's prerogative—so long as the offset proves effective.

Under these circumstances, and pending further instruction from the legislature, we think the most practical and defensible course is for HCD to treat potential constraints as prima-facie "inappropriate" if they: (1) cause the local government to fall below the statewide average or the average of its type with respect to some dimension of the development process—e.g., zoned capacity, permitting delays, and regulatory-compliance costs;[103] (2)make housing development harder than it was before; or (3) contribute to the local government's failure to achieve any performance standards established by the legislature, such as timeframes for project review under the Permit Streamlining Act and for environmental clearance under the California Environmental Quality Act.

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98. *See supra* text accompanying notes 86–87.
99. CAL. GOV'T CODE § 65583(c)(3) (West 2021).
100. Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1035–37.
101. *Id.*
102. *Id.* at 1045–46.
103. Jurisdiction "type" may be defined by multiple criteria including but not limited to size (population and land area) and demand for housing.

Local governments could try to justify a constraint, but they'd have to explain how the constraint serves an important public function, and why it cannot be mitigated. A constraint might also be justified if the local governments show it was retained (or even worsened) as part of the political compromise on a pro-housing-on-balance package of reforms. Land-use reform is political, and in some cases the pivotal voter on a city council may insist on concessions for anti-development factions in her district as the price of supporting a pro-housing package. If HCD tried to categorically prohibit backsliding on every dimension, that could backfire by reducing the set of politically feasible, pro-housing reform packages that local actors could adopt.[104]

Though bringing laggard jurisdictions up to statewide averages would not be enough to remedy California's housing deficit, the combination of mandatory upzoning to accommodate local governments' RHNA shares,[105] *plus* substantial programs to remove or mitigate sub-normal constraints, *plus* safeguards against unmitigated backsliding with respect to any dimension of the development process that the local government has handled tolerantly—well, this might not be enough either, but it would be a big step in the right direction.

Ultimately, our defense of no-backsliding and statewide-average benchmarks is pragmatic. The status quo ("don't backslide") and peer-jurisdiction practice ("raise yourself to the statewide average") offer nonarbitrary reference points that HCD may invoke for normative leverage. They are commonsensical and easy to apply. They do not require HCD to make empirically challenging and politically contestable judgments about which local development regulations impose costs exceeding their benefits. They do not require battles over whether a local government is or is not likely to meet its RHNA-share targets. And they make the housing element law a little more robust to normative errors in the setting and allocation of RHNA targets, as they give HCD a basis for demanding constraint-removal actions even from local governments that have received small targets that they're likely to meet.[106] This is an important consideration because historically, affluent jurisdictions where the demand for housing is sky-high have managed to

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104. We thank David Schleicher for raising this point.

105. Local governments will have to provide a lot more zoned capacity in the 6th cycle than in the 5th, due to improvements in the process for setting the RHNA. *See* Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1001–04. Additionally, there is a strong argument that local governments must provide enough zoned capacity for sites' *expected yield* in new units during the planning period to equal or exceed the local government's RHNA share. This may require zoned capacity on the order of two to four times the local government's RHNA share. *See id.* at 991–93, 1020–29.

106. Consider for example Santa Monica's 5th cycle housing element. The constraints analysis boiled down to, "We're not constrained because we met our RHNA target in the last cycle," with no mention of the fact that the RHNA target equated to a paltry 1% growth in the city's housing stock over the eight-year planning period. CITY OF SANTA MONICA, 2013–2021 HOUSING ELEMENT 94–114 (2013), https://www.smgov.net/uploadedFiles/Departments/PCD/Plans/General-Plan/Housing-Element/City%20of%20Santa%20Monica%20HE%202013-2021%20FINAL.pdf [https://perma.cc/MR66-4RYW].

finagle exceptionally small shares of the regional housing target, particularly for lower-income housing.[107]

B. Presumptions

The second leg of our program for improving the analysis of constraint is an evidentiary presumption, and a device for mitigating constraints when the presumption kicks in. The problem it solves is this: what shall HCD do after it has announced the peer-benchmarking and anti-retrogression norms, but before it has adequate data to assess how a local government compares to its peers, or its own past practices, with respect to core dimensions of the development process?[108]

In these circumstances, we think HCD should deem local governments presumptively constrained if their "market standardized" rate of housing-stock growth is below the statewide median. The ideal market adjustment, as explained in Part I.D, would be to standardize observed production by the number of locally unconstrained feasible units ("LUFU"). But estimates of that counterfactual are not yet available for most California cities.

A reasonable fallback is to treat housing prices as a proxy for variation in potential housing-stock growth. The tallest and densest housing forms are generally more expensive to build, per square foot, than less-dense forms.[109] As housing prices rise, the profit-maximizing form for a given site also becomes denser (in the absence of governmental constraints). This is why skyscrapers are found in central cities but not in distant exurbs. Though other, harder-to-observe things, such as parcel characteristics, also affect the LUFU, price data are readily available and conducive to comparing cities.

We think the simplest and most transparent way to deploy price and production data in service of constraints analysis is with a *difference-in-ranks classifier*. First, HCD would set a housing-price threshold, below which governmental constraints are deemed unimportant, because large-scale production probably wouldn't occur in such places even absent regulatory constraints. Next, HCD would rank every above-the-threshold jurisdiction by its rate of housing-stock growth over the previous eight years (the planning period), excluding recessionary

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107. NEXT10, MISSING THE MARK: EXAMINING THE SHORTCOMINGS OF CALIFORNIA'S HOUSING GOALS 6 (2019), https://www.next10.org/housing-goals [https://perma.cc/Q9L8-BJ48] (showing that local governments which are performing "well" tended to receive very small RHNA targets relative to their population); HEATHER BROMFIELD & ELI MOORE, UNFAIR SHARES: RACIAL DISPARITIES AND THE REGIONAL HOUSING NEEDS ALLOCATION PROCESS IN THE BAY AREA 4 (2017), https://belonging.berkeley.edu/sites/default/files/haasinstitute_unfairshares_rhnabayarea_publish.pdf [https://perma.cc/4Z6J-2AEK] (finding that relatively "white" jurisdictions in the Bay Area received disproportionately small allocations of the lower- and moderate-income RHNA).

108. E.g., zoning, permitting, and regulatory compliance costs.

109. *See* Hannah Hoyt & Jenny Schuetz, *Making Apartments More Affordable Starts with Understanding the Costs of Building Them*, BROOKINGS INST. (May 5, 2020), https://www.brookings.edu/research/making-apartments-more-affordable-starts-with-understanding-the-costs-of-building-them/ [https://perma.cc/8S22-3EBY].

years.[110] HCD would also rank these cities by average housing price or rent. Cities would then be sorted into two bins, based on whether their production rank is lower than their price rank. Cities whose production rank falls below their price rank would receive the "presumptively constrained" designation. This is a simple analysis to perform, using readily available data, and it yields a list of presumptively constrained jurisdictions with good face validity. See Appendix A.[111]

Figure 1 plots housing prices (rents) and recent housing-stock growth for all California jurisdictions subject to the housing element law. The striking takeaway is that expensive places are not allowing their larger feasible buildable envelopes to be used. Only in the least-expensive cities and counties—those in the bottom tercile—are higher prices associated with higher production. Elsewhere, there is no correlation between prices and production, so the difference-in-ranks classifier results in the overwhelming majority of top-tercile localities (by price) being classified as presumptively constrained.

Local governments on the presumptively constrained list could try to rebut the presumption. For example, a suburban local government might try to show that nearly all parcels in its territory have been developed with single-family homes, and that the market value of the improvements is too high for redevelopment as condos or small apartments to be profitable (regardless of local zoning, fees-and-feature requirements, or permitting delays). But the local government should have to prove this with credible data about the distribution of existing uses across sites, the value of those uses, and the cost of redevelopment.[112] Bald assertions would no longer carry the day in housing-elements analysis of constraints.

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110. The production figure should be an average taken over several years because of the "chunkiness" (intrinsic variability) of annual housing production. *See supra* Part II.D. But the time series shouldn't be too long, or else local governments that have removed constraints and improved their performance will continue to be weighed down by their past failings. A reasonable compromise between these considerations is to average production over one planning period, i.e., eight years.

111. If HCD or OPR eventually issues a definition of buildable land, i.e., land suitable for housing development as a matter of state law, the Department may wish to exclude from the numerator (production) the housing units that are built outside of the appropriate areas (e.g., in high-fire zones, or on wetlands). This could be done by gleaning production information from local governments' annual progress reports under housing element law (on which see *infra* Part III.C.2), rather than relying on the Census's Building Permit Survey. The progress reports now include tax-parcel numbers for each development project, which could be cross-checked against the online database of environmental features being developed by the Office of Planning and Research. *See Site Check*, CAL. GOVERNOR'S OFFICE OF PLANNING AND RESEARCH, https://sitecheck.opr.ca.gov/ [https://perma.cc/6PGV-X755] (last visited Sept. 3, 2021). We thank Issi Romem for raising this issue.

112. To this end, the local government might hire one of the private consulting firms which are starting to generate pro-forma-based estimates of the feasible building envelope in select markets. *See supra* notes 95–97 and accompanying text.

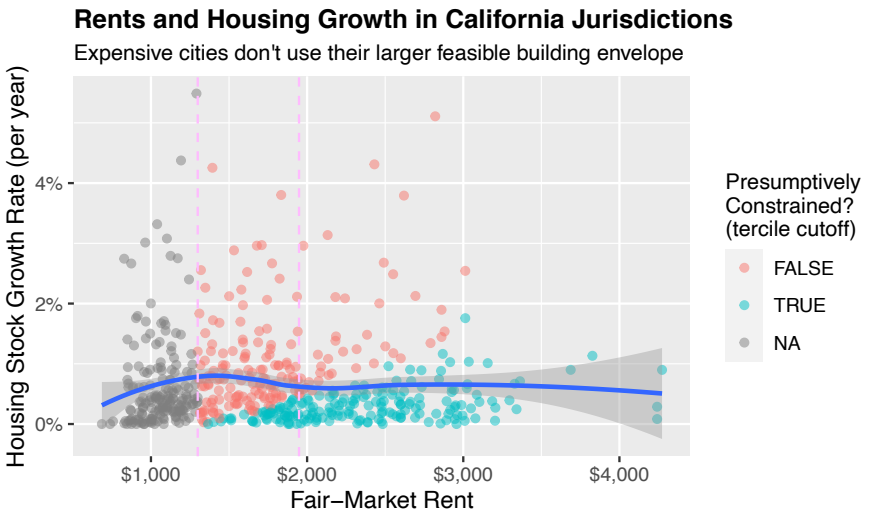

Figure 1. Rents and Housing Production Among California Local Governments.

Presumptively constrained jurisdictions are plotted in turquoise. The purple dashed lines denote the 33rd and 67th percentile cities by rent. Rents are inferred from the Department of Housing and Urban Development's zip-code-level estimate of fair-market rent, controlling for unit size and quality. See Appendix A for details. Housing production data is from the U.S. Census's Building Permit Survey (BPS), years 2014–2019. For the jurisdictions that are missing in the BPS series, we infer production from annual reports submitted to the state Department of Housing and Community Development (years 2014–2018, with spotty coverage of some local governments. The blue line is a local polynomial regression describing the relationship between rent and production at different price points. The takeaway is that expensive cities generally aren't using their larger feasible building envelopes, so most of them are classified as presumptively constrained.

A critic might say there's no point to classifying local governments as presumptively constrained without knowing *why* the local government is a poor performer. Without knowing the whys, how could HCD assess whether the housing element's constraint mitigation or removal program is reasonable? This objection overlooks the possibility that HCD could combat constraints by piggybacking on the local knowledge of actors who are well-positioned to identify them in the context of particular sites and projects—namely, developers. Specifically, HCD could insist that presumptively constrained local governments commit, through their housing elements, to waiving standards and procedures insofar as they hinder development of certain sites at specified densities. A very modest implementation of this idea would be to require local governments to waive, on an as-applied basis, standards and procedures that prevent or stall development of housing-element inventory sites at the density the housing element itself deems appropriate for the site.

To flesh out this idea, it's helpful to recognize that constraints take five basic forms:

- Restrictions that limit the size of the structure or number of dwelling units that may be built on a parcel ("zoned capacity");
- Regulations that directly increase the cost of building, such as impact fees, parking minimums, and materials requirements ("fees and features");
- Permitting procedures that indirectly raise the cost of construction, via delays and discretion ("permitting process");
- Limits on the amount of housing that may be developed within a planning area, rather than on a specific parcel ("growth controls"); and
- Political arrangements that amplify the voice of homeowner and neighborhood interests, at the expense of renter and citywide interests, when discretionary governmental powers are being exercised ("political structures").

The first four categories of constraints could, in principle, be controlled through a policy of granting regulatory waivers when constraints become excessive. For example, to guarantee a certain amount of zoned capacity on a site, a local government could promise to waive any zoning restriction or overlay that physically precludes development of a structure with a floor-to-area ratio of X, or a dwelling-unit-per-acre ratio of Y.[113] This idea has been incorporated into California's density-bonus law, which entitles developers to a waiver of local development standards that physically prevent construction of the number of units that the state law entitles the developer to build.[114]

The cumulative burden of "fees and feature" requirements, such as impact fees and parking standards, could similarly be mitigated by providing a right to a waiver if the requirements cause the price a developer could afford for the site (while earning a normal rate of return) to fall below the site's value in its current or next-best use. The local government would have discretion to decide which of its fees-and-feature requirements to waive, provided that the waiver suffices for the project to be economically viable.[115]

As for the permitting process, local governments could create a fallback, ministerial permitting pathway for developers who have waited more than X months

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113. Local governments which are poor performers per the normal-production metric should be strongly encouraged to provide this guarantee at least as to the designated "capacity" of their housing element inventory sites. Perhaps they should be required to rezone and guarantee capacity for their accrued normal-production deficit too, but this would probably require legislative amendments to the housing element law.

114. The waiver is not available if the local government proves that compliance with the standard is necessary to prevent specific adverse effects on public health, safety, the physical environment, or historical resources. CAL. GOV'T CODE § 65915(d)(1)(B) (West 2021).

115. Local land-use regulators—cities and counties—do not presently have authority to reduce development fees charged by other entities, such as school districts and special districts. We would encourage the legislature to authorize cities and counties to reduce all fees and exactions pro-rata, in cases where their cumulative burden renders development of an inventory site economically infeasible. Thanks to Darien Shanske for raising this issue.

(inclusive of internal appeals) for a final decision on their application.[116] After X months, a developer could withdraw her application and resubmit the project for ministerial processing. The project would be approved as a matter of law if the local government does not make a timely decision on the resubmission.[117]

The fourth family of constraints—quantitative caps on housing development—ought to be suspended unless or until the local government achieves its RHNA targets. This regulatory waiver should be automatic.

These constraint-mitigation policies can be made hard to undo if they're adopted through the housing element and declared to be a "fundamental, mandatory, and clear" policy of the local government's general plan. Under background principles of California law, any "fundamental, mandatory, and clear" command of the plan supersedes contrary local ordinances and will be enforced by the courts.[118] Because the housing element is a component of the general plan, a local government that has committed through its housing element to provide regulatory accommodations will face significant legal pressure to continue providing the accommodations. To be sure, if the local legislative body has a change of heart, it could amend the housing element. However, amendments must be submitted to HCD for review and comment,[119] and HCD has authority to decertify a housing element mid-cycle if the local government falls out of compliance.[120] A supply-constrained city that undertakes to repeal the core constraint-mitigation policies of its housing element would face a serious risk of decertification.

