Improving America's Housing

Remodeling Homes for Changing Households

Joint Center for
Housing Studies
of Harvard University

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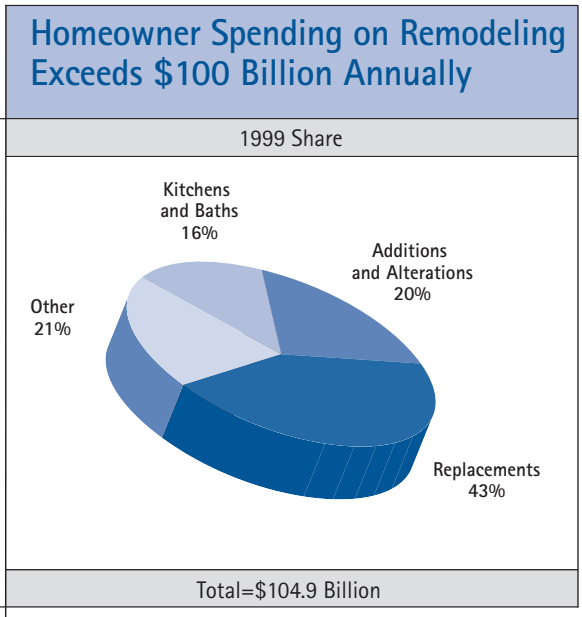
Executive Summary

Every year, about 26 million owners make improvements to their homes. These projects may be as simple as replacing a faucet or as complex as adding a master bedroom suite. However modest the individual job, all of these activities add up to a multi-billion dollar market: after factoring in expenditures for more routine maintenance and repairs as well as spending by owners of rental properties, total spending now approaches $180 billion a year. What's more, home improvement projects stimulate another $100 billion or so in spending for furnishings, appliances, and lawn and garden products.

1 **Homeowner Spending on Remodeling Exceeds $100 Billion Annually**



Source: Joint Center tabulations of the 1999 American Housing Survey.

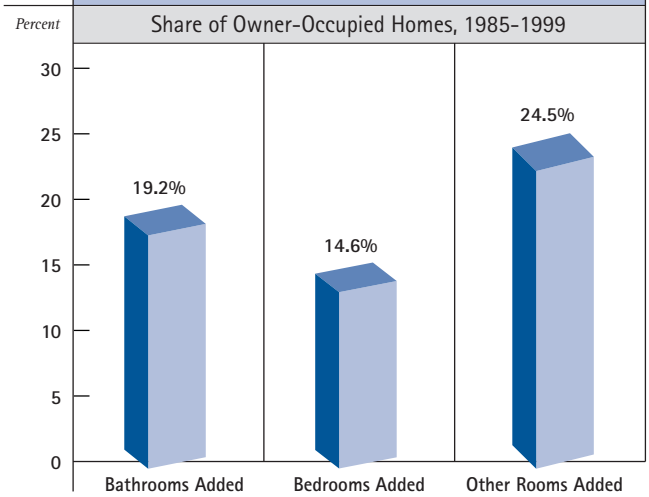
Homeowners contribute nearly three-quarters of annual home improvement spending, an amount totaling $135 billion in 1999. Of this, about 80 percent is dedicated to remodeling projects—defined here as room additions, kitchen and bath upgrades, replacements of major systems, and other improvements to the property (Figure 1). It is on this homeowner market segment that this report concentrates.

The Evolving Housing Stock

Homeowners make improvements to their homes as their economic circumstances, household composition, and housing preferences change. Rather than move, owners of existing homes may add a bedroom to accommodate a new child or an elderly parent, finish an attic or basement as a family or recreation room, or transform an unused bedroom into a home office. These individual remodeling decisions serve to enhance much of the older housing stock, modifying to fit modern tastes, technologies, and living standards.

The impact of remodeling on what is often considered a static housing stock is dramatic. In each of the past 15 years, about one million homeowners spent more than $10,000 on a major kitchen or bathroom remodel, an addition, or other major interior alteration. This means that in any given year, about 1.5 percent of all owner-occupied units undergo significant modification—about the same share added to the stock each year by new construction.

2 Many Homes Have Expanded in the Past 15 Years



Source: Joint Center tabulations of the 1985 and 1999 American Housing Surveys.

Home improvement activity has thus contributed to a striking rise in the overall quality of the US housing stock. In particular, the average size of homes has increased from 1,580 square feet to 1,700 square feet since 1985. Much of this gain was achieved through remodeling: between 1985 and 1999, almost 15 percent of existing homes had one or more bedrooms added, over 24 percent had other rooms added, and 20 percent had baths added (Figure 2).

The Improvement Spending Cycle

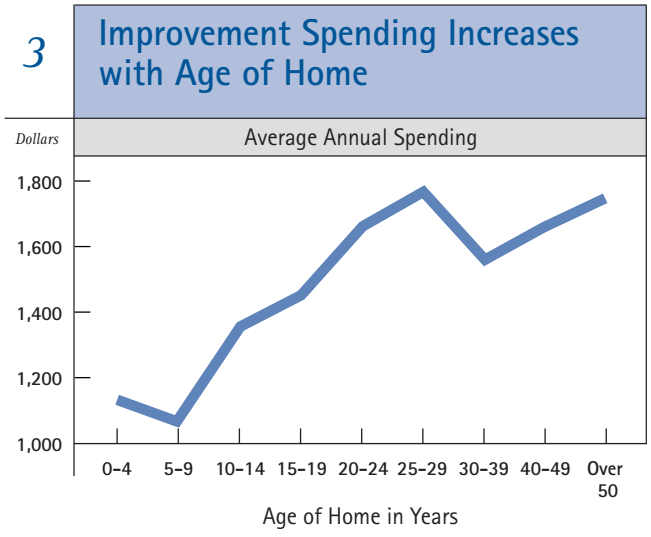
Homeowners spend more on improvements as their homes age. After a small burst right after a household moves into a new home, spending tails off. Expenditures then move up until the home reaches the 25 to 30 year-old range, a time when major systems start to need upgrading or replacement. This may coincide with the period when owners also decide to increase or improve interior space. At that point, annual expenditures peak at about $1,800 on average before retreating and beginning a new cycle (Figure 3).

Homeowners themselves have certain times when they are more likely to undertake significant improvement projects. One is at the time of purchase. New owners typically spend twice as much on home improvements during the first two years they own a property compared with owners that do not move. Tradeup buyers, in particular, are apt to make major modifications.

Spending after purchase is highest on homes that have been occupied for several years without major upgrading, as is often the case with units owned by older households. Indeed, age of the previous owner is an important factor. On average, buyers of homes sold by households age 65 or older spend twice as much during the first two years after purchase as buyers of homes sold by households under 35 years of age.

Another point at which homeowners tend to make improvements is when they add a new family member—whether a child, a spouse, or a parent. Even though households that are increasing in size might be expected to have less discretionary income, they are much more likely than other households to undertake projects that increase or reconfigure the living space within the home.

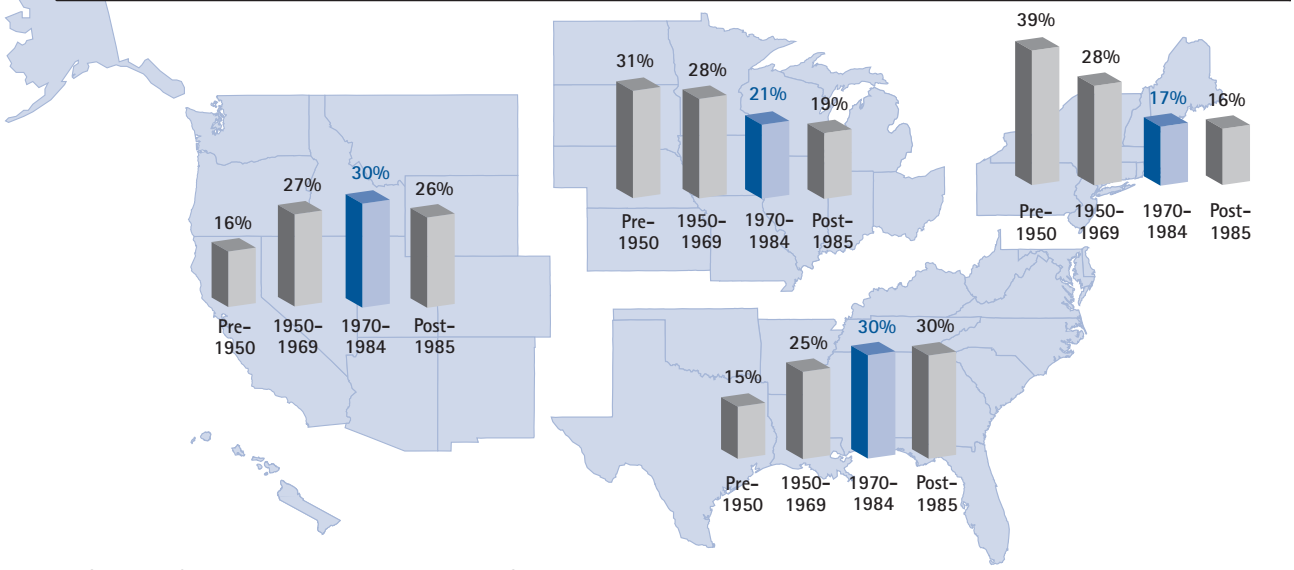
3 Improvement Spending Increases with Age of Home



Source: Joint Center tabulations of the 1997 American Housing Survey.

4 Much of the Housing in the Sunbelt Is Ready for Remodeling

Share of Owner-Occupied Housing, 1999



Source: Joint Center tabulations of the 1999 American Housing Survey.

Prospects for the Remodeling Industry

Spending on remodeling is gaining ground on the $250 billion spent on new construction in 1999. Indeed, with the pace of new construction expected to hold at 1990s levels and the stock of homes expanding by about 1.0-1.5 percent per year, growth of the home improvement market should accelerate relative to home building over the coming decade.

The aging of the US population will help to fuel this increase. As the number of single-person and empty-nester households rises, the do-it-yourself share of the market will shrink while the professional contractor share expands. Because their family size tends to be stable, these households are more likely to spend their home improvement budgets on replacement projects rather than major additions and alterations.

In response to growing demand and low barriers to entry, the number of contractors in the remodeling industry has mushroomed in recent years. According to Joint Center estimates, there are 172,000 remodeling firms in the US and another 200,000 self-employed individuals serving as general contractors or working in special trades such as carpentry and plumbing. If part-time workers were included, the number would be substantially higher.

Several emerging forces favoring larger firms, however, suggest that the remodeling contracting industry may begin to consolidate: the easy availability of referral information on the Internet, the introduction of installed sales programs at major home improvement centers, and the expansion of handyman services through general contracting firms. All of these trends may make small businesses and individual contractors even less able to compete in this highly cyclical market.

The location of demand for remodeling services is also undergoing a shift. Just as most of the owner-occupied housing stock built before 1950 is concentrated in the Northeast and Midwest, most of the units constructed during the 1970s building boom are located in the South and West (Figure 4). As a result, a large share of homes in the Sunbelt is now in the 25 to 30 year-old age range—the threshold for increased spending on home improvements. Over the coming decade, metropolitan areas such as Houston, Tampa, Miami, and Phoenix should see a noticeable pickup in remodeling activity.

- Because of rising incomes and wealth, the quality of US housing has improved markedly over the past half-century.
- Remodeling activity is responsible for a substantial—and growing—share of this improvement.
- As the housing stock ages, expenditures for home improvements should rival those for home building over the next decade.
- Demolitions and conversions of poorer-quality homes serve to lift the overall quality of the stock.

Transforming the Housing Stock

The routine remodeling decisions that millions of Americans make each year powerfully influence the quality of the nation's housing. By investing in their homes, property owners not only preserve but enhance America's $10 trillion investment in the housing stock. At the same time, by disinvesting in less desirable homes, they allow removal of the lowest-quality units, which also helps to improve the condition of the overall stock.

