Gifts, Down Payments, and Housing Affordability

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Abstract

Recent evidence shows that homeownership rates among young households have declined substantially since the mid 1980s. Although factors such as late household formation and the increasing user cost of housing are contributing factors, reduced affordability is also a concern. Aggregate data indicate that first-time buyers are relying more heavily on gifts from relatives and less on own savings in accumulating the down payment.

This paper explores the role of gifts in helping first-time buyers purchase a home using data from two different sources: surveys of recent home buyers in 18 cities between 1988 and 1993, and 1990 Boston loan applicants. The evidence shows that financial constraints are important in explaining the increased reliance on gifts, with the receipt of a gift being negatively related to income and wealth, and positively related to the one-year rate of appreciation of house prices. The evidence is mixed as to whether givers target gifts to certain types of households, such as young, married couples.

Introduction

According to the U.S. Census, homeownership rates declined between 1980 and 1990. Although the drop among all households was small (0.2 percent), rates for young, married households fell much more dramatically. One possible explanation is that young households who did not yet own homes faced real house prices that were rising much faster than real incomes, particularly in the Northeast and West. As a consequence, young households may have found homeownership less attractive, or at least less affordable. In addition, households who had the desire and the income to purchase a home may have had a greater difficulty saving a down payment.

This study uses newly available survey data for 1988 and 1993 from the Chicago Title and Trust Company (CT&T) to explore housing affordability for first-time buyers by looking at how successful buyers financed their homes. Because of considerable evidence suggesting that the down payment constraint is binding for many potential buyers, this study focuses in particular on the source(s) of down payments. Although the CT&T survey does not include potential buyers who were discouraged or unsuccessful, it does show that many first-time buyers waited a long time to purchase their home. For example, more than 25 percent of all first-time buyers saved for at least five years for a down payment. Other first-time buyers turned to relatives to help reduce the time to save. Almost one-quarter obtained a loan or gift from relatives, with the average help comprising over one-half of the down payment. By comparison, about 5 percent of repeat buyers received help from relatives.

This study looks at the use of gifts and loans from relatives to meet down payment constraints, or possibly to purchase a larger house. It begins

by presenting aggregate data showing that the percentage of young households who have purchased a home has declined in the last 10 years, while the percentage of the down payment coming from gifts and the time to save have both increased. The next section summarizes the previous literature relating to changes in homeownership and discusses factors that affect a household's decision about whether (and when) to purchase a house. While other research has looked more generally at the timing of home purchase and savings behavior, this study focuses on explaining gifts and on exploring the link between aggregate data showing an increase in gifts (and a commensurate decrease in own savings) and a decreasing homeownership rate for young households.

Section 4 describes the data and compares financial and demographic profiles of first-time and repeat buyers. The fifth section narrows the sample to look exclusively at first-time buyers, examining possible financing constraints, whether or not the buyers received a gift, and where they are located. Section 6 estimates a tobit model of gift giving across 18 cities using CT&T data, while the seventh section uses data from accepted loan applicants in Boston to test additional hypotheses regarding the use of gifts. The study concludes with a discussion of the evidence in this study and an agenda for future research.

Changes in the Pattern of Homeownership Over Time

Despite the fact that aggregate U.S. homeownership rates have been relatively flat over the last 20 years, age-specific homeownership rates have fluctuated greatly. As Figure 1 shows, homeownership rates for younger households (those headed by a person less than 44 years old) have declined, while rates for older households have increased. This trend is particularly

true after 1980. From a static perspective, these data show that households are waiting longer to buy a home, but that eventually at least 80 percent of all households will be successful. From a cohort perspective, however, the data suggest a more troubling possibility: homeownership rates for younger cohorts are declining after rising for many decades.

The decline in homeownership among young households could be due to many factors: increasing real house prices, a drop in the rate of family formation, a decline in the incomes of renters, changes in the user cost of owner-occupied housing due to the 1981 and 1986 tax reforms or a decline in expected nominal house price inflation, changes in the interest rate tilt, or even normal business cycle fluctuations. For example, the user cost of owner-occupied housing rose substantially after 1981 when marginal tax rates and expected nominal house price inflation declined, making homeownership less attractive relative to renting. In addition, because individuals are marrying later, home buying, which often occurs after household formation, is taking place at a later age. These factors, plus the impact of baby-boomers, might explain why homeownership rates fell for all households in the 1980s. (See Green 1994.)

For younger households, however, factors such as user costs, demographics, and household formation do not appear to tell the complete story. Homeownership rates have declined not only for households whose head is under 25 years old, but also for households whose head is age 25 to 34 or 35 to 44. CT&T survey data from the 1980s, presented in Table 1, suggest that reduced affordability, either because of rising house prices or falling renter incomes, is an important additional factor explaining the decline in homeownership among young households.

Note that for first-time buyers, the percentage of the down payment coming from personal savings has declined since 1985.[1] Over the same time period, the average time required to save for the down payment and the average age of a first-time buyer have steadily increased. Also, households are relying more heavily on relatives as a source of funds for the down payment. Late household formation or increasing user costs do not easily explain these facts. Instead, the evidence that the down payment is a decreasing percentage of the purchase price despite the fact that successful home purchasers are saving longer for a down payment suggests that younger households are having an increasingly difficult time accumulating funds for a down payment.

