

SHARED EQUITY HOMEOWNERSHIP EVALUATION: CASE STUDY OF A REGIONAL COALITION FOR HOUSING (ARCH)

Final Report
October 2010

Prepared by:



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I. Introduction

This case study analyzes outcomes for A Regional Coalition for Housing (ARCH), which started providing homeownership opportunities east of Seattle in King County, Washington to low- and moderate-income families in 1993. Through December 2009, ARCH had sold homes to 722 families, and 186 of these were resales. Using client-level data provided by ARCH, we present analyses that address the following four research topics:

1. **Affordability:** Is the program effective in creating and preserving affordability for low- and/or moderate-income homebuyers?
2. **Personal Wealth:** Is the program effective in building wealth for individual households, providing opportunities for financial gains that are unavailable to renters? Because ARCH did provide data on down payments made by homebuyers, or the interest rates on those mortgages, we completed this analysis with the assumption that owners placed 5 percent down.
3. **Security of Tenure:** Is the program effective in maintaining high levels of owner-occupancy for its participants?
4. **Mobility:** Are program participants able to sell their shared-equity homes and move into other housing and neighborhoods of their choice?

In the following section we describe ARCH's program, including the method it uses to calculate the allowable amount of appreciation that can be realized by resellers and the amount of capital investment that can be recaptured by resellers.

II. Program Description

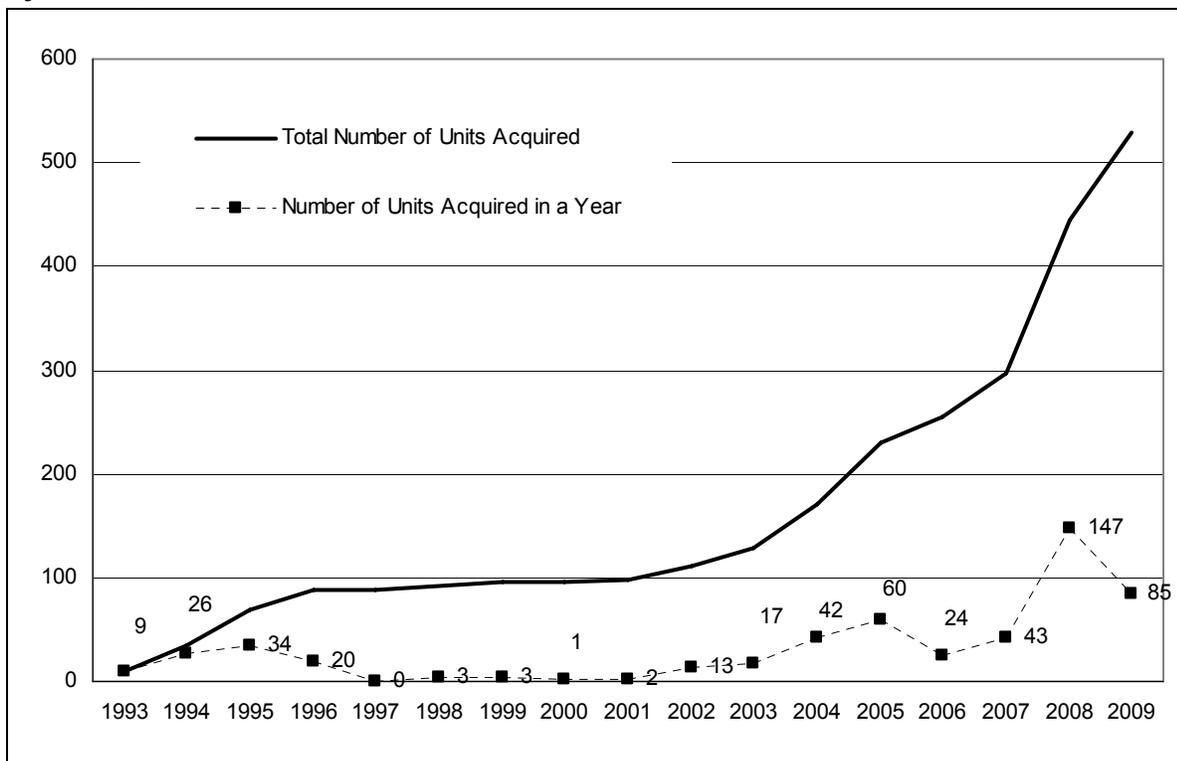
ARCH was created in 1992 through an agreement of several municipalities in eastern King County to create and preserve the supply of housing for low- and moderate-income households. This collaborative was motivated to act in response to rapidly rising housing costs and to reach affordable housing targets mandated by Washington State's Growth Management Act, passed in 1990. Each of the 15 cities in east King County are voluntary members of ARCH; each city is represented by their city manager or mayor on ARCH's executive board. In addition, ARCH has a citizen advisory board that consists of twelve to fifteen community residents and housing professionals. The oversight boards review and take action on ARCH's program design and administrative budget, as well as on individual housing projects that receive funding assistance from cities through the housing trust fund. Each city makes an annual contribution to fund ARCH's operating costs and their housing trust fund, the level of which is decided by each locality. However, ARCH recommends to each city an annual contribution range based on its projected growth in housing, population, and employment. Localities often, but not always, fund ARCH and the housing trust fund at the recommended levels.

ARCH assists member jurisdictions with developing local housing programs and administers homes created through these programs on behalf of its municipal members. These are owner-

occupied and renter-occupied homes that have been produced with the assistance of ARCH's housing trust fund or required as a condition of municipal permitting under local inclusionary zoning or density bonus policies. Most, but not all, of this housing is restricted to households earning less than 80 percent of the area median income. Some is reserved for seniors who are 55 years of age and older. A covenant establishes these homes as principally owner-occupied homes, but for cause, ARCH can (and has) approved subletting of homes for up to one year.

ARCH currently manages 536 housing units, eighty percent of which they have acquired after 2002 (Figure 1). During the first ten years of its program, ARCH expanded slowly, adding, on average, 11 units per year. But after 2003, and especially in recent years, ARCH has been rapidly adding units, reaching a program high of 147 new homes in 2008. Homeownership units available under this program range from studios to four-bedroom units. Most are condominiums, though ARCH's portfolio also includes townhomes and single family homes. Some of ARCH's projects are located in city centers, while others are located in unincorporated areas. The affordable housing projects are scattered across east King County, including in Bellevue, Redmond, Kirkland, Issaquah, Woodinville and unincorporated King County.

Figure 1: Number of Units Acquired by Year and Cumulative Number of Units Acquired by ARCH, 1993-2009



Note: Closing date data missing for 7 initial home sales.

Home sales occur directly from seller to buyer, with ARCH overseeing and approving the purchase price of each home (on sale and resale) and the income eligibility of each buyer. ARCH does not maintain a waiting list of new buyers; however, they keep an “interests list.” Anyone who would like to be notified by ARCH of resales of existing home or new home sales must complete an online application and take a homebuyer education class. ARCH will notify

them via e-mail (or regular mail if no email is available) when a new affordable home becomes available. Some owners find and purchase their affordable units not through ARCH, but through the Northwest Multiple Listing Service. ARCH encourages homeowners to work with real estate professionals when they need to resell their homes.

