Gifts for Home Purchase and Housing Market Behavior

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Between 1970 and 1980, real house prices increased 23 percent in the United States. The 1980s brought little growth in the real price of housing nationally, but rapid increases continued in many regions and, in some areas, far outpaced growth in household income. In Boston, for example, real house prices rose 34 percent in 1984 alone. Such rapid increases in house prices can make home ownership more difficult for prospective first-time home buyers by increasing the required down payment amount and, if the increases outpace income growth, by increasing the ratio of mortgage payments to income. Both effects reduce affordability.

The typical first-time home buyer saves for several years to accumulate the down payment, and high or rising home prices relative to income require an increasing sacrifice of consumption. In response to such constraints, households may seek a gift or loan from a family member to use as part of the down payment. These transfers allow prospective home-buying households to make larger down payments. In turn, these larger down payments allow some households who otherwise would not be creditworthy to qualify for a mortgage loan, and others to purchase a more expensive home than they could afford without a gift.

In this sense, family transfers for housing purchase may be useful in understanding the relationship between housing finance and housing markets. If gifts are an important source of funds, they may play a critical role for some households in home purchase activity in real estate cycles. For example, a positive correlation between the receipt of gifts and the level or growth rate of house prices may suggest that these transfers reduce the degree to which marginal households are "crowded out" of the home-buying market. In this way, gifts may be important in sustaining real estate booms.

The causality could also go in the opposite direction. Home owners who experienced windfall housing capital gains in the 1970s and 1980s

may transfer part of these gains in the form of gifts to their children, who now face substantially higher relative housing costs. If this is true, then intergenerational transfers might mitigate the effects of housing booms and busts on aggregate spending patterns.

Family gifts may also affect the link between real estate cycles and household mobility. Stein (1993) has recently put forth a model of the housing market whereby negative shocks to housing prices substantially reduce housing equity. Since home equity from the sale of the previous home accounts for the majority of the down payment on a trade-up home, the loss of home equity due to a drop in home prices may "lock" some households into their homes. That is, households may not be able to move to a similar home in a different part of the metropolitan area, or a different metropolitan area altogether, because they would not have enough wealth to make a down payment on a new home. However, if households have access to other funds through family gifts, they may not become "locked in" when house prices fall.

First-time home buyers in cities with higher house prices and rates of appreciation fund a larger proportion of the down payment with gifts from relatives.

From a broader perspective, understanding the role of family gifts for housing purchase has implications for other areas of economic analysis: evaluation of the effects of fiscal policy, study of the distribution of wealth and the transmission of wealth inequality over time, evaluation of the life-cycle hypothesis, and evaluation of economic models of the family, among others. This article documents the frequency and magnitude of family gifts for housing purchase and explores economic explanations for their role in home financing. Initial empirical work focuses on the effect of housing market conditions on the receipt of gifts from relatives. The results show that, controlling for income, age, and family size, first-time home buyers in cities with higher house prices and rates of appreciation fund a larger proportion of the down payment with gifts from relatives. No such pattern is evident for repeat buyers. This suggests that gifts are targeted to constrained households, since repeat buyers are less likely to have difficulty putting together a down payment; they tend to use the equity from their previous home.

Next, the article explores the pattern of gift receipts using a sample of mortgage applicants. Evidence shows that households with lower incomes and net worth, more years of education, and poor credit histories are more likely to have a gift or grant as part of the down payment. These findings further support the hypothesis that such transfers are targeted to households financially constrained in their housing decisions, versus the alternative hypothesis that gifts are purely related to family wealth and have nothing to do with the ability of the recipient to get a loan.

I. Gifts for Home Purchase: Economic Hypotheses

There are many possible explanations for private income transfers between households. Most transfers—defined in most data sets as a gift or a loan by a relative—are intergenerational and can be motivated by altruism to or exchange with family members.[1] Transfers can be inter vivos or bequests, and if they are bequests they can be intentional or unintentional. Most previous research has examined whether gifts are altruistic in nature or exchange-motivated and has not focused on the timing or specific reasons that gifts were given. Exceptions include Cox (1990), Cox and Japelli (1990), and Guiso and Japelli (1991), who study whether private income transfers are targeted toward "credit-constrained" households. While they present evidence in the affirmative, the specific credit constraints the households actually face are not made clear.