Saving for Homeownership

Prospective first-time home buyers must meet (at minimum) two financial requirements imposed by mortgage lenders. First, lenders require a down payment on the purchase price of a home, which generally equals 10 or 20 percent in the United States for conventional mortgages.[2] In addition to the down payment, first-time buyers face a number of other initial costs of homeownership. These expenses include closing costs, broker fees, moving expenses, initial home repairs, and transactions taxes, and they can easily

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[1] Prior to 1985, the percentage of the down payment from own savings also decreased strongly between 1979 and 1981 when the sudden rise in nominal interest rates made housing less affordable. Because higher nominal interest rates increased the "tilt" on a fixed-rate mortgage, buyers of a given income had a more difficult time buying a given house. As a result, first-time buyers may have turned to relatives and other sources for additional funds to increase the down payment and thus decrease the monthly mortgage payments.

[2] Mortgages with down payments as low as 2 or 3 percent are available to qualified households under government-sponsored mortgage programs such as those of the Federal Housing Administration (FHA) or the Veterans Administration (VA). Conventional mortgages with less than 20 percent down require the purchase of private mortgage insurance.

add another 2 to 5 percent in up-front costs. These expenses, along with the down payment, imply that the household must have accumulated substantial liquid wealth in order to afford a first home. For example, consider a household wishing to purchase a $120,000 house. Even in the absence of the other costs of homeownership just mentioned, the household would have to accumulate between $12,000 for 10 percent down and $24,000 for 20 percent down--relatively substantial amounts for low-saving Americans.[3]

Second, lenders generally require that mortgage payments plus property taxes and insurance premiums not exceed 28 percent of gross income; this is the relevant guideline for lenders selling a mortgage in the secondary market. An obligation ratio constraint of 28 percent may be binding for households with low current but high future income, who would like to purchase a larger home than allowed otherwise. Whether this requirement binds depends on the amount of the down payment, since a larger down payment decreases the loan amount and thus decreases the mortgage payments. Linneman and Wachter (1989) and Zorn (1989) show that actual obligation ratios often exceed those stated in the secondary market underwriting guidelines for households that obtained mortgages. Even for low-income borrowers, as Munnell et al. (1992) show, lenders will allow borrowers to exceed the obligation ratio guideline of 28 percent, sometimes by a large amount. Thus, the payment burden is flexible and a function of the down payment.

Other empirical studies also suggest that the down payment constraint is more important than the obligation ratio constraint. Using household data

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[3]According to data from the 1992 CT&T Survey, for example, the median first-time buyer had an income of $51,000 and purchased a $120,000 house, suggesting that the typical down payment comprises between one-quarter and one-half of yearly gross income.

from the *Panel Study of Income Dynamics* (PSID), Engelhardt (1994a) finds that households hold food consumption low to save for the down payment. Once households buy a home, food consumption returns to the higher long-run levels, even controlling for changes in income. Also, the U.S. Bureau of the Census (1991) concludes that most renter households can afford the monthly payments on the average-priced home in their region of the country but lack the savings to make a down payment on that home.

A prospective first-time buyer household has a limited number of ways of accumulating a down payment. Household members can either accumulate the down payment by consuming less and saving from earned income, or obtain a gift or loan from a relative or friend. Of course, house prices are the primary factor that influences saving for home purchase. The cost of a house affects not just the demand for housing, but also the amount of the down payment to be accumulated. Specifically, given income and the down payment percentage required, the down payment amount rises as house prices rise. As a result, prospective first-time buyers may change their saving and housing decisions in a number of ways as house prices rise: They may increase the time it takes to save for the down payment, they may change the rate at which they save from earned income, they may purchase a smaller first home and then trade up later in life. If house prices change quickly or unexpectedly, buyers may be more likely to seek a gift or loan from a relative to make up any shortfall in the accumulation of the down payment.

To help determine how prospective first-time buyers might react to increases in house prices, Engelhardt (1994b) develops and simulates a life cycle model of saving with endogenous tenure choice, in which households choose whether to rent or own, as well as the length of time to save for the

down payment and the size of home to purchase. Engelhardt finds that as house prices rise, households adjust along all of the margins described above: They save at a lower rate (consume more non-housing goods), purchase smaller first homes, and take longer to save for the down payment. These results suggest a robust inverse relationship between housing costs and the saving rate for home purchase. Note, however, that sufficiently impatient households may become discouraged, stop saving for homeownership, and rent for their entire lives. In this case, high housing costs fully crowd some buyers out of the first-time buyer market.

Recent empirical studies of the effect of house prices on the saving behavior of renters have produced mixed results. Sheiner (1995) uses the 1984 wave of the PSID and finds that house prices have a positive and significant effect on the accumulated net worth of renter households in 26 cities in the United States. Living in a city with $10,000 higher real house prices is associated with an increase in net worth of between $400 and $1,800 depending on the specification. However, the *PSID* provides no information on which renter households are actually saving for homeownership.

Yoshikawa and Ohtake (1988) use a Japanese data set (1984 National Survey of Family Income and Expenditure) that has information on household plans for saving for home purchase. They find that a rise in land prices increases the saving rate for those renter households with plans to purchase a home and that the saving rate decreases for those households with no such plans. The implied saving elasticities with respect to land prices are 0.003 for renters with purchase plans, -0.06 for those without, and -0.07 for all renters combined.

Finally, Engelhardt (1994b) examines the effect of house prices on young renters' decisions to save for home purchase, and finds evidence of a discouragement effect. Canadian renter households saving for a down payment are identified by their membership in a tax-deferred savings program for prospective first-time home buyers. He finds that high house prices significantly reduce the likelihood of saving for a down payment: A 5 percent increase in house prices decreases the probability of saving for a down payment by 1 percentage point. Prospective first-time home buyers have $300 less in accumulated assets for every $1,000 increase in housing costs, which suggests that renters save for a longer time or at a lower rate because of higher home prices.