ARCH ensures that each home remains affordable for 15 to 50 years (most for 30 years) by pegging the resale price to an index that is incorporated into an affordability covenant attached to the home's deed. This covenant between ARCH and the homebuyer is executed at the time the home is initially purchased. After the affordability period has passed, on the first resale following the conclusion of this 15–50 year control period, ARCH captures any proceeds in excess of the indexed, formula-determined price, using these funds for its other affordable housing programs. Localities collaborating with ARCH have experimented with four different indexes in calculating a home's resale price. Regardless of the index that is used, the purchase price that was paid by the reseller when first acquiring the home becomes the starting point in the calculation. The resale price is the product of the purchase price times the index's rate of change between the date of initial purchase and the date of eventual resale.

- HUD Median Income: This index measures the rate of increase in median household income for the Seattle MSA, as published annually by the U.S. Department of Housing and Urban Development (HUD). This was the first index used for many ARCH-administered homes, but ARCH and its partners have since moved away from using this index as they did not feel that it resulted in sufficient wealth creation for residents.
- Real Estate Index (REI): This index, published twice a year by the Central Puget Sound Real Estate Committee (<http://www.realestatereport.org/>), measures the rate of appreciation for market-rate housing within eastern King County. After the HUD Median Income index, most cities moved to the REI index.
- Average of REI & HUD median income. This approach is now the preferred index, and is used for most ARCH homes. ARCH and its partners adopted this index to moderate price fluctuations that resulted from the two previous approaches.
- Fixed-rate price inflator of 1.125 percent per quarter. This index is used for only one ARCH-administered housing development.

When ARCH calculates the resale price of an affordable unit, it also credits the reseller with the value of any “capital improvements” that were made by the homeowner. These credits are awarded for either: substantial structural, permanent, and fixed improvements; or appliances, fixtures, or equipment that are purchased to replace appliances, fixtures or equipment that were in the home at the time of purchase. While not initially the case, ARCH now requires that homeowners receive advance approval before making these improvements. ARCH reported that, out of 186 resales, only five homeowners had ever received a credit for capital improvements. The median value of this capital improvement credit (in 2008 \$) was \$2,936.

In 2005, ARCH partnered with the Washington State Housing Finance Commission and King County to create the “House Key Plus ARCH East King County” down payment assistance program. This program offers the buyers of homes within east King County a below-market interest-bearing second mortgage, with all payments deferred until resale. It is intended to be

used in conjunction with the State Bond first mortgage loan program. This program was developed to create another option for increasing affordable ownership opportunities in east King County. The two separate programs are designed to be independent, but in a few instances homeowners have utilized both programs in order to be able to afford their home. The maximum amount of the ARCH House Key Plus ARCH East King County second mortgage program is \$30,000, with most homebuyers borrowing the full amount.

All ARCH homebuyers who join the “interests list” are required to complete a pre-purchase homebuyer education class, and buyers of ARCH-regulated homes who do not come off this list are highly encouraged to take the class. The homebuyer education seminar is sponsored by the Washington State Housing Finance Commission. The seminars are provided for free by area realtors. Topics that are covered in the seminar include financing, purchase and sale agreement and home inspection. ARCH does not provide closing cost assistance to homebuyers. It does not offer post-purchase counseling, foreclosure prevention counseling, or other supportive services to homeowners.

III. Summary of ARCH Sales and Homebuyers

Under the ARCH program, 722 families have purchased homes since 1993, including 186 resales (26 percent of all households served by the program). During the 17 years that the program has operated, the median sales price paid by homebuyers (in 2008 \$) was \$209,656 (Table 1).

Table 1: Selected Characteristics of ARCH Homes and Homebuyers

Number of units reported as of December 31, 2009	536
Number of resales reported: 1993–2009	186
Total number of sales: 1993–2009	722
Median sales price paid by homeowner (in 2008 \$)	\$209,656
Median household income of purchasers (in 2008 \$)	\$48,527
Median amount of appreciation realized by resellers (in 2008 \$)	\$42,524

Source: Authors’ analysis of ARCH client-level data

ARCH primarily targets its homes for households earning below 80 percent of area median, however cities have had some programs targeted to household income of 50, 100, and 120 percent of the area median income. ARCH homebuyers had a median household income (in 2008 \$) of \$48,527, which is 59.6 percent of King County’s 2008 median family income of

\$81,500.¹

IV. Findings

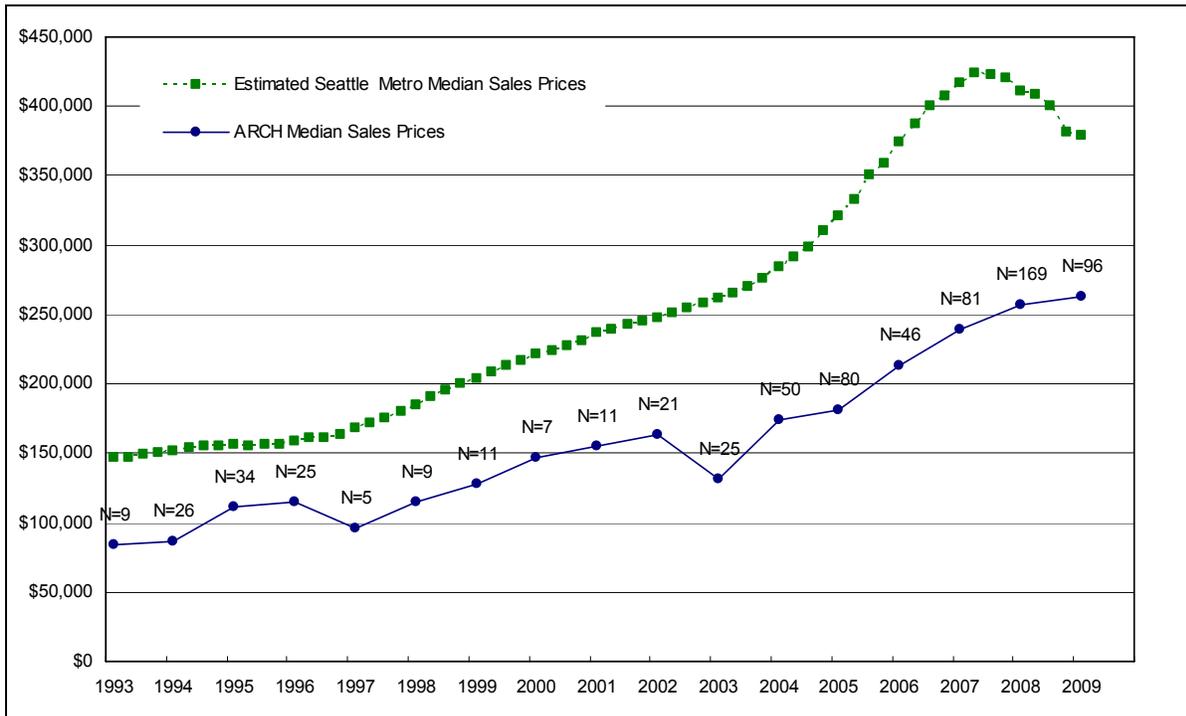
In this section we present our analyses that address each of the four research topics: affordability, personal wealth, security of tenure, and mobility.

