

SHARED EQUITY HOMEOWNERSHIP EVALUATION: CASE STUDY OF NORTHERN COMMUNITIES LAND TRUST

Final Report

October 2010

Prepared by:



The Urban Institute

2100 M Street, NW • Washington, DC 20037

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I. Introduction

This case study analyzes outcomes for the Northern Communities Land Trust (NCLT) in Duluth, Minnesota. Incorporated in 1990, NCLT began producing affordably priced homes for sale to low- and moderate-income families in 1994. Through December 2009, NCLT had sold homes to 232 families. Included in this total were 47 resales, where the same price-restricted home was successively purchased by more than one income-eligible family. Using client-level data provided by NCLT, in the following sections 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?
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?

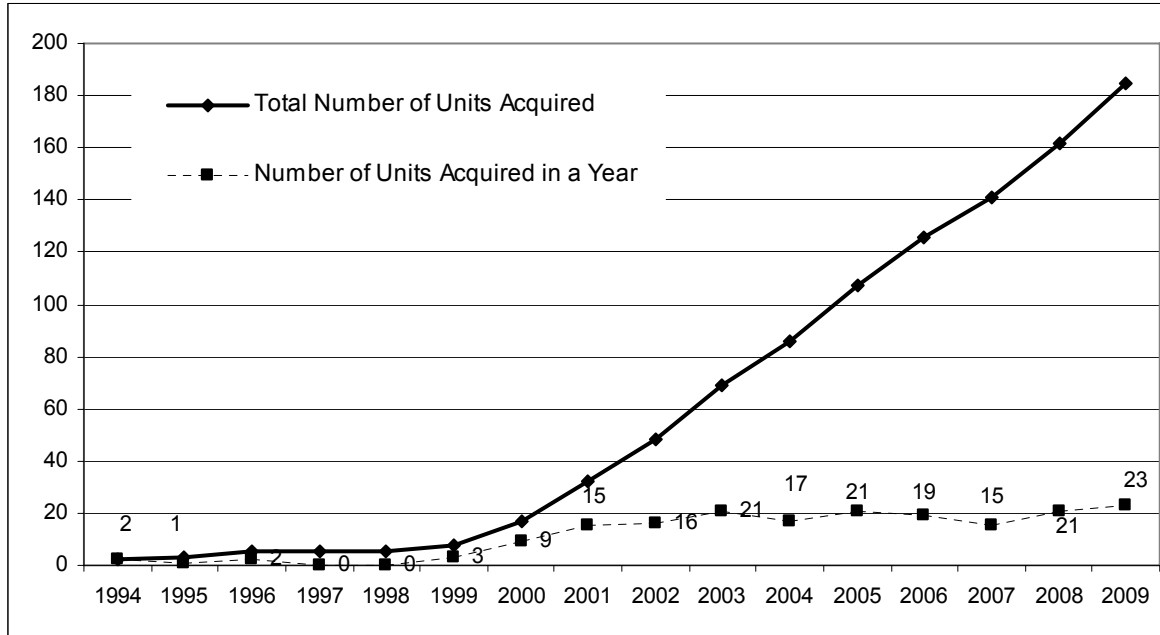
In the following section we describe NCLT's program, including the method it uses to calculate the allowable amount of appreciation that can be realized by resellers and the amount of capital investment that can be recaptured by resellers.

II. Program Description

NCLT (a stand alone, 501(c)3 nonprofit organization) sells homes to families whose income is no more than 80 percent of area median (AMI) at below-market prices. The program's homes typically have 3 bedrooms and one to two bathrooms; all are single-family detached or semi-attached homes. Of the 185 homes currently in the Trust, 63 are new construction and the rest are existing homes, typically between 75 and 100 years old. The homes are on scattered site, in-fill lots; most are located in the older, core neighborhoods in the City of Duluth. Not until 2009 did NCLT develop any housing outside of the city of Duluth. A few homes were acquired, rehabilitated, and resold that year in the adjacent towns of Proctor and Hermantown.

NCLT's portfolio grew slowly between 1994 and 1999. In those six years NCLT developed no more than three homes in any year. By 1999 the land trust acquired, rehabilitated, and resold a total of only eight homes (Figure 1).

Figure 1: Number of Units Acquired by Year and Cumulative Number of Units Acquired by NCLT, 1994-2009



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

In 2000, NCLT increased its holdings: in that year the land trust bought or built nine homes, which was more than it had developed in the previous six years combined. Between 2001 and 2009 the land trust acquired an average of 19 homes a year. By the end of 2009 NCLT had a cumulative portfolio of 185 homes, of which more than half (53 percent) of which were purchased after 2004. Because some of these homes had been resold one or more times, 232 families bought homes through NCLT.

Under NCLT's program, the homeowner receives 30 percent of any increase in market appreciation on the house.¹ To determine this number, an appraisal is done at the time of original purchase, and a new appraisal is done at time of resale. In addition, the seller receives 100 percent of the value of any post-purchase capital improvements (defined as any investment that increases the value of the property, as determined by an appraiser). Such improvements typically included finishing basements, upgrading kitchens, or adding bathrooms or decks. Homeowners do not earn a capital improvements credit for such maintenance items as replacing roofs or furnaces.

NCLT's homebuyers participate in an application process that requires them to provide documentation proving that their household income that is below 80 percent of AMI for the Duluth MSA. Applicants also must secure a pre-approval letter from one of NCLT's participating lenders, which are North Shore Bank, US Bank and Wells-Fargo. Each lender provides 30-year fixed-rate first mortgages. North Shore's mortgage product is for first-time homebuyers only, and

¹ The outstanding 70 percent of appreciation remains in the home to preserve affordability. NCLT assesses a brokerage fee on resale to finance operating costs.

is offered through the Minnesota State Housing Finance Agency. US Bank and Wells Fargo offer portfolio mortgage products for lower income households as part of their CRA requirement. In addition to these first-lien mortgages, NCLT homebuyers can receive non-amortizing, no-interest, due-on-sale second mortgages of between \$2,000 and \$5,000, which are mainly used to cover closing costs. These products are offered by NCLT's participating lenders, as well as by Neighborhood Housing Services and Arrowhead Economic Opportunity Agency.

In addition, applicants have to complete a Land Trust orientation and attend homebuyer education classes offered by Neighborhood Housing Services and Arrowhead Economic Opportunity Agency. In these classes, applicants review a wide range of topics, including the pros and cons of owning versus renting; the steps required to purchase a home; budgeting; real estate and mortgage terms; insurance; how to determine a house payment amount and loan amount; what a credit report is; and the closing and settlement process. Applicants must also complete a CLT orientation (where prospective buyers are informed of the special nature of the CLT program) to be placed on a wait list of eligible buyers, and must review the lease with an attorney prior to closing.

NCLT provides services to households after purchasing their homes. The land trust employs a Homeowner Services Coordinator who is responsible for providing post-purchase for its homeowners. Homeowners can participate in post-purchase counseling and training in classes related to home maintenance, income tax preparation, weatherization/energy efficiency, budgeting/financial literacy, employment opportunities, credit counseling, foreclosure prevention and energy assistance. In addition, NCLT refers homeowners to additional classes in these areas provided by several local community groups and service providers.

NCLT also provides assistance to homeowners facing difficulty in making their mortgage payments. The land trust begins by working directly with homeowners to assess the severity of the situation. Sometimes, the payment problem is due to a temporary and one-time reason, such as an unexpected medical bill or home repair. NCLT, in this case, can make a small, no-interest loan to the homeowner (which is paid directly to the mortgage company) to get him/her current on the mortgage. The homeowner then repays the Land Trust over time. In other cases, where it's clear that there is a long-term problem (such as a permanent change in employment status), NCLT directs the homeowner to credit counseling through Community Action Duluth or Lutheran Social Services. These organizations contact the owner's mortgage servicer to see if the lender will agree to a loan modification or work-out.

NCLT, through its Northern Communities Realty subsidiary, represents the land trust's homeowners when they are ready to sell their homes. While homeowners can select any realtor, nearly all elect to be represented by NCLT. As a full-service brokerage, it handles all aspects of the sale from listing the home (including NCLT buyer requirements) to preparing the purchase agreements to coordinating the closing. Northern Communities Realty, which shares its staff with NCLT, completes a resale inspection, and goes through a resale analysis with the seller. The seller can then see the amount of proceeds that will be available from the sale of the home based on the current and original values of the home, the resale formula, capital improvements credit, principal reduction and closing costs. The sale itself occurs directly from the seller to buyer.

III. Summary of NCLT Sales and Homebuyers

Overall, NCLT has sold homes to 232 families since 1994; there have been 47 resales (25 percent) during the 16 years that the program has operated. As detailed in the following table, the median sales price paid by homebuyers (in 2008 \$) was \$87,615, compared to a median appraised value of nearly \$120,000 for these homes. The median difference in the price paid by the buyer and the appraised value of the home, expressed in 2008 dollars, was \$30,258 (Table 1).

