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Filling the Void Between Homeownership and Rental Housing:

A Case for Expanding the Use of Shared Equity Homeownership

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Most discussions about expanding access to homeownership take as a given that we know exactly what homeownership is. The questions then usually fall into a predictable pattern: What are the risks and benefits of homeownership? How might it be expanded and what are the costs and benefits of the different options for doing so? How can positive homeownership outcomes (e.g. use of homeownership to access better neighborhoods) be maximized while minimizing negative ones (e.g. foreclosure)?

But what if we were to take a step back and re-examine the definition and scope of the end goal itself? As others have observed, there is a lot of room in between the extremes of "rental housing" and "homeownership."[2] By considering alternative configurations of the bundle of attributes that make up the traditional definition of homeownership, we can open up new options for informing the policy debate and potentially develop new and more cost-effective approaches for advancing key societal goals.

Following some initial reflections on the definition of homeownership, this paper focuses on a set of policy options that fall in between the traditional tenure options of rental housing and homeownership and are sometimes referred to collectively as "shared equity homeownership."[3] As I use the term:

> *Shared equity homeownership (SEH) is a tenure choice that provides most of the benefits of homeownership at a lower price point, facilitating access to homeownership by low- and moderate-income households. Under SEH, home price appreciation is shared between the homebuyer and the program sponsor to achieve a balance between the individual's interest in building wealth and the community's interest in ensuring long-term affordability.*[4]

[2] See, e.g., Apgar 2004.

[3] It is important to note that the term "shared equity homeownership" has been superimposed upon a diverse landscape of alternative tenure options, rather than one that grew organically from the field. Many practitioners of what I call SEH do not necessarily use or endorse this term and, as discussed below, there are differences of opinion about which programs fall within SEH. Despite these issues, I find the term a useful one for categorizing a diverse set of programs that share related goals and can be used to produce similar outcomes. Most importantly, the programs that fit this definition provide a suite of benefits that, in my view, compare favorably with traditional homeownership and merit greater attention and investment.

[4] Shared equity homeownership programs can help advance other individual and community goals, but their salient characteristic is a balance between individual wealth accumulation and long-term affordability. Other individual benefits of shared equity homeownership are discussed below, under "Re-Thinking the Traditional Homeownership Paradigm." Other community benefits include: increased residential stability, improved diversity, and equitable access to neighborhoods of opportunity.

Specific policy options for implementing SEH include community land trusts (CLTs), limited equity cooperatives, deed restrictions, and shared appreciation loans.

The benefits of SEH go beyond initial affordability. When implemented effectively, SEH can reduce many of the risks of traditional homeownership, providing a safer and more sustainable housing option for low- and moderate-income households, while still providing sizable opportunities for households to build wealth. SEH also provides a mechanism for preserving the buying power of government and philanthropic investments in the face of rising home prices, allowing a single investment to help one generation of homebuyers after another. Because it can be used to assure long-term affordability of specific units, SEH also has an important role to play in helping to ensure that families of all incomes can afford to live in gentrifying areas near public transit stations, job centers, and effective schools.

I am acutely aware of the risks involved in asserting such sweeping benefits for such a littleknown and sparingly used tenure choice. We are all justifiably skeptical of things that sound “too good to be true.” But this is one time when I believe the case is so compelling that the field needs to be open to shifting its paradigms to accommodate it. There are certainly limitations to SEH – particularly, challenges with going to scale and the potential for confusion by homebuyers. But I believe the policy case overwhelmingly favors greater use of these tools, particularly in cases where sizable public subsidies for homeownership are already being provided directly (e.g. through grants or forgivable loans) or implicitly (e.g. through inclusionary zoning or density bonuses, as applied to homeownership units).

Re-Thinking the Traditional Homeownership Paradigm

Current or prospective homeowners may view homeownership as a binary option – either you own a home or you don’t. But I prefer to see it as part of a broader continuum of tenure choices, characterized by a particular set of attributes. These attributes generally cluster together closely so that we think of them as a single package. But it is quite possible to reconfigure them so that a new tenure choice is created that contains some of these attributes and not others. For some people, or in some cases, this new tenure choice may be a better (or worse) option than traditional homeownership.

In defining these attributes, I prefer to use a policy lens – focusing on the benefits and risks – rather than a legal lens (i.e., specific property rights). In Table 1, I've provided a list of selected benefits and risks of traditional homeownership that can help illustrate its contrast with shared equity homeownership. To facilitate this comparison, I've assumed the use of a well-underwritten 30-year fixed-rate mortgage.

Table 1

Benefits of Traditional Homeownership

1. Generally provides security of tenure – if you pay your bills on time, you can't be evicted
2. Homeowner has significant freedom to shape physical environment of the unit/property
3. Most housing costs are frozen at affordable levels, and, as incomes rise, costs become even more affordable over time
4. Forced savings through paydown of principal
5. Opportunity to build sizable assets if home prices improve over time
6. It may be the only way to access certain neighborhoods with desirable features, such as high-performing schools

Risks/Drawbacks of Traditional Homeownership

1. Home prices may stagnate or decline, causing a loss upon resale
2. In certain markets or under certain conditions, it may be difficult to find a buyer at an acceptable price, inhibiting mobility
3. Many buyers end up with most if not all of their assets tied up in a single asset class (real property)
4. Some homeowners may struggle with upkeep of their home
5. Many would-be buyers cannot afford to buy a decent-quality home in a desirable neighborhood. As a result, they either do not buy or buy a lower-quality home in a less desirable neighborhood

As the nation has learned the hard way over the past half-decade, homeownership can be a risky proposition.[5] Among other risks illustrated in Table 1 are the risk of loss on resale, an inability to sell one's home and move to a new location when needed or desired, and assets that are overly concentrated in a single asset class. High transaction costs exacerbate many of

[5] See generally, Joint Center for Housing Studies, Harvard University 2012 and Carr and Anacker 2012.

these problems. In addition, homeownership remains out of reach for many households that might otherwise desire it because of high costs and/or credit requirements. While housing prices have come down significantly from their peak in 2006, credit requirements have gone up, so many would-be homebuyers are nevertheless unable to purchase.

Faced with these risks and drawbacks, one might be tempted to look at rental housing as an alternative, and to a significant extent this is justified. But given the many benefits of homeownership noted in Table 1 – including security of tenure, greater freedom to shape one's physical environment, the freezing of most housing costs, and the ability to build assets through paydown of principal and home price appreciation – it is worth looking hard at whether homeownership can be modified in a way that substantially reduces the risks and drawbacks, while preserving as many of the benefits as possible.

This is precisely what SEH seeks to accomplish by producing a new form of tenure that provides most of the benefits of traditional homeownership, but with a much lower risk profile. While I do not believe that SEH is appropriate for everyone who wishes to purchase a home, I do think it is fair to say that for many low- and moderate-income households, SEH provides a superior risk / reward profile to traditional homeownership. I also believe that it is a more efficient and effective way to use scarce public funds as compared with large grants or forgivable loans (which convert to grants over time) for homeownership.