1. Affordability

A primary purpose of any shared equity program is to provide homeownership opportunities that continue to be affordable for lower income families across multiple resales. Meeting this objective is more challenging in a market where house prices are rapidly appreciating. ARCH is able to sell its homes to households with incomes at about 57 percent of area median family income even though the Seattle area is an expensive housing market. In 2008, according to the American Community Survey, the median home in the Seattle MSA was valued at \$381,300, which is roughly one-third more than the median price for ARCH homes (in 2008 \$) sold since 1993. Home prices in the part of the metropolitan area served by ARCH are even higher: the median home in King County was valued at \$440,100, and the median home in the city of Seattle was valued at \$491,600. The difference between the median price of ARCH homes and all homes sold in the Seattle area remained fairly constant during the time that ARCH has been operating its program (Figure 2). Annual price increases in the Seattle area exceeded 5 percent between 1997 and 2008, with annual increases greater than 10 percent between 2005 and 2007 (Figure 3).

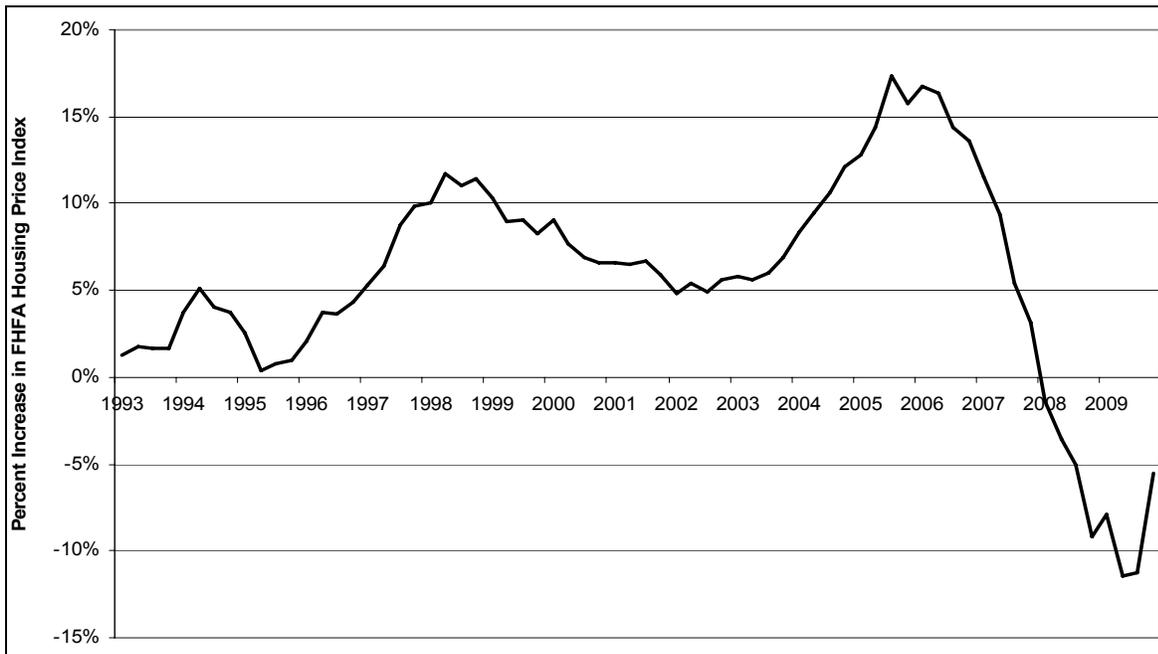
¹ ARCH is located in King County, WA. See the HUD-defined median family income here: http://www.huduser.org/portal/datasets/il/il08/wa_fy2008.pdf. This number differs from the median household income in King County of \$70,091. This data from the Economic Research Service is derived from Bureau of Labor Statistics Local Area Unemployment Statistics data. See: <http://www.ers.usda.gov/Data/Unemployment/>.

Figure 2: Estimated Median House Prices for ARCH Homes and All Homes in the Seattle, Washington MSA between 1993 and 2009



Sources: FHFA House Price Index, American Communities Survey, and authors' analysis of ARCH client-level data.

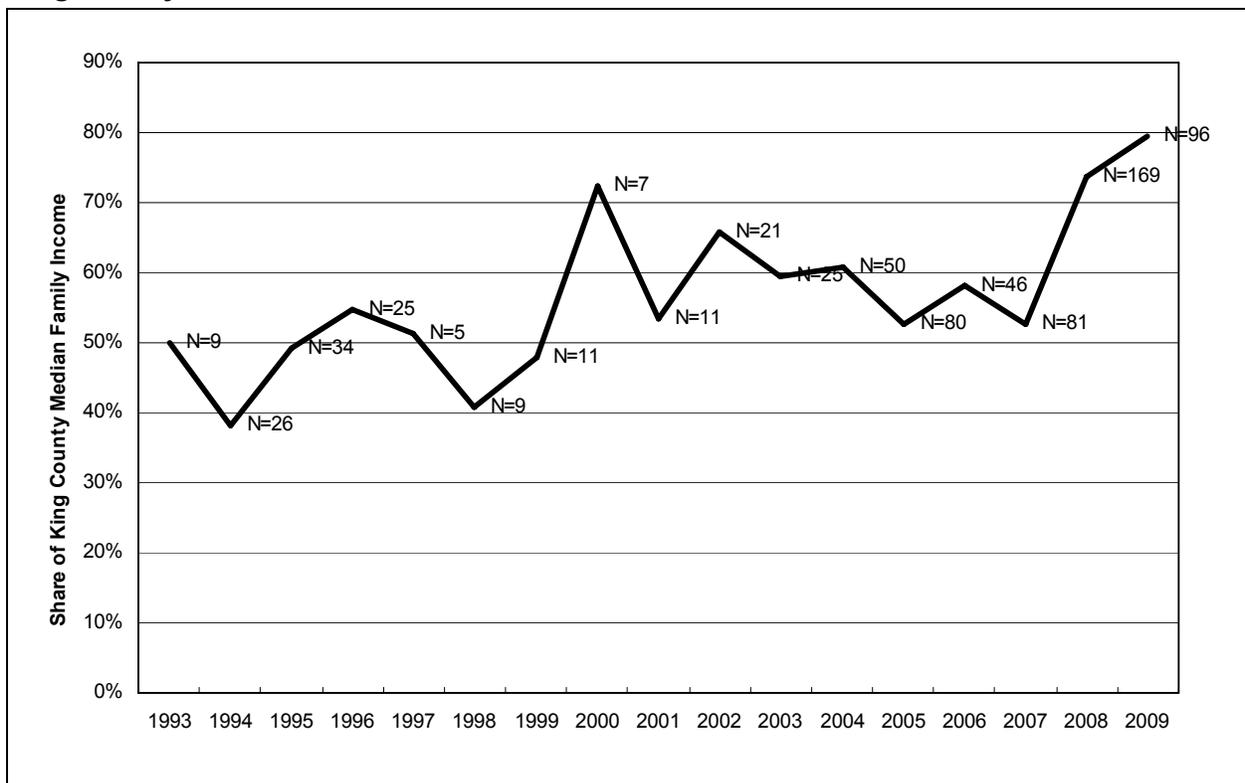
Figure 3: Year-by-Year Percentage Change in House Prices in the Seattle, Washington Metropolitan Area: 1993–2009