Increasingly, the character of the nation's housing will be governed by owners' collective decisions to add or remodel rooms, upgrade inefficient systems, split larger units, merge smaller units, convert nonresidential to residential uses, rehabilitate older homes, and encourage the removal of the poorest-quality housing. By investigating the remodeling behavior of almost 70 million homeowners in the country that together spent $105 billion on home improvements in 1999, we can better understand how the transformation of the housing stock happens.

Over a Half-Century of Progress

New construction of better-quality homes, remodeling of existing homes, and removal of the poorest-quality units have dramatically improved the quality of the US housing stock over the past 60 years. When the first national housing census was conducted in 1940, the typical home had fewer than five rooms and no more than one indoor bathroom. Indeed, 45 percent of homes lacked complete plumbing facilities. Today, US homes are bigger, higher-valued, and virtually all have complete plumbing facilities (Figure 5).

Increases in the size of American homes are even more remarkable because they are matched by a decrease in the number of people living in a typical household. The average number of people residing in these ever-larger homes has fallen from 3.7 persons per household in 1940 to 2.6 persons at present.

5 American Homes Are Getting Bigger and Better

	1940	1999
Housing Units *[Millions]*	37.4	119.0
Average Size *[Rooms]*	4.7	5.6
Bathrooms *[Percent]*		
Shared or No Bath	44	2
1.0 or 1.5	56	57
2.0 or More	*	43
Median Value Owner Occupied *[1999$]*	$35,000	$100,000

* Included in 1.0 or 1.5 category in 1940.
Sources: Census Bureau. Current Housing Report, H121 and Joint Center tabulations of the 1999 American Housing Survey.

Several trends have contributed to this housing progress, including rising incomes, wealth, improving construction technologies, and residential zoning laws that encourage construction of large homes on large lots. Of these forces, rising incomes and wealth are by far the most important. Even after adjusting for inflation, average household income is 150 percent higher today than in 1940. With more to spend, Americans have acquired larger and better-equipped homes either by buying new houses with these features or by remodeling their existing homes to incorporate them.

Surging homeownership rates also have had a positive influence on overall housing quality. Favorable federal income tax treatment of homeownership has encouraged more people to buy homes and prompted owners to invest more in their housing. In addition, since homeowners are more likely than renters to live in single-family detached units, they are more likely to add space to their homes. And because they move less frequently and stand to benefit directly from their investments, owners are also more likely than renters to make other type of improvements.

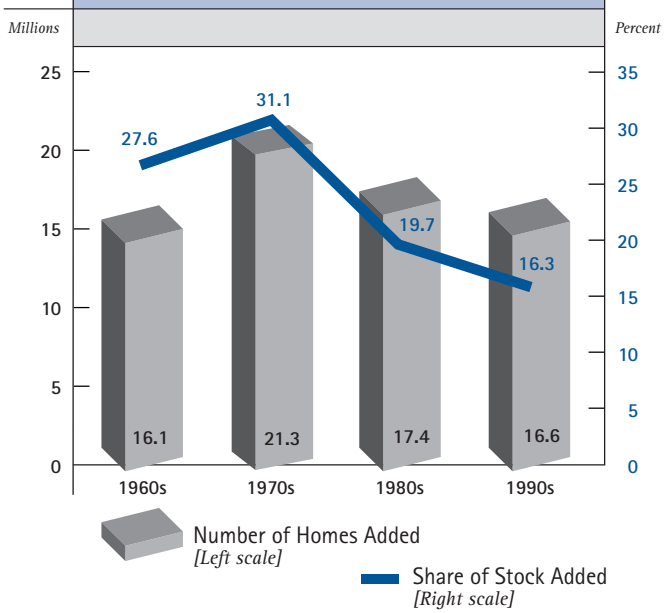
Remodeling Is Gaining on New Construction Spending

New construction remains the most important way the housing stock adjusts to changes in housing preferences. The characteristics of new homes reflect the evolving lifestyles of contemporary homebuyers. Nevertheless, the importance of remodeling to the adjustment process is growing and promises to increase for at least the next decade.

Because home-building levels have remained relatively stable for the past two decades, new homes (including both conventional construction and manufactured housing) account for a smaller and smaller share of the total residential stock. When construction activity peaked in the 1970s as the baby boomers entered the housing market, homes built during that decade represented more than 30 percent of the stock. That share dipped below 20 percent in the 1980s and declined further to about 16 percent in the 1990s (Figure 6). The Joint Center projects that nearly 17 million homes (including manufactured housing units) will be constructed over the next ten years. Even so, total additions will account for less than 14 percent of the stock that existed in 2000.

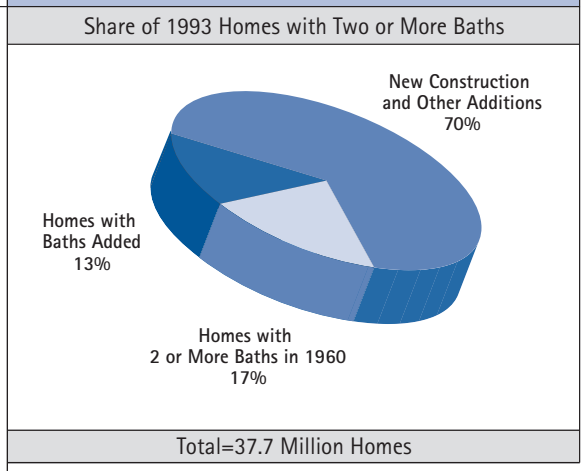
With the US housing stock approaching 140 million units by 2010, expenditures on remodeling should rival—and perhaps surpass—those on home building. Fueling this growth is the large number of smaller, simpler homes built in the 1970s that are approaching the age when spending for improvements reaches its peak.

6 New Homes Make Up a Diminishing Share of the Stock



Source: Census Bureau, Current Housing Reports, H121 and Construction Reports, Series C-20.

7 Remodeling Has Added Considerably to the Number of Two-Bath Homes



Sources: Census Bureau, Components of Inventory Change (CINCH), 1960, 1980, and 1993.

The Role of Improvement Spending

One simple illustration of how important remodeling has been to the improvement in the US housing stock is its contribution to the growth of homes with two or more bathrooms—now considered the standard number throughout most of the country. In 1960, only 6.2 million homes had at least two baths. By 1993, that number had skyrocketed to 37.7 million.

While new construction and other additions are largely responsible for this increase, remodeling accounted for a noteworthy 13 percent (Figure 7). This share represents the 5.0 million homes that had fewer than two bathrooms in 1960 but two or more in 1993.

Major Modifications Are Widespread

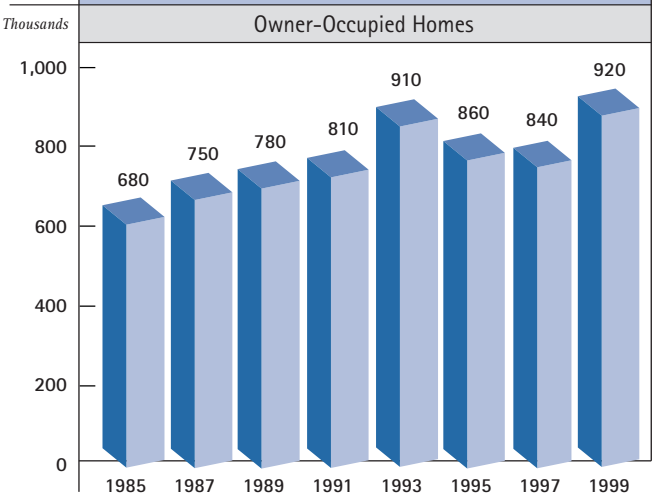
Because new construction now contributes a declining share of the housing stock, the average age of homes is on the rise. Given the growing stock of older homes, the pace at which units are being modified is substantial. Using a $10,000 improvement as the threshold, nearly one million owners each year undertake a major modification that significantly alters the interior space of their homes, such as adding a room or redesigning a kitchen (Figure 8).

With the number of owner-occupied homes in the US now approaching 70 million, between 1.0 percent and 1.5 percent of housing stock is therefore transformed each year through home improvements. Moreover, these major projects account for a sizable share of annual homeowner improvement expenditures: in 1999, 24 percent of the total or $25 billion.

Removal of the Lowest-Quality Stock

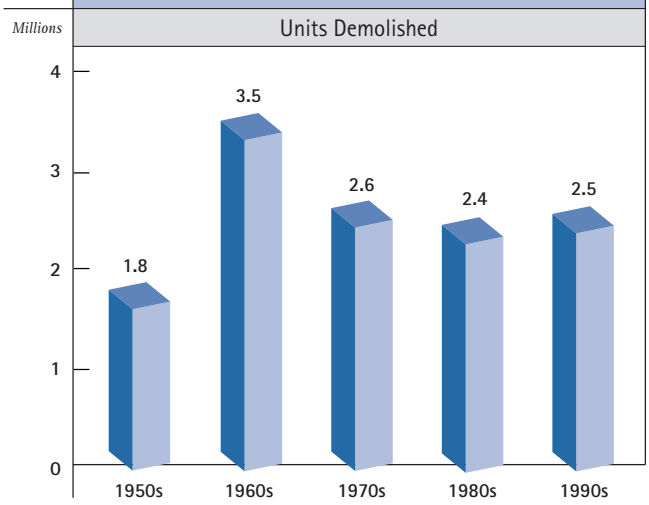
While owners' decisions to invest in their properties directly improve overall housing quality, their decisions to withhold investment eventually have an impact as well. This disinvestment process ultimately results in long-run improvements to the overall stock as less desirable housing units are demolished and replaced with better-quality construction.

8 Almost a Million Homes a Year Now Undergo Major Modification



Note: Homes with a $10,000 (1999$) discretionary improvement.
Source: Joint Center tabulations of the 1985-99 American Housing Surveys.

9 Demolitions Average About 2.5 Million Units Per Decade



Notes: 1970s number estimated from 1973-80 CINCH data; 1980s number estimated from 1980-93 CINCH data; 1990s number estimated from Construction Reports, Series C-20 and H-111.
Source: CINCH, various years.

Between 1950 and 1999, over 12.8 million homes were demolished. After a surge of activity in the 1960s resulting from urban renewal programs, demolitions have stabilized at about 250,000 units per year or 2.5 million units per decade (Figure 9). In a year when 1.5 million new homes are built, one in six therefore replaces a home that has been demolished.

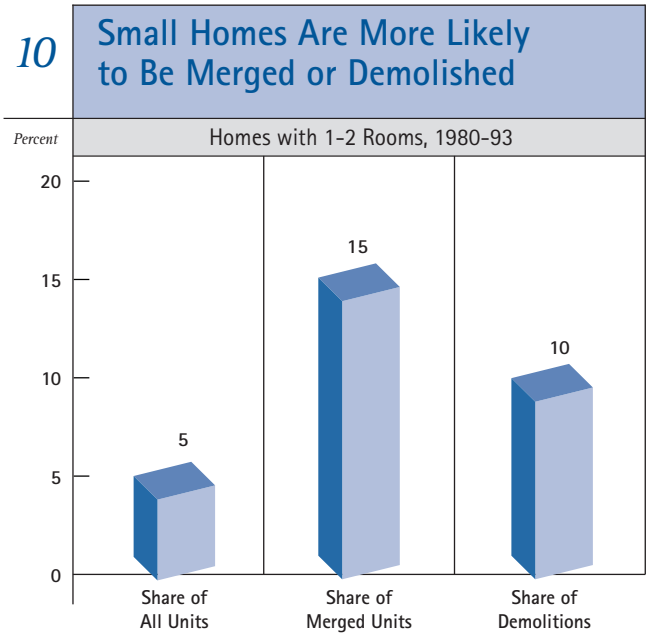
Conversions and Rehabilitation Rescue At-Risk Stock

Changing the configuration of a structure—that is, splitting up a large unit into two or more smaller ones, merging two or more smaller units into a larger one, or converting nonresidential space to residential use—is another way to create more desirable homes. The Joint Center estimates that at least 170,000 housing units are converted each year at a cost of around $2-3 billion.

