Joint Center for Housing Studies

Harvard University

Financing Home Improvement Projects:
The Use of Home-Secured Credit

Alvaro Martin-Guerrero

N02-1

February 2002

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I. Introduction

Home improvement projects have a significant impact on the housing stock, affecting housing values and improving the standard of living. Also, the home improvement industry plays an important role in the overall US economy. Home improvement expenditure accounts for almost 2% of the US gross domestic product. This market has shown significant growth in recent years. The Joint Center for Housing Studies estimates that from 1995 to 1999, expenditure on home improvements grew from $150 billion to $180 billion. Out of these expenditures on home improvement, nearly 75% were made by homeowners on their homes.

Most homeowners spend small amounts on home improvements while a relatively small group of owners account for the majority of these expenditures. Four out of five homeowners undertake some kind of home improvement or repair each year. About 32% spend less than $500 a year, while approximately 10% of all owners report annual expenditure on home improvements of $10,000 or more. Those owners who reported a large expenditure on home improvements accounted for more than half (52%) of the total market, or the equivalent of about $70 billion in 1999.[1]

Given that half of this market comprises owners who make significant outlays, there is substantial potential for borrowing, particularly borrowing secured by the owner's home equity. Secured credit products such as home equity loans, second mortgages and home mortgage refinancing have a strong impact on home remodeling (Belsky 1993, Canner et al. 1998, Brady et al. 2000). Even so, little is known about the magnitude and characteristics of the sources for financing home improvement projects. The available data is limited in determining how owners pay for home improvements, the projects that tend to be financed, or the characteristics of owners who are likely to finance home improvements. Through the American Household Survey (AHS), it is possible to estimate the expenditure on home improvements and to determine homeowners who have obtained home equity products or refinanced their current mortgage, but it fails to provide information about the funding source for home improvement projects.[2] Two surveys of consumers sponsored by the Federal Reserve Board also provide information on the

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[1]This number comes from 52% of $135.5 billion reported owner improvements and repairs for 1999. Source: Improving America's Housing. Joint Center For Housing Studies 1999. Remodeling Homes for Changing Households. Joint Center for Housing Studies 2001.

[2] The American Housing Survey (AHS) contains information on homeowner expenditure on remodeling, replacements, as well as expenditure on home purchase, actual value of the house, mortgage monthly payments and other home payments. Even so, AHS does not provide direct information on how homeowners who undertake home remodeling, finance their projects.

uses of home equity borrowing and of the liquefied[3] funds from home mortgage refinancing. Even so, these surveys do not provide any information on the value or type of improvement project.[4]

Sponsored by the National Association of Home Builders Research Center (NAHB-RC), the Consumer Practices Survey (CoPS) provides information on expenditure and funding sources for home improvement projects. The 1997 and 1998 surveys included questions on expenditure for remodeling and replacement jobs as well as home improvement funding sources. The survey also identifies socioeconomic characteristics of owners who undertook home improvement projects.

The following note presents a descriptive analysis of the home improvement financing market for owner occupied homes. The analysis is based on 1998 data and should be interpreted within the economic environment of that time frame.[5] In the last few years, home improvement financing has experienced significant changes, and new financial products have been developed. Therefore we need to be careful when applying these findings to today's home improvement finance market.

II. Definitions and Data

This note uses the term "home improvement" for any significant changes to the home due to additions, conversions, or replacement of key systems within the structure. For purposes of this analysis we have defined two categories of home improvements: remodeling projects and replacement jobs. "Remodeling" or "discretionary" projects are home improvement jobs that require a range of trade skills and normally involve a transformation of the existing space. Room additions or kitchen and bath alterations are examples of remodeling projects. Alternatively "Replacements" are those home improvement jobs that tend to maintain the state of the property. Window replacements, electrical upgrades, siding or roofing are examples of replacement projects.

[3] A homeowner was considered to have liquefied home equity if he/she borrowed more than was necessary to repay the balance on the existing mortgage(s) plus the closing costs on the new mortgage.

[4] National Survey of Consumers on Home Equity Loans, October 1997 and Survey of Consumers on Home Mortgage Refinancing October 1999.

[5] For example: bank loan prime rates in 1998 averaged 8.4% in comparison with 8.3% in 1996 and 9.2% in 2000. Contract rates for conventional 30 year mortgages were lower in 1998 (6.94%) than in previous or following years (7.8% in 1996 and 8.0% in 2000). This impacted the share of home mortgage refinancing was significantly higher in 1998 (50%) than in 1996 (29%) or in 2000 (20%). Source: Federal Reserve Board, HUD & Mortgage Bankers Association of America.