Source: FHFA House Price Index

Despite operating in a housing market with large annual price increases, the income of ARCH homebuyers remain well below the median family in each year, although the ARCH's homebuyers over time have higher incomes relative to the area's median family income. The median household income (in 2008 \$) for homebuyers in the program's early years (1993–1999) was about 45 percent of the 2008 median family income in the King County. This increased starting in 2000 and continued through 2005, when the median household income of ARCH homebuyers was 60 percent of area median family income. Between 2006 and 2009, the median income of ARCH homebuyers initially declined, but the most recent purchasers had a median household income that was nearly 80 percent of the area family median. Overall, ARCH households have had a median income that was 59.6 percent of King County's median family income (Figure 4).

Figure 4: Median Income of ARCH Homebuyers Relative to Median Family Income for King County, 1993–2009



N=number of sales in a given year.

Source: Authors' analysis of ARCH client-level data.

One of the major objectives of a shared equity homeownership program like ARCH's is to ensure that the price of any homes that are resold will remain permanently affordable for successive generations of lower income homebuyers. The key question is whether or not the home remains affordable to the next buyer. There are many ways to measure the continuing affordability of renter-occupied or owner-occupied housing, although every method begins with the basic assumption that "housing affordability is a measure of housing costs relative to

income.”² Previous analyses of changes to the affordability of shared equity homes have used the minimum income required to purchase a home as the indicator of the housing *cost* and the area’s median family income (MFI), published by HUD.³ To the extent that the ratio of the minimum income required to purchase a home relative to the MFI is the same, when a home is initially purchased and when that home is resold, the unit is considered to have maintained its affordability. (We refer to this method as the MFI method.)

This MFI method measures, at two separate points in time, the required minimum income to purchase a given home relative to the MFI. A problem with this methodology is that it does not measure changes to a particular household’s income over time; rather, it assumes the incomes of the target population for whom shared equity homes are being kept affordable and to whom these homes are being resold increase at the same rate as the MFI. But, as discussed earlier, the incomes of the families purchasing ARCH’s homes are well below the area median family income; and the minimum income required to purchase a shared equity home is often lower than the purchasers’ actual income. Given uneven income growth for families earning less than the median, using the MFI to calculate affordability may overstate the extent to which homes remain affordable to lower income families because the growth in MFI reflects changes to the types of households living in the area at the two different points in time (initial sale and resale) as well as changes to incomes for households that are present at both time periods.⁴

Despite these drawbacks, the MFI method has two distinct advantages: its sensitivity to local area differences in incomes and family size; and its widespread use by policy analysts in evaluating major housing assistance programs funded by HUD, where eligibility is set by household income relative to median incomes in the local area.⁵ As a result, we analyzed changes to the affordability of resold units, comparing changes in required income *relative* to MFI.

Recognizing the issues associated with the MFI method, we first calculated the *absolute* changes in required real minimum income to purchase a home at resale. This measure establishes the required income growth for a given household to purchase a home at resale, and so identifies the extent to which *the same* household earning the required minimum income at a given point in time can afford a unit when it is resold. Consequently, it is not dependent on an area’s changes in income distribution or household structure; rather, it provides information about the income growth required for a particular cohort of households to be able to afford a home at resale.

Starting with the absolute measure, we calculated the real income required for the initial

²Goodman, Jack. 2001. Housing Affordability in the United States: Trends, Interpretations, and Outlook. A Report Prepared for the Millennial Housing Commission, page 3.

³ See, for example, Davis, John Emmeus and Alice Stoke. 2009. Lands in Trust, Homes That Last: A Performance Evaluation of the Champlain Housing Trust. Burlington VT: Champlain Housing Trust.

⁴ See, for example, Gangl, Markus. 2008. “A Longitudinal Perspective on Income Inequality in the United States and Europe. *Focus*” Vol. 26(1). The author reports, using data from the Panel Study of Income Dynamics, that the income for households within the bottom three income deciles between 1992 and 1997 either remained the same or declined during the five-year period.

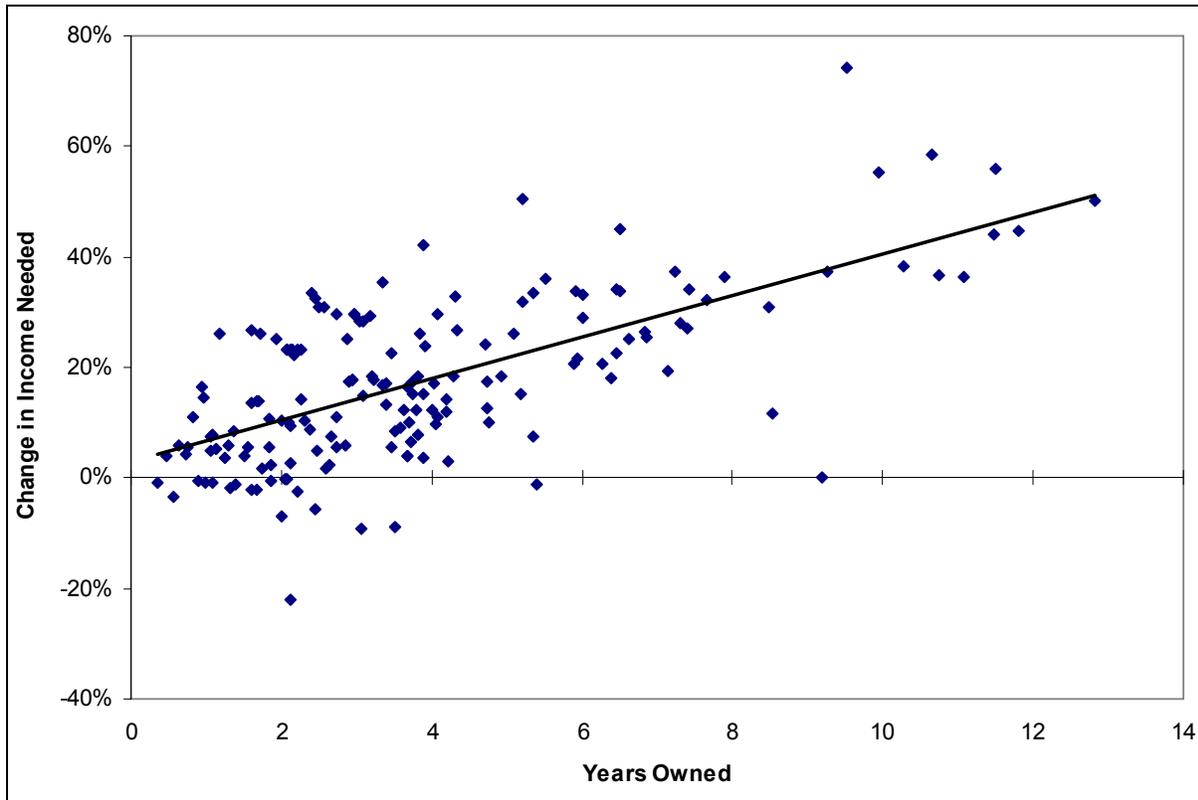
⁵ Goodman, page 17.