This study focuses on transfers for a specific purpose: down payments for home purchase. It documents the frequency and magnitude of transfers for down payments and explores the relative importance of economic explanations for their occurrence. For example, transfers might be targeted to "constrained" households or to households showing "merit" through education, marriage, or children, or

[1] Cox (1987) has explored the implications of models of altruism and exchange and develops and implements empirical tests in order to differentiate between the competing hypotheses. He finds evidence that favors exchange-motivated behavior and casts doubt on the empirical relevance of pure altruism.

they might just be the conduit for the intergenerational transmission of wealth.[2]

The latter two hypotheses seem fairly straightforward. If gifts reward merit, their receipt should be positively related to years of education, being married, or having children. If gifts are given solely to encourage "desirable" behavior, and are not related to actual need, then one would expect no correlation between gift-giving and aggregate economic or housing activity. 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. Because first-time buyers are much more likely than repeat buyers to be constrained in cities with rising house prices, comparisons between first-time and repeat buyers may separate these two explanations.

In deciding to purchase a home, many households face binding down payment and obligation ratio constraints, which can be released by increasing the amount of the down payment.

The question of whether gift giving is related to family wealth may at first seem obvious. After all, a family must have wealth in order to give a gift. The purpose of this study, however, is to explore whether the timing and magnitude of the gifts are related to constraints faced by the receiving household. 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" 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.

In deciding to purchase a home, many households face binding down payment and obligation ratio constraints. Down payment requirements on conventional mortgages range from 5 to 20 percent of the purchase price of the home. For example, to purchase a $150,000 home, the typical 10 percent minimum down payment would require a prospective first-time buyer to accumulate, in the absence of transfers, $15,000 in savings plus another $4,500 to $7,500 to pay for points and closing costs. This is a rather substantial amount for many young American households. Typically, households that do not put 20 percent down must also purchase private mortgage insurance at the additional cost of 25 basis points per year. Households that qualify for low down payment, government-insured loans, through agencies such as the Federal Housing Administration (FHA) or the Veterans Administration (VA), may face down payment requirements as low as 2 to 3 percent. These loans have strict maximums, however, that have in the past effectively limited their use to the South and Midwest, where nominal house prices are low.

The obligation ratio guideline stipulates that mortgage payments, plus property taxes and insurance premiums, not exceed a certain fraction of gross income, usually 28 percent.[3] Importantly, the obligation ratio is measured in terms of current, not permanent, income. Therefore, young households expecting their incomes to rise over time may be constrained in the size of their first home purchase by this requirement. Whether or not the obligation ratio constraint binds will depend on the amount of the down payment, since a larger down payment reduces the loan amount, decreasing the mortgage payments. That is, a household can always release the obligation ratio constraint by putting more money into the transaction.

Empirically, the down payment constraint has been shown to be the most important of the two. Engelhardt (1992) shows that down payment requirements are binding liquidity constraints and that households significantly distort their preferred consumption profiles in order to accumulate the down payment. Engelhardt (1994) also finds that the decision to save for home purchase is substantially affected by the interaction between house prices and down payment requirements: house price increases raise down payment amounts for any given percentage down payment requirement and, hence, require more savings to purchase the same home.

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

[3] In practice, financial institutions consider the whole application, and so might allow borrowers to have a higher obligation ratio if they also have a higher net worth or a good credit history.

Several articles show the obligation ratio to be less critical. In separate studies of mortgage loans passed on to the secondary market, Linneman and Wachter (1989) and Zorn (1989) show that actual obligation ratios often exceed those stated in the secondary market underwriting guidelines, suggesting that the obligation ratio constraint is often not binding, and that lenders consider the quality of the whole mortgage application rather than looking at each variable individually. Munnell and colleagues (1992) get a similar result in a study of mortgage applicants. Finally, in a recent study, the U.S. Bureau of the Census (1991) found that most renters could afford the monthly payments on the average-priced house in their region but lacked the assets to make a typical down payment.