The Role of Gifts

Introducing the possibility of a gift from parents or other relatives for use as a down payment changes the dynamics of the house price-down payment interaction for prospective first-time home buyers. If prospective buyers can receive a gift for home purchase, they will alter their saving and home purchase behavior. For a given level of house prices, a gift might allow households to put a greater percentage of the purchase price down, possibly avoiding the purchase of private mortgage insurance, purchase the same house as without a gift but with a shorter period of saving, or purchase a larger home than they could have afforded otherwise. A gift for home purchase may allow an otherwise discouraged household to purchase a home.

This study focuses on three reasons that relatives give gifts for the down payment on a house: Transfers might be targeted to "constrained" households, they might be made to households showing "merit" through

education, marriage, or children, or they might just be the conduit for the intergenerational transmission of wealth.[4]

In particular, this study explores whether the timing and magnitude of the gifts are related to constraints faced by the receiving household.[5] Households' housing purchases may be constrained by current income that is low relative to expected permanent income or because they have insufficient assets to meet the minimum down payment requirement. If constrained households are more likely to get family help, households receiving gifts may appear to be "poorer" (have lower wealth and income) than households not receiving gifts, despite the fact that their families may actually have more financial resources than the families of those who do not receive a gift. If gifts reward merit, their receipt should be positively related to years of education, being married, or having children. If gifts are given solely for "meritorious" behavior, and are not related to actual need, then one would expect no correlation between gift-giving and aggregate economic or housing activity.[6]

In addition, gifts might also affect the choice of mortgage. Brueckner and Follain (1988) provide evidence that financially constrained households

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[4]For estimates of the magnitude of transfers in the accumulation of aggregate wealth, see Modigliani (1988), Kotlikoff (1988), and Gale and Scholz (1990).

[5]Unfortunately, this study does not have data on the givers, and thus cannot directly estimate the impact of family wealth on transfers for home purchase. Future research will directly address the issue of givers, both in terms of which families give gifts, as well as whether all children within a family are equally likely to get a gift.

[6]The relationship between gift giving and economic activity might be complicated, however, if families living in areas with high housing price appreciation are wealthier and thus give more money to their children who live nearby.

are more likely to choose an adjustable rate mortgage (ARM) than a fixed rate mortgage (FRM). The receipt of a gift for home purchase may allow a household to choose a FRM over an ARM. In addition, since a gift may affect the fraction of the purchase price put down, the receipt of a gift may affect the choice of the length of the mortgage. For example, a gift that results in a greater down payment amount may reduce the amount of the mortgage sufficiently that the household chooses a 15-year, rather than a 30-year, mortgage.

Another aspect of the first-time home purchase decision not directly addressed by the theoretical discussion above is the role of expected house price appreciation in the saving and purchase decisions of first-time buyers. Whereas house prices and down payment requirements do interact to increase the barrier to homeownership, homeownership (the sooner the better) is more attractive from an investment perspective in a period of rising real house prices. As described above, rising house prices make owner-occupied housing less affordable and less desirable from a consumption perspective. From the investment side, by contrast, the sooner a household purchases a home when house prices are rising, the greater are the housing capital gains the household can expect to capture. In this sense, house price appreciation may result in more rapid saving as some prospective home buyers (not discouraged by the higher prices) wish to buy as soon as possible. This suggests an additional role for gifts. Gifts may allow households to purchase homes earlier and capture capital gains in times of rising home prices.

Data

This study uses data collected in 1988 and 1993 from a random sample of recent home buyers in 18 major U.S. cities surveyed by the Chicago Title and

Trust Company (CT&T). The CT&T survey asks recent home buyers about their demographic characteristics, the type of house they purchased and its price, the type and amount of mortgage they obtained, the amount and source(s) of the down payment, the amount of time they spent saving the down payment, and even the number of houses they looked at before the purchase. These CT&T data have been supplemented with house price indexes from the National Association of Realtors (based on median prices) and Freddie Mac (based on multiple observations of the same property obtained from the joint Fannie Mae/Freddie Mac database) in order to explore the relationship between high or rising house prices and sources of the down payment.

The economic circumstances faced by recent home buyers in this sample varied greatly, depending on the year of purchase and the location of the home. Purchasers in the West (especially California) and the Northeast in 1988 faced real estate prices that had increased substantially in real terms during the mid 1980s and economies that were near their peak. In parts of the South and Midwest, however, the oil bust had hit a couple of years earlier and prices had already fallen quite a bit. By 1993, housing values in the Midwest and South had rebounded, while house prices in California and the East had dropped. In addition, mortgage rates were at a 20-year low in 1993.

As the summary statistics in Table 2 indicate, home buyers were greatly affected by aggregate economic conditions. Repeat buyers, many of whose houses had fallen in value if they lived on either coast, made up a much smaller percentage of home purchasers in 1993 than in 1988 (54 percent compared to 63 percent). Also, 1993 repeat buyers used much less equity from the sale of a previous home in the purchase of their current home (34 versus 52 percent of the down payment) and their down payments were a lower

percentage of the purchase price. The result is that repeat buyers purchased less expensive houses in 1993 than in 1988, while first-time buyers did the opposite.

Because we are interested in factors that relate to homeownership, the rest of this study focuses specifically on first-time buyers. As would be expected, first-time buyers are younger, have smaller households, earn less, purchase less expensive units, and make much smaller down payments than repeat buyers. Furthermore, over 90 percent of the down payment for a first-time buyer comes from personal savings and investments or gifts, whereas repeat buyers rely much less on these sources for a down payment.