Table 1: Selected Characteristics of NCLT Homes and Homebuyers

Number of units as of December 31, 2009	185
Number of resales: 1994–2009	47
Total number of sales: 1994–2009	232
Median sales price paid by homeowner (in 2008 \$)	\$87,615
Median appraised value of homes at sale (in 2008 \$)	\$119,773
Median difference between appraised value and sales price (in 2008 \$)	\$30,258
Median down payment and closing costs paid by purchaser (in 2008 \$)	\$1,075
Median household income of purchasers (in 2008 \$)	\$28,213
Share of buyers who are first-time homebuyers	91 percent

Source: Authors' analysis of NCLT client-level data

The ability to purchase homes at well below-market prices (the median sales price for a resale restricted home was 73 percent of the median appraised value for these homes) provided homeownership opportunities to lower income households: NCLT homebuyers had a median household income (in 2008 \$) of \$28,213. As detailed in our affordability analyses, this is 47.9 percent of the surrounding metropolitan area's 2008 median family income of \$58,900,² below the allowable threshold of 80 percent of area median income. In addition to serving lower income households, NCLT homes made it possible for 211 families to become homeowners for the first time: 91 percent of NCLT's buyers were first-time homeowners.

² Duluth is located in the Duluth, MN MSA. See the HUD-defined median family income here: http://www.huduser.org/portal/datasets/il/il08/mn_fy2008.pdf. This number differs from the median household income in St. Louis County, MN (where Duluth is located) of \$43,954. These data from the Economic Research Service are derived from Bureau of Labor Statistics Local Area Unemployment Statistics data. See <http://www.ers.usda.gov/Data/Unemployment/>.

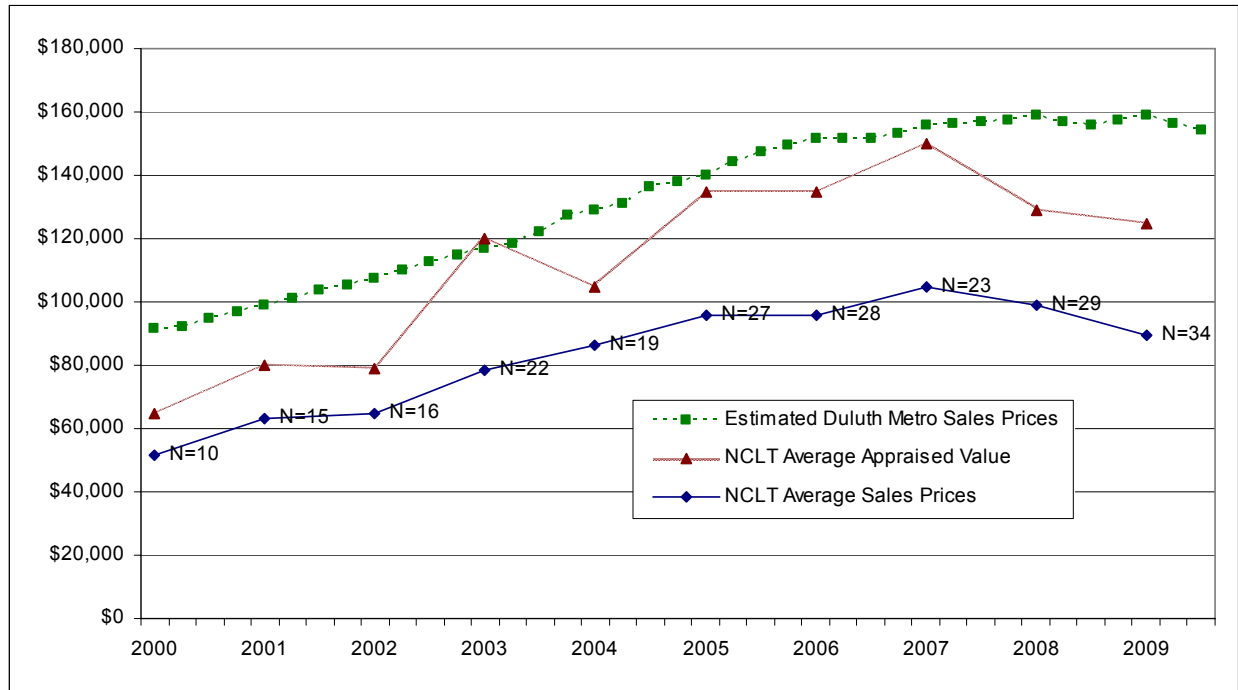
IV. Findings

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 to lower income families that continue to be affordable across multiple resales. Meeting this objective is more challenging in a market where house prices are appreciating. Overall, as measured by the Federal Housing Finance Agency's (FHFA) house price index, home prices increased by about 70 percent between the first quarter of 2000 and the third quarter of 2009 in the Duluth metropolitan area. The median price in Duluth for detached homes in 2008 was \$157,400. Applying FHFA's index to this price, we estimate that median prices (in nominal dollars) for detached homes increased from about \$91,500 in the first quarter of 2000 to its current level of about \$154,000.³ During this time, median home prices in NCLT remain well below Duluth averages while appraised values for these same homes fell between the sales price and the area averages. Figure 2 shows median prices in Duluth and prices and appraised values for NCLT homes for years 2000–2009, the time during which the bulk of NCLT sales occurred.

Figure 2: Estimated Median House Prices and Appraised Values in NCLT and the Duluth, MN-WI Metropolitan Area: Homes Sold from 2000 through 2009

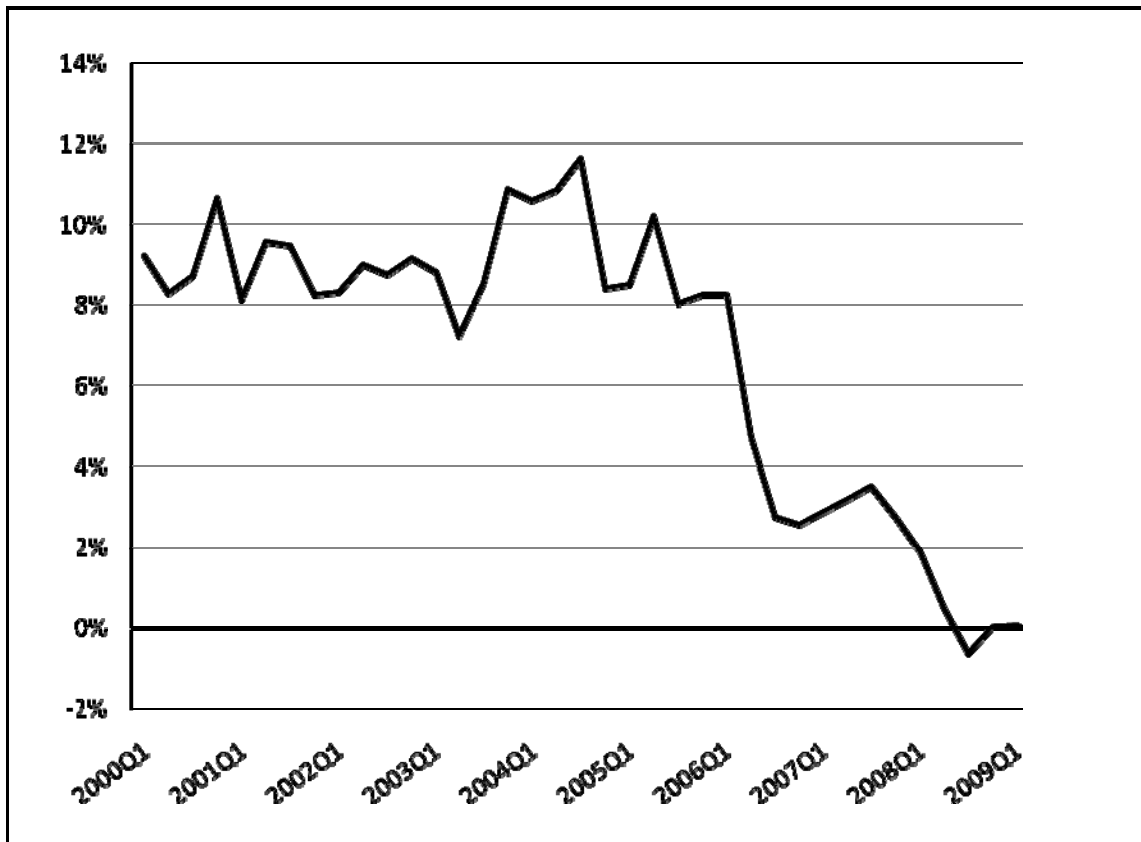


Sources: FHFA House Price Index, American Communities Survey, and authors' analysis of NCLT client-level data.

³ Data taken from the 2008 American Community Survey.

Annual price increases in the Duluth metropolitan area ranged from about 8 percent and 11 percent between 2000 and 2006. This rate of appreciation slowed sharply in 2006, falling to about 2.5 percent in 2007 and declined even more in 2008 and, in 2009, falling below zero (Figure 3).