We recognize that HCD's authority under housing-element law to insist on particular constraint-mitigation measures is pretty limited.[121] But if a local government in a high-demand area has not been pulling its weight, and if the local government has no credible excuse for its shortcomings, it seems more than a little rich for the local government to say, "Here are the sites through which we can meet our share of regional housing need for the next planning period—but we make no

116. Land-use attorney Dan Golub commented to us that this fallback procedure could be challenging to implement because there is not yet a clear date (as a matter of state law) on which the development-review process commences. The closest thing is the date on which a developer's application is determined or deemed complete, CAL. GOV'T CODE § 65589.5(j)(2) (West 2020), but in Golub's experience local governments that are wary of a project will often delay that date indefinitely with repeated requests for further information from the applicant. For the fallback ministerial permitting procedure to be practicable, then, the local government (or the state) would have to authorize *applicants* to declare a project application complete, thus starting the clock for processing it. (Golub also suggests that HCD or the state legislature simply require ministerial processing of all housing projects on housing-element inventory sites. We are sympathetic to this idea but have some doubts about whether HCD could require it under the law as it stands today. *See* Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1045–46.)

117. HCD might also establish regional field offices which could issue building permits if a local government spent too much time processing an already-approved project's application for building permits. Local governments could decide through their housing elements whether to recognize HCD-issued permits.

118. Elmendorf et al., *Legal Foundations*, *supra* note 5, at 995–98.

119. GOV'T § 65585(b).

120. *Id.* § 65585(i)–(j).

121. *See* Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1045–46.

promises that we'll accommodate the sites' development even at the density that our showing of fair-share capacity presumes." Also, as we have explained in other work, HCD could certainly issue recommended constraint-mitigation policies in the form of advisory safe harbors.[122] The presumptively constrained local governments wouldn't have a legal obligation to use the safe harbors, but if they choose to do so, they could be pretty confident that HCD would approve their housing element; if they do not, they'd be on notice that they better devise an equally substantive alternative if they hope to secure HCD's approval.

To drive home the importance of classifying cities as presumptively constrained based on outcomes, consider Figure 2 below, which plots cities' difference in ranks (production and price) against a survey-based index of land use regulations. The regulatory-constraint index was developed by economists Salim Furth and Olivia Gonzalez[123] using data from Mawhorter and Reid's Terner California Residential Land Use Survey.[124] This survey of local planners, conducted in 2017 and 2018, elicited planners' perceptions of regulatory restrictions in the local government's modal zones for single-family and multifamily housing; the proportion of the jurisdiction's territory zoned to allow single-family and multifamily uses;[125] typical parking requirements for single-family and multifamily projects; regulatory approval processes; and public attitudes toward new development.

Furth and Gonzalez took the survey results, cleaned up some internally inconsistent or missing responses, constructed subindices for various aspects of land-use regulation, and then aggregated the subindices into a master index.[126] They then plotted cities' scores on the land-use regulation index against Furth's estimates of the cities' "production residuals," which he inferred from a national model relating rents and demand shocks at the zip code level to housing production from 2012 to 2018.[127] The production residual measures how much more or less housing the city produced than would have been nationally typical for a city composed of similarly dense zip codes and facing similar changes in demand.[128] Furth and Gonzales found that cities with more stringent zoning had somewhat more negative growth residuals *on average*, but that this relationship was driven by a handful of outliers with extremely low or high scores on the regulation index.[129] As for the approval process, Furth and Gonzalez discovered that there was basically no within-city consistency in responses to the associated survey questions, and essentially no

122. *See id.* at 1045–51.

123. Furth & Gonzalez, *supra* note 59, at 2.

124. Sarah Mawhorter & Carolina Reid, *Local Housing Policies Across California*, TERNER CTR. FOR HOUS. INNOVATION AT UC BERKELEY (Dec. 2018), http://californialanduse.org/download/Terner_California_Residential_Land_Use_Survey_Report.pdf [https://perma.cc/L2SR-QMCJ].

125. *Id.* at 29–30.

126. Furth & Gonzalez, *supra* note 59, at 7–15.

127. *Id.* at 19, fig.2.

128. *See id.* at 15.

129. *Id.* at 19, fig.2.

relationship between any of the process variables and production residuals.[130] They venture that this is probably due to inaccuracies in planners' perceptions of informal features of the regulatory environment,[131] a conjecture that other studies bear out.[132] It may also be the case that local planners only perceive informal constraints when development is occurring.[133] If so, low scores on the process- and informal-constraint metrics could be artifacts of a lack of production, rather than indicators of a lack of constraint.

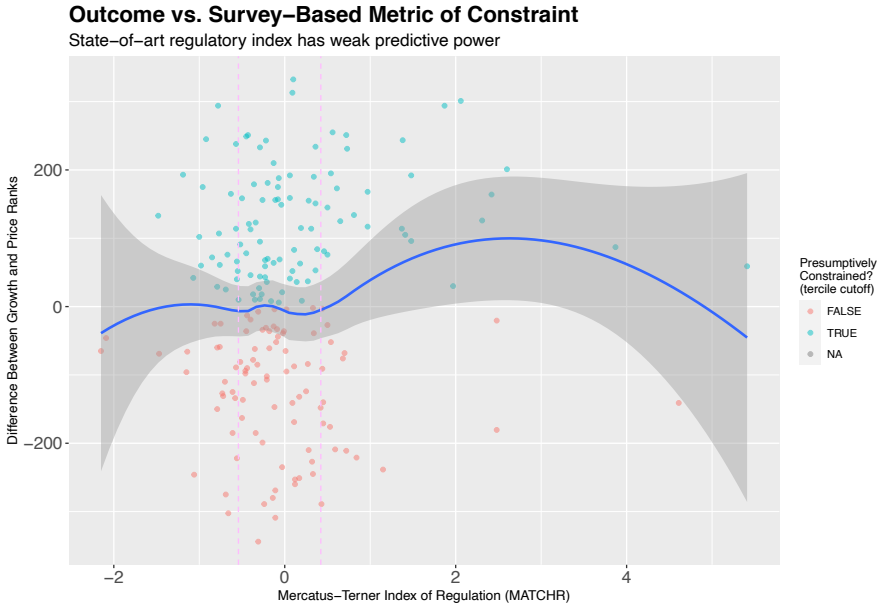

Figure 2. Surveys vs. Outcomes as the Measure of Constraint.

The Mercatus-Terner index aggregates responses to a survey of planners about local zoning requirements for single-family and multifamily housing, and the share of the jurisdiction's territory zoned for each housing type. The vertical axis is the city's growth rank minus its price rank (a positive number signifies constraint). Vertical dotted lines in plum indicate the 20th and 80th percentiles of the MATCHR index (among California local governments). The figure shows that restrictive

130. *See id.* at 20–22; *see also* Paavo Monkkonen, Michael Lens & Michael Manville, Built-Out Cities? How California Cities Restrict Housing Production Through Prohibition and Process 13–14 (Feb. 10, 2020) (unpublished working paper) (on file with the UC Berkeley Terner Center for Housing Innovation), http://californialanduse.org/download/MLM%20Built-Out%20Cities%202020.pdf [https://perma.cc/L6T6-WFQG].

131. *See* Furth & Gonzalez, *supra* note 59, at 21–22.

132. *See* Paul G. Lewis & Nicholas Marantz, *What Planners Know: Using Surveys About Local Land Use Regulation to Understand Housing Development*, 85 J. AM. PLANNING ASS'N, 445, 445 (2019); Moira O'Neill et al., *Comparing Perceptions and Practice: Why Better Land Use Data Is Critical to Ground Truth Legal Reform*, TERNER CTR. FOR HOUS. INNOVATION AT UC BERKELEY 17–18 (June 28, 2019), http://californialanduse.org/download/O%27Neill_Comparing_Perceptions.pdf [https://perma.cc/D6Q4-48F3].

133. Monkkonen et al., *supra* note 130, at 14.

scores on the Mercatus-Terner index predict bad outcomes only for jurisdictions in a region above the 80th percentile per the regulation index, and even there with great uncertainty. The regression curve is from a LOESS polynomial regression; grey bands denote the 95% confidence interval.

Figure 2 extends Furth and Gonzalez's core finding. There is some evidence of a relationship between planner-reported zoning stringency and our outcome-based metric of constraint (production rank minus price rank), but it only holds for jurisdictions above the 80th percentile by regulatory stringency, and even there it's very uncertain. This suggests that even state-of-the-art surveys of planners, coupled with careful data checking, probably cannot tell us very much about which jurisdictions are failing to exploit their market potential for housing stock growth. Moreover, if HCD were actually to use the Mercatus-Terner index to classify jurisdictions as constrained, local governments would probably substitute other regulatory devices for those captured by the index. It is thus critical that HCD develop a way to use outcomes—prices and production—as its central source of leverage, at least in the near term.

The work done by the presumptively constrained designation should vary over time, depending on the availability of other information to pinpoint sources of constraint, and on the informational richness of the presumptively constrained classifier itself. If HCD eventually develops a very clear picture of local regulations and practices in categories of constraint, and can benchmark cities accordingly, the presumption would cease doing much work. Conversely, if HCD can improve the quality of the presumption, perhaps by quantifying the LUFU on a representative sample of sites, then the Department—or the Legislature—might use the presumption to demand even stronger constraint-removal measures from the presumptively constrained local governments. For example, if certain aspects of the local-development process, such as design review, prove to be impossible to quantify and understand from the outside, HCD might demand that the presumptively constrained jurisdictions maintain a stock of "potential housing units" (zoned capacity) that may be developed without design review. Or, going a step further, the legislature might demand that presumptively constrained jurisdictions maintain a stock of sites with zoned capacity equal to some fixed percentage of the existing housing stock and protected by regulatory waiver guarantees.[134]

C. Data

The third leg of our proposal for improving the analysis of constraints is better data, brought to light by reporting requirements that HCD would establish using its new "standards, forms, and definitions" authority. HCD would issue report cards on each local government's performance, highlighting specific areas where the local government falls short of expectations, as well as the local government's

134. Again, by "regulatory waiver guarantees," we mean that the developer could insist on zoning waivers, fee-and-feature waivers, or process waivers insofar as the regulation at issue makes it physically or economically infeasible to develop a project at the nominally allowed scale and density, or (for process waivers) insofar as the normal permitting process fails to be completed within X months of project submission. *See supra* text accompanying notes 114–120.

outcome-based (prices and production) classification as presumptively constrained or not.

These report cards would serve a dual purpose. Internally, they would guide HCD review of housing-elements' programs to remove or mitigate constraints. Externally, they would shame the worst performers. Although it's doubtful that local elected officials in highly supply-constrained jurisdictions would face pressure from their voters to allow more housing, professional city managers and planners would probably feel the shaming effect of the report cards.[135] The report cards would also put the worst performers in the legislature's sights.

Our data strategy encompasses new initiatives (1) to quantify the prevalence and cumulative effects of constraints; (2) to create a statewide, project-level database keyed to permitting milestones under state law, including the Permit Streamlining Act, the California Environmental Quality Act, the Housing Accountability Act, and SB 35; (3) to elicit and standardize information about constraints that cannot be observed at the parcel or project level, such as quantitative growth controls or political arrangements that empower homeowners at the expense of renters; and eventually (4) to generate running estimates of the economically feasible building envelope ("LUFU") within a local government's territory, and thereby improve the presumptively constrained classifier.

1. Quantifying the Prevalence and Cumulative Effect of Constraints

A protocol for analyzing constraints must account for variation in the prevalence of each potential constraint, the interaction of multiple constraints, and the distribution and value of existing uses. The protocol should enable inter-jurisdictional comparisons and be diagnostic for purposes of a housing element's program to mitigate and remove constraints.

The goal is not to learn whether housing development on any particular site is constrained, but how severely the buildable land in a local government's territory is constrained *on average*. HCD's Building Blocks do ask a couple of questions about typicality or averages (concerning fees and permitting times), but they say nothing about how a local government should go about determining what the total fee or permitting time would be for development of an average site in the

135. *Cf.* Heather K. Gerken, *The Democracy Index: Why Our Election System Is Failing and How to Fix It* (2009) (arguing that public rankings of states by indicia of election quality would generate peer pressure among professional managers to improve their state's performance); Conor Dougherty, *Build Build Build Build Build Build Build Build Build Build Build Build Build*, N.Y. TIMES (Feb. 13, 2020), https://www.nytimes.com/2020/02/13/business/economy/housing-crisis-conor-dougherty-golden-gates.html [https://perma.cc/R9RW-PEZA] (reporting on resignation of manager of City of Lafayette, who left his post because of concern that the city's anti-housing policies were undermining state climate-change and affordability goals); David Dudley, *A Palo Alto Planning Commissioner Leaves Town—and Starts a Furor*, BLOOMBERG CITYLAB (Aug. 16, 2016, 10:29 AM), https://www.bloomberg.com/news/articles/2016-08-16/the-palo-alto-planning-commissioner-who-resigned-over-affordable-housing [https://perma.cc/S6TS-WW3G] (reporting on planning commissioner who resigned and relocated in protest of city's anti-housing policies).

jurisdiction.[136] The housing elements that we reviewed occasionally referenced what was typical among recently approved projects, but inferences from proposed or approved projects may be quite misleading about constraints to the development of *average* sites, because developers favor less-constrained sites.

We propose two complementary fixes. One is for HCD to require local governments to report, in digital geocoded form, a handful of *standardized zoning and procedural layers*, using a template created by HCD.[137] The idea is to create a simplified approximation of actual zoning and permitting procedures, represented as a table with a small number of categories such as height, use, floorplates, density, and floor-to-area ratios, as well as formulas for impact fees and inclusionary housing, requirements for parking, and procedures for reviewing and approving development proposals.[138] The geocoded tables would then be linked to existing digital parcel maps, allowing users to conduct rough massing studies of the building size and dwelling-unit counts achievable on any given parcel.

The reporting of standardized layers would be an exercise in approximation because local governments that use different categories and labels in their own codes would have to roughly translate local practice into the format and lexicon of the standardized layers.

Because the standardized layers would cover the entire territory of the local government, and because they could be overlain on one another, they would make it possible to characterize the prevalence and interactive effect of development restrictions. Working with the third-party consultants who have pioneered this sort of work,[139] HCD would use the standardized layers to create maps of allowable building envelopes, densities, and uses across each local government's territory. GIS software would be used to estimate aggregate building envelopes and to convert the estimates into metrics for interjurisdictional comparison—e.g., zoned capacity per acre of buildable land.

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136. *See Fees and Exactions*, *supra* note 25; *Processing and Permitting Procedures*, *supra* note 25.

137. We thank Ian Carlton for explaining to us that the absence of geocoded, standardized zoning layers for each local government is a major impediment to quantifying building envelopes and the amount of economically feasible development.

138. To be clear, zoning attributes such as height, setbacks, and floorplate restrictions can and should be recorded on a continuous scale. The simplification in the standardized layers would result not from lumping continuous or approximately continuous attributes into a small number of categories—e.g., recording whether permissible density is above or below 30 units per acre, rather than recording the actual allowable density—but from (1) ignoring attributes that cannot be easily quantified, such as subjective design requirements, and (2) ignoring attributes whose complexity could only be represented through a great number of if-then statements—e.g., requirements that make the use of a given parcel depend in complex ways on the development and use of neighboring parcels, such as shadow or privacy standards. *Cf.* J.B. Ruhl & Daniel Martin Katz, *Measuring, Monitoring, and Managing Legal Complexity*, 101 IOWA L. REV. 191, 231–38 (2015) (exploring ways of monitoring legal complexity).

