THE US HOUSING STOCK

READY FOR RENEWAL

IMPROVING AMERICA'S HOUSING 2013

JOINT CENTER FOR HOUSING STUDIES OF HARVARD UNIVERSITY

Joint Center for Housing Studies of Harvard University

HARVARD GRADUATE SCHOOL OF DESIGN | HARVARD KENNEDY SCHOOL

Principal support for this research was provided by the Policy Advisory Board of the Joint Center for Housing Studies.

Policy Advisory Board member companies participating in the Remodeling Futures Steering Committee include:

Andersen Corporation
Builders FirstSource
Dow Building Solutions
Fortune Brands Home & Security
Hanley Wood, LLC
The Home Depot
JELD-WEN
Johns Manville Corporation
Kohler Co.
Masco Corporation
National Gypsum Company
Oldcastle, Inc.
Owens Corning
Pella Corporation
Ply Gem Industries, Inc.
ProBuild, Inc.
The Sherwin-Williams Company
USG Corporation
Weyerhaeuser
Zillow

Additional support was provided by member companies of the Remodeling Futures Steering Committee:

3 Day Blinds
AARP
American Exteriors, LLC
Building Supply Channel, Inc.
Case Design/Remodeling, Inc.
CEDIA
Custom Design & Construction
Cygnus Business Media
DuPont Building Innovations
FS Brands
GE Capital
Harvey Building Products
Hearth, Patio & Barbecue Association
Henkel
Home Improvement Research Institute
HomeAdvisor
ITW Paslode
James Hardie Industries
LeafGuard by Beldon, Inc.
Lowe's Home Improvement Corporation
Mill Creek Lumber & Supply Company
National Association of Home Builders
National Association of Realtors®
National Association of the Remodeling Industry
Nichiha USA, Inc.
Owens Construction
Power Home Remodeling Group
Professional Remodeler Magazine
Rebuilding Together, Inc.
Robert Bowden, Inc.
Roxul, Inc.
Specpan/The Farnsworth Group
Steves & Sons
TW Perry
U.S. Census Bureau
U.S. Department of Housing and Urban Development
U.S. Home Systems, Inc.
Wells Fargo Retail Services

The Joint Center for Housing Studies thanks Masco Corporation for supporting the production of this report.

1 INTRODUCTION AND OVERVIEW

The housing market finally appears to be pulling out of its prolonged downturn. House prices have steadily trended up in most metropolitan markets across the country, replenishing some of the household wealth lost during the crash. Housing starts also climbed almost 30 percent in 2012, while existing home sales surpassed the 4.0 million mark for the first time since 2007.

Following these trends, the Joint Center for Housing Studies estimates that spending on home improvements increased about 9 percent in 2012. This comes as welcome news after the severest downturn in recent memory. While known to be highly cyclical, residential fixed investment (including home building as well as improvement spending) fell from a 5.2 percent average share of gross domestic product (GDP) during the 20 years prior to the Great Recession to only a 2.8 percent share between 2008 and 2012.

Along with pent-up demand for new homes, this decline suggests the need for renewed investment in the existing housing stock. Indeed, the retreat in improvement spending has had a measurable impact on the quality of the nation's owner-occupied housing: after several decades of decline, the number of inadequate homes increased by 7 percent between 2007 and 2011 to 2.4 million units. As Joint Center analysis has found, inadequate homes are significantly more likely to be converted to rental units or nonresidential uses, to become vacant, or to be permanently lost from the inventory.

With the US economy and housing market now recovering, investment in the nation's housing inventory is also picking up. Lenders and new owners are rehabilitating millions of foreclosed properties. Older homeowners are retrofitting their homes to accommodate their future needs. Households in general are increasing their investments in environmentally sustainable improvements. And with the huge echo-boom population moving into the homebuying market over the coming decade, the remodeling industry can look to an even more promising future.

RECENT TRENDS IN HOME IMPROVEMENT ACTIVITY

Spending on home improvements and repairs totaled $275 billion in 2011 according to Joint Center estimates, down 4 percent from 2009 levels and some 16 percent below the market peak in 2007 **(Figure 1)**. Even so, these expenditures represented 1.8 percent of GDP in 2011, exceeding the amount spent on single- and multifamily home construction. In fact, spending on improvement and repair projects in 2011 surpassed purchases of clothing, furniture and home furnishings, and electronics and appliances—and equaled about half of spending at grocery stores.

Fully 82 percent of home improvement and repair spending was on owner-occupied homes, with the remainder on rental units. About three-quarters of total expenditures went to improvements, including replacements, upgrades, remodels, additions, structural alterations, and other activities that increase the value of the housing stock. The other quarter was spent on more routine maintenance and repair projects that help to preserve the current quality of homes.

Maintenance and repair spending tends to be more stable than improvement expenditures, given that homeowners and rental property owners are more likely to perform basic upkeep even when they are unwilling or unable to upgrade their properties. During the 2007 to 2011 downturn, spending on maintenance and repairs thus increased about 6 percent, while spending on improvements dropped by 22 percent.

Still, homeowner improvements are by far the larger market, accounting for almost two-thirds of industry spending even in such a down year. More than a quarter of this spending was discretionary—that is, for projects like kitchen and bath remodels, room additions, and structural alterations that can be deferred when economic circumstances require. More than 40 percent of expenditures were for replacements (such as roofing, siding, windows, and doors) and systems upgrades (including plumbing, electrical, and HVAC). Almost 12 percent was for interior upgrades to flooring, paneling, ceilings, and insulation. The remaining 22 percent was for other property improvements such as garages, driveways, fencing, patios, and disaster repairs.

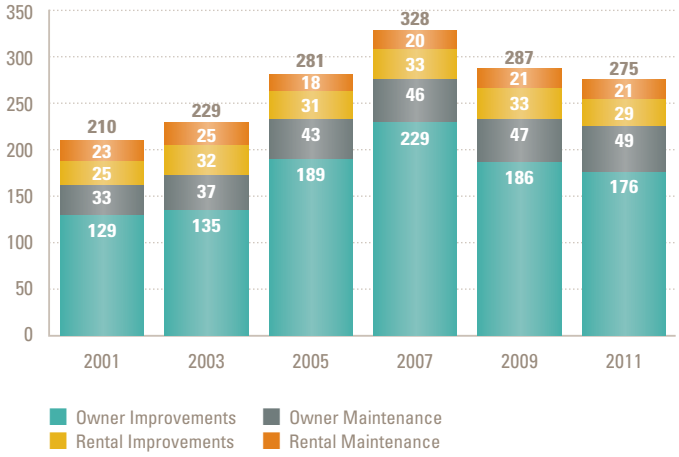
CHANGES IN SPENDING PATTERNS

Not only has the pace of improvement spending slowed in recent years, but its composition has also shifted. Near the peak of the market in 2007, discretionary projects accounted for some 37 percent of homeowner expenditures. That share stood at just over 26 percent in 2011. At the same time, the share of spending on replacement projects and systems upgrades climbed from 30 percent to 40 percent, while shares of spending in the other home improvement categories were largely unchanged.

Figure 1

Home Improvement Activity Continued to Weaken Through 2011 While Maintenance Spending Remained Stable

Remodeling Market (Billions of dollars)



Sources: JCHS tabulations of the 2001–11 American Housing Surveys (AHS); US Department of Commerce Survey of Expenditures for Residential Improvement and Repairs (C-50); and Abbe Will, *Estimating National Levels of Home Improvements and Repair Spending by Rental Property Owners*, JCHS research note N10-2, October 2010.

Spending on discretionary home improvements—particularly upper-end projects by high-spending households—drives the overall remodeling market more than the number of households undertaking projects. Indeed, essentially the same share of owners (57 percent) reported improvement projects during the upturn in 2006–07 as during the downturn in 2010–11. What marks the difference between these periods is the activity of a small group of high-spending households. In 2006–07, over 650,000 owners spent at least $100,000 on home improvements, while another 3.5 million spent between $25,000 and $100,000. Together, these homeowners accounted for almost 60 percent of all expenditures over this two-year period. By comparison, fewer than 3.0 million owners reported spending more than $25,000 on improvements in 2010–11, contributing less than 46 percent of the total.

The share of upper-end discretionary improvement projects tends to rise and fall with the health of the broader economy. Spending on replacements and systems upgrades, in contrast, is much less volatile—increasing less during upturns but declining less during downturns. The recent cycle was somewhat unusual, however, in that the share of spending on replacement projects and systems upgrades jumped 10 percentage points

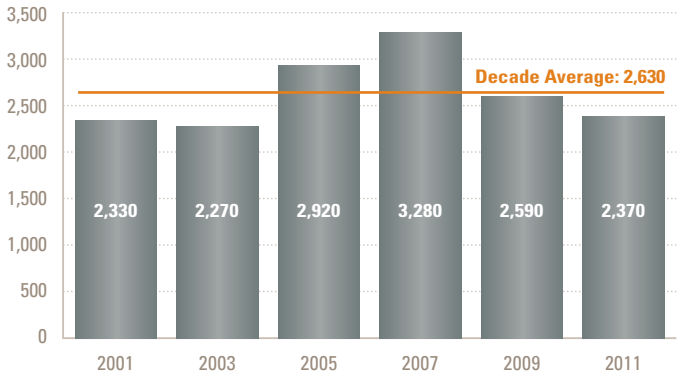
between 2007 and 2011, with the dollar amount up by almost $2 billion or nearly 3 percent. Much of this surge reflects growing demand for energy-efficient upgrades, driven in part by the availability of state and federal tax credits.

With the decline in spending on discretionary projects, home improvement expenditures per owner in 2011 stood well below levels averaged over the previous decade. In fact, per-owner spending fell from about 25 percent above the decade average in 2007 to about 10 percent below that level in 2011 **(Figure 2)**.

Figure 2

After a Surge During the Boom Years, Spending Is Now Below the Decade Average

Average Annual Per-Owner Spending on Improvements (2011 dollars)

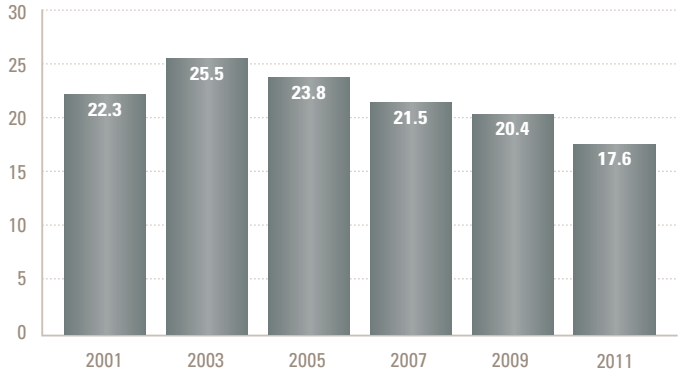


Source: JCHS tabulations of the 2001–11 AHS.

Figure 3

The DIY Share of Home Improvement Spending Has Trended Downward for Several Years

Do-It-Yourself Share of Expenditures (Percent)



Source: JCHS tabulations of the 2001–11 AHS.

THE SHRINKING DO-IT-YOURSELF MARKET

Do-it-yourself (DIY) home improvement projects were another casualty of the housing downturn. Until recently, almost a quarter of home improvement spending was by owners who install the products themselves. On a project basis, the DIY share is closer to 40 percent because expenditures generally cover only the cost of the products and materials, while expenditures on professionally installed projects include labor costs as well as contractor overhead and profit.

While the DIY share is thought to be countercyclical (increasing when the home improvement market is weak and decreasing when it is strong), the opposite occurred during this cycle. The DIY share of spending peaked at just under 26 percent in 2003 and fell steadily through 2011 to less than 18 percent **(Figure 3)**.

This decline in part reflects the recent financial plight of younger homeowners, traditionally the most active age group in the DIY market. Owners under age 35 historically have devoted about 35 percent of their home improvement dollars to DIY projects—about 10 percentage points more than the overall owner population. But with their homeownership rates falling during the housing downturn, with the home equity shrinking among those that did own, and with their higher share of DIY activity, younger households have contributed a smaller portion of overall improvement spending in recent years.

By and large, older households—with their traditionally lower share of DIY activity—were less affected by the housing bust. The homeownership rate for households age 65 and over actually inched up after 2007, while that for households age 55–64 fell less than among younger age groups. Older owners also lost a smaller share of their home equity than younger owners. Coupled with the growth in the numbers of owners in these age ranges, the share of home improvement spending among owners age 55 and over thus increased more than seven percentage points (38.1 percent to 45.5 percent) between 2007 and 2011.

GEOGRAPHIC DISTRIBUTION OF SPENDING

In another departure from historical trends, regional spending patterns underwent a shift during the recent housing cycle. In the past, upper-income households living in higher-valued homes in the Northeast and Midwest have reported the highest levels of, and strongest growth in, home improvement spending. But during the recent housing boom, strong demand in major Sunbelt markets drove up prices, stimulating growth in improvement expenditures. During the downturn, house prices dropped sharply in these overbuilt areas, lifting foreclosure rates and dampening improvement spending. The

result was a particularly severe spending cycle in the South and West **(Figure 4)**.

At the metropolitan area level, the locus of the strongest home improvement activity has also changed. During the 1990s, the top 10 markets for average per-owner spending were heavily concentrated along the East Coast (Boston, New York, Philadelphia, and Washington, DC) and the West Coast (Seattle, Portland, San Francisco, and Los Angeles), with just Minneapolis and Salt Lake City—ranked in the last two slots—representing the interior regions of the country. Since then, however, metros posting the strongest growth in per owner spending are more heavily concentrated in the rapidly growing areas of the Sunbelt. Over the past two decades, Atlanta, Dallas, Houston, and Washington, DC, have thus recorded the strongest growth in inflation-adjusted improvement expenditures, while Chicago, Philadelphia, and Los Angeles have registered declines.

Figure 4

Sunbelt Markets Saw Stronger Spending Increases During the Upturn and Steeper Declines During the Downturn

Average Annual Per-Owner Improvement Expenditures (2011 dollars)

Region	2001	2007	2011	Percent Change 2001–07	Percent Change 2007–11
Northeast	2,980	3,550	2,880	19	-19
Midwest	2,260	2,720	2,230	20	-18
South	1,870	2,870	2,150	53	-25
West	2,690	4,440	2,510	65	-43
US Total	**2,330**	**3,280**	**2,370**	**41**	**-28**

Note: Regions are as defined by the US Census Bureau.