The rest of this paper will explore this argument in greater detail, focusing initially on describing how SEH works, then discussing how it mitigates some of the risks of traditional homeownership while retaining most of the benefits. The final sections of the paper describe the principal limitations of SEH and how those limitations might be addressed to help take it to scale.

How Does SEH Work and What Are Its Principal Benefits?

Under SEH as defined here, a program sponsor (such as a nonprofit organization, a local government, a community land trust, or philanthropy) provides a subsidy to reduce the costs of purchasing a home to a level affordable to a buyer at a target income level.[6] The buyer then purchases the home at the reduced level with standard financing – generally, a 30-year fixed-rate mortgage – and occupies the home as would a traditional homebuyer. On resale, a formula is used to determine how any home price appreciation is shared between the homebuyer and the program sponsor. The sponsor's share is used to preserve affordability to the next buyer, which can be done in one of two main ways: (a) by keeping the subsidy in the property by capping the resale price (subsidy retention) or (b) by using the subsidy to augment the amount of assistance provided to the next buyer to keep pace with rising home prices (a shared appreciation loan or mortgage).[7]

To illustrate, assume a home sells for (and has a market value of) $250,000 but a household at the target income level can only afford a $200,000 mortgage plus a $10,000 down payment. In this case, the program sponsor provides a $40,000 subsidy, allowing the buyer's $210,000 to be sufficient to purchase the home.

On resale, a formula is used to determine how any home price appreciation is split. Let's say that this particular SEH program seeks to maintain the affordability of specific units by capping resale prices and requiring that the home be sold to a borrower at or below the target income level. Under this SEH program's formula, 75 percent of appreciation stays in the home and 25 percent goes to the buyer.

Assume the home is sold six years later at which point it has a market value of $280,000 (after accounting for transaction costs) -- $30,000 more than its original value of $250,000.[8] Based on the equity-sharing formula, the household receives 25 percent of this appreciation (or $7,500) and the rest stays in the home, lowering its cost to the next buyer. This is implemented by restricting the resale price to the amount the buyer originally paid ($210,000) plus the buyer's share of home price appreciation ($7,500), for a total resale price of $217,500. The

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[6] The target income level varies by program, but the basic idea is to help low- or moderate-income households that cannot afford market-rate homes in the neighborhood(s), city(ies), or market served by the sponsor.

[7] For more information on the latter option, see the discussion of "Subsidy Retention vs. Shared Appreciation Loans," below.

[8] This assumes a three percent annual appreciation rate and a six percent broker's commission – relatively conservative assumptions.

next buyer purchases the home with the same resale restrictions, as does the one after that, etc., generally assuring the home stays affordable over time.

This process achieves several goals:

- It brings home purchase within reach of households that would not otherwise be able to afford it or that could not otherwise afford to purchase a decent-quality home in a neighborhood with desired attributes (e.g. a good school district or within walking distance of public transit, etc.).
- It uses a single subsidy to provide long-term affordability to multiple purchasers of a home over time. The value of the subsidy actually grows over time, increasing from $40,000 initially to $62,500 for the second buyer, helping the second buyer afford the home.
- By preserving the affordability of specific homes, it can be used to provide a mechanism for ensuring that low- and moderate-income households have access to affordable homes in neighborhoods with good schools or that are likely to experience gentrification, such as high-demand neighborhoods near public transit stations or job centers.

The program also provides the buyer with an opportunity to build individual assets, composed of two parts: the buyer's share of home price appreciation and the forced savings achieved through the paydown of principal. If we assume our hypothetical buyer took out a mortgage at 5 percent interest, the buyer would have paid off $20,129 of its $200,000 mortgage after six years. Adding this to the $7,500 in home price appreciation, the buyer walks away with $27,629, more than two and half times the buyer's original $10,000 investment.

While this is certainly much less than the buyer would have garnered had the buyer purchased the home through traditional homeownership ($50,129), it greatly equals or exceeds the return on investment one would expect from the stock market or just about any other form of investment other than traditional homeownership. And remember, the buyer could not have afforded to purchase the home at its full price in any event.

Now all this sounds good on paper, but how does SEH perform under real-world conditions? An evaluation by Kenneth Temkin, Brett Theodos, and David Price of the Urban

Institute sought to answer this question by examining historical data on the performance of seven shared equity homeownership programs from around the country.[9] They found that the programs achieved their basic goals of providing homes that were affordable both to the initial buyers and to purchasers on resale, while providing (overall and in six out of seven of the programs) returns on investment that exceeded that of the stock market or a Treasury bond.

The seven programs examined in this study are not necessarily representative of all shared equity homeownership programs nationally, but because this study is the only available source of data on real-world performance of SEH programs collected in a consistent manner across multiple programs, it is worth pausing briefly to summarize the principal findings:

- The median income of purchasers ranged from a low of 35 percent of the HUD family area median income (AMI) in the Wildwood Park program in Atlanta to 73 percent of AMI in the Dos Pinos program in Davis, CA, with the five remaining programs ranging from 45 to 63 percent of AMI.
- On resale, the homes generally remained affordable to low-income households, with the mean annual change in real income needed to afford to purchase the homes on resale falling in two sites, increasing by 0.5 percent or less in two other sites, and increasing by only one to two percent in two other sites. The final site (Arch, in King County, WA) saw larger increases of four percent per year, though homes remained affordable even there to buyers well below the median income.
- The median amount spent by purchasers on down payment and closing costs was generally (but not always) very low, falling below $3,000 in three programs, and equaling approximately $6,000, $18,000 and $40,000 in the remaining sites. (Data were not available for the seventh program.)
- The median home price appreciation realized at time of resale ranged from a low of $2,015 in Atlanta to a high of $42,524 in Seattle, with four programs clustering

[9] Temkin, Theodos, and Price, 2010. The evaluation is based primarily on administrative data held by each program, the time period of which varied from program to program. The seven programs covered were: "the Champlain Housing Trust (CHT), located in Burlington, Vermont; Northern Communities Land Trust (NCLT) in Duluth, Minnesota; Thistle Community Housing in Boulder, Colorado; the Dos Pinos Housing Cooperative in Davis, California; Wildwood Park Towne Houses in Atlanta, Georgia; A Regional Coalition for Housing (ARCH) in eastern King County, Washington, and the San Francisco Citywide Inclusionary Affordable Housing Program."

between $4,171, and $8,107 and one program (in San Francisco) generating $17,321. This was in addition to the principal paid down on mortgages, which generally fell between $2,400 and $4,000.

- As calculated by the authors, the Internal Rate of Return on purchasers' investment of down payment and closing costs ranged across a broad span from 6.5 percent in Davis to 59.6 percent in Seattle, with San Francisco (11.3 percent), Atlanta (14.1 percent), Boulder (22.1 percent), Burlington (30.8 percent) and Duluth (39 percent) falling in between, beating the S&P 500 everywhere but Davis – in most cases, by a longshot.

How Does SEH Mitigate the Risks and Drawbacks of Traditional Homeownership?

The discussion above focuses on what SEH provides: initial affordability, long-term subsidy preservation, long-lasting affordability, and substantial opportunities for owners to build assets (though the ability to accumulate assets through home price appreciation is admittedly reduced relative to traditional homeownership). But another beneficial feature of SEH is what it helps guard against: equity loss, immobility, and foreclosure.