Figure 3: Year-by-Year Percentage Change in House Prices in the Duluth, MN-WI Metropolitan Area: 2000–2009



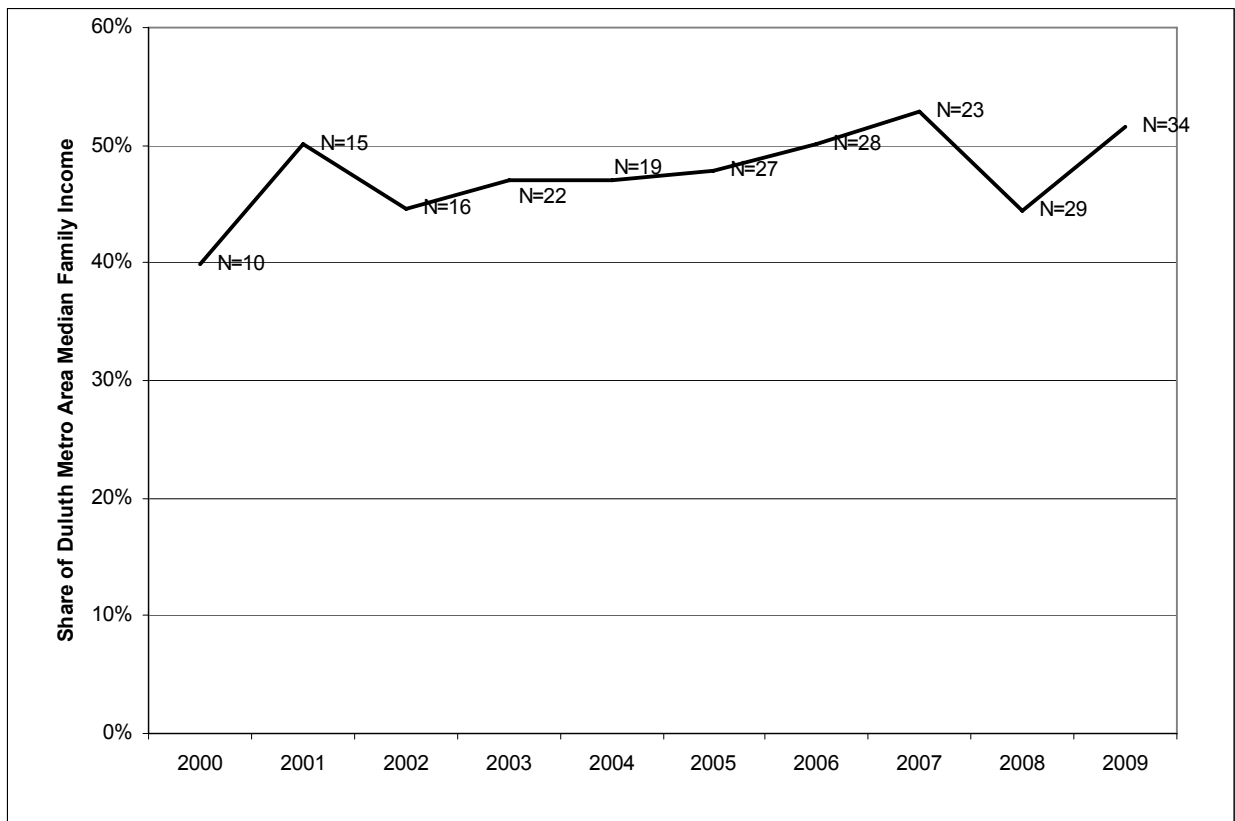
Source: FHFA House Price Index

While the overall U.S. housing market slumped dramatically from its high in mid-2006⁴, the Duluth metropolitan area's house prices did not reach their peak until the first quarter of 2008, and have only declined by about 3 percent since that peak. Like the surrounding Duluth area, NCLT homes saw considerable prices appreciation during this time. But despite a healthy run-up in prices, the program still was able to sell and resell homes to low-income buyers. The real median household income of all NCLT homebuyers was 47.9 percent of Duluth Metropolitan Area's median family income in 2008. This proportion remained relatively constant between

⁴ According to information reported in the Case/Schiller index of house prices, on average home prices in the 20 largest U.S. metro areas declined by 27 percent between July 2006 and December 2008.

2000 and 2009, when nearly all of the program’s homes were sold (see Figure 4). In those 10 years NCLT sold homes to 223 households. In any given year, the median real household income for these homebuyers, as a share of the county’s real median, ranged from a low of 40 percent in 2000 to a high of 53 percent in 2007. In most years, the median household income of NCLT homebuyers, as a share of St Louis County’s median household income varied in a relatively narrow range of between 45 and 50 percent. On average, NCLT’s homes were purchased by households with an income of approximately half the surrounding metro area’s median family income.

Figure 4: Median HH Income of NCLT Homebuyers Relative to Median Family Income for Duluth Metro Area, 2000–2009



N=number of sales in a given year.

Source: Authors’ analysis of NCLT client-level data.

One of the major objectives of a shared equity homeownership program like NCLT’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.”⁵ 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.⁶ 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 NCLT shared equity 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.⁷

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.⁸ 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.

⁵Goodman, Jack. 2001. *Housing Affordability in the United States: Trends, Interpretations, and Outlook*. A Report Prepared for the Millennial Housing Commission, page 3.

⁶ 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.

⁷ 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.

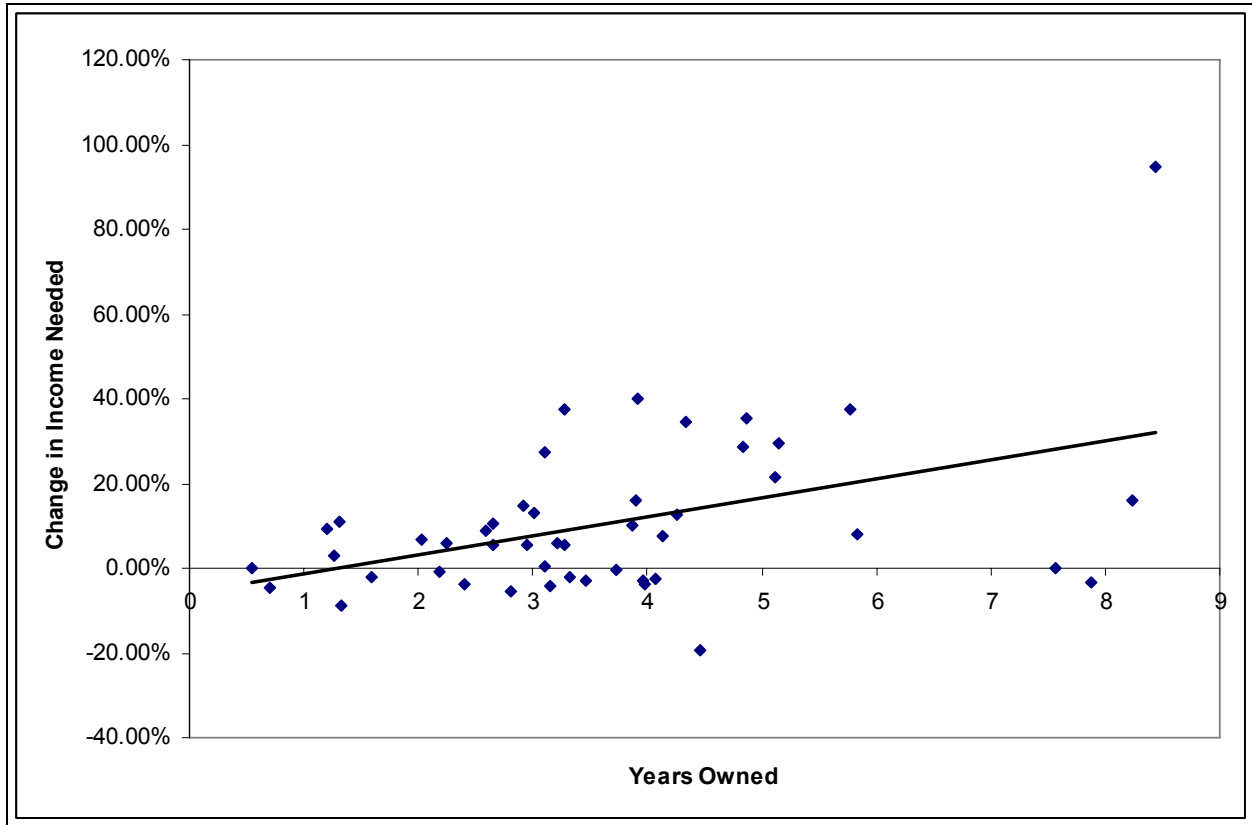
⁸ Goodman, page 17.

Starting with the absolute measure, we calculated the real income required for the initial 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 1.9 percent per year. Although relatively large, just over 60 percent of NCLT homes that were resold required a minimum income that was, in real terms, no more than 10 percent larger than the income 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 4.5 percentage point increase in income needed to purchase an NCLT home. This increase was statistically significant at the .01 level (Figure 5).