Source: JCHS tabulations of the 2001–11 AHS.

NEAR-TERM CHALLENGES TO GROWTH

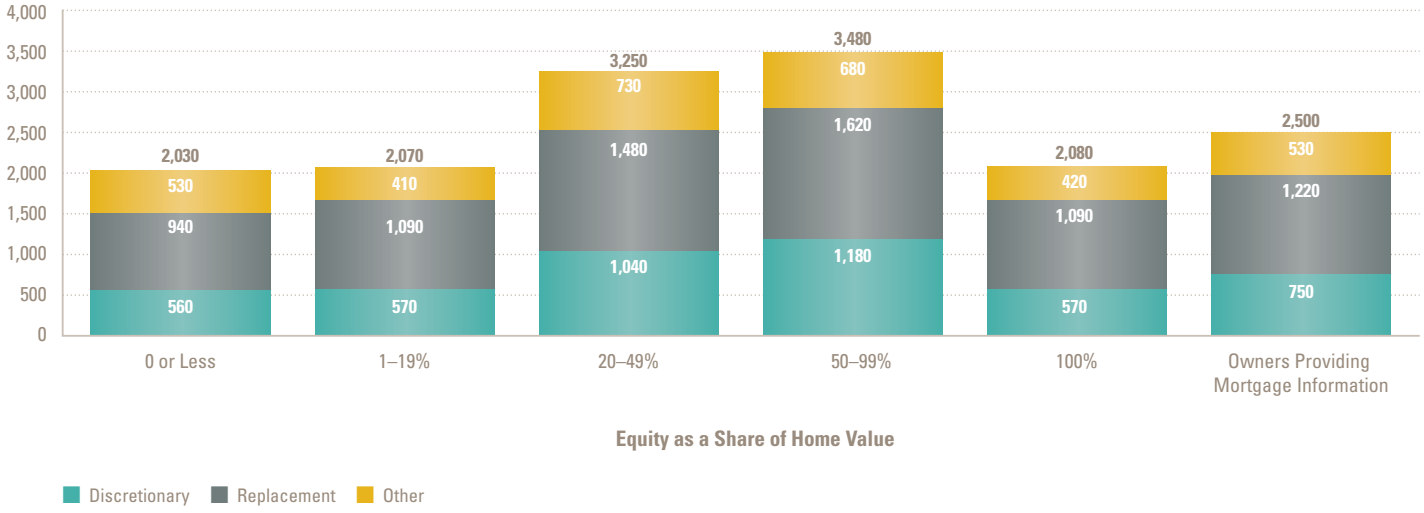
In the short term, owners looking to make home improvements face several challenges. Near the top of the list is the loss of home equity resulting from the unprecedented plunge in house prices during the housing crash. After several years of strong house price appreciation, homeowners nationwide had almost $13 trillion in equity in 2006, or almost $170,000 per owner on average. By 2011, however, aggregate home equity had dropped by half to $6.5 trillion, or $87,000 per owner.

Since home equity is a major source of wealth for most owners, sharply lower house values make owners feel less wealthy and therefore less likely to spend in general and on improvements in particular. And with less equity available and

Figure 5

Owners with Greater Equity in Their Homes Generally Spend More on Improvements

Average Annual Per-Owner Improvement Spending in 2011 (Dollars)



Notes: Discretionary projects include kitchen and bath remodeling, room additions, other major interior improvements and outside attachments. Replacements include systems and equipment, exterior and interior. Other includes disaster repairs and other property improvements.

Source: JCHS tabulations of the 2011 AHS.

credit still tight, households are finding it more difficult to get financing for projects. In 2011, owners with under 20 percent equity in their homes spent about 22 percent less on average on home improvements and about 30 percent less on discretionary projects than owners with at least 20 percent equity **(Figure 5)**. In fact, owners with some but less than 20 percent equity spent about the same as those with zero or negative equity in that year. Owners without mortgages—primarily older owners—also spent about the same as owners with less than 20 percent equity.

In addition to its direct impact on home equity, the direction of house prices can also influence decisions to undertake an improvement project. Indeed, research has shown that the "return" on home improvement expenditures tends to be lower during periods when home prices are weak. In their annual Cost vs. Value reports, *Remodeling* magazine and the National Association of Realtors® estimated that near the peak of the housing market in 2005, improvement projects on average returned almost 87 percent of the cost in terms of higher home values. This ratio then fell each year through 2011 as home prices dropped, with improvements yielding less than 58 percent of the project cost. Their latest report, however, indicates that the return on improvements increased to nearly 61 percent in 2012, tracking the emerging recovery in house prices.

LOOKING AHEAD

After hitting a cyclical bottom in late 2009 and languishing near that low for two years, the US home improvement market appears poised for a solid rebound. Based on US Census Bureau figures, the Joint Center estimates that homeowner improvement spending was already climbing at a double-digit pace in the second half of 2012, and the Joint Center's Leading Indicator of Remodeling Activity (LIRA) points to continued gains through 2013.

How rapidly growth proceeds depends on many critical factors: international political and financial events; the ability of Congress and the Administration to effectively manage fiscal policy; and continued improvement in private sector business conditions, leading to job and income growth for US households. The availability of credit to homeowners for improvement projects is also uncertain. And within the extremely fragmented home improvement industry, there is concern that shortages of skilled labor could create bottlenecks in remodeling activity.

Despite these unknowns, some niche markets are already laying a firm foundation for renewed growth in home improvement spending. In particular, the upgrading of more than 4.2 million distressed homes sold between 2009 and 2012 has already generated a burst of expenditures. The 2.9 million homes currently in, or at serious risk of, foreclosure thus represent pent-up demand for future investment. Given the strong growth in the number of renter households since the housing crash, owners of rental housing are likely to upgrade their properties in the coming years. Environmentally sustainable projects are also a growth market, not only because of the recent volatility of home energy costs but also because of increasing interest in broader green objectives, including healthy home environments.

Finally, the US Census Bureau projects that, led by the baby boomers, the population age 65 and over will increase by 15.5 million—nearly 40 percent—between 2010 and 2020. The near-term growth in this older population will underpin strong demand for retrofits to existing homes to enable these households to age in place. Meanwhile, members of the large baby-bust generation are entering their peak remodeling years and will support market growth this coming decade. Longer term, the aging of the enormous echo-boom generation holds the potential for even stronger growth in the home improvement market in the 2020s and beyond.

2

THE NEED TO REVITALIZE THE NATION'S HOUSING STOCK

The magnitude of the housing bust that began in the middle of the past decade is well documented, with a 75-percent plunge in housing starts, a 45-percent decline in existing home sales, and a 30–35 percent slide in house prices. Less well known is how the ensuing cutbacks in residential investment (including spending on both home building and improvements) have eroded the condition of the national housing inventory.

Evidence of underinvestment is widespread, from rising numbers of inadequate homes to the aging of the rental stock. Most dramatic, of course, is the surge in foreclosures and short sales, as well as the share of homeowners owing more on their mortgages than their homes were worth after house prices tanked. These owners clearly have little incentive (or capacity) to improve or even maintain their properties as they move through the lengthy process from mortgage delinquency to foreclosure. Indeed, many abandon their homes or are evicted before resolution, leaving their units vulnerable to looters and to the elements. All of these forces, along with a growing interest in environmental sustainability, are now driving a rebound in the home improvement industry.

THE UPTICK IN HOUSING INADEQUACY

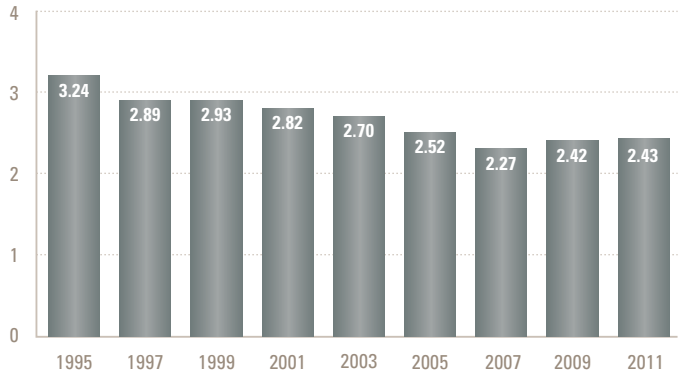
Until this past cycle, housing inadequacy—a measure of the physical condition of housing units—had been on the decline in the United States, thanks largely to the success of government housing policies and the increasing affluence of the population. Since the housing market bust, however, this trend has reversed. By 2011, more than 2.4 million owner-occupied homes were classified as inadequate **(Figure 6).**

Based on Joint Center analysis focusing on the decade before the dramatic rise in distressed properties, a significant share of inadequate units is likely to deteriorate further and be lost from the housing stock. In 1997, 4.4 percent of owner-occupied homes were considered inadequate. By 2007, these same units accounted for almost 8 percent of homes that were no longer owner-occupied (i.e., stood vacant or were converted to rental or nonresidential uses), indicating their increasing deterioration. Even more telling is that these inadequate units accounted for almost 17 percent of the homes

Figure 6

Housing Inadequacy Has Been on the Rise Since the Housing Market Bust

Number of Owner-Occupied Homes Classified as Moderately or Severely Inadequate (Millions)



Notes: A housing unit is defined as inadequate if it lacks complete kitchen or bathroom facilities or running water, as well as shows signs of disrepair such as leaks, holes, and broken systems. For a complete definition, see the US Department of Housing and Urban Development's *Codebook for the American Housing Survey, Public Use File: 1997 and Later.*

Source: JCHS tabulations of the 1995–2011 AHS.

Figure 7

Home Improvement Spending on Distressed Properties Hit Nearly $10 Billion in 2011

	Number of Distressed Properties Improved	Average Expenditure per Unit	Total Market Spending (Billions)
Bank-Owned (Pre-sale)	260,000	$6,500	$1.7
Homeowners (Post-sale)	380,000	$11,100	$4.2
Investors (Post-sale)	250,000	$15,600	$3.9
Total Spending			**$9.8**

Note: Bank-owned distressed properties include those sold by Fannie Mae, Freddie Mac, FHA, or private banks.

Source: Elizabeth La Jeunesse, *Home Improvement Spending on Distressed Properties: 2011 Estimates*, JCHS working paper, forthcoming.

that were demolished within the decade. Loss rates since the housing bust are likely even higher. As the broader economy recovers and housing markets tighten, however, some of these inadequate homes will likely be renovated to provide affordable housing opportunities.

REHABILITATING FORECLOSED HOMES

The good news is that new owners are investing in foreclosed homes. More than a million distressed properties came back onto the housing market in 2011, including 760,000 lender-owned units and 300,000 short sales. According to Joint Center research, institutional sellers made improvements to about a third of their foreclosed properties prior to sale, with an average expenditure of about $6,500 per unit **(Figure 7)**. About 60 percent of owner-occupant purchasers undertook improvements averaging $11,100, while investors spent even more per unit on average. In total, spending on distressed properties added almost $10 billion to home improvement expenditures for the year. Given several years of underinvestment, however, it is difficult to know if this catch-up spending was enough to stem the likely deterioration of these properties.

Renovating foreclosed or abandoned homes benefits the entire neighborhood. Joint Center research has shown that home prices in neighborhoods with higher levels of improvement spending appreciate more rapidly,[1] explaining why investing in blighted neighborhoods has been a national priority in dealing with the foreclosure crisis. HUD's Neighborhood Stabilization Program, for example, earmarked almost $7 billion for local initiatives to help minimize the impact of distressed properties on broader neighborhood conditions.

Local home improvement assistance programs—with the support of national nonprofits such as NeighborWorks America, Enterprise Community Partners, Local Initiatives Support Corporation, and Rebuilding Together—also make neighborhood stabilization a goal. As a recent survey of participants in the Rebuilding Together program revealed, nearly two-thirds of respondents had lived in their current homes for at least 20 years and were spending well below the national average amount on home improvements and repairs.[2] Without this assistance, their homes would deteriorate and potentially have spillover effects on surrounding properties. Moreover, many of these older owners might be forced to move from their homes because they could no longer live there safely given their physical limitations.

RENEWED INTEREST IN THE RENTAL STOCK

Investors are also buying up distressed properties and converting the units to rentals. Including these conversions, 4.4 million formerly owner-occupied units were shifted to the rental market between 2007 and 2011. Another 4.6 million were vacant in 2011 and may (at least temporarily) become part of the rental stock as demand continues to grow.

1. Kevin Park, *Good Home Improvers Make Good Neighbors,* JCHS working paper W08-2, April 2008.

2. Abbe Will and Kermit Baker, *The Role of Nonprofit Organizations and Public Programs in Promoting Home Improvement and Repair Activity,* JCHS working paper, forthcoming.

But beyond the need to repair these converted units, there is also a need to address the aging of the overall rental stock. With the slowdown in multifamily construction during the housing boom, the median age of rental units was 39 years in 2011—some 16 years above the median in 1985.

Growing demand for rental units, together with several years of underinvestment in the stock, would seem to be a formula for higher spending in this market. But as Joint Center estimates show, the expanding supply of rental units in recent years seems to have more than offset increased demand, thereby limiting the incentive to raise improvement expenditures. Between 2001 and 2007, average inflation-adjusted spending on owner-occupied units increased by 40 percent while spending on rental units showed a slight decline. Then, during the housing bust from 2007 to 2011, spending on owner-occupied units fell more than 25 percent and spending on rental units nearly matched that drop **(Figure 8)**.

The rental share of overall improvement and repair spending has therefore been shrinking. After averaging close to 25 percent of the market through the early part of the last decade, the rental share dipped to 16 percent at the peak of the housing boom and has only edged back up near 20 percent since then. However, as the excess inventory of owner units begins to recede and fewer owned units are converted to rentals, spending on the rental stock should increase.

