STRENGTHENING Inclusionary Housing Feasibility Studies

CONVENING REPORT

GROUNDED SOLUTIONS NETWORK

TERNER CENTER FOR HOUSING INNOVATION UC BERKELEY

LINCOLN INSTITUTE OF LAND POLICY

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[1] 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.

[1] *Schuetz, Jenny, Rachel Meltzer, and Vicki L. Been. The Effects of Inclusionary Zoning on Local Housing Markets: Lessons from the San Francisco, Washington DC and Suburban Boston Areas. Furman Center for Real Estate & Urban Policy, New York University, 2008.*

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,[2] which ensures the legality of mandatory inclusionary housing requirements for rental housing.[3] 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.

---

[2] *For more details on the provisions of AB1505, see 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

Methodology:

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

❶ 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.

❷ 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.

❸ 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.

❹ 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.

❺ 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.

❻ 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."

❼ 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.

A. What is a Feasibility Study?

The central question for inclusionary housing feasibility studies is this: How would proposed affordable housing requirements impact the feasibility of market-rate residential development? The availability of development incentives—such as bonus density or reduced parking requirements, which can offset some of the cost of providing affordable units—complicates the analysis in many cases. Most studies, then, are evaluating the potential impact of a combination of requirements and incentives on the profitability of residential development. Some studies focus on the feasibility of a single proposed inclusionary policy, while others evaluate and compare the feasibility of several proposed alternative policy options.

Every feasibility study does at least three things:

1. Compiles data on multiple residential project types
2. Identifies minimum profitability requirements (hurdle rates)
3. Compares feasibility with and without one or more proposed affordability requirements and one or more proposed incentives

Many studies go further by providing detailed recommendations for the design of inclusionary housing policies based on the findings of the economic analysis. It is also common for studies to evaluate the potential impact of offering alternative means of compliance, such as a fee in lieu of on-site units.

Feasibility Study vs. Nexus Study

Inclusionary housing feasibility studies are often confused with nexus studies, a related type of study with a distinctly different purpose. Inclusionary policies are generally adopted as land use regulations imposed within the authority of local government's constitutional use of its police power.[4] In contrast, nexus studies are used to establish a reasonable relationship between a proposed project and impacts of its development and the cost of the associated improvements supporting exactions imposed as a development condition.[5] Feasibility studies calculate 'how much affordable housing, at what standards, can a proposed project bear,' a nexus study assesses, 'how and how much does a project contribute to the need for affordable housing.' By documenting the 'nexus' or relationship between new development and the need for public investment, these studies help with the legal defensibility of the amount of the proposed fee. When jurisdictions impose affordable housing impact fees, a nexus study is often required. Nexus studies are less common for inclusionary housing policies, which require on-site units because of the different legal framework for those policies.

While nexus studies and feasibility studies rely on similar market data and are sometimes completed together, they are really different tools with different purposes. Most nexus studies don't concern themselves with financial feasibility; they show that a new project creates the need for so many new affordable housing units but don't suggest one way or another whether it is practical for the project to provide that many units. Where both have been completed together, it is not uncommon for the nexus study to suggest a need for a greater affordable requirement than the feasibility study supports. When this is the case, the nexus study provides legal support for a fee, but the actual level of the fee would be determined by the feasibility study not the nexus study.

[4] *The California Supreme Court upheld this view in California Building Industry Association v. City of San José, (2015) 61 Cal.4th 435.*

[5] *In California these studies are required by the Mitigation Fee Act: California Government Code Section 66000 et. seq.*