Interestingly, average first-time buyers spend about the same percentage of their monthly income on monthly housing payments as repeat buyers (that is, the two groups have similar obligation ratios). Combined with smaller down payments, the data imply that first-time buyers spend less on housing. This evidence suggests that the obligation ratio is no more binding a constraint on purchases for first-time buyers than for repeat buyers. Furthermore, a relatively small percentage of first-time buyers use adjustable rate mortgages, despite the fact that these mortgages typically have lower initial monthly payments. Low mortgage rates in 1993, however, made these instruments much less popular for both groups.

Gifts as a Substitute for Own Saving

Households who can obtain gifts are able to purchase sooner than they would without gifts. Table 3 indicates that gift recipients are similar to other buyers in average age and household composition, but very different in financial characteristics. For example, gift recipients use much less of

their own savings to purchase their house. Although only 22 percent of first-time buyers receive a gift, the average gift comprises more than half of the down payment. Gift recipients also spend about 10 months less saving for the down payment and have a lower income than non-recipients. They appear to be more income-constrained than other buyers as well, with a higher obligation ratio and a higher percentage of employed spouses than no-gift purchasers.[7] This evidence suggests that gifts allow buyers not only to purchase earlier, but also to buy a more expensive house.

Because we are interested in the effects of constraints on affordability, we divide the sample into constrained and not constrained first-time buyers; constrained buyers have a down payment of less than 20 percent and an obligation ratio greater than 26 percent.[8] Not surprisingly, constrained buyers rely more heavily on gifts for their down payment than unconstrained buyers. Consistent with a high obligation ratio, constrained buyers have smaller incomes and purchase more expensive houses than their unconstrained counterparts, even controlling for the local price of houses.

Geographic differences in affordability are apparent in Table 5. Clearly buyers purchase more expensive houses in coastal cities, and the average income of a buyer in those cities does not fully offset the higher

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[7]All of the above differences in means between gift and no gift households are significantly different from each other at the 5 percent level (assuming unequal variances) except spousal employment.

[8]Secondary market guidelines recommend a maximum obligation ratio of 28 percent. In practice, however, many lenders allow borrowers to exceed the 28 percent guideline if they have offsetting positive factors such as very good credit or good income growth potential. On the down payment side, loans with less than 20 percent down generally require private mortgage insurance, which can add about one-quarter of a percentage point to the mortgage interest rate.

prices.[9] Consequently, first-time buyers on the coasts spend over a year longer saving for a down payment, have higher obligation ratios, and are much more likely to be "constrained" than their non-coastal counterparts. Because of affordability problems, buyers in coastal cities are much more likely to have an adjustable rate mortgage. Surprisingly, buyers on the coasts also have higher down payments. One possible explanation for the relatively small down payments in non-coastal cities is the availability of FHA mortgages. These government-guaranteed loans have caps on the maximum price of a house that can be purchased, effectively eliminating many buyers in more expensive coastal cities.

Differences in gift receipt by location are small and vary by year. Purchasers in high-priced coastal cities received a higher proportion of the down payment as a gift in 1988 than purchasers in non-coastal cities, but a lower portion in 1993. Note, however, that a given percentage of the down payment implies a higher dollar amount of gifts in high-priced cities. One explanation for the differences in gift receipt between 1988 and 1993 is the behavior of house prices. Between 1988 and 1993 the difference in average house prices between coastal and non-coastal cities narrowed, with real house prices in non-coastal cities rising between 1992 and 1993.

Model Estimates Using the Chicago Title and Trust Data

The data suggest that gifts are related to financial constraints and that they may substitute for buyer savings. Table 6 presents the results of a Tobit model that estimates the gift amount as a percent of the down payment as

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[9]House prices are not quality-adjusted, so one component of the average price difference could be a quality difference.

a function of the real median house price in the city of purchase, real household income, and various household characteristics. The Tobit specification allows for a truncated dependent variable; in this model gift percent varies between 0 and 100. Median house price is included to measure differences in price levels across cities. Although a quality-adjusted measure of house prices would be preferable, no such measure is widely available.[10] House price appreciation indicates expected and unexpected changes in affordability that may constrain buyers who have been planning to purchase a home. Household income measures affordability, while the demographic variables control for differences in saving behavior as well as the probability of receiving a gift.

Consistent with the constraints hypothesis, the estimates in column (1) show that gift receipt is strongly (and significantly) related to income and median house prices, with low-income buyers and buyers living in high-priced cities receiving larger gifts. Age is also related to gift receipt, with younger households getting bigger gifts. The latter result is consistent with the hypothesis that young households are constrained by mortgage qualification guidelines that consider current rather than lifetime income. On average, younger households have a more steeply increasing income profile than their older counterparts.

In addition, the results provide some evidence in favor of the "merit" hypothesis for gift giving. Gift percent is positively related to household size, possibly because relatives are more likely to give gifts to a family

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[10]Significant missing data in the U.S. Chamber of Commerce house price indexes make that series impossible to use, for example.

with children. Marital status, however, is not related to the size of the gift.

Adding city dummy variables (column 2) considerably reduces the significance of the coefficient of the median house price variable. This result suggests that since cities with high house prices in 1988 also had high house prices in 1993, median house price is largely picking up cross-sectional price differences. Column 3 adds a variable for the real house price appreciation rate in the previous year, but the coefficient is not significantly different from zero.