A simple example illustrates how this works. Say you buy a home with a market value of $300,000 through a SEH program for $240,000. Now let's further say market values go down by $10,000 so that at the time you want to sell your home, it is now worth only $290,000. Under traditional homeownership, you would either be stuck and unable to move or you would have to sell at a loss. But the SEH owner may very well find a buyer willing to pay $240,000 (plus whatever transaction costs may be involved)[10] to avoid a loss. Indeed, if the resale formula were to permit a higher sales price because it was tied to something other than appraised values – for example, increases in incomes rather than home prices – it's even conceivable the SEH purchaser would be able to find a buyer at the higher level (say $250,000 or $260,000), since these prices are still well below market value and thus likely a good deal for

[10] Many SEH programs sell their homes directly and thus do not utilize brokers who charge commissions. They may nevertheless charge a fee to help cover the costs of monitoring affordability, qualifying the next buyer, and otherwise ensuring good stewardship of their homes. Other SEH programs utilize real estate agents, though sometimes at reduced fees.

the buyer.[11] As this example illustrates, SEH can be used to guard against equity loss and immobility tied to home price declines, and when market prices go down, may actually lead to greater asset accumulation for buyers than under traditional homeownership.

As one might expect, the ability of a SEH program to act as a cushion against home price declines depends to a large extent on the size of the subsidy: all things equal, the larger the subsidy is as a share of market value, the more likely it is to provide downside protection to a SEH owner. (If the subsidy is small to begin with and the market decline is large, a SEH buyer may still be forced to sell at a loss since SEH units will always sell at a discount relative to the market.) Since subsidies vary widely across SEH programs, some programs will provide better downside protection than others. But in a market in which homes prices are generally rising faster than incomes over time – thus raising the possibility of a bubble that leads to a crash in home prices – the size of any subsidy is likely to grow over time (due to the retention of a share of home price appreciation) so that what starts out as a fairly modest subsidy could turn into a much larger subsidy 20 or 30 years down the road, increasing the downside protection it provides.

Another benefit of SEH is the protection it offers against serious delinquency and foreclosure. An analysis of survey data provided in 2011 by a large sample of Community Land Trusts – one approach to implementing SEH – found that just 0.46 percent of Community Land Trust homes were in foreclosure and just 1.30 percent of their loans were seriously delinquent.[12] These rates were much lower than comparable rates for the broader housing market, as measured by data from the Mortgage Bankers Association, which showed a foreclosure rate of 4.63 percent and severe delinquency rate of 8.57 percent. This difference is all the more remarkable given that Community Land Trusts tend to focus on assisting low-income buyers. The lower default and foreclosure rates are likely due to the greater

[11] The owner's ability to sell the property for the higher price will depend both on whether a buyer can be found for that price and whether the higher price is allowed under the equity sharing formula. As described under the summary of equity sharing formulas below, different programs use different approaches for calculating the maximum resale price. A program that bases resale prices on changes in appraised values would not likely allow the higher price since appraised values have gone down, rather than up, but a program that bases resale prices on some other variable – for example, changes in the area median income – may well allow the higher price if that index has risen.

[12] Thaden 2011.

affordability of the Community Land Trust homes at the outset – there was little chance for predatory lending – as well as the special efforts that CLTs made to manage their loans to help identify and assist owners in trouble before their problems escalated. Some SEH programs also impose limitations on the ability to refinance (generally a review and consent provision) to ensure that buyers do not end up refinancing into a predatory product.

It is difficult to disentangle the impact on delinquency and foreclosure rates of effective stewardship of CLT homes – facilitated by very small portfolios and perhaps difficult to scale up – from the broader impact of the SEH structure used by CLTs, which helps to ensure both initial and ongoing affordability and generally provides some degree of cushion against market declines. It is also important to emphasize that SEH is no guarantee against foreclosure or equity loss. When faced with historic market declines in the late 2000s, even SEH homeowners were affected, with some owners unable to sell their homes for the prices they had expected or even at a level sufficient to repay their mortgages.

SEH provides a buffer, not foolproof insulation. But what it does do is essentially smooth out the rough edges of unpredictable homeownership markets. Under normal market conditions, SEH buyers have the opportunity to build predictable levels of assets, but not the ability to make a killing if prices temporarily go through the roof. At the same time, they are provided with some downside protection that can help them weather modest market slowdowns without losing equity. All this, while also expanding ownership opportunities to households that might not otherwise be able to purchase, while preserving the buying power of public subsidies for the next group of households looking to get a start as a homeowner.

What Are the Variations in Program Design Among SEH Programs?

The above discussion generally treats SEH as a single construct. But as reflected in the Temkin, Theodos, and Price (2010) evaluation and in Davis' (2006) encyclopedic examination of the subject, SEH programs are very diverse, spanning the spectrum from programs targeting very low-income households (incomes at or below 50 percent of the area median income) to programs targeting households right at or just above or below the median income. Many programs operate in high-cost markets – particularly in California and the Pacific Northwest – where even moderate-income households struggle to purchase a home. Others operate in lower-cost markets, where SEH is used to push homeownership down to very low-income households, build a sense of cohesion and community within specific developments, or simply keep pace with rising home prices.

SEH programs vary across many dimensions. The following is a brief overview of key programmatic differences:

Subsidy Retention vs. Shared Appreciation Loans

Perhaps the most fundamental distinction among SEH models is between (a) 'subsidy retention' models that focus on maintaining the long-term affordability of specific housing units and (b) 'shared appreciation' loans or mortgages that preserve the capacity of program sponsors to assist future households in the face of rising home prices by requiring a portion of home price appreciation to be repaid along with the principal balance of a loan. These two program variations roughly mirror the split among rental assistance programs between project-based and tenant-based options; in the first instance, the subsidy stays with the unit, in the second, it is transportable to where beneficiaries choose to live.

The extended example discussed in the prior section falls into the first camp of 'subsidy retention,' under which a subsidy is used to reduce the purchase price of a home and then long-term affordability is assured by specifying a maximum resale price of the home to the next buyer, who purchases the unit subject to the same basic resale restrictions. A similar outcome is achieved in a limited equity cooperative model (see next section) by regulating the resale price of cooperative shares. Subsidy retention models excel in assuring the affordability of specific housing units, making them a good choice when the location of assisted units is particularly important. For example, a program seeking to maintain affordability in a neighborhood expected to experience gentrification may wish to lock up the affordability of specific homes within that neighborhood, as there is no assurance that similar units will be available when the next purchaser is looking to buy.

Under a 'shared appreciation' loan or mortgage, by contrast, the subsidy is provided in the form of a second or third mortgage that is repaid to the program sponsor at the time of resale along with a share of home price appreciation. (No payments are generally due while the buyer is living in the home, helping to ensure affordability.) This allows the program sponsor to provide a larger loan to the next purchaser, helping to keep up with rising home prices and allow subsequent buyers a similar range of choices as the prior buyers. Since the homes are sold at market prices to unrestricted buyers, these loans do not preserve the long-term affordability of specific units. However, they often provide greater choice to home purchasers, who can purchase any unit within a set price range, rather than a narrower range of units subject to long-term resale restrictions. They are thus a good option for programs that are flexible about the location of assisted units, permitting purchasers a wide choice of units within the city or metro area or within a range of neighborhoods.