139. *E.g.*, *About Us*, CITYBLDR, https://www.citybldr.com/about [https://perma.cc/3SA7-88Q4] (last visited Sept. 3, 2021).

Process- and cost-based constraints could be characterized in terms of the share of potential units that they affect. These summary statistics would be used to benchmark local governments against one another and their own past practices. Data from tax records about existing uses could also be folded into the analysis as a way of checking whether local governments have assigned most of their zoned capacity to sites that are unlikely to be redeveloped owing to high-value existing uses.

The analysis should home in on constraints to the development of housing that state law deems appropriate for lower-income households. Since 2004, the housing-element law has included "default densities" for accommodating affordable housing in metropolitan jurisdictions, suburban jurisdictions, and outlying areas, respectively (30, 20, and 15 dwelling units per acre).[140] Additionally, California's "least cost zoning law stipulates that local land-use regulations shall "contribute significantly to the economic feasibility of producing housing at the lowest possible cost given economic and environmental factors, the public health and safety, and the need to facilitate the development of housing affordable to persons and families of low or moderate income."[141] In view of this legislation, HCD could reasonably benchmark local governments against one another by asking: "What share of the buildable land within a local government's territory is zoned to allow the default densities?" "On parcels so zoned, what is required to build relatively low-cost housing forms, and how much could actually be built?"

The standardized-layers analysis would provide a shallow-but-broad look at development constraints. It is shallow in that the layers and building-envelope models constructed from the layers would be simplifications of reality. They probably could not capture subtle design codes, for example, especially if the design standard makes what is permissible on a given site a function of what already exists on neighboring sites. Zoning classifications that apply to only one or a small number of parcels would probably be omitted too, owing to the inhuman effort required to extract and map a lot of them.[142] (In Los Angeles alone, there are hundreds of thousands of zones customized for individual parcels.[143]) Also hard to capture would be parcel-level features, which may subject the parcel to additional procedural or

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140. CAL. GOV'T CODE § 65583.2(c)(3)(B) (West 2021); *Analysis of Sites and Zoning*, CAL. DEP'T OF HOUS. & CMTY. DEV., https://www.hcd.ca.gov/community-development/building-blocks/site-inventory-analysis/analysis-of-sites-and-zoning.shtml [https://perma.cc/9ZCD-F3S8] (last visited Sept. 3, 2021).

141. GOV'T § 65913.1(a)(1). Not all of a local government's land-use regulations need to meet this standard, but a "sufficient" quantity of "vacant land" must be least-cost zoned to accommodate "housing needs" identified in the housing element. *Id.* The least-cost zoning law's reference to "vacant land" has been superseded by the evolution of housing-element site inventory law, which now licenses accommodation of the RHNA through nonvacant sites that satisfy various enumerated requirements. *See id.* § 65583.2(b)(3), (g).

142. Machine learning may eventually enable this process to be automated.

143. CITY OF L.A., *2013–2021 Housing Element* 3–12 (Dec. 3, 2013), https://planning.lacity.org/odocument/696cfec8-943e-466b-b70b-a23400ea9bb0/Ch3.pdf [https://perma.cc/AX22-FWHM].

substantive requirements, such as historical resources, the presence of tenants, and some environmental attributes.[144]

To address these limitations of the standardized-layers analysis, we propose a complementary deep-but-narrow analysis, based on a random sample of parcels from the local government's territory. The beauty of random sampling is that it allows one to characterize features of an enormous population—say, all parcels in Los Angeles with a parcel-specific zoning classifications—by observing only a small number of the units in that population. The mean (average) value of any attribute in a random sample from a population provides an unbiased estimate of the corresponding population mean. HCD should borrow this insight for the analysis of constraints. But what population should be sampled and what attributes measured?

The answer depends on the goal. If the goal is to probe for bias in summary statistics calculated from the standardized layers—e.g., average permissive density on buildable land—then HCD should sample from the population of all parcels. This is clearly one important goal. But HCD might also reasonably emphasize narrower goals, such as understanding where lower-cost housing forms can be constructed and at what density. This narrower goal would also be easier to realize because it reduces the variety of project types that would have to be analyzed.

Here's how the analysis would proceed. Initially, HCD would define "buildable land," excluding wetlands, steep slopes, fire-danger zones, endangered species habitat, and other lands that state law prioritizes for non-housing uses. Much of this important work has already been done by the Office of Planning and Research, which will soon release a statewide parcel database with environmental attributes and CEQA clearances.[145]

Next, HCD would develop several prototypes of housing projects that should be inexpensive to build at densities the legislature has deemed appropriate for metropolitan jurisdictions, suburban jurisdictions, and outlying areas. So, for metropolitan jurisdictions (30 units per acre), the prototypes might consist of a bungalow court, duplex rowhouses on small lots, a three-story apartment building with residential units on all floors, and a four-story apartment building with a parking podium or retail on the ground floor. Each prototype would specify minimum, maximum, and average unit sizes.[146]

A year (say) before the housing elements are due, HCD would draw a random sample of parcels from each local government's population of suitably zoned sites and instruct the corresponding local government to mockup development

144. But note that some environmental features will be captured by the Office of Planning and Research's new online, parcel-level "CEQA tool." CAL. GOVERNOR'S OFF. OF PLAN. AND RSCH., SITE CHECK, https://sitecheck.opr.ca.gov/ [https://perma.cc/6PGV-X755] (last visited Sept. 3, 2021).

145. The database will be available at the Site Check. *Id.*

146. Of course, these prototypes vary in construction cost. Bungalow courts or duplex rowhouses are generally less expensive to build than apartments over a concrete podium for commercial or parking uses.

projects using each prototype on each of the sites.[147] The Department would offer grants to hire consultants for this purpose.[148]

For each site-by-prototype combination,[149] the local government would report:

- The number of units that could be developed on the site without a rezoning, variance or other waiver of applicable objective standards, and the total amount of habitable space in the project.

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147. If standardized zoning layers have been submitted, HCD would define the population as sites which are suitably zoned per the standardized layers. If layers have not been submitted, HCD would ask the local government to ascertain and upload the population of suitably zoned sites, identified by assessor parcel number, and the Department would draw the sample from this inventory. We don't have strong a priori views about the number of parcels to sample from each locality's territory. This is probably best resolved after a pilot study to estimate the average cost per parcel of doing the analysis. It would certainly be reasonable for HCD to adjust the required sample size based on a local government's size or RHNA allocation (precise estimates are more important for localities that are expected to accommodate the lion's share of their region's housing need), as well as objective indicia of housing-supply constraint (precise estimates are more important if the local government is in a supply-constrained area).

148. In 2019, the legislature provided $250 million for HCD to distribute as planning grants to local and regional governments. *See* Assemb. B. 101, 2019–2020 Reg. Legis. Sess. (Cal. 2019).

149. It may turn out that the analysis should proceed not site-by-prototype but site-by-prototype-by-pathway because in some cases the number of units that can be constructed with a given prototype on a given site will depend on which "permitting pathway" the developer elects to use. For example, if the site is eligible for a density bonus under state (or possibly local) law, a developer who chooses the "density-bonus-permitting pathway" will be entitled to a waiver of otherwise applicable restrictions in return for providing below-market-rate units. *See generally* Jon Goetz & Tom Sakai, *Guide to the California Density Bonus Law*, MEYERS NAVE (rev'd Jan. 2021), https://www.meyersnave.com/wp-content/uploads/California-Density-Bonus-Law_2021.pdf [https://perma.cc/YTK4-L4W6]. Similarly, some cities allow extra height in certain zones if a planning body determines that the additional height is in the public interest. *See, e.g.*, BERKELEY, CAL., ORDINANCES §§ 23D.32.070(C), 23B.28.050(A) (2020) (prescribing baseline height limits, while authorizing the "Zoning Officer" to allow an additional 7'–14' by "Administrative Use Permit"; this permit requires a finding that the additional height "will not be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in the area or neighborhood of such proposed use or be detrimental or injurious to property and improvements of the adjacent properties"). It's an open question whether the Housing Accountability Act permits such discretionary allowances. *See* CAL. GOV'T CODE § 65589.5(j)(1) (West 2021) (disallowing local governments from denying or reducing density of housing project that complies with applicable "objective" standards). In any event, one tractable way to structure a site-by-prototype-by-pathway analysis would be to limit the pathways to three: (1) the "base zoning pathway" (what could be built on the site without a rezoning, variance, or any other regulatory waiver); (2) the "state density bonus pathway" (what could be built on the site if the state density bonus law is invoked); and (3) the "local flexibility pathway" (what the local government's own planning department asserts is likely buildable on the site if the developer applies for locally authorized administrative waivers, be they variances, height waivers, local density bonuses, or anything else).

- The process for getting the necessary permits to entitle the project.[150]
- The process for securing building permits.[151]
- A summary of all applicable local requirements to add things to the project other than housing, such as parking or outdoor spaces, and an estimate of the cost to the developer of providing those additional goods.
- The estimated cost of applicable impact fees and exactions, if any.
- The estimated cost of applicable affordable housing requirements, if any.

By averaging these findings over the sampled parcels,[152] HCD would obtain a rough picture of the cumulative constraints to development on parcels in the local government's territory that *should* be able to accommodate relatively affordable housing forms. It would also be straightforward to estimate the proportion of the local government's buildable land that accommodates multifamily housing at the statutory densities.[153]

And, crucially, it would finally be possible to establish benchmarks for what is truly typical statewide in terms of parking requirements, permitting approvals, demolition controls, affordable housing mandates, or any other feature of the development process. While estimates for any one local government based on a small sample of sites would be noisy, the noise would wash out when the data from hundreds of local governments is pooled to obtain statewide means and quantiles.

Further extensions are possible and worthwhile. For example, HCD could issue a model "least cost" zoning code, which would be designed to accommodate relatively affordable projects with minimal fuss. Once this model code exists, HCD could require the analysts who mock up prototype projects on the sampled sides to repeat the exercise assuming that the sites were governed by the model code. The difference between the status quo and what would be allowed under the model code is a best-practices benchmarked measure of constraint.

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150. E.g., the number of required approvals; the decision-maker or body authorized to grant each approval; the nature of each approval (e.g., ministerial or discretionary); the fees for each approval; and the opportunity for project opponents to appeal the approval to other agencies of the local government.

151. E.g., whether applications for building permits are allowed and processed prior to entitlement; the number of required approvals; the decision-maker or body authorized to make each approval; the nature of each approval (e.g., ministerial or discretionary); the fees for each approval; and the opportunity for project opponents to appeal the approval to other agencies of the local government.

152. The averages should be weighted by parcel size.

153. This estimation would probably require three steps: first, calculating from the state's parcel database how much buildable land is in the local government's territory; second, sampling from the local government's inventory of statutory-density parcels (or merging that inventory with the state's parcel database) to estimate the proportion of suitably zoned sites comprised of buildable land, and then combining these two pieces of information to infer the percentage of buildable land that's suitably zoned.

There is an important precedent for our prototype-projects approach. For 17 years, the World Bank has published an annual *Doing Business* ranking of the regulatory environment in countries around the world.[154] One component of the index is based on the cost, time, and procedures required to entitle a two-story, 14,000-square-foot warehouse on a 10,000-square-foot vacant lot.[155] The main difference between our proposal and the World Bank's approach is that the World Bank specifies parcel characteristics as part of the prototype and tacitly presumes uniformity of regulation across such parcels, whereas our proposal uses statistical sampling to account for geographic variation in parcel characteristics and land-use regulations.

It should be emphasized, in conclusion, that the sampled-sites and standardized-layers analyses are complementary ways of getting at the same underlying question: what is the prevalence and cumulative effect of constraints? In the language of statistics, the standardized-layers analysis yields a low-variance but possibly high-bias estimate of the population-level features of interest. The sampled-site analysis produces the opposite: low-bias, high-variance estimates.

The standardized-layers estimates would be low (zero) variance because the calculations would incorporate information from every parcel in the population. There would be no sampling-based noise. But what the analyst observes for each parcel would be a simplification of the underlying reality, and the simplification is at risk of becoming systematically biased over time.

Local governments that don't want to allow more housing, or that disfavor certain types of housing, would have a strategic incentive to create new types of land-use restrictions that slip between the standardized layers and thus don't have to be reported. Again, constraints are substitutable. If the standardized layers include formulas for the calculation of impact fees, local governments may substitute in-kind exactions for fees. If the reporting protocol excludes classifications that affect only a few sites, unique-to-the-parcel zoning overlays may proliferate. Local governments may also switch from relatively transparent zoning criteria, such as quantitative height, density, and floorplate limits, to criteria that make what is permissible on a given site a complicated function of what's been built or proposed on a set of nearby parcels. HCD could try to limit this incentive by requiring local governments to report guestimates for each parcel in terms of the standardized-layer criteria, but local governments might argue that doing so is impractical (or provide a very rosy translation of their recondite codes into the standardized format).[156]

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154. *Reports*, DOING BUS. (May 1, 2019), https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020 [https://perma.cc/AYM3-S6LZ].

155. *Dealing with Construction Permits*, DOING BUS., https://www.doingbusiness.org/en/methodology/dealing-with-construction-permits [https://perma.cc/4UDY-QVUS] (last visited Sept. 3, 2021). Other attributes of the prototype project and its sponsor are also spelled out in considerable detail. *Id.*

156. To combat such evasions, the legislature might reasonably require local governments to maintain a stock of sites that may be developed according to the terms of the standard zoning layers, i.e., without further discretionary review or conditions. That would extend the policy of the state's Housing Accountability Act, which prevents retroactive

Estimates from the sampled-sites analysis would be less prone to bias because the analyst would dive into the actual zoning layers and study actual site characteristic. The mockups of prototypes on sampled parcels would account for nonstandard restrictions, including conditions that are triggered by current uses—e.g., residential tenants—or patterns of development on neighboring properties. Yet the resulting inferences about population-level characteristics would be high-variance due to small sample sizes. (Large samples would be impractical owing to the cost of gaming out development scenarios for each site.[157])

We acknowledge that bias could creep into the sampled-sites analysis during the mock-up stage. The analysts who game out entitlement of the prototypes on the sampled sites will have to wade through local codes and seek clarifications from local planners. Planners may venture code interpretations that are more lenient than the interpretations adhered to when a real project is on the line. A planner may overlook an uncodified design guideline or underestimate how long it would take to complete a stage of the development process.[158] But these forms of bias can be checked by publishing the prototype-project analyses as an appendix to the housing element. Developers would then be able to reference the analyses when applying for permits to develop similar sites. If a city applied its standards to a real project in a significantly more restrictive way, the city's prior representations in the sampled-sites study would be great ammunition for a legal challenge by the developer or housing advocates. The prospect of such a challenge should help to discipline the analyses *ex ante*.

In sum, while the prevalence and interactive effect of constraints could in principle be estimated using either the sampled-sites or the standardized-layers methodology, the two approaches are stronger together.

2. Using Observed-Projects Data for Process and Compliance Checks

As a complement to standardized-layers and sampled-sites analyses of constraints, we recommend that HCD augment the current requirements for local governments to submit project-level data as part of their "annual progress report"

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application of new zoning standards and disallows local governments from imposing discretionary conditions that reduce a project's density. *See* CAL. GOV'T CODE § 65589.5(j) (West 2021).

157. One consultant who works with developers told us that the cost of roughly ballparking what could be built on a given parcel would probably run at least $10,000–$20,000, if done by consultants (an architect and a Geotech engineer) who already have a working knowledge of the local codes in question. The consultant also said that developers looking to purchase sites for large projects ($100 million) commonly spend 1%–3% of total project costs on due diligence and that developers get a lot of the work done by consultants who are paid on commission if the project comes to fruition.