Figure 5: Changes in Income Needed vs. Years Owned

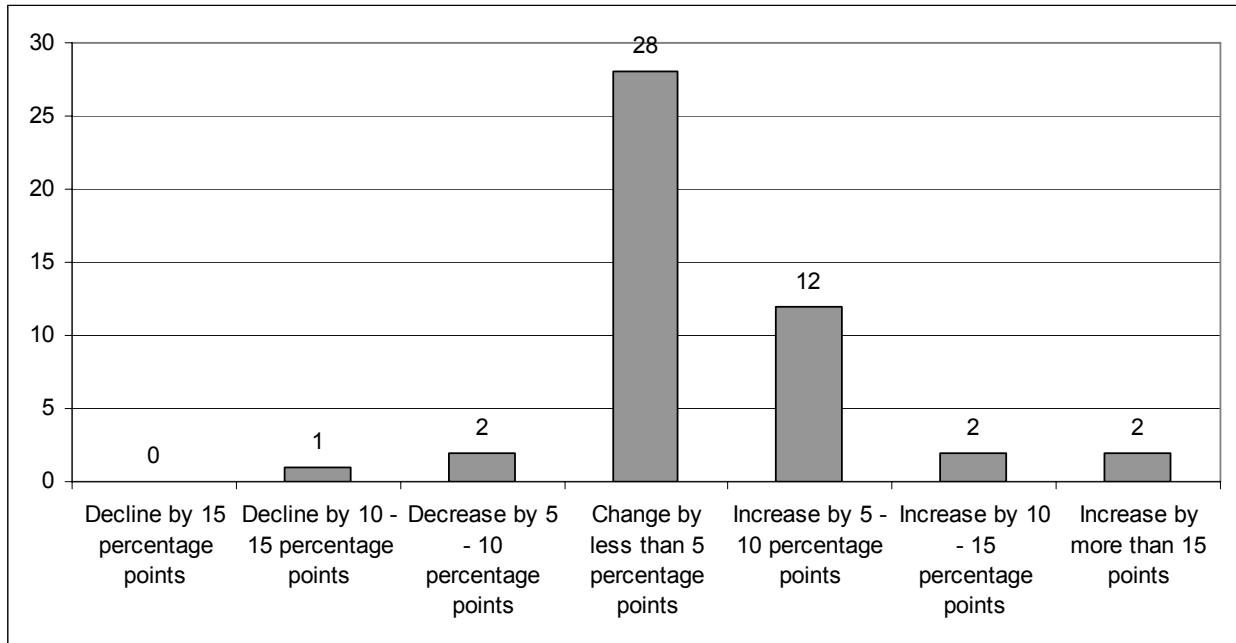


Source: Authors' analysis of NCLT client-level data.

Note: An increase in tenure of one year is associated with a 4.5 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 NCLT home that was subsequently resold was 37.2 percent of the area MFI. These homes, when resold, required a median minimum income that was 42.1 percent of area MFI. The median difference between these two ratios for all of the units resold by NCLT was 1.7 percentage points, which indicates a modest decline in affordability. As shown in the following figure, about two-thirds 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 NCLT Homes, Initial Purchase vs. Later Resale



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

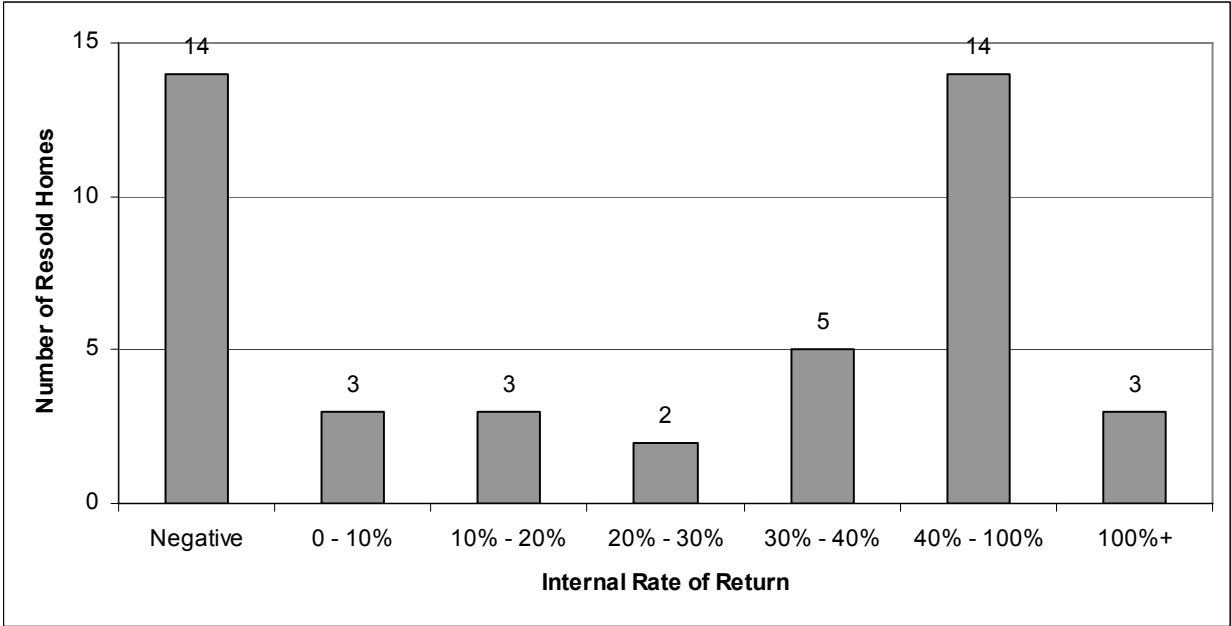
Note: We assume that one-third of income is paid in principal, interest, taxes, insurance, and ground lease fee, with a 6% 30-year fixed-rate mortgage and a 3 percent down payment.

2. Personal Wealth

Shared equity homeownership programs attempt to balance providing buyers with an ability to accumulate wealth while maintaining the affordability of the units for subsequent purchasers. As detailed in the previous section, NCLT's program appears to preserve the affordability of its units, even in a housing market that had a steady rate of price appreciation in the last decade. By allowing sellers to retain 30 percent of a unit's market appreciation, the NCLT resellers earned a high median internal rate of return of 38.7 percent on their initial investment of about \$1,000 for a down payment and closing costs.⁹

⁹ IRR is $[(\text{effective appreciation} + \text{his or her down payment}) / \text{his or her down payment}]^{(1/\text{yrs}_\text{owned})} - 1$. 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 9 sales 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.

Figure 7: Rates of Return for Resold Homes in NCLT



Note: Internal rate of return does not include 3 sales with missing data. Negative IRR includes 9 sales in which the reseller's effective appreciation is negative and larger in magnitude than the down payment.

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

Table 2: Summary Characteristics of NCLT Purchase Transactions

Median purchase price (in 2008 \$)	\$87,615
Share of purchasers who received first-lien mortgages	99 percent (230 out of 232 homebuyers)
Median first-lien mortgage among those with a mortgage (in 2008 \$)	\$83,102
Share of first-lien mortgages with fixed interest rates	100 percent
Median initial interest rate on first-lien mortgages	5.9 percent
Share of first-lien mortgages with a term of 30 years	100 percent
Median down payment and closing costs paid by purchaser at closing (in 2008 \$)	\$1,075
Median percent of sales price paid in down payment	1.3 percent
Share of purchasers who received non-amortizing second-lien mortgage for closing costs	74 percent (171 out of 232 homebuyers)
Median non-amortizing second-lien mortgage amount for purchasers who received such a mortgage (in 2008 \$)	\$3,000
Number of purchasers who received a down payment assistance grant	8 homebuyers
Median down payment assistance grant, among those who received such a grant (in 2008 \$)	\$9,972
Median principal paid on home by resellers (including down payment and closing costs) (in 2008 \$)	\$4,523
Number of resellers who removed equity from their homes through refinancing	1 reseller
Median cash removed through refinancing by resellers who refinanced (in 2008 \$)	\$10,862
Median forced savings - principal paid on mortgages other than down payment (in 2008 \$)	\$2,420
Median proceeds realized by sellers (in 2008 \$)	\$7,989
Median appreciation realized by sellers (in 2008 \$)	\$4,297
Number of resellers with capital improvements	15 resellers
Median capital improvements among those with information (in 2008 \$)	\$2,174
Median Internal Rate of Return Earned by resellers	38.7 percent

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

The rate of return realized by NCLT home resellers far exceeded the returns that those resellers would have earned if they had rented a unit¹⁰ and invested their down payment in stocks (2.8 median return if NCLT resellers invested their down payment amount in an S&P 500 index fund). Their returns also far exceed a comparable investment in 10-year Treasury bonds, which had a median yield at the time that the resellers initially purchased their home of 4.7 percent.¹¹ Not all NCLT owners saw such high rates of return, though; 31.8 percent of NCLT resellers saw negative effective appreciation, and only 77.4 of NCLT homeowners with an IRR calculated saw a higher return than they would have realized with either stocks or bonds. On the other hand, 20.0 percent of NCLT resellers saw internal rates of return of at least twice NCLT's median, and 6.8 percent saw rates of return of over 100 percent (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.