While this process expands the supply of desirable housing units, it typically does not net more homes because the numbers of units lost through mergers tend to offset the numbers of units created through splits. Similarly, the gains made through nonresidential to residential conversions are approximately offset by the losses through residential to nonresidential conversions.

The limited evidence available suggests that remodeling units through residential conversions and rehabilitation serves to spare the at-risk stock from demolition and return it to more valuable uses. Units that are demolished and those that are converted to other uses—either merged into larger units or split into smaller units—typically are less desirable homes. For example, very small homes (two rooms or less) accounted for only 5 percent of the housing stock in 1993. At the same time, though, these homes accounted for 10 percent of all demolitions between 1980 and 1993, and 15 percent of all units that were merged with other units to form a larger home (Figure 10). While demolitions may have a negative impact on the fabric of a neighborhood, they nevertheless have a generally positive impact on overall housing quality.

10 Small Homes Are More Likely to Be Merged or Demolished



Source: Census Bureau, Components of Inventory Change, 1980-93.

Expenditures on housing rehabilitation are difficult to track because government surveys of home improvement expenditures ask only residents or property owners how much they spend on remodeling. But it is often the case that rehabilitations are financed by investors who never actually occupy the property.

Public support for housing rehabilitation programs takes the form of direct subsidies, tax incentives, and mortgage insurance. Though a variety of small programs exist, the direct subsidy programs supporting housing rehabilitation are the Community Development Block Grant and the HOME Block Grant. The principal tax incentives for rehabilitation are the Low Income Housing Tax Credit and the Historic Preservation Tax Credit. The Joint Center estimates that these programs provide rehabilitation funding of approximately $3.2 billion annually and, together with private funding, leverage the rehabilitation of more than 150,000 units each year.

FHA's Title I single-family home improvement loan insurance, which has almost vanished in recent years, and the Section 203(k) program that insures combined acquisition and improvement loans for one- to four-unit properties are the major insurance programs for housing rehabilitation. These two programs have financed improvements for an average of almost 100,000 homes per year over the past decade.

Through programmatic requirements, these public efforts encourage and supplement what has been substantial private investment over the years in generating tremendous progress in US housing standards. Although new construction has been the principal means of improving housing conditions, improvements to existing homes are responsible for a significant share. Indeed, because home-building levels are not expected to increase substantially over the coming decade, improvements to existing homes will continue to grow in importance.

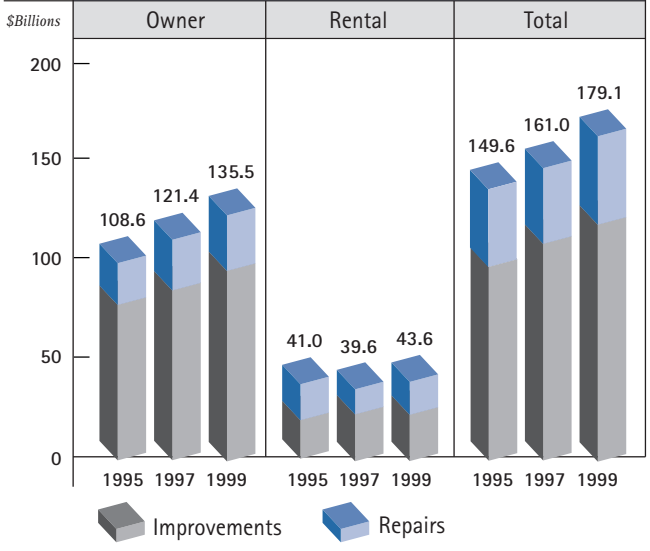
- Despite rising interest rates, homeowner spending on improvements continued to climb in 1999.
- Expenditures on replacement projects led the gains.
- The continued growth of remodeling activity has sustained the proliferation of special trade contracting firms.
- Several trends are at work to promote consolidation within the highly fragmented remodeling industry.

Update on the Remodeling Industry

Between 1995 and 1999, spending for home improvements and repairs grew from almost $150 billion to just under $180 billion—more than 4.5 percent per year or 2.3 percent after adjusting for inflation. Homeowners were responsible for almost 90 percent of this nearly $30 billion increase.

Spending on home improvements and repairs is important not only for its direct contribution to economic activity, but also for the additional spending it stimulates. For example, interior remodeling projects often lead to purchases of furnishings, appliances, accessories, and audio and video equipment. Similarly, exterior improvements are likely to generate additional spending on lawn and garden projects.

11 The Improvement and Repair Market Approached $180 Billion in 1999



Sources: Joint Center tabulations of the 1995, 1997 and 1999 American Housing Surveys, and US Commerce Department Survey of Expenditures for Residential Improvements and Repairs.

Spending Growth Remains Impressive

Remodeling expenditures accounted for just under 2.0 percent of the US economy in 1999. Of the more than $135 billion that owners spent on their homes, 77 percent went to improvements—a broad set of activities that includes kitchen and bath remodels; additions and structural alterations; replacements to exteriors and major systems; improvements to the property and to other buildings on the property; and repairs made subsequent to natural disasters (Figure 11). The remaining 23 percent ($31 billion) was devoted to routine maintenance and repairs.

This performance is particularly impressive given that interest rates were already on the rise by the middle of 1999. Spending on home improvements is typically strongest early in an expansion when interest rates are low or falling and job growth is increasing. Rising interest rates, in contrast, tend to dampen spending for goods and services—particularly those like home improvements that often are financed—because they add to total project costs.

12 Over 26 Million Homeowners Undertook Projects in 1999

	Projects	Expenditures
	Millions	*Billions*
Kitchens	2.8	$9.4
Baths	3.7	$7.3
Other Additions and Alterations	5.1	$20.6
Replacements	23.0	$45.9
Other	9.8	$21.8
Total Projects	**44.4**	
Total Households	**26.1**	**$104.9**

Note: Other includes outside projects and disaster repairs.
Source: Joint Center tabulations of the 1999 American Housing Survey, Table A-1.

Contribution of Homeownership

Favorable economic trends have encouraged solid growth in homeowner spending on improvements. Nevertheless, much of this spending strength is due to the 10-million unit increase in owner-occupied housing over the decade, up from 59 million in 1990 to nearly 69 million in 1999.

Over 26 million owners reported undertaking more than 44 million home improvement projects in 1999 (Figure 12). Approximately 38 percent of all homeowners reported at least one project. The 8 percent of homeowners that made major improvements (over $10,000) generated more than 65 percent of total spending.

Growth in spending for replacement projects has led that for other categories of home improvements (Figure 13). With our aging population, this trend should continue. As people grow older and their household composition stabilizes, they have less need than younger households to alter their homes to meet changing family circumstances. Older homeowners typically continue to maintain their residences, making the replacements necessary to keep their homes in good condition. The replacement share of home improvement spending thus accounts for more than 60 percent of expenditures among homeowners age 75 or older, compared with 43 percent for all owners.

A large share of major improvement expenditures are for kitchens, bathrooms, additions, or interior alterations. These types of projects accounted for

13 Spending on Owner Improvements Has Risen Rapidly Since the Mid-1990s

	Do-it-Yourself Expenditures				Professional Expenditures				Total Expenditures			
	Billions			*Change*	*Billions*			*Change*	*Billions*			*Change*
	1994-95	*1996-97*	*1998-99*	*1994-99*	*1994-95*	*1996-97*	*1998-99*	*1994-99*	*1994-95*	*1996-97*	*1998-99*	*1994-99*
Discretionary Projects	$19.6	$22.5	$23.2	18.0%	$44.1	$49.4	$51.4	16.5%	$63.8	$71.9	$74.6	16.9%
Replacements	$10.5	$11.8	$16.3	54.8%	$54.8	$58.2	$75.5	38.0%	$65.3	$70.0	$91.8	40.7%
Other	$9.7	$11.1	$10.5	8.4%	$32.4	$34.0	$33.0	1.9%	$42.1	$45.0	$43.5	3.4%
Total	**$40.0**	**$45.4**	**$50.0**	**24.8%**	**$131.1**	**$141.5**	**$159.9**	**22.0%**	**$171.1**	**$186.9**	**$209.9**	**22.7%**

Notes: Discretionary projects include kitchens, baths, additions, and alterations. Other includes projects outside of principal residence and disaster repairs. Expenditures for those who did not specify the method of installation were proportionally allocated into the D-I-Y and professional categories.
Source: Joint Center tabulations of the 1995, 1997 and the 1999 American Housing Surveys.

over a third of total homeowner spending in 1999, and for 46 percent of expenditures among homeowners that spent $10,000 or more on improvements in that year.

The Declining Share of D-I-Y Projects

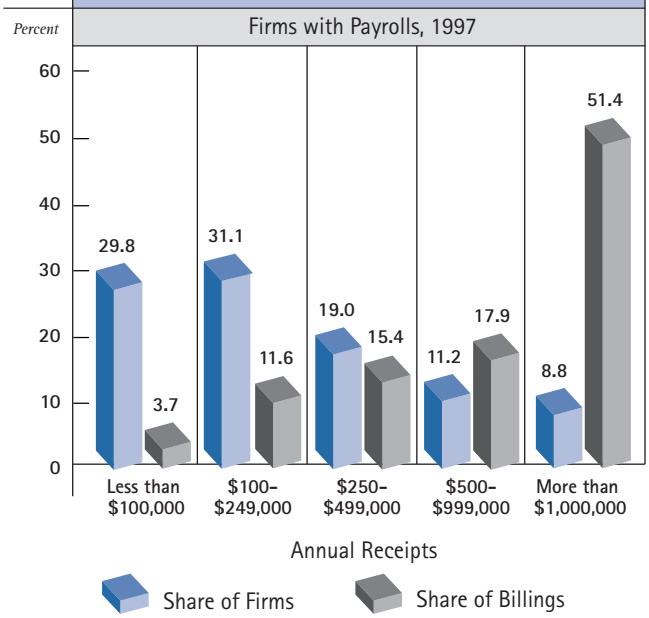
Many major improvements are do-it-yourself (D-I-Y) projects. In fact, D-I-Y projects contributed almost a quarter of total 1999 homeowner expenditures. Even so, this figure drastically understates the importance of the D-I-Y market since it includes only the cost of materials. According to research by the National Association of Home Builders, materials typically represent just 35-40 percent of the total cost of a professionally installed home improvement.

While D-I-Y spending growth has been relatively healthy in recent years and do-it-yourselfers remain a key segment of the home improvement market, the D-I-Y share of overall spending has nevertheless declined over the past 15 years. After increasing between 1995 and 1997, the D-I-Y share slipped again between 1997 and 1999. Rising incomes, the growing share of two-worker, single-person and empty-nester households, and the overall aging of the population are all thought to be responsible for this long-term decline.

Fragmentation Among Contractors

Despite the recent strength of residential remodeling activity—and particularly of professionally installed projects—remodeling contracting is still a highly fragmented profession. In 1997 there were over 350,000 residential contracting businesses with payrolls. This total includes home builders and remodelers, plus contractors involved in both activities. Just over a third are general contractors, with the rest in special trades such as plumbing, electrical work, and carpentry. Approximately three-quarters (almost 270,000) of these residential contractors reported at least some revenue from home improvements and repairs in that year, and about half (172,000) reported that most of their revenue came from these activities (Table A-4).

14 **Smaller Firms Dominate The Remodeling Industry**



Source: Joint Center tabulations of the 1997 Census of Construction Industries.

While the numbers may be split about equally between contractors that are primarily home builders and those that are primarily remodelers, the scales of their operations differ sharply. All residential general contractors reported average construction receipts of almost $725,000 in 1997, while remodeling general contractors reported receipts just 60 percent of that amount. The gap for special trade contractors is nearly as wide: $430,000 for all residential contractors compared with less than $325,000 for firms that specialize in remodeling.