Mortgage lending institutions may view gifts in two ways. Lenders may see households that receive gifts for down payments as riskier mortgage applicants, since these households are likely to be using the gift to purchase a larger house than they could otherwise afford on their own resources. On the other hand, lenders may view these gifts favorably in that they signal a familial safety net in the lending relationship: the household is less likely to default and forgo the family's investment or, if the household's cash flow is interrupted, the family may step in to financially support the household in distress. Evidence from the study by Munnell and others (1992) of mortgage applicants is consistent with the latter hypothesis about lenders' views of gifts, showing that applicants with a gift or grant are less likely to be rejected, controlling for other information on the mortgage application.[4]

II. Frequency and Size of Gifts

Summary statistics on the sources of funds for down payments by first-time buyers are presented in Table 1. These figures are taken from the Chicago Title and Trust Company's annual survey of recent home buyers, entitled *Who's Buying Homes in America*, which began in 1976. The survey asks detailed information on income, mortgage financing including the source of funds used to purchase homes, and sociodemographic characteristics. Chicago Title and Trust Company contracts with an independent research organization to interview buyers via telephone. The number of households surveyed varied between 500 and 1,000 in the 1976 to 1987 surveys. Starting in 1988, the survey was expanded to about 2,000 households, covering 18 major metropolitan areas.

Table 1
Sources of Down Payments by First-Time Buyers, 1976 to 1982
Percent

	1976	1977	1978	1979	1980	1981	1982
a. Sources of Funds, All First-Time Home Buyers							
All Savings and Investments	70.9	75.6	73.5	43.8	51.1	63.8	67.6
Some Help from Relatives	20.4	14.3	8.7	32.6	32.6	17.0	21.3
Half or More from Relatives	10.6	9.2	6.8	15.2	26.2	7.3	15.5
Entirely from Relatives	5.8	4.2	2.9	6.4	6.1	.7	3.9
Part from a Lending Institution	6.8	7.6	13.7	17.5	8.1	6.5	6.6
b. Percent of Down Payment, by Source of Funds, All First-Time Home Buyers							
Own Savings and Investments	80.1	84.7	79.9	62.5	66.9	74.5	76.7
Lending Institution	4.5	4.4	11.6	13.2	6.3	5.6	6.6
Relatives	10.8	8.4	6.2	14.4	19.5	7.0	11.3
Others	4.0	2.5	2.2	10.2	7.7	13.3	5.4
c. Average Percent of Down Payment Coming from Relatives, for First-Time Home Buyers Receiving Help from Relatives	52.9	58.7	71.3	44.2	59.8	41.2	53.1

Source: Chicago Title and Trust Co., *Who's Buying Houses in America*, 1976 to 1982.

Panel a. of Table 1 shows the percentage of first-time home buyers reporting various sources for down payments for the years 1976 to 1982. Unfortunately, the Chicago Title and Trust surveys do not report these figures after 1982. The frequency of gifts for the entire down payment is low: on average, only 4 percent of first-time buyers finance their down payments wholly from funds from relatives.[5] The fraction of buyers receiving some type of help from relatives is much higher, averaging about 20 percent. The vast majority of first-time buyers accumulate their down payments from their own savings. Panel b. reports the fraction of down payment funds by

[4] The coefficient on the dummy variable indicating the receipt of a gift or grant was significantly different from zero with a 10 percent confidence interval.

[5] Note that help from relatives in the Chicago Title and Trust survey includes loans as well as gifts.

Table 2
Sample Statistics for First-Time Buyers, 18 Cities, 1992
Ranked by Median Sale Price as Reported by National Association of Realtors

City	NAR Median Price ($)	First-Time Buyer: Median Purchase Price ($)	First-Time Buyer: Median Income ($)	First-Time Buyer: Years to Save	First-Time Buyer: Gift Percent of Down Payment	First-Time Buyer: Down Payment Percent of Price
San Francisco	254,800	211,100	61,800	3.0	18.2	16.8
Orange County	234,900	168,100	63,900	3.4	22.1	12.4
Los Angeles	213,200	183,600	59,200	4.8	20.4	15.7
New York	172,700	148,100	60,200	4.2	12.6	24.6
Boston	171,100	144,000	57,100	3.7	8.7	17.0
Washington	157,800	130,000	66,700	2.7	10.2	14.2
Seattle	145,700	114,300	51,300	2.3	15.5	14.3
Chicago	136,800	112,900	47,400	2.9	13.8	15.3
Philadelphia	117,000	103,600	47,200	2.8	8.6	14.7
Denver	96,200	82,400	39,400	1.9	16.7	11.7
Atlanta[a]	95,600	91,400	50,800	2.5	12.4	11.0
Minneapolis	94,300	89,300	46,400	2.0	15.5	11.9
Dallas/Fort Worth	91,300	92,200	46,400	1.9	17.9	15.7
Cleveland	90,700	70,100	41,000	2.4	8.5	16.2
Orlando	87,600	81,600	40,600	2.1	12.4	16.4
Phoenix	86,800	76,800	47,800	1.4	14.6	12.6
Memphis	85,300	73,700	39,400	2.2	7.0	17.2
Detroit	81,300	75,300	52,800	2.6	15.2	14.1