Different Types of "Shared Appreciation" Loans or Mortgages

The term "shared appreciation" loan or mortgage can be used to describe a number of different products, some of which fall within my definition of SEH, while others fall outside. My definition encompasses shared appreciation loans that are (a) funded by an explicit or implicit subsidy; (b) sponsored by a non-profit, public entity, or philanthropy; and (c) have as one of their primary goals to maintain long-term affordability.

There is another form of shared appreciation loan, however, typically made by a for-profit entity, that focuses entirely on making the unit affordable to the initial purchaser, without a primary goal of maintaining long-term affordability to subsequent purchasers. These are sometimes called by the industry "shared appreciation mortgages" or SAMs.

There is a legitimate role in the marketplace for both types, but the latter type falls outside the scope of this article primarily because it does not focus on maintaining long-term affordability. This is largely due to the fact that in a private SAM, the program's share of home price appreciation goes to the investor as its return on investment.

For an analysis of this distinction and the sometimes blurry lines that mark it, see Lubell and Ryan 2009.

Practitioners generally agree that subsidy retention programs qualify as SEH. Opinions differ, however, on whether the second category of shared appreciation loans qualifies as SEH.[13] While excluding privately financed shared appreciation mortgages (see box), I consider

[13] Compare Jacobus and Lubell, 2007 – arguing that shared equity homeownership encompasses both subsidy retention models and shared appreciation loans – with Davis 2006, who only includes subsidy retention models within the definition of SEH.

most other shared appreciation loans to be a category of SEH. This is because they can be used to achieve all of the basic goals of SEH, including: initial affordability, long-term affordability, and individual asset-building. Indeed, the exact same equity sharing formulas can be used for both subsidy retention and shared appreciation models, with the same basic impact on long-term affordability and individual asset-building.

By contrast, others see shared appreciation loans as a different concept altogether and choose not to categorize them together with subsidy retention models as SEH. One argument I have heard raised is that shared appreciation loans increase demand for market-rate homes, potentially leading to home price increases, while subsidy retention programs withdraw units from the private market and thus do not have this effect, at least for the reserved units.[14]

Whether subsidy retention models and shared appreciation loans are classified together as SEH or not, it is clear that they use somewhat distinct mechanisms, so it may not ultimately matter too much how they are categorized. It is also important to note that, in practice, some programs combine the two approaches. This is accomplished by providing buyers with a shared appreciation loan but giving the program sponsor the right of first refusal to purchase the home on resale. This provides the program with an option on resale either to convert units to subsidy retention units or to recapture the subsidy and the sponsor's share of home price appreciation for re-lending to the next buyer, depending on the program's needs and market conditions.

Legal Structure

SEH can be implemented through a variety of legal structures. Shared appreciation loans are most commonly implemented through second mortgages (or, if the household already has a second mortgage, through a third mortgage). Subsidy retention, by contrast, can

[14] Arguably, there could be an inflationary effect on the broader market in either case – in one case, by increasing demand for market-rate units; in the other, by decreasing the supply of market-rate units – but to the extent the shared equity activity helps support new construction or rehab activity it could have an offsetting effect of boosting supply. Whether shared appreciation loans have an inflationary effect presumably has a lot to do with how the program is administered, the ratio of shared equity to market-rate buyers, the effective use of appraisals to keep prices reasonable, and broader market conditions. Note the interesting parallels to the debate on the relative merits of tenant-based and project-based rental assistance.

be implemented in multiple ways, including: deed restrictions, limited-equity cooperatives, and community land trusts. The three approaches are described in Jacobus and Lubell (2007):

> *Deed-restricted Homeownership*. Under this common approach, the subsidy is applied to reduce the purchase price to a level affordable to homeowners at the target income level. Then, restrictions are put into place requiring that the units be sold to buyers meeting certain qualifications – for example, incomes below 80 percent of AMI [area median income] – at an affordable price as defined according to a formula set in the deed restriction or covenant. …
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> *Limited Equity Cooperative*. Under this approach – typically, but not exclusively, applied in the context of an apartment or other multifamily development – families purchase a "share" in the cooperative, rather than a standard property interest in the home. Members of the cooperative receive a right to occupy one unit, as well as a vote on matters of common interest. Cooperative members share responsibility for maintaining common areas and other areas of joint responsibility (e.g. maintaining the roof), as well as the admittance of new members. Share prices are set by formula (contained in the co-op's bylaws, subscription agreement and stock certificates). …*Community Land Trust*. Under this approach, the land is owned by a community land trust (CLT) and then leased to families who purchase the homes that sit on CLT land. Because the family needs to purchase only the building and not the land, a CLT home is more affordable than a conventional home. The ground lease establishes the conditions under which ongoing affordability is maintained, with the CLT always having the right to repurchase the property at an affordable price established by a resale formula built into the ground lease. …
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> One common approach to governing CLTs is to establish a board of directors consisting of an equal number of representatives of the following three groups: existing owners of homes on land leased from the CLT; residents from the surrounding community; and, public officials or other supporters of the CLT.

A full analysis of the benefits and limitations of these three approaches is beyond the scope of this article, but it is worth noting a few key issues:[15]

- *Limited equity vs. No equity*. Some limited-equity cooperatives provide little or no opportunity for individuals to build assets. Sometimes referred to as no-equity cooperatives,[16] these developments are focused primarily on providing ongoing affordability. Because shareholders hold many of the other attributes of ownership

[15] See Davis 2006 for a comprehensive discussion of the three approaches.

[16] See Davis 2006.

(notably, security of tenure and as much ability as full-equity cooperatives to control their physical environment), they definitely fall between the tenure extremes of rental and ownership. But because they do not facilitate individual asset-building, I would place no-equity cooperatives outside my definition of SEH.

- *Community-Building Features*. Cooperatives, by their very nature, have a communal aspect in that the shareholders own their development collectively and make decisions collectively about the future of the development. While Community Land Trusts generally extend far beyond a single development, they also have a communal dimension, facilitated by their unique governance structure that involves resident representatives in the decision-making process. Deed-restriction programs, by contrast, do not necessarily have a community-building component and may simply provide individual buyers with access to affordable homes.
- *Blurred Lines*. As reflected in much of the discussion above, this is not a field that lends itself to sharp definitional boundaries. As might be expected, then, there is much blurring of the lines between these categories. For example, Davis (2006) describes the combined use of Community Land Trusts and Limited Equity Cooperatives, with the land trust existing primarily to prevent cooperative members from voting to turn themselves into an unrestricted market-rate cooperative. Similarly, some Community Land Trusts have started to use deed restrictions to maintain long-term affordability rather than a ground lease, but still refer to themselves as community land trusts.