In addition to their share of appreciation, resellers received the entire principal amount that they had paid on their first-lien mortgage (including their down payment) and the amount spent for capital improvements. The 15 homeowners who made capital improvements and sold their home were also credited with 100 percent of the cost of those improvements, which had a median of \$2,174. As a result, resellers walked away from the closing table with a median of nearly \$8,000 after they resold their home, of which about half was appreciation.

The shared equity model used by NCLT provides a subsidy by pricing its homes at about \$30,000 below their appraised value and then passing along that lower price to subsequent homebuyers at resale. An alternative method for subsidizing homeownership would have been to provide this subsidy directly to NCLT homebuyers, who could have used it to purchase the same homes, but without any restrictions on the amount of appreciation they could realize upon resale. We performed an analysis to compare these two approaches.

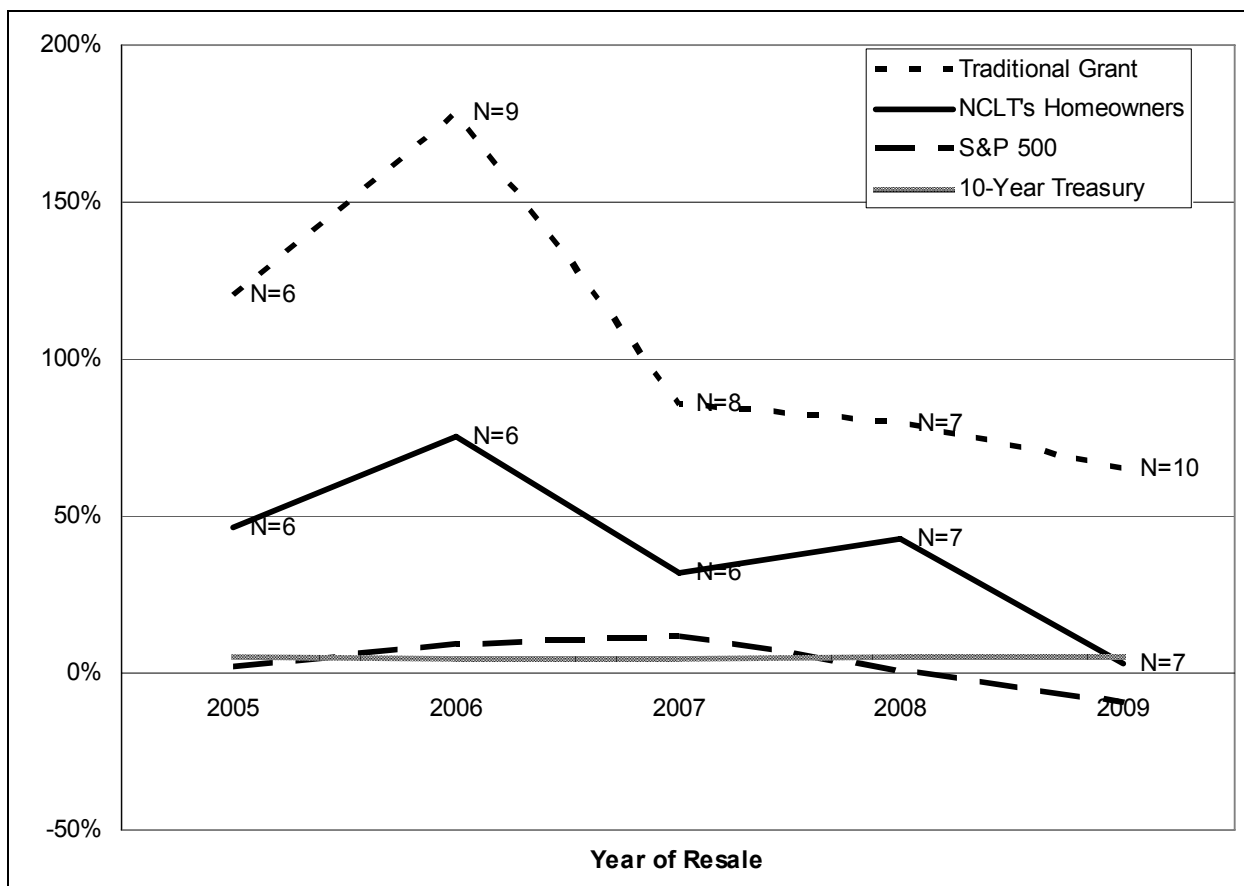
For the direct subsidy-to-homeowner grant program, we assumed (1) that homebuyers would make the same down payment as they did when purchasing the home under the shared equity program and (2) that the price charged by those who resold their homes was equal to the appraised value of their homes at the time of resale. The median appreciation for resold units (in 2008 \$) was \$17,800. Therefore, assuming that NCLT homebuyers received a \$3,000 soft second to pay closing costs (nearly 75 percent did so), under a traditional grant program, NCLT resellers would have realized, on average about \$15,000 in appreciation. Given a \$1,075 down payment, these resellers would have realized a median internal rate of return of 110.2 percent.

¹⁰ 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. This simplifying assumption may be correct: the median total monthly payment for all NCLT owners, in 2008 dollars is \$640. The median gross rent in 2008 in Duluth was \$633 (source: 2008 American Community Survey). 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.

¹¹ We assume that NCLT 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 NCLT homes.

Note that the above differences in rates of return vary slightly depending on the year that an NCLT home was resold. Nearly 90 percent of NCLT’s resales (40 out of 47) occurred between 2005 and 2009. The median internal rate of return earned by resellers between 2005 and 2008 ranged from 32 percent to 75 percent. Those who sold homes in 2009 earned an internal rate of return of only 3.2 percent (Figure 8).

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



Note: Differences in the number of transactions used to calculate internal rate of return for a traditional grant and the NCLT program is the product of some transactions in the actual program resulting in negative proceeds to the reseller.

Source: Authors’ analysis of NCLT 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 possible that an owner could have afforded one, given that the median price in Duluth, in 2008, for such units was \$157,400 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 \$915, assuming a 30-year fixed rate loan at 6.0 percent. This payment would require an annual income of nearly \$33,000, slightly higher than actual median income of approximately \$28,000 for NCLT homebuyers.

The relatively low return realized by NCLT owners who resold their homes in 2009 was due to

low appreciation rates in the area. Resellers, whenever they sold, lived in their home for about three years. The cumulative three-year appreciation rate for homes in the city between 2006 and 2009 was only three percent. As a result, the share of appreciation available to NCLT homeowners was relatively small, compared to resellers in the previous four years, when the three-year gain in home values in the Duluth market was as high as 30 percent.

The internal rate of return for NCLT's resellers in each of the five years was greater than the return they would have realized in the stock market or, for those that resold in 2005 through 2008, the return they would have realized from investing in a 10-year Treasury bond. But, as expected, the returns earned by NCLT homeowners would have been even higher if they had purchased their home with a grant and had been allowed to resell their homes on the open market, with no restriction on the amount of appreciation they could claim.

Allowing homeowners to realize a larger share of the appreciation would not have been without consequence, however. This change in program design has an effect on the affordability of resales or on the total cost of the program. Any shared equity program, then, must balance three competing goals: provide an opportunity for homebuyers to earn returns, retain the affordability of the assisted units for subsequent purchasers of modest means, and minimize the costs of subsidizing (and resubsidizing) these homes.