purchase and subsequent resale of the shared equity homes, assuming that the buyer would finance the purchase with a 30-year, fixed rate mortgage that had an interest rate that was the median interest rate for all buyers. In addition, we assumed that the buyer paid a down payment that was equal to the median down payment share of all homes sold under the program, and further assumed that the buyer would spend no more than 33 percent for his/her income for housing (which included the mortgage payment and any property taxes or co-op fees reported by the program).

Based on the length of time between the two sales, we calculated the average annual increase in the required minimum income. For example, assume that a home requires a minimum income (in 2008 \$) of \$20,000 at the initial sale, and, at a resale that takes place 3 years later, requires a minimum income (in 2008 \$) of \$22,000. The real income at resale is 10 percent greater than at the initial sale, which means that the required minimum income increased by an average of 3.3 percent per year. To the extent that real incomes increased by the same amount for households earning \$20,000 at the time of the initial sale, the unit remains affordable to such households. Using this methodology, we calculated that the real required minimum income increased between units' initial and subsequent resale by a substantial 4.0 percent per year. ARCH reports that when they became aware many of their units were losing affordability, it created a new resale index (the average of the real estate index and HUD median family income) that it believes will moderate price rises, though ARCH remains open additional changes as necessary. Given that the average annual increase in required minimum income was about 4.0 percent, 34 percent of resales required a minimum income that was, in real terms, no more than 10 percent greater than needed for the initial buyer's income. Roughly two-thirds of resales had a required minimum income that was at least 10 percent greater (in real terms) than needed for the initial sale.

In addition, we ran a regression in which the percentage change in required minimum income was the dependent variable and length of tenure was the explanatory variable. The parameter estimate from this regression indicates the percentage change in the minimum income (in real \$), by year, that is required to purchase the home. Our analysis revealed a strong relationship between the extent to which the affordability of a resold home declined and the length of time that the initial purchaser lived in the home. An increase in tenure of one year is associated with a 3.8 percentage point increase in income needed to purchase an ARCH home. This increase was statistically significant at the .01 level.

Figure 5: Changes in Income Needed vs. Years Owned

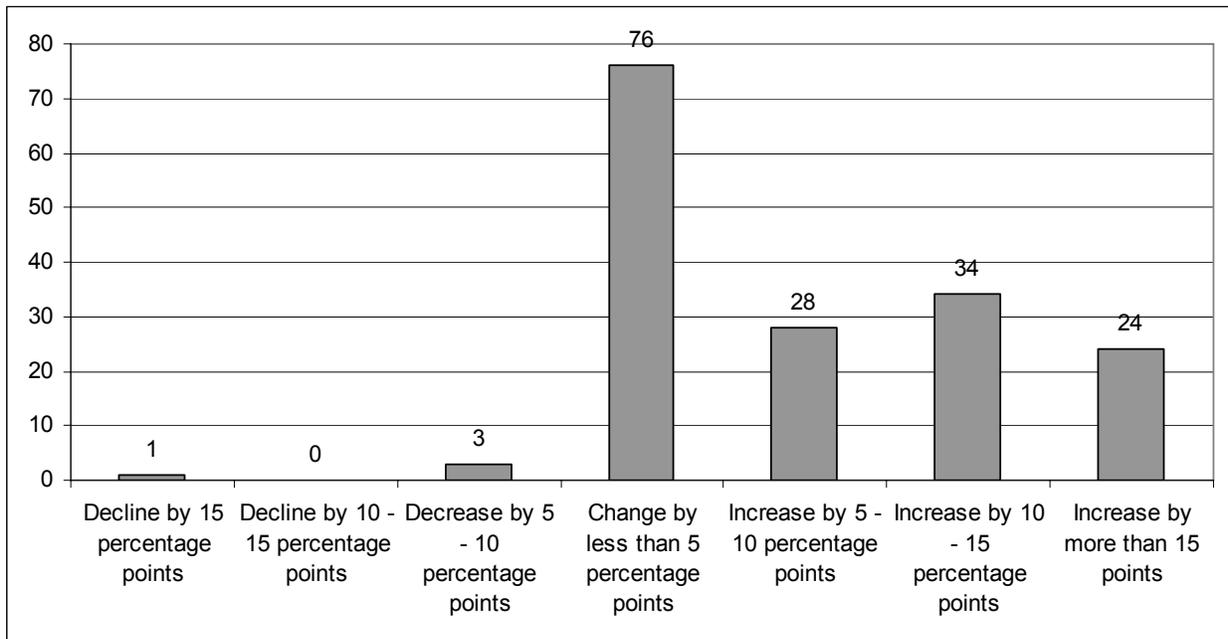


Source: Authors' analysis of ARCH client-level data.

Note: We assume that one-third of income is paid in principal and interest, with a 6.0 percent 30-year fixed-rate mortgage and a 5 percent down payment, all in 2008 dollars. An increase in tenure of one year is associated with a 3.8 percentage point increase in income needed. This is significant at the .01 level.

Turning to the relative measure, the median minimum income required to purchase an ARCH home that was subsequently resold was 45.7 percent of the area MFI. These homes, when resold, required a median minimum income that was 52.6 percent of area MFI. The median difference between these two ratios for all of the units resold by ARCH was 5.2 percentage points, which indicates a relatively large (when compared to other programs included in this study) decline in affordability. As shown in the following figure, about half of resales had the required minimum income, as a share of area MFI, increase by less than 5 percentage points.

Figure 6: Percentage Point Change in Income (as a share of Median Family Income) Needed for ARCH Homes, Initial Purchase vs. Later Resale



Source: Authors' analysis of ARCH client-level data.

Note: We assume that one-third of income is paid in principal and interest, with a 6.0% 30-year fixed-rate mortgage and a 5 percent down payment.

2. Personal Wealth

ARCH maintains some mortgage information for a share (60 percent) of its homebuyers. The median loan amount reported for these transactions was \$206,881 and while ARCH does not know the interest rate of these loans, one in five was an adjustable rate mortgage. Most buyers originated first mortgages with a term of 30 years. Ten percent of all homebuyers received a second-lien mortgage, worth \$35,866 at the median. Most of these loans were fixed rate and about half were for 30 or more years; the remainder were 10, 15, 20, or 25 year loans. In addition, four homebuyers had non-amortizing second-lien mortgages worth, at the median, \$28,736.

