More than 800 communities across the United States have adopted inclusionary housing policies, which require or incentivize the production of affordable housing when new market-rate housing is built. While these programs are no substitute for public investment in affordable housing, they have become an important supplemental source of additional affordable units—particularly in high-cost cities where they are well established.

In nearly every community, however, these programs are controversial. One common concern is that these programs will impose costs that can’t be supported by project budgets and lead to reductions in the supply of new market-rate housing and, ironically, higher housing costs overall. While research into the economics of inclusionary housing programs is still very limited, the best available research shows convincingly that it is possible for inclusionary housing programs to produce meaningful levels of new affordable housing without measurably impacting the rate of new production or the level of market prices or rents.

However, research also shows that caution is appropriate; there is evidence of some programs experiencing modest negative impacts on production. The difference is in the design of the programs. Well-designed programs set requirements at a level that can be accommodated comfortably given the revenues, costs and incentives available locally, but beyond a certain level, the requirements can be a burden and developers may choose not to build.

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This research has encouraged a trend toward completion of economic feasibility studies to support the adoption or refinement of inclusionary housing programs. A feasibility study will generally identify several residential development prototypes that are most commonly being built in a local area. It will also research the revenues (rents, sales prices, etc.) and costs (construction, soft costs, financing costs, operating costs, etc.) in order to understand the general profitability of each type of project. A feasibility study for an inclusionary housing program will use this model of project profitability to test the likely impact of public policy changes. If, for example, the city imposes a requirement that 10 percent of all new units be affordable to lower-income households, a study should show how that requirement would impact the profitability of each of the identified prototypes.

While most inclusionary housing programs that exist today were likely developed without the benefit of this kind of feasibility study, it is increasingly common for cities to commission a study before adopting a new program or changing the requirements of an existing program. And these studies are now recommended widely as a best practice in industry publications about inclusionary housing.

In 2017, California adopted AB 1505, which ensures the legality of mandatory inclusionary housing requirements for rental housing. One provision of this new law establishes a limited circumstance in which the state can ask to review a feasibility study for a rental inclusionary ordinance that requires more than 15 percent of units be affordable to lower-income households. The feasibility study can be prepared upon the state’s request to review, or if available, the locality can submit a study that was prepared at the time the ordinance was adopted. The law allows the state to review whether the study was conducted with a methodology that follows best professional practice. While its application may be limited, this may be the first time that a state has adopted legislation regarding inclusionary housing feasibility studies.

Given the growing interest and importance of these studies, it is somewhat surprising that there has been very little formal attempt to articulate best professional practice. Published feasibility studies share many common elements but differ in some important ways; there is currently no clear single standard methodology.

Convening

In response to this need, Grounded Solutions Network, The Terner Center for Housing Innovation at UC Berkeley and the Lincoln Institute of Land Policy collaborated to convene a one-day expert discussion of inclusionary housing feasibility studies. (Full disclosure: Grounded Solutions Network conducts inclusionary housing feasibility studies on a fee-for-service basis.) On July 17, 2018, we brought a group of national experts to the University of California at Berkeley to discuss best practices for feasibility studies. The group included eight consultants with extensive professional experience producing these studies, five academic researchers with expertise in housing economics and research experience relevant to inclusionary housing, and seven consumer representatives with experience commissioning or overseeing these studies on behalf of public agencies or nonprofit housing organizations, as well as nine representatives from the sponsoring organizations.

In preparation for the daylong convening, we also surveyed participants about their views on key issues and interviewed a number of the consultants.

While it is fair to say that this diverse group did not agree on every important point, there was a notable degree of agreement. The purpose of this document is to capture some of that agreement (and disagreement) in order to further the field and provide concrete guidance to public agencies that are commissioning feasibility studies. In the following pages, we attempt to represent diverse points of view and highlight areas of broad agreement. This report does not reflect the views of any specific participant.

We also developed a sample Statement of Work (attachment A) as a tool for jurisdictions that are commissioning inclusionary housing feasibility studies. This language can be included in a feasibility study Request for Proposals.