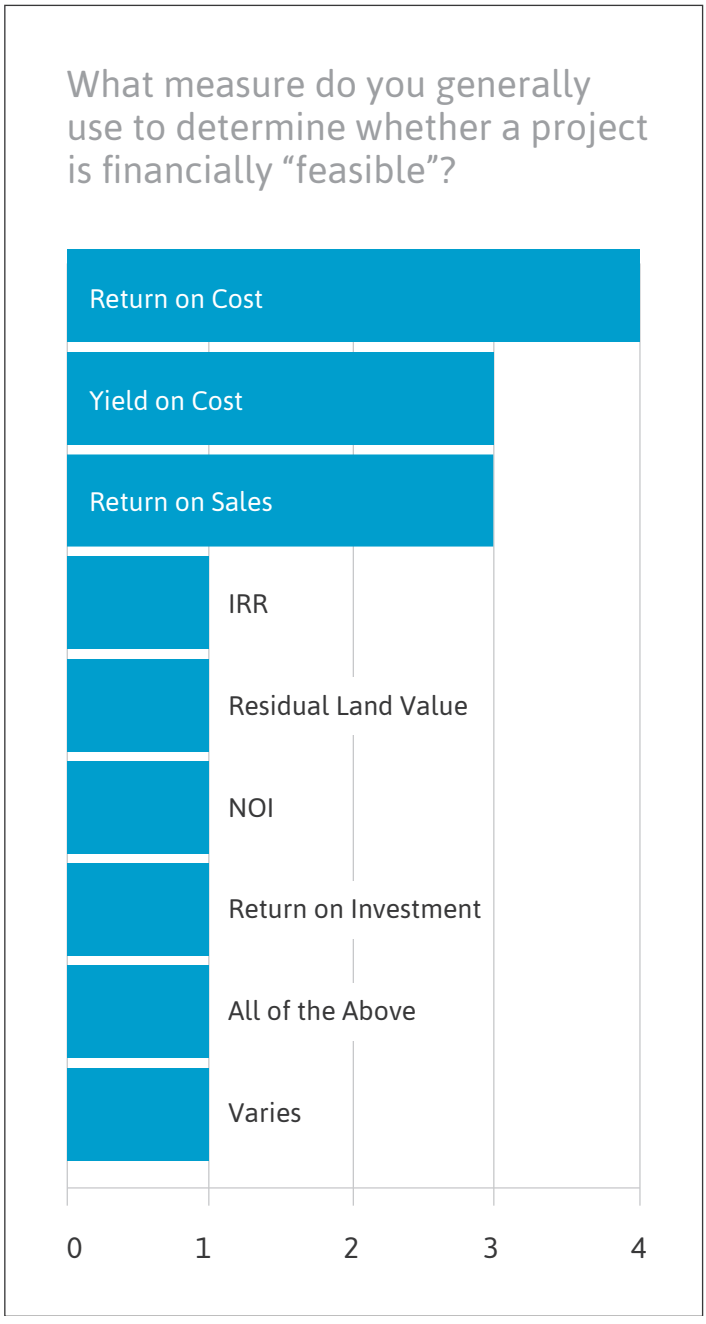
B. Methodology

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

Feasibility studies evaluate feasibility based on the profitability of projects. Based on interviews and other data, researchers will identify a hurdle rate for profit and projects that earn more than that rate will be considered feasible, while those below the hurdle will be deemed infeasible. Each feasibility study generally identifies a single measure of profitability, but they don't all use the same measure. Realistically, developers look at multiple metrics when they decide whether to move forward with a project, but in order to make the analysis understandable, researchers often select a single measure.

Our pre-convening survey illustrated some of the diversity in these profitability measures. During the convening, participants generally agreed that there was no one best measure in all cases and no reason to encourage every study to use the same metrics. In particular, regional differences in practice sometimes cause consultants to use different metrics in different places. Different measures are more effective in different situations; in some cases, because they allow the results to be shown in a way that is more understandable; in others, to adapt to available data. Figure 1 shows that participants were quite split on which measure they preferred for determining feasibility.

Figure 1: Participant preferences for feasibility measures



Yield on Cost

Yield on cost is a simple measure of the profitability of a real estate project. It is calculated by dividing the project's projected net operating income (NOI) by the total development cost (TDC). It measures roughly how much net revenue will be generated each year, relative to what it cost to build a project. Projects that have higher net cash flow (relative to their cost) are more feasible.

Yield on cost is only used for rental properties.

Table 1: Example of feasibility comparison with Yield on Cost

	No Requirements	10% Affordable
Cost		
Land Cost	$2,000,000	$2,000,000
Construction cost (inc. Parking)	$20,000,000	$20,000,000
Soft Costs, other	$3,000,000	$3,000,000
Total Development Cost (TDC)	$25,000,000	$25,000,000
Revenue		
Gross Potential Income (annual)	$2,500,000	**$2,250,000**
Vacancy and Operating Expenses	$1,000,000	$1,000,000
Net Operating Income (NOI)	$1,500,000	$1,250,000
Yield		
Yield on Cost (NOI/TDC)	6.00%	**5.00%**
Hurdle Yield on Cost	5.50%	5.50%
Feasibility	Feasible	Not Feasible

Return on Cost

Return on cost is a similar shorthand measure of profitability but it involves comparing the likely proceeds from selling a project to the cost to develop it. For ownership projects, profit is calculated first by subtracting the total development cost from the total unit sales revenue (net of sales costs). Then return on cost is calculated by dividing profit by the total development costs. For rental projects, the calculation is slightly more complex. The potential value of the project is calculated first by dividing the NOI by a capitalization rate. Then profit is calculated by subtracting the total development cost from this estimated value. Finally, return on cost is calculated by dividing profit by the total development cost. In both cases, return on cost compares the value of a project to its cost. Projects that could be sold for more relative to their cost are more feasible.

Table 2: Example of feasibility analysis with Return on Cost

	5-6 Story Rental
Cost	
Land Cost	$2,000,000
Construction cost (inc. Parking)	$20,000,000
Soft Costs	$3,000,000
Total Development Cost (TDC)	$25,000,000
Revenue	
Gross Potential Income (annual)	$2,500,000
Vacancy and Operating Expenses	$1,000,000
Net Operating Income (NOI)	$1,500,000
Project Value	$30,000,000
Cap Rate	5.00%
Estimated 'profit'	$5,000,000
Profit %	
Profit % of TDC	20.00%
Hurdle Rate	15.00%
Feasibility	Feasible

Internal Rate of Return (IRR)

IRR is another commonly used measure of profitability, but it is the result of a more involved calculation. The IRR is a discounted cash flow calculation. It requires estimation of the net cash flow for each year during the planning and construction of a project and then for a period of time (often 10 or 15 years for rental projects) after the project is completed. In the initial years, a developer invests money into a project and then in later years they receive return both in the form of annual net cash flow from operations (of a rental) or sale of the units (for ownership) or the project as a whole (for rental). The key feasibility question is whether these later cash flows are large enough to pay back the initial investment plus a sufficient return to compensate for the necessary risk. The IRR is essentially the interest rate that is earned on the investment. More technically, it is the rate that generated a $0 net present value for the series of cash flows.