The fragmentation among remodeling firms is clear from the distribution of revenues. In 1997, 30 percent of general contractors had receipts under $100,000 and 80 percent had receipts under $500,000. A core of relatively large payroll busi-

15 Nearly 200,000 Remodeling Contractors Are Self-Employed

Number of Nonemployer Remodeling Businesses, 1997	
General Contractors	57,400
Special Trade Contractors	
Plumbing, Heating, and AC	21,600
Painting and Paper Hanging	31,000
Electrical Work	9,300
Masonry, Stone Work, Tile Setting, and Plastering	9,600
Carpentry and Floor Work	37,700
Roofing, Siding, and Sheet Metal Work	16,500
Concrete Work	1,200
Miscellaneous	14,300
Total	**198,600**

Source: Table A-5.

nesses thus accounts for a substantial share of activity. The 9 percent of firms with receipts of $1 million or more earned over half of total remodeling revenue, and the 20 percent with receipts of $500,000 or more earned over 70 percent of total remodeling revenue (Figure 14).

Moreover, the remodeling profession is even more fragmented than the size distribution suggests. In addition to the 172,000 firms with payrolls, the Joint Center conservatively estimates that another 200,000 self-employed contractors work primarily as remodelers (Figure 15). There are approximately 400,000 other self-employed contractors whose principle source of income is probably not remodeling (Table A-5). Like payroll firms, these contractors are heavily concentrated within the special trade categories such as carpentry, painting, paper hanging, plumbing, and so forth. Special trade contractors account for over 70 percent of self-employed remodelers, a slightly larger share than among remodeling firms with payrolls.

The disproportionate share of growth among special trade contractors in the remodeling profession in part reflects the strong demand for replacement projects, such as upgrades to electrical or heating systems. In addition, general contractors are typically small firms that do not have a full line of special trade contractors on staff. As a result, they pass more than a quarter of their receipts through to subcontractors.

Sustained growth in professional remodeling activity has led to a proliferation of firms. Indeed, between 1987 and 1997, the number of remodeling businesses with payrolls increased by half. Virtually all of these gains came from special trade contractors, which nearly doubled in number over the decade. By comparison, the number of remodeling general contractors increased by only 10 percent (Figure 16).

As a result, the share of special trade contractors within the remodeling industry jumped from under 50 percent to nearly 64 percent—very close to the 63 percent share that characterizes the overall construction industry. The special trade share of remodeling contractors is therefore likely to stabilize near current levels.

16 The Number of Remodeling Firms Climbed by Half Between 1987 and 1997

	1987	1992	1997	Change 1987-97
General	56,668	52,694	62,405	10%
Specialty	55,832	64,692	109,139	95%
Total	**112,500**	**117,386**	**171,544**	**52%**

Source: Unpublished tabulations of the 1987, 1992, and 1997 Census of Construction Industries.

Prospects for Consolidation

Predictions to the contrary, the fragmentation of the remodeling industry has increased. It remains an industry with few barriers to entry: a third of states have no requirements for licensing or certification of remodeling general contractors, and many states that do license only require registration and payment of a fee.

For most remodelers the industry remains competitive and highly cyclical, encouraging low overhead and lean payrolls as a way to weather the inevitable downturns. Larger firms have lower failure rates, which may result from more efficient operations. Average revenue per employee is about twice as high for firms with $1 million in receipts as it is for those with receipts of less than $250,000.

Larger firms show not only higher productivity, but also greater longevity. Analysis of the 1992 Construction Census indicates that over half of all remodeling businesses with payrolls in 1987 had dissolved within that five-year period. The firms that remained in business for at least ten years, however, had about half the failure rate of those in business five years or less. Established firms (which are also likely to be larger) tend to concentrate on higher-end remodeling projects where the competition is less intense.

Several trends are likely to promote greater consolidation within the industry in the years ahead. The first of these is the growing importance of the Internet and the role it may play within the home improvement industry. Several major industry websites now provide referrals, making it easier for consumers to locate contractors and assess their experience and reputation. With this improved ability to identify and evaluate remodeling firms, consumers are likely to be more selective in their choices—a trend that favors larger, more established contractors.

The introduction of installed sales programs at home improvement retailers is another important force. To support these programs, retailers look to remodeling contractors that can handle a volume of projects and provide a range of skills. Since the retailers are ultimately responsible for the work, they have an incentive to provide training and certification programs for their installers. This is another trend that favors the full-time professional remodeler over the moonlighter.

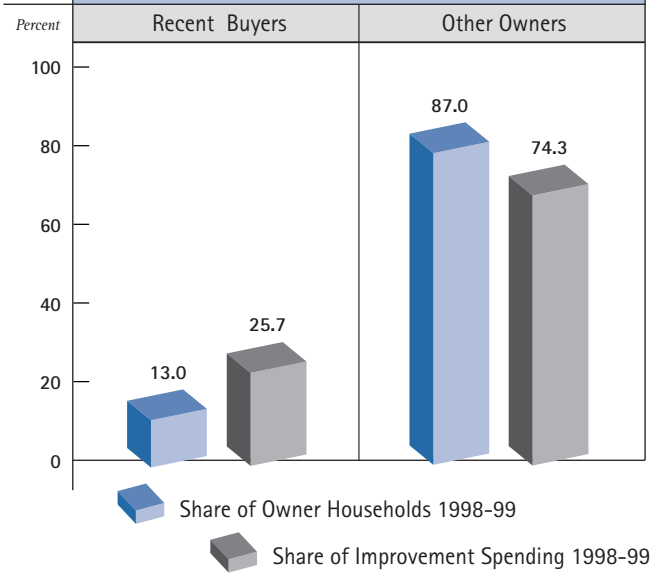
The growing popularity of handyman services—oriented primarily toward maintenance and repairs—is yet another factor. The maintenance and repair segment is thought to be the most fragmented in the remodeling industry. Because these businesses are typically too small to support advertising budgets, marketing is difficult. Their size also limits their efficiency because the range of services these firms provide is broad, and travel and callbacks can be extensive. In the meantime, larger general contracting firms are beginning to set up handyman divisions as a way to cultivate new business as well as serve existing customers. Because they are often better managed, these divisions can outperform independent contractors and thus contribute to further consolidation within the industry.

- High turnover of single-family homes has helped to boost remodeling activity.
- Recent movers tend to devote their relatively large improvement budgets to major modifications.
- The previous owner's age and length of occupancy, along with the age of the home itself, directly influence improvement expenditures.
- Households that add a new member are especially likely to make discretionary improvements affecting the size or layout of the home.

When Homeowners Remodel

Updating the housing stock is a gradual, ongoing process. Nevertheless, there are certain times in the life of the owner and of the home when a household is likely to undertake major modifications. In particular, the most common events that prompt owners to make improvements are the purchase of a home—especially an older unit that hasn't been upgraded for several years—and the addition of new members to their households.

17 Recent Homebuyers Are Active Remodelers



Source: Joint Center tabulations of the 1999 American Housing Survey.

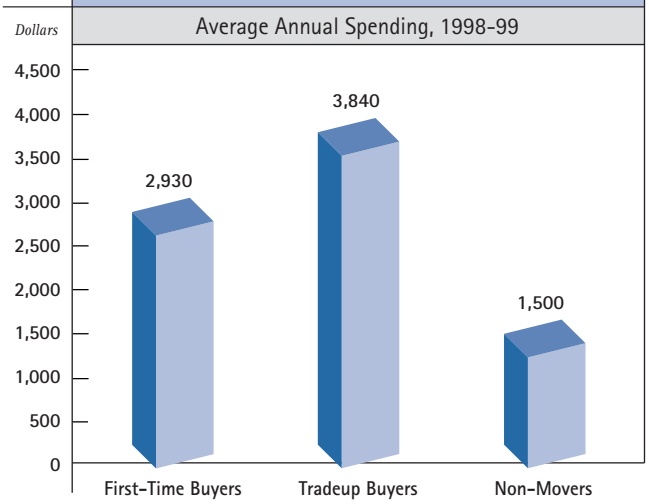
Moving to a New Home

Many buyers decide to make major home improvements at the time of purchase. This is the time when they are thinking not only about their current housing needs, but also about what their needs may be in the years ahead. By having the remodelling work done before they move in, homebuyers minimize future disruption to their households. Making modifications immediately also allows them to enjoy the benefits of the improvement for the entire time they occupy the home.

In 1998 and 1999, recent movers (households that purchased their homes within the past two years) were thus responsible for more than 25 percent of home improvement spending nationally even though they represented only 13 percent of all homeowners (Figure 17). One reason for the home improvement market's recent strength is therefore that the turnover of homes has picked up pace since the mid-1990s. Thanks to the strong economy and favorable interest rates, sales of existing single-family homes have topped four million every year since 1996 and set a new record of five million homes in both 1999 and 2000.

Homebuyers who are "trading up" lead spending on remodeling projects. In 1999 tradeup buyers spent two-and-a-half times more on improvements to their homes on average than owners that did not move. First-time buyers outspent nonmovers by a factor of two (Figure 18).

18 Recent Movers Spend More on Home Improvements



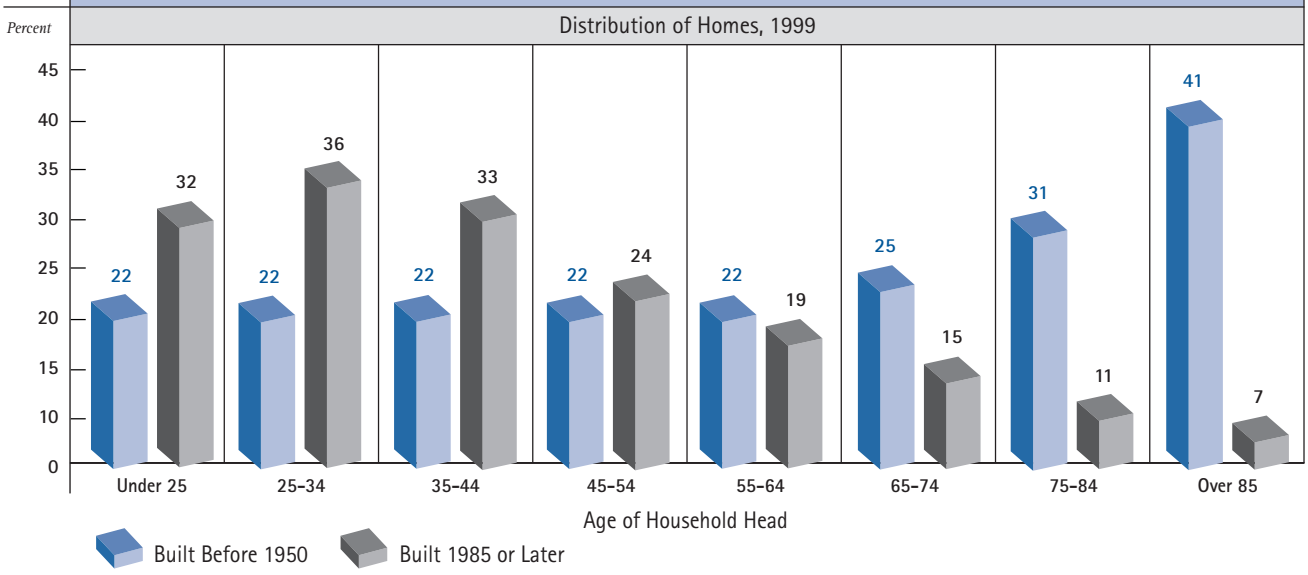
Source: Joint Center tabulations of the 1999 American Housing Survey.

This disparity reflects in part the types of improvements that recent buyers prefer to make. In 1999, both first-time and tradeup buyers devoted over 40 percent of their improvement budgets to kitchen and bath remodels, and additions and alterations—discretionary projects that typically change the use of space and the layout of the house. Non-movers, in contrast, spend a much larger share of their budgets on replacement projects. Although recent homebuyers also do many normal replacement projects, they undertake more projects to modernize and customize their new homes.