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2 For more details on the provisions of AB1505, see [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB1505](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB1505)

3 Mandatory inclusionary housing requirements for ownership housing were already legal. The state also has a density bonus law which requires municipalities to provide density bonuses and other concessions to projects that provide affordable housing.
Definitions

**Feasibility studies** identify a ‘**hurdle rate**’ for profit. Projects that earn more than that rate will be considered ‘feasible’ while those below the hurdle will be deemed ‘infeasible.’

The hurdle rate can be measured using different metrics such as **Return on Cost**, which compares the likely proceeds from selling a project to the cost to develop it, or **Yield on Cost**, which measures roughly how much net revenue will be generated each year relative to what it cost to build a project.

**Discounted cash flow models** project costs and revenue on a yearly basis over time. **Static proformas** use a simpler measure of profitability (like Return on Cost or Yield on Cost) and do not take into account the timing of costs and revenue.

**Residual Land Value** is the amount a developer of a project could pay for land (after accounting for other all costs, including construction costs) and still earn the required level of profit.

Key Takeaways

This document includes a high-level summary of the key takeaways from the convening. A full report with more in-depth discussion of each key issue area is available at www.inclusionaryhousing.org/resources/#feasibility.

**Methodology:**

What are the most reliable methods for evaluating the feasibility of potential development projects? How should feasibility studies address land values?

1. There is no single best methodology appropriate for all circumstances; consultants should be given some latitude to propose the best methodology for the circumstances. It is important that whatever methodology is used be clearly communicated and fully documented in the consultant’s final report, or in an appendix to the report.

2. Similarly, participants agreed that there is no one single measure of feasibility that is best suited for every situation. Some researchers felt more comfortable with one metric or another, but no concerns were expressed that any commonly used measures were inappropriate.

3. There was some debate about the advantages and disadvantages of discounted cash-flow models relative to static proformas. Some felt that the cash-flow models led to more accurate results, while others felt that they were overly sensitive to input assumptions in a way that makes them less useful.

4. All participants, however, agreed that static proformas were sufficient and could accurately model feasibility in all situations, suggesting that this approach should be standard practice in most cases because it is easier for a broader audience to understand.

5. While all participants agreed that, over time, much of the impact of inclusionary housing requirements is absorbed by landowners in the form of lower residual land values (RLV), there was not agreement on how best to reflect this in feasibility study results. Most of the consultants participating reported that they project changes in RLV in some but not all cases.

6. There was general agreement that studies based on the RLV were not inherently better or worse than studies structured around a profitability hurdle rate (minimum profitability). Whether a study is structured to calculate RLV or not, the results should be similar in the sense that proposed requirements should have roughly the same impact on feasibility. Some felt that RLV calculations made the results harder to explain to the public, while others felt that very challenge was helpful in guiding public agency staff and elected officials to better understand the medium- to longer-term impacts of inclusionary policies. But all agreed that, as one participant observed, “land is always the residual, whether you calculate it or not.”

7. Participants also discussed the potential for new online tools to manage a greater volume of data and lead to more consistent, transparent and readily understood results.
Variation over time:
Policymakers struggle with how to interpret results given variation in conditions over the market cycle. How should findings for a given point in time guide policies that will last through market cycles?

1. Most participants strongly agreed that feasibility study results should not be trended or based on projected future changes in revenues or costs.

2. Instead, there was general agreement that studies should include sensitivity analysis, which tests the impact of a range of potential changes in key inputs. Instead of predicting what will happen, a sensitivity analysis shows what would happen if market conditions changed in certain ways.

Geographic Variation:
Even in strong market cities there are large variations in the market strength of different neighborhoods. What assumptions are necessary to generalize across a range of market locations?

1. All participants agreed that it sometimes makes sense to separately analyze distinct neighborhood submarkets when project budgets allow. But participants identified a number of limitations to submarket analysis, which suggests it may not be a best practice. For example, it can be difficult and expensive to obtain appropriate data for submarkets within a city, particularly for submarkets where development has not been happening recently. And submarket analysis tends to lead policymakers in the direction of geographically-targeted inclusionary housing requirements, which can be very challenging to implement.