[a]The Atlanta median price was calculated by indexing the 1991 median price to the percentage change in median price between 1991 and 1992 as reported in the Chicago Title and Trust survey.
Source: National Association of Realtors; Chicago Title and Trust Co., *Who's Buying Houses in America*, 1992.

type of source. In the period 1976 to 1982, roughly 80 percent of all down payment funds came from own savings, whereas approximately 10 percent came from relatives. Panel c. combines information from the previous two panels, showing that, for those who did receive help from relatives for the down payment, the magnitude of the help is substantial, averaging 50 percent of the down payment.

Similar figures for repeat buyers (not shown in Table 1) indicate that 66 percent of the funds used in the down payment comes from the sale of the previous home and 28 percent from own savings, whereas only 2 percent comes from relatives. The stark difference between the incidence of gifts for first-time (panel b.) and repeat buyers suggests that gifts for housing purchase may be mostly targeted to households initially constrained in the housing market. Once households become home owners, they rely on accumulated home equity to finance subsequent home purchases.

Table 2 shows the relationship between house prices, income, down payment saving behavior, and gifts for the sample of 18 metropolitan areas surveyed by Chicago Title and Trust in their 1992 survey. The metropolitan areas are ranked in descending order by the National Association of Realtors (NAR) median home price, and are broken into three tiers. The top tier includes the most expensive areas, three cities in California. The middle tier contains the mid-priced cities of the Northeast corridor as well as Seattle and Chicago. The bottom tier includes the less expensive cities of the Midwest and South.

The table does not show a strong inverse correlation across all cities between house prices and the percentage of down payments from relatives. Rather, patterns between price tiers appear to exist. Gifts from relatives are more important in the very expensive California cities than anywhere else in the country. Beyond these cities, however, no positive correlation can be seen between gifts and house prices. On average, 12.6 percent of down payments came from relatives in New York, and the same was true in

Atlanta and Orlando. This is particularly interesting since government-insured FHA/VA mortgages with low down payments are much more popular and more widely available in the South and Midwest. That is, it is likely that average first-time home buyers face lower down payment requirements in these areas than on the East and West coasts, yet they receive just as high a percentage of the down payment in gifts as buyers in the middle price tier.

A second way of looking at the role of gifts is to compare them with average time required to save, which is given in years in the fourth column of the table.[6] A positive relationship can be seen between time to save and the gift percentage of the down payment for residents of cities in the upper two tiers. Longer times to save are associated with higher percentages as gifts. One interpretation might be that households in these areas are constrained in a way that requires both long periods to save for the down payment *and* help from relatives in order to afford a first home. For households in the bottom price tier of cities, however, an inverse correlation exists between time to save and family help. Here, it appears that the time to save for a down payment is shorter, owing to the receipt of gifts. That is, gifts in these cities "buy off" time to save for households, allowing them to purchase earlier than if they had not received a gift.

III. House Prices and the Receipt of Gifts: Empirical Results

This section examines the relationship between house prices and the receipt of gifts from relatives, using the Chicago Title and Trust survey of recent home buyers for the five years 1988 to 1992. For each of the 18 cities in Table 2, the surveys provide data on the average percentage of the down payment funds that comes from relatives, which is the dependent variable in our analysis, for both first-time and repeat buyers. Pooling these cities over the five years yields 90 observations on average gift and home purchase behavior for each set of buyers.

As noted earlier, the hypothesis that gifts for housing purchase are related to housing constraints predicts a positive relationship between gifts and house prices as well as between gifts and the rate of house price appreciation. In areas where house prices are rising faster than incomes, owner-occupied housing becomes less affordable. To the extent that these price increases are associated with rent increases, the prospective first-time home buyer is doubly affected, since less income remains after paying rent from which to save for the down payment, which is increasing along with house prices.