Given that other sources of down payments (such as borrowing from a financial institution or a retirement plan) are important for many buyers, Table 7 presents Tobit regressions of the percent of the down payment from own savings as a function of the same variables used in Table 6, and the results suggest similar economic conclusions.

In particular, the percent of the down payment from own savings is positively related to income and negatively related to median house prices, indicating that constrained buyers are more likely to turn to other sources such as gifts to obtain the down payment. (Recall that Tables 4 and 5 indicate that constrained households and households in more expensive cities required more time to save their down payment.) Larger households and households headed by single females (the omitted category) also rely less on own savings in purchasing a house. The own-savings coefficient on the real house price appreciation rate is never significantly different from zero.

Estimates Using the Boston Mortgage Applications Data

The results from the previous section suggest that income-constrained buyers and buyers in cities with rising house prices get larger gifts. In order to explore more directly other possible explanations of gifts, this section uses data taken from a sample of mortgage applications in metropolitan Boston in 1990 to estimate the determinants of the likelihood of receiving a gift for a down payment. These data contain much more detailed financial and demographic information than is available from the CT&T survey, although they are limited to a single city.

The data were supplied to the Federal Reserve Bank of Boston by various Boston banks to assist in a study of the determinants of mortgage loan approval. They contain all major information that is available on a loan application, and are described in detail in Munnell et al. (1992) and Engelhardt and Mayer (1994). For consistency with the data used in previous sections, the observations include only approved loan applicants.

The gift variable in the Boston Fed data includes both gifts from relatives and grants from other sources, including community organizations. However, discussions with bankers suggest virtually all of the gifts are from relatives. Also, the data include only gifts, and not loans, but in many cases relatives will report a transfer as a gift, when it is actually a loan.

Unfortunately, the Boston Fed data do not provide information about the amount of the gift. As a result, a probit model is used to estimate the probability of receiving a gift as part of the down payment as a function of applicant demographic characteristics, whether or not there was a co-applicant, household income and net worth, employment history, and credit history. Applicant demographic characteristics include age, years of education, number of dependents, gender, race, and marital status. Three

categories classify the applicant's consumer credit history: no credit history, one or more accounts in slow-pay status, and any current delinquencies.[11] Employment history is summarized in the number of years in the current line of work and the number of years in the current job. Table 8 reports coefficient estimates for the sample of 1,604 first-time buyers whose applications were approved.[12] The base specification is presented in column 1, and the results differ somewhat from the findings using the CT&T data. Married applicants are statistically more likely to get gifts for home purchase, consistent with the hypothesis that transfers are given because families see owner-occupied housing as a reward for meritorious behavior. However, number of dependents is not an important determinant of gift receipt, which runs counter to the aforementioned hypothesis.

The employment history variables have no impact on the receipt of a gift. One of the credit history indicators does, however. Households with delinquent credit are more likely, all other things equal, to receive a gift for home purchase, which is consistent with the hypothesis that credit-constrained households are more likely to receive familial help.

Higher educational levels and lower incomes are both positively related to the receipt of gifts. Three interpretations can be offered for this finding. First, some households may have low current income but high

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[11]The credit history variables from Munnell et al. were combined into a smaller number of variables for this analysis. Current delinquencies includes any applicants with one or more accounts at least 60 days delinquent.

[12]Since gifts are given before the applicant knows whether or not the loan will be approved, we also estimated the equations in columns 1 and 2 using both rejected and accepted applications. The estimates were quite similar, and specification tests did not reject the hypothesis (at conventional significance levels) that the coefficients were the same for both groups.

permanent income (as measured by education). Without a gift, these households would be constrained to buy a smaller house than is consistent with their permanent income because the obligation ratio is tied to current income. Alternatively, educational level may proxy for the wealth of the applicant's family or may indicate meritorious behavior that is to be rewarded. A first home purchase may just serve as a trigger event for the wealthy to transfer assets to their children that they would have otherwise transferred at a later date.

Note, however, that the marriage variable was not significant in the CT&T data, and that the number of dependents was positively related to the amount of the gift. One explanation is that the CT&T data are missing some important variables that are correlated with age such as education. In both data sets, however, income and age are significantly associated with the receipt of a gift, and have the same sign.

Column 2 adds several additional explanatory variables that are not available in the CT&T survey, including total net worth, the obligation ratio, and the loan-to-value ratio. When these variables are included, the coefficients on the other variables change very little.

If applicants who receive gifts are income-constrained, then we would expect an inverse relationship between the receipt of a gift and net worth. Alternatively, if gifts are simply wealth transfers from the wealthy to their offspring, one might predict a positive relationship between gifts and net worth if the children of the wealthy have relatively more net worth than the children of families with less wealth. Net worth in this study is that reported by the applicant on the mortgage application and includes the value

of the gift.[13] In this sense, net worth is endogenous. Net worth including the gift should be positively related to gift receipt, other things equal. According to the results in column 2, however, the estimated coefficient on net worth is actually negative and statistically different from zero with more than 99 percent confidence. Thus gifts appear to be targeted to more constrained households.

The specification in column 2 also includes the obligation ratio and loan-to-value ratio. As with net worth, the obligation and the loan-to-value ratios are endogenous because these variables may reflect the proceeds of any gifts, and thus a negative relationship would be expected between gift receipt and the loan-to-value and obligation ratios. Despite this bias, the estimation results show that households with higher loan-to-value ratios--less money put down--are more likely to receive gifts for the down payment, with the result statistically different from zero at the 5 percent level. Again, financial constraints appear important.