158. Recent academic papers comparing planners' perceptions to objective evidence about local land-use regulations find that planners' responses to survey questions are highly variable even within brief windows of time, and that planners underestimate (on average) the time required to process development applications. *See* Lewis & Marantz, *supra* note 132, at 448–54; O'Neill et al., *supra* note 132, at 6–8.

("APR") under the Housing Element Law.[159] The reporting requirements should be tailored to state-law standards for processing development applications.

It is important to be clear about what can and can't be learned from data about how actual project proposals were reviewed and approved or rejected. These data will never reveal the full extent to which cumbersome procedural requirements are preventing development in a jurisdiction, because sites where the applicable procedures make development clearly uneconomic will never appear in the observed-projects data.

In theory, one could use observed-projects data to infer the average stringency of a local government's procedural requirements vis-à-vis the population of sites with a nonzero probability of development under current zoning, but to make this inference would require an accurate model of sites' probability of development.[160] This is because sites with a high probability of development will be overrepresented in the observed-projects data relative to their share of the "nonzero probability" population of sites. The overrepresented sites may well have a high probability of development precisely because the procedural requirements that apply to them are comparatively lax. To remove this selection bias, one would need to reweight the observed-projects data in proportion to the underlying sites' probabilities of development. Yet to estimate those probabilities accurately would probably require advance knowledge of the very thing one hopes to learn from the project-level data, namely, the onerousness of procedural requirements.

Where project-level data really shine—or ought to shine—is not for quantifying the average stringency of development regulations, but for determining whether local governments are complying with standards established under state law for processing development applications.[161]

California already requires extensive project-level reporting from local governments.[162] Each year, local governments must file two standard-form spreadsheets with HCD about the status of development proposals.[163] One spreadsheet recaps completed project applications received by the local government

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159. GOV'T § 65400(a)(1)–(2); *Housing Elements*, CAL. DEP'T OF HOUS. & CMTY. DEV., https://www.hcd.ca.gov/community-development/housing-element/index.shtml [https://perma.cc/F69Q-TRN4] (last visited Sept. 3, 2021).

160. The model would have to be accurate as to individual sites, not just about-right-on-average across all sites. By contrast, for purposes of gauging the "realistic capacity" of a housing element's site inventory, HCD just needs a rough guestimate of the average probability of development across sites, plus confirmation that dense-zoning sites don't have on-average lower development probabilities than low-density sites. *Cf.* Elmendorf et al., *Legal Foundations*, *supra* note 5, at 987–95, 1022–28 (discussing standards for site capacity).

161. Project-level data could also be used to cross-check the sampled-sites analyses, in the event that sites in the sample are actually developed, or, more speculatively, if HCD develops a reasonable algorithm for matching sampled sites to similar sites on which actual projects have been proposed.

162. GOV'T § 65400(a).

163. *See* CAL. DEP'T OF HOUS. & CMTY. DEV., HOUSING ELEMENT ANNUAL PROGRESS REPORT (APR) INSTRUCTIONS 6–14 (rev'd Dec. 12, 2019), https://www.hcd.ca.gov/community-development/housing-element/docs/housing-element-annual-progress-report-instructions-2020.pdf [https://perma.cc/B8QC-T3J3].

during the previous year; the other documents events such as the issuance of entitlements, building permits, or certificates of occupancy.[164] However, the spreadsheets do not record most of the milestones or provide links to the decisional documents one would need to evaluate local governments' compliance with the letter or the spirit of the state laws meant to expedite and regularize processing of development applications.[165] These include the Permit Streamlining Act ("PSA"), the Housing Accountability Act ("HAA"), and SB 35, as well as certain provisions of the California Environmental Quality Act ("CEQA").

The PSA establishes for every housing project a date on which the project application is "determined" or "deemed" to be complete,[166] and a timeframe within which the local government must approve or deny the application (usually 60–90 days).[167] Applicants may agree to a one-time, 90-day extension of the PSA time period for approvals.[168] If the local government fails to act on the application within the PSA window, the project is "deemed approved" as a matter of law.[169] However, the PSA clock starts to run only after review under CEQA has been completed,[170] and the PSA puts no limit whatsoever on internal appeals.[171]

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164. *Id.*

165. It is clear that HCD may require local governments to submit this information. The legislature has said that the APR reporting shall "[p]rovide[] an understanding of the process, certainty, cost, and time to approve housing," and "a better understanding of housing project appeals." Assemb. B. 1483, 2019–2020 Reg. Legis. Sess. (Cal. 2019) (adding GOV'T § 50452(a)(6)). HCD also has broad authority to supplement the current reporting requirements with anything that's reasonably necessary for an effective analysis of constraints. *See generally* Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1013–20 (discussing SB 6 from 2019 and related legislation).

166. GOV'T § 65943(a).

167. *Id.* § 65950.

168. *Id.* § 65957. (There is no limit on delaying, by agreement, the time period for an application to be determined complete or incomplete.)

169. *Id.* § 65956(b).

170. *Id.* § 65950.

171. *Id.* § 65922(b). Also excluded from the PSA's protections are projects subject to ministerial review and the approval or disapproval of final subdivision maps. *Id.* §§ 65927–65928.

CEQA establishes timeframes for environmental review.[172] Though courts have held the CEQA timeline to be directory rather than mandatory,[173] the existence of statutory deadlines for environmental review gives HCD a strong basis for demanding remedial action from local governments whose CEQA determinations are often tardy.[174]

Meanwhile, the HAA and SB 35 limit the grounds on which local governments may deny or reduce the density of a housing project. Both statutes require local governments to provide the applicant with written notice within 30–90 days of any plan, zoning, or development standard that the project as proposed violates.[175] Projects are deemed to satisfy standards for which the notice does not identify a violation.[176] SB 35 projects must be reviewed ministerially.[177] Other projects receive only the more limited protections of the HAA, which allows discretionary review and the imposition of discretionary conditions but prohibits most conditions that would reduce the density of a project if a "reasonable person" *could* deem the project compliant with applicable objective standards.[178]

SB 35 and the notice provisions of the HAA postdate the Fifth Cycle housing elements that we studied, so of course these laws weren't addressed in the housing elements we reviewed. But neither did any housing element take stock of the local government's compliance with PSA or CEQA timeframes. We suspect that

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172. CAL. PUB. RES. CODE §§ 21080.1, 21080.2 (requiring lead agency to make "final" determination of whether to prepare an environmental impact report, negative declaration, or mitigated negative declaration within 30 days of project application being determined to be or deemed complete); PUB. RES. § 21151.5(a) (requiring local agencies to establish time limits not to exceed one year for completing an EIR and not to exceed 180 days for completing a negative declaration); 14 C.C.R. § 15107 ("[T]he negative declaration [for a private project that requires public permits] must be completed and approved within 180 days from the date when the lead agency accepted the application as complete."); *Id.* § 15108 ("[T]he final EIR [for a private project that requires public permits shall be completed] within one year after the date when the lead agency accepted the application as complete."). While there is no express statutory time limit for making CEQA exemption determinations, the legislature's expectation that the lead agency decide within 30 days whether to prepare an EIR or negative declaration implies that 30 days is also long enough to determine that no environmental study is required.

173. *See, e.g.*, Eller Media Co. v. Cmty. Redevelopment Agency, 108 Cal. App. 4th 25, 44 (2003); Riverwatch v. County of San Diego, 76 Cal. App. 4th 1428, 1040–41 (1999).

174. *Cf.* Sunset Drive Corp. v. City of Redlands, 73 Cal. App. 4th 215, 220–21 (1999) (holding that while a lead agency faces no statutory penalty for missing the CEQA deadlines, the agency does have a ministerial duty to complete CEQA review within the prescribed period of time, which duty may be enforced through traditional mandamus).

175. Under SB 35, the clock starts to run when the application is filed. GOV'T § 65913.4(c). Under the HAA, it runs from the moment the application is determined or deemed to be complete. *Id.* § 65589.5(j)(2).

176. *Id.* § 65589.5(j)(2)(B); *id.* § 65913.4(c)(2). HAA exempts certain health and safety standards. *See id.* § 65589.5(j)(1.

177. *Id.* § 65913.4(a).

178. *Id.* §§ 65589.5(j)(1), 65589.5(f)(4). If at least 20% of the units in the project would be affordable to lower-income households, the HAA also generally prohibits the imposition of conditions that would render the project "infeasible" for such households. *Id.* § 65589.5(d).

few, if any, local governments are tracking the information one would need to assess compliance with these timeframes. Two of the Authors of this Article were part of a research team that recently studied the development-entitlement process in 16 California cities.[179] The research team found it was impossible to identify key PSA and CEQA milestones for most projects that were approved during the study period.[180] This was true both in cities that use sophisticated project-tracking software and in cities where project-entitlement pathways had to be reconstructed from staff memoranda and minutes of public hearings.

HCD should rectify these shortcomings. Appendix B provides a rundown of the state-law milestones that should be recorded and reported for every development application.

Once there is a statewide, project-level database keyed to statutory milestones, it will be easy to determine how well local governments are complying with the letter and the spirit of the PSA,[181] and also whether they are operating within the CEQA timeframes. It should also be possible to identify logjams in the permitting process of a formally compliant local government: Is the local government requiring full EIRs for types of projects that other cities would process through a CEQA exemption, or with a negative declaration? Or are problems arising on the back end, with internal appeals? If the initial determinations are speedy but appeals are common and prolonged, HCD could explore whether the local government's process for appeals is aberrant. Maybe the local government allows an unusually long period for filing appeals, has weak mechanisms for screening out frivolous appeals, or provides for multiple rounds of internal appellate review. Or

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179. Information about the team and its work is available at https://www.law.berkeley.edu/research/clee/research/land-use/getting-it-right/ [https://perma.cc/26T6-46GA].

180. *See* GIULIA GUALCO-NELSON, MOIRA O'NEILL & ERIC BIBER, ENHANCING LOCAL LAND USE DATA 6–9 (June 2019), https://www.law.berkeley.edu/research/clee/research/land-use/policy-brief-enhancing-local-land-use-data/ [https://perma.cc/P9QT-MG3K]. The identified problems include: (1) that application file dates (which, under the PSA, start the clock for an application being "deemed complete," GOV'T § 65943(a)) were impossible to locate in some cities, and often missing in others; (2) that only one of the sixteen cities, Los Angeles, tracked "deemed complete" dates (the dates that starts the running of the CEQA clock, see *supra* note 172); (3) that data on projects subject to staff-level rather than planning commission or city council approval were "almost universally unavailable"; (4) that two large cities "kept no centralized list" of ministerial projects; and (5) that few cities tracked project appeals, and even those that did so failed to record the basis for the appeal, the appellant, or the outcome. GUALCO-NELSON ET AL., *supra*.

181. Because the PSA does not apply to projects that are subject to ministerial review and because it puts no limit on internal appeals, the question of whether a local government generally gets housing projects processed within the PSA time frames is a matter of "spirit" as well as de jure compliance. In our view, a local government is complying with the spirit of the PSA if it processes ministerial permit applications, including applications for building permits, within 30–60 days of the application being determined or deemed complete (60 days is the PSA limit for discretionary projects that don't undergo a full EIR) and if nonmeritorious internal appeals are rare and processed quickly.

maybe building permits, which are generally not covered by the PSA, are the central problem.[182]

Private lawyers will also act as monitors. The HAA stipulates that a PSA violation is also an HAA violation,[183] and recent amendments to the HAA liberalize standing and provide attorneys' fees to "housing organizations."[184] Once housing organizations can locate PSA violations simply by downloading a spreadsheet, calculating the elapsed time between the dates in two columns and measuring it against the PSA's bright-line rules, we can expect housing organizations to become efficient and reliable PSA enforcers.

Lawyers could also use the project-level database to audit local governments' project denials and density reductions for HAA violations. By downloading the final-decision and initial-notice documents for a sample of projects, it would be easy to check whether a local government has been failing to provide the initial notice or has been denying projects on the basis of standards not flagged in the initial notice. Local governments that are frequent violators would become litigation targets going forward.[185]

The utility of the project-tracking data for litigation purposes will incentivize housing organizations to monitor local governments' compliance with the reporting requirements and to lobby for crackdowns on local governments that are missing a lot of data. HCD would be well within its authority to decertify, mid-cycle, the housing element of a local government that fails to take reasonable steps to comply with these reporting requirements.[186]

One final point bears emphasis: different California cities sometimes use the same term of art to describe processes that are functionally quite different, or different terms to describe functionally identical pathways.[187] For example, some cities use conditional use permits to relieve hardship, a function traditionally served by variances.[188] The function of the local process is what matters for comparative analysis, not the label.

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182. Building permits are usually ministerial, and the PSA does not apply to ministerial permits.

183. GOV'T § 65589.5(h)(6)(B).

184. S.B. 167, 2017–2018 Reg. Legis. Sess. (Cal. 2017).

185. While individual developers wouldn't need the project tracking data to know whether the HAA or SB 35 had been violated in their case, the developer may have no incentive to sue, owing to its ongoing relationship with the local government or the terms of an indemnification agreement. *Cf.* CONOR DOUGHERTY, THE GOLDEN GATES: FIGHTING FOR HOUSING IN AMERICA 93–116 (2020) (reporting case study of project in Lafayette, California which led to the HAA amendments arming "housing organizations"). But for housing organizations to enforce the statute, they need information about violations, and presently they depend on the happenstance of referrals from local activists. *See, e.g.*, *Submit an HAA Case*, CAL. RENTERS LEGAL ADVOCACY & EDUC. FUND, https://carlaef.org/contact/submit/ [https://perma.cc/AK2H-YDRU] (last visited Sept. 3, 2021) (online submission form for potential HAA violations).

186. *See* Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1013–14.

187. GUALCO-NELSON ET AL., *supra* note 180, at 10–12.

188. *Id.* at 11 (referencing OAKLAND, CAL., MUNI. CODE §§ 17.116.110(D), 17.58.030).

Given the absence of a common nomenclature, we recommend that HCD organize any new reporting around concepts designated by function rather than name, such as "application for an administrative waiver to mitigate hardship," "application for a change in standards that requires legislative action," "review for aesthetics or neighborhood compatibility," and "review for historic preservation or historic appropriateness." Functional categories for decision-makers and decision-making processes should also be used.[189] If HCD generated a standard form to report out such project-level information, city staff could complete the form and attach it to the documents they typically produce during project entitlement and permitting. This would provide an opportunity for error correction before the information is uploaded to HCD's project-tracking portal. (Not incidentally, it should also promote competition in the housing-development market by making it easier for outsiders to understand how local processes and institutions map onto HCD's generic categories.)

3. Eliciting Information About Non-Parcel-Specific Constraints, and the Great Unknown

Our next suggestion for improving housing-elements' analysis of constraints also builds on recent practice. HCD provides, through its Building Blocks, checklists of "potential constraints" that local governments are supposed to address.[190] Some of the items are fine-grained details about the zoning code. For example, is zero lot-line development disallowed in any zone? Others are broadly applicable—e.g., is there a cap on the number of building permits that may be issued or an urban-growth boundary? The Building Blocks also canvas a range of constraint-removal and mitigation strategies, which local governments are encouraged to address if an "actual constraint" has been identified.[191]

The value of checklist-type constraints review is open to doubt. Given that the effect of a potential constraint depends on its prevalence, its interaction with other constraints, and prices and existing uses, is it really worth asking whether there is *some* zone *somewhere* in a city that disallows (say) zero lot-line development? A further concern is that some of the constraint-mitigation policies that HCD has encouraged, such as "[a]ssign[ing] a primary contact for priority housing developments,"[192] are policies whose implementation would be very hard for any state-oversight agency to monitor.