Why Turnover Stimulates Spending

In addition to gaining the advantages of remodeling at the time of purchase, recent buyers spend more on remodeling for a variety of reasons that relate to the characteristics of both the buyer and seller households, as well as to the age and improvement history of the house itself. In particular, homebuyers are often younger households, a group that traditionally spends more than other households on improvements. Of homes that turned over in 1998 or 1999, for example, the buyers were eight years younger on average than

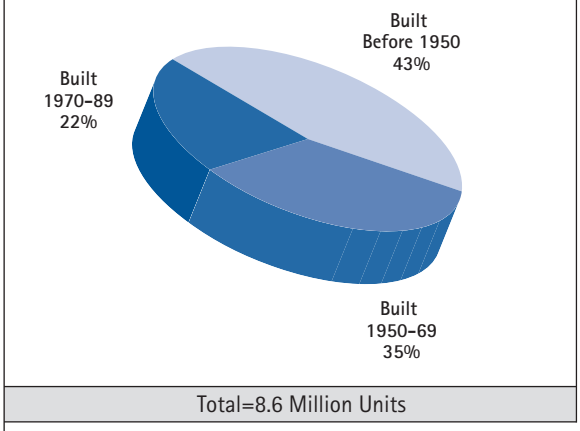
19 Older Homeowners Generally Live in Older Homes



Source: Joint Center tabulations of the 1999 American Housing Survey.

20 Older Homes Turn Over to Younger Homebuyers

Net Distribution by Age of Homes



Total=8.6 Million Units

Note: Total units include homes turned over in 1989-99 from owners over age 55 to buyers under age 55.
Source: Joint Center tabulations of the 1989 and 1999 American Housing Surveys.

the sellers and were more likely to have younger children in their households.

In addition, the homes that these younger households buy from older owners tend to be older as well. Many of the previous owners purchased their homes when they were in their 30s or 40s. Since older households tend to move less often than younger households, many of these previous owners are turning over older homes. For example, the majority of households with heads over the age of 55 live in homes built before 1970, and a large share live in units built before 1950. Indeed, a third of owners age 75 and older live in homes that are at least 50 years old (Figure 19). Younger movers, in contrast, are more likely to live in newer homes.

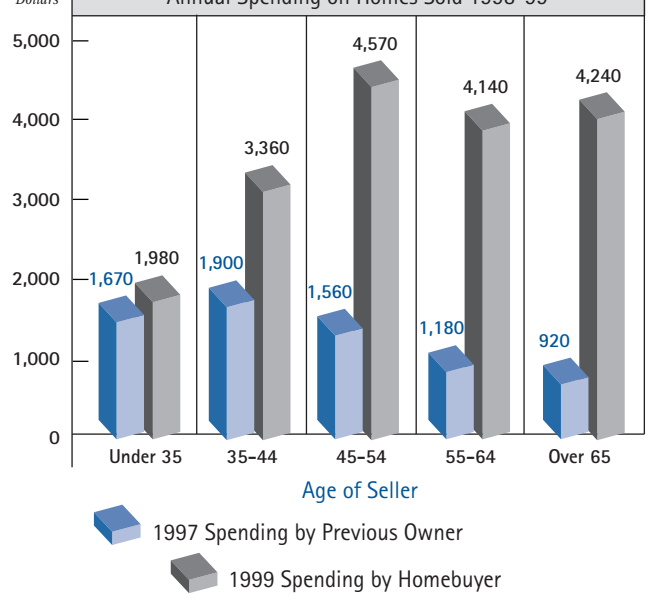
Between 1989 and 1999, owners aged 55 and older sold almost nine million homes to younger buyers. Over 40 percent (3.7 million) of these homes were built before 1950, and another 35 percent were built between 1950 and 1969 (Figure 20). Homes in both of these age categories are prime candidates for home improvements. Normal turnover by older homeowners therefore involves a disproportionate number of older homes being bought by younger homebuyers.

Older homeowners that are selling their homes generally have spent less than younger sellers on home improvements. Indeed, owners aged 65 or older spent just over half as much on improvements as those under age 35 in the years before they sell. This means that homes purchased from older sellers probably have not been modernized as recently as homes purchased from younger sellers.

In fact, the older the previous occupant, the more the new owners tend to spend on improvements. For homes sold by an owner aged 65 or older in 1996 or 1997, buyers spent an average of $4,200 per year on improvements in 1998 and 1999. This amount is more than double that spent by a buyer of a home whose previous owner-occupant was under 35 years of age (Figure 21). The gap in spend-

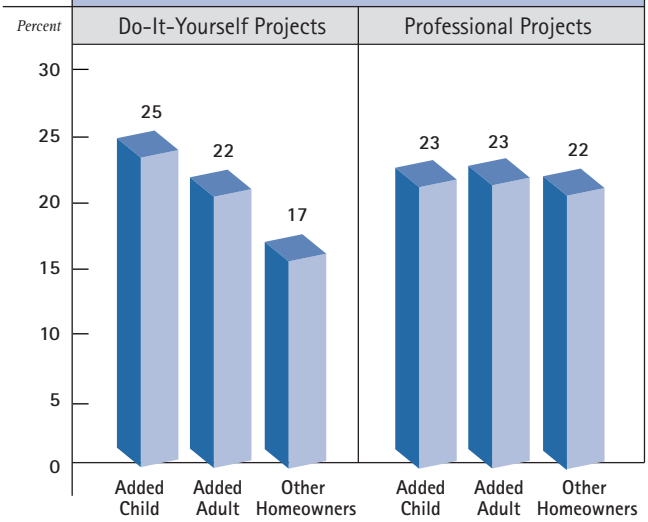
21 Buyers Spend More on Homes Bought from Older Owners

Annual Spending on Homes Sold 1998-99



Source: Joint Center tabulations of the 1997 and 1999 American Housing Surveys.

22 Growing Households Are More Likely to Undertake Improvement Projects



Note: Refers to share of single-family homeowners making improvements in 1996-99.
Source: Joint Center tabulations of the 1995-99 American Housing Surveys.

ing on home improvements between buyers and sellers thus increases with the age of the seller.

The length of time a seller occupies a home is also a factor in the amount buyers spend at the time of purchase. The longer the tenure, the lower the amount the previous occupant spent on improvements. For example, owners that lived in the same home throughout the decade of the 1990s spent 30 percent less on improvements than other owner-occupants over the same period.

A third of the occupants of units that turned over in 1998 or 1999 had lived in their homes for 10 years or more, while 15 percent had lived in their homes for 20 years or more. Households that are planning to sell may forego major improvements as they approach the time of the anticipated move. Perhaps more significantly, though, owners that have lived in a home for at least 10 years are likely to have already made the home modifications they want and therefore focus primarily on maintenance and replacement projects. Buyers can thus be expected to spend more on improvements to modernize these homes.

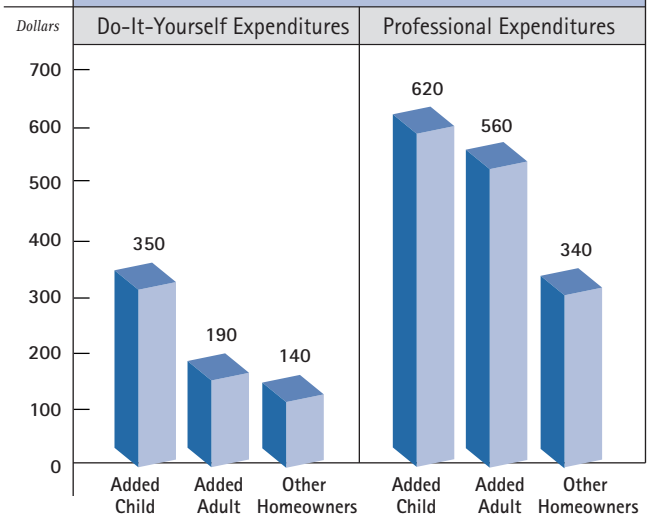
Adding a New Household Member

Along with recent movers, growing families make more home improvements than other types of households regardless of their particular income or age. Households that are increasing in size are typically evaluating their future housing needs. Some decide to move to a home that better meets the needs of the new household. Others decide to stay in their current units, and those that do remain are much more likely to undertake improvements.

Adding a new member—whether a child, an elderly parent, or a spouse—creates the need for more living space, especially for bedrooms and bathrooms. The presence of an additional household member can also lead to such remodeling projects as expanding the kitchen area, dividing a large room in two, or finishing a basement or attic space.

In 1998 and 1999, 2.6 million owner households gained at least one member: 1.6 million added a

23 Growing Households Spend More on Discretionary Home Improvement Projects



Note: Refers to average annual homeowner expenditures for discretionary improvements to single-family homes in 1996-99.
Source: Joint Center tabulations of the 1995-99 American Housing Surveys.

child, 1.3 million added an adult, and 0.3 million added both. According to Joint Center research, households that have a new child are almost half again as likely as other households to undertake D-I-Y home improvements. Growing households are typically younger families—that is, the types of homeowners that are most likely to be do-it-yourselfers. Even after factoring in income, age, and other characteristics that influence spending levels, however, households that add a child are significantly more likely to undertake a home improvement project.

These owners may be more concerned about managing the cost of their home improvements until their incomes catch up with the financial obligations of their growing families. Households that add an adult are also much more likely to make home improvements, but they are also more apt to hire professional contractors to complete the work than to do it themselves (Figure 22).

Growing households are not only more likely to undertake a home improvement, but they are also more likely to spend more on these projects. This is particularly true for discretionary projects that increase or modify the living space. Households that added a child spent about 150 percent more on discretionary D-I-Y jobs in 1996-99 than other homeowners undertaking similar types of projects.

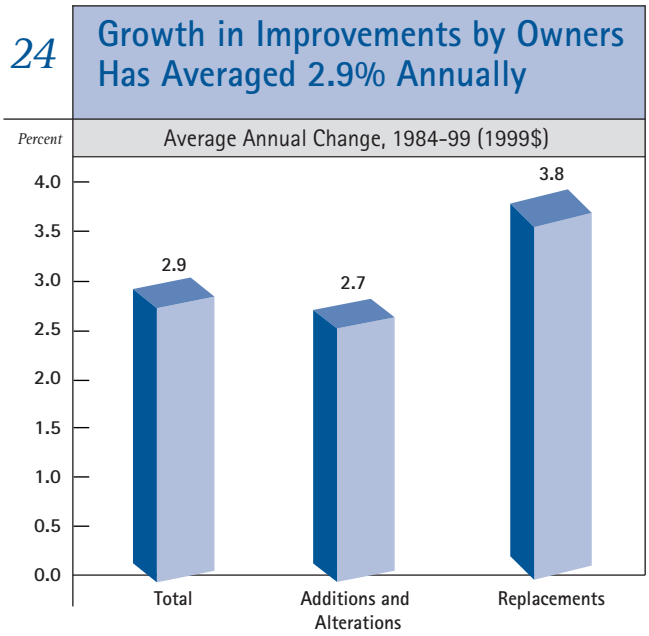
The difference is also substantial for growing families that hire a contractor. On average, households that added a child spent more than 80 percent more on professionally installed projects than other homeowners. Those that added an adult to the household also reported higher average expenditures for contractor-installed projects (Figure 23).

- Home improvement expenditures should continue to grow at the about the same pace as in the past 15 years, although the source of growth will change.
- The sharp gains in single-person and empty-nester households strongly favor spending on professionally installed replacement projects.
- As older households begin to turn their homes over to younger households, the opportunities for substantial remodeling projects will expand.
- The locus of spending will shift toward the Sunbelt, where much of the housing stock is reaching the critical age for remodeling.

Prospects for Improvement Spending

The home improvement outlook is positive. According to the Commerce Department's spending data on residential improvements and repairs, growth in homeowner improvement expenditures has averaged 6.2 percent per year since 1984, or 2.9 percent after adjusting for inflation. Spending on replacements has grown faster than spending on additions, alterations, and room remodeling, reflecting the aging of both the housing stock and the population over this period (Figure 24).

24 Growth in Improvements by Owners Has Averaged 2.9% Annually



Source: Commerce Department, Expenditures on Residential Improvements and Repairs (C-50), 1984-99.

As the economy continues to grow, the average age of the housing stock increases, and household incomes rise, spending on home improvements should remain healthy over the coming decade. The key forces supporting this outlook are strong growth in the number of owner-occupied homes and the likelihood that average expenditures per home will increase.