Conclusion

The results in this paper are consistent with the findings in Engelhardt and Mayer (1994) showing that gift receipt is related to financial constraints. The percentage of the down payment received from a gift is negatively related to income and wealth, and positively related to the level of median house prices. Even controlling for income and wealth, the data also show that household demographic characteristics are related to the receipt of

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[13]Because of problems in verifying net worth and questions about when the actual transfer of the gift takes place, the reported net worth for some applicants may not include the proceeds of the gift.

gifts, which is evidence that givers target gifts to certain types of households.

The results from this study, combined with aggregate data showing that the percent of down payment from gifts (own saving) is increasing (decreasing) and the time to save and average age of first home purchasers are rising, suggest that young buyers are having an increasingly difficult time saving the down payment. In fact, difficulty saving the down payment might help explain why the homeownership rate for young households is falling even though Census and National Association of Realtors data show that many renters have enough income to pay the mortgage of a starter home once the down payment has been made. One possible explanation for this phenomenon is that the cost of living and/or real rents have increased. These data suggest that future research on savings and the timing of housing purchase should focus on time series changes in affordability.

From a policy perspective, this study's findings suggest a possible solution for policy-makers interested in increasing the homeownership rate among young households. Because many young households have had increasing difficulty saving the down payment, low down payment mortgages could help additional households attain that goal. However, the mortgage default literature makes clear that such a policy comes at the cost of a significantly higher default rate.

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Table 1
Summary Statistics for First-Time Buyers

Year	Percent Down Payment from: Gift	Own Savings	Time to Save (years)	Average Percent Down Payment	Average Age
1976-1978	8.5	81.6	2.4	16.5	28.2
1979-1981	13.6	68.0	2.4	19.2	28.4
1982-1984	11.4	79.0	2.0	14.7	28.9
1985-1987	11.7	79.9	2.0	15.1	29.6
1988-1990	10.2	77.8	2.6	15.4	30.1
1991-1993	13.1	76.0	2.8	14.3	31.1

Source: Chicago Title & Trust Co.

Table 2
Summary of Data: First-Time and Repeat Buyers
Percent, Except Where Indicated

	1988		1993	
	First-Time Buyers	Repeat Buyers	First-Time Buyers	Repeat Buyers
Sale Price	$133,369	$184,704	$145,600	$165,593
Down Payment Percent	14	29	14	26
Percent from Savings	.81	.40	.77	.55
Percent Borrowed	.2	.2	.4	.3
Percent Gift from Relatives/Friends	.13	.3	.14	.3
Percent from Sale of Previous Home	0	.52	0	.34
Percent from Other Sources	.4	.1	.5	.5
Time Saved Down Payment (years)	3.0	---	3.8	---
Household Income	$57,686	$72,389	$54,770	$70,366
Obligation Ratio	.26	.25	.24	.22
Used Adjustable Rate Mortgage (ARM)	.34	.42	.19	.21
Household Size (persons)	2.6	3.1	2.5	3.0
Married	.71	.81	.64	.79
Single Male	.17	.08	.19	.10
Spouse Employed if Married	.86	.72	.86	.77
Head Age Less Than 25	.12	.01	.05	.01
Head Age 25-29	.37	.10	.36	.08
Head Age 30-34	.29	.21	.32	.16
Head Age 35-39	.13	.22	.15	.23
Head Age 40-49	.07	.25	.08	.31
Head Age 50 or More	.02	.21	.03	.21
New Property	.24	.31	.21	.23
Purchased Condominium	.17	.09	.15	.11
Purchased Townhouse	.14	.08	.13	.09
Purchased Detached Single-Family House	.65	.81	.68	.77
Northeast	.31	.22	.36	.25
Midwest	.23	.22	.18	.22
South	.17	.22	.17	.21
West	.29	.34	.29	.31
Sale Price/Median Value	.80	1.15	.96	1.29
Average Real 1-Year Appreciation Rate	-.03	-.03	-.01	-.01
Number of Observations	457	795	513	614

Source: Chicago Title & Trust Co.

Table 3
Summary of Data for First-Time Buyers: Gift and Non-Gift Recipients
Percent, Except Where Indicated

	Gift	No Gift
Sale Price	$193,799	$125,700
Down Payment Percent	14	13
Gift as a Percent of Total Down Payment	.53	0
Savings as a Percent of Total Down Payment	.42	.94
Time Saved Down Payment (years)	2.8	3.6
Household Income	$51,585	$57,337
Obligation Ratio	.27	.24
Constrained Purchaser (less than 1%)	.36	.26
Household Size (persons)	2.7	2.5
Married	.69	.68
Single Male	.16	.19
Spouse Employed If Married	.90	.85
Age (years)	30.6	31.0
Sale Price/Median Value	.89	.86
Average Real 1-Year Appreciation Rate	-.02	-.02
Used Adjustable Rate Mortgage	.26	.26
Number of Observations	182	657

Source: Chicago Title & Trust Co.

Table 4
Summary of Data for First-Time Buyers: Constrained and Non-Constrained Buyers
Percent, Except Where Indicated

	Constrained	Not Constrained
Sale Price	$190,439	$120,676
Down Payment Percent	10	15
Gift as a Percent of Total Down Payment	.14	.10
Savings as a Percent of Total Down Payment	.78	.84
Time Saved Down Payment (years)	3.3	3.5
Household Income	$47,576	$59,461
Obligation Ratio	.34	.21
Household Size (persons)	2.7	2.5
Married	.63	.70
Single Male	.22	.16
Spouse Employed if Married	.88	.86
Age (years)	31.0	30.9
Sale Price/Median Value	.90	.85
Average Real 1-Year Appreciation Rate	-.03	-.02
Used Adjustable Rate Mortgage	.28	.25
Number of Observations	238	601

Source: Chicago Title & Trust Co.