GREENING OF THE HOUSING STOCK

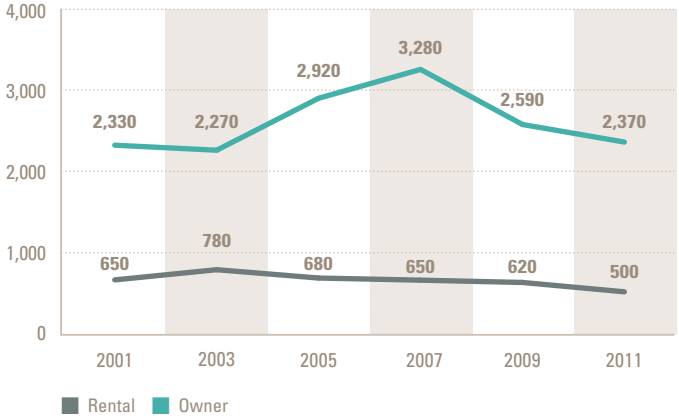
Although investment in the existing housing stock has generally been weak since the Great Recession began, green improvement spending has remained a bright spot. As a result, the share of expenditures on projects designed to improve energy efficiency or environmental sustainability has sharply increased in recent years.

These investments have led to significant improvements in residential energy use. According to a 2009 Department of Energy (DOE) survey, homes built in the 2000s consume a quarter less energy per square foot than those built before the 1970s oil embargo **(Figure 9)**. At the same time, retrofits of older homes have also yielded steady efficiency gains, with a typical pre-1970 house using 30–35 percent less energy in 2009 than a similar home consumed in 1980 **(Figure 10)**. Some of these improvements may, of course, reflect removal of less efficient homes from the stock or changes in household behavior, such as keeping homes cooler in the winter and warmer in the summer. Nevertheless, it seems safe to conclude that investments in the existing stock are largely responsible for much of the overall reduction in energy use.

Figure 8

Spending on Rental Units Has Languished for More than a Decade

Average Annual Improvement Spending per Unit (2011 dollars)



Sources: JCHS tabulations of 2001–07 C-50 reports; 2001–11 AHS; and Abbe Will, *Estimating National Levels of Home Improvements and Repair Spending by Rental Property Owners*, JCHS research note N10-2, October 2010.

In 2011, about a quarter of households undertaking home improvements indicated that a goal of at least one project was to increase energy efficiency. The types of energy-efficient retrofits included exterior replacements, systems upgrades, and insulation. The 2009 DOE survey indicates that about a third of owners with homes that were at least five years old had replaced some or all of the windows with high-performance products. In addition, more than one in five had replaced their principal space-heating equipment within the previous four years, while a similar share with central air conditioning had replaced those systems as well.

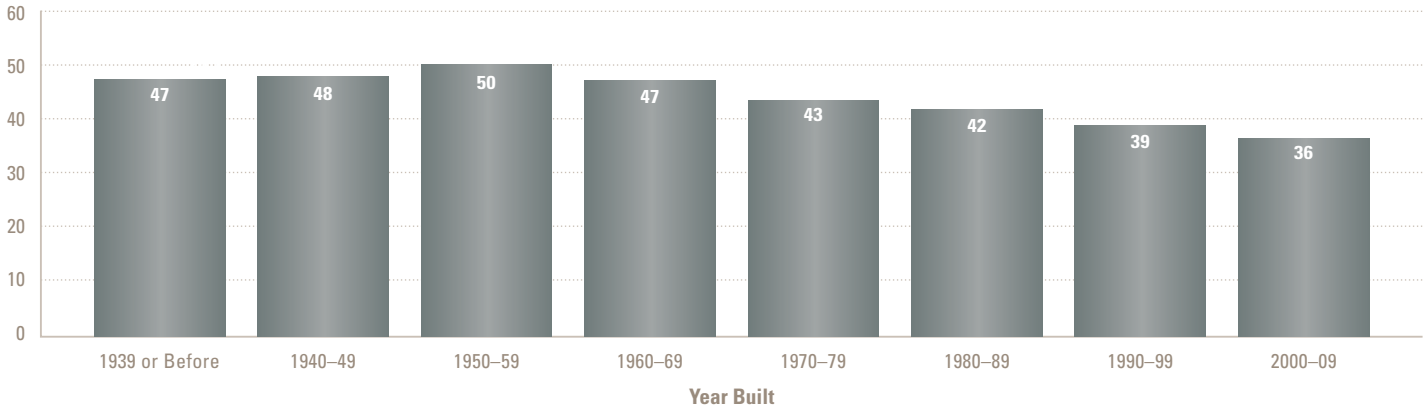
Given that homes account for about 22 percent of all US energy consumption, the potential benefits from additional retrofits are vast. In fact, bringing homes built before 1970 up to the efficiency levels of the newest stock would cut total residential energy use by 10 percent. Even bringing these older homes up to the efficiency of units built in the 1970s or 1980s would save about 5 percent of current residential energy consumption.

Opportunities for more modest gains also abound. For example, only about 3 percent of homeowners living in units that are at least five years old have tankless water heaters. In addition, less than 1 percent of these owners rely on an on-site renewable energy source such as solar, wind, or geothermal. These innovations may become much more popular as they become more cost effective.

Figure 9

While Homes Built After the Early-1970s Oil Embargo Consume Much Less Energy…

Energy Consumption per Square Foot for Owner-Occupied Homes in 2009 (Thousands of BTUs)



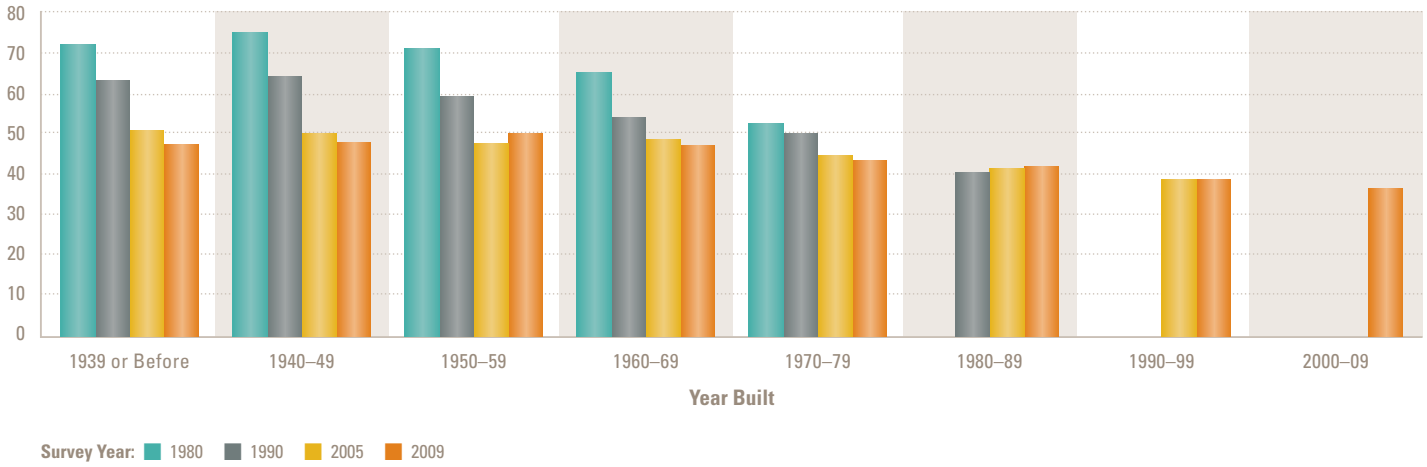
Note: Square footage includes heated and cooled garages, basements, and finished, heated, and cooled attics.

Source: JCHS tabulations of US Department of Energy, Energy Information Administration, 2009 Residential Energy Consumption Survey (RECS).

Figure 10

… Retrofits to the Existing Stock Are Responsible for Most Efficiency Gains

Energy Consumption per Square Foot for Owner-Occupied Homes (Thousands of BTUs)



Note: Square footage includes heated and cooled garages, basements, and finished, heated, and cooled attics.

Source: JCHS tabulations of 1980–2009 RECS.

The rental stock offers particularly large opportunities for energy savings. Today, owners of rental units have little incentive to upgrade energy efficiency if renters pay utility costs. For their part, renters have little incentive to make such investments because they only benefit from the improvements while they occupy the unit. They have even less incentive if they do not directly pay for utilities. As a result, energy consumption per square foot for units where the rent included utility costs was almost 50 percent higher in 2009 than for units where the renter paid these costs. But even when renters were responsible for utilities, their units used almost 20 percent more energy on average than owner-occupied homes.

While energy efficiency is a high priority, consumers also have a growing interest in environmental sustainability. In recent Joint Center surveys, remodeling contractors reported

that high-efficiency toilets, low- or no-VOC paints, and mold-resistant gypsum wall panels are among the most popular green products used in home improvement projects. In 2012, the share of remodeling revenues from projects promoting environmental sustainability (24 percent) approached the share from projects designed to increase energy efficiency (32 percent). In many cases, of course, projects were designed to address multiple goals.

Products for the environmental sustainability market continue to advance. For example, the widespread use of connected devices—such as computers, smart phones, and tablets—provides significant opportunities for households to manage resources more efficiently. While smart systems are much easier to install when homes are being built, demand for retrofits will no doubt grow once the technology is better developed and less expensive.

Momentum is also building in the healthy home movement, which seeks to eliminate the use of toxic materials in home construction and renovation. With research suggesting that healthy homes can reduce medical costs, a new industry is developing around the retrofit activities that can mitigate air pollution and other hazards within the home.

OPPORTUNITIES FOR REMODELERS

Years of underinvestment in the nation's housing stock have expanded the market for home improvements. In particular, the growing supply of homes that have been through the protracted foreclosure process represents a major opportunity for remodeling firms. In 2011 alone, renovations of just over a million distressed properties generated about $10 billion in spending. With nearly 3 million additional homes currently in or at risk of foreclosure, many more billions will be necessary to upgrade these properties for return to the market.

The nation's aging rental stock also represents a huge potential market. In addition to the need to modernize older units, there is also an emerging opportunity to convert units that were shifted to the rental market during the housing bust back to the owner-occupied stock. These re-conversions are likely to spark higher improvement spending. Indeed, recent expenditures on single-family detached rental units in 2007 that were converted to owner occupancy by 2009 were about 18 percent higher on average than for homes that remained owner-occupied from 2007 to 2011.

Finally, improvement projects intended to increase environmental sustainability are likely to account for a growing share of remodeling spending. Home builder efforts in this realm are already paying off in the marketplace, with some buyers paying premiums of nearly 10 percent for new homes carrying a green certification. Comparable certification programs for existing homes should also boost consumer demand and therefore price premiums. In addition, federally backed green mortgages—which help homebuyers qualify for loans to purchase homes that meet specific energy-efficiency guidelines—may also encourage buyers of existing homes to spend more on retrofits.

3

IMPACTS OF THE DOWNTURN ON INDUSTRY STRUCTURE

The remodeling industry remains volatile and fragmented. Given the many obstacles to achieving scale, churn rates continue to be high as a large share of contractors enter and exit the industry with each new swing of the business cycle. Yet before the downturn, larger-scale remodelers were beginning to gain market share. As a result, contracting businesses that were able to overcome the many challenges to growth are now seeing significant payoffs in terms of increased revenues and improved labor productivity, as well as low and stable failure rates.

INDUSTRY FRAGMENTATION

According to Joint Center estimates of the most recent Economic Census of the Construction Industry, more than 650,000 contractors served the remodeling market at the peak of the housing boom in 2007. Fully two-thirds of these remodelers were self-employed, but even most of those with payrolls were also small. Indeed, more than 70 percent of payroll establishments posted less than $500,000 in revenue that year, and fully half reported revenues below $250,000. By comparison, only 31 percent of single-family home builders—and less than 15 percent of building materials and supplies dealers—had receipts of less than $250,000 in 2007.

With small businesses so prevalent, the remodeling industry remains much less concentrated than other housing-related industries. For example, the 50 largest general remodeling companies generated less than 8 percent of total industry receipts in 2007. In contrast, the top 50 home builders were responsible for more than 40 percent of industry receipts, while the top 50 building materials and supplies dealers accounted for 57 percent of receipts.

Part of what makes the remodeling industry so fragmented is the diversity of market segments, ranging from general remodeling (full-service, design/build, and handyman repair) to specialty trades (such as roofing, siding, plumbing/HVAC, electrical, and painting). Of all remodeling businesses with payrolls in 2007, about two-thirds were in specialty trades. This same split between general remodeling and specialty trade contractors is fairly consistent across all sizes of remodeling businesses with payrolls.

While both home building and remodeling firms are under the same industry umbrella, operations in these two sectors differ widely. In particular, remodelers perform many more small-scale projects than home builders. The types of projects that they undertake are also more diverse, from room additions and exterior replacements to handyman maintenance and repairs. These differences are often great enough to encourage builders and remodelers to specialize on their own core businesses when the economy is booming.

But during the recent downturn, remodelers not only had to vie for a shrinking number of projects, they also had to compete against home builders that diversified into remodeling when demand for new homes plummeted. According to member censuses by the National Association of Home Builders (NAHB), the share of single-family home builders that reported residential remodeling as a secondary activity increased steadily from 44 percent in 2008 to 51 percent in 2011. It remains to be seen whether these home building firms continue to pursue remodeling jobs as the construction market recovers.