As of the time of his research, Davis (2006) estimated that, nationwide, there were 130,000 to 350,000 deed-restricted units, 425,000 limited or no-equity cooperative units (based on data provided by the National Association of Housing Cooperatives), and 5,000 to 9,000 CLT units operated by about 200 land trusts. A more recent analysis of survey data from a large sample of community land trusts notes a sharp rise in the establishment of CLTs between 2005 and 2010, but still estimates a total of 7,139 CLT units nationwide. [17] Since there is no national

[17] Thaden 2012.

source of data on deed-restricted units, the estimates for the size of this intervention span a particularly wide range.

Equity Sharing Formulas

Program sponsors have many options for sharing home price appreciation with the homeowner.[18] The following are some of the more common approaches:[19]

- *Appraisal-based formulas*. Under this approach, the home is appraised at the time of sale and the time of resale and the owner is allowed to retain a certain share of any home price appreciation. For example, the Champlain Housing Trust allows owners to sell their home for what they paid for it plus roughly 25 percent of home price appreciation. Many shared appreciation loan programs also use this approach, but allow the owner to retain a much higher share of home price appreciation; for example, it is common for programs providing a shared appreciation loan equal to 20 percent of the home price to require repayment of only 20 percent of the home price appreciation, allowing the owner to keep 80 percent.
- *Index-based formulas*. Under this approach, an index – such as the CPI or the Area Median Income (AMI) – is used to determine how much appreciation is retained by the owner. For example, if the AMI has risen by 20 percent since the time of purchase, a program that bases equity sharing on the AMI would allow the owner to sell the property for 120 percent of the original purchase price. This has the advantage of ensuring that once a property is made affordable to a target income level, it stays roughly affordable over time to that same level (with affordability varying only based on changes in mortgage interest rates).
- ***Affordable Housing Cost.*** Under this approach, a formula is used to determine how much a buyer at the target income level (e.g. 80 percent of AMI or 100 percent of

[18] Under any of these approaches, SEH programs have the option of increasing the resale price to account for investments by owners in home improvements, and many do so.

[19] For a general overview of equity sharing models, see Jacobus and Lubell 2007. Jacobus 2007, "Shared Equity, Transformative Wealth" provides a more detailed look at several of the models and how they work in different market conditions.

AMI) can afford, in light of prevailing mortgage interest rates, without reference to the original purchase price. This is the only approach that can truly guarantee affordability to the next buyer at the target income level without new subsidy, but it also places the risk of changing interest rates on the owner. If interest rates rise significantly, the maximum resale price can decline significantly – in some cases, leading to losses on resale even when home prices have otherwise increased.

As reflected in the description above of two very different approaches to setting appraisal-based formulas, program sponsors have wide flexibility to tailor resale formulas to meet the program's objectives. Aside from technical differences among the various formulas, the principal decision point in setting a formula is where to strike the balance between the goals of individual asset accumulation and long-term affordability. The Affordable Housing Cost model focuses primarily on long-term affordability, even at the expense of individual asset-building. The common shared appreciation loan formula of requiring owners to repay only 20 percent of home price appreciation when the program invests 20 percent of the purchase price in second mortgage assistance, on the other hand, places a much greater emphasis on individual asset-building, sometimes at the expense of long-term affordability.[20]

I prefer the AMI approach because it generally provides for a predictable level of asset accumulation that helps ensure rough affordability over time to the target income level. However, some practitioners argue that it may be more difficult to explain to homebuyers than an appraisal-based formula.

Subsidy Sources

SEH is much more efficient than an outright grant in that it provides a mechanism for allowing a single investment to help one homebuyer after another. However, it is not free. Because the program's share of home price appreciation is used to retain affordability over

[20] Jacobus 2007,"Shared Equity, Transformative Wealth" provides a thorough analysis of this issue. Note that shared appreciation loan programs do not have to follow this approach and can in fact use any of the formulas that are used in subsidy retention programs. The only difference is that, instead of being used to determine the resale price, the formula is inverted and used to determine the amount of appreciation that must be repaid to the program sponsor at the time of resale, along with the original principal balance of the loan.

time, it cannot be used to compensate the original lender for the cost of funds. A subsidy of some sort is thus needed to make the program work.

Precise data on the sources of subsidy for SEH are not available, but in general, it appears that subsidy sources include federal HOME and CDBG funds, as well as state and local funds from bond issues, housing trust funds, and other sources. Philanthropic investments and investments by large institutional employers (like universities or hospitals) are also used to fund SEH units.

In considering the available subsidy to support SEH, it is important to note that the subsidy may be implicit as well as explicit. Inclusionary zoning programs that apply to homeownership developments, for example, produce units that sell for below-market rates without an explicit subsidy. If accompanied by long-term use restrictions (see below), the affordability of these units can be maintained over time.

Subsidy Duration

Ideally, SEH programs would provide for permanent affordability, ensuring that an initial public or philanthropic investment is preserved and increased to keep pace with home price increases to help one generation of homebuyers after another. In practice, some programs place limits on the duration of affordability covenants, such as 30 years or 40 years, which give owners the opportunity to out-stay their covenant and receive ownership of their homes in fee simple, including the windfall of accumulated home price appreciation. These limits may be motivated by political concerns about what is feasible or by concerns that permanent affordability may run afoul of legal concerns related to the rule against perpetuities and the rule against unreasonable constraints.[21]

One approach taken in some communities is to combine a defined period of affordability with a requirement that the resale period restart whenever the property is transferred to a new party. This is the approach taken in the Fairfax County, VA inclusionary

[21] For a discussion of the legal issues, see Kelly 2009, Kelly 2010, and Davis, 78-80. The short version is that (a) these legal barriers are more of a problem in some states than others and (b) state authorizing legislation can help clear up any ambiguity in the common law and assure everyone of the durability of permanent affordability covenants. See Sherriff 2010 for a review of state authorizing legislation.

housing program, which provides for a 30-year affordability period that restarts with every ownership transfer. In Montgomery County, MD, owners must repay a portion of the proceeds of any inclusionary housing unit sold after expiration of the initial affordability period.

What are the Principal Limitations of SEH?

To sum up this far: there is a broad and diverse spectrum of housing programs that fall between the extremes of rental housing and traditional homeownership. A large subset of this spectrum can be categorized as SEH programs that provide both initial and long-term affordability as well as substantial (though not unlimited) and generally fairly predictable (though not foolproof) opportunities to build assets, with varying degrees of downside protection against foreclosure and equity loss. For individuals who wish to access these monetary benefits, as well as the non-monetary benefits of ownership (stability of tenure, ability to modify the home environment, etc.), SEH can be a good tenure choice.

So why isn't it more widely available? Here are some of the principal obstacles to growth of SEH:

Limited availability of subsidy

In contrast to purely market-rate homeownership products, SEH requires a subsidy to work. This is an important limitation that makes it difficult to scale up. At the same time, however, it is important to note that there is already substantial subsidy being spent on affordable homeownership. Unfortunately, comprehensive data are not available on all sources of subsidy for homeownership and how much of this subsidy is going into SEH as opposed to grants or forgivable loans that essentially convert to grants over time.[22]

[22] Under a forgivable loan, a portion of the loan is forgiven each year. For example, in a 15-year forgivable loan, typically one-fifteenth of the principal balance is forgiven each year.