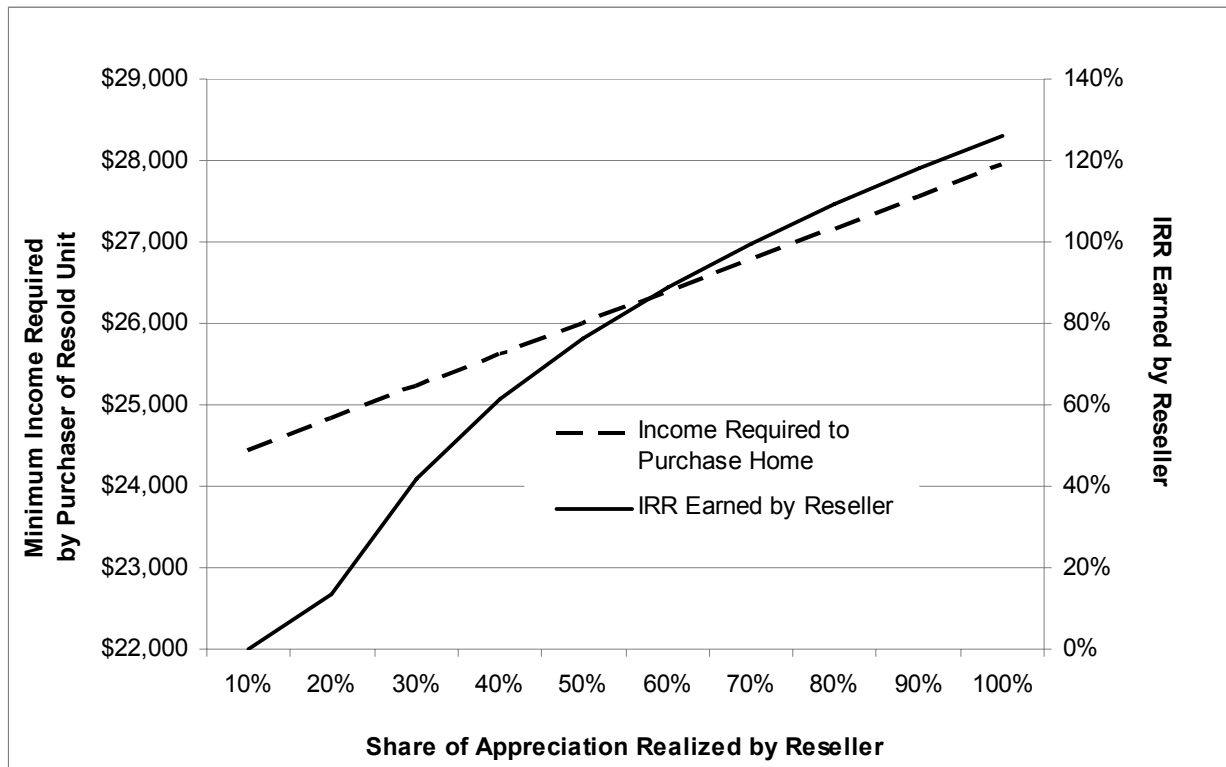
Using information about NCLT's sales and resales, we modeled the trade-off between affordability and the homeowner's return for a hypothetical home. The following figure shows the internal rate of return earned by an owner under the following assumptions: (1) the owner lives in her/his house for 3.3 years (the median for NCLT resellers); (2) s/he has a \$1,075 down payment (median amount for all NCLT buyers); (3) s/he purchases a home appraised at \$119,770 (the median appraisal of homes purchased by NCLT homebuyers) for \$87,600; (4) the home appreciates by \$17,800 (the median increase for NCLT resold homes); and (5) the purchaser receives a \$3,000 soft second to finance closing costs, which is paid out of the seller's share of appreciation.

Not surprisingly, allowing a reseller to realize a greater share of a home's appreciation would significantly increase his/her internal rate of return. In our hypothetical example, allowing the homeowner to retain 30 percent of the market appreciation (which is the actual level for NCLT's program) yields a 42 percent rate of return (net of paying back the \$3,000 soft second loan), which is similar to the median rate of return (39 percent) that was actually earned by all NCLT resellers. The rate of return would be 0 if the resellers were only allowed to keep 10 percent of their appreciation, but would be as high as 126 percent if resellers could keep all of their appreciation (Figure 8).

But, by allowing resellers to retain a greater share of their home's appreciation, the home at resale would have had a higher price, with the new buyer paying the reseller for the appreciated value which the latter was allowed to remove from the home. We calculated the minimum income required to make a house payment that included a 30-year fixed mortgage with an interest rate of 6.0 percent for \$1,075 less than the purchase price, assuming that this payment

was 33 percent of the purchaser’s gross monthly income.¹² Assuming that only 10 percent of the appreciation is realized by the reseller, a household with an income of \$24,400 could afford to purchase the home from the reseller. If the reseller is allowed to retain 100 percent of the appreciation, however, then the purchaser would need a minimum income of nearly \$27,900, or 12 percent more what the purchaser would need, had the reseller retained only 10 percent of the appreciation (Figure 9). Thus, as the share of appreciation realized by the reseller increases, the income required by the buyer goes up; affordability declines.

Figure 9: Analysis of the Internal Rate of Return and Minimum Required Income to Purchase a Hypothetical Resold NCLT Unit



Source: Authors’ analysis of NCLT client-level data.

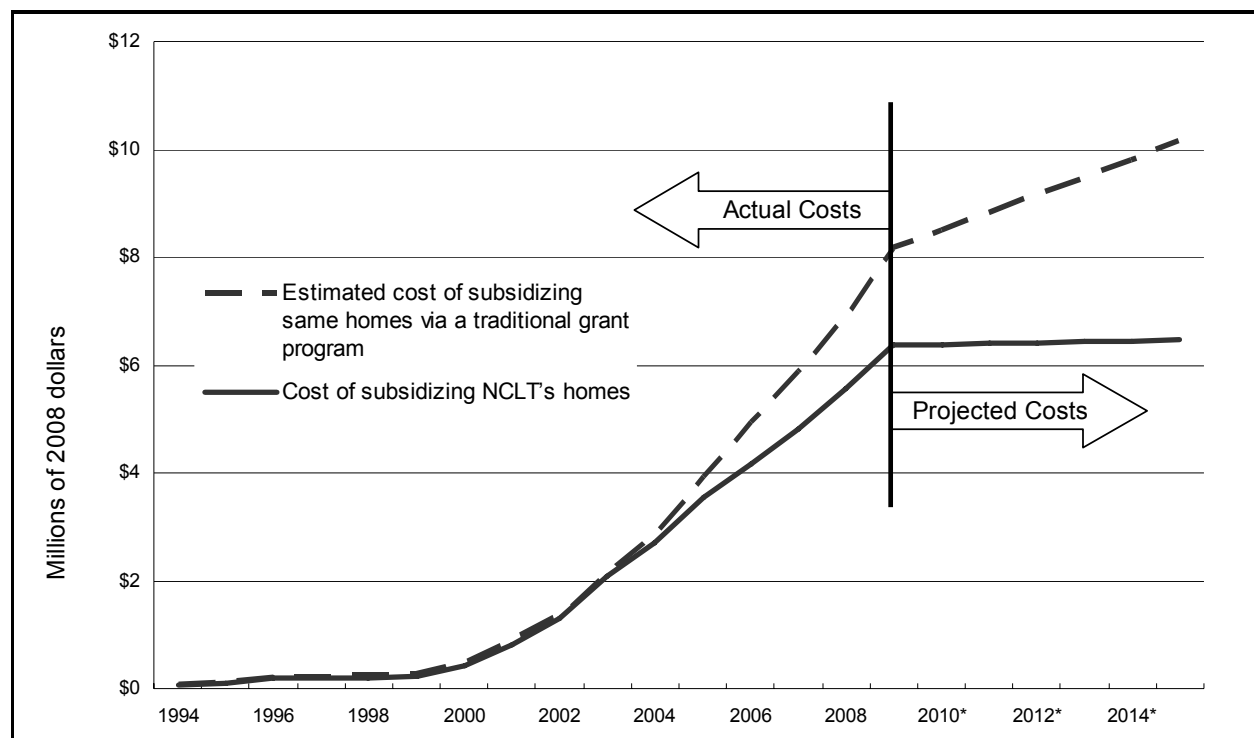
By limiting the amount of appreciation that a reseller is allowed to keep, NCLT’s shared equity program ensures that the home can be resold to lower income families without the need for additional subsidies, beyond those required to make the home saleable. NCLT, with its portfolio of 185 units, has provided ownership opportunities for 232 households. Therefore, the subsidy (the difference between the initial cost of purchasing the unit and the price paid by the initial buyer of that home) is retained and recycled in the home, allowing another family to purchase the same home at a below-market price.

This would not have happened in a direct subsidy-to-homeowner program, under which the recipient could sell his/her home at an unrestricted, market price, pocketing both the subsidy and 100 percent of the appreciation at resale. A program providing grants directly to the

¹² The interest rate and loan term are the same as the median rate and term for all NCLT homebuyers.

homebuyers with no resale restrictions would have been able to serve 47 fewer households than the 232 households served by NCLT. Conversely, to serve the same number of households as NCLT, a direct subsidy-to-homeowner program would have cost much more, a cost differential that increases as resale volume increases.

Figure 10: Cumulative Cost of Subsidizing Homebuyers, NCLT Versus a Traditional Grant Program



Note: 2010 – 2014 reflect projected costs. The costs do not include the difference between total development costs and appraised values for resold properties

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

Overall, the total cost for NCLT's program, through 2009 (in 2008 \$) was \$6.4 million. We define total cost as the difference between the appraised value of the 185 homes purchased or constructed by NCLT, compared to the price paid by the initial purchaser. It also includes the cost to NCLT of repurchasing three homes from banks after a foreclosure¹³; any investments made by the program to get homes ready for resale; and any grants provided by the program to purchasers. An important clarification is that while \$6.4 million is the total value of the subsidy necessary for NCLT to provide these homes at reduced prices, it is not necessarily the case that this is the value of what the program contributed toward this effort. Costs can be borne by developers (as is the case with inclusionary zoning), the shared equity program, other federal, state, or local public programs, or private individuals, lenders, or corporations making monetary or in-kind donations. Also, note that this program cost does not represent the approximately 25 percent difference between total development costs and the appraised value for homes sold by

¹³ For foreclosed homes, we compare the appraised value to the first buyer of the home after foreclosure.