Table 5
Summary of Data for First-Time Buyers: By Year and Location
Percent, Except Where Indicated

	Year = 1988		Year = 1993	
	Coast	Non-Coast	Coast	Non-Coast
Sale Price	$163,929	$94,526	$195,861	$88,136
Down Payment Percent	17	11	15	11
Gift as a Percent of Total Down Payment	.12	.9	.11	.14
Savings as a Percent of Total Down Payment	.82	.86	.81	.80
Time Saved Down Payment (years)	3.6	2.3	4.2	3.3
Household Income	$64,472	$49,565	$59,211	$49,185
Obligation Ratio	.28	.23	.27	.20
Constrained Purchaser (less than 1%)	.33	.24	.37	.15
Household Size (persons)	2.6	2.5	2.6	2.4
Married	.69	.73	.62	.69
Single Male	.19	.16	.19	.18
Spouse Employed if Married	.86	.84	.86	.90
Age (years)	30.8	29.7	32.2	30.7
Sale Price/Median Value	.78	.79	.94	.98
Average Real 1-Year Appreciation Rate	-.04	-.01	-.03	.01
Used Adjustable Rate Mortgage	.45	.22	.21	.15
(First Time Buyers/All Buyers)	.40	.34	.51	.40
Number of Observations	212	199	247	181

Source: Chicago Title & Trust Co.

Table 6
Tobit Estimates of Gifts
Dependent Variable: Gift as a Percent of Down Payment

	(1)	(2)	(3)	(4)
Median House Price	.13	.16	.11	.15
	(1.59)	(.46)	(1.36)	(.43)
One-Year Rate of Appreciation			110.2	89.0
			(1.96)	(1.36)
Household Income	-.58	-.57	-.62	-.59
	(2.99)	(2.91)	(3.17)	(2.98)
Dummy if Head Married	-23.4	-18.4	22.6	-18.9
	(1.16)	(.91)	(1.12)	(.94)
Dummy if Single Male	-6.8	-4.7	-6.6	-4.8
	(.44)	(.31)	(.43)	(.32)
Household Size	6.9	6.1	6.9	6.3
	(1.82)	(1.62)	(1.84)	(1.66)
Heads Age less than 25	7.8	9.0	10.3	9.6
	(.25)	(.29)	(.33)	(.31)
Heads Age 25-29	12.1	17.4	14.9	17.8
	(.43)	(.62)	(.53)	(.63)
Heads Age 30-34	4.0	12.1	6.4	12.4
	(.14)	(.43)	(.23)	(.44)
Heads Age 35-39	-5.1	2.4	-.57	3.8
	(.17)	(.08)	(.02)	(.13)
Heads Age 40-49	4.9	9.9	7.8	10.2
	(.16)	(.32)	(.25)	(.33)
Dummy if Spouse Employed	23.1	23.4	22.1	23.0
	(1.40)	(1.40)	(1.35)	(1.39)
Dummy in 1988	-10.6	-11.1	-20.4	-19.7
	(1.22)	(1.15)	(2.02)	(1.70)
City Dummies Included	No	Yes	No	Yes
Constant	-73.1	-109.4	-68.8	-104.5
	(2.20)	(1.91)	(2.07)	(1.83)
Number of Observations	839	839	839	839
Log Likelihood	-1233.2	-1221.6	-1231.3	-1220.7

Note: T-statistics in parentheses.

Source of data: Chicago Title & Trust Co.

Table 7
Tobit Estimates of Own Savings
Dependent Variable: Own Savings as a Percent of Down Payment

	(1)	(2)	(3)	(4)
Median House Price	-.19	.03	-.18	.03
	(2.37)	(.08)	(2.21)	(.10)
One-Year Rate of Appreciation			-78.8	-35.3
			(1.42)	(.54)
Household Income	.77	.76	.80	.77
	(4.01)	(3.92)	(4.12)	(3.94)
Dummy if Head Married	19.0	12.5	18.7	12.8
	(1.00)	(.66)	(.99)	(.68)
Dummy if Single Male	3.2	1.7	3.10	1.7
	(.22)	(.12)	(.21)	(.12)
Household Size	-7.8	-7.1	-7.8	-7.1
	(2.16)	(1.94)	(2.17)	(1.95)
Heads Age less than 25	12.8	11.8	11.5	11.6
	(.44)	(.40)	(.39)	(.39)
Heads Age 25-29	5.8	1.4	4.1	1.3
	(.22)	(.05)	(.16)	(.05)
Heads Age 30-34	14.0	7.7	12.6	7.7
	(.53)	(.29)	(.48)	(.29)
Heads Age 35-39	23.2	16.4	20.4	15.8
	(.83)	(.58)	(.73)	(.56)
Heads Age 40-49	12.4	7.9	10.7	7.8
	(.42)	(.27)	(.36)	(.26)
Dummy if Spouse Employed	-17.6	-15.2	-17.1	-15.2
	(1.15)	(.99)	(1.12)	(.99)
Dummy in 1988	15.8	12.0	22.1	15.3
	(1.81)	(1.29)	(2.26)	(1.38)
City Dummies Included	NO	YES	NO	YES
Constant	133.0	128.1	129.6	125.9
	(4.26)	(2.41)	(4.15)	(2.36)
Number of Observations	839	839	839	839
Log Likelihood	-1565.5	-1558.2	-1564.5	-1558.0

Note: T-statistics in parentheses.