Table 2: Summary Characteristics of ARCH Purchase Transactions

Median purchase price (in 2008 \$)	\$209,656
Share of households with first-lien mortgage information	60.8 percent
Median first-lien mortgage among those with a mortgage (in 2008 \$)	\$206,881
Share of first-lien mortgages with fixed interest rates	81.1 percent
Share of first-lien mortgages with a term of 30 years	92.3 percent
Share of households with second-lien mortgage information	10.2 percent
Median second-lien mortgage among those with a mortgage (in 2008 \$)	\$35,866
Share of second-lien mortgages with fixed interest rates	94.5 percent
Share of second-lien mortgages with a term of 30 years	50.0 percent
Share of households with non-amortizing second-lien mortgage information	0.6 percent
Median non-amortizing second-lien mortgage amount for purchasers who received such a mortgage (in 2008 \$)	\$28,736

Source: Authors' analysis of ARCH client-level data

Assuming that ARCH's resellers paid 5 percent of their sales price as down payment, they earned an exceptional high median internal rate of return of 59.6 percent.⁶ This rate of return realized by most ARCH home resellers far exceeded the returns that those resellers would have earned if they had rented a unit⁷ and invested their down payment in stocks or bonds. Had ARCH resellers invested their down payment amount in an S&P 500 index fund, they would have earned a median return of 9.4 percent. A comparable investment in 10-year Treasury

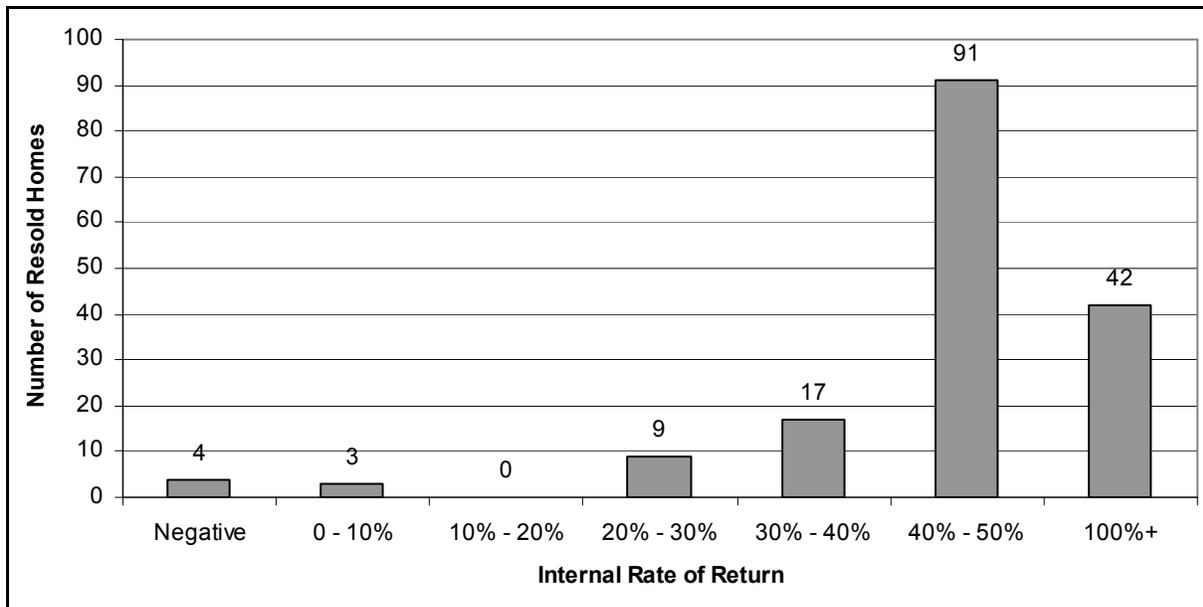
⁶ IRR is $[(\text{effective appreciation} + \text{his or her down payment}) / \text{his or her down payment}]^{(1/\text{yrs_owned})} - 1$. We define effective appreciation as the lesser of (seller's realized appreciation + capital improvements) and (seller's proceeds at resale + capital improvements + cash-out refinancing - principal paid). This internal rate of return does not include 20 resales with missing appreciation information and 1 resale in which the reseller's effective appreciation is less than the down payment. It is impossible to compute an internal rate of return in such a circumstance.

⁷ To add simplicity to the analysis, we assume that the rent paid by the owner, if he/she chose to rent the purchased home, would have been the same as the after-tax cost of owning a home. Because we do not have monthly housing costs or mortgage rates, we cannot verify whether this assumption is reasonable. There are other benefits and costs to homeownership that we have also excluded from our analysis. Benefits include the deduction of house and mortgage interest paid from income tax liabilities, any homebuyer tax credits, and stabilization of housing payments (for those with fixed rate mortgages). Added costs include maintenance costs, realtor fees, and other transfer and transaction costs.

bonds would have yielded a 6.0 percent median return.⁸

Again assuming a 5 percent down payment, only 3.6 percent saw lower returns than they would have received from stocks or bonds. On the other hand, 18.8 percent of ARCH resellers saw internal rates of return of at least twice ARCH's already-high median (see Figure 7). Note that residents with short tenures have greater variability in IRR; because of this, many resellers with very high and very low rates returns actually had fairly low effective appreciation in dollar terms.