Using the 1998 CoPS, this note will focus on three issues: how homeowners financed their home improvements, what types of projects tended to be financed, and finally the characteristics of homeowners who financed home improvements. The CoPS was done over a sample of 4,666 homeowners who had reported home improvement expenditure during the calendar year.

The CoPS questionnaire includes information on the total amount spent on home improvements and the funding sources used by homeowners to pay for that expenditure, but it fails to provide the amount financed through each individual funding source. This has a particular impact when homeowners reported more than one funding source.[6] For those homeowners who reported more than one funding source, their spending is allocated proportionally using the average expenditure amount of those homeowners who reported a single funding source.

The American Housing Survey provides a representative picture of home remodeling activity and of the characteristics of owners who undertake home improvements. The comparison over the combination of four socioeconomic indicators between CoPS and the weighted 1999 AHS shows that CoPS under-represents minority and young households while middle-income households are over represented[7] relative to the AHS. To obtain a more accurate reference on the home improvement finance market, the CoPS results have been adjusted by weights from the 1999 AHS using a combination of four socioeconomic characteristics: household type, ethnicity, income and age group.

III. How Do Homeowners Finance Their Home Improvements?

The majority of homeowners rely on their savings to finance home improvement projects. Nearly three out of every four households who reported having performed some kind of home remodeling or replacement paid for their projects at least partly through savings, tax returns, or family gifts, and another 6.1% used insurance payments.

[6] Out of the 3,095 homeowners who reported funding sources and expenditures on home improvements 16% reported more than one funding source.
[7] For the comparison between AHS and CoPS, see Appendix Table 1.

Figure 1	
Respondents Who Reported Home Improvements Expenditure by Funding Source.	
	Percentage
Savings/Tax Returns	70.5%
Gift/Loan from family	4.6%
Insurance	6.1%
Home Equity Lines	3.9%
Home Equity Loan/Second Mortgage	7.2%
Home Mortgage Refinancing	2.9%
Total Home-secured Credit	**14.0%**
Credit Card not Secured	19.1%
Loan Not Secured	2.0%
Total Unsecured Credit	**21.1%**
Other	2.8%
Total	**119.2%**

Total Number of Households who reported expenditure & funding sources: 3,095

Note: The total number of responses doesn't add up to 100% as households may have had more than one funding source

Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

More owners chose unsecured credit to at least partially finance their home improvements as compared to home-secured loans. Regular credit cards are a popular source for funding improvements. Over twenty percent of respondents reported having used some type of direct credit to finance their projects, either a regular credit card (19.1%) or through a non-secured loan (2.0%). In contrast, fewer households reported having used home-secured financial products. Eleven percent (11.1%) of owners relied on their home equity to finance in whole or in part their home improvements and nearly three percent of them relied on cash taken out from their mortgage refinancing. The percentage of homeowners who used home equity products is higher for second mortgage borrowers (7.2%) than for home equity lines of credit (3.9%).[8] Nearly 3% of the respondents reported having used other sources to finance their home improvements.[9]

[8] This finding contrasts significantly with other sources on the distribution of home equity products. The 1997 survey of consumers done for the Federal Reserve Board, estimated that 8% of all homeowners had a line of credit backed by their home equity, while only 5% had traditional home equity loans. In the same way the 1999 AHS reported that out of the 68 million homeowners, over 9 million units had one or more home equity mortgages. Among those, 7.2% of all homeowners reported having only a line of credit while only 5.4% had only a lump sum credit. The reverse distribution that appears in the survey is an issue. Homeowners who reported having financed their home improvements through their home equity line of credit (through checking accounts or through credit cards) requires further analysis.

[9] Other sources of financing include borrowing against retirement plans, stock funds or other financial investments.

Figure 2 Distribution of Expenditure by Funding Source			
		Average Expenditure	Distribution
Savings/Tax Returns	$	3,945	51.6%
Gift/Loan from family	$	3,984	3.4%
Insurance	$	4,991	5.7%
Home Equity Lines	$	5,801	4.2%
Home Equity Loan/Second Mortgage	$	8,867	11.8%
Home Mortgage Refinancing	$	20,019	10.9%
Total Home-secured Credit	**$**	**10,622**	**26.9%**
Credit Card not Secured	$	1,437	5.1%
Loan Not Secured	$	5,874	2.2%
Total Unsecured Credit	**$**	**1,881**	**7.3%**
Other	$	9,708	5.1%
Total			**100.0%**
Average Expenditure on all Projects	$	5,389	
Median Expenditure on all Projects	$	2,000	

Total Number of Households who reported expenditure & funding sources: 3,095
Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

Even if nearly three out of four homeowners use their own savings to pay for their home improvements, savings, tax returns and insurance reimbursements represent less than two thirds (60.7%) of the expenditure on remodeling or replacements. Approximately one third (34.2%) of all expenditure on home improvements was paid using some type of financing. Unsecured credit accounted for over 7% of all expenditure, while over 26% of the market was financed through home-secured loans and credit lines.