Table 3: Example of feasibility analysis with IRR

5-6 Story Rental	Year -1	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cost												
Land Cost	-$2,000,000											
Construction cost	-$10,000,000	-$10,000,000										
Soft Costs, other	-$1,500,000	-$1,500,000										
Revenue												
Gross Potential Income (annual)			$1,250,000	$2,575,000	$2,652,250	$2,731,818	$2,813,772	$2,898,185	$2,985,131	$3,074,685	$3,166,925	$3,261,933
Vacancy and Operating Expenses			$500,000	$1,030,000	$1,060,900	$1,092,727	$1,125,509	$1,159,274	$1,194,052	$1,229,874	$1,266,770	$1,304,773
Net Operating Income (NOI)			$750,000	$1,545,000	$1,591,350	$1,639,091	$1,688,263	$1,738,911	$1,791,078	$1,844,811	$1,900,155	$1,957,160
Sale												$39,143,196
Net Cash Flow	-$13,500,000	-$11,500,000	$2,500,000	$5,150,000	$5,304,500	$5,463,635	$5,627,544	$5,796,370	$5,970,261	$6,149,369	$6,333,850	$45,667,061
IRR	19.71%											
Hurdle Rate	17%											
Feasibility	Feasible											

Static vs. Dynamic Pro formas

There was considerable discussion of the advantages and disadvantages of the IRR and similar calculations that rely on discounted cash flows projected over time. All participants agreed that 'dynamic' pro formas that relied on multi-year cash flow projections were an essential part of how developers evaluate real projects because they offer a more nuanced view into timing of returns available from a project. There was debate, however, over whether the additional nuance was helpful or harmful for the purpose of policy design.

Some argued that a cash flow projection provided a better understanding of the profitability of projects. For example, for a large condo project, a pro forma that shows the proceeds of the sale of all units as revenue might overstate the profitability of the project if it does not account for the fact that it may take the developer several years to sell all of the available units. The money is worth less to the developer when it is received many years in the future. These subtle timing issues can impact feasibility and can be impacted by program design options.

Others argued that, while that may be true, completing a detailed cash-flow model requires making dozens of additional assumptions, each of which adds complexity, cost and opportunity for error and misunderstanding. The IRR is very sensitive to assumptions made about the timing of cash flows and this timing can be very different from project to project. Several participants agreed that dynamic models were more sensitive to assumptions and, therefore, much harder to 'get right.' For these participants, the additional complexity and sensitivity in the analysis are not helpful enough to justify the additional sensitivity and loss of transparency.

In spite of this disagreement over whether dynamic pro formas offer advantages, all participants agreed that static pro formas were sufficient; that an analysis which did not account for the timing of cash flows could nonetheless accurately model feasibility and should be considered sufficient in most cases.

Residual Land Value (RLV)

Another point of considerable discussion was the role of land value in these feasibility studies. There are two commonly used approaches:

1. Hurdle rate: Hold land value constant and calculate project profitability.
2. Residual land value (RLV): Hold profitability constant and calculate residual land value.

In the first approach (which is illustrated in the three previous examples), the researcher estimates the likely price of land for a given prototype project and uses that number along with estimates of other development costs to calculate the overall profitability of the project. If the profitability is above the hurdle rate, then the project is considered feasible.

In the second approach, the researcher takes the hurdle rate as a given and then calculates how much a project could pay for land and still earn the required level of profit. Feasibility is evaluated by comparing the resulting residual land value to an estimate of current market land values. A project is feasible if it could afford to pay at least the current market rate for land.

In an inclusionary housing feasibility study, these two approaches lead to different ways of depicting the results of a change in policy. With the hurdle rate approach, an increase in affordable housing requirements will reduce the projected profitability of projects. With the residual land value (RLV) approach, increasing inclusionary requirements leads to lower land values.

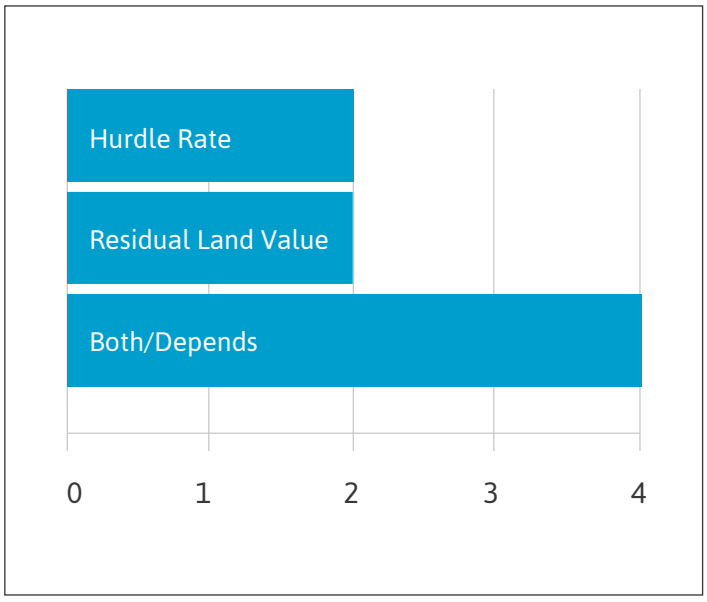
While there was discussion about the advantages and disadvantages of the land residual analysis, none of our participants questioned the underlying assumption that land values adjust to capture residual value or that, over enough time, much of the impact of inclusionary housing requirements is absorbed by landowners. One participant put it this way: "Land is always the residual, whether you calculate it or not."