The estimation results for first-time home buyers for a number of specifications are presented in Table 3. Since the dependent variable is constrained to lie between 0 and 100, ordinary least squares estimation would induce heteroskedastic errors. Weighted Least Squares (WLS) corrects for this heteroskedasticity. The weights equal the inverse of the square root of the error variance, which is P*(100 − P), where P is the dependent variable. The base specification is given in column 1. The explanatory variables are average age, family size, and real pre-tax income of first-time buyers, all taken from the Chicago Title and Trust surveys, and real median house prices and rates of appreciation for all single-family houses, constructed from NAR data. The income and house price variables are indexed to 1992 dollars using the national consumer price index less the shelter component.

The results in column 1 indicate that the percentage of down payment funds from relatives is higher in cities with high house prices. The coefficients suggest modest effects: the average percentage of down payment funds increases 4 percentage points for every $100,000 increase in real house prices. None of the other coefficients, however, are statistically different from zero, possibly because the data contain only city-year averages.

The estimates in column 2 include the real one-year rate of house price appreciation for each city-year observation. It is positively but not significantly related to the amount of gift receipt. In column 3, which also includes year dummies, the appreciation rate is still positive and becomes significantly different from zero at the 10 percent significance level. The test that all the coefficients on the year dummy variables equal zero, however, cannot be rejected at conventional significance levels. The estimated coefficient on the house appreciation rate implies that a 1 percentage point increase in the real rate of appreciation raises the average percentage of down payments from gifts by 0.1 percentage points. This effect seems plausible, but small in size.

Households that live in certain cities may have particular tastes for transfers to their children. If these transfers are simply from wealthy households to their children, then one would expect city-specific patterns to play a role in gift receipt, since the distribution of

[6] The Chicago Title and Trust Company survey asks each buyer how long it took to save the down payment amount.

Table 3
Weighted Least Squares Dependent Variable: Average Percentage of Down Payment from a Gift, for First-Time Buyers

Variable	(1) All Cities	(2) All Cities	(3) All Cities	(4) All Cities	(5) Coastal Cities	(6) Non-Coastal Cities
Average Age	.19	.21	−.03	−.14	.92	−.46
	(.33)	(.33)	(.35)	(.39)	(.50)	(.52)
Average Family Size	1.99	1.97	1.64	2.42	1.83	3.19
	(1.84)	(1.85)	(1.91)	(2.21)	(2.43)	(2.83)
Real Median Family Income	−.07	−.08	−.04	−.07	−.11	−.12
	(.08)	(.08)	(.08)	(.12)	(.10)	(.12)
Real Median House Prices	.04	.04	.04	−.03	.04	.03
	(.01)	(.01)	(.01)	(.05)	(.02)	(.05)
Real One-Year Appreciation Rate		7.34	11.34	3.79	16.4	−14.99
		(7.32)	(7.47)	(7.62)	(8.24)	(15.29)
Constant	−.03	−.39	7.97	24.42	−20.29	18.82
	(10.09)	(10.16)	(10.78)	(14.15)	(15.81)	(16.64)
Year Dummies	no	no	yes	yes	no	no
City Dummies	no	no	no	yes	no	no
P-Value: Year Dummies[a]			.17	.31		
P-Value: City Dummies[b]				.001		
Number of Observations	90	89	89	89	40	49
R-Square	.15	.16	.23	.56	.25	.07

Note: Columns 2 to 6 have only 89 observations because the NAR median house price for Atlanta is not available for 1987.
Standard errors in parentheses.
[a]For the joint test that all of the coefficients on the year dummies equal zero.
[b]For the joint test that all of the coefficients on the city dummies equal zero.
Source: Chicago Title and Trust Co., *Who's Buying Houses in America*, 1988 to 1992.

wealth differs across cities. Therefore, column 4 adds a dummy variable for each city in the sample to the column 3 specification. None of the previous (column 3) variables except the constant have any statistically significant effect on gift receipt. This result should not be surprising, since little cross-time, cross-city variation occurs in the other explanatory variables to identify the other coefficients. In this sense, the city effects are picking up both differences in house price levels across cities (as well as cross-city differences in the other variables) and the true city effects. Without data at the household level, separate city effects cannot be estimated.