Transparency:
How much detail into the underlying assumptions and model can/should be provided to cities and/or the public?

1. Participants all agreed that reproducibility should be the standard for full transparency. Every study should disclose all the inputs and assumptions that another qualified researcher would need to reproduce the same results in their own spreadsheet.

2. There was agreement that conducting feasibility studies with the engagement of a local Technical Advisory Committee could lead to much stronger policy outcomes. While participants didn’t necessarily agree that this practice should be implemented in every study, our discussion suggests that this somewhat rare practice should be much more widespread.

One theme that arose repeatedly was the challenge of ensuring that the complex and technical results of these feasibility studies were actually being used to set the resulting policies. A number of convening participants expressed frustration that the economic analysis was sometimes partially overlooked when policies were ultimately adopted in a largely political process. Cities have sometimes commissioned lengthy and expensive studies only to subsequently adopt policies that didn’t appear to be directly informed by the study’s findings. There was agreement that doing more to improve public understanding of feasibility results could result in stronger and more data-driven policy decisions.

A point of agreement was that more effort should be directed to helping policymakers and the general public understand the limitations of these studies and their inherent imprecision. Sometimes cities want to treat the results of feasibility studies like appraisal results, but this may be the result of a misunderstanding of these studies’ role and limitations. Limited data and the inherent diversity in the economics of different development projects mean that feasibility studies which only examine a small number of project prototypes will never be as objective and definitive as policymakers may want them to be. Instead of providing a definitive answer to what is feasible in all cases, participants stressed that feasibility studies should be seen as providing a reality check and a way to illustrate the potential impact of proposed policy changes. Similarly, feasibility studies do not provide the single correct policy answer; in fact, successful adopted policies do not always exactly mirror the results of the feasibility study. Participants seemed to agree that a wider understanding of these limitations could lead to more humility in the policy design process. Because all of the important economic feasibility questions cannot be answered definitively, and because economic feasibility studies examine a single point in time and cannot accurately project how market changes will affect development feasibility, policies should build in periodic assessment and opportunities for program refinement.
**Sample Statement of Work**

**Inclusionary Housing Feasibility Study**

In order to make it easier for jurisdictions that are commissioning Inclusionary Housing Feasibility Studies to incorporate some of the convening participants’ recommendations, following is sample language for a Statement of Work. Of course, many of the specific requirements will need to be modified for local circumstances.

**Scope of Services:**
The goal of this project is to help local policymakers to better understand how potential inclusionary housing requirements would impact the feasibility of new residential development. The goal of any potential inclusionary housing policy would be to produce meaningful numbers of affordable housing units without imposing requirements that create a hardship for development of new projects and ultimately result in less development. The City understands that there are a great variety of different projects which will be impacted differently by any potential policy and that any analysis will necessarily only reflect the impact on small subset of typical projects. As a result, the feasibility study is only one part of the City’s process for determining the appropriate policy. The intention is to use this modeling exercise to inform policymakers and ground the ultimate policy as much as possible in real market conditions.

The selected vendor will be required to complete the following tasks:

**Task 1: Background Research and Feasibility Analysis**

Conduct a thorough and transparent analysis of the economic feasibility of potential inclusionary housing requirements including:

- **Review previously completed housing and economic feasibility studies.**
- **Review relevant state laws and regulations [such as the California State Density Bonus law (GC 65915) and AB 1505 (2017)].**

- **Research recent development activity in the area and identify [four to six] common development prototypes for use in the feasibility analysis. These prototypes should include representative ownership and rental projects.**
- **Collect data related to revenues and costs for projects similar to the identified prototypes.**
- **Collect data from developers and investors to document the profitability of residential real estate under current conditions.**
- **In consultation with City staff and local real estate industry stakeholders, identify the typical level of profitability of recent residential projects (based on the yield on cost, return on cost or other comparable measure).**
- **In close coordination with jurisdiction staff, identify three to five specific policy design alternatives that will be evaluated. Each alternative should include a specific set of affordable housing requirements and potential incentives or offsets to the cost of compliance.**
- **Develop project pro formas that illustrate the economics of development of each prototype [in each submarket area if applicable] under current conditions and requirements and under each of the defined policy alternatives.**