Table 4: Example of feasibility analysis with Residual Land Value

	5-6 Story Rental
Cost	
Construction cost (inc. Parking)	$20,000,000
Soft Costs	$3,000,000
Development Cost (without land)	$23,000,000
Revenue	
Gross Potential Income (annual)	$2,500,000
Vacancy and Operating Expenses	$1,000,000
Net Operating Income (NOI)	$1,500,000
Residual Land Value	
Required Yield	5.50%
Maximum Supportable Cost	$27,272,727
Residual Land Value	$4,272,727

This was supported by our pre-convening survey, which found that the majority of consultants reported using both methods in different studies at different times. See Figure 2. And in general, participants seemed to agree that both approaches should lead to the same conclusions. Some saw the two as essentially two ways of presenting the same results. The same projects should be feasible or infeasible under each approach.

Figure 2: How do you generally treat land?



The debate instead was about whether the residual land value calculations were helpful or harmful for public understanding of the results.

The idea that land values respond to changes in policy is less intuitive for many people than the idea that developer profit might change. Residual land value requires additional effort to explain. It may also be harder for many stakeholders to intuitively understand what different land value numbers mean. All the potential land prices can sound like large numbers, and it may be easier for people to understand that a lower rate of return is just not possible than to see a multi-million dollar land price as being impractically low.

It can also be particularly challenging to get good data on land values. There is very little data available publicly on land markets and very little data or research on how long it takes for land values to respond to changes in land-use requirements. While having a solid estimate for land values is important under either approach, some participants prefer not to focus the whole analysis on the one number with the least

supporting data. In cases where there is better land price data available, they feel more comfortable with the RLV approach.

To some participants, the challenge of explaining RLV is an advantage, though, because it creates an opportunity to help policymakers think through the results of potential policies in more detail. When the feasibility study shows prototypes generating more than the minimum yield, it is tempting for policymakers to assume that a proposed policy would have no impact on the market. But when they see the policy reducing land values (even to a number above some identified threshold), it may be easier to see that land prices will be different for different projects and to imagine that for some, the downward adjustment will result in prices that are too low to support development feasibility.

Another participant pointed out that another advantage of RLV calculations is that they can help policymakers understand why certain types of projects are being built in some parts of the city and not others. Because it is somehow more obvious that land values differ geographically, the RLV approach may encourage more geographic nuance.

But perhaps the strongest argument for RLV, and the factor that motivated some participants to use it in their studies, is that it can help policymakers see the value added by incentives—particularly increased density. Either approach should capture both the cost of complying with affordable housing requirements and the value contributed by incentives. But when jurisdictions are increasing allowable densities (either through upzoning or density bonuses), these changes tend to increase land values noticeably, sometimes by more than the requirements reduce them. A number of participants reported that they find it easier to illustrate this interplay when the feasibility analysis is structured around residual land value. It makes a certain kind of intuitive sense to policymakers to see how one action is pushing land values higher and another is capturing some of that increased value and pushing land values back down.

New Tools

There was some discussion at the convening of new tools that have the potential to dramatically improve policymaker understanding of financial feasibility issues. The Terner Center's Housing Development Dashboard and Grounded Solutions Network's Inclusionary Housing Calculator are both online financial feasibility calculators which allow non-technical users to quickly visualize the impact of changing assumptions, including inclusionary housing requirements and incentives on bottom line feasibility. In addition, ECONorthwest has configured MapCraft.io, which is a GIS tool that applies financial feasibility evaluations of real estate development on every parcel in a city, to allow policymakers to test what-if scenarios, including the implementation of inclusionary housing requirements and offsetting incentives.

A systematic, transparent tool like those listed above that can be used across many different jurisdictions could have multiple benefits. Primarily, it can make the reality of how housing development finance works more accessible to a broader set of stakeholders, including policymakers and residents. Data on the local housing market (e.g. local rents, land costs, housing costs) that is collected through a traditional economic feasibility study or another method can be used in these calculators to provide a more compelling visual illustration of economic feasibility in a given locality. While such tools wouldn't replace the local insights and expertise that a consultant could provide, they would at least allow the process to start from a more level playing field of understanding.

In addition, when the market changes after a feasibility study is completed, these tools can be used to quickly and dynamically adjust to those market changes (as opposed to a written feasibility study, which is more static). Tools like these can be particularly valuable for smaller jurisdictions or other places with fewer resources and less capacity to commission full economic analyses.

C. 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?

One challenge facing every feasibility study is the fact that housing markets are ever changing, but these studies are based on a single point in time. Affordable housing requirements that are feasible under one set of market conditions may not work a short time later after a significant market change. It is common for inclusionary housing feasibility studies to be conducted near the peak of the housing market cycle simply because that is when public pressure for new housing strategies is greatest. But inclusionary housing polices need to function across a range of market conditions (not only at the peak of the market), so feasibility studies often have to address timing and market cycles.

Participants discussed several ways that feasibility studies can address this inherent challenge.

Trending

One approach that some participants reported applying in some circumstances involves projecting key variables forward in time. For example, when costs are rising it may make sense to evaluate feasibility of development not based on today's rents and costs but on likely rents and costs in the future. When an inclusionary policy is adopted, it generally only applies to new projects seeking building permits after adoption, and those projects will then take several years to be built. Some studies will project key inputs forward, inflating the numbers based on some assumed rate of change. For example, an analyst might imagine prototypes where construction was beginning one year in the future with the first tenants moving in two years after that. Then they would inflate the current construction cost by one year of cost inflation and the current rent by three years rent inflation. The feasibility of this trended prototype could be quite different from the feasibility of a project using un-trended numbers.