NCLT. Including these costs would increase the total program cost by about \$1.6 million.

The cost of a traditional grant program would include the above costs, plus the difference between the appraised value of a home and the price paid by the buyer for all resales, rather than just for the 185 initial sales. With no restrictions on resale, in other words, a traditional subsidy-to-homeowner grant program would need subsidies for an additional 47 homes to match the number of low-income homebuyers served by NCLT. We estimate the total cost to-date (in 2008 \$), for this traditional program at \$8.2 million, or \$1.8 million more than the cost of NCLT's shared equity program, again, excluding the difference between total development costs and the appraised value for homes. Including these costs adds another \$2.0 million. This differential will continue to grow as resale volume increases. Assuming there are nine resales per year between 2010 and 2014 (the average number of resales between 2007 and 2009), the cost of the traditional grant program by the end of 2015 would be \$10.1 million, compared to \$6.5 million for the shared equity program (see Figure 10).

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 NCLT better positioned its homebuyers in mortgages that were not high cost, and whether these buyers were able to maintain their homes, avoiding foreclosure and the intermediate step of delinquency.

High-cost loans (also referred to as subprime loans) often contain features that increase the likelihood of a borrower default. Some high-cost loans allow borrowers to make payments that are less than the amount required under a fully amortizing loan. In addition, many subprime loans are originated with low teaser rates that reset after a given period of time; borrowers oftentimes cannot afford payments with the new interest rate. The percentage of a homeownership program's beneficiaries who have financed their homes using subprime loans is a leading indicator of the likelihood of delinquency and foreclosure.

Almost all of NCLT's buyers (230 of 232) took out a mortgage to pay for their homes. All who did received a 30-year fixed-rate self-amortizing mortgages from publicly regulated institutional lenders. No other type of first mortgage and no other type of lender was allowed by NCLT. The median interest rate for all first-lien mortgages was 5.9 percent, ranging from a low of 4.0 percent to a high of 8.2 percent. In addition, three in four homebuyers (74 percent) received non-amortizing, no-interest second mortgages to cover closing costs. Every first and second mortgage was originated by one of NCLT's three lending partners.

None of the first mortgages on NCLT homes had prepayment penalties and just 0.4 percent (1 of 230) were high cost. By comparison, 14.9 percent of all mortgages on one to four family homes in Duluth, MN were high cost between 2004 and 2006, according to data from the Home

Mortgage Disclosure Act (HMDA).¹⁴ HMDA, which includes both lower and upper income buyers, defines high-cost loans as first-lien mortgages with an APR that is at least 300 basis points above the comparable term Treasury yield. We apply a similar definition to NCLT home loans.¹⁵

Using NCLT's client-level data, we calculated the share of current mortgage loans on NCLT homes that are seriously delinquent—that is, more than 90 days late on their mortgage payment. Five of 185 NCLT homes are currently seriously delinquent (2.7 percent). This number is virtually identical to the share of all homes that are seriously delinquent in St. Louis County, MN. As reported by TransUnion, 2.5 percent of all homeowners in the County—including upper income buyers—are more than 90 days late in paying their mortgage.¹⁶

In addition, we calculated the share of all mortgages on NCLT homes (current or not) that had ever been seriously delinquent. Twelve of the 232 homes fell into this category (5.2 percent). By comparison, 15.0 percent of FHA-insured loans originated in 2004 had been delinquent by at some point by 2008.¹⁷

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 Land Trust. In the event of foreclosure, NCLT risks losing the property from its portfolio, with the accompanying loss of all restrictions on occupancy and affordability, unless the Land Trust elects to purchase the REO property back from the lender.

We calculated the number of mortgages among NCLT's homeowners that were in foreclosure as of December 2009. Just two of NCLT's 185 homes were in the process of foreclosure (1.1 percent)—and these homes may yet be cured. This figure was less than the foreclosure rate for Duluth as a whole, which stood at 4.4 percent as of the fourth quarter of 2009.¹⁸ Over NCLT's 15-year history, a total of seven NCLT homes have ever gone into foreclosure (3.0 percent). This is similar to national cumulative foreclosure rates: 2.3 percent of FHA-insured home loans

¹⁴ http://www.foreclosure-response.org/assets/hmda_08/hmda_state_MN_11_2009_Novice.xls

¹⁵ Where available, we used yields on 30-year Treasury securities. This information is not available from February 2002 to February 2006. The U.S. Department of Treasury provides, for those years, the 20-year Treasury security yield along with an extrapolation factor, which we use to obtain an estimate for the 30-year yield. See http://www.ustreas.gov/offices/domestic-finance/debt-management/interest-rate/yield_historical_main.shtml and <http://www.ustreas.gov/offices/domestic-finance/debt-management/interest-rate/ltcompositeindex.shtml>. HMDA high cost loans are calculated using the Treasury yield on the 15th of a given month when the interest rate was determined. (Any interest rate determined before the 15th of a month is calculated using the previous month's yield.) See Robert Avery, Kenneth Brevoort, and Glenn Canner. 2006. Higher-Priced Home Lending and the 2005 HMDA Data. For NCLT, we do not have the date the interest rate was determined, so we use the purchase date.

¹⁶ We accessed these data through the Federal Reserve Bank of New York. <http://data.newyorkfed.org/creditconditions/>

¹⁷ Cumulative delinquency rates are not available for St. Louis 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.

¹⁸ Data available from HUD at http://www.huduser.org/portal/datasets/nsp_foreclosure_data.html. Minnesota data is available at http://www.huduser.org/portal/datasets/excel/MN_foreclosure.zip

originated in 1998 were in foreclosure after four years¹⁹; in 2008, 4.2 percent of FHA-insured home loans originated in 2004 were in foreclosure²⁰. It should be noted that NCLT has achieved a low foreclosure rate that is comparable to the rate among all FHA-insured homes while serving a clientele having a much lower income than the average household purchasing an FHA-insured home.

NCLT has not lost any homes from its portfolio due to foreclosure, but has had to buy three units out of REO, for total added investment of approximately \$58,400 (in 2008 \$) which reflects the difference between the appraised value for these homes and the sales price paid by buyers after NCLT repurchased the properties. NCLT was able to work with the owners of the remaining two properties that entered foreclosure to keep them in their homes, and they eventually sold their units. If NCLT 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, NCLT refers residents to credit counseling agencies.

A final measure of how effective NCLT has been not only in helping low income families to *attain* homeownership but to *sustain* it is the percentage of buyers who remain homeowners five years after they purchase a Land Trust home. We counted a buyer as a continued homeowner if, after five years, she remains in her original NCLT home, or has moved into another owner-occupied market-rate or shared-equity home. Of the 80 first-time buyers who bought a NCLT home more than five years ago (and for whom we have mobility information), 95 percent were still homeowners after five years (76 of 80). This is an impressive rate, considering that all were low-income and almost were all first-time homeowners. By comparison, previous studies have found that roughly half of all low-income homebuyers fail to remain homeowners five years after acquiring a home.²¹

4. Mobility

Families move frequently. According to the American Community Survey, in 2008, about 13 percent of the U.S. population moved to a new address, though rates are higher for renters than homeowners. High rates of mobility nationally raise key questions for shared equity homeownership programs. Does the purchase of a shared equity home limit mobility? Are families reluctant to sell their homes because the housing market has outpaced their appreciation? Or conversely, do some types of shared equity homeownership result in fewer moves, promoting cohesive communities? To inform these questions, we assess the rates at which NCLT participants moved and their average length of tenure. We also 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.

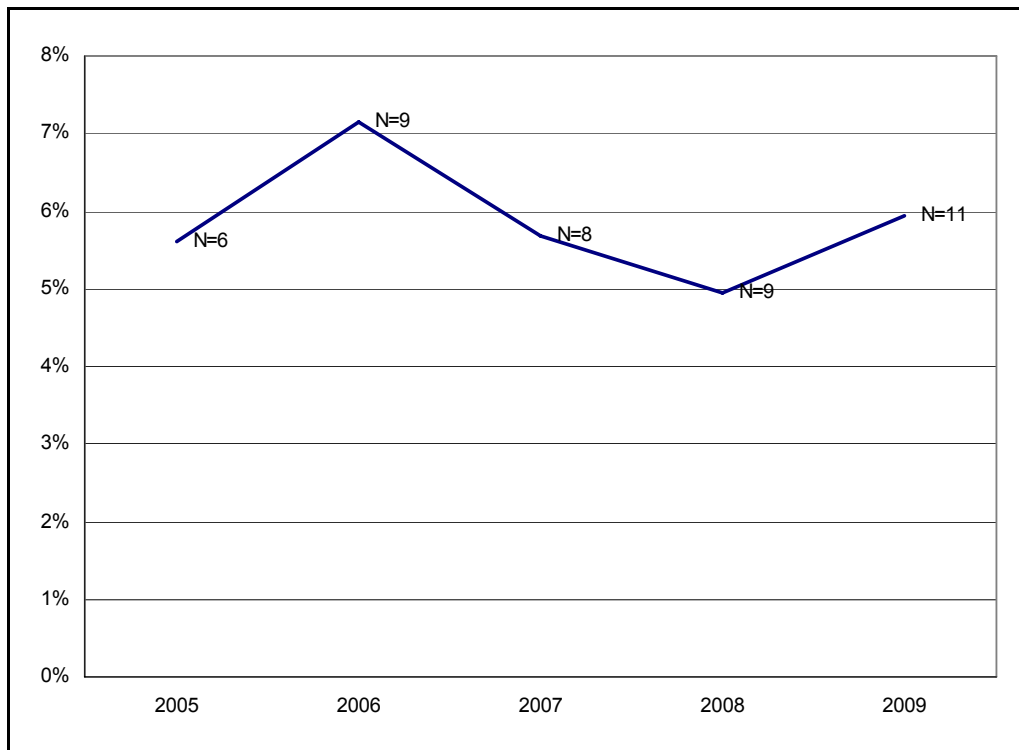
¹⁹ <http://www.gao.gov/new.items/d02773.pdf>