Figure 7: Rates of Return for Resold Homes in ARCH



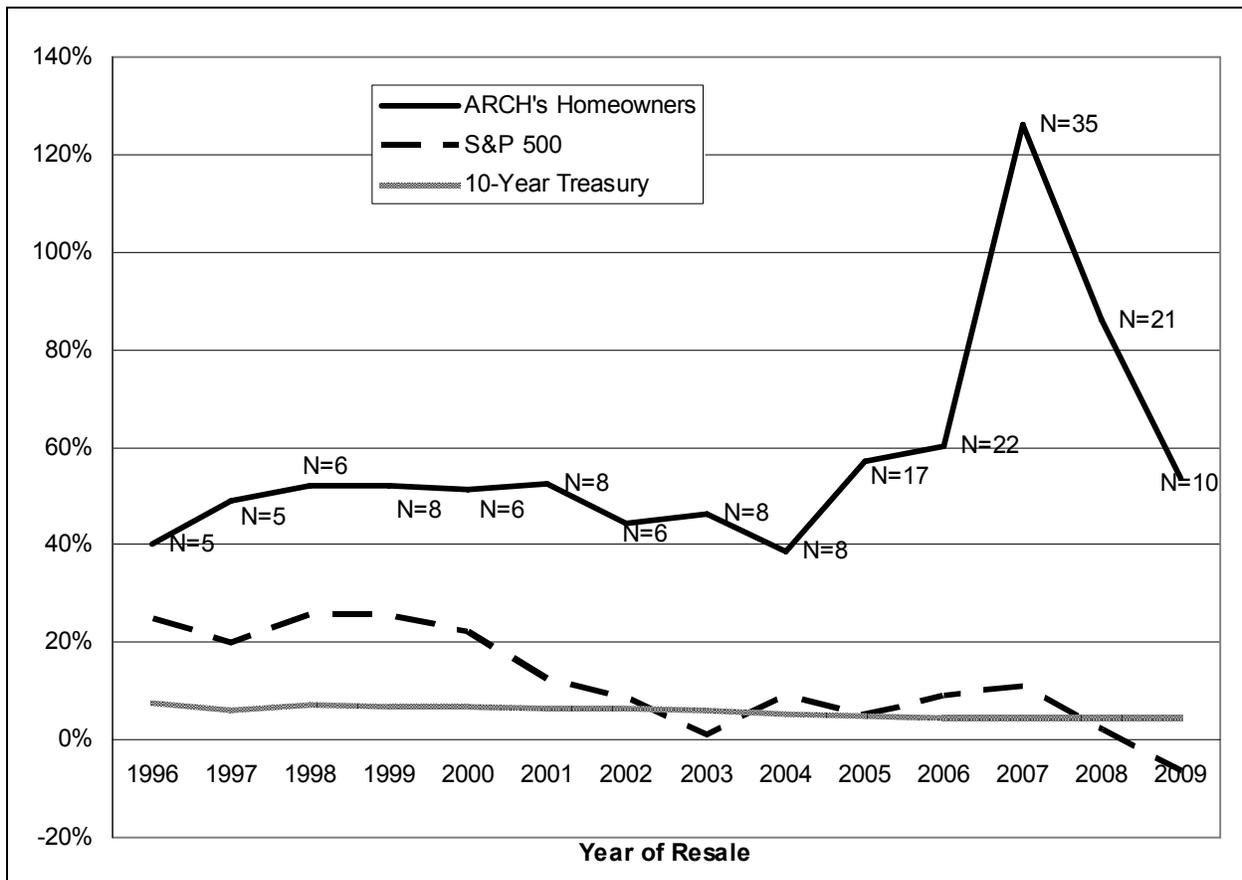
Note: Internal rate of return does not include 20 sales with missing data. Negative IRR includes 1 sale in which the reseller's effective appreciation is negative and larger in magnitude than the down payment.

Source: Authors' analysis of ARCH client-level data.

The respective rates of return for ARCH's program and for stocks and bonds vary greatly depending on the year, but ARCH's return was well above either in every year. The median IRR under ARCH's program ranged from a high of 126.1 percent among those who resold in 2007 to a low of 40.0 percent in 1996 (Figure 8). ARCH owners who resold their homes after 2004 earned higher returns due to fast-rising prices in King County's real estate market.

⁸ We assume that ARCH resellers would hold their 10-year Treasury bonds until maturity, and so did not calculate any gains or losses that would have resulted from selling their bonds at the time that the owners sold their ARCH homes.

Figure 8: Comparison of Median Rates of Return for Alternative Investments



Note: Internal rate of return does not include 20 sales with missing data or 1 sale in which the reseller's effective appreciation is negative and larger in magnitude than the down payment. It is impossible to compute an internal rate of return in such a circumstance.

Source: Authors' analysis of ARCH client-level data; Treasury data (http://www.ustreas.gov/offices/domestic-finance/debt-management/interest-rate/yield_historical_main.shtml); S&P 500 data (<http://www.irrationalexuberance.com/>)

We do not compare owners' actual returns to IRRs that would have been achieved had an owner purchased a market-rate home. It is unlikely that an owner could have afforded one, given that the median price in King County, in 2008, for such units was \$381,000 according to the ACS. Assuming that a member had sufficient funds for a 3 percent down payment, the monthly share loan payment would have been \$2,216, assuming a 30-year fixed rate loan at 6.0 percent. This payment would require an annual income of nearly \$80,000, well higher than actual median income of approximately \$50,000 for ARCH homebuyers.

3. Security of Tenure

In the current economic environment, where many low-income homeowners have lost their homes to foreclosure, security of tenure is an important outcome against which to judge shared equity programs. As a result of the housing meltdown, some policymakers are questioning the

wisdom of programs that expand homeownership opportunities to lower income families. We investigate whether ARCH buyers were able to maintain their homes, avoiding foreclosure and the intermediate step of delinquency.

Using ARCH's client-level data, we calculated the share of current mortgage loans on ARCH homes that are seriously delinquent—that is, more than 90 days late on their mortgage payment. Just two of the 536 homes that are currently under ARCH's supervision are currently seriously delinquent (0.4 percent). This number is significantly less than the share of all homes that are seriously delinquent in King County, WA. As reported by TransUnion, 3.8 percent of all homeowners in the County—including upper income buyers—are more than 90 days late in paying their mortgage.⁹

In addition, we calculated the share of all mortgages on ARCH's homes, both those in its current portfolio and those that have resold one or more times, that had ever been seriously delinquent. Four of the 722 homes fell into this category (0.6 percent). By comparison, 15.0 percent of FHA-insured loans originated in 2004 had been delinquent at some point by 2008.¹⁰

Losing a home to foreclosure is a wrenching event for an owner, who ends up losing a place to live and any equity she has invested in the property. But a foreclosed home is also a setback for the housing trust fund and their efforts to create affordable housing. In the event of foreclosure, ARCH risks losing the property from its portfolio, with the accompanying loss of all restrictions on occupancy and affordability—unless the program elects to purchase the REO property back from the lender.

We calculated the number of mortgages among ARCH's homeowners that were in foreclosure as of December 2009. Just two of ARCH's 536 homes were in the process of foreclosure (0.4 percent)—and these homes may yet be cured. This figure was one-third of the foreclosure rate for King County as a whole, which stood at 1.2 percent as of the fourth quarter of 2009.¹¹ Over ARCH's 17-year history, a total of four ARCH homes have ever gone into foreclosure (0.6 percent). This is quite a bit lower than national cumulative foreclosure rates: 2.3 percent of FHA-insured home loans originated in 1998 were in foreclosure after four years¹²; in 2008, 4.2 percent of FHA-insured home loans originated in 2004 were in foreclosure¹³.

ARCH has lost two units to foreclosure. Another foreclosure, occurring in ARCH's past, was bought out of REO. If ARCH judges the cause of delinquency to be temporary, they can make a small, no-interest loan to get the resident current. In other cases involving more permanent problems, ARCH refers residents to credit counseling agencies. ARCH is required to be notified by the lender if a foreclosure notice is issued to a homeowner, but is sometimes not. Where

⁹ We accessed these data through the Federal Reserve Bank of New York.
<http://data.newyorkfed.org/creditconditions/>

¹⁰ Cumulative delinquency rates are not available for King County. The FHA figures are nationwide. We calculated this figure from data at http://portal.hud.gov/fha/investment/5087-N-04_DPA_Pub_6-11-08.pdf.

¹¹ Data available from HUD at http://www.huduser.org/portal/datasets/nsp_foreclosure_data.html. Washington data are available at http://www.huduser.org/portal/datasets/excel/WA_foreclosure.zip

¹² <http://www.gao.gov/new.items/d02773.pdf>.