This was a topic where participants differed. There was general agreement that trending was not necessary to produce an accurate study but there was disagreement about whether and under what circumstances trending was appropriate.

A number of participants cautioned strongly against this approach. While there was agreement that a trended analysis is more realistic in the sense that inflation in the key inputs is clearly inevitable, it is impossible to know what the trends will be in the future and the results will be quite sensitive to assumptions about the rates of inflation. For example, if we assume that rents will rise faster than costs, we may find that a much higher inclusionary requirement is feasible in the future than is possible today. Conversely, if we assume that costs rise faster, a lower rate would be feasible in the future. While we know that both rents and costs will change over time, we simply don't know how they will change. For this reason, one participant suggested that this kind of trending "adds more complexity than it adds value," and another concluded, "it's too hard to get it right."

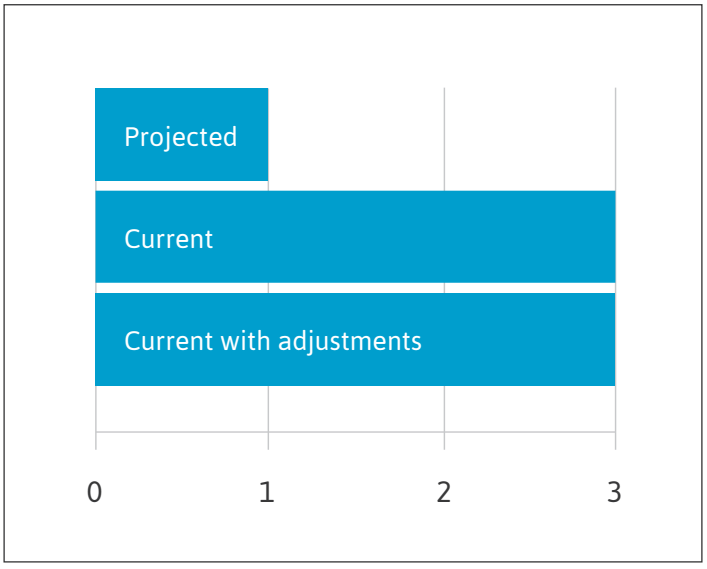
On the other hand, most participants agreed that it was often impossible to avoid some degree of trending. A project that is opening today will charge today's rent but will have paid construction costs based on a contract negotiated several years ago. And projects starting construction today, may pay today's construction costs, but they will charge rents based on market conditions several years in the future, while in all likelihood the land price that they paid was negotiated many years in the past. Every feasibility study has to look at data from multiple real projects completed over a period of many years and construct hypothetical prototypes that reflect the consultant's best estimate of current conditions.

One participant suggested that the standard should not be to approximate a real project starting or finishing today, but instead to reflect the economics of a project seeking financing today. In some sense, feasibility studies are attempting to evaluate whether projects will be profitable enough to secure financing, and the key question is not what will the rent be when this project opens, but instead what rent will they be able to support when they present the project to potential investors?

Even in markets where rents are clearly rising, developers will typically present projects to investors using rents that are no higher than what can be seen in comparable projects that are already successfully leasing. These comps provide solid evidence of what rent level is currently supportable where projected rents would be far less certain and far more easily manipulated. The un-trended numbers may be less accurate but more solid.

While a feasibility study is different from an investment analysis, participants generally agreed that un-trended numbers can work the same way. By looking at today's rents and costs, even when we know that the proposed policy will only apply to projects three years in the future, we reduce the number of unknowns to a more manageable set.

Figure 3: Do you typically produce financial projections based on the current rents and costs or project forward to a point in the future?



One aspect of the issue on which there was no disagreement was the need to clearly disclose any trending or inflation assumptions. It would be easy to simply embed assumptions about changing costs in a complex analysis, but given the sensitivity to these assumptions, any inflation assumptions should be clearly described in the narrative of a study and ideally accompanied by information on the source of the assumption.

Updating/Indexing

Another approach to changing market conditions that was discussed was the need to adjust inclusionary requirements over time. There was broad agreement that these studies need to be updated over time as market conditions evolve. Several participants suggested conducting a feasibility analysis every five years, though there are few communities that have done that. Others pointed out that certain large-scale changes may necessitate re-analysis sooner. For example, in San Jose after Google announced that it was opening a new headquarters, market conditions changed rapidly and the city needed to re-evaluate its requirements.

Some cities have considered the possibility of developing a formal index that would adjust inclusionary housing requirements automatically as market conditions changed, but participants were not aware of a reliable model where this approach has been implemented.

Sensitivity Analysis

While there was some disagreement about the value of trending or forecasting, another approach to the uncertainty of market conditions was less controversial. Some studies accompany their findings with a sensitivity analysis that looks at the extent to which the findings would be different under changing assumptions. For example, a study that found that, for a particular prototype, a 10 percent affordability requirement would be feasible could also assess the potential impact of rising construction costs by estimating how high costs could rise (relative to rents) before 10 percent inclusionary was no longer feasible. Instead of predicting what will happen, a sensitivity analysis shows what would happen if market conditions changed in certain ways.

Participants generally agreed that there were important limitations to this kind of analysis.