UNDERLYING INDUSTRY CHURN

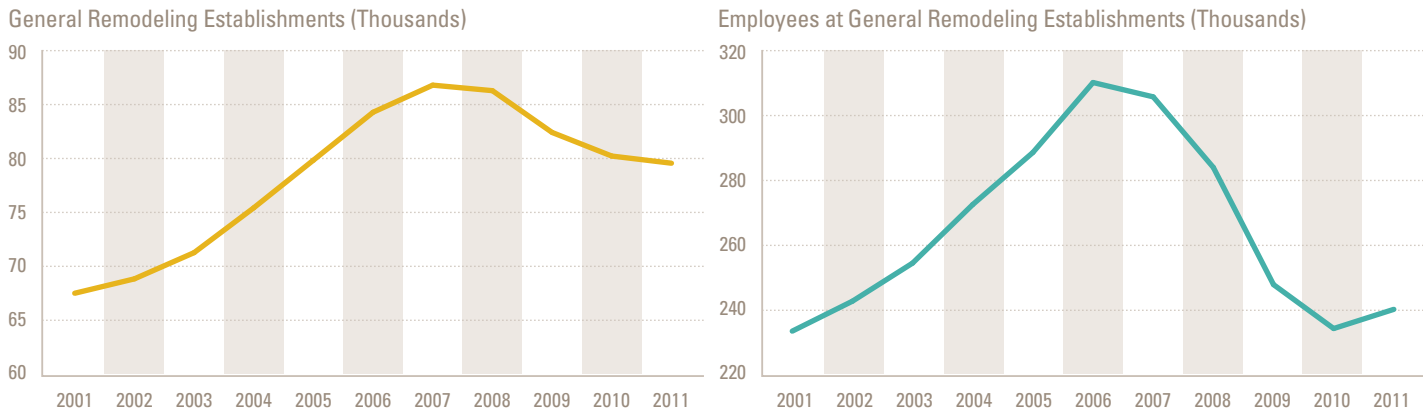
The number of contractors serving the residential remodeling market increased sharply during the housing boom, with the number of payroll businesses up 29 percent from 2001 to 2007 **(Figure 11)**. Industry payroll employment also rose 30 percent over this period. During the housing crash, homeowner improvement spending plunged nearly 25 percent—the largest peak-to-trough drop on record. Even so, the number of general residential remodeling businesses declined by just over 8 percent between 2007 and 2011. Employment at general remodeling firms, however, fell much more sharply and was still down in 2011 by more than 22 percent from the 2006 peak. In fact, at 241,000 employees, employment at general remodeling firms barely exceeded levels posted nearly a decade earlier.

The aggregate numbers of remodeling establishments mask the churn in the industry. Regardless of economic conditions, the share of firms that enter and exit the industry is relatively high when compared with either the construction sector as a whole or all US industries. In 2003–04, a boom year for remodeling as well as for the economy, 18 percent of remodeling contractors with payrolls were startups, compared with 14 percent in the construction industry overall and just 10 percent for payroll establishments nationally **(Figure 12)**. By 2009–10, when the economy was still mired in the Great Recession, over 17 percent of residential remodelers had exited the industry, compared with 16 percent of firms in the construction industry and under 10 percent of all US payroll establishments.

Regardless of business conditions, though, smaller remodeling companies are much more likely to fail. Remodelers with estimated receipts of less than $250,000 in 2003–04 had a failure rate of about 19 percent that year, and the cyclical downturn knocked out about a quarter of these small firms in 2009–10. In stark contrast, the largest remodeling businesses saw relatively low and stable failure rates over the business cycle **(Figure 13)**. Remodelers with estimated receipts of $1 million or more had an annual failure rate of just 2.7 percent in 2003–04 and sustained this low rate in 2009–10. With the effi-

Figure 11

The Numbers of Both Remodeling Businesses and Employees Declined Significantly During the Downturn

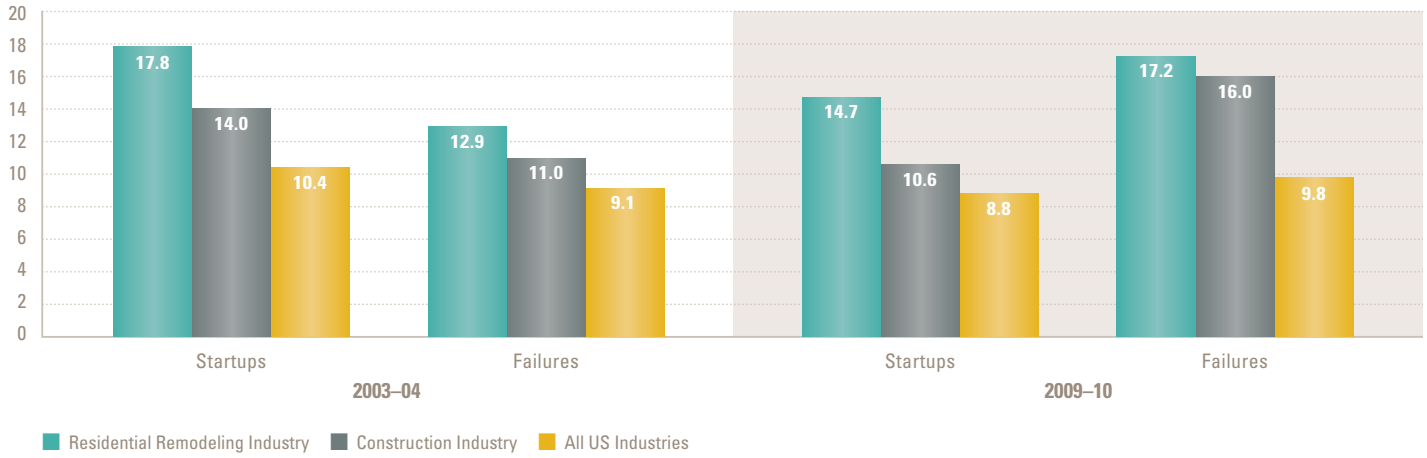


Source: US Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Figure 12

The Remodeling Industry Experiences Relatively High Rates of Churn Regardless of Economic Conditions

Share of Payroll Establishments (Percent)

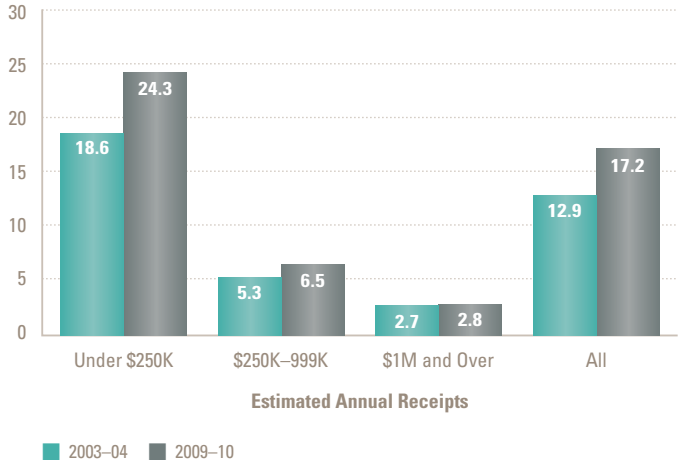


Source: US Census Bureau, Business Information Tracking Series (BITS).

Figure 13

Failure Rates for Larger Remodeling Contractors Remained Low and Stable Over the Latest Business Cycle

Share of Residential Remodeling Establishments Ceasing Operations (Percent)



Source: JCHS estimates using US Census Bureau tabulations of the 1989–2010 BITS.

ciency gains that typically accrue as businesses achieve scale, larger establishments are ultimately better able to survive in the volatile remodeling market.

BUILDING SCALE IN THE REMODELING INDUSTRY

Although large firms are still relatively rare, concentration in the remodeling industry increased during the boom years. Reflecting the many advantages of greater scale, the largest remodeling firms were responsible for a substantial and growing share of industry activity. In 2007, firms with at least $1 million in revenue generated 55 percent of industry employment, 65 percent of material purchases, and 66 percent of receipts. Comparing the revenue performance of larger remodeling contractors to that of the industry as a whole, the benefits of size are clear. During the home improvement spending boom in 2002–07, average receipts of all residential remodeling contractors increased 37 percent. Among firms on *Qualified Remodeler* magazine's Top 500 list, however, average revenues were up by more than 50 percent.

While larger-scale remodelers were by no means immune to the business cycle, they saw a sharp jump in revenues after the worst of the downturn **(Figure 14)**. Indeed, half of larger remodelers posted annual revenue growth of 5.1 percent or more in 2010 and 3.6 percent or more in 2011. The next Economic Census will likely show that these larger-scale firms performed better than their smaller-scale counterparts during the downturn as well.

Along with size, type of business is also a strong determinant of financial performance over the business cycle. During the boom years from 2001 to 2007, annual revenue growth among larger design/build firms was much higher than among full-service and exterior replacement contractors, averaging more than 8 percent per year **(Figure 15)**. But during the downturn, the sharp cutback in upper-end discretionary projects such as major kitchen and bath remodels and room additions hit both design/build and full-service firms especially hard. By comparison, revenues for exterior replacement contractors—with their focus on smaller, more essential projects—were much more stable over the cycle. These firms also benefited from generous federal and local tax credits for energy-efficiency improvements and replacements during the worst of the downturn.

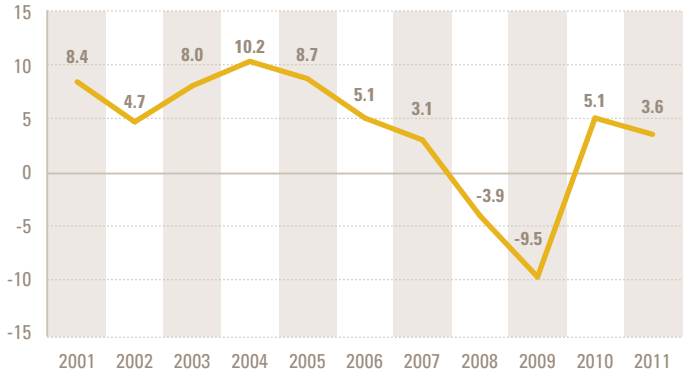
Another key advantage of scale is higher productivity. Using a common measure of efficiency, average receipts per employee (excluding subcontractors) for residential remodeling establishments with $1 million or more in revenue in 2007 were just under $180,000—more than double those of smaller-scale firms with annual remodeling receipts under $250,000. While this productivity measure does not control for part-time employees (which smaller firms are more likely to hire), the large disparity is a good indicator that larger remodeling businesses are operating more efficiently through job specialization.

Given the highly cyclical nature of the industry, many remodelers attempt to grow in an effort to achieve the operating efficiencies and stronger revenues that would help them ride out downturns. The obstacles, however, are many: low barriers to entry, market volatility, highly customized and diverse work, and difficulty attracting capital. Yet remodelers that are able to overcome some of these challenges discover significant benefits in terms of lower purchasing, marketing, and overhead costs, as well as improved financial performance.

Figure 14

Revenue Growth Among Larger Remodeling Firms Rebounded Strongly in 2010

Median Annual Change in Revenue for Top 500 Firms (Percent)



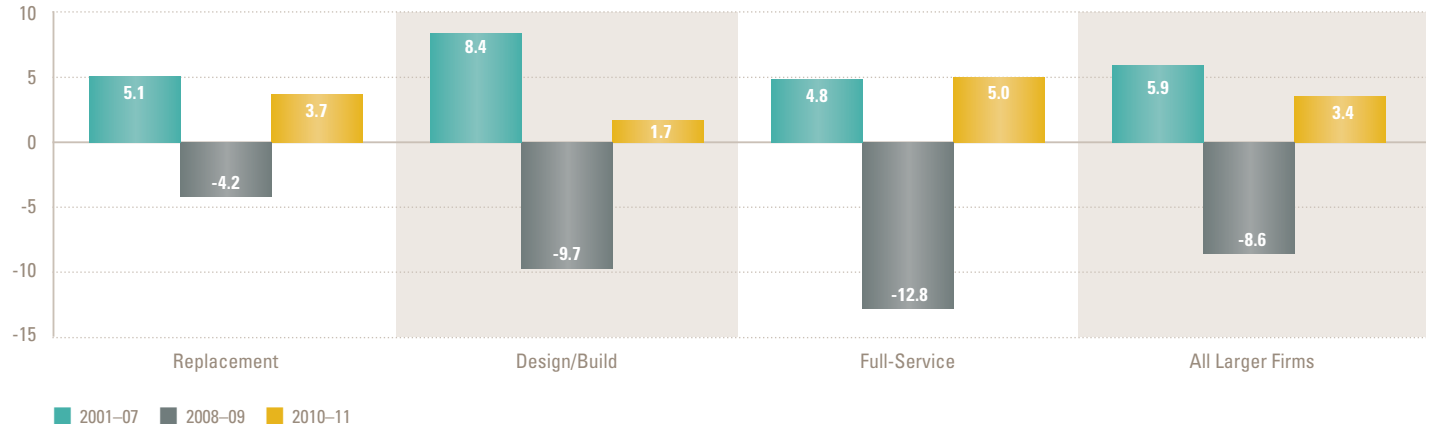
Note: Companies qualifying for the Top 500 Remodelers list typically generate annual revenues of $1 million or more.

Source: JCHS tabulations of *Qualified Remodeler* magazine's annual Top 500 Remodelers lists.

Figure 15

Replacement Contractors Have Posted Relatively Stable Revenue Growth Compared with Other Types of Remodeling Firms

Median Compound Annual Change in Revenue for Top 500 Firms (Percent)



Note: Companies qualifying for the Top 500 Remodelers list typically generate annual revenues of $1 million or more.

Source: JCHS tabulations of *Qualified Remodeler* magazine's annual Top 500 Remodelers lists.

But there is no one-size-fits-all approach to growth. Remodeling companies that have been successful in establishing a larger-scale presence in the market often employ multiple business strategies that include franchising and licensing, venture capital funding, manufacturer partnerships, and installed sales arrangements. In addition, many operate across several business segments or serve more than one niche market. While each approach has its own merits and challenges, they all help remodeling companies accelerate their expansion into new markets and gain wider brand recognition. Indeed, firms that succeed in achieving economies of scale are much better positioned to thrive in a volatile environment.

POTENTIAL LABOR SHORTAGES

As the remodeling recovery proceeds, new hurdles to growth may arise—in particular, labor bottlenecks if employment levels cannot ramp up quickly enough to meet rising demand. Such a scenario is even more likely if builders-turned-remodelers refocus entirely on home construction as expected. Annual surveys by the ManpowerGroup have found that positions in the skilled trades—including carpentry, plumbing, electrical, and HVAC, among other construction-related specialties—have become increasingly hard to fill in recent years. Indeed, employers ranked the difficulty of finding such workers at the top of their lists in 2010, 2011, and 2012.

The growing emphasis on college education, together with diminishing emphasis on trade-school education and apprenticeships, is likely to blame. In 2000–11, full-time enrollment in four-year colleges increased by more than 30 percent, while enrollment in vocational schools fell nearly 11 percent. The number of active apprenticeship programs also dropped more than 25 percent between 2001 and 2011. Moreover, a 2009 building products manufacturer's survey found that only 6 percent of high-school students were interested in pursuing a career in the skilled trades.