The results so far for first-time home buyers provide weak evidence at the city level that the percentage of down payments from relatives depends on house prices, in a manner consistent with the financial constraint hypothesis. Columns 5 and 6 split the sample into two groups, coastal (East and West) cities and non-coastal (South and Midwest) cities, to test whether the behavior varies according to region. Since residents of the South and Midwest have access to low-down-payment, FHA/VA loans and most residents of the coastal cities do not, one would expect households in the non-coastal cities to be less financially constrained. The results in columns 5 and 6 confirm this. In the coastal cities, older buyers, and higher house prices and appreciation rates, are positively related to the fraction of the down payment in the form of a gift. These results are all statistically different from zero with at least 10 percent significance. Conversely, in the non-coastal states, none of these factors has any significant bearing on gift receipt.

Table 4 estimates the same specifications for repeat home buyers. House prices and rates of appreciation have no statistical effect on gift receipt in any of the specifications. In fact, none of the explanatory variables (except the city dummy variables in column 3 and real median family income in column 6)

Table 4
Weighted Least Squares Dependent Variable: Average Percentage of Down Payment from a Gift, for Repeat Buyers

Variable	(1) All Cities	(2) All Cities	(3) All Cities	(4) All Cities	(5) Coastal Cities	(6) Non-Coastal Cities
Average Age	−.07	−.08	−.10	−.13	−.24	.01
	(.08)	(.08)	(.09)	(.09)	(.17)	(.10)
Average Family Size	−.79	−.87	−.89	−1.12	−.59	.34
	(.72)	(.73)	(.74)	(.96)	(1.10)	(1.23)
Real Median Family Income	−.01	−.01	−.004	−.01	.08	−.06
	(.03)	(.03)	(.03)	(.05)	(.06)	(.03)
Real Median House Prices	.05	.05	.04	−.03	−.04	.10
	(.05)	(.05)	(.05)	(.02)	(.09)	(.16)
Real One-Year Appreciation Rate		−2.71	−2.14	.44	−.04	−5.24
		(2.78)	(2.94)	(3.12)	(.04)	(5.02)
Constant	8.35	8.89	10.00	16.65	9.21	3.93
	(5.21)	(5.25)	(5.41)	(7.06)	(9.34)	(6.91)
Year Dummies	no	no	yes	yes	no	no
City Dummies	no	no	no	yes	no	no
P-Value: Year Dummies[a]			.61	.60		
P-Value: City Dummies[b]				.02		
Number of Observations	90	89	89	89	40	49
R-Square	.03	.04	.07	.41	.13	.11

Note: Columns 2 to 6 have only 89 observations because the NAR median house price for Atlanta is not available for 1987.
Standard errors in parentheses.
[a]For the joint test that all of the coefficients on the year dummies equal zero.
[b]For the joint test that all of the coefficients on the city dummies equal zero.
Source: Chicago Title and Trust Co., *Who's Buying Houses in America*, 1988 to 1992.

have any statistical effect on the receipt of gifts for down payments. The difference between the first-time and repeat buyers is striking and is consistent with the view that the most important role of gifts is to loosen the down payment constraint for first-time buyers.

IV. Who Gets Gifts for Home Purchase? Evidence from HMDA Data

The results from the previous section, although consistent with the use of gifts to alleviate housing finance constraints, indicate the limitations of using city-level data in the analysis. 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 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. The data include all black and Hispanic applicants plus 3,300 randomly selected white applicants. The Home Mortgage Disclosure Act (HMDA) requires that lending institutions report income, race, gender, census tract of the property to be purchased, and whether each application was rejected or accepted. The Federal Reserve Bank of Boston augmented the HMDA data for 1990 by requesting additional information found on the mortgage application, including employment history, credit history, co-applicant data, other demographic information, and whether or not the applicant received a gift or grant for part of the down payment. The data set is described in detail in Munnell and others (1992).

This article uses the general research data set from the original Boston Fed data. This data set contains limited data on some of the previously

discussed variables in order to protect the confidentiality of the original applicants. The general research data set was supplemented with complete information about the applicant's age and education. The sample used in this article contains only applications that contain complete information for all variables used in the subsequent analysis.

The gift variable in the Boston Fed data includes both gifts from relatives and grants from other sources, including community organizations. Although the data do not distinguish between these two sources, discussions with bankers suggest that few, if any of the gifts noted in the data are actually grants.

The probability of receiving a gift as part of the down payment is modeled 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, using a probit model. Applicant demographic characteristics include age, number of years of education, number of dependents, and whether the applicant was a male, a minority, and married, respectively. Three variables control for consumer credit history: whether the applicant had no credit history, had one or more accounts in slow-pay status, and had any current delinquencies.[7] The number of years in the current line of work and the number of years in the current job are the employment history variables.