Payments through second mortgages and liquefied funds from mortgage refinancing represent a significant share of the financed expenditure for home improvements, accounting respectively for 11.8% and 10.9% of the market. Over four percent of all expenditure was paid through home equity lines of credit either through checking accounts or credit cards. On the other hand, even if nearly one out of five homeowners reported having used non-secured credit cards to pay partly or totally for their home improvements, the market share for this finance method is relatively modest, accounting only for 5.1% of all expenditure.

Expenditure for the majority of the reported home improvements are relatively small; half of the respondents spent $2,000 or less. Even so, the average expenditure on home improvement projects is over $5,300, showing the wide dispersal of expenditure among homeowners.

Expenditure on home improvements also differs significantly depending on the funding source for the project. Improvement projects paid in part or in whole through home-secured credit involve higher average expenditure than those financed through regular credit cards or unsecured loans. The average expenditure on improvements financed through home-secured credit ($10,622) is more than five times larger than the average expenditure on projects paid through unsecured credit cards and loans ($1,881).

The CoPS data suggest some relation between the average expenditure on home improvements and the type of funding for those improvements. Owners may consider a variety of factors in their decisions for financing home improvements, such as access to credit, borrowing terms and the eventual return on their investment. Regular credit cards are a widely used method for paying for home improvements, but expenditure financed through this method tends to be moderate. Other financial products like liquefied funds from refinanced mortgages or non-secured loans are usually not available to all homeowners, but expenditure on projects financed through these products tends to be higher. Therefore if a projected expenditure on a home improvement project is relatively small, it seems more likely that homeowners may decide to obtain easily accessible short term financing through regular credit cards. On the other hand, if the projected expenditure is high, homeowners may consider financial instruments that provide more favorable terms like lower interest rates.

IV. What Projects Tend to be Financed?

Homeowner decisions on the funding source for home improvements would also depend on the type and cost of the project and on their overall level of spending on those improvements. Choices such as hiring a contractor or undertaking their own project (D-I-Y) will also have an impact on the financial method to pay for the home improvement.

Most home replacement projects tend to be relatively inexpensive, while remodeling jobs like a kitchen or a bathroom remodel may require significantly greater expenditure. The annual average expenditure for owners who undertook one or more replacement projects was $2,920, while owner expenditure on home remodeling projects averaged $5,276.

Figure 3						
Distribution of Finance Sources on Home Remodeling Project						
	Own Savings/Tax Returns Insurance Family Gift	**Home-secured Credit**	**Unsecured Credit**	**Other**	**Total Expenditure**	**Average Expenditure**
Room Additions	53.7%	38.6%	5.4%	2.3%	100.0%	$ 8,671
Alterations/Convertion of Existing Space	59.7%	28.8%	7.9%	3.6%	100.0%	$ 3,188
Major Kitchen Remodel	56.3%	39.6%	3.0%	1.1%	100.0%	$ 16,076
Minor Kitchen Remodel	66.2%	18.7%	9.8%	5.2%	100.0%	$ 1,839
Major Bathroom Remodel	71.2%	20.8%	4.5%	3.5%	100.0%	$ 10,028
Minor Bathroom Remodel	61.1%	18.7%	13.9%	6.2%	100.0%	$ 1,007
Rebuilt due to Disaster	66.2%	5.0%	1.5%	27.3%	100.0%	$ 9,481
Total Remodeling	59.2%	28.3%	6.0%	6.5%	100.0%	$ 5,276

Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

Note: The threshold for major and minor kitchen remodeling is at $10,000 and $5,000 for bathroom projects

Remodeling projects often have greater impact on the property value than replacements. This may explain why most expenditure for remodeling is financed through home-secured credit as opposed to unsecured credit cards or loans. Even though nearly 60% of expenditure came from homeowners' savings and tax returns, more than 39% of major kitchen remodeling, 38.6% of expenditure on room additions and over 28% of alterations of existing space were paid through home-secured loans, equity credit lines and liquefied funds from mortgage refinance. On the other hand, projects paid by credit cards or unsecured loans accounted for less than 14% of expenditure on minor bathroom remodeling and 9.8% of expenditure on minor kitchen remodeling.