THE OUTLOOK

The severe cutback in home improvement spending that accompanied the housing market crash and Great Recession put many smaller and younger remodeling contractors out of business. Those establishments that survived were likely larger and more experienced going into the downturn and able to quickly trim excess without sacrificing quality and customer satisfaction. In addition, larger-scale remodelers have diversified into additional market segments and new growth areas, such as energy-related retrofits, rehabilitation of distressed properties, and renovations allowing older homeowners to age in place. They have also used this period to foster long-term client relationships and to target their marketing resources more effectively. As a result, larger remodeling contractors should continue to leverage their scale to gain market share as the home improvement market returns to healthy, sustainable growth.

4

GEOGRAPHIC DISTRIBUTION OF IMPROVEMENT ACTIVITY

Although per-owner spending on home improvements averaged $4,700 in 2010–11, this national number masks the wide range of expenditure patterns across the country. At one extreme, about 43 percent of owners reported no remodeling projects over this period. At the other, 4 percent of owners spent at least $25,000 on home improvements. Several local market factors—including household demographics and mobility rates, as well as housing characteristics and economic conditions—explain this wide variation.

For example, with their relatively higher average incomes and older, more expensive homes, owners in the Northeast report home improvement expenditures that are more than 20 percent above the national average. Similarly, owners in the South, where both incomes and home values are lower, spent almost 10 percent less than the national average. While spending in all regions rose during the housing boom and declined with the bust, owners in the West reported a particularly rapid run-up in expenditures followed by a steep decline, mirroring the volatility of house prices in the region.

METROPOLITAN AREA TRENDS

Most home improvement spending occurs in the nation's metropolitan areas. Indeed, 75 percent of the nation's homeowners lived in metro areas and accounted for 81 percent of all remodeling expenditures in 2011 **(Figure 16)**. The high concentration of spending is due in part to the fact that incomes and mobility rates tend to be higher in metro than in non-metro areas. Given that there is generally less available land to build new homes, metro area house prices also tend to be significantly higher. In fact, average house prices in metropolitan areas were 66 percent above those in non-metropolitan areas in 2011. It is therefore unsurprising, given this degree of concentration, that homeowners in metropolitan areas were responsible for a disproportionate share of improvement spending growth leading into the housing market upturn and a disproportionate share of the decline during the downturn.

Home improvement spending is also highly concentrated in the larger metros. In 2011, the 50 largest markets accounted

for 60 percent of expenditures. And of these, just 15 contributed more than a third of the total. Large metro areas were also disproportionately hit by the foreclosure crisis. Between 2007 and 2011, about 57 percent of existing home sales, but two-thirds of all real estate owned (REO) sales by lenders, were located in the 50 largest metros. Similarly, repair spending on distressed properties is concentrated in these major metro areas.

TOP-SPENDING METROPOLITAN AREAS

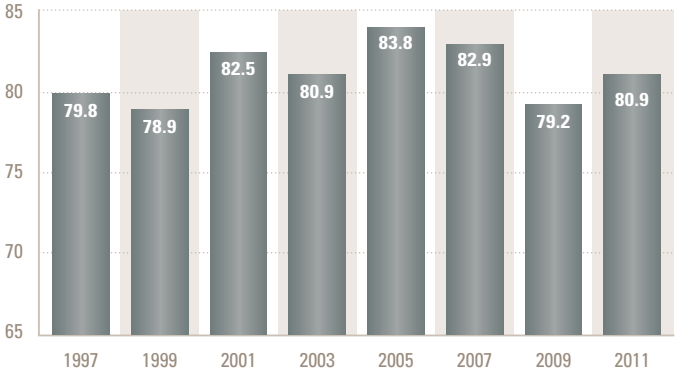
Of the 50 largest metro areas in the country, the top 10 in terms of average home improvement spending per owner in 2011 are concentrated in coastal regions. Four are along the Northeast seaboard (Boston, Providence, New York, and Washington, DC), while two others (San Francisco and San Jose) are on the West Coast. That leaves four metros in the interior regions of the country—Austin, Denver, Phoenix, and Las Vegas—on the top spending list.

With their relatively older housing stocks and higher incomes, metropolitan areas on both coasts of the country have traditionally had the highest per-owner spending levels. More recently, however, high mobility rates and high levels of spending on distressed properties have raised per-owner outlays in key markets of the South and West **(Figure 17)**. This regional shift largely reflects the rising shares of younger households moving into these areas, as well as stronger economic conditions. Turnover of distressed properties is also fueling remodeling expenditures in several of these markets as lenders prepare foreclosed homes for sale.

Figure 16

The Metro Share of Improvement Spending Increased During the Housing Upturn and Dipped During the Downturn

Metro Area Share of Homeowner Improvement Spending (Percent)

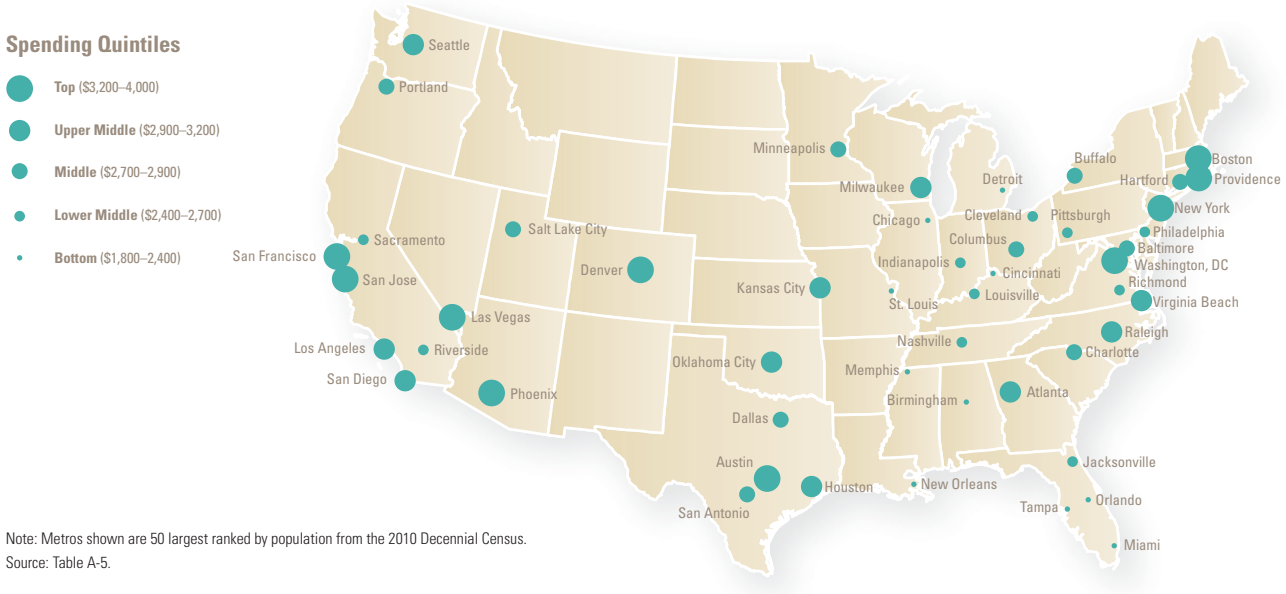


Source: JCHS tabulations of the 1997–2011 AHS.

Figure 17

While Still Concentrated on the Coasts, Improvement Spending Has Increased in Metros of the South and West

Average Annual Per-Owner Improvement Spending in 2011



Note: Metros shown are 50 largest ranked by population from the 2010 Decennial Census.
Source: Table A-5.

Figure 18

Incomes, Home Values, and Mobility Rates Are Higher in Top Spending Markets

2011	Top 10 Metros	Bottom 10 Metros	Major Metros
Average Share of Owners Earning More than $100,000	42%	26%	32%
Median Home Value	$289,000	$153,000	$210,000
Median Home Equity	$159,000	$70,000	$110,000
Average Share of Spending by Top 5 Percent of Owners	53%	39%	45%
Share of Improvement Spending on Upper-End Discretionary Projects	24%	16%	20%
Average Share of Owners That Moved in 2008 or Later	18%	15%	16%
Average Annual Remodeling Expenditures per Owner	$3,500	$2,200	$2,800

Notes: Top and bottom metros are sorted by average annual per-owner improvement spending in 2011. Based on data for the 50 largest metro areas ranked by population from the 2010 Decennial Census. Home value, equity and remodeling spending data were only available for 30 of the metro areas from the 2011 AHS.

Source: Table A-5.

HOUSEHOLD INCOME AND METRO SPENDING LEVELS

In general, remodeling spending per homeowner is higher in metropolitan areas with larger shares of higher-income households **(Figure 18).** These households tend to live in higher-valued homes and typically have more home equity to finance improvement projects. Nationally, owners with household incomes above $100,000 in 2011 spent nearly two-and-a-half times more on average than owners with incomes below $100,000. As a result, metro areas where at least 45 percent of households earned above $100,000—including Boston, New York, San Francisco, San Jose, and Washington, DC—ranked among the top 10 for average remodeling expenditures per owner.

Improvement spending in metros with larger shares of higher-income households is generally greater in part because of the presence of homeowners in the top 5 percent of spenders (with outlays of at least $24,100 in 2010–11). For example, among metros with the highest expenditures per household, the top 5 percent of spenders contributed 53 percent of total outlays. Among metros with the lowest expenditures per household, however, the top 5 percent contributed only 39 percent. To underscore the importance of top spenders to overall metro area activity, household spending among the remaining 95 percent of homeowners averaged only $1,500 in 2010–11. In metropolitan areas with smaller shares of high-income households, improvement activity per owner was much lower. In three such metros—Birmingham, Orlando, and Tampa—less than 25 percent of homeowners earned more than $100,000 in 2011.

Households with higher incomes often have more resources to spend on upper-end discretionary projects, including major kitchen and bath remodels or room additions. Indeed, metros with the largest shares of spending on such projects in 2011—Los Angeles, New York, Providence, San Diego, San Francisco, and San Jose—also had greater concentrations of higher-income households. Within the top 10 spending metros, homeowners spent 24 percent of their remodeling budgets on upper-end projects. In the bottom 10 metros, that share was just 16 percent. Not surprisingly, metropolitan areas with larger shares of spending on upper-end discretionary projects also tend to have higher home values and equity levels. The exceptions are Columbus and Pittsburgh, which both rank among the top 10 in terms of share of spending on upper-end projects but have relatively low median home values and home equity levels.

CONTRIBUTIONS OF HOUSING STOCK AGE AND HOUSEHOLD MOBILITY

The age of the owner-occupied housing stock is another key factor in metro area remodeling expenditures. Owners of older homes not only need to replace worn-out exteriors and systems (such as roofs, siding, and heating and air conditioning equipment), but they also often want to add some of the products and features available in newer homes. Most of the country's older housing stock is located in the Northeast and Midwest.

Metros with the largest shares of homes built before 1960 include Boston, Buffalo, Cleveland, New York, Philadelphia, and Pittsburgh. Of course, some of these older cities also have larger shares of higher-income households, which help to boost local improvement spending levels. Other metros with older housing stocks that have relatively small shares of higher-income homeowners (particularly Buffalo, Cleveland, and Pittsburgh) thus rank in the middle to low range of spending per owner.

Nonetheless, the age of the housing stock has apparently become less of a factor than homeowner mobility rates (the share of owners that moved in the past four years) in determining metro-level improvement spending. Households tend to spend more on remodeling when they first move into a home. As a result, a number of cities in the South and West—where the housing inventory is relatively new but mobility rates are high—now report much higher average improvement expenditures than in the past. In particular, Las Vegas

and Phoenix all have housing stocks that were largely built in 1960 or later and all have small shares of higher-income homeowners, which typically correspond to lower spending levels. Even so, these metros now rank at or near the top of the list in terms of per-owner remodeling spending.

Other metros with high mobility rates are Austin, Denver, Oklahoma City, Raleigh, and Riverside, where at least one in five owner households in 2011 moved within the previous four years. Metros with high spending levels as well as high mobility rates tend to be concentrated in the Southwest, where the population is younger and employment growth has been stronger in recent decades than elsewhere in the country. In contrast, four out of the five metros with the lowest rates of homeowner mobility—Chicago, Cleveland, Philadelphia, and Pittsburgh—rank in the lowest two-fifths of metros for homeowner improvement spending.

PRESENCE OF DISTRESSED PROPERTIES

During the housing downturn, the plunge in house prices precipitated a wave of foreclosures in many metropolitan areas. The foreclosure process often takes years to complete, and most foreclosed homes spend additional time in the lender's REO inventory. During this protracted period, millions of distressed properties receive little or no upkeep. But once foreclosure is completed, banks and other institutions typically invest in repairs to get the homes ready for sale and back into active use.