Over the coming decade, the number of owner-occupied homes in the country is expected to increase from over 70 million today to over 81 million—about 1.5 percent growth per year. Much of this increase reflects the rising number of US households, which is projected to grow about 1.1 percent annually to the year 2010. Rising homeownership rates will also contribute to the gain. Government programs designed to promote homeownership, together with strong growth in households in their prime homeowning years, should push the national homeownership rate up from just over 67 percent in 2000 to almost 70 percent in 2010.

In addition, the typical homeowner is expected to spend more on home improvement projects. Owner-occupied homes have steadily increased in size in recent decades. In addition, the average age of the housing stock has risen because of the slowdown in new construction in the 1980s and 1990s compared with previous decades, and because of recent efforts to preserve older homes. Both of these trends should continue over the next ten years. Research conducted by the Joint Center

has determined that regardless of their household characteristics, owners of larger, older homes typically spend more on home improvements than owners of smaller, newer homes.

Spending levels obviously depend on a household's ability to afford home improvements, making future income a critical factor. Here again the prospects remain favorable. Low unemployment rates and strong productivity growth have pushed up compensation levels. A continuation of these trends, coupled with the fact that many baby boomers will be in their peak income-earning years, means that homeowner incomes are likely to grow over the coming decade.

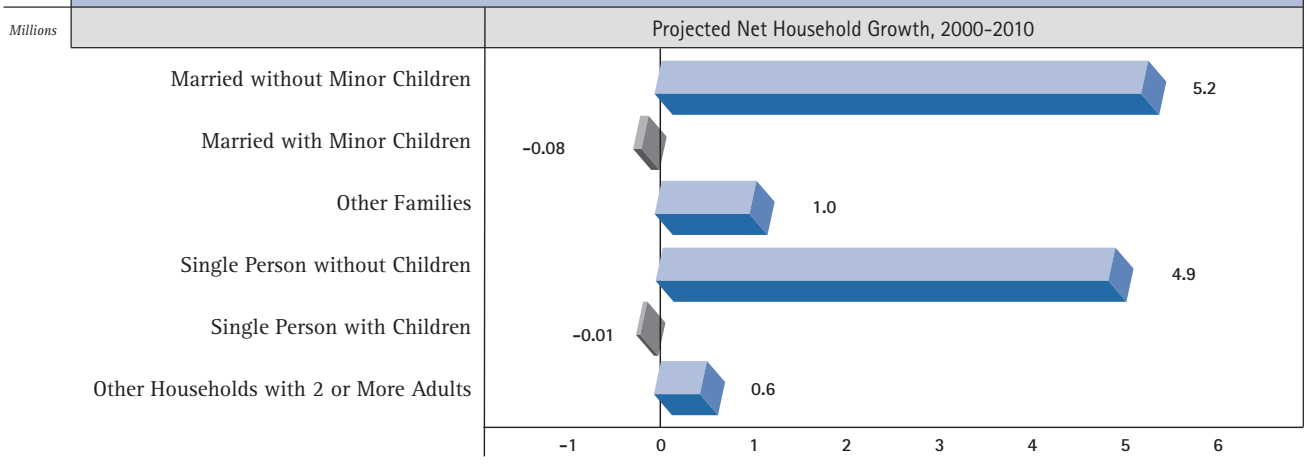
Baby Boomers Move Toward Retirement

Today, empty-nester (married couples with no minor children at home) and single-person households already account for 58 million (56 percent) of the nation's 105 million households. As the baby boomers move into their mid-50s to mid-60s, most of the 12 million net new households added over the next decade will be of these two types (Figure 25).

Because their household size and composition are generally stable, households in this age group are less apt to make major discretionary improvements to their homes, such as additions and alterations. Instead, these households tend to dedicate a larger share of their spending to replacement projects intended to maintain their homes.

These homeowners typically leave replacement projects to professional installers. For example, single-person households spend 83 percent of their improvement budgets on professionally installed projects, while married couples without children spend just over 78 percent. D-I-Y projects account for almost 30 percent of total improvement spending for other households: their average

25 Empty-Nesters and Single Persons Will Lead Household Growth Over the Coming Decade



Source: Joint Center for Housing Studies.

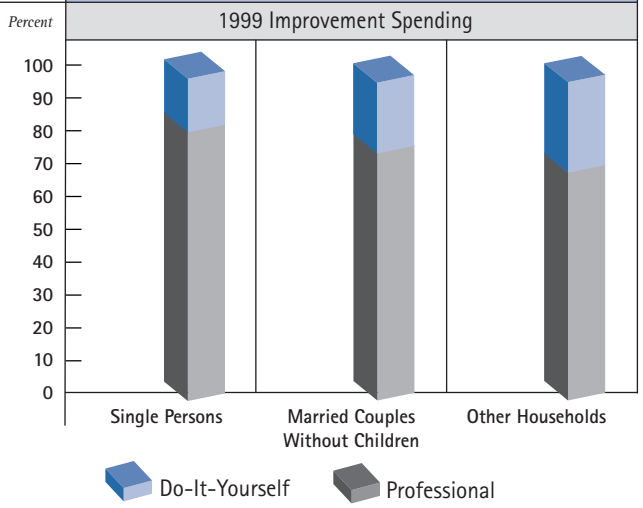
annual spending on D-I-Y projects is twice as much as for single-person households, and 45 percent more than for childless couples (Figure 26).

The aging of the US population brings both challenges and opportunities to the home improvement industry. The challenge is that most growth over the coming decade will be among small households with little need for additional space. The opportunity, however, is that this same population has rising homeownership rates and has the income to afford professional home maintenance and improvement services.

Moreover, when these aging households eventually sell their homes, the new occupants are likely to make major improvements. The stock of homes built between 1950 and 1969—over half of which is currently occupied by homeowners that are over

26 The Fastest-Growing Household Types Favor Professional Contractors

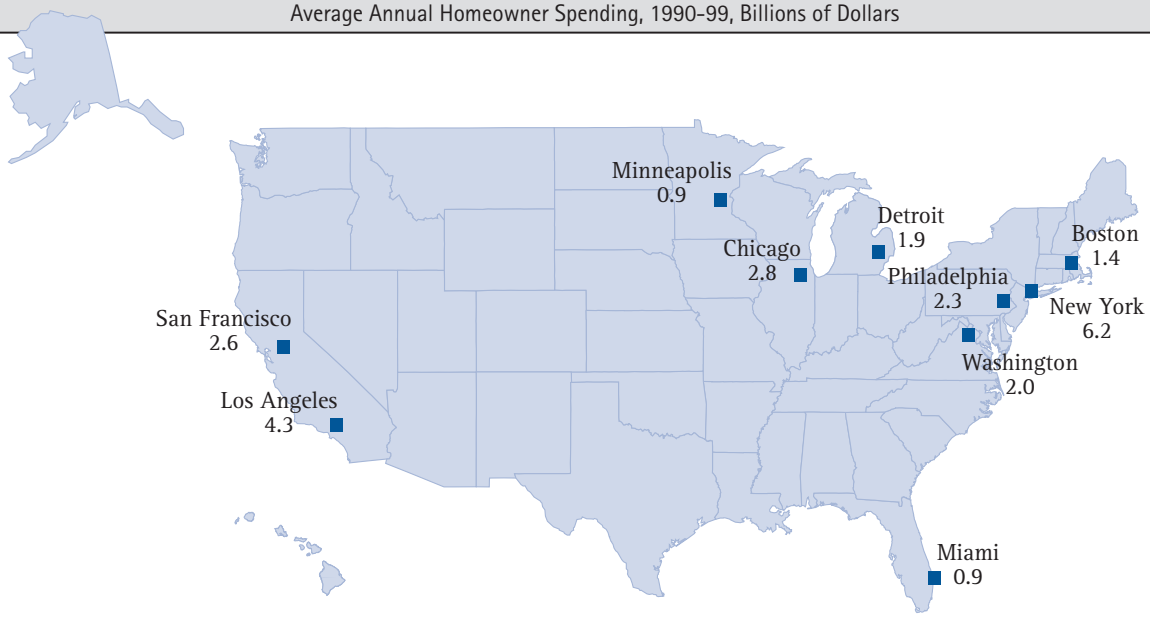
1999 Improvement Spending



Source: Joint Center tabulations of the 1999 American Housing Survey.

27 The Top Ten Markets for Home Improvements Are Spread Across the Country

Average Annual Homeowner Spending, 1990-99, Billions of Dollars



Note: Excludes mobile homes.
Source: Joint Center tabulations of the 1991, 1993, 1995, 1997, and 1999 American Housing Surveys.

the age of 55—has been and will continue to be a strong source of both replacement and improvement spending. These homes are likely to be occupied by households that have not added space or undertaken major remodeling projects recently. In addition, these early postwar homes are candidates for substantial upgrading because many lack popular amenities such as large kitchens, multiple bathrooms, and expansive family rooms. Normal turnover of these homes ensures considerable home improvement activity as younger buyers modify them to reflect their housing preferences.

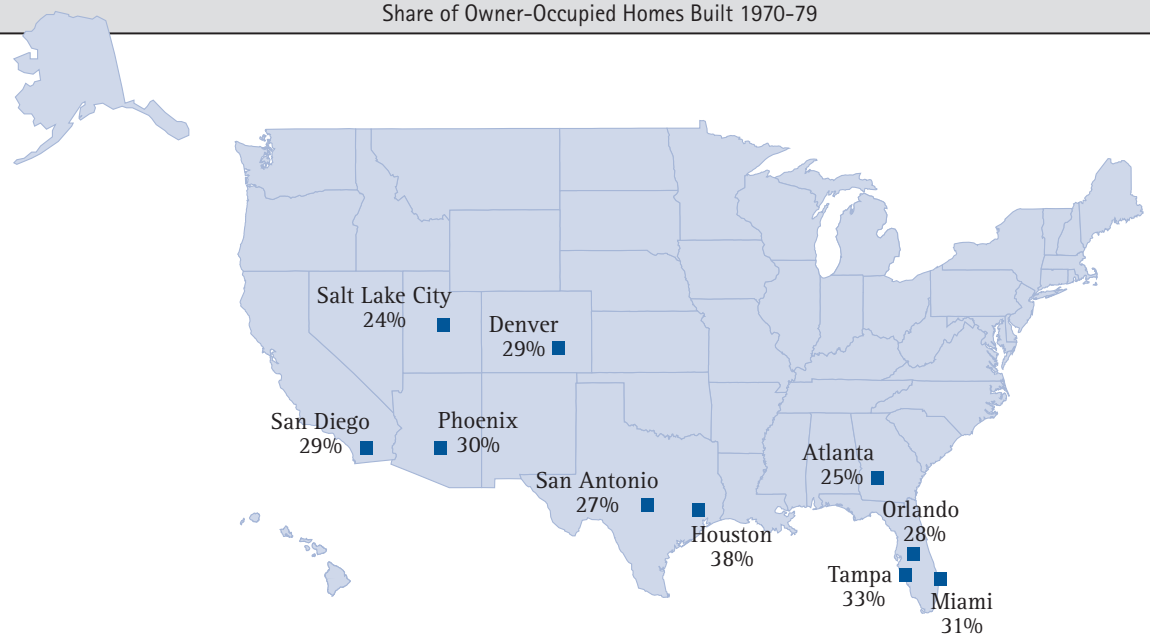
Spending Shifts Toward Sunbelt

Since much of the pre-1950s housing stock is located in the older metropolitan areas of the Northeast and Midwest, a large share of national home improvement spending has been concentrated in metro areas in these two regions. Indeed, homeowners in these areas spend almost 20 percent more on home improvements on average than homeowners elsewhere.

However, the geography of home improvements is gradually changing. Along with population growth, home-building activity shifted to the Sunbelt in recent decades. Over 55 percent of homes built during the 1950s and 1960s are located in the South and West. By the 1990s, many of these homes had reached an age when systems needed to be replaced and/or modernized. As a result, four of the top ten metro areas for home improvement spending during the 1990s are located in these two regions (Figure 27).