Homeowners who undertake replacements or general home upgrades tend to pay in cash for this type of expenditure. Home replacements paid through savings, tax returns, family gifts and insurance refunds account for 62% of all expenditure. Even though more than twenty five percent of expenditure on repair projects were financed through home-secured credit, the difference between secured and unsecured credit is less than for remodeling projects. For some replacement jobs such as garage doors, the expenditure financed through home-secured lending is nearly equal to the share of expenditure financed through unsecured credit. On the other hand, for replacement projects with higher average budgets, such as roofing, siding, or windows, expenditure tends to be financed in part or in whole, through home-secured products.

Figure 4						
Distribution of Finance Sources on Home Replacement Projects						
	Own Savings/Tax Returns Insurance Family Gift	Home-secured Credit	Unsecured Credit	Other	Total Expenditures	Average Expenditures
Siding	47.5%	40.0%	8.0%	4.5%	100.0%	$ 2,749
Deck, patio, fence	62.8%	25.1%	9.7%	2.5%	100.0%	$ 1,569
Insulation	12.9%	84.5%	2.3%	0.2%	100.0%	$ 1,513
Roofing, roof vents	67.0%	21.3%	6.4%	5.4%	100.0%	$ 1,495
HVAC	67.6%	17.9%	9.2%	5.2%	100.0%	$ 1,442
Windows	55.2%	34.9%	7.6%	2.2%	100.0%	$ 1,288
Flooring	67.9%	18.3%	9.9%	3.9%	100.0%	$ 1,045
Landscaping	69.1%	14.9%	12.3%	3.7%	100.0%	$ 454
Doors Interior and ext	67.2%	17.4%	9.4%	6.0%	100.0%	$ 446
Garage door	74.9%	11.9%	11.7%	1.6%	100.0%	$ 432
Painting	69.4%	20.1%	6.9%	3.6%	100.0%	$ 420
Plastering/drywall	64.6%	17.7%	10.5%	7.2%	100.0%	$ 418
Plumbing	75.8%	11.7%	8.3%	4.1%	100.0%	$ 389
Electrical	56.8%	32.2%	8.1%	3.0%	100.0%	$ 370
Pest control	71.6%	9.4%	16.1%	2.9%	100.0%	$ 327
Lumber/plywood	73.7%	16.4%	9.0%	0.9%	100.0%	$ 285
Locksets/handles	67.6%	18.3%	10.6%	3.6%	100.0%	$ 92
Other replacements	70.7%	16.6%	7.5%	5.1%	100.0%	$ 1,194
Total replacements	62.2%	25.6%	8.5%	3.7%	100.0%	$ 2,920

Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

In general terms, expenditure on replacements relies less on home-secured credit than home additions or alterations, and more on savings and unsecured credit. Even so, due to the small number of cases and the variation in expenditure on home replacements from one project to the other, these results should be interpreted carefully.[10]

Not only the type of project, but also the level of expenditure on home improvements has a significant impact on the funding source for those projects. The greater the expenditure on home improvements, the more likely the owner will consider financing the project through some external funding. Furthermore, homeowners who reported having spent significant amounts on home improvements tend to rely more heavily on credit secured by their home equity over unsecured financial products.

[10] On certain remodeling projects such as insulation projects, the number of cases for each funding source is relatively small. This may cause outliers to dramatically affect the distribution of expenditure.

Figure 5 Distribution of Home Improvement Financing by Level of Total Expenditure			
	All Households	**Households who reported annual expenditure over $5,000**	**Households who reported annual expenditure over $25,00**
Own savings/Tax Returns	51.6%	47.7%	39.8%
Gift/Loan from family	3.4%	3.7%	1.4%
Insurance	5.7%	5.6%	6.2%
Total Own Saving/Gift/Insurance	**60.7%**	**57.0%**	**47.3%**
Check Backed on Home Equity	3.9%	4.2%	5.1%
Credit Card Backed on Home Equity	0.3%	0.3%	N/A
Home Equity Loan/Second Mortgage	11.8%	13.4%	15.0%
Home Mortgage Refinancing	10.9%	13.6%	22.8%
Total Home-secured Credit	**26.9%**	**31.5%**	**42.9%**
Credit Card not Secured	5.1%	3.1%	0.5%
Loan Not Secured	2.2%	2.3%	0.6%
Total Unsecured Credit	**7.3%**	**5.4%**	**1.0%**
Other	5.1%	6.1%	8.8%
Total	**100.0%**	**100.0%**	**100.0%**
Total number of households	*3,095*	*815*	*83*

Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

Forty seven percent of all the expenditure on home improvements undertaken by high spending homeowners ($25,000 spending or more a year) was not financed; expenditure on these improvements relied on savings, tax returns, and family gifts. This represents nearly 10% less than the expenditure by homeowners who spent more than $5,000 a year and 13% less than overall expenditure on home improvements.