We think these concerns should occasion a reformulation of the checklist approach, not an abandonment of it. We recommend converting the checklists into a mandatory form, with a mix of closed-response and open-response questions.

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189. With respect to decision-makers, the form should probably distinguish "staff" (employees), "director" (heads of departments), "appointed commission" (a planning commission or historic preservation commission), and "elected commission" (a city council). With respect to decision type, the form should distinguish, at a minimum, "decision on record of public hearing with oral comments," "decision on written record following public notice and comment," and "decision on basis of applicant's submission and/or information gathered by the decision-making authority."

190. *Building Blocks*, *supra* note 24.

191. *Address and Remove (or Mitigate) Constraints*, *supra* note 25.

192. *Id.*

(Appendix C provides a preliminary list of questions.) The questionnaire would serve several purposes.

Its primary purpose, as we envision it, is to detect constraints that sampled-sites, standardized-layers, and observed-projects analyses will predictably miss. For all their virtues, those approaches are blind to constraints triggered by an aggregate of development events, such as caps on the number of permits that may be issued within a planning area or period of time. They'll also miss restrictions on the future expansion of infrastructure, and constraints that arise from the manner in which local political structures channel the exercise of discretionary governmental powers.

Practical accommodations to the cost and time required to carry out the sampled-sites analysis will probably result in other constraints being missed as well. For example, if only "Mullin density" sites are sampled, the analysis won't reveal anything about zoned capacity or permitting procedures on other types of sites.[193] Estimates will be noisy, due to small sample sizes. Some local governments will get lucky with a random draw of sites that make local regulations appear much less severe on average than they actually are.[194]

The second function of the questionnaire is to reveal what local governments do not know about local constraints on housing development. The questionnaire should ask local governments to quantify the geographic reach of each potential constraint on the checklist (and provide the data used for estimation): how much of the locality's potentially developable land or zoned capacity does it affect? Local governments whose record-keeping systems don't enable such questions to be readily answered would have to explain why answering the question is impractical. These "Don't Know" responses would inform HCD's investments in the development of better data systems, and perhaps future legislation too.

The final function of the questionnaire is to create a central repository of information about constraint-mitigation policies. HCD would formulate recommended policies, and local governments would certify through the questionnaire which ones (if any) they have adopted. The policies that HCD commends as constraint-mitigation strategies should be designed to cap the cumulative burdens of constraints and to do so jurisdiction-wide, or at least as to all parcels in the housing element's inventory of sites.[195] Because of the substitutability of constraints, it's not enough for a constraint-mitigation program to remove discrete, identified constraints.

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193. The "Mullin density" sites are those which have been zoned at statutory densities intended to accommodate lower-income housing. *See* CAL. GOV'T CODE § 65583.2 (West 2021); SITE INVENTORY GUIDEBOOK, *supra* note 2, at 13–15 (describing "minimum densities" safe harbor for accommodating lower-income RHNA share).

194. For example, a "lucky draw" might include an overrepresentation of parcels in a small district where the local government has relaxed parking requirements. The average parking requirement on the sampled parcels would then be less restrictive than the true population mean.

195. As we explained above, one way of doing this is for the local government to commit through its housing element to providing regulatory accommodations. *See supra* Part II.B.

4. Estimating the Number of Economically Feasible Units

The last component of our data plan is estimating what we've called the "locally unconstrained feasible units" ("LUFU"): the number of units or square feet that would be profitable to develop, given current prices, in the absence of any local land-use restrictions. LUFU estimates should be paired with estimates of what is economically feasible to develop given status-quo regulatory and procedural requirements, as approximated by the standardized-layers and sampled-sites analysis.

Estimation of the LUFU would improve the classifier for determining which jurisdictions get the presumptively constrained designations. The difference-in-ranks (price and production) classifier proposed above is a partial and imperfect substitute for ranking jurisdictions by their ratio of housing-stock growth to the count of locally unconstrained feasible units. The latter ranking should correlate more strongly with cumulative governmental constraints, as it would account for parcel features and existing uses that may constrain development ("nongovernmental constraints"). The stronger the conceptual and evidentiary foundation for the presumptively constrained designation, the more HCD may reasonably demand by way of constraint removal on the basis of this designation.

The other reason for undertaking to quantify the LUFU is that the estimates, when combined with data on actual housing production, will speak to the existence of black hole, "between the standardized layers" constraints. If the number of units developed in city A over the planning period were pretty close to the *ex ante* estimate of the city's (status quo) envelope of feasibility, while the number of units developed in city B fell far short of city B's *ex ante* estimate, that would suggest that some unobserved feature of the regulatory environment was constraining development in B. No doubt other things could be at work too, such as flaws in the model or a rezoning or change in relative prices during the planning period. But if there are large differences across many jurisdictions in the degree to which nominally feasible units are actually produced, that should certainly prompt further investigation into non-standard constraints. HCD could direct the relative underperformers to conduct prototype-project exercises on a larger sample of sites for the next housing-element cycle, and the Department might scrutinize the project-level data from these jurisdictions more closely.

A number of consulting firms and think tanks, including the Terner Center at UC Berkeley,[196] are working to develop pro-forma-based estimates of what is feasible to build under current and counterfactual zoning scenarios in select jurisdictions. HCD can facilitate these efforts by requiring local governments to report standardized zoning layers and by supporting research on construction costs. The prospect of regularly updated LUFU estimates for each of the 500-plus local governments whose housing elements HCD must review is still out on the horizon, but it's definitely worth paddling towards.

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196. Carol Galante, *Commentary and Analysis: Launching the Housing Development Dashboard*, TERNER CTR. FOR HOUS. INNOVATION AT UC BERKELEY (May 31, 2016), https://ternercenter.berkeley.edu/blog/housing-development-dashboard [https://perma.cc/4VZC-84AA].

CONCLUSION

California's housing element law has borne a lot of ridicule,[197] but a transformation is underway. As local governments prepare for the upcoming (sixth) review cycle, they face a new landscape. RHNA targets are larger and better allocated within regions.[198] New standards for the site inventory will require substantially more zoned capacity for a given RHNA number.[199] Housing elements will have to "affirmatively further fair housing," which may entail rezoning affluent single-family neighborhoods to accommodate modest apartment buildings.[200] And the "analysis of constraints" will have to conform to standards, definitions, and forms issued by HCD.[201]

This Article has offered a roadmap for upgrading the analysis of constraints. The reforms we propose will make it possible to benchmark local governments against their own past practices, statewide averages, and legislated standards such as the timeframes of the PSA and CEQA. The reforms will also make it considerably harder for local governments with high housing prices but low rates of housing-stock growth to avoid serious scrutiny of their programs to mitigate and remove constraints.

We close with a conjecture that we hope to explore in future work: Improving the constraints analysis and associated programs may lower the stakes of the official projection and allocation of "regional housing need." Historically the centerpiece of the housing element framework, this projection is very difficult to get right, and the way it has been done in the past leaves much to be desired.[202] The development of clear and interjurisdictionally comparable metrics of housing-supply constraints may prove to be a more realistic and practical way of holding local governments accountable for their role in regional housing shortages.

APPENDIX A: WHICH CITIES SHOULD BE DEEMED PRESUMPTIVELY CONSTRAINED?

This Appendix covers technical details about the presumptively constrained classifier. An associated spreadsheet and replication files are available from the authors upon request.

As we explained in Part II.B, the goal is to rank and compare California cities in terms of their market-adjusted rate of housing production. The metric should

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197. *See, e.g.*, Liam Dillon, *California Lawmakers Have Tried for 50 Years to Fix the State's Housing Crisis. Here's Why They've Failed*, L.A. TIMES (June 29, 2017, 3:00 AM), https://www.latimes.com/projects/la-pol-ca-housing-supply/ [https://perma.cc/W24S-KLKF].

198. Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1001–04.

199. *See* SITE INVENTORY GUIDEBOOK, *supra* note 2, at 19–30 (providing guidance to cities, some of which builds on recommendations in Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1020–29).

200. *See* CAL. DEP'T HOUS. & CMTY. DEV., AFFIRMATIVELY FURTHERING FAIR HOUSING IN CALIFORNIA, https://www.hcd.ca.gov/community-development/affh/index.shtml [https://perma.cc/A25V-8XE8] (last visited Sept. 3, 2021).

201. Elmendorf et al., *Legal Foundations*, *supra* note 5, at 1015–20.

202. Elmendorf, *Beyond the Double Veto*, *supra* note 1, at 107–10.

reflect production averaged over a number of years, so that random fluctuations don't drive the results, and the metric should be standardized to account for variation across cities and over time in what we have called the "locally unconstrained feasible units," or LUFU. Recall that the LUFU is the jurisdiction-wide quantity of net new housing, in units or square feet, that would "pencil" for developers at then-current prices and construction costs, absent local regulation of land use and the housing market.

Formally, we can write the performance metric as follows:

$$H_{iy} = \frac{1}{|n_{\mathbb{I}=1}|} \sum_{j=(y-n)}^{j=y} \frac{u_j}{f_j} \mathbb{I}_j$$

where i indexes cities; y indexes year; n is the number of years over which production is averaged; u_j and f_j are, respectively, housing production (units) and the LUFU in year j; and $\mathbb{I}_j$ is an indicator for whether j is not a recession year ($\mathbb{I}_j = 1$ for non-recession years, $\mathbb{I}_j = 0$ for recession years). The denominator, $|n_{\mathbb{I}=1}|$, is the number of non-recession years over which the average is taken. As Part I.D explained, a lack of production in recession years does not indicate constraint.[203]

Because the presumptively constrained designation is to be bestowed on cities that fall below the statewide average or median (in keeping with our general normative approach[204]), the data used to rank cities must be available, or imputable, for all general-purpose local governments in the state. This condition is satisfied with respect to the numerator term, u_j, as the U.S. Census's Building Permit Survey provides annual permit data for nearly all incorporated cities and the unincorporated areas of most counties.[205] But the denominator presents a challenge: estimates of locally unconstrained feasible units are only starting to be developed. To the best of our knowledge, they exist only for select geographies, and they haven't been released into the public domain.[206]

Until reasonable estimates of f_j are available, HCD may use housing prices or rents or the "least cost" PR ratio (ratio of housing price to no-frills construction cost) as a rough proxy for the LUFU.

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203. Indeed, in unconstrained markets, f_j may fall to zero in recession years, causing *H* to be undefined.

204. *See supra* Part II.A.

205. *See Building Permits Survey*, U.S. CENSUS BUREAU, https://www.census.gov/construction/bps/ [https://perma.cc/TJ8G-PKTY] (last visited Sept. 3, 2021). For the results reported in this paper, we used BPS data where available, and for the remaining jurisdictions, we relied on production per the local government's own reports to HCD. There is more missing data (reports never submitted) in the HCD than the BPS data, but between the two sources, we were able to quantify annual production rates for 535 of the 539 local governments subject to housing element reporting. The four missing jurisdictions are in rural locations and in the bottom third of the state by market rents.

206. A consulting firm, Mapcraft, Inc., has prepared these estimates for the Los Angeles region.

A-1. Choosing a Price Metric

Compared to housing price or rent indices, the least-cost PR ratio is, in theory, the better proxy for the LUFU, as it accounts for variation in construction costs. The building typologies that make economic sense in high-price markets—e.g., steel-framed high rises—are substantially more expensive to build, per square foot, than the housing forms that are viable in inexpensive markets—e.g., single family homes, rowhouses, and bungalow courts.[207]

However, what's best in theory is not necessarily best in practice. The two recent attempts to nail down PR ratios—one by Gyourko and Glaeser, the other by Romem[208]—both have significant limitations. Glaeser and Gyourko restrict their analysis to single-family homes.[209] For price, they rely on the Census's American Housing Survey, which provides the size and (self-reported) value of single-family homes; for costs, they use RS Means's estimate of what it takes to build an "economy-style" single family home in various markets.[210] This approach says nothing about the PR ratio for dense multifamily housing, the type of housing that makes the most economic sense in high-demand cities. Worse, it could lead to perverse conclusions. The price of a single-family home reflects both the value of the structure and the value of the land on which it sits. If a high-demand suburb decided to allow dense multifamily housing in an area formerly zoned for single-family homes, the price of single-family homes in this zone would probably skyrocket, reflecting the much-increased value of the underlying parcels for redevelopment. Thus, ironically, a de-constraining change in land-use regulation would cause the "single-family home PR ratio" to rise.[211]

Romem's price data, from the Census's American Community Survey, cover a representative sample of owner-occupied residences, not just single-family homes.[212] For costs, Romem relies on the Census's Building Permit Survey (BPS), which tabulates the construction costs reported on building permits for several types of housing. The result is a composite PR ratio estimate, averaged across all housing structures within a zip code. But it's doubtful that the BPS tells us what we want to know about costs. Romem acknowledges that BPS "costs" are in some cases ballpark estimates provided by the local government itself, and that even when they're the actual cost stated by the developer on her permit application, the

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207. *See* Hoyt & Schuetz, *supra* note 109.

208. Both papers are cited *supra* note 45.

209. *Glaeser & Gyourko*, *supra* note 45, at 9.

210. *Id.* at 9–10.

211. A third problem (for present purposes) with the Glaeser and Gyourko methodology is that it only generates estimates at the regional level, rather than city-specific estimates. This limitation could be overcome by using self-reported housing values from the American Community Survey, which tabulates information at finer geographic scales, but the ACS does not include information on the size of a housing unit. However, Glaeser and Gyourko report that when they re-ran their analysis using median home prices from the ACS, the results were substantively pretty similar. *Id.* at 10 n.5.

212. Romem, *supra* note 45.

developer may have strategically dissembled.[213] More fundamentally, even if BPS costs were accurate, they would tell us the *actual* cost of construction, not the cost of the *least-cost* version of a structure of the same size. The last thing we'd want in an outcome-based metric of constraint is an incentive for cities to constrain supply via regulations that unnecessarily raise the cost of construction. Yet that's what using actual cost in the denominator would do.[214]

In light of these concerns, we recommend that HCD rely for the time being on estimates of housing prices or rents, rather than the ratio of price to replacement cost.[215] There are a number of price indexes that could be used. We propose four criteria for choosing among them.

First, the price metric would ideally *exclude the value of land*. This might seem like an odd suggestion, because in classic economic models, the development value of a site is capitalized into the price of land. Don't high land prices signal high capacity for development? The nub of the problem is that local governments can deflate the price of land in high-value locations by restricting development or by imposing all manner of fees and exactions to "extract" the value of the site from the landowner. If local governments were sanctioned for having high land prices relative to their rate of housing stock growth, they'd probably respond with regulations and exactions that further diminish land values. Conversely, if a local government removed land use restrictions, speculation would probably cause the increase in *future* development potential to be capitalized into the price of land today, before housing production accelerates.[216] Using land-price rank relative to production rank as the measure of constraint would result in local governments being penalized for liberalizing reforms.

To ensure that land values aren't driving the bus, we favor rent indices over home-price indices as a proxy for the LUFU. Rents reflect current use value, not the capitalized value of future development conditional on land-use regulation. Where rents are high, housing is scarce, and even high-cost structures are likely to "pencil" for a developer if the local government allows them to be built. To the extent that

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213. Developers have an incentive to lowball their costs in that cities peg permitting fees to project costs. And even where cities don't create such incentives, developers may misrepresent their costs in the hopes of confusing their competitors, or of securing good deals from sellers of potentially developable parcels.

214. Another concern about the BPS data is that the BPS pools all structures with five or more units. Some of these are low-slung, cheap-to-build apartments, while others are inherently expensive high-rises.