- **[Option A: Compare the profitability of development for each prototype under each policy scenario with the threshold for minimum profitability established for the current market in order to evaluate the feasibility of each alternative]**

- **[Option B: Compare the residual land value available for each prototype under each policy alternative with current prices in the local land market in order to evaluate the feasibility of each alternative]**

- **Conduct a sensitivity analysis to identify the extent to which variations in key inputs such as market rents or construction costs would lead to different findings regarding feasibility.**

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Task 2: Technical Advisory Committee

Plan and facilitate up to three meetings of a technical advisory committee of local industry and policy stakeholders, including:

A Advise the jurisdiction on the selection and composition of the committee. The committee will include no more than 10 people selected for their direct and specialized knowledge of local market conditions and housing needs and will include representatives of the real estate development industry as well as advocates for affordable housing. Jurisdiction staff will coordinate outreach, recruitment, scheduling and meeting logistics.

B Produce intermediate work product to share with committee members in advance of meetings in order to guide discussion of key details related to defining project prototypes used in the study and identifying appropriate costs, revenues and minimum profitability requirements.

C Produce preliminary draft feasibility results and sensitivity analysis and share with committee members. Revise analysis, as appropriate, based on feedback from committee.

D Develop meeting agendas and facilitate discussion at each meeting.

E Produce meeting notes which capture points of agreement as well as the range areas of disagreement (without attributing specific statements or positions to individuals).

Task 3: Final Report

Produce a final written report including:

A A summary of the research process, including public feedback and the range of input from the Technical Advisory Committee

B An accessible and jargon-free overview of the feasibility study methodology and its most significant findings.

C A more technical yet concise description of the specific methodology employed, the general attributes of the studied prototypes, the policy design options (requirements and incentives) evaluated and the findings regarding economic feasibility of each prototype under each policy alternative.

D Recommendations for the design of an inclusionary housing policy based on the results of the analysis, including:

A The share of affordable housing units that could be required in new residential housing projects without significant negative impacts on the rate of residential building (or a range of potential supportable requirements).

B The income targets for required affordable rental and ownership units.

C The mix of incentives, if any, which would be needed to make the recommended level of affordable housing requirements financially feasible.

D The level (or range) of in lieu fees which would result in the fee option being roughly financially equivalent to the cost of onsite compliance for typical projects.

E Recommendations of additional housing policy alternatives for consideration by the jurisdiction which might complement the proposed inclusionary housing policy or better address market conditions and needs identified in the course of the study.

F Recommendations regarding best practices for ongoing monitoring and public disclosure of the effectiveness of the inclusionary housing policy (i.e. number of units produced, share of projects selecting the in lieu fee option, etc.) as well as a proposed timeline and process for updating the policy regularly over time or in the event of significant changes in market conditions.

G One or more technical appendices which provide detailed disclosure of the specific inputs and other assumptions at the level of detail that would enable another qualified professional to reproduce the results presented in the study.

H One or more technical appendices presenting the results of sensitivity analysis documenting the extent to which the study results would be different under differing assumptions for key inputs including rents, home prices, construction costs and land costs.
Task 4: Presentations

Lead two study sessions for City Council and other stakeholders to review the study results including:

A. Produce a single presentation deck describing the methodology, findings and recommendations.

B. Lead a presentation of findings as part of a study session of the City Council.

C. Lead a presentation on other subcommittees or working groups, to be determined.

D. Respond to follow-up questions from council members, as needed.

E. [Optional: Conduct one or more public education sessions on inclusionary financial feasibility for communities that will be directly affected by the policy, particularly any communities that are under-represented in the technical advisory committee.]