But we do know from HUD data that about one-quarter of HUD's HOME Investment Partnerships program funds are spent by local and state governments to assist homebuyers[23] -- generating a total of $5.6 billion in commitments for homebuyer assistance through 9/30/2008. We also know from a HUD-sponsored study that about two-thirds of HOME-funded home ownership programs have not adopted long-term affordability rules that go beyond the minimum affordability periods required by the HOME program (five to 15 years, depending on the amount of assistance) and that most HOME-funded homeownership programs provide assistance in the form of a grant or forgivable loan, rather than a mechanism that preserves long-term affordability.[24]

A Thought Experiment

Let's say we were to collectively develop 10,000 new SEH units per year. How many households would we serve over a 30- or 50-year time horizon?

The answer depends largely on how often households move. If we assume households move once every 12 years, we would serve an estimated 662,500 households over 30 years and 1.5 million households over 50 years.

On the other hand, if we assume households move once every six years, we would end up serving an estimated one million households after 30 years and 2.5 million households after 50 years.

These figures suggest we could serve two to five times as many households for the same amount of money as a comparable grant program, which would serve 300,000 households over 30 years and 500,000 over 50 years.

See calculations in the Appendix (also available at http://tinyurl.com/SEH123).

This suggests there may well be a potential to expand the available subsidy for SEH substantially by encouraging or requiring a greater share of existing subsidy for homeownership – both through the HOME program and other sources – to be provided through SEH. Of course, as discussed in greater detail below, SEH may not be appropriate in all locations (e.g. neighborhoods where little home price appreciation is expected or where there is a need to attract higher-income residents to achieve

[23] HOME Program National Production Report, showing cumulative production and commitments through 9/30/2008. http://www.hud.gov/offices/cpd/affordablehousing/reports/production/093008.pdf (accessed on January 25, 2013). HUD has updated these numbers since publication of this report, but unfortunately, I could not find a more recent production report on the website.

[24] See Turnham et. al. 2004 and 24 CFR 92.254.

a mix of incomes) or for all programs (notably, down payment programs that provide a relatively small amount of assistance, where the incentive is not large enough to encourage buyers to agree to SEH restrictions). But for programs providing larger amounts of assistance in appropriate markets, the greater use of SEH in existing programs could well increase subsidy availability substantially without increasing overall governmental expenditures.

The same point applies to inclusionary housing programs. Again, we lack good data on the extent to which inclusionary zoning programs attach resale restrictions to the below-market-rate ownership units they produce – and the duration of those restrictions – but the cautionary tale here is Montgomery County, MD – one of the oldest, largest, and most prominent inclusionary zoning programs – where the earliest produced units came with affordability covenants that lasted only 5 or 10 years. Few of these units are still affordable, leading Montgomery County to revise its policy to provide for 30 years of affordability and the recapture of a portion of home price appreciation for units sold after the 30-year period. By applying SEH principles to extend the affordability of all or nearly all units produced through inclusionary housing programs – including both inclusionary zoning and similar programs such as density bonuses – the SEH inventory can be expanded with little or no additional subsidy.

Administrative Complexity and Expense

There is little question that SEH is more complex and expensive to administer then many other homeownership programs. This is one reason that some HOME-funded homeownership programs give for providing assistance in the form of a grant or forgivable loan, rather than a binding covenant requiring resale to another qualified buyer.[25] In the latter case, as in SEH generally, the program sponsor must monitor affordability of a growing portfolio (since units don't exit from the portfolio the way they do in non-SEH programs), find and determine the eligibility of qualified purchasers for resold units, review the quality of units turning over to determine if maintenance is needed before resale, work with home owners who fall behind on their mortgages, etc. All of this takes time and money.

[25] Turnham et. al. 2004.

Rick Jacobus provides a comprehensive analysis of these tasks, which he calls "stewardship," as well as options for paying for them, which include governmental housing subsidy programs and operating subsidies from philanthropic sources, as well as (and perhaps more sustainably) fees charged to new SEH buyers or to sellers at the time of resale.[26] Typically, the fees charged at resale range from one to four percent of the sale price, well below the traditional realtor fee, which can often be avoided through the program services, which include the marketing of resold homes to prospective purchasers.

One innovative approach is the Housing Affordability Service in New Jersey, which provides stewardship services on a state-wide basis to any jurisdiction that does not wish to provide these services on its own. This type of state-wide entity can allow for the assembly of the specialized expertise needed to ensure effective stewardship of affordable units over time without every small jurisdiction needing to provide these services on their own.[27]

Variability in Local Conditions

SEH is best suited to areas where: (a) households at the target income level (e.g. 60, 80, or 100 percent of the area median income) cannot afford to buy a home without assistance and (b) home prices are expected to increase significantly over time –particularly when they are likely to increase faster than incomes, at least for certain stretches of time, such that families at the target income level will face increasing difficulties affording them. In some cases, these criteria are satisfied for an entire city or metro area. In other cases, the criteria are satisfied only for certain neighborhoods – such as a neighborhood that is in high demand or expected to be in high demand near a planned transit station or job center.

In practice, this means that SEH is most important in strong housing markets or within gentrifying neighborhoods within otherwise weak markets. Having said this, there may be reasons to apply SEH to other markets – such as stable markets where home prices and incomes basically track but there is a desire on the part of the program sponsor to push

[26] Jacobus 2007, Stewardship for Lasting Affordability.

[27] For more information, see Jacobus 2007, Stewardship for Lasting Affordability, and http://www.njhousing.gov/dca/hmfa/about/has/index.shtml .

homeownership down to somewhat lower income levels than can be reached with FHA homeownership or modest-sized down payment or interest subsidy programs. The question in these cases may be whether to use a shared appreciation loan or instead to provide a silent second mortgage. A silent second mortgage works much the same way as a shared appreciation loan – most importantly, no repayment is due until resale, ensuring affordability to lower-income households – but the program sponsor either forgoes interest entirely (in which case the loan's purchasing power will erode somewhat over time) or requires deferred interest to be paid at resale at fairly low levels (e.g. 2 percent).

Consumer Confusion

Needless to say, SEH homeownership is more complicated than traditional homeownership, and it may be difficult for prospective purchasers to fully understand how it works. This can be an obstacle in marketing SEH programs and may also create challenges for programs when purchasers of SEH homes come face to face with resale limitations or other features of SEH that they may have heard about but never fully internalized or understood. Some SEH programs have found it useful to recruit shared equity homeowners to help with the marketing efforts, as they may be more effective "messengers" to help prospective homebuyers overcome any initial skepticism and objectively consider the pros and cons. As with other aspects of SEH, market conditions are quite relevant, as buyers may be more open to accepting limitations on asset growth when SEH purchase prices are far below prevailing market prices. Still, effective messaging is critical in all markets as consumer confusion can not only hinder recruitment efforts but potentially lead to political problems if SEH purchasers find themselves surprised by the resale limitations at the time of sale.[28]

Lack of Standardization

SEH can be complicated for political and financial institutions as well, especially given the broad diversity of program variations. The lack of standardization can be particularly problematic for lenders financing the first mortgages on SEH homes. Quite understandably,

[28] See Jacobus and Sherriff 2009.

first mortgage lenders generally wish to understand and gain comfort with the resale restrictions / repayment requirements to ensure the owner has strong incentives for keeping up its home and that the lender has full recourse to the property in the event of a foreclosure.