215. That said, it would be great for HCD to develop a model of least-cost construction costs, one which accounts for variation in building types as well as local labor market conditions, and a corresponding model of the price of newly constructed housing units. These models could then be applied to data from local governments' Annual Progress Reports (APRs) under the housing element law, yielding an estimate of the average PR ratio for units constructed in a local government's territory during a given year.

216. *Cf.* Yonah Freemark, *Upzoning Chicago: Impacts of a Zoning Reform on Property Values and Housing Construction*, 56 URB. AFF. REV. 758 (2020) (finding, based on difference-in-difference estimators, that upzoning of land near transit in Chicago caused land and housing prices in the upzoned area to increase in the short term, before any acceleration of production).

home prices are considered, we would restrict the analysis to condominium buildings. Condo buildings are inherently difficult to redevelop,[217] so condo prices should be less affected (relative to single-family-home or apartment-building prices) by the redevelopment value of the underlying site.[218]

Next, the price index should, to the extent possible, *control for between-jurisdiction differences in the quality of the housing stock*. A suburb full of mansions will have higher rents, other things equal, than a city whose housing stock is dominated by small apartments, but it doesn't follow that the suburb has a larger LUFU. The payoff from building a ten-story apartment stack depends on new-apartment rents, not the price of a mansion nearby. This is true whether the project is in the city or in the suburb.

Third, the price metric will better proxy the LUFU if it *excludes rent-controlled units*. In cities where much of the rental stock is subject to price controls, the average or median rent may grossly understate current market rents. For example, according to the American Community Survey, the median rent in San Francisco during 2014–2018 was about $1,800, whereas HUD's estimate of fair-market rent exceeds $3,000.[219]

Fourth, the price index ideally should capture the value of housing units on a *representative sample of sites* within the local government's territory. The importance of this consideration depends on the amount of heterogeneity within cities' housing markets. If cities tend to have some neighborhoods where the demand for housing is much higher than in others and if cities vary a lot in their relative proportion of high-demand neighborhoods, then simply averaging the rental value of newly constructed units (of a given size and quality) in each city could substantially understate between-city variation in the LUFU. This is so because new construction is most likely to be found in the high-demand neighborhoods, which may be typical neighborhoods in some cities but exceptional in others.

To sum up, the best price metric would be one that approximates the current rental value of a bundle of standardized housing units on a representative sample of sites within the local government's territory. The bundle itself can be fairly arbitrary: perhaps a single-family home, a townhome, and one-, two-, and three-bedroom apartments of fixed sizes. The point is to hold the bundle constant across jurisdictions, estimating the value of the same units in different places. The higher the rental value of the bundle, the more housing is economically feasible to build in

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217. This is due to collective action problems. For a condo building to be redeveloped, the owners of the units in the building would have to jointly decide to sell their condos to a developer.

218. *But see* Freemark, *supra* note 216 (finding that upzoning increased market price of condominiums in the upzoned area).

219. The Zillow Rent Index, or ZRI, reweights the company's estimate of the market rental value of all units in a city by the distribution of rental units across categories (age, size, etc.) per the Census. The ZRI is the average of the rental values between the 40th and 60th percentile rents, a robust proxy for median rent. *See* Jared Frey, *Zillow Rent Index Methodology (Most Current)*, ZILLOW (Aug. 15, 2019), https://www.zillow.com/research/zillow-rent-index-methodology-2393/ [https://perma.cc/G7BG-QMT3].

that city (absent local constraints). Alternatively, or in addition, the state could use a price index based on the value of a bundle of standardized condominiums.

The real estate firm Zillow, and competitors such as Apartment List, Redfin, and Dwellsy, have models of housing prices and rents.[220] We would encourage HCD to work with these firms to develop new quality-adjusted indices of housing prices and rents for California cities.

In the near term, the best available rent estimates are probably the federal Department of Housing and Urban Development's "small area fair market rents" ("SAFMR").[221] Rolled out in 2016, these are zip-code-level estimates of fair-market rent, based on reports from recent movers and standardized to control for the number of bedrooms and, to a limited extent, for quality. The principal alternative is the median rent estimate provided by the American Community Survey of the U.S. Census.[222] However, the median rent may substantially understate current market rents, particularly in jurisdictions with rent control,[223] and the ACS median rent does not control for unit size or quality.[224] At the time of this writing, fifteen local governments in California have rent control.[225] We fit simple linear models predicting ACS median rent and HUD fair-market rent as a function of median home price and median income in non-rent-control jurisdictions. We then used the fitted models to generate predicted ACS HUD rents for rent-control jurisdictions. The predicted ACS rents were higher on average than ACS-reported rents for the rent-control jurisdictions, whereas predicted HUD rents did not overshoot HUD fair-market estimates. This gives us greater confidence in the HUD estimates, although it's possible they are still distorted by rent control.[226]

A limitation of the HUD small-area rents is that the geographic units are zip codes rather than cities and unincorporated county areas (the geographic units subject to housing-element review). Zip codes can be "aggregated up" to the jurisdictional level, but some zip codes overlap municipal boundaries. In the code that generated the figures in this Article, we apportion zip codes among cities and

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220. For example, the median difference in California between a home's actual sale price and its last Zillow-predicted value prior to sale is 2.1% of the sale price. *See What Is a Zestimate?: How accurate is the Zestimate?*, ZILLOW, https://www.zillow.com/zestimate/ [https://perma.cc/KW6C-SVTP] (last visited Sept. 3, 2021).

221. *Small Area Fair Market Rents*, OFF. OF POLICY DEV. & RESEARCH, https://www.huduser.gov/portal/datasets/fmr/smallarea/index.html [https://perma.cc/C9UZ-9MB8] (last visited Sept. 3, 2021).

222. *Median Gross Rent*, U.S. CENSUS BUREAU, https://www.census.gov/quickfacts/fact/note/US/HSG860218 [https://perma.cc/5HX2-NV8F] (last visited Sept. 3, 2021).

223. We ran a simple model predicting median rent as a function of median home price and income, fitting the model with data from non-rent-control jurisdictions. Using the fitted model to generate predictions for the rent-control jurisdictions, we found that the predicted rent was higher on average than the ACS-reported median rent.

224. The ACS does provide median rent disaggregated by number of bedrooms, but for small geographies there is a lot of missing data in the by-bedroom median rent tables.

225. ANTI-EVICTION MAPPING PROJECT, https://antievictionmap.com/ [https://perma.cc/KVD3-3CNC] (last visited Sept. 3, 2021).

226. This is because HUD adjusts the countywide "recent mover" rent average based on between-zip-code differences in median rent per the ACS.

counties based on the degree of geographic overlap, and we weight zip codes by the number of housing units in each zip. This is tantamount to assuming uniformity of residential density and uniformity of prices within zip codes that overlap jurisdictional boundaries. In most cases, this simplifying assumption is probably harmless, but our results should be cross-checked against jurisdiction-specific median rents from the ACS in cases where the target jurisdiction is geographically small and much richer or poorer than its neighbors.[227]

A-2. Setting a Low-Demand Threshold of Exemption

The next question is which cities' rents or housing prices are too low for the city even to be considered for the presumptively constrained designation. This determination would be reasonably straightforward if the price index were the PR ratio, because that metric incorporates the cost of construction. A reasonable guestimate, based on Glaeser and Gyourko's work, is that a PR ratio of 1.5 is sufficient to make large-scale expansion of the housing stock economically feasible in an unconstrained market.[228]

Although we're wary of the currently available PR ratio estimates, it's at least somewhat instructive to plot rents against the estimates and locate the "rent equivalent" of a PR ratio of 1.5. The first panel in Figure A.1 illustrates this approach. The city at the 33rd percentile by fair-market rent (among California cities and unincorporated counties) has a PR ratio of a little less than 1.5. Another way to set the cutoff is to plot housing production and rents for all California places and visually inspect the figure for any evidence of a production discontinuity—that is, a rent level below which production declines precipitously. The second panel in Figure A.1 shows that production declines with price among cities in the lower third of the fair-market-rent distribution.[229] It would certainly be reasonable for HCD to exempt jurisdictions whose fair-market rent is in the bottom third.

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227. For instance, the zip code of East Palo Alto, with a relatively poor population, also encompasses some of Palo Alto proper, a very wealthy jurisdiction. Our estimate of East Palo Alto's HUD fair market rent (imputed from zip codes) is quite high relative to the city's ACS median rent (based on ACS survey respondents who all reside in East Palo Alto). Data available from authors upon request.

228. Glaeser and Gyourko estimate the "minimal profitable production cost" (MPPC), the cost at which development is generally profitable. MPPC is replacement cost adjusted for (1) the cost of sites in an unconstrainted market, which Glaeser and Gyourko peg at 25% of replacement cost, and (2) the average "entrepreneurial profit" earned by homebuilders, which they peg at 17% of land plus construction cost in an unconstrained market. Thus, $MPPC = (replacement\ cost) * 1.25 * 1.17$, or roughly 1.5 times replacement cost. Glaeser & Gyourko, *supra* note 45.

229. The fact that significant production has occurred in cities where the PR ratio is less than 1.5 may be evidence of intra-city heterogeneities. Romem's PR ratio estimate is an average taken over the entire housing stock. A city whose average PR ratio is below 1.5 could well have pockets of relatively affluent, high-demand areas, where developers can make money supplying market-rate housing. (But bear in mind too that Romem's PR ratio estimates rely on fairly strong assumptions about costs and should be taken with some grains of salt. *See* Romem, *supra* note 45, at *Data and Methodology*.)

Political or administrative considerations might justify a higher cutoff. Although low-growth cities throughout the middle tercile could probably generate a lot more housing if they softened their land-use regulations, the payoff from liberalization would be even greater (other than equal) in cities with the highest rents. Thus, to better make use of limited administrative resources, HCD might reasonably decide to exempt, say, all cities and counties below the median by rent.

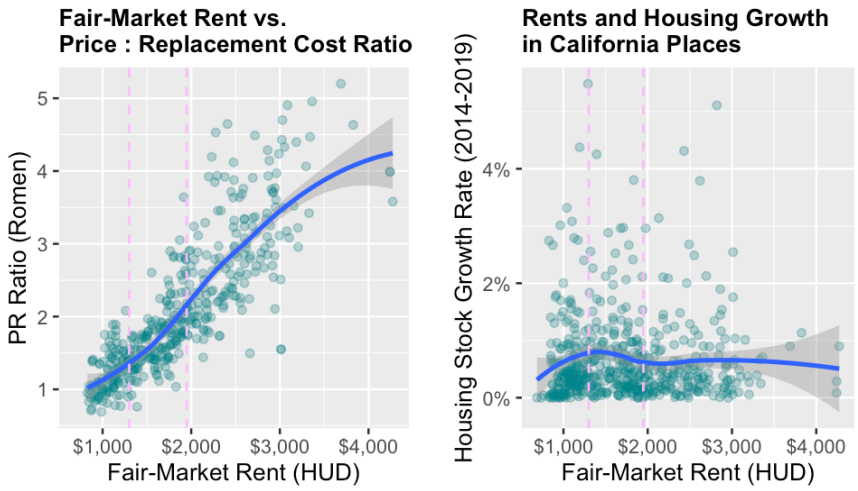

Figure A 1. Choosing a Price Cutoff for Dropping Low-Demand Jurisdictions

The first plot relates Romem's zip-code level estimates of the PR ratio (aggregated up to cities, and weighting by the zip code's share of the municipal housing stock), based on data from 2010 to 2016, to the average of the city's fair-market rent. The second plot relates fair-market rent to housing stock growth in cities and unincorporated counties over the 2013–2019 period. Dashed lines in plum denote the 33rd and 67th percentiles of jurisdictions subject to housing-element reporting (by fair-market rent). Fair-market rents are from HUD zip-code level estimates, aggregated up to cities and unincorporated areas of counties as described in the text.

A-3. The Relationship Between Housing Prices and the LUFU

The final question is how to standardize production using information about rents or prices. One option is just to substitute the price index for f_j in the formula $H_{iy} = \frac{1}{|n_{\mathbb{I}=1}|}\sum_{j=(y-n)}^{j=y}\frac{u_j}{f_j}\mathbb{I}_j$. That requires a strong assumption, namely, that the LUFU is just a linear function of price. But surely the envelope varies with many other things as well, including city size.

A softer alternative is to assume only that as between any pair of cities, the city with higher prices has a larger LUFU *relative to its existing housing stock*. This implies that if city A has higher prices than city B, city A will also grow its housing

stock at a somewhat faster clip absent local regulatory constraints.[230] This softer assumption leads to the *difference-in-ranks* classifier, which categorizes cities as presumptively constrained if their rank by the rate of housing-stock growth rate is lower than their rank by housing price.[231]

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230. It would also be reasonable to calculate the rate of production relative to the jurisdiction's land area, rather than relative to its existing housing stock. However, the land-area alternative would require contestable judgments about what land should be deemed "buildable." Unless or until a state agency establishes definitions and parcel-level maps for buildable land, we recommend using housing stock as the denominator. Doing so is also consistent with state policies favoring infill over greenfield development.

231. The economist Issi Romem has used a somewhat related approach to assess constraints at the level of metropolitan regions, plotting the percent change in housing prices against the percent change in the size of the housing stock over a period of years. *See* Issi Romem, *The Toughest Places to Build: Behind the Scenes of a Wall Street Journal Analysis*, BUILDZOOM (July 20, 2017), https://www.buildzoom.com/blog/the-toughest-places-to-build-behind-the-scenes-of-a-wall-street-journal-analysis [https://perma.cc/96DK-F2D5]. Cities with a big increase in price and a small increase in stock are deemed relatively constrained. Our quibble with this approach is its reliance on *price changes* rather than *price levels*. Price levels are a much better proxy for the LUFU. A city whose housing prices were very low at the outset may realize a big percentage increase in price but still have a miniscule LUFU (and perhaps little if any new construction during the period), while a city whose prices were very high at the outset may realize a decrease in price yet still have a very large and underexploited LUFU.

Also similar in spirit is a formula for ranking developed recently by Salim Furth, Emily Hamilton, Edward Pinto, and Tobias Peter. *See* Salim Furth et al., *HUD Can Use Housing Market Data to Inform Fair Housing Accountability*, MERCATUS CTR. (Mar. 12, 2020), https://www.mercatus.org/system/files/furth_hamilton_pinto_and_peter_-_pic_-_comments_on_hud_proposed_rule_for_affirmatively_furthering_fair_housing_pic_-_v1.pdf [https://perma.cc/FS4U-5N5L]. Furth et al. suggest comparing local governments to a peer group of approximately 112 jurisdictions from around the nation with similar residential density, and then creating "z scores" for each local government's average new-housing price and rate of housing-stock growth, relative to the comparison group. (A z score measures, in standard deviations, the distance of a member of a group from the mean of the group.) Each local government then receives a cumulative score according to this formula: $SCORE = GROWTH\_WEIGHT * z(GROWTH) + PRICE\_WEIGHT * z(PRICE)$, where GROWTH_WEIGHT and PRICE_WEIGHT are ad-hoc adjustments which vary from 20% growth, 80% price (for low-demand jurisdictions) to 70% growth, 30% price (for high-demand jurisdictions). Demand is proxied by average fair-market rent.

Setting aside the question of whether the Furth et al. metric is an appropriate way of measuring fair-housing progress (which is often understood to be about residential integration by race and class, rather than supply restrictions as such), we have a few concerns about the metric as a measure of housing-supply constraint. First, we think many of the relevant audiences—including state legislators, local officials, and agency leaders—would find it opaque. Instead of comparing (as we do) all local governments within a state or region to one another, Furth et al. create a unique comparison group for each local government (a comparison group that will change as the locality develops), as well as a varying set of price and growth weights. These are grounded in no unifying concept, such as "growth standardized by the LUFU," which can be used to explain the formula, and to improve it as new data sources become available.