¹³ http://portal.hud.gov/fha/investment/5087-N-04_DPA_Pub_6-11-08.pdf.

ARCH has not been notified, ARCH has used this lack of notice as grounds for restarting the foreclosure process.

4. Mobility

Families move frequently. According to the ACS, about 13 percent of the U.S. population moved to a new address in 2008. Rates are higher for renters than homeowners. High rates of mobility nationally raise key questions for limited equity cooperatives and other shared equity homeownership programs. Does the purchase of a resale restricted home limit mobility—or enhance it? To inform this question, we assessed the rate at which ARCH participants moved and their average length of tenure.¹⁴

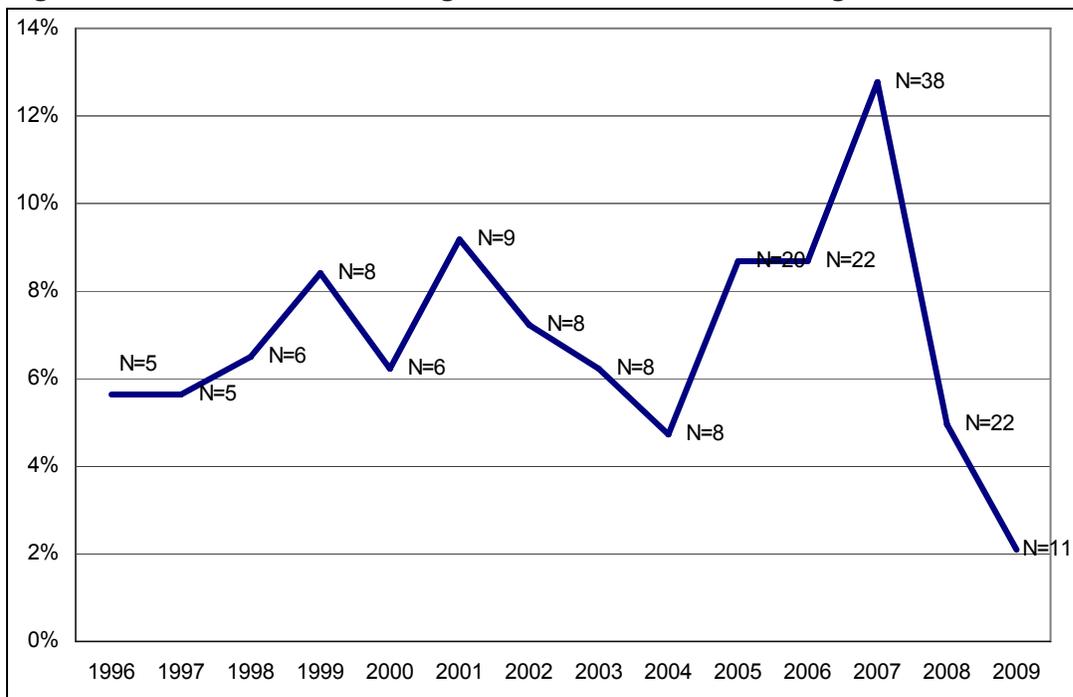
Since the first resales in 1996, an average of 6.9 percent of residents moved annually, and median length of tenure for movers was 3.3 years. Of the 722 homeowners who lived in an ARCH home on or after 1996, 186 (26 percent) had sold their home and moved out of their home by the point of data collection in 2009. During a comparable time period, we would have expected 24.5 percent of similar homebuyers to have sold their home and moved based on national averages¹⁵, so it does not appear that ARCH homebuyers are moving at lower rates than first time homebuyers. The mobility rate fluctuates considerably year to year, however. As shown in Figure 4, the share of households that sold their ARCH home moved between five and nine percent until 2006, before jumping to nearly 13 percent in 2007 and dropping to 2 percent in 2009. However, ARCH added a large number of units in recent years, and households do not typically resell their homes within this short timeframe.

¹⁴ In other shared equity sites for this evaluation, we conducted a survey of movers to get at their motivations for moving, the destination of their move, and the type of home they moved into. ARCH has limited contact information for those who move, so we were unable to collect this information.

¹⁵ Comparison data from the National Association of Home Builders:
<http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=110770&print=true>.

Note that comparison data can only be calculated for those who have year of resale information; 25.4 percent of such ARCH residents have resold their home.

Figure 9: Number and Percentage of ARCH Members Moving Each Year



Note: Resale date data missing for 10 home sales.

V. Conclusion

This case study analyzes ARCH's program of providing homeownership opportunities to low- and moderate-income families in eastern King County, WA. Through December 2009, ARCH had sold homes to 722 families, including 186 resales. ARCH, a collaboration among several municipalities in eastern King County, currently manages a portfolio of 536 resale-restricted, owner-occupied homes. This portfolio has been expanding rapidly in recent years. Home sales occur directly from seller to buyer, although ARCH reviews and approves both the purchase price of the home and the income eligibility of the buyer. ARCH restricts the resale price of its homes, applying one of four indexed formulas to calculate that price. ARCH does not directly provide homeowner counseling or other supportive services to its homeowners, though highly encourages buyers to use available statewide education or counseling programs.

ARCH targets its homes for households earning between 50 and 120 percent of HUD's area median income. ARCH has actually served homebuyers, on average, whose median household income (in 2008 \$) is 59.6 percent of King County's 2008 median family income. ARCH's homes sell and resell for less than half the price of the median, market-priced home in the Seattle MSA, and this difference remained constant over time. However, ARCH homes are becoming less affordable over time. The required incomes for resales were, as a share of area MFI, 5.2 percentage points greater than the minimum income of the initial buyer. Every year an ARCH home is owned, is associated with a 4.0 percentage point increase in the real income needed to buy that home. ARCH reports that when they became aware many of their units were losing affordability, they created a new resale index (the average of the real estate index and HUD

median family income) that they believe will moderate price rises.

Assuming that ARCH's resellers paid 5 percent of their sales price as down payment, they earned high rates of return: the median IRR was 59.6 percent. This rate of return realized by most ARCH home resellers far exceeded the returns that those resellers would have earned if they had rented a unit and invested their down payment in stocks or bonds.

Using ARCH's client-level data, we find that ARCH does a very good job of providing security of tenure to its homeowners. Just two of the 536 ARCH homes are seriously delinquent at present. This is a delinquency rate of 0.4 percent, compared to a delinquency rate of 3.8 percent among all homeowners in King County). Only four of ARCH's 722 homeowners have ever been seriously delinquent on their mortgages. Currently, two of ARCH's 536 homes are in the process of foreclosure (0.6 percent). Over ARCH's 17-year history, a total of four ARCH homes have ever gone into foreclosure (0.4 percent), quite a bit lower than national cumulative foreclosure rates.

ARCH limits the equity that its resident members may receive when reselling their home. This restriction does not appear to have limited their mobility, however. An average of 6.9 percent of ARCH's residents moved annually.