High spending homeowners financed nearly 44% of their expenditure. Home-secured products and particularly mortgage refinancing tends to be the most popular way to finance home improvements when the overall expenditure rises to a certain limit. Home improvement spending financed through mortgage refinance and second mortgages represented over 22% and 15% respectively of the expenditure among homeowners who invested over $25,000 in their homes. On the other hand, the use of non-secured credit cards for home improvement finance diminishes with high spending. While unsecured credit cards represented 5.1% of the payments on all home improvements, high expending households used them for less than one percent of their payments.

Home equity products and home mortgage refinancing have significant tax advantages and normally offer a better interest rate than unsecured loans or credit cards. Therefore it is likely

that owners with high expenditure on home improvements may find it preferable to obtain home-secured products rather than paying cash or using unsecured credit to finance those projects.

Another factor that has an impact on the consumer decision to finance home improvements is whether the project will be performed by a professional contractor or by a household member. Do-it-yourself projects (D-I-Y) tend to be less costly than projects done by professional contractors and therefore may have an effect on the financing of the project. Sometimes homeowners purchase the materials for the improvement but hire a contractor to perform the project (B-I-Y).[11]

Figure 6
Distribution of Expenditure by Project Performer

	D-I-Y	PRO	B-I-Y*
Market Share	*16.7%*	*65.7%*	*17.6%*
Insurance	4.4%	5.9%	6.1%
Total Own Savings/Gift	**63.0%**	**51.7%**	**59.9%**
Home Equity Lines of Credit	2.4%	4.0%	6.8%
Home Equity Loans/Second Mortgages	8.1%	12.8%	11.4%
Home Mortgage Refinance	4.6%	13.9%	6.0%
Total Home-secured Credit	**15.1%**	**30.6%**	**24.2%**
Credit Cards Not Secured	13.5%	2.7%	6.0%
Loans Not Secured	1.5%	2.5%	1.6%
Total Unsecured Credit	**14.9%**	**5.2%**	**7.6%**
Other	2.6%	6.5%	2.1%
Total	**100.0%**	**100.0%**	**100.0%**

* BIY defined as consumer purchases when expenditure on contractors is reported for the same project.
Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

B-I-Y and D-I-Y projects accounted for 17.6% and 16.7% respectively of all expenditure on home improvements,[12] while nearly two out of three dollars spent on improvement corresponded to projects entirely undertaken by contractors. Projects performed by contractors are more likely to rely on external financial sources than D-I-Y projects. Over sixty five percent of all expenditure on D-I-Y projects was paid from the homeowner's savings, tax returns, or gifts, compared with the 55% paid to professional contractors through these sources.

There are significant differences between financed expenditure on D-I-Y and professional home improvement projects. Homeowners who decide to undertake the project themselves

[11] When homeowners provide the materials for the project but do not perform it themselves, this is also referred to as BIY (Buy-It-Yourself). It includes all expenditure on purchases of materials but excludes the cost of the job undertaken by the contractor.

finance their improvements almost evenly through home-secured products and unsecured credit cards and loans. On the other hand, when professional contractors perform the project, home-secured credit seems to be the preferred way to fund improvement expenditure. Thirty percent of the expenditure on professional projects was financed through home equity products and liquefied funds from mortgage refinancing, while accounting for only 15% of total expenditure on D-I-Y projects. On the other hand, nearly 15% of reported expenditure on D-I-Y projects was paid through unsecured credit cards or loans while the amount of professional jobs paid this way was under 6%. The data suggest that regular credit cards account for most of the unsecured loan payments on D-I-Y projects, while home mortgage refinance is the preferred funding source for owners who contracted a professional for their home improvements.

More than 31% of all the expenditure on B-I-Y improvement projects used some type of financing. Homeowners who chose this type of arrangement utilized home-secured credit more than D-I-Y owners. On the other hand, the use of unsecured credit (especially regular credit cards) is higher among B-I-Y owners than among those who decided to hire a contractor, but lower than among D-I-Y homeowners. This seems to suggest that owners who decided to purchase materials plan their home improvement financing in a similar way than those who decide to hire a professional contractor.