Figure A.2, which reproduces Figure 1 from the main text, shows the distribution of these jurisdictions.

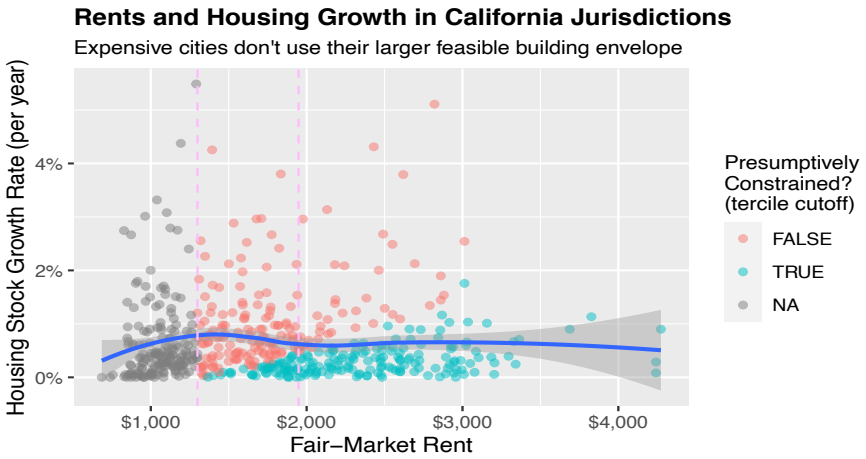

Figure A 2. Presumptively Constrained Jurisdictions

Local governments subject to housing-element review are deemed presumptively constrained (blue) if (1) they are above the bottom tercile by rent, and (2) their rank among other such jurisdictions by their rate of housing stock growth lags their rank by rent. Vertical dashed lines denote 33rd and 67th percentile jurisdictions by fair-market rent. Production data is from the Building Permit Survey (2014–2019) and

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Second, because each local government's comparison group is defined in terms of average residential density, the formula privileges the nationally normal pattern of sprawl development. To put this more concretely, a low-density California exurb would have to grow much more quickly than a medium-density California suburb to earn the same growth "z score," because it's nationally typical for medium density suburbs to grow slowly whereas low-density places boom when there's demand for new housing. *See* Furth, *supra* note 45, at 4 fig.1 (showing that housing supply growth has been concentrated in Census tracts between roughly the 10th and 35th decile by density, with very low growth in higher-density places except above the 85th percentile, i.e., in big cities). While it is plausible that zip codes with higher density tend to have smaller LUFUs (conditional on price), owing to more high-value existing uses, it's equally plausible that the "medium density" places are the most homeowner-dominated and thus have the strongest political coalitions against growth. And note that the *most* dense zip codes have grown faster than the somewhat less dense. *See id.* Especially in light of California's political decision to prioritize infill development, *see* Elmendorf et al., *Legal Foundations*, *supra* note 5, at 975 n.8, we would advise against a presumptive-constraint metric that *assumes* that the nationally typical density-growth relationship reflects underlying LUFU differences, rather than politics. (And remember that under our approach, a local government could rebut the presumption of constraint by demonstrating that the value of existing uses renders redevelopment economically infeasible irrespective of local regulations.)

Our last concern about the Furth et al. formula is that its reliance on density-matching and ad-hoc weights may be an invitation for "formula gerrymandering." A decision-maker could adjust the density bins, or the weights, to exclude or include specific jurisdictions, and critics may try to discredit the formula by alleging that it was gerrymandered even if it wasn't.

local governments' annual reports to HCD. Growth rates are calculated relative to year-2010 housing stock per the U.S. Census. Fair-market rents are HUD small-area fair market rents, averaged across unit sizes and years 2016–2019.

The central lesson from these figures is that the California localities that have greatest potential for housing-stock growth aren't realizing their potential.[232] They're growing no faster—and often quite a bit slower—than cities in the middle of the price distribution. Because more expensive places generally aren't using their larger LUFUs, the overwhelming majority of cities in the upper tercile of the rent distribution receive the presumptively constrained designation.

A-4. Keeping the Big Picture in View

This Appendix has delved into limitations of various price metrics, but it's important to recognize that the available price indices are all highly correlated with one another. Table A.1 reports the correlation coefficients between pairs of rent metrics, all of which equal or exceed 0.8.

The bottom line is that the vast majority of jurisdictions that would be classified as presumptively constrained by any given rent or price metric are likely to be similarly classified by any other price or rent index. As a robustness check, we re-did the presumptively constrained classification using ACS median rents reported at the city level (excluding counties).[233] Ninety percent of cities retained the same designation, i.e., presumptively constrained or not. Most of the cities whose designation "flipped" were cities whose growth rank was just slightly below their price rank per HUD rent estimates. Dropping counties from the rankings tended to improve these cities' growth rank relative to their price rank a little. Several economically important cities with rent control, including San Francisco, San Jose, and Berkeley, also flipped: they were classified as presumptively constrained when price-ranked using HUD fair-market rents, but not when ranked using ACS median rents. We think this is because rent control tends to increase the gap between median rent and fair-market rent.

In any event, what's most important is not that HCD picks the very best price index but that HCD develops *some* way to use the available information about prices and production to identify local governments that are grossly failing to use what is probably a very large LUFU (albeit one which is not, as yet, amenable to precise measurement).[234] The high-price, low-production local governments can then decide whether they'd prefer to make real commitments in their housing element to accommodate development, or hire expensive consultants and try to prove that local land-use regulations are not responsible for the city's low rate of housing-stock growth.

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232. *See also* Murray & Schuetz, *supra* note 45, at 9 fig.7 (finding weak or negative correlations between base-year price and multifamily housing production within California metro areas).

233. We excluded counties because there is no jurisdiction-level ACS rent data covering just the unincorporated area of counties.

234. As Figure 2 in the main text demonstrated, the state-of-the-art, survey-based index of regulatory stringency is only weakly correlated with our outcome-based, difference-in-ranks measure of constraint.

	HUD SAFMR	ACS median	ACS median (zip)	ACS 1-3 br	Zillow	Apt. List
HUD	1					
ACS median	0.84	1				
ACS median (zip)	0.91	0.92	1			
ACS 1-3 br	0.90	0.96	0.93	1		
Zillow	0.86	0.83	0.82	0.91	1	
Apt. List	0.91	0.91	0.82	0.90	0.86	1

Table A 1. Pairwise Correlations Between Price Metrics.

"HUD SAFMR" is HUD's zip-code level of fair-market rents, averaged from 2016 to 2019, and aggregated up to cities and the unincorporated areas of counties, and used in our rankings. ACS median rent is the median reported for incorporated cities from 2014 to 2018. ACS median (zip) is the median reported for zip codes and aggregated up to cities and counties in the same way we aggregated HUD fair-market rents. "ACS 1-3 br" is the average of the median rents for 1, 2, and 3-bedroom apartments, respectively. "Zillow" is the proprietary "ZRI" index calculated using the company's methodology as of April 2020; "Apartment List" is the rent index from the firm, Apartment List, which is based on recent-mover rent and updated with price changes inferred from repeat-rental observations. Missing jurisdictions are omitted pairwise; geographic coverage is most complete for HUD fair-market rent, and least complete for Apartment List rent. The fact that HUD rents are more highly correlated with ACS 1-3 br rents than with ACS median rent suggests that the HUD rents are doing something useful by controlling for bedroom size. The fact that HUD rents (aggregated up from zip codes) are more strongly correlated with ACS median rent aggregated up from zip codes than with ACS rents reported at the city level speaks to the fact that imputing zip-code-level rents to local governments based on the area of geographic overlap and amount of housing in the zip code is imperfect.

APPENDIX B: SUGGESTED REPORTING MILESTONES FOR HOUSING-DEVELOPMENT APPLICATIONS

As Part II.C.2 explained, the project-level data that local governments must submit with their annual progress reports should be calibrated to assess, and induce, compliance with state laws meant to facilitate housing development. The following list summarizes critical milestones under the Permit Streamlining Act, the California Environmental Quality Act, the Housing Accountability Act, and SB 35. Explanations of the legal significance of each milestone are appended as footnotes.

HCD now has an online portal through which local governments may enter the project-level information required for annual reports.[235] To ease compliance, we recommend that HCD modify the portal so that local governments may log project-level data in real time. For project milestones that require written findings, local governments should upload the associated document as a searchable PDF file.[236] Ideally, the software that powers the portal would automatically generate the housing-production component of local governments' annual progress reports, as well as summary statistics for benchmarking local governments against one another and against the statutory performance standards of the PSA and CEQA.

Milestones that should be reported include:

- The date on which the project application was filed.[237]
- Whether the local government determined the initial application to be incomplete, and if so, the date on which the decision-maker provided this written determination and request for additional information, and the date of any resubmittal of the application.[238]
- The date on which the project application was determined to be complete or deemed complete as a matter of law.[239] (This is already part of the reporting form.)
- The date on which the local government provided the initial written determination about compliance with applicable objective standards, pursuant to the HAA or SB 35 as appropriate.[240]
- The type of CEQA document prepared for the project (not a "project,"[241] exemption, negative declaration, mitigated negative declaration, or EIR); the date on which the local government employee who prepared the CEQA document submitted it to the CEQA decision-maker;[242] the identity of the locally authorized decision-maker for this

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235. *Housing Elements*, *supra* note 159.

236. The recent study of the project entitlement process in 16 California cities found that many (if not most) cities had failed to digitize relevant entitlement and permitting-related documents, such as staff reports, meeting agendas, and meeting minutes. *See* GUALCO-NELSON ET AL., *supra* note 180, at 9.

237. This date is needed to ascertain whether project applications are being determined or deemed complete within the 30-day period contemplated by the PSA. *See* CAL. GOV'T CODE § 65943 (West 2021).

238. *Id.*

239. This date starts the CEQA clock. *See supra* note 172.

240. GOV'T §§ 65589.5(j)(2), 65913.4(b).

241. CEQA only applies to "projects," defined as discretionary action by a governmental agency "which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." PUB. RES. § 21065. Housing projects subject to ministerial approval are therefore not "projects" for CEQA purposes (because the approval is not discretionary).

242. The span of time between this date and the date on which the locally authorized CEQA decision-maker approved the CEQA document is an indication of the project-permitting efficiencies that might be achieved by delegating CEQA-decisional authority to

type of CEQA review (that is, the actor whose CEQA certification becomes "final" absent a timely internal appeal); and the date on which the locally authorized decision-maker certified the CEQA review as complete.[243]

- Whether the CEQA determination was appealed internally—e.g., from the planning director to the planning commission, or the planning commission to the city council—and if so, the date on which the appeal was filed, the appellate body, the decision on appeal and its date, and the date on which the CEQA review was certified as complete post-internal appeal.
- Whether the project applicant invoked the state-law provision allowing a one-time, 90-day extension of the PSA clock.[244]

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staff or department heads. As to the question of what authority may be delegated under CEQA, the statute by implication authorizes some delegation. *See* PUB. RES. § 21151(c) ("If a nonelected decisionmaking body of a local lead agency certifies an environmental impact report, approves a negative declaration or mitigated negative declaration, or determines that a project is not subject to this division, that certification, approval, or determination may be appealed to the agency's elected decision-making body, if any."); *id.* § 21082 ("All public agencies shall adopt by ordinance, resolution, rule, or regulation, objectives, criteria, and procedures for the evaluation of projects and the preparation of environmental impact reports and negative declarations pursuant to this division."). But the "CEQA Guidelines" issued by the Governor's Office of Planning and Research provide a very restrictive gloss on what's delegable. *See* 14 C.C.R. § 15025(b) ("[T]he decisionmaking body of a public agency [with authority to approve or deny the project] shall not delegate . . . [r]eviewing and considering a final EIR or approving a Negative Declaration prior to approving a project."). This administrative construction of the statute, if correct, would entirely vitiate the PSA except for CEQA-exempt projects, because it's the CEQA certification that starts the PSA clock. *See* GOV'T § 65950(a).

Section 15025(b) of the Guidelines codifies *Kleist v. City of Glendale*, 56 Cal. App. 3d 770 (1976), a decision which long predates the current incarnation of the PSA. While one might distinguish the function of "reviewing and considering" an EIR from the function of "certifying an EIR as adequate as a matter of state law," the fact that the Guidelines (1) disallow local governments from delegating approval of a negative declaration except to the locally authorized decision-maker for the project; and (2) prohibit that decision-maker from approving the negative declaration prior to approving the project, suggests that EIR approvals (a higher-stakes class of decisions) are probably nondelegable too. Thus, collecting information about the span of time between staff approval of an EIR or negative declaration, and approval by the locally authorized decision-maker, is more relevant to the question of whether the Office of Planning and Research should change 14 C.C.R. § 15025(b) or the legislature should change CEQA itself (authorizing more delegation), rather than to the question of whether the local government should delegate greater CEQA decision-making authority to staff or department heads.

243. Again, this date starts the PSA clock (unless the CEQA determination is appealed internally). *See* GOV'T § 65943.

244. This is needed to separate PSA violations from allowable PSA extensions.

- The date on which the first locally authorized decision-maker approved, conditionally approved, or denied the project application.[245]
- Whether the locally authorized decision-maker's approval, conditional approval, or denial of the project application was appealed internally, and if so, the date on which the appeal was filed, the appellate body, the decision on appeal and its date, and the date on which the project was finally approved or denied post-internal appeal.
- The date on which building permit applications that would allow for construction activity to begin—e.g., demolition or shoring—were filed, and the date of permit issuance.[246] (This is already part of the reporting form.)
- The date on which the certificate of occupancy was issued. (This is already part of the reporting form.)

APPENDIX C: THE QUESTIONNAIRE

This Appendix provides suggested questions and response options for the proposed standard-form questionnaire, which local government would have to complete in order for the housing element to be certified by HCD as substantially compliant.

As explained in Part II.C.3, the functions of the questionnaire are (1) to fill gaps in the picture of local constraints that emerges from the standardized-layers, sampled-sites and observed-projects analyses—analyses that will not detect overt growth controls and political constraints; (2) to reveal what local governments do not know, yet should know, about their own constraints; and (3) to record local governments' commitments (if any) to mitigate the cumulative effects of constraints.

The questions are grouped into five families of potential constraints: Zoned Capacity, Fees and Features, Permitting Process, Growth Controls, and Political Process. "Zoned Capacity" concerns the location, size, and shape of structures that may be erected on a parcel, as well as limits on the number of dwelling units within the structure. "Fees and Features" are the regulations and polices that require developers to transfer money or property to the local government as a condition of project approval, or that require the developer to add features to the project such as on-site parking. "Permitting Process" covers procedures for getting project entitlements and building permits. "Growth Controls" are regulations and policies that limit the amount of housing that a local government may approve within a period of time or geographic area, independently of what the zoning code allows on discrete sites. Finally, "Political Process" is about the institutions that affect the

245. By "first locally authorized decision-maker," we mean the first municipal staff person or official whose decision to approve or reject the project becomes final if it is not internally appealed within a designated window of time.

246. Building permits are typically ministerial, and as such not subject to the protections of the PSA.

balance of power between neighborhood vs. citywide interests, homeowners vs. renters, and past vs. present electorates.

Topics not presently addressed in HCD's advisory Building Blocks are marked with an asterisk.