The process of educating lenders and obtaining their consent is complicated substantially by the wide variation in program models. During the strong market of the late 1990s and early 2000s, progress was made in working with Fannie Mae to develop a standardized rider for community land trust and other SEH models. But with the tightening of Fannie Mae's credit requirements, many SEH purchasers and programs have turned to FHA for financing, and some have run into difficulties gaining approval. Efforts are currently underway to work with FHA to develop clearer guidelines regarding FHA financing for SEH.

Political Barriers

In many cases, the political obstacles to SEH are among the biggest challenges to its adoption. Some policymakers and advocates view SEH a bit like 'second-class' citizenship, arguing that low-income households should not be offered less opportunity to build wealth than higher-income households. Sometimes this argument is paired with very valid concerns about the prior history of redlining and other restrictions on the ability of minorities to purchase homes and benefit from home price appreciation.[29] Rather than seeing SEH as an opportunity to help a greater number of minority households build wealth, these critics argue that the limited equity buildup permitted under SEH further perpetuates the reduced access of minority households to the wealth-building benefits of traditional homeownership.

It is important to give these arguments fair hearing, and from the strict perspective of fairness, they seem well founded. From a practical perspective, however, we live in a world in which there is a limited amount of public subsidy. Setting aside the important and related question of how to divide subsidy between rental and ownership, the question is really whether to spend limited homeownership subsidies on grants or forgivable loans that provide large asset-building opportunities to a relatively small number of households or to provide SEH to a

[29] See Jacobus and Sherriff 2009.

much larger and growing number of households, creating a stock of permanently affordable homes that can eventually represent a significant (if still small) share of the stock.

As documented in the Appendix, over a 50-year period, I estimate one could serve roughly three to five times as many households with a SEH model as with comparable spending on grants. Is it worth serving so many fewer households just to give them the unrestricted ability to build assets (plus the windfall of the grant itself), given the still substantial asset-building potential of SEH plus its protection from downside risk?

Others may disagree, but for me the calculus is clear: if we are going to spend large sums of governmental or philanthropic funds to help bring the cost of homeownership down to more affordable levels, we ought to strongly consider using SEH instead. The larger the subsidy, the clearer the policy calculus is in favor of SEH.

The policy arguments in favor of SEH are enhanced by the experience of the homeownership boom and bust of the late 2000s. During the 2000s, minorities and others gained expanded access to traditional homeownership, and many ended up worse off as a result once home prices plummeted and foreclosure rates rose. The great virtue of SEH is that it smooths out the rough edges of traditional homeownership, providing more predictable asset building tied to paydown of principal and modest home price appreciation, as well as some modest protection against home price declines.

Over the long run, the wealth-building potential of homeownership is tied mainly to the forced savings of principal reduction and modest home price appreciation. SEH expands opportunities for this type of wealth-building, while simultaneously enhancing the sustainability of ownership for low- and moderate-income families. Understood in this way, the risk-adjusted returns on SEH may actually be greater than those of traditional homeownership, where there is a potential for faster rates of home price appreciation, but also greater risk of loss.

How Could SEH Models Be Taken to Scale?

This topic has been anticipated by much of the discussion above, but by way of a conclusion, let me suggest some of the key steps that could be taken to substantially expand the reach of SEH:

1. Revise HOME program rules / guidance to promote the increased use of SEH

HOME is a leading source of funding for SEH and also acts as a standard setting mechanism for other, locally funded programs. Right now, HOME regulations provide for a sliding scale of minimum affordability periods, ranging from 5 to 15 years. While the HOME rules allow jurisdictions to set longer periods at their discretion, jurisdictions tend to adopt the default requirements, which are far too short to facilitate SEH.

One option is to make minimum affordability periods longer, so that the largest per-unit subsidy amounts lead essentially to required use of SEH.

Another intriguing option would be to flip the current presumption so that long-term affordability (such as 45 years of affordability that renews on resale) is the norm for large per-unit homeownership subsidies, with jurisdictions able to select shorter time periods at their discretion by documenting the reasons for their departure from the norm in their Consolidated Plan. While this would not force jurisdictions to adopt SEH, it would force them to think about the issue and provide a decision-point that provides HUD an opportunity to educate jurisdictions about the pros and cons of SEH and the circumstances in which it is most important and effective. Because jurisdictions would have the option of selecting a shorter affordability period anywhere in the country, it would also avoid the problem of having to determine in advance, at the national level through a broadly applicable formula, the types of markets where SEH either is or is not most suitable.

Even without a change in the program regulations, HUD could provide more guidance to local jurisdictions about the benefits of SEH, encourage them to adopt it whenever they are considering large per-unit homeownership subsidies, and evaluate whether HUD policies (for example, policies that create disincentives for jurisdictions to generate so-called ‘program income’ or prevent jurisdictions from charging fees to cover stewardship costs) are inadvertently acting as barriers to the use of SEH and adopt or propose changes to those policies to better support SEH.

2. Promote the use of SEH in inclusionary housing programs

As noted above, a variety of inclusionary housing programs – including inclusionary zoning and density bonuses – produce affordable homeownership units without the use of explicit public subsidy. I recognize that there are differences of opinion about the merits of these models, but at a minimum, whenever they are adopted the affordability of the homeownership units ought to be sustained through the use of deed restrictions or other forms of SEH.

3. Ensure that SEH purchasers have access to FHA mortgages

As noted above, many SEH buyers seek to use FHA loans as the source of first mortgages, but some are running into a problem with approval of the resale restrictions. Adoption of clear guidance from FHA on the standards for approving these loans would help ensure that, at a minimum, those programs that can clear all the other hurdles for SEH have access to first mortgage financing from standard channels.

4. Move toward greater standardization of program documents

To a certain extent, the diversity of program models reflects differences in programmatic objectives and underlying philosophies. So some diversity is not only inevitable but probably desirable. At the same time, there are benefits of standardization, particularly in reducing obstacles to lender participation, the development of standardized approval conditions by FHA and any government sponsored enterprises, and ultimately, reducing the costs to local programs of developing customized legal documents, program manuals, etc.

The obvious compromise is to identify a limited number of models and encourage greater adoption of one of these standards. These models could still have some modest flexibility for local variation – for example, providing an option to select one of five standard resale formulas – without necessarily undermining the benefits of standardization.

5. Develop and test sustainable stewardship models

While the availability of subsidy will always be a limitation, we ought to be able to develop sustainable models for funding stewardship costs, especially through fees charged at resale, or by ensuring the program's share of home price appreciation is sufficient to cover stewardship costs as well as maintaining affordability. To do this, we will need to better define stewardship, ensure that it is practiced effectively, document its benefits, and clarify available funding sources. It also may be worth considering following New Jersey's lead and establishing regional or state stewardship bodies to provide these services regionally. Among other benefits, this approach allows for the concentration of specialized expertise in a single organization, reducing the burden on many smaller governmental or non-profit entities that may not have the capacity or the scale to provide it.