V. Who Are the Homeowners Who Finance?

Socioeconomic characteristics of the household also affect the way home improvements are funded and eventually the type of financial product used to undertake home changes. The age of the head of the household, the annual income, the household composition or the ethnicity of the household will have some impact on the financial decisions for home improvements.

Seniors tend to pay for their expenditure without borrowing and appear reluctant to use home-secured credit. Eighty percent of all expenditure by owners over 65 years of age came from savings, tax returns, gifts or insurance payments, while only 10% of reported expenditure by seniors was paid through home-secured credit.

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[12] CoPS shows a lower share of the market for D-I-Y projects. The Joint Center for Housing Studies estimates that the share of expenditure among homeowners for D-I-Y in the period 1998-99 using AHS is around 23%. "Remodeling Homes for Changing Households", Joint Center For Housing Studies 2001.

Figure 7

Distribution of Home Improvements Finance by Age Group

	Own savings/Gift/Insurance	Home-secured Credit	Unsecured Credit	Other	Total
Under 44	**55.6%**	**33.5%**	**6.6%**	**4.3%**	**100.0%**
45-64	**58.4%**	**27.0%**	**7.9%**	**6.7%**	**100.0%**
Over 65	**80.4%**	**10.4%**	**7.0%**	**2.2%**	**100.0%**
Total	**60.7%**	**26.9%**	**7.3%**	**5.1%**	**100.0%**

Age Distribution by Home Improvement Funding Source

	Own savings/Gift/Insurance	Home-secured Credit	Unsecured Credit	Other	Total
Under 44	**34.2%**	**46.5%**	**33.9%**	**31.1%**	**37.3%**
45-64	**45.7%**	**47.6%**	**51.5%**	**62.3%**	**47.5%**
Over 65	**20.1%**	**5.9%**	**14.6%**	**6.6%**	**15.2%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

Homeowners under 44 years of age rely more than any other group on home-secured credit once they decide to finance their home improvements. More than a third of the reported expenditure within this age group was paid using home-secured credit. Another 6.6% of all the expenditure reported among younger owners was financed through regular credit cards and non-backed loans. Young owners represent over 37% of all expenditure.

Over 32% of the dollars spent on home improvements by homeowners between 45 and 64 years of age was somehow financed. Nearly eight percent of all the expenditure was paid using unsecured credit, while expenditure financed through home-secured credit accounted for 27% of all expenditure among this age cohort. CoPS shows that middle age homeowners accounted for nearly half (47.5%) of all expenditure on home improvements.

The annual income of the homeowner also has an important impact on home improvement funding. High-income owners spend significantly more on home improvements than low-income owners. In fact the data suggest that homeowners with a reported annual income of $100,000 or more accounted for over 44%, while low income owners (less than $25,000) only accounted for 5.9%, of all expenditure on home improvements.

Figure 8					
Distribution of Home Improvement Expenditure by Funding Source and Household Income					
	Own savings/Gift/Insurance	**Home-secured Credit**	**Unsecured Credit**	**Other**	**Total**
Under $24,999	**82.9%**	**8.0%**	**4.0%**	**5.2%**	**100.0%**
$25,000-$49,999	**54.1%**	**35.6%**	**7.9%**	**2.4%**	**100.0%**
$50,000-$74,999	**64.2%**	**19.9%**	**9.5%**	**6.5%**	**100.0%**
$75,000-$99,999	**62.8%**	**24.1%**	**10.3%**	**2.8%**	**100.0%**
over $100,000	**57.6%**	**30.6%**	**5.4%**	**6.4%**	**100.0%**
Total	**60.7%**	**26.9%**	**7.3%**	**5.1%**	**100.0%**
Income Distribution by Home Improvement Funding Source					
	Own savings/Gift/Insurance	**Home-secured Credit**	**Unsecured Credit**	**Other**	**Total**
Under $24,999	**8.1%**	**1.8%**	**3.2%**	**6.0%**	**5.9%**
$25,000-$49,999	**11.9%**	**17.7%**	**14.5%**	**6.3%**	**13.4%**
$50,000-$74,999	**17.5%**	**12.3%**	**21.6%**	**21.0%**	**16.6%**
$75,000-$99,999	**20.2%**	**17.6%**	**27.7%**	**10.7%**	**19.6%**
over $100,000	**42.2%**	**50.7%**	**32.9%**	**56.1%**	**44.6%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

Lower income homeowners tend to finance less and rely more on their savings than higher income owners. There are significant differences among income groups on the share of expenditure on home improvements paid with savings, insurance reimbursements or personal gifts. Eighty two percent of expenditure on home improvements from low-income households (under $25,000) came from savings, while only eight percent of the total payments from this income group were financed through home-secured credit, and another four percent through unsecured credit cards and loans. On the other hand, high-income homeowners financed through secured and unsecured credit more than one third (36%) of all their expenditure on home improvements.