C-1. Zoned Capacity

The Building Blocks currently ask local governments to say whether any zones have certain suspect features, like prohibitions on zero lot-line development.[247] However, because the consequences of such requirements depend on their geographic extent and interaction with other requirements, we think it's better to ask about total zoned capacity (dwelling units and square feet). This information is best captured through the submission of standardized zoning layers, but at least until such time as the local government submits those layers, it should be asked to report the following information and answer the following questions.

* Report total and net zoned capacity for residential units on buildable land under base zoning, including applicable overlays but not density bonuses. (Net capacity is total zoned capacity minus existing units.) Provide capacity denominated in dwelling units, and in square feet. Explain method of estimation, or, if estimation is infeasible, the reason why it's infeasible given data systems for tracking and integrating zoning requirements. (To make the results of this exercise comparable across jurisdictions, HCD should define "buildable land.")

* Report share of total and net zoned capacity (by dwelling units, and square feet) that is located on sites where existing uses are subject to local demolition restrictions, such as historic preservation policies and protections for rent-controlled units or tenants. Describe each of the local policies that restrict demolition and the share of net zoned capacity to which it applies. (Exclude requirements that demolition be carried out in a manner that complies with objective public health and safety standards, within meaning of section 65589.5 of the government code.) Explain method of estimation, or, if estimation is infeasible, the reason why it's infeasible given data systems for tracking zoning and current uses.

* Report total and net "Mullin density capacity," that is, zoned capacity for residential units on sites whose zoning allows the densities that state law deems suitable for affordable housing.[248] Provide capacity denominated in dwelling units, and in square feet. Report percentage of "Mullin density capacity," which is on sites subject to demolition restrictions per (2), above. Explain method of estimation, or, if estimation is infeasible, the reason why it's infeasible given data systems for tracking zoning and current uses.

* Is there a local density bonus ordinance that is more generous than the state density bonus law? If so, describe terms for the local density bonus and report estimate of additional capacity that could be developed pursuant to local density bonus ordinance but not the state density bonus law.

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247. *See Land-Use Controls*, *supra* note 25.
248. GOV'T § 65583.2; SITE INVENTORY GUIDEBOOK, *supra* note 2, at 13, 19.

* Is there a local policy or program to monitor total and net zoned capacity? If so, explain, and provide associated data.

* Is there a local "no net loss" policy that goes beyond state law and requires downzonings to be offset with concurrent upzonings?[249]

* Is there a local policy or program to adjust zoned capacity on an ongoing basis in response to evidence of market demand? If so, explain, and provide link to associated data.

Explain local policies to monitor and ensure compliance with the state's "No Net Loss" law, which requires certain losses of zoned capacity for new housing to be offset with increases in capacity on other sites.[250]

* Does housing element declare that accommodating a specified dwelling-unit or floor-to-area density, on specified sites, is a "fundamental, mandatory and clear" policy of the general plan? If so, briefly explain the terms of the capacity protection, and enter the total amount of capacity that is so protected?

* Does housing element declare any other "fundamental, mandatory and clear" policies to maintain or augment zoned capacity? If so, briefly explain.

* If HCD issues a model "least-cost" zoning code] Report total and net zoned capacity for residential units on sites that may be developed pursuant to the model least-cost zoning code. Provide capacity denominated in dwelling units, and in square feet. Explain method of estimation, or, if estimation is infeasible, the reason why it's infeasible given data systems for tracking zoning and current uses.

C-2. Fees and Features

The Building Blocks currently ask local governments to address fees, exactions, site improvement requirements, parking requirements, local building code amendments, and affordable-housing requirements.[251] Because such requirements often vary by zone, and because their impact depends on what they add up to rather than what they cost one by one, they are best addressed using the sampled-sites/prototype-projects method, or by requiring local governments to include site-specific impact-fee formulas as part of their "standardized layer" submissions. However, the questionnaire is a useful way to identify policies that may be missed due to the vicissitudes of random sampling or omitted from the standardized layers. We recommend focusing on policies that are (1) hard to justify or (2) pro-housing. The former should be addressed in the program to remove constraints; the latter may offset or excuse other constraints.

For each of the following policies: (a) report whether your jurisdiction imposes such a requirement on any parcels where residential uses are permitted, and if so, (b) briefly describe the policy or requirement, and (c) estimate the share of net zoned capacity to which it applies or explain why doing so is infeasible:

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249. SB 330 establishes a 1:1 offset requirement at the state level, but only temporarily.

250. GOV'T § 65863.

251. *Building Blocks*, *supra* note 24.

Minimum parking requirements

* Minimum open-space requirements, beyond applicable setback and lot coverage restrictions (i.e, requirements that may necessitate roof decks or balconies).

Public amenity requirements, such as street trees, sidewalks, road dedications, and publicly accessible open space.

* Environmental or energy efficiency requirements that exceed baseline requirements under state law.

Local building code amendments.

Aesthetic standards, such as design guidelines that require a new building to resemble nearby structures in materials, façade, etc.

* Ground-floor retail requirements and any other requirement to use a portion of a building for non-residential purposes.

Affordability requirements—e.g., BMR deed restrictions on a share of the new units or requiring the developer to pay an in-lieu fee.

Impact fees and exactions.

* Prevailing wage, minimum wage, or other local labor standards.

Limitations on use of modular or prefabricated construction.

Other (if applicable).

Are impact fees (if any) levied on an equal-fee-per-unit basis, or adjusted based on unit size?

* Is there a local policy or program to monitor the aggregate cost of "fees and feature" requirements, and their impacts on housing production? If so, briefly explain, and provide link to data (if any).

* Does housing element declare a "fundamental, mandatory, and clear" policy of granting waivers from fees-and-feature requirements insofar as the standards make development of a site to its nominal zoned capacity economically infeasible? If so, briefly explain the terms of the policy, and the amount of net zoned capacity that is located on sites covered by the feasibility protection.

* Does housing element declare any other "fundamental, mandatory, and clear" policies to limit the constraining effect of fees-and-feature requirements? If so, briefly explain the terms of the policy, and the amount of net zoned capacity that is located on sites covered by the policy.

C-3. Permitting Process

Like fees-and-feature requirements, local permitting requirements should (ideally) be reported electronically as standardized, geocoded layers. But it's also worth asking about the permitting process on the questionnaire, both to get a handle on local terminology and to pick up potential constraints that may be omitted from the standardized layers.

* List all public and quasi-public municipal entities that have a *de jure* role in reviewing applications for housing development projects that do not require a rezoning—e.g., planning department, building department, planning commission, architectural review commission, historic preservation board, neighborhood advisory councils, etc. Briefly describe their respective roles and the standards they apply.

* Describe any delegation of CEQA-review authority by the local legislative body.[252] Is an individual, department, commission or board authorized to make CEQA determinations that become final if not internally appealed within a defined period of time?

* Describe the available opportunities under municipal law for project opponents to appeal project approvals, including CEQA approvals, internally. What procedures have been adopted to minimize the risk of unduly lengthy or frivolous appeals?

* Describe process for obtaining building permits, including any discretionary review or opportunities for appeal.

* Is there a local policy or program to monitor the project-approval process for compliance with the Permit Streamlining Act? If so, briefly explain, and provide link to associated data (if any).

* Is there a local monitoring program that is meant to identify opportunities for decreasing processing times or increasing regulatory certainty? If so, briefly explain, and provide link to associated data (if any).

* For each of the following types of policies: (a) report whether the jurisdiction applies the policy to any sites where residential uses are permitted, and if so, (b) briefly describe the local policy, and (c) estimate the share of net zoned capacity to which it applies (or explain why estimation is infeasible):

> Residential or mixed-use projects are subject to no discretionary review, i.e., they're ministerially reviewed (hence not a "project" for CEQA purposes).
>
> Residential or mixed-use projects are subject to no discretionary review beyond a design review that does not trigger CEQA, per reasoning of *McCorkle Eastside Neighborhood Group v. City of St. Helena*, 31 Cal. App. 5th 80 (2018). (Local governments should be expected to make an extraordinary showing to justify design review for zoning-compliant projects that goes beyond aesthetic issues and thus triggers CEQA review.)
>
> Housing element declares a "fundamental, mandatory, and clear" policy authorizing developers to withdraw applications for zoning-compliant projects and resubmit for ministerial processing, backed by a "deemed approved" proviso, if local

252. Under state law, the city or county's legislative body is the responsible CEQA decision-maker for housing development projects, but some CEQA authority may be subdelegated by the local legislative body. *See supra* note 242.

government has failed made a final decision (inclusive of appeals) on the project within a specified period of time.

Housing element declares other "fundamental, mandatory, and clear" policies to prevent or mitigate permitting-process constraints. Explain.

C-4. Growth Controls

Growth controls, unlike the constraints described in C-1 to C-3, are not parcel-specific regulations and so cannot easily be captured with standardized zoning layers.

* Is there a quantitative cap on the total number of new units or square feet that may be constructed within a geographic area or over a period of time? If so, briefly describe.

* Is there an urban growth boundary? If so, briefly describe.

* Is there an adequate public facilities ordinance or other program to limit growth through restrictions on infrastructure expansion? If so, briefly describe.

* What proportion of the buildable land in the jurisdiction is reserved as open space, whether through public ownership (parks) or through open-space/natural-area zoning classifications? (To ensure that responses to this question are comparable across jurisdictions, HCD should define "buildable land.")

* Does housing element declare a "fundamental, mandatory and clear" policy to suspend certain types of growth controls—e.g., quantitative caps—until such time as local government meets its RHNA targets?

* Does housing element declare any other "fundamental, mandatory and clear" policies to mitigate constraining effects of growth controls?

C-5. Political Process

Political-process constraints affect development through the exercise of discretion, and so cannot be captured with standardized zoning layers.

* Is there a voter-approval requirement for any land-use policy changes?

* Is there a supermajority-approval requirement for any land-use policy changes?

* Provide a list, with brief descriptions, of all policies that have been adopted by local ballot initiative or codified in the local government's charter that may limit zoned capacity, increase development costs, result in permitting delays and uncertainty, or curtail the overall rate of housing-stock growth. (Such policies may entrench the preferences of previous municipal electorates, at the expense of the preferences of the current electorate.)

* Describe the local processes for eliciting and weighing public opinion about proposed rezonings and other land-use policy changes. What efforts, if any,

are made to solicit opinions from a representative sample of the resident or registered-voter population?[253]

* Describe the local processes for eliciting and weighing public opinion about proposed development projects that purport to comply with applicable, objective zoning and development standards.

* Is there a local policy or procedure to monitor whether the people who participate in public forums on proposed housing projects, or proposed land-use changes, are demographically or ideologically representative of the jurisdiction's resident or registered-voter populations? If so, briefly explain, and provide link to associated data (if any).

* Are members of the local legislative body elected at large, by territorial district, or from a mix of at-large and districted seats?[254]

* Does local legislative body follow principles of "aldermanic privilege," either by convention or by rule, such that council members defer to one another on certain categories of projects or rezonings in their districts?[255] Explain.

* Is there a separately elected mayor, chosen at large?[256]

* Does the mayor, if any, have authority to bypass city council and put proposed land-use measures on ballot, for adoption by popular vote?

* To override a mayoral veto, what percentage of the legislative body must vote for the override?

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253. *Cf.* Katherine L. Einstein, Maxwell Palmer & David M. Glick, *Who Participates in Local Government? Evidence from Meeting Minutes*, 17 PERSP. ON POL. 28, 33–35 (2019) (finding, in study of Greater Boston, that homeowners, older people, and opponents of development are overrepresented in public hearings on development projects, relative to their share of the municipal electorate).

254. *Cf.* Michael Hankinson & Asya Magazinnik, How Electoral Institutions Shape the Efficiency and Equity of Distributive Policy (Sept. 17, 2019) (unpublished working paper) (on file with Semantic Scholar), https://www.semanticscholar.org/paper/How-Electoral-Institutions-Shape-the-Efficiency-and-Hankinson-Magazinnik/5d072475bd07ab1fea69757731fda2c127820f65 [https://perma.cc/X9FA-5ZTY] (finding that plausibly exogenous shifts from at-large to districted local elections induced by California Voting Rights Act caused 46% decline in multifamily housing production); Evan Mast, *Warding Off Development: Local Control, Housing Supply, and NIMBYs* (W.E. Upjohn Inst. For Emp't Research, Working Paper No. 20–330, 2020), https://research.upjohn.org/cgi/viewcontent.cgi?article=1026&context=up_policybriefs [https://perma.cc/7SHC-P6HK] (finding similar effect from shifts induced by national Voting Rights Act). (Note that minority representation on local legislative bodies can be enabled in other ways, e.g., by combining at-large elections with transferable votes. *See, e.g.*, SHAUN BOWLER ET AL., ELECTORAL REFORM AND MINORITY REPRESENTATION: LOCAL EXPERIMENTS WITH ALTERNATIVE ELECTIONS (2003).

255. *Cf.* Roderick M. Hills & David Schleicher, *Planning an Affordable City*, 101 IOWA L. REV. 91, 112–15 (2015) (arguing that when city council members defer to one another on projects in their respective districts, the council as a whole gives short shrift to the citywide benefits of new housing in any given district).

256. A mayor elected at large is likely to be more responsive to citywide interests, relative to the neighborhood interests served by city council members elected from territorial districts. *See* Elmendorf, *Beyond the Double Veto*, *supra* note 1, at 135–36.

* Who is authorized to appoint the directors of the planning and building departments, the members of the planning commission, and the members of any other local boards or commissions that have a *de jure* role in project approvals and/or rezoning decisions?

* Does the local government's charter (if any) assign any "gatekeeper" roles that limit the local legislative body's authority to downzone or otherwise tighten development restrictions? For example, a requirement that rezonings be initiated by the planning commission.

* Are elections for the local legislative body (and mayor, if any) held concurrently with state and national elections in November of even-numbered years?[257]

* Does local law provide for a subsequent runoff election if no candidate for the local legislative body (or mayor) wins a majority of the vote at the regularly scheduled election?[258]

257. *Cf.* Joseph T. Ornstein, Election Timing and the Politics of Urban Growth 18–28 (Aug. 14, 2019) (unpublished manuscript), https://joeornstein.github.io/publications/Ornstein-ElectionTiming.pdf [https://perma.cc/WX7K-WYU8] (finding (1) that homeowners are more overrepresented in the electorate during off-cycle than on-cycle elections; (2) that shifting from off cycle to on cycle elections increases by 200%–400% the number of housing units permitted by California cities and slows growth in home prices; and (3) that infill development proposals are more likely to be defeated in off-cycle elections). Chapter 1.7 of the Election Code, which took effect in 2018, requires local governments to switch to on-cycle elections if "the voter turnout for a regularly scheduled election in [the] political subdivision is at least 25 percent less than the average voter turnout within that political subdivision for the previous four statewide general elections." CAL. ELECTIONS CODE § 14051(b) (West 2021).

258. Runoff elections tend to suffer from diminished turnout, *see generally* Stephen G. Wright, *Voter Turnout in Runoff Elections*, 51 J. POL. 385 (1989); RCV Versus Two-Round Runoff, FAIRVOTE, https://www.fairvote.org/rcv_versus_two-round_runoff [https://perma.cc/LKA6-MGDJ] (last visited Oct. 7, 2020), and thus the pathologies that afflict local governments which rely on off-cycle elections are likely to be manifested whenever local governments use runoff elections to fill key policymaking positions. *Cf.* Ornstein, *supra* note 257 (finding that off-cycle elections lead to massive reductions in housing production); SARAH F. ANZIA, TIMING AND TURNOUT: HOW OFF-CYCLE ELECTIONS FAVOR ORGANIZED GROUPS (2013) (showing that off-cycle elections empower special interests).