Table 5 gives the means for the variables in the sample data reported separately for first-time and repeat buyers and for those who received a gift and those who did not. On average, applicants receiving gifts are younger and have more years of education and fewer dependents. They have smaller incomes and net worth and shorter employment histories, and they are more likely to have a history of delinquent credit. Finally, those receiving gifts request mortgage loans with higher loan-to-value ratios—which imply lower down payments—and larger obligation ratios. Thus, they appear to be more financially constrained than applicants without gifts.

Since the results presented earlier suggest that the receipt of gifts for down payments may vary systematically between first-time and repeat buyers, the probit results also are presented separately for the two types of buyers. Table 6 gives the estimation

Table 5
Sample Means: Boston Mortgage Applicants

	First-Time Buyers		Repeat Buyers	
Variable	Received a Gift	No Gift	Received a Gift	No Gift
Age of Applicant (years)	32.3	35.7	35.1	39.1
Years of Education	15.0	14.9	16.3	15.9
Married (%)	.57	.52	.67	.75
Male (%)	.75	.76	.81	.87
Minority (%)	.27	.29	.18	.12
Number of Dependents	.6	.7	.8	1.0
Coapplicant (%)	.70	.67	.81	.81
Median Monthly Income ($)	4,342	4,428	5,948	6,452
Median Net Worth ($)	40,000	57,000	115,000	203,000
Less than Two Years in Line of Business (%)	.14	.10	.08	.04
Less than Two Years in Current Job (%)	.35	.31	.27	.24
No Credit History (%)	.04	.06	0	0
Has Chronic Slow Payments (%)	.21	.21	.36	.28
Has Delinquent Credit History (%)	.22	.18	.19	.13
Loan-to-Value Ratio	.83	.79	.73	.71
Obligation Ratio	34.1	33.0	33.2	33.1
Number of Observations	423	1,491	85	790

Source: Federal Reserve Bank of Boston.

results for the sample of 1,914 first-time buyer applicants. The base specification is presented in column 1. The estimation results are similar to the patterns in the sample means shown in Table 5. Younger, 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 goes against the aforementioned hypothesis.

The employment history variables have little statistical 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,

[7] The credit history variables from Munnell and others (1992) were combined into a smaller number of variables for this analysis. Current delinquencies include any applicants with one or more account that is at least 60 days delinquent.

Table 6
Probit Equation Dependent Variable: Applicant Received a Gift (1 = Yes)
(Standard Errors)

Variable Sample	(1) First-Time Buyer	(2) First-Time Buyer	(3) Repeat Buyers	(4) Repeat Buyers
Age	−.026	−.025	−.033	−.033
	(.004)	(.004)	(.008)	(.008)
Education	.028	.030	.057	.058
	(.013)	(.013)	(.023)	(.023)
Married	.222	.229	−.176	−.179
	(.085)	(.086)	(.176)	(.176)
Male	−.083	−.084	−.246	−.241
	(.086)	(.087)	(.185)	(.186)
Minority	−.064	−.092	.190	.195
	(.079)	(.080)	(.175)	(.177)
Number of Dependents	−.026	−.025	−.040	−.042
	(.035)	(.035)	(.059)	(.059)
Coapplicant	.077	.057	.285	.283
	(.090)	(.091)	(.198)	(.198)
Total Monthly Income (000s)	−.086	−.077	−.040	−.042
	(.018)	(.019)	(.018)	(.018)
Less than Two Years in Line of Work	.086	.096	.229	.232
	(.117)	(.118)	(.273)	(.273)
Less than Two Years in Same Job	−.042	−.042	−.044	−.047
	(.083)	(.083)	(.149)	(.150)
No Credit History	−.133	−.125		
	(.163)	(.163)		
One or More Slow Accounts	.028	.018	.250	.252
	(.085)	(.085)	(.137)	(.137)
Current Delinquencies	.181	.174	.353	.362
	(.087)	(.088)	(.178)	(.179)
Constant	.018	−.303	−.720	−.601
	(.254)	(.300)	(.485)	(.545)
Total Net Worth (000s)		−.276		.013
		(.105)		(.067)
Obligation Ratio		.003		−.003
		(.004)		(.006)
Loan-to-Value Ratio		.184		−.042
		(.090)		(.232)
Number of Observations	1,914	1,914	875	875
Log Likelihood	−964.0	−957.7	−257.5	−257.3

Source: Federal Reserve Bank of Boston.