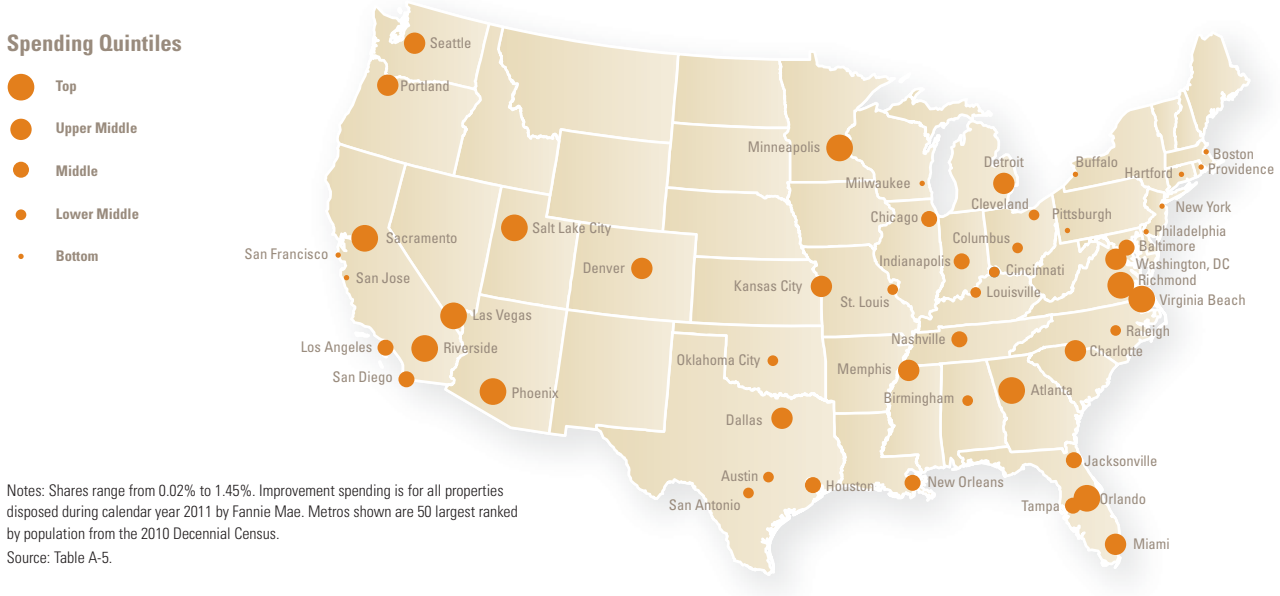
According to Joint Center estimates, lender expenditures on distressed properties amounted to $1.7 billion in 2011, with Atlanta, Las Vegas, Orlando, Phoenix, and Riverside posting the highest shares of spending **(Figure 19)**. Local housing market conditions dictate the average amount that banks and institutions expend to prepare distressed properties for the market. In 2011, lenders invested considerably more per property in higher-priced markets such as Denver, Los Angeles, Portland, Raleigh, and Washington, DC. In large measure, this disparity reflects the fact that properties in these markets often need to be in better condition to sell at a competitive price within a reasonable amount of time. By comparison, in depressed Rust Belt metros such as Cleveland, Detroit, Milwaukee, and Pittsburgh, improvement spending per REO property was less than a third of outlays in more competitive markets.

Mirroring these trends, improvement spending by homeowners in markets with higher levels of distressed properties varies widely depending on local economic conditions as well as household income, mobility rates, and other factors. Detroit, Memphis, and Miami all ranked within the bottom quintile in terms of per-owner improvement spending. All three of these

Figure 19

Pre-Sale Spending on Distressed Properties Has Been Especially Strong in Many Southeast and Southwest Markets

Spending on Bank-Owned Properties as a Share of Total Homeowner Improvement Spending in 2011 (Percent)



Notes: Shares range from 0.02% to 1.45%. Improvement spending is for all properties disposed during calendar year 2011 by Fannie Mae. Metros shown are 50 largest ranked by population from the 2010 Decennial Census.
Source: Table A-5.

metropolitan areas also had low shares of higher-income households as well as relatively low mobility rates. In contrast, metros with high mobility rates—Las Vegas and Phoenix—ranked in the top quintile for spending. The higher spending in these areas also relates to repairs made to distressed properties that were being returned to the owner-occupied stock.

Patterns of homeowner improvement activity have changed significantly in the aftermath of the housing market boom and bust. Metros with larger stocks of distressed properties—such as Denver, Las Vegas, and Phoenix—have seen a rebound in spending and are now among the top 10 major metros for average per-owner expenditures, up from the middle or bottom ranks in previous decades. At the same time, areas that were especially hard hit by the economic recession—Detroit being an obvious example—have seen the largest spending declines over the past decade.

LONGER-TERM TRENDS

Much of the increase in remodeling spending that took place in metro areas during the boom years was lost during the housing bust. Among the largest 10 metros in the country, average spending rose significantly in most of these metros in the 1990s before easing or declining during the last decade. Over the entire period from the 1990s to 2011, Atlanta, Dallas, Houston, and Washington, DC, posted aggregate increases of 30 percent or more in spending. At the other extreme, Chicago and Philadelphia registered inflation-adjusted declines **(Figure 20).**

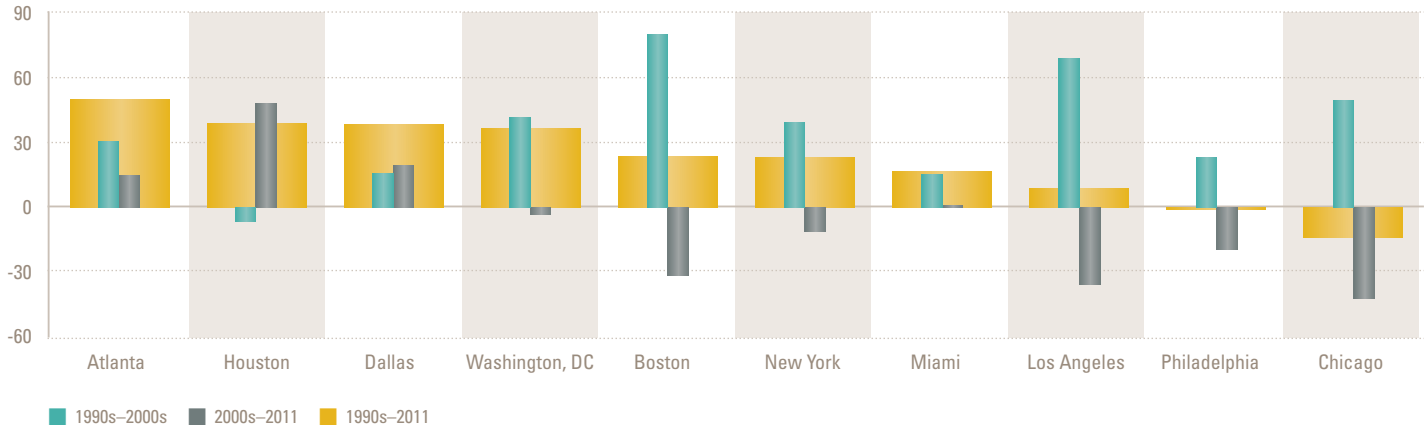
Remodeling markets that have performed the best since the 1990s tend to be Sunbelt metros. In contrast, Boston, Chicago, and Los Angeles posted the strongest spending gains during the remodeling boom years, but also the steepest declines over the past decade. Indeed, these areas recorded below-average growth on net since the 1990s compared with other large metros.

As the housing recovery continues to strengthen and homeowners restore wealth lost during the economic crisis, remodeling activity in metropolitan areas is likely to increase. Given a more stable economic environment for house prices and employment growth, metropolitan spending patterns should become less volatile than in the past two decades—a favorable development for an industry that is challenged by unpredictability.

Figure 20

Improvement Spending in Sunbelt Metros Has Generally Increased Since the 1990s

Average Annual Inflation-Adjusted Per-Owner Improvement Spending (Percent change)



Note: Metros shown are 10 largest by population from the 2010 Decennial Census, ranked by percent change from the 1990s to 2011.

Source: Table A-6.

5

RENEWING HOMES FOR TOMORROW'S HOUSEHOLDS

Over the past decade, both the level and composition of home improvement spending have changed significantly. In large measure, these shifts have come in response to the housing bust and economic recession, with falling house prices and uncertain job markets limiting owners' ability to invest in their homes. In this environment, older, longer-term homeowners have led improvement spending because they were less affected by the housing crash. Over the longer term, though, demographic trends will put younger households and immigrants at the forefront of the home improvement market.

THE BABY BOOMERS STILL DRIVE SPENDING

Now in their mid-40s to mid-60s, the baby boomers have dominated the housing market ever since they began to form households in the late 1960s and 1970s. Although their role decreased somewhat during the latest housing boom as younger generations entered the market in record numbers, they regained prominence once the bust hit.

One reason for relatively strong home improvement spending by older households is that they have remained employed longer. In the depths of the recession in 2009, the national unemployment rate hit 9.3 percent. Among workers age 55 and over, however, the jobless rate was just 6.6 percent and it has held about 2.0 percentage points below the national average ever since. This trend is especially noteworthy given that the share of the population age 55 and over in the labor force (either working or actively looking for work) has climbed steadily from 30 percent in 1990 to 40 percent today.

Homeowners in this age group also fared better than younger owners during the housing downturn in that they lost a smaller share of their home equity. Since home equity represents a large portion of household wealth for most Americans, older owners have been more fortunate in this regard as well. In fact, the median inflation-adjusted net worth of the age 55-and-over homeowner population fell less than a third as much on a percentage basis as that of the under-55 population between 2007 and 2010.

At the same time, however, the housing market crash helped to drive down the relatively low mobility rates of older homeowners (the share that moves to new residences in a given year) even further. The mobility rate for owners age 45–64 fell

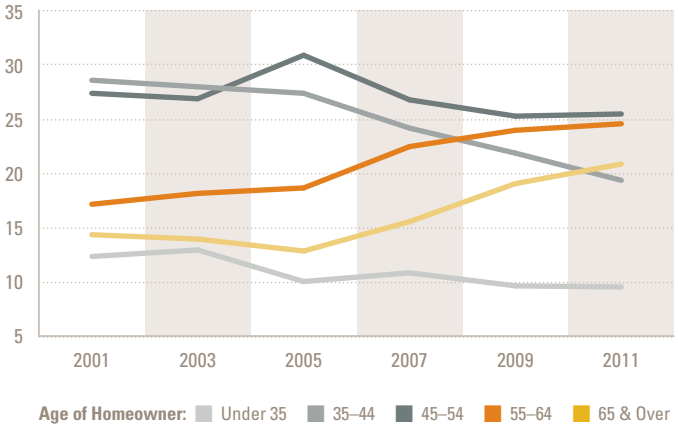
from 4.1 percent in 2007 to 3.1 percent in 2011, while that for owners age 65 and over dipped from 2.7 percent to 1.8 percent. Some of these older households may have put off selling their homes until they regained a portion of the lost value or until prices stabilized. Others may have had trouble selling because potential buyers were unable to sell their own homes or obtain financing.

But even if mobility rates return to more traditional levels as the housing market recovers, the overwhelming majority of older homeowners prefer to remain in their current homes as they age. Retrofitting their homes to accommodate their changing needs thus represents a significant opportunity for the remodeling industry. So far, many older households have yet to make these modifications. For example, although a majority of owners age 55 and older have a bedroom on the first floor to avoid stairs, only a third have wheelchair-accessible kitchens, and fewer than one in six have raised toilets, door handles rather than knobs, or wider doorways and hallways for easier navigation. Younger owners are even less likely to have such features in their homes.

Figure 21

Homeowners Age 55 and Over Account for Close to Half of Improvement Spending

Share of Total Homeowner Improvement Spending (Percent)



Source: JCHS tabulations of the 2001–11 AHS.

Undertaking home modifications to allow aging in place is expected to keep older owners active in the home improvement market. Indeed, older owners have already increased their share of expenditures on remodeling projects. A decade ago, owners age 55 and over accounted for less than one-third of all home improvement spending. By 2011, this share had grown to over 45 percent, with most of the increase occurring during the housing downturn **(Figure 21)**. Part of this share gain, however, reflects the rising number of households in this age range once the oldest baby boomers turned age 55 in 2001. Another factor is that older households were able to sustain their high homeownership rates during the housing downturn.

Even so, per-household spending among owners age 55 and up also rose over the past decade. Of the nearly $30 billion inflation-adjusted increase in home improvement expenditures in 2001–11 for this age group, higher per-owner spending accounted for almost half (48 percent). In fact, owners age 55–64 and 65 and over were the only groups that posted significantly higher inflation-adjusted per-owner spending in 2011 than a decade earlier.

YOUNGER HOUSEHOLDS POISED TO LEAD

While the baby-boom generation has been the driving force in the home improvement market for decades, younger households will be the primary market for remodeling projects in the coming years. In 2005, 81.2 million members of the so-called baby-bust generation (born between 1965 and 1984) were age 21–40 and entering their prime home improvement spending years. Boosted by strong immigration, this group outnumbered the baby boomers when that generation was in the same age range in 1985. And when the echo boomers (born between 1985 and 2004) are age 21–40 in 2025, members of that generation will number some 91.7 million according to US Census Bureau projections.

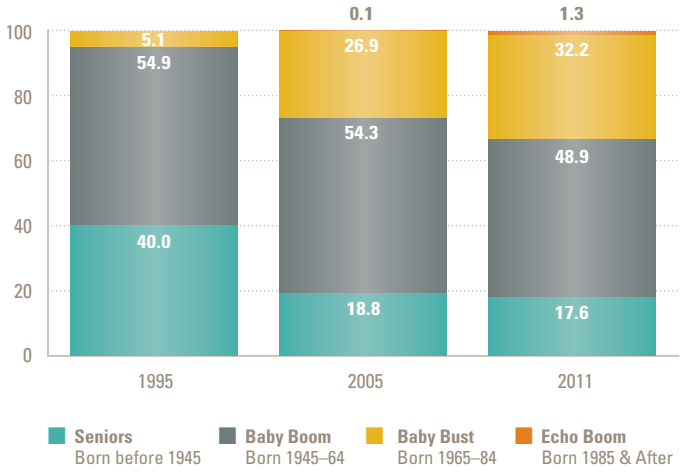
As households age, their home improvement spending grows. For example, the baby-bust generation was just beginning to enter the homebuying market in 1995 and thus accounted for only 5 percent of improvement spending by owners in that year. Their share of improvement expenditures jumped to 27 percent in 2005 and then to almost a third of the market in 2011 **(Figure 22).** Given that the oldest members of the echo-boom generation were only in their mid-20s in 2011 and just beginning to pursue homeownership, their share of improvement spending was only about 1 percent that year.

The sheer number of younger households bodes well for the remodeling industry. In the meantime, though, the housing downturn, weak economic recovery, and tight credit environment have deterred these households from buying homes. As a result, the homeownership rate among households under age 35 dropped from 43 percent in 2005 to just over 36 percent in the third quarter of 2012. The decline among households age 35–44 was equally sharp, from about 69 percent to less than 62 percent. Given historical patterns as well as recent results from Fannie Mae's National Housing Survey, however, the

Figure 22

The Baby-Bust Generation Is Expanding Its Presence in the Home Improvement Market

Share of Total Homeowner Improvement Spending (Percent)



Source: JCHS tabulations of the 1995, 2005 and 2011 AHS.