Expenditure made through regular credit cards and unsecured loans is higher among middle-income groups. Nearly ten percent (9.5%) of the expenditure from households with an income between $50,000-$74,999, and 10.3% of those with income between $75,000 and $99,999, was financed through non-secured credit. These two income groups accounted for nearly half of all expenditure made through unsecured credit.

There are also significant differences in home improvement finance depending on the household composition.[13] More than 83% of the dollars expended on improvements came from family households.

Figure 9		
Distribution of Home improvement Expenditure by Funding Source and Household Type		
	Family Households	Non Family Households
Share of Spending	*83.4%*	*16.6%*
Own savings/Tax Returns	*50.4%*	*58.0%*
Gift/Loan from family	*3.8%*	*1.5%*
Insurance	*5.6%*	*6.3%*
Total Own Saving/Gift/Insurance	**59.7%**	**65.8%**
Check Backed on Home Equity	*4.3%*	*1.4%*
Credit Card Backed on Home Equity	*0.4%*	*0.2%*
Home Equity Loan/Second Mortgage	*12.9%*	*5.9%*
Home Mortgage Refinancing	*12.6%*	*2.7%*
Total Home-secured Credit	**30.2%**	**10.2%**
Credit Card not Secured	*5.0%*	*5.5%*
Loan Not Secured	*2.0%*	*3.0%*
Total Unsecured Credit	**7.0%**	**8.5%**
Other	*3.0%*	*15.5%*
Total	**100.0%**	**100.0%**

Source: JCHS Tabulation of Consumer Practices Survey
Weighted by AHS 1999

The difference in the share of expenditure made through savings, tax returns, gifts or insurance reimbursements between family and non-family households is six percent. Even so, homeowners from family households tend to finance their remodeling and replacement projects through home-secured loans more than non-family households. The share of home improvement expenditure through home equity loans, lines of credit or refinancing first mortgages is nearly three times greater for family than for non-family owners. On the other hand there are no substantial differences in home improvement payments through unsecured credit between family and non-family households. The high share of expenditure made through “other” means by non-family households (15.5%) may be having an effect on the distribution of expenditure.

[13] Family households include any home with dependents under 18 years of age, as well as married couples without dependents. Non-family households include households without dependents and any non-married adults living together.

Minority populations also show different spending patterns than non-minority groups. Even though the share of reported expenditure on home improvements is only 18.3% among minority owners, minority respondents tend more than white owners to finance their spending.

Figure 10 Distribution of Home Improvement Expenditure by Funding Source and Minority		
	Non-Minority	Minority
Share of Spending	*81.7%*	*18.3%*
Own Saving/Family Gift/Insurance	62.4%	53.1%
Home-secured Lending	25.1%	35.2%
Unsecured Credit	7.6%	5.9%
Other	5.0%	5.7%
	100.0%	100.0%

Source: JCHS Tabulation of Consumer Practices Survey Weighted by AHS 1999

More than 35% of the expenditure on home improvements reported by minority homeowners was financed through home-secured credit, as opposed to 25% for non-minority groups. Expenditure through unsecured credit between both groups differs by less than two percent while expenditure made through savings, gifts or insurance reimbursements is substantially lower for minority households. The data suggest that race or ethnic origin may have an impact on the way owners finance home improvements. Even so, the number of minority households in the CoPS is relatively small and the dispersal of the distribution of expenditure makes these results far from conclusive.

VI. Conclusions

The market distribution of home improvement expenditure provides insight into factors that may affect homeowners' decisions to finance improvement projects. Data from CoPS suggest that nearly three out of four homeowners use their own savings to pay for at least part of their home improvements, although this category only accounts for half of the expenditure in the home improvement market. Just over one quarter of all expenditure for home improvements is financed through home-secured loans, such as home equity loans, lines of credit and liquefied

funds from home mortgage refinancing. An additional seven percent is financed using unsecured loans and regular credit cards.

Some of the factors that affect the homeowner's decision about financing home improvements are the type of project, the overall spending on remodeling or replacements, and the method of installation. There is evidence to suggest that age, race, income and household composition have an effect on the choice homeowners make about financing their home improvements.