²⁰ http://portal.hud.gov/fha/investment/5087-N-04_DPA_Pub_6-11-08.pdf

²¹ Herbert, Chris and Belsky, Eric. "The Homeownership Experience of Low-income and Minority Households: A Review and Synthesis of the Literature." *Cityscape* 10 (2), 2008; and <http://frpo.org/Document/Topics&Issues/Renting%20vs.%20Owning/Achieving%20American%20Dream%20Katz%20Reid.pdf>.

Of the 232 homeowners who purchased homes under the NCLT program since its inception, 47 (20.3 percent) sold their home and moved by the point of data collection in 2009. During a comparable time period, we would have expected 25.1 percent of first-time homebuyers nationally to have sold their homes and moved.²² It does not appear, therefore, that NCLT homebuyers are moving at substantially lower rates than other first-time homebuyers. Just five of NCLT's homeowners moved prior to 2005. From 2005 to 2009, an average of 8.4 owners moved each year. As shown in Figure 11, the percentage of households that moved between these years was between five and seven percent of all households.

Figure 11: Number and Percentage of NCLT Homeowners Moving Each Year



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

A different way to look at this same information is to calculate the length of tenure for families who move. Across the 15-year life of NCLT's program, the median length of tenure for movers was 3.3 years. This figure does not vary appreciably year by year. Looking both at the percentage of NCLT homeowners who moved and their length of tenure, we do not see evidence that homeowners in the NCLT program were stuck in place.

Research has established that some families move because of positive changes in a family's circumstances, such as buying a bigger home to fit a growing family or moving to be close to a new job. But mobility can also be a symptom of instability and insecurity. To gain a better

²² <http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=110770&print=true>

understanding of why NCLT buyers moved and what their housing outcomes were, we conducted a short web-based survey of movers.²³

Most NCLT movers reported they moved for family reasons (11 of 28), followed by job reasons and housing reasons (7 movers selected each of these), and finally, three movers left for other reasons (See Table 3).²⁴ The most frequently cited reason for moving was a change in marital status, reported by 10 movers. This was confirmed in discussions with the program officer at NCLT, who stated that many households in NCLT’s program were female-headed, and several of these women moved after getting married. Only five movers left for what may be considered negative reasons (wanting cheaper housing, a better home, or a better neighborhood). These responses paint a picture of most owners leaving their Land Trust homes not in financial stress or reluctantly, but in response to family, life cycle, and employment changes. To provide context for these NCLT findings, we include in Table 3 the percentage of households who moved nationwide for these same reasons in 2008. We used data from the Current Population Survey that we restrict to more closely resemble the NCLT homebuyers.²⁵

Table 3: Main Reason for Moving, NCLT and Nation

	NCLT Movers (N)	NCLT Movers (%)	Movers Nationwide (%)
Family reason	11	39	28
Job reason	7	25	19
Housing and neighborhood reason	7	25	43
Other reason	3	11	10
Total	28	100	100

Note: Data missing for 19 NCLT movers (3 survey non-respondents, 16 item non-respondents). Nationwide figures include movers age 18 and over, who are not claimed as a dependant, with household incomes ranging from \$15,000 to \$50,000.

Source: Authors’ analysis of NCLT mobility survey. National data from the Current Population Survey Annual Social and Economic Supplement, 2009 release.

Although based on a small sample, it is interesting to note that only 7 out of 28 respondents (25

²³ Of the 47 NCLT movers, we received 44 completed surveys.

²⁴ Family reasons include: change in marital status, establish own household, or other family reason. Job reasons include: new job or job transfer, to look for work or lost job, to be closer to work/easier commute, retired, or other job-related reason. Housing and neighborhood reasons include: wanted to own home, not rent, wanted new or better house/ apartment, wanted better neighborhood/less crime, wanted cheaper housing, or other housing reason. Other reasons include: to attend or leave college, change of climate, health reasons, or a natural disaster.

²⁵ Figures include movers age 18 and over, who are not claimed as a dependant, with household incomes ranging from \$15,000 to \$50,000. These figures include both renters and homeowners, however.

percent) said that they sold their NCLT home because of a house or neighborhood issue. This share may be less than the 43 percent of movers who selected this reason as the main reason for moving. According to NCLT staff, the organization selects homes in desirable neighborhoods, and ensures that, when sold, they have up-to-date amenities that reduce the cost of ownership.

Nationally, most movers resettle near the home they are leaving. We found this to also be the case for NCLT movers. Sixty-seven percent of them stayed within the same county (28 of 42); most stayed within the same city (25 of 42). Seven NCLT movers left St. Louis County, but stayed within Minnesota, and seven households moved out of state. These figures mirror, nearly exactly, the patterns of mover destinations nationwide (Table 4). There appears to be nothing in the special conditions and restrictions that accompany the ownership of a NCLT home that alters or affects the location decisions of households who decide to move.

Table 4: Destination of Movers, NCLT and Nation

	NCLT Movers (N)	NCLT Movers (%)	Movers Nationwide (%)
Within same county	28	67	68
Another county, but same state	7	17	17
Different state or country	7	17	15
Total	42	100	100

Note: Data missing for 5 NCLT movers (3 survey nonrespondents, 2 item nonrespondents). Nationwide figures include movers age 18 and over, who are not claimed as a dependant, with household incomes ranging from \$15,000 to \$50,000.

Source: Authors' analysis of NCLT mobility survey. National data from the Current Population Survey Annual Social and Economic Supplement, 2009 release.

Finally, we asked movers about the tenure of housing they moved into after reselling their NCLT home. This measure is an important outcome of residential and economic mobility. The overwhelming majority of movers reported (32 of 40) transitioning into another owner-occupied home. Of these, nearly all purchased market-rate housing. With proceeds, at the median, of just under \$8,000, these movers had accumulated funds for a moderate down payment on their next home. Additionally, as several NCLT homeowners moved after getting married, they may have benefited from increased household earnings. Fifteen percent of movers (6 of 40) shifted to rental housing subsequent to leaving their NCLT home.

Table 5: Type of New Unit for NCLT Movers

	NCLT Movers (N)	NCLT Movers (%)
Owner-occupied, market rate housing	31	78
Owner-occupied, restricted resale housing	1	0
Market-rate rental housing	6	15
With family	2	1
Total	40	100

Note: Data missing for 7 NCLT movers (3 survey nonrespondents, 4 item nonrespondents)

Source: Authors' analysis of NCLT mobility survey.

V. Conclusion

This case study analyzes NCLT's program of providing homeownership opportunities to low-and moderate income families. The findings suggest that the land trust model promotes sustainable homeownership to lower income families. Of the 232 families who purchased NCLT homes, 91 percent of them were first-time homebuyers. Although NCLT homeowners, on average, earn 47.9 percent of the median income in Duluth, 3 percent had their loan go into foreclosure. Rather than use high-cost loans, NCLT homebuyers finance their purchases with mortgages that are underwritten with standards that allow for sustainable homeownership over time.

Despite restrictions on the appreciation that they could realize upon resale, NCLT homebuyers who sold their home realized a high median internal rate of return of 39 percent. This is about ten times the return these families would have earned if they placed their down payment in either the stock or bond market, though only 77.1 percent had higher returns than they would have seen in either.

Given the high rates of returns realized by resellers, the NCLT program has seen a modest erosion of affordability. The income required to purchase an NCLT home (as a share of area MFI increased by 1.7 percentage points over time; the absolute income required to purchase an NCLT home at resale increased by an average of 1.9 percent per year, indicating a modest decline in affordability. It is important to note, however, that the minimum required income to purchase homes is well below the area median and resold homes remain within reach of low-income households.

Given the recent foreclosure crisis, the program managed by NCLT provides a potential model for increasing homeownership opportunities to families who may not be able to afford homes in a manner that promotes wealth creation without placing these buyers at an undue risk of losing their homes.