For one thing, it is difficult to isolate the impact of a single input. If we imagine rents rising, for example, we would also need to factor in rising land prices, and it is difficult to capture these kinds of complex interactions in a sensitivity analysis. While sensitivity analysis may help understand how a policy would perform under changing market conditions, it should not be seen as providing accurate predictions so much as illustrating the degree to which the basic findings are dependent on the specific inputs.

At the same time, the results of this kind of analysis can be challenging to communicate. None of our participants, for example, argued that the results of a sensitivity analysis should be highlighted in presentations to city councils and the general public. But participants generally agreed that sensitivity analysis was nonetheless worth the trouble and cost. Several recommended including the analysis as an appendix to the final feasibility study. Even if it is not widely read and understood, a sensitivity analysis provides a meaningful test of the generalizability of the results of the study. If a study finds that a particular combination of requirements and incentives is generally feasible, but the sensitivity analysis found that this was only the case under a very limited range of potential assumptions about market conditions, policymakers would want to proceed more cautiously than if the sensitivity analysis found a similar feasibility under a wide range of assumptions.

Even real estate professionals often underestimate the extent to which feasibility studies are highly sensitive to certain key assumptions. Small changes in certain inputs like rent, construction costs, unit size and operating costs can make a big difference to the final results. A sensitivity analysis can help readers understand this limitation, even if they don't understand all of the complex calculations. This can help reduce the false sense of certainty that sometimes accompanies these studies.

D. Geographic Variation

When is it appropriate to study the feasibility of neighborhood submarkets?

Another challenge for feasibility studies is the fact that many cities have very different market conditions in different neighborhoods. Traditionally, studies have looked at the whole community as if it were a single market, identifying prototypes that were representative of realistic projects but not necessarily representative of the hottest or weakest market locations within the city. Convening participants all agreed that this kind of analysis was still appropriate in most cases, though many also felt that when budgets allowed, it would often be beneficial to study submarkets.

Value of Submarket Analysis

Outside of a few high-cost suburbs, most cities have significant variation in rents and prices between different neighborhoods. It is not uncommon for development to be highly profitable in one part of town even while rents remain too low for feasible development in other areas. When studies are conducted on a citywide basis, they are sometimes misunderstood or misrepresented as offering a more complete picture of feasibility than they do. Take for example a study that found that a 10 percent affordable housing requirement is feasible for a five-story wood frame rental prototype. The study may clearly state that the prototype is just one example of a realistic project and that different projects will have different results, but in the press of debating a proposed policy, stakeholders often talk about the finding as if it meant that all five-story projects could support 10 percent affordable housing.

When the study includes multiple submarkets, it may be more likely that policymakers will notice that requirements that are easily absorbed by projects in strong market locations will be more challenging or entirely infeasible in weaker market locations. Participants agreed that in some cases, this additional complexity in analysis could lead to better and more nuanced policy proposals, as policymakers were forced by the analysis to grapple with more of the real complexity of the real estate market.

In addition, a submarket analysis may make it possible to explore potential fair-housing implications of a proposed policy design. By looking at how potential developers in different neighborhoods are likely to respond to the policy, it is sometimes possible to roughly anticipate how a policy will impact where future development is concentrated. The racial composition of neighborhoods that are likely to experience future growth can be an important consideration in the design of an inclusionary housing policy, but it is hard to evaluate without a submarket analysis of feasibility.

Limitations

Participants, however, identified a number of important limitations to submarket analysis, which led some to conclude that they may not always be desirable, even in communities with clear submarket differences.

In communities where the variation in rents and prices is relatively low, the cost of completing a submarket analysis is likely not warranted. It can be difficult and expensive to obtain appropriate data for submarkets within a city. This is particularly true for submarkets where development has not been happening recently. Where a citywide analysis can rely on recent real projects, a submarket analysis sometimes involves imaging hypothetical development in neighborhoods that are not currently seeing any building.

Policymakers and the general public struggle to digest the complex findings contained in most feasibility studies. Every study includes multiple prototypes and requirements that are feasible for one prototype may be infeasible for another. When we add multiple submarkets, the number of bottom line results multiplies in a way that makes it difficult for people to see clear patterns.

A submarket analysis tends to lead policymakers in the direction of geographically targeted inclusionary housing requirements. If different levels of inclusionary requirement are supportable in different neighborhoods, why not impose different rules in each area? But, while it is relatively easy to analyze feasibility in different areas, drawing clear and reliable boundaries between these areas is much more challenging. For example it may be clear that central areas command higher rents than outlying neighborhoods, but where does one area end and the other begin?

Data on typical prices by neighborhood is hard to obtain, but data on economic boundaries is entirely non-existent. Existing geographic boundaries (e.g. zip codes, council districts) often run down the middle of major streets, which can lead to situations where projects across the street from one another would face different inclusionary requirements. In addition, neighborhood-level markets can shift more quickly, and it is unlikely that a city could update the map quickly enough to capture affordable housing in areas that are gentrifying. The difficulty of drawing and updating these maps leads some participants to suggest that it is often better not to undertake the submarket analysis in the first place. This is particularly true for smaller cities or other jurisdictions that may not have sufficient capacity to implement a more complex, geographically varied program.

Other participants argued that where there are significant neighborhood differences and enough data to complete a submarket analysis, it is better to do the analysis. After the analysis is complete, it may be that only certain essential elements need to be included in a final report, but it is better to have the information than not to.