28 Much of the Metro Area Housing Stock in the Sunbelt Is Ready for Improvements

Share of Owner-Occupied Homes Built 1970-79



Note: Excludes mobile homes.
Source: Joint Center tabulations of the 1991, 1993, 1995, 1997, and 1999 American Housing Surveys.

The share of spending on home improvements in the Sunbelt should continue to increase over the coming decade. In particular, the pace of home building in the South and West was even faster in the 1970s than in the 1950s and 1960s. Indeed, almost two-thirds of all residential construction was located in these regions. Of the 21.3 million units built in the 1970s, about 71 percent were owner-occupied single-family homes.

Spending on home improvements rises until the units are around 25 to 30 years old, and these 1970s homes will be reaching this age range over the coming decade. For example, almost 40 percent of owner-occupied homes in the Houston metro area were built in the 1970s, as were over 30 percent of homes in the Tampa, Miami, and Phoenix metro areas (Figure 28). As a result, while spending levels per household are still higher on average in metro areas in the Northeast and Midwest, home improvement spending has picked up in many Sunbelt areas. Over the next decade, spending in markets with a high share of homes built during the 1970s should continue to grow.

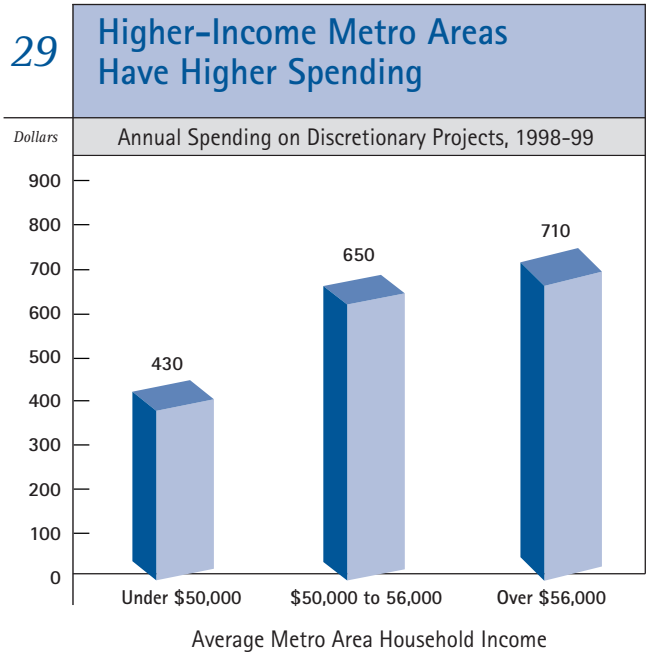
Higher-income metro areas will also see greater spending on home improvements regardless of their geographic location. Higher-income households not only have the resources to devote to discretionary projects, but they also tend to live in larger, more expensive homes that often require more frequent improvements. In 1999, homeowners in metro areas with average household incomes above $56,000 spent 65 percent more on improvements than those in metro areas with incomes below $50,000 (Figure 29).

The Outlook is Promising

The coming decade is shaping up as another strong period for home improvement spending. With the owner-occupied housing stock expanding about 1.5 percent per year, the average age and size of homes increasing, and the baby boomers moving into their peak income-earning years, opportunities for growth abound.

The composition of home improvement activities is, however, expected to shift. Older households are more likely to hire professionals than undertake home improvement projects themselves. In addition, the shift of construction activity to the Sunbelt in recent decades will generate stronger growth in the share of home improvement spending in the metropolitan areas of the South and West over the next ten years.

29 Higher-Income Metro Areas Have Higher Spending



Source: Joint Center tabulations of the 1999 American Housing Survey.

Appendix Tables

A-1

Total Home Improvement Expenditures: 1994-99

	1998-99			1996-97			1994-95			1994-99		
	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	Average No. of Homeowners/Yr Reporting Projects (000s)	Average Expd ($)	Average Total Spending/ Year ($Mil)
Kitchen Projects												
Minor Kitchen Remodel	2,970	2,662	7,906	3,287	2,228	7,323	3,828	2,172	8,313	1,681	2,354	3,956
Major Kitchen Remodel	484	19,704	9,531	334	21,812	7,281	238	19,349	4,596	176	20,288	3,568
Kitchen Addition/Alteration	89	15,415	1,377	519	8,762	4,546	657	6,058	3,980	211	10,078	2,125
Bath Projects												
Minor Bath Remodel	3,594	1,303	4,682	3,761	1,083	4,075	4,141	958	3,965	1,916	1,115	2,135
Major Bath Remodel	560	10,724	6,002	502	10,232	5,141	439	11,061	4,860	250	10,672	2,671
Bath Addition/Alteration	795	4,896	3,891	978	10,186	9,957	1,143	9,577	10,944	486	8,219	3,993
Other Room Additions/Alterations												
Add/Alter/Create Bedroom	1,313	9,934	13,045	1,074	5,993	6,436	1,276	3,265	4,165	610	6,397	3,905
Add/Alter/Create Other Room	2,851	7,232	20,618	2,382	7,961	18,962	2,840	5,203	14,776	1,345	6,799	9,147
Add/Replace Deck/Porch	2,261	2,486	5,620	2,111	2,129	4,494	2,377	2,155	5,122	1,125	2,256	2,538
Other Interior Improvement	1,165	1,619	1,886	2,076	1,789	3,714	2,506	1,211	3,034	958	1,540	1,474
Disaster Repairs	1,308	5,881	7,693	1,271	6,883	8,749	1,458	7,113	10,371	673	6,625	4,458
Replacements												
Roofing	6,958	2,868	19,957	5,674	3,223	18,286	5,029	2,987	15,022	2,943	3,026	8,907
Siding	2,573	4,078	10,495	2,308	3,695	8,528	2,136	3,979	8,500	1,170	3,917	4,582
Plumbing/Pipes	3,109	511	1,588	2,880	545	1,568	2,710	641	1,739	1,450	566	820
Add/Replace Electrical System	4,294	548	2,352	3,796	587	2,228	4,073	478	1,948	2,027	538	1,090
Window/Door	8,001	1,562	12,498	7,865	1,287	10,119	8,356	1,314	10,982	4,037	1,388	5,602
Plumbing Fixtures	6,424	457	2,939	4,135	421	1,741	3,796	372	1,410	2,393	417	997
Insulation	2,641	593	1,566	2,393	366	876	2,642	407	1,075	1,279	455	582
Flooring/Paneling/Ceiling	13,955	1,536	21,433	7,974	1,185	9,447	7,841	1,115	8,740	4,962	1,278	6,343
HVAC	5,889	2,460	14,487	5,378	2,532	13,615	5,113	2,469	12,624	2,730	2,487	6,789
Appliances/Major Equipment	10,896	414	4,508	9,584	370	3,549	9,786	330	3,233	5,044	371	1,874
Exterior Projects												
Add/Replace Garage/Carport	466	6,033	2,813	334	5,431	1,817	447	5,167	2,310	208	5,544	1,153
Other Improvement	11,655	2,832	33,012	12,300	2,803	34,477	12,425	2,368	29,420	6,063	2,668	16,175
Total			**$209,899**			**$186,929**			**$171,127**			**$94,886**

Notes: Job categories are aggregations of the detailed projects reported in the American Housing Surveys. Major remodels are defined as professional improvements excluding additions and alterations of more than $10,000 for kitchen projects and $5,000 for bath projects; do-it-yourself improvements of more than $4,000 for kitchen projects and more than $2,000 for bath projects.

Source: Joint Center tabulations of the 1999, 1997 and 1995 American Housing Surveys.

A-2

Professional Home Improvement Expenditures: 1994-99

	1998-99			1996-97			1994-95			1994-99		
Average	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	No. of Homeowners/Yr Reporting Projects (000s)	Average Expd ($)	Average Total Spending/ Year ($Mil)
Kitchen Projects												
Minor Kitchen Remodel	1,388	4,134	5,740	1,805	3,081	5,559	2,138	2,901	6,202	889	3,372	2,996
Major Kitchen Remodel	356	17,592	6,259	256	16,163	4,143	190	15,291	2,911	134	16,349	2,187
Kitchen Addition/Alteration	57	19,054	1,080	230	14,189	3,268	309	9,404	2,901	99	14,216	1,411
Bath Projects												
Minor Bath Remodel	1,441	2,230	3,212	1,543	1,634	2,522	1,811	1,302	2,359	799	1,722	1,376
Major Bath Remodel	434	9,275	4,029	392	8,270	3,242	366	9,947	3,642	199	9,164	1,821
Bath Addition/Alteration	416	6,672	2,778	427	14,963	6,383	542	14,129	7,662	231	11,921	2,752
Other Room Additions/Alterations												
Add/Alter/Create Bedroom	529	17,842	9,447	404	10,507	4,249	494	4,819	2,381	238	11,056	2,631
Add/alter/Create Other Room	1,232	11,266	13,877	966	14,719	14,213	1,209	8,516	10,295	568	11,501	6,529
Add/Replace Deck/Porch	972	3,786	3,679	906	3,245	2,939	1,076	3,077	3,311	492	3,369	1,659
Other Interior Improvement	806	1,748	1,408	1,293	2,414	3,122	1,652	1,511	2,495	625	1,891	1,182
Disaster Repairs	935	6,690	6,258	964	7,288	7,023	1,141	7,844	8,952	507	7,274	3,686
Replacements												
Roofing	5,102	3,343	17,056	4,605	3,549	16,342	4,091	3,311	13,546	2,300	3,401	7,821
Siding	1,740	5,250	9,136	1,610	4,481	7,214	1,651	4,518	7,461	834	4,750	3,959
Plumbing/Pipes	1,634	742	1,212	1,557	812	1,264	1,632	865	1,411	804	806	648
Add/Replace Electrical System	2,644	743	1,963	2,309	757	1,747	2,653	588	1,561	1,268	696	882
Window/Door	4,677	2,092	9,784	4,432	1,837	8,139	5,073	1,671	8,480	2,364	1,867	4,412
Plumbing Fixtures	2,855	662	1,891	1,779	689	1,225	1,712	554	948	1,058	635	672
Insulation	1,150	689	793	957	562	538	1,152	569	655	543	607	329
Flooring/Paneling/Ceiling	9,297	1,892	17,588	4,441	1,559	6,926	4,909	1,415	6,946	3,108	1,622	5,041
HVAC	4,931	2,602	12,831	4,650	2,649	12,318	4,569	2,537	11,592	2,358	2,596	6,122
Appliances/Major Equipment	6,985	471	3,288	5,599	444	2,484	5,725	371	2,123	3,051	428	1,307
Exterior Projects												
Add/Replace Garage/Carport	252	5,831	1,472	171	6,550	1,119	227	6,678	1,518	108	6,353	689
Other Improvement	6,610	3,823	25,270	6,801	3,801	25,853	7,301	2,972	21,700	3,452	3,532	12,193
Total			$160,054			$141,832			$131,054			$72,307

Notes: Job categories are aggregations of the detailed projects reported in the American Housing Surveys. Major remodels are defined as professional improvements excluding additions and alterations of more than $10,000 for kitchen projects and $5,000 for bath projects; do-it-yourself improvements of more than $4,000 for kitchen projects and more than $2,000 for bath projects.

Source: Joint Center tabulations of the 1999, 1997 and 1995 American Housing Surveys.