Figure 23

Spending by Younger Owners Rose Less During the Upturn and Generally Fell More During the Downturn

Average Annual Per-Owner Improvement Expenditures (2011 dollars)

Age of Homeowner	2001	2007	2011	Percent Change 2001–07	Percent Change 2007–11
Under 35	2,170	2,950	2,200	36	-25
35–44	2,960	4,020	2,700	36	-33
45–54	2,750	3,650	2,610	33	-28
55–64	2,420	3,670	2,590	52	-29
65 and Over	1,390	2,130	1,840	53	-14
Total	**2,330**	**3,280**	**2,370**	**41**	**-28**

Source: JCHS tabulations of 2001, 2007 and 2011 AHS.

overwhelming majority of young households expects to buy homes sometime in the future.

Many younger households that did manage to purchase homes during the housing boom lost significant equity during the bust. Since many bought near the peak of the market, they had little opportunity to benefit from the long run-up in home values. In 2007, homeowners of all ages held an average of $199,000 in equity; by 2011, that figure had dropped 23 percent to $154,000. But owners under the age of 35 saw their equity fall some 32 percent over this period, from $85,000 to about $58,000. The equity of owners age 35–44 declined by the same percentage, from $160,000 to $109,000.

According to Joint Center analysis, the share of owners under age 35 with less than 20 percent equity in their homes thus increased from 36 percent in 2007 to 44 percent in 2011, while that of owners age 35–44 rose from 19 percent to 30 percent. As noted earlier, owners with less than 20 percent equity spend significantly less on home improvements. Indeed, lower home equity not only limits the amount that owners can borrow to undertake projects, but it also discourages any investment at all. As a result, after climbing sharply between 2001 and 2007, overall inflation-adjusted per-owner improvement spending fell some 28 percent by 2011, with owners age 35–44 posting the largest declines **(Figure 23)**.

Meanwhile, many other younger individuals were unable to form independent households, doubling up instead with family or other individuals to wait out the Great Recession. Between 2005 and 2011, the number of owner households that included one or more adult children (age 21 or older) increased 15 percent, from 8.9 million to 10.2 million.

All of these conditions—the decline in both household formation and homeownership rates, and the loss of equity among those who did buy homes—served to depress improvement spending among younger households after the housing crash. The presence of adult children in the household (either those who continued to live with parents or moved back in after living independently) also appears to have had a dampening effect on spending.

THE ROLE OF IMMIGRANTS

The US Census Bureau reports that more than 40 million foreign-born people resided in the United States in 2011, accounting for 13 percent of the population. These individuals make up nearly 16 million households, or 14 percent of the national total. With 37 percent growth since 2001 (and 4 percent since 2007, despite the weak economy), foreign-born homeowners generated $16 billion in home improvement spending in 2011 **(Figure 24)**.

Home improvement spending by immigrant owners tends to be geographically concentrated. Immigrants traditionally cluster in key gateway cities when they first arrive in the United States, thus accounting for a significant share of the local population. Indeed, the immigrant share of homeown-

ers exceeds one-third in Los Angeles, Miami, and San Jose. Not surprisingly, foreign-born owners in these metros also accounted for at least 30 percent of home improvement spending in 2011—the highest immigrant spending shares for any major metro areas in the country.

The recent decline in the foreign-born share of overall improvement spending reflects the fact that these households disproportionately live in the urban areas of the South and West, where the housing bust hit particularly hard. In addition, foreign-born households have lower homeownership rates than native-born households. They also tend to be younger, which means that they have recently faced the same difficult housing market conditions as their native-born counterparts.

Moreover, the composition of the immigrant population has shifted in ways that depress spending among this group. While the total foreign-born population increased by 2.3 million between 2007 and 2011, the number of immigrants from Europe and Canada fell over this period, as did those from Mexico. These declines were more than offset by inflows from Central and South America (up almost 1.0 million), and from Asia and the Middle East (up 1.4 million).

In 2011, per-owner improvement spending for foreign-born households was 17 percent lower on average than for native-born households. But spending among European and Canadian immigrants was more than 20 percent higher than among the native born. The declining share of immigrants from these regions thus served to reduce average improvement spending among foreign-born homeowners.

TOMORROW'S HOME IMPROVEMENT MARKET

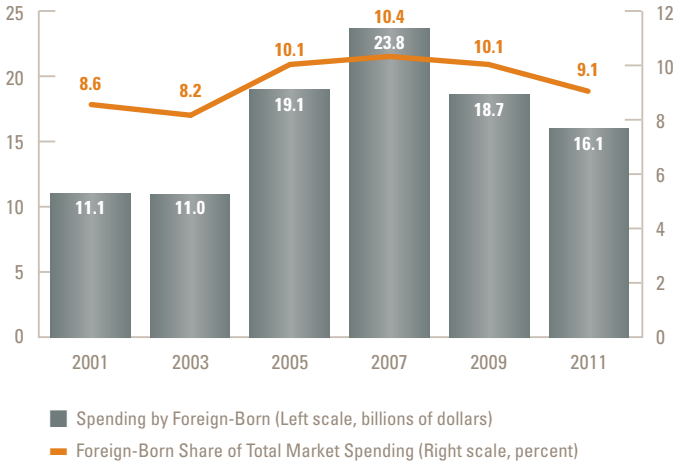
Even after the housing market recovers, the aging of the US population will continue to have a profound impact on home improvement demand. According to Joint Center projections, about 12.5 million households age 55 or older will be added on net between 2010 and 2020, while the number of households under age 55 will change only modestly. The housing choices of these older households will therefore shape the remodeling market over the next several years.

In particular, lower mobility rates among older owners will likely drive growing demand for retrofits to allow aging in place. While housing turnover is also associated with higher improvement spending, Joint Center research has shown that among older owners who have lived in their homes for at least 10 years, spending does not decline with duration of residence. Even those who have lived in their homes for 20 years

Figure 24

Immigrant Homeowners Remain an Important Remodeling Market Segment

Improvement Spending by Foreign-Born Homeowners

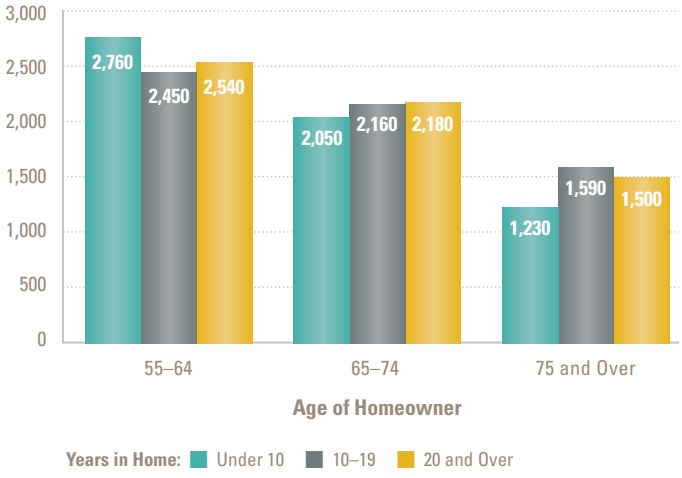


Source: JCHS tabulations of the 2001–11 AHS.

Figure 25

Remodeling Expenditures Decline with Age of the Owner, But Not with Length of Time in the Home

Average Annual Per-Owner Spending in 2011 (Dollars)



Source: JCHS tabulations of the 2011 AHS.

or more spend about the same on improvements as same-age owners who have lived in their homes for less time **(Figure 25).**

Still, the longer-term health of the remodeling industry ultimately depends on the housing decisions of younger households. Members of the baby-bust generation are just reaching their prime home remodeling years, and with the help of strong immigration, they are nearly as large a market as the baby boomers. And the echo-boom generation is already slightly larger than the baby-boom generation in terms of births. The US Census Bureau projects that when they reach the 21–40 age range in 2025, they will outnumber the baby boomers at those same ages by more than 12 million (16 percent).

In addition, foreign-born households will contribute an increasing share of population growth. By 2015, net international migration is predicted to account for under a third of net population growth in the country, according to the US Census Bureau. This share should increase to more than 40 percent by 2025, before climbing to nearly 50 percent by 2030—thus continuing to augment the size of the already large younger generations.

In the near term, older households are thus helping to bolster the remodeling market by retrofitting their homes in ways that enable them to age in place. Demand for home improvement projects from this older group will help sustain spending until the baby-bust generation begins to dominate the market over the coming decade. The potential for even stronger growth in homeowner spending will come when the echo boomers start to reach their peak remodeling years near the middle of the next decade.

6 APPENDIX TABLES

The following Web tables provide historical data on improvement spending and additional homeowner detail such as income quintiles, nativity, metro status, and recent mover status. Visit the Joint Center's website at www.jchs.harvard.edu.

Table A-1

Total Homeowner Improvement Expenditures: 2011

	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)
Kitchen Remodels			
Minor	1,087	3,278	3,564
Major	730	19,121	13,959
Bath Remodels			
Minor	1,420	1,521	2,160
Major	1,004	9,139	9,177
Room Additions & Alterations			
Kitchen	33	30,219	1,000
Bath	317	7,373	2,334
Created finished bathroom from unfinished space	125	5,541	694
Added bathroom onto home	73	11,801	862
Bathroom created through structural changes	157	4,968	778
Bedroom	490	9,314	4,561
Created finished bedroom from unfinished space	205	6,760	1,386
Added bedroom onto home	98	23,147	2,271
Bedroom created through structural changes	256	3,531	904
Other	1,074	9,130	9,802
Created finished recreation room from unfinished space	237	7,233	1,716
Created other finished inside room from unfinished space	361	5,365	1,939
Added other inside room onto home	202	19,398	3,920
Other room created through structural changes	417	5,339	2,226
Outside Attachments			
Porch/Deck	662	5,113	3,385
Added porch onto home	250	5,732	1,433
Added deck onto home	428	4,555	1,952
Garage/Carport	152	10,260	1,556
Added attached garage onto home	80	16,999	1,364
Added carport onto home	74	2,585	192
Systems and Equipment Additions & Replacements			
Internal water pipes	1,451	1,049	1,522
Plumbing fixtures	3,997	785	3,137
Electrical wiring, fuse boxes or breaker switches	2,194	1,115	2,446
HVAC	3,665	4,558	16,706
Central air conditioning	2,431	3,789	9,210
Built-in heating equipment	2,364	3,171	7,496
Appliances/Major Equipment	7,369	691	5,089
Water heater	3,489	774	2,702
Built-in dishwasher	2,632	536	1,411
Garbage disposal	1,610	181	292
Security system	1,260	543	684
Exterior Additions & Replacements			
Roofing	3,672	5,888	21,617
Siding	1,073	4,713	5,059
Windows or doors	4,335	2,730	11,833
Interior Additions & Replacements			
Insulation	2,032	1,049	2,132
Flooring/Paneling/Ceiling	6,895	2,357	16,250
Wall-to-wall carpeting	2,440	1,890	4,612
Other flooring such as wood, tile, marble, or vinyl	4,770	1,967	9,382
Paneling or ceiling tiles	1,912	1,180	2,256
Other major improvements inside home	665	3,090	2,056
Disaster Repairs	942	12,658	11,919
Other Property Additions & Replacements	5,637	4,444	25,047
Other outside structure	237	7,431	1,759
Septic tank	177	4,195	744
Driveways or walkways	1,830	2,620	4,794
Fencing or walls	1,972	1,905	3,756
Patio, terrace, or detached deck	1,294	3,592	4,649
Swimming pool, tennis court, or other recreational structure	355	10,460	3,714
Shed, detached garage, or other building	1,036	4,141	4,288
Other major improvements or repairs to lot or yard	384	3,496	1,343
Total	**21,341**	**8,262**	**176,311**

Notes: Homeowner numbers do not add to total because respondents may report projects in more than one category. Household totals were estimated using American Housing Survey and American Community Survey data. Major remodels are defined as professional home improvements of more than $10,000 for kitchen projects and more than $5,000 for bath projects, and DIY improvements of more than $4,000 for kitchen projects and $2,000 for bath projects.

Source: JCHS tabulations of the 2011 American Housing Survey (AHS).

Table A-2

Professional and Do-It-Yourself Home Improvement Expenditures: 2011

	Professional			Do-It-Yourself		
	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)
Kitchen Remodels						
Minor	639	4,532	2,896	448	1,490	668
Major	428	24,974	10,684	302	10,837	3,275
Bath Remodels						
Minor	745	2,160	1,609	674	816	550
Major	522	12,801	6,680	482	5,177	2,497
Room Additions & Alterations						
Kitchen	27	33,940	919	6	13,477	81
Bath	169	10,609	1,798	148	3,611	536
Bedroom	216	14,998	3,245	275	4,779	1,316
Other	531	14,434	7,668	561	3,801	2,134
Outside Attachments						
Porch/Deck	337	7,645	2,575	325	2,490	810
Garage/Carport	82	15,191	1,249	70	4,429	308
Systems and Equipment Additions & Replacements						
Internal Water Pipes	888	1,489	1,323	563	354	199
Plumbing Fixtures	1,934	1,110	2,147	2,063	480	990
Electrical System	1,433	1,456	2,086	761	473	360
HVAC	3,212	4,783	15,365	514	2,607	1,341
Appliances/Major Equipment	4,802	789	3,786	2,883	452	1,302
Exterior Additions & Replacements						
Roofing	3,018	6,540	19,742	653	2,870	1,875
Siding	720	6,101	4,392	354	1,888	667
Windows/Doors	2,825	3,554	10,039	1,510	1,188	1,794
Interior Additions & Replacements						
Insulation	1,059	1,502	1,590	973	557	542
Flooring/Paneling/Ceiling	4,308	2,974	12,809	2,989	1,151	3,441
Other Interior	467	3,692	1,725	227	1,455	331
Disaster Repairs	775	13,989	10,842	167	6,464	1,077
Other Property Additions & Replacements	3,449	5,835	20,127	2,521	1,952	4,920
Total	**16,033**	**9,062**	**145,297**	**10,039**	**3,089**	**31,013**

Notes: Homeowner numbers do not add to total because respondents may report projects in more than one category. Household totals were estimated using American Housing Survey and American Community Survey data. Major remodels are defined as professional home improvements of more than $10,000 for kitchen projects and more than $5,000 for bath projects, and DIY improvements of more than $4,000 for kitchen projects and $2,000 for bath projects. Job categories are aggregations of the detailed projects reported in Table A-1.