Ultimately, several participants suggested that even when studies are completed without explicit submarkets, they often incorporate some elements of this analysis simply because they include multiple development prototypes which often correspond, informally, to different parts of town. For example, a community may see both high-rise rental and townhouse development, but they are generally happening in different neighborhoods. So, if a study really captures the full range of currently feasible development types, it will also generally reflect, to some extent, the range of different neighborhoods.

E. Transparency

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

Inclusionary feasibility studies are highly sensitive to the inputs selected. Participants agreed that two reasonable and professional consultants could draw quite different conclusions about feasibility if they started with different assumptions. While a significant share of the effort in these studies goes into researching the appropriate input assumptions, the bottom line is that there is often a range of reasonable assumptions that can be used. For this reason, all convening participants agreed that public transparency is critical to the success of inclusionary feasibility studies.

Participants discussed how much information should be shared and how best to make detailed background assumptions digestible by readers with limited time and attention. Repeatedly, participants indicated specific assumptions that they felt should always be clearly disclosed in reports but identifying a pattern or standard for appropriate transparency was more challenging. One participant suggested using reproducibility as the standard. While two researchers evaluating the same market might draw different conclusions, if their reports are fully transparent they should each be able to reproduce the other's findings and identify the different assumptions that led to different conclusions. A fully transparent report will include enough background information to enable another professional to derive the same results given the same inputs.

Feasibility studies have not always met this reproducibility standard. Many studies conceal key assumptions within a black box—asking the reader to take the consultant's word on the results.

Technical Advisory Committee

One suggestion that was made repeatedly and widely supported was the idea that greater transparency (and accountability) could be achieved through a public working group or technical advisory group. Some cities have convened stakeholder groups (including developers and affordable housing advocates) to advise consultants in the process of completing a feasibility study and to help identify key local market data to use as inputs in the model. Sometimes this group is a subcommittee of a broader working group and sometimes it is a special purpose technical group. Sometimes it meets repeatedly over several months, other times it is convened only once.

All of the consultants we engaged reported that some of their studies had been completed in close coordination with this kind of advisory group, but it seems that the majority of studies don't include any formal group. But, given the infrequency with which this has been practiced, there was surprisingly strong support among convening participants for this approach. Many participants agreed that this process could lead to better outcomes—both a stronger, clearer study and a stronger connection between the economic analysis and the political process of policy adoption.

Consultants were able to use this kind of technical committee to collect and vet revenue and cost assumptions (generally in addition to completing developer interviews) and, perhaps more importantly, the process forced consultants to explain their methodology, and in some cased modify their methodology based on feedback from local stakeholders. This process seems to help stakeholders, including people not involved in the committee, to understand and trust the final product. And, when these committees include people who might generally disagree about the policy, the committees have provided an important forum for resolving some differences and paving the way for political compromise.

This is somewhat surprising because it seems like there would be a real risk that political conflict would complicate and hinder the economic analysis, but for the most part, the consultants who participated in this convening had not seem that happen. Several reported

experiencing just the opposite: working together to form a shared understanding, the underlying economics often helped political stakeholders to take more moderate/ less polarizing positions. One participant reported that engaging stakeholders throughout the process meant that by the time a political decision had to be made, a number of key people were invested enough to be more willing to make compromises. Several described this constructive engagement of stakeholders as among the most important outcomes from these feasibility studies because it brought facts and figures to what would have otherwise have been a purely political decision.

Communicating the limitations of the analysis

One of the themes that emerged repeatedly throughout the convening was the challenge of communicating the degree to which feasibility studies were inexact. All convening participants seemed to agree that the results from even the best feasibility study should be understood as approximate. And yet, participants also agreed that local policy stakeholders have a tendency to talk about the results as if they were much more precise than they realistically can be. One participant suggested that stakeholders seem to want feasibility studies to return numbers like a real estate appraisal, 'you can require exactly this much and no more.'

But these studies are very much not like appraisals. Appraisals are not perfect either, but lenders rely on them to establish a likely value for a property because their findings are based on clear and widely available data from a large number of comparable properties. Feasibility studies involve more complex calculations based on less widely available data. There is generally good public data on rents and home prices, but the studies also rely on assumptions about land values, construction costs, operating costs, unit sizes, parking costs, and dozens of other factors that can't be obtained from any public data source.

As a result, consultants must rely on interviews with developers and sample project budgets from, at most, dozens of recent projects. The best studies rely on data from real project proformas, but, these projects can be very different from one another; the consultant must make educated assumptions in order to propose a more generic hypothetical prototype. In addition, these real project proformas are necessarily backward looking; they reflect the costs faced by projects in the recent past, which may be less than what projects will face in the near future.[6] The result is that while two certified appraisers are likely to return very similar value estimates in most cases, two well-conducted feasibility studies could still draw very different conclusions about the feasibility of inclusionary housing requirements.

One participant described the difference this way: "Feasibility studies are just squishier." They are more dependent on specific input assumptions and more open to interpretation.

To some extent, participants seemed to agree that feasibility studies were more open to manipulation or error, but it was also clear that participants felt that even very well-intentioned and diligent analysts could produce different results in the same context. One source of this 'squishiness' is the fact that multi-family development projects are so different from each other, but these studies generally only look at a small number of prototypes. When a study shows results for a particular hypothetical project type, the results might be quite accurate for that specific imagined project, but if they were to imagine a different project, they would see different results. So, if two researchers studying the same market found different results, it might be because they were imagining slightly different hypothetical projects. In that case, both of their findings could be accurate (in the sense that they represented realistic potential projects), even though they offered different views of the feasibility of inclusionary requirements.