Source of data: Chicago Title & Trust Co.

Table 8
Probit Equation Using Accepted Mortgage Applicants
Dependent Variable: Applicant Received a Gift (1 = Yes)
(t-statistics)

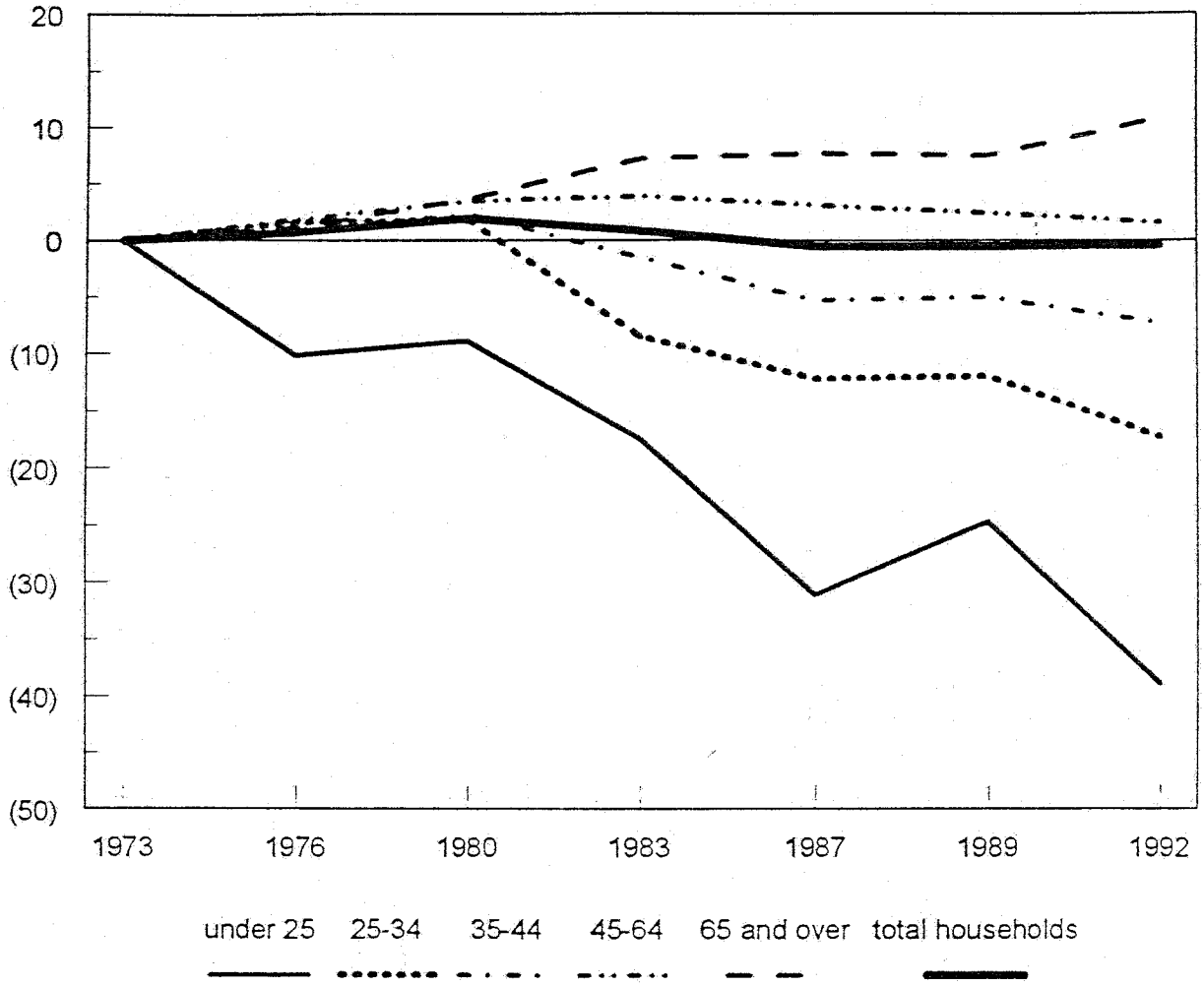
Variable Sample	(1) First-Time Buyer	(2) First-Time Buyer
Age	-.03 (6.02)	-.03 (5.45)
Education	.03 (2.05)	.03 (2.18)
Married	.27 (2.82)	.27 (2.80)
Male	-.06 (.60)	-.04 (.44)
Minority	.01 (.10)	-.29 (.31)
Number of Dependents	-.05 (1.17)	-.04 (1.11)
Coapplicant	.03 (.30)	.01 (.05)
Total Monthly Income (000s)	-.09 (4.79)	-.09 (3.99)
Less than Two Years in Line of Work	.08 (.63)	.08 (.62)
Less than Two Years in Same Job	-.07 (.73)	-.06 (.67)
No Credit History	-.34 (1.66)	-.31 (1.55)
One or More Slow Accounts	.01 (.14)	.02 (.20)
Current Delinquencies	.25 (2.46)	.26 (2.56)
Total Net Worth (000s)		-.25 (2.25)
Obligation Ratio		.01 (1.36)
Loan-to-Value Ratio		.59 (2.49)
Constant	.18 (.65)	-.64 (1.68)
Number of Observations	1604	1604
Log Likelihood	-804.9	-795.9

Source of data: Federal Reserve Bank of Boston.

Figure 1

Homeownership Rates by Age of Household Head

Percent Change from 1973



Source: Joint Center for Housing, Harvard University.