6. Ensure that prospective purchasers can find SEH units and information about SEH

As the number of SEH units increases, there may be opportunities to join forces and market SEH on a regional basis, providing a single source of information in a metro where buyers can find out about available units, learn about available SEH programs, and learn more about the basic principles underlying SEH. This may gradually help to expand awareness of SEH as well as facilitate the linkage of interested buyers and available units.

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Cumulative Number of Owners Served Under Shared Equity Homeownership -- page 1

This spreadsheet compares the number of families that could be served over time if homeownership assistance were provided through a shared equity model against the number that could be served if the same amount of assistance were provided as a grant. The comparison varies depending on how often shared equity homeowners move. If 10,000 homes were made affordable each year through a grant program, over 30 years, you'd assist 300,000 families.
By contrast, under a shared equity model, you'd assist between 662,500 and 1,025,000, depending on whether families move every 6, 9, or 12 years.

			If Shared equity homeowners move every 9 years			Move Every 6 Yrs	Move Every 12 Yrs	Comparison Cumultative # served under grant program
Year	**Newly Created Shared Equity Homes**	**Total Portfolio**	**Resales**	**Total Sales Per Year**	**Cumulative Families Served**	**Cumulative Families Served**	**Cumulative Families Served**	
1	10000	10000		10,000	10,000	10,000	10,000	10000
2	10,000	20,000	1,111	11,111	21,111	21,667	20,833	20,000
3	10,000	30,000	2,222	12,222	33,333	35,000	32,500	30,000
4	10,000	40,000	3,333	13,333	46,667	50,000	45,000	40,000
5	10,000	50,000	4,444	14,444	61,111	66,667	58,333	50,000
6	10,000	60,000	5,556	15,556	76,667	85,000	72,500	60,000
7	10,000	70,000	6,667	16,667	93,333	105,000	87,500	70,000
8	10,000	80,000	7,778	17,778	111,111	126,667	103,333	80,000
9	10,000	90,000	8,889	18,889	130,000	150,000	120,000	90,000
10	10,000	100,000	10,000	20,000	150,000	175,000	137,500	100,000
11	10,000	110,000	11,111	21,111	171,111	201,667	155,833	110,000
12	10,000	120,000	12,222	22,222	193,333	230,000	175,000	120,000
13	10,000	130,000	13,333	23,333	216,667	260,000	195,000	130,000
14	10,000	140,000	14,444	24,444	241,111	291,667	215,833	140,000
15	10,000	150,000	15,556	25,556	266,667	325,000	237,500	150,000
16	10,000	160,000	16,667	26,667	293,333	360,000	260,000	160,000
17	10,000	170,000	17,778	27,778	321,111	396,667	283,333	170,000
18	10,000	180,000	18,889	28,889	350,000	435,000	307,500	180,000
19	10,000	190,000	20,000	30,000	380,000	475,000	332,500	190,000
20	10,000	200,000	21,111	31,111	411,111	516,667	358,333	200,000
21	10,000	210,000	22,222	32,222	443,333	560,000	385,000	210,000
22	10,000	220,000	23,333	33,333	476,667	605,000	412,500	220,000
23	10,000	230,000	24,444	34,444	511,111	651,667	440,833	230,000
24	10,000	240,000	25,556	35,556	546,667	700,000	470,000	240,000
25	10,000	250,000	26,667	36,667	583,333	750,000	500,000	250,000
26	10,000	260,000	27,778	37,778	621,111	801,667	530,833	260,000
27	10,000	270,000	28,889	38,889	660,000	855,000	562,500	270,000
28	10,000	280,000	30,000	40,000	700,000	910,000	595,000	280,000
29	10,000	290,000	31,111	41,111	741,111	966,667	628,333	290,000
30	**10,000**	**300,000**	**32,222**	**42,222**	**783,333**	**1,025,000**	**662,500**	**300,000**

Over a 30-year period, the shared equity model serves 2 to 3 times as many families as the grant model, with the same funding.

Cumulative Number of Owners Served Under Shared Equity Homeownership -- page 2

This spreadsheet compares the number of families that could be served over time if homeownership assistance were provided through a shared equity model against the number that could be served if the same amount of assistance were provided as a grant. The comparison varies depending on how often shared equity homeowners move. If 10,000 homes were made affordable each year through a grant program, over 30 years, you'd assist 300,000 families. By contrast, under a shared equity model, you'd assist between 662,500 and 1,025,000, depending on whether families move every 6, 9, or 12 years.

			If Shared equity homeowners move every 9 years			Move Every 6 Yrs	Move Every 12 Yrs	Comparison Cumultative # served under grant program
Year	**Newly Created Shared Equity Homes**	**Total Portfolio**	**Resales**	**Total Sales Per Year**	**Cumulative Families Served**	**Cumulative Families Served**	**Cumulative Families Served**	
31	10,000	310,000	33,333	43,333	826,667	1,085,000	697,500	310,000
32	10,000	320,000	34,444	44,444	871,111	1,146,667	733,333	320,000
33	10,000	330,000	35,556	45,556	916,667	1,210,000	770,000	330,000
34	10,000	340,000	36,667	46,667	963,333	1,275,000	807,500	340,000
35	10,000	350,000	37,778	47,778	1,011,111	1,341,667	845,833	350,000
36	10,000	360,000	38,889	48,889	1,060,000	1,410,000	885,000	360,000
37	10,000	370,000	40,000	50,000	1,110,000	1,480,000	925,000	370,000
38	10,000	380,000	41,111	51,111	1,161,111	1,551,667	965,833	380,000
39	10,000	390,000	42,222	52,222	1,213,333	1,625,000	1,007,500	390,000
40	**10,000**	**400,000**	**43,333**	**53,333**	**1,266,667**	**1,700,000**	**1,050,000**	**400,000**
41	10,000	410,000	44,444	54,444	1,321,111	1,776,667	1,093,333	410,000
42	10,000	420,000	45,556	55,556	1,376,667	1,855,000	1,137,500	420,000
43	10,000	430,000	46,667	56,667	1,433,333	1,935,000	1,182,500	430,000
44	10,000	440,000	47,778	57,778	1,491,111	2,016,667	1,228,333	440,000
45	10,000	450,000	48,889	58,889	1,550,000	2,100,000	1,275,000	450,000
46	10,000	460,000	50,000	60,000	1,610,000	2,185,000	1,322,500	460,000
47	10,000	470,000	51,111	61,111	1,671,111	2,271,667	1,370,833	470,000
48	10,000	480,000	52,222	62,222	1,733,333	2,360,000	1,420,000	480,000
49	10,000	490,000	53,333	63,333	1,796,667	2,450,000	1,470,000	490,000
50	**10,000**	**500,000**	**54,444**	**64,444**	**1,861,111**	**2,541,667**	**1,520,833**	**500,000**

Over a 50-year period, the shared equity model serves 3 to 5 times as many families as the grant model, with the same funding.