Communicating this limitation is critical because policymakers and the public may be surprised when feasibility study results don't reflect the profitability of specific real projects. Inevitably, there will be some situations where a city might have required more, and the developer would have been able to make the

[6] *One participant pointed out another limitation of real project data which is that not every project that gets built is actually "feasible." Developers regularly loose money but feasibility studies tend to rely on projections made long before a project is built, rather than the final results.*

project work and other projects that can't move forward as a result of otherwise reasonable requirements. Understanding the limitations of the feasibility analysis may help policymakers see that the goal is for inclusionary zoning ordinances to "hit the sweet spot" while recognizing that the ordinances may need to find other ways to deal with the outliers (i.e. appeals process for developers or different inclusionary zoning standards for mega projects in a new specific plan area).

In general, convening participants tended to see sensitivity analysis (see above) as the best way to communicate this 'squishiness' to policymakers and the public. Another alternative that some described using was providing ranges in place of specific numbers. For example, one consultant described calculating residual land value ranges rather than specific numbers in places where land prices were especially volatile. This has the benefit of 1) being more honest about the challenge of pinning down a single land value, and 2) expressing the results in a way that does not rely false precision.

Policymakers would prefer a situation where the feasibility studies looked at all possible projects and evaluated the share of projects where the proposed inclusionary requirements were feasible, but that is not what any of the established feasibility study methodologies currently do. Several alternative data-driven methodologies[7] which provide more market-wide results rather than relying on small numbers of example projects were discussed, but none of these approaches has been fully developed and widely adopted.

F. Conclusion: The Value of Feasibility Studies

Fundamentally, this discussion about communicating limitations reflects a widespread misunderstanding of the value and purpose of inclusionary housing feasibility studies. The professionals most involved in producing these studies seem to share a view of their value that differs in important ways from the value that some local stakeholders imagine them providing. If two competent researchers could draw different conclusions, some might conclude that neither of their findings are valid.

Our participants generally responded that the value of these studies was that they grounded policy decisions in real economics. Instead of providing a definitive answer to what is feasible in all cases, they should be seen as providing a reality check. While it might be preferable to have a more appraisal-like study, that is not currently possible. It is possible to clearly illustrate the impact of policy choices on realistic projects, and even this more limited information can make a big difference in policy choices. The best studies show how proposed policies would impact a handful of typical projects, and that insight is enough to change how policymakers think about inclusionary housing policy options.

One participant suggested that instead of seeing consultants as oracles divining the true limits of the market, it was better to see them as playing an intermediary role between the real estate industry and the public. Developers are understandably reluctant to share their project financials publicly, but consultants can bring real data to the table in a way that protects the confidentiality of individual project results but makes the underlying economics accessible to the policymakers and the public. In this view, a key benefit of these studies is public education. They help housing advocates, elected officials and members of the public understand the risks and limitations that real estate developers face and give some insight into what kinds of returns are common. These are important issues to understand before setting an inclusionary housing policy.

[7] *For example, San Francisco completed a regression analysis based on historical data on all housing development projects, which provided insight into the sensitivity of development to changes in cost such as changing inclusionary requirements.*

But while participants don't think that the unavoidable 'squishiness' of these studies makes them less valuable, it does point to a core communication challenge. How do we communicate this inherent imprecision in feasibility study results without undermining their usefulness? Everyone agreed that these studies are valuable and even necessary, but there was also widespread agreement that it would be helpful to slightly lower public expectations regarding the degree of certainty that they can provide.

Participants suggested a few responses to this communication challenge. One was to provide results in ranges or brackets in order to communicate to readers that the results are more approximate. Most studies provide very specific findings with precision to the dollar, and this tends to imply a greater degree of certainty than may be appropriate. Similarly, including a sensitivity analysis can reinforce the idea that the specific numbers provided are merely examples within a range of results that could be possible.

A broader suggestion was to encourage jurisdictions that are commissioning studies to focus on finding reasonable rather than optimal policy options. There has been an increased interest in setting inclusionary requirements at the maximum feasible level. In the past, elected officials were more likely to approach inclusionary housing requirements with great caution. As the housing crisis has grown, public pressure on local governments to do everything in their power to respond has led to a new focus on maximizing the inclusionary requirements. This has changed the expectation for some feasibility studies. These studies are well suited to evaluate whether a proposed requirement is reasonable, but the methodology for these studies is not well suited to answering questions about the optimal or maximum requirement. To some extent, this is simply a difference in how the questions for the study are framed in the RFQ or Statement of Work.

Attachment A

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:

- **A** Review previously completed housing and economic feasibility studies.
- **B** Review relevant state laws and regulations [such as the California State Density Bonus law (GC 65915) and AB 1505 (2017)].
- **C** 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.
- **D** Collect data related to revenues and costs for projects similar to the identified prototypes.
- **E** Collect data from developers and investors to document the profitability of residential real estate under current conditions.
- **F** 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).
- **G** 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.
- **H** 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.
- **I** [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]
- **J** Conduct a sensitivity analysis to identify the extent to which variations in key inputs such a market rents or construction costs would lead to different findings regarding feasibility.

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:

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

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

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

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

Ⓔ [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.]