The preceding analysis describes the existing relationship between home-secured lending and home improvement financing for homeowners. The analysis also considers socioeconomic aspects that may impact home improvement financing among owners. Even so, further research is needed, particularly on the relationship between home-secured lending and households' likelihood of undertaking home improvement projects and the amount spent and the type of those projects. Furthermore, more analysis is needed on why households decide to obtain home improvement financing and reasons for its relatively low incidence in this industry.

Appendix Table 1							
Distribution between 1999 AHS and CoPS							
				CoPS 98		**Weighed AHS 99**	
		Income Group	*Age Category*	*n*	*Prob.*	*n*	*Prob.*
Family	Non-Minority	Under $34,999	Under 44	256	0.0554	2,047,053	0.0525
Family	Non-Minority	Under $34,999	45 to 64	269	0.0583	1,809,055	0.0464
Family	Non-Minority	Under $34,999	Over 65	406	0.0879	2,587,474	0.0664
Family	Non-Minority	$35,000 to $74,999	Under 44	583	0.1262	4,921,942	0.1263
Family	Non-Minority	$35,000 to $74,999	45 to 64	681	0.1475	3,819,409	0.0980
Family	Non-Minority	$35,000 to $74,999	Over 65	287	0.0621	1,367,825	0.0351
Family	Non-Minority	Over $75,000	Under 44	313	0.0678	3,825,454	0.0982
Family	Non-Minority	Over $75,000	45 to 64	617	0.1336	4,643,860	0.1192
Family	Non-Minority	Over $75,000	Over 65	94	0.0204	677,095	0.0174
Family	Minority	Under $34,999	Under 44	22	0.0048	775,196	0.0199
Family	Minority	Under $34,999	45 to 64	11	0.0024	690,592	0.0177
Family	Minority	Under $34,999	Over 65	8	0.0017	500,734	0.0128
Family	Minority	$35,000 to $74,999	Under 44	30	0.0065	1,094,467	0.0281
Family	Minority	$35,000 to $74,999	45 to 64	36	0.0078	769,796	0.0198
Family	Minority	$35,000 to $74,999	Over 65	9	0.0019	185,750	0.0048
Family	Minority	Over $75,000	Under 44	23	0.0050	656,165	0.0168
Family	Minority	Over $75,000	45 to 64	29	0.0063	608,860	0.0156
Family	Minority	Over $75,000	Over 65	2	0.0004	79,539	0.0020
Non-Family	Non-Minority	Under $34,999	Under 44	77	0.0167	794,010	0.0204
Non-Family	Non-Minority	Under $34,999	45 to 64	185	0.0401	1,093,823	0.0281
Non-Family	Non-Minority	Under $34,999	Over 65	262	0.0567	2,269,658	0.0582
Non-Family	Non-Minority	$35,000 to $74,999	Under 44	116	0.0251	840,052	0.0216
Non-Family	Non-Minority	$35,000 to $74,999	45 to 64	129	0.0279	777,322	0.0199
Non-Family	Non-Minority	$35,000 to $74,999	Over 65	49	0.0106	356,800	0.0092
Non-Family	Non-Minority	Over $75,000	Under 44	26	0.0056	257,080	0.0066
Non-Family	Non-Minority	Over $75,000	45 to 64	32	0.0069	308,957	0.0079
Non-Family	Non-Minority	Over $75,000	Over 65	20	0.0043	97,232	0.0025
Non-Family	Minority	Under $34,999	Under 44	4	0.0009	171,515	0.0044
Non-Family	Minority	Under $34,999	45 to 64	9	0.0019	267,272	0.0069
Non-Family	Minority	Under $34,999	Over 65	5	0.0011	300,697	0.0077
Non-Family	Minority	$35,000 to $74,999	Under 44	11	0.0024	123,720	0.0032
Non-Family	Minority	$35,000 to $74,999	45 to 64	9	0.0019	150,907	0.0039
Non-Family	Minority	$35,000 to $74,999	Over 65	2	0.0004	30,226	0.0008
Non-Family	Minority	Over $75,000	Under 44	4	0.0009	26,029	0.0007
Non-Family	Minority	Over $75,000	45 to 64	1	0.0002	38,385	0.0010
Non-Family	Minority	Over $75,000	Over 65	1	0.0002	4,886	0.0001
Total				4618	1.0000	38,968,837	1.0000

Note: Weighted AHS 1999 apply only to weighted estimation of homeowners who reported expenditure on remodeling and replacements jobs for the period 1997-99.

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