A-3

Do-It-Yourself Home Improvement Expenditures: 1994-99

	1998-99			1996-97			1994-95			1994-99		
	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	No. of Homeowners Reporting Projects (000s)	Average Expd. ($)	Total Expd. ($Mil)	Average No. of Homeowners/Yr Reporting Projects (000s)	Average Expd ($)	Average Total Spending/ Year ($Mil)
Kitchen Projects												
Minor Kitchen Remodel	1,325	1,636	2,167	1,784	989	1,764	2,056	1,027	2,111	861	1,217	1,048
Major Kitchen Remodel	385	8,500	3,271	316	9,923	3,138	313	5,388	1,684	169	7,937	1,341
Kitchen Addition/Alteration	33	9,097	297	289	4,429	1,278	352	3,059	1,078	112	5,528	621
Bath Projects												
Minor Bath Remodel	1,800	816	1,469	2,382	652	1,553	2,643	608	1,606	1,138	692	787
Major Bath Remodel	478	4,127	1,973	429	4,424	1,899	338	3,608	1,218	207	4,053	841
Bath Addition/Alteration	391	2,846	1,113	556	6,426	3,574	606	5,414	3,282	259	4,895	1,268
Other Room Additions/Alterations												
Add/Alter/Create Bedroom	801	4,495	3,598	670	3,267	2,187	799	2,233	1,784	378	3,332	1,260
Add/Alter/Create Other Room	1,665	4,048	6,741	1,450	3,275	4,749	1,672	2,680	4,481	798	3,334	2,661
Add/Replace Deck/Porch	1,293	1,501	1,941	1,205	1,290	1,554	1,307	1,386	1,811	634	1,392	883
Other Interior Improvement	489	977	477	848	698	592	924	583	539	377	753	284
Disaster Repairs	373	3,850	1,435	307	5,615	1,726	317	4,477	1,419	166	4,647	772
Replacements												
Roofing	1,856	1,563	2,901	1,069	1,819	1,944	938	1,573	1,476	644	1,652	1,063
Siding	833	1,631	1,359	707	1,857	1,314	611	1,700	1,039	359	1,729	620
Plumbing/Pipes	1,475	255	377	1,329	229	304	1,196	273	327	667	253	168
Add/Replace Electrical System	1,650	236	389	1,554	309	480	1,519	255	388	787	267	210
Window/Door Replacement	3,324	816	2,713	3,447	575	1,981	4,006	625	2,502	1,796	672	1,207
Plumbing Fixtures	3,569	293	1,047	2,356	219	516	2,103	220	462	1,338	244	326
Insulation	1,491	519	773	1,447	234	338	1,750	240	420	781	331	258
Flooring/Paneling/Ceiling	5,708	674	3,845	3,743	674	2,521	3,561	504	1,794	2,169	617	1,338
HVAC	1,117	1,483	1,656	791	1,640	1,298	719	1,435	1,031	438	1,519	665
Appliances/Major Equipment	4,300	284	1,219	4,205	253	1,064	4,340	256	1,110	2,141	264	566
Exterior Projects												
Add/Replace Garage/Carport	214	6,270	1,341	164	4,263	697	222	3,567	791	100	4,700	469
Other Improvement	5,927	1,306	7,741	6,397	1,348	8,624	6,534	1,181	7,720	3,143	1,279	4,019
Total			**$49,846**			**$45,097**			**$40,073**			**$22,674**

Notes: Job categories are aggregations of the detailed projects reported in the American Housing Surveys. Major remodels are defined as professional improvements excluding additions and alterations of more than $10,000 for kitchen projects and $5,000 for bath projects; do-it-yourself improvements of more than $4,000 for kitchen projects and more than $2,000 for bath projects.

Source: Joint Center tabulations of the 1999, 1997 and 1995 American Housing Surveys.

A-4 Residential Construction and Remodeling Establishments

	Construction Establishments	Residential Establishments				Residential Remodeling Establishments		
	Number[1] (000s)	Number[2] (000s)	Value of Construction Receipts ($Mil)	Number with Remodeling (>=$1) (000s)	Value of Construction Receipts ($Mil) with Remodeling (>=$1)	Value of Remodeling Receipts ($Mil)	Number[3] (000s)	Value of Construction Receipts ($Mil)	Value of Remodeling Receipts ($Mil)
General									
General Building Contractors Residential	124.0	120.6	87,164	90.8	51,545	28,074	62.4	26,874	22,958
Special Trade									
Plumbing, Heating, and AC	84.9	52.8	27,439	46.9	22,723	11,289	32.0	13,046	9,495
Painting and Paper Hanging	36.3	25.2	5,342	21.1	4,092	2,668	16.8	3,021	2,460
Electrical Work	61.4	23.9	8,366	19.9	6,184	2,396	11.5	2,773	1,867
Masonry, Stone Work, Tile Setting, and Plastering	48.8	32.9	14,105	20.7	7,964	2,202	6.6	1,761	1,302
Carpentry and Floor Work	56.9	43.0	17,465	29.6	10,234	5,458	18.3	5,435	4,398
Roofing, Siding, and Sheet Metal Work	30.6	21.1	9,391	18.7	8,143	5,501	15.1	6,075	5,097
Concrete Work	31.5	12.8	8,035	7.3	3,610	926	2.0	661	513
Water Well Drilling	3.9	1.4	581	1.2	490	147	0.3	84	55
Miscellaneous	60.3	18.6	9,180	11.5	5,151	2,444	6.6	2,465	1,968
Total Special Trade	**414.6**	**231.7**	**99,903**	**176.9**	**68,590**	**33,031**	**109.1**	**35,321**	**27,155**

1. Includes nonresidential establishments.
2. Includes residential new construction and remodeling establishments.
3. With more than 50% of receipts from remodeling.

Source: Joint Center tabulations of the 1997 Census of Construction Industries.

A-5

Nonemployer Residential Remodeling Contractors by Annual Receipts

	Under $25,000	$25-50,000	$50-100,000	$100-150,000	Total	Total with Receipts Over $25,000
General						
General Building Contractors	83,870	27,393	21,291	8,706	141,259	57,389
Special trade						
Plumbing, Heating, and AC	29,160	8,506	9,867	3,270	50,803	21,643
Painting and Paper Hanging	81,431	19,146	9,757	2,078	112,413	30,981
Electrical Work	19,841	4,612	3,777	875	29,104	9,263
Masonry, Stone Work, Tile Setting, and Plastering	20,961	6,106	2,570	891	30,528	9,567
Carpentry and Floor Work	93,379	33,371	3,634	652	131,037	37,658
Roofing, Siding, and Sheet Metal Work	27,875	8,223	6,282	2,047	44,427	16,552
Concrete Work	2,052	665	402	155	3,275	1,223
Miscellaneous	22,465	7,027	5,604	1,674	36,770	14,305
Total Special Trade	**297,165**	**87,656**	**41,893**	**11,642**	**438,356**	**141,192**
Total Nonemployer	**381,034**	**115,049**	**63,184**	**20,348**	**579,615**	**198,581**

Notes: The Census of Construction does not report on nonemployer businesses. Joint Center estimates are based on the assumption that the distribution of remodeling receipts for nonemployer businesses are comparable to those for payroll establishments in the same revenue size category. The remodeling share of total receipts for payroll establishments was calculated—with establishments categorized by $25,000 increments by total revenue—and these shares were applied to nonemployer businesses within each of the revenue categories to estimate the number of nonemployer remodeling businesses. The estimate of 200,000 nonemployer remodelers was calculated by eliminating the 380,000 nonemployer remodelers who reported less than $25,000 in gross receipts in 1997. Our procedures thus generate a conservative estimate of the number of businesses concentrating their activities in residential remodeling.

A-6

Home Improvement Spending in the Top 35 Metro Areas: 1990–99

(Total Spending, Billions of Dollars)

Metro Areas	Total	Rank	Discretionary	Rank	Replacement	Rank	Other	Rank
Atlanta, GA MSA	6.2	(18)	2.4	(15)	2.9	(18)	0.9	(18)
Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH NECMA	14.0	(8)	7.0	(7)	5.6	(8)	1.4	(10)
Buffalo-Niagara Falls, NY MSA	2.9	(31)	1.1	(28)	1.6	(29)	0.2	(34)
Chicago-Gary-Kenosha, IL-IN-WI CMSA	28.3	(3)	10.9	(3)	14.2	(3)	3.2	(4)
Cincinnati-Hamilton, OH-KY-IN CMSA	3.9	(25)	1.0	(30)	2.2	(23)	0.6	(22)
Cleveland-Akron, OH CMSA	6.3	(15)	2.1	(17)	3.4	(16)	0.8	(20)
Columbus, OH MSA	3.4	(29)	1.4	(25)	1.6	(28)	0.4	(28)
Dallas-Fort Worth, TX CMSA	8.5	(12)	2.4	(14)	4.6	(10)	1.4	(9)
Denver-Boulder-Greeley, CO CMSA	6.2	(17)	2.1	(18)	3.4	(15)	0.6	(21)
Detroit-Ann Arbor-Flint, MI CMSA	18.7	(7)	6.9	(8)	9.2	(7)	2.5	(5)
Houston-Galveston-Brazoria, TX CMSA	7.9	(13)	2.9	(11)	3.9	(12)	1.2	(12)
Indianapolis, IN MSA	2.5	(34)	1.0	(31)	1.1	(35)	0.4	(29)
Kansas City, MO-KS MSA	3.8	(26)	1.3	(26)	2.2	(25)	0.3	(33)
Los Angeles-Riverside-Orange, CA CMSA	42.6	(2)	17.6	(2)	17.1	(2)	7.8	(1)
Miami-Fort Lauderdale, FL CMSA	9.1	(10)	2.8	(12)	5.4	(9)	0.9	(16)
Milwaukee-Racine, WI CMSA	4.2	(24)	1.5	(24)	2.2	(24)	0.4	(30)
Minneapolis-St.Paul, MN-WI MSA	9.2	(9)	3.5	(10)	3.9	(13)	1.8	(8)
New Orleans, LA MSA	3.6	(28)	1.1	(29)	1.6	(27)	0.8	(19)
New York-No. New Jersey-Long Island, NY-NJ-CT-PA CMSA/NECMA	62.3	(1)	28.7	(1)	27.6	(1)	6.1	(2)
Norfolk-Virginia Beach-Newport News, VA-NC MSA	2.8	(32)	0.9	(33)	1.5	(30)	0.4	(31)
Orlando, FL MSA	2.9	(30)	1.0	(32)	1.5	(31)	0.4	(27)
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD CMSA	22.6	(5)	9.5	(5)	10.6	(5)	2.5	(6)
Phoenix-Mesa, AZ MSA	6.5	(14)	2.1	(19)	3.1	(17)	1.3	(11)
Pittsburgh, PA MSA	6.0	(19)	1.9	(20)	3.5	(14)	0.6	(23)
Portland-Salem, OR-WA CMSA	5.6	(20)	2.3	(16)	2.9	(19)	0.5	(24)
Providence-Warwick-Pawtucket, RI NECMA	2.5	(33)	0.8	(34)	1.5	(32)	0.2	(35)
Sacramento-Yolo, CA CMSA	3.7	(27)	1.2	(27)	2.0	(26)	0.5	(26)
St. Louis, MO-IL MSA	4.8	(22)	1.7	(22)	2.6	(22)	0.5	(25)
Salt Lake City-Ogden, UT MSA	4.2	(23)	1.7	(21)	1.4	(33)	1.0	(13)
San Antonio, TX MSA	1.9	(35)	0.5	(35)	1.1	(34)	0.3	(32)
San Diego, CA MSA	6.2	(16)	2.5	(13)	2.8	(20)	0.9	(14)
San Francisco-Oakland-San Jose, CA CMSA	26.2	(4)	10.9	(4)	11.2	(4)	4.1	(3)
Seattle-Tacoma-Bremerton, WA CMSA	8.6	(11)	3.8	(9)	3.9	(11)	0.9	(15)
Tampa-St. Petersburg-Clearwater, FL MSA	5.1	(21)	1.5	(23)	2.7	(21)	0.9	(17)
Washington-Baltimore, DC-MD-VA-WV CMSA	20.2	(6)	8.5	(6)	9.8	(6)	2.0	(7)
Total Top 35 Metros	**373.3**		**148.5**		**176.0**		**48.9**	
Other Areas	**470.6**		**171.9**		**217.0**		**81.7**	
US Total	**843.9**		**320.3**		**392.9**		**130.7**	

Notes: Top metro area are defined by number of homeowners. Discretionary projects include kitchens, baths, and other additions and alterations.
Source: Joint Center tabulations of the 1991-99 American Housing Surveys.

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