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. Two interpretations can be offered for this finding. First, these are households that have low current income but high permanent income (as measured by education). These households are 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. A 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.

Total net worth is added as an explanatory variable in column 2 of Table 6. 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 should include the value of the gift in the net worth figure if net worth is reported correctly.[8] In this sense, net worth is endogenous. If the applicant included the value of the gift in net worth, the data would show a positive relationship between gift receipt and reported net worth. 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. In addition, the coefficients on the other variables change very little.

The specification in column 2 also includes the obligation ratio and the loan-to-value ratio. Again, the obligation and loan-to-value ratios are endogenous because these variables may include 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 the abovementioned bias, the estimation results show that households with higher loan-to-value ratios—

[8] 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.

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.

The results for prospective first-time buyers strongly support the view that financially constrained households are the most likely to receive support from others in financing the down payment. If financial constraints are truly important, one would expect to see a larger frequency of transfers at the first-time buyer level, where the constraints are more likely to bind, and one also would expect that the financially constrained repeat buyers, however few there are, also would receive gifts.

Family gifts allow otherwise constrained households to purchase homes earlier than they would without a gift.

As shown in Table 5 and mentioned above, gifts for home purchase are substantially less frequent for repeat buyers. According to Table 5, 22 percent of first-time buyer applicants received gifts while only 9 percent of the repeat buyer applicants received gifts. To explore the determinants of the receipt of a gift for repeat buyers, columns 3 and 4 in Table 6 present estimated probit models for repeat buyers akin to those presented for first-time buyers. Note that the indicator variable "No Credit History" is not included in these regressions.[9]

The results in the last two columns of Table 6 are roughly similar to those for first-time buyers. In particular, younger, more educated, and higher-income households received gifts. In addition, the indicators for current delinquencies and one or more slow pay accounts are positive and statistically different from zero at the 7 percent level, again showing that credit-constrained households are more likely to receive gifts. In contrast to the sample of first-time buyer applicants, however, the measures of obligation and loan-to-value ratios are not statistically important determinants of gift receipt.

V. Conclusion

About one in five first-time home buyers receives some help from relatives in making the down payment, with the average gift to those receiving help roughly one-half of the total down payment. This evidence suggests that gifts for home purchase may be an important fraction of aggregate private transfer activity. Using data from Chicago Title and Trust Company and the National Association of Realtors, it is possible to estimate roughly the value of these family transfers for down payments. In 1992, those computations show that total gifts equaled $2.5 billion for first-time buyers and $1.9 billion for repeat buyers, for a total of $4.4 billion.[10]

Gale and Scholz (1990), using data on intergenerational transfers in the 1983 and 1986 Survey of Consumer Finances, estimate that the annual flow of non-educational, non-bequest transfers is $71 billion in 1992 dollars. Based on the rough calculation above, transfers for down payments would be 6 percent of the annual flow of non-educational transfers.

Although the aggregate value of such gifts is modest, this article shows that these gifts allow otherwise constrained households to purchase a home. Earlier estimates show that the average percentage of gifts is higher in cities with more expensive houses, and that persons who receive gifts have more education, are younger, are more likely to have credit problems, and have smaller net worth than those not receiving gifts. In total, gifts allow households to avoid significant liquidity constraints and purchase homes earlier than they would without a gift.

[9] Also, the sample does not include applicants who had already owned a previous home, but had no consumer credit history. The original data contained only 9 such applicants, and the coefficient for the no credit history variable in the subsequent probit equations was unstable.

[10] The calculations were made as follows. The NAR reports that the median sales price of an existing single-family home in 1992 was $103,700, and 3.5 million single-family homes were sold in the U.S. that year. According to the 1992 Chicago Title and Trust survey, first-time home buyers purchased homes valued at an average of 86 percent of the median, whereas repeat buyers purchased homes valued at an average of 112 percent of the median. Thus, nationally, the median first-time buyer bought an $89,182 house and the median repeat buyer a $116,144 house. The average down payments for first-time and repeat buyers are 15 and 29 percent, respectively. Also, first-time buyers buy about 45 percent of all homes sold in a given year. Finally, 12 and 3 percent of down payment funds came from relatives for first-time and repeat buyers, respectively. Putting together all of these estimates gives the estimates cited in the text.

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