Source: JCHS tabulations of the 2011 AHS.

Table A-3

Total Improvement Expenditures by Homeowner Characteristics: 2011

	Number of Homeowners (000s)	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)
Income				
Under $40,000	24,916	6,268	5,224	32,744
$40–79,999	22,562	6,592	6,820	44,958
$80–119,999	13,160	4,104	8,801	36,119
$120,000 and Over	12,927	4,220	14,571	61,489
Home Value				
Under $100,000	19,403	5,301	4,405	23,351
$100–149,999	13,157	3,806	5,714	21,748
$150–199,999	11,342	3,359	7,536	25,312
$200–249,999	7,602	2,274	8,077	18,366
$250–399,999	12,663	3,721	10,183	37,890
$400,000 and Over	10,209	2,881	17,233	49,643
Age of Household Head				
Under 35	7,670	2,343	7,206	16,884
35–44	12,704	3,748	9,141	34,258
45–54	17,249	5,022	8,955	44,969
55–64	16,797	4,920	8,828	43,434
65 and Over	19,957	5,308	6,926	36,766
Generation				
Echo Boom (Born 1985 and later)	1,371	422	5,313	2,244
Trailing Baby Bust (Born 1975–84)	8,425	2,531	7,616	19,278
Leading Baby Bust (Born 1965–74)	13,667	4,006	9,375	37,553
Trailing Baby Boom (Born 1955–64)	17,682	5,175	8,637	44,694
Leading Baby Boom (Born 1945–54)	15,755	4,623	8,985	41,539
Matures (Born 1935–44)	10,149	2,774	7,517	20,852
Seniors (Born before 1935)	7,328	1,809	5,610	10,151
Race/Ethnicity				
White	58,101	17,031	8,729	148,662
Black	5,967	1,596	5,872	9,372
Hispanic	6,351	1,724	6,155	10,609
Asian	2,800	653	8,263	5,399
Other/Mix	1,157	337	6,723	2,268
Spending Level				
Under $2,500	9,259	9,259	884	8,185
$2,500–4,999	3,600	3,600	3,560	12,813
$5,000–9,999	3,832	3,832	6,974	26,726
$10,000–19,999	2,607	2,607	13,566	35,370
$20,000–34,999	1,166	1,166	25,794	30,083
$35,000–49,999	402	402	41,242	16,594
$50,000 and Over	474	474	98,201	46,540
No Projects	53,035			
Total	**74,376**	**21,341**	**8,262**	**176,311**

Note: Income data exclude households that did not respond to the question.
Source: JCHS tabulations of the 2011 AHS.

Table A-4

Professional and Do-It-Yourself Improvement Expenditures by Homeowner Characteristics: 2011

	Professional				Do-It-Yourself			
	Number of Homeowners (000s)	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)	Number of Homeowners (000s)	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)
Income								
Under $40,000	24,916	4,584	5,796	26,568	24,916	2,791	2,212	6,176
$40–79,999	22,562	4,744	7,454	35,361	22,562	3,350	2,865	9,597
$80–119,999	13,160	3,103	9,416	29,216	13,160	2,052	3,364	6,903
$120,000 and Over	12,927	3,497	15,283	53,446	12,927	1,764	4,560	8,043
Home Value								
Under $100,000	19,403	3,504	4,957	17,369	19,403	2,894	2,067	5,982
$100–149,999	13,157	2,755	6,000	16,527	13,157	1,930	2,704	5,221
$150–199,999	11,342	2,554	8,050	20,557	11,342	1,670	2,847	4,755
$200–249,999	7,602	1,759	8,664	15,238	7,602	1,042	3,004	3,129
$250–399,999	12,663	3,003	10,650	31,976	12,663	1,539	3,843	5,914
$400,000 and Over	10,209	2,460	17,738	43,630	10,209	964	6,241	6,013
Age of Household Head								
Under 35	7,670	1,579	7,611	12,019	7,670	1,464	3,324	4,865
35–44	12,704	2,640	10,135	26,756	12,704	2,105	3,563	7,502
45–54	17,249	3,591	10,234	36,750	17,249	2,678	3,069	8,219
55–64	16,797	3,785	9,799	37,084	16,797	2,182	2,910	6,350
65 and Over	19,957	4,438	7,365	32,688	19,957	1,610	2,532	4,077
Generation								
Echo Boom (Born 1985 and later)	1,371	257	5,343	1,372	1,371	285	3,057	872
Trailing Baby Bust (Born 1975–84)	8,425	1,742	8,135	14,168	8,245	1,543	3,311	5,110
Leading Baby Bust (Born 1965–74)	13,667	2,834	10,477	29,694	13,667	2,210	3,556	7,859
Trailing Baby Boom (Born 1955–64)	17,682	3,725	9,782	36,440	17,682	2,719	3,036	8,254
Leading Baby Boom (Born 1945–54)	15,755	3,639	9,892	36,001	15,755	1,930	2,869	5,538
Matures (Born 1935–44)	10,149	2,304	8,005	18,441	10,149	905	2,664	2,411
Seniors (Born before 1935)	7,328	1,532	5,993	9,182	7,328	446	2,170	969
Race/Ethnicity								
White	58,101	12,787	9,643	123,304	58,101	8,107	3,128	25,358
Black	5,967	1,331	5,982	7,965	5,967	564	2,496	1,407
Hispanic	6,351	1,119	6,795	7,601	6,351	979	3,073	3,008
Asian	2,800	534	8,612	4,600	2,800	233	3,434	799
Other/Mix	1,157	261	6,991	1,828	1,157	156	2,814	440
Spending Level								
Under $2,500	5,407	5,407	910	4,919	4,901	4,901	666	3,266
$2,500–4,999	2,905	2,905	3,195	9,279	1,585	1,585	2,230	3,534
$5,000–9,999	3,392	3,392	6,247	21,188	1,620	1,620	3,418	5,537
$10,000–19,999	2,394	2,394	12,053	28,857	1,130	1,130	5,765	6,513
$20,000–34,999	1,099	1,099	23,265	25,556	464	464	9,754	4,527
$35,000–49,999	378	378	36,895	13,955	168	168	15,721	2,639
$50,000 and Over	459	459	90,536	41,543	172	172	29,120	4,997
No Projects	58,343				64,337			
Total	**74,376**	**16,033**	**9,062**	**145,297**	**74,376**	**10,039**	**3,089**	**31,013**

Note: Income data exclude households that did not respond to the question.
Source: JCHS tabulations of the 2011 AHS.

Table A-5

Metropolitan Market Trends in Home Improvement Spending: 2011

Metropolitan Area	Average Annual Per-Owner Improvement Spending ($)	Total Improvement Spending (Billions of $)	Number of Homeowners (000s)	Share of Owners with Income Above $100K (Percent)	Share of Total Spending by Top 5% of Owners (Percent)	Share of Spending on Upper-End Discretionary Projects (Percent)	Share of Owner-Occupied Units Built Before 1960 (Percent)	Share of Owners That Moved in 2008 or Later (Percent)	Number of Foreclosures Per 1,000 Owners	Share of Mortgaged Homeowners with Negative Equity as of 12/2011 (Percent)	Average Spending per Bank-Owned Property ($)	Share of Total Improvement Spending on Bank-Owned Properties (Percent)
Atlanta, GA	2,951	3.60	1,220	31	50	17	10	17	37	45	3,064	1.02
Austin, TX	3,393*	1.28	376	38	-	-	10	22	9	11	3,664	0.25
Baltimore, MD	2,813*	1.92	683	41	-	-	35	13	5	21	5,255	0.30
Birmingham, AL	2,317	0.70	303	24	38	14	20	16	3	15	1,546	0.28
Boston, MA	3,296*	3.56	1,081	47	-	-	50	14	5	17	2,962	0.13
Buffalo, NY	2,793	0.86	308	25	42	20	58	13	4	6	3,161	0.02
Charlotte, NC	2,878	1.28	444	29	38	14	13	18	16	21	4,005	0.43
Chicago, IL	1,970	4.39	2,230	34	39	15	38	13	12	29	2,454	0.35
Cincinnati, OH	2,383	1.32	554	29	35	17	33	15	10	27	1,731	0.18
Cleveland, OH	2,445	1.35	553	24	34	20	50	11	13	31	1,421	0.14
Columbus, OH	2,720	1.20	440	32	47	27	27	16	13	26	1,976	0.21
Dallas, TX	2,719	3.82	1,405	35	38	13	15	19	14	13	4,264	0.40
Denver, CO	3,597	2.28	634	37	47	17	19	20	18	25	3,788	0.41
Detroit, MI	1,824	2.09	1,146	26	35	13	42	14	29	44	1,222	0.46
Hartford, CT	2,851*	0.89	313	41	-	-	41	13	3	13	3,493	0.09
Houston, TX	2,954*	3.76	1,273	34	-	-	13	19	14	13	3,480	0.39
Indianapolis, IN	2,598	1.16	447	28	37	16	25	17	10	16	2,756	0.29
Jacksonville, FL	2,480*	0.85	343	25	-	-	15	17	19	47	2,548	0.37
Kansas City, MO	2,989	1.60	534	30	39	13	29	16	17	16	3,095	0.45
Las Vegas, NV	3,463*	1.29	374	26	-	-	3	27	88	68	1,567	1.04
Los Angeles, CA	2,916	6.02	2,064	41	60	32	43	14	17	23	4,215	0.37
Louisville, KY	2,490*	0.85	343	24	-	-	29	16	5	8	2,621	0.20
Memphis, TN	2,255	0.68	300	25	29	10	20	15	18	34	3,221	0.57
Miami, FL	2,166*	2.72	1,255	26	-	-	16	14	25	48	1,608	0.41
Milwaukee, WI	3,104	1.15	372	31	41	18	45	13	11	23	1,018	0.07
Minneapolis, MN	2,914*	2.64	905	36	-	-	29	16	16	22	3,381	0.59
Nashville, TN	2,665*	1.08	403	26	-	-	15	18	18	18	4,227	0.39
New Orleans, LA	2,138	0.60	281	26	49	17	24	15	8	19	2,484	0.32
New York, NY	3,208	11.14	3,473	46	57	31	52	12	1	13	2,721	0.03
Oklahoma City, OK	2,992*	0.94	314	24	-	-	20	21	10	8	2,606	0.16
Orlando, FL	2,424*	1.16	479	23	-	-	9	18	23	55	2,777	0.79
Philadelphia, PA	2,577	3.89	1,509	36	44	20	45	12	5	14	2,492	0.09
Phoenix, AZ	3,986	3.82	958	27	54	18	8	24	54	55	1,762	0.76
Pittsburgh, PA	2,589	1.76	679	25	40	22	53	12	3	8	1,313	0.04
Portland, OR	2,781	1.47	530	32	41	18	27	17	12	23	3,927	0.49
Providence, RI	3,654	1.39	381	35	60	30	45	13	9	23	1,674	0.10
Raleigh, NC	3,047*	0.88	289	36	-	-	7	20	8	13	4,377	0.22
Richmond, VA	2,452*	0.78	318	30	-	-	21	15	11	23	4,443	0.58
Riverside, CA	2,452	2.04	833	28	54	21	14	22	39	46	3,570	1.45
Sacramento, CA	2,466	1.15	468	33	43	15	18	18	34	41	1,824	0.58
Salt Lake City, UT	2,876*	0.72	251	29	-	-	22	19	15	21	4,267	0.68
San Antonio, TX	2,726*	1.31	481	27	-	-	18	19	11	8	2,810	0.17
San Diego, CA	3,207	1.81	565	39	56	32	20	17	18	30	2,908	0.29
San Francisco, CA	3,399	2.96	871	51	61	37	44	16	16	24	1,462	0.09
San Jose, CA	3,451	1.22	355	55	62	31	29	17	11	19	1,550	0.04
Seattle, WA	3,033*	2.48	818	40	-	-	25	16	16	25	3,502	0.51
St. Louis, MO	2,166	1.69	779	27	35	16	34	14	13	18	1,639	0.25
Tampa, FL	2,171*	1.60	738	21	-	-	14	16	14	50	1,958	0.34
Virginia Beach, VA	2,918	1.15	392	31	49	23	22	15	13	28	5,330	0.59
Washington, DC	3,589*	4.73	1,317	56	-	-	24	17	7	26	6,331	0.42
United States	**2,371**	**176.31**	**74,376**	**28**	**47**	**20**	**29**	**16**	**12**	**25**	**2,379**	**0.31**

Notes: Average annual per-owner improvement spending for 30 metro areas is from the American Housing Survey, supplemented by Joint Center estimates for 20 additional metro areas (indicated by asterisk). The overall list covers the top 50 metro areas ranked by population from the 2010 Decennial Census. Metro-level income, age of owner-occupied housing stock, mobility, and tenure variables are from the 2011 American Community Survey. Upper-end discretionary projects include major kitchen and bath remodels, as well as room additions and alterations with spending over $25,000 if done professionally and over $10,000 if DIY. Major kitchen and bath remodels are defined as professional home improvements of more than $10,000 for kitchen projects and more than $5,000 for bath projects, and DIY improvements of more than $4,000 for kitchen projects and $2,000 for bath projects. Bank-owned improvement spending data are from the Fannie Mae real estate owned spending database for 2011 dispositions, which is used as a proxy for all REO properties.

Source: JCHS tabulations of AHS, ACS, Fannie Mae, and CoreLogic data.

Table A-6

Historical Trends in Metropolitan Area Home Improvement Spending

Metropolitan Area	Average Annual Per-Owner Improvement Spending (2011 $)			Percent Change		
	1990–99	2000–09	2011	1990s–2000s	2000s–2011	1990s–2011
Atlanta, GA	1,971	2,573	2,951	30.5	14.7	49.7
Boston, MA	2,673	4,805	3,296*	79.8	-31.4	23.3
Chicago, IL	2,281	3,409	1,970	49.4	-42.2	-13.6
Cincinnati, OH	2,079	2,188	2,383	5.3	8.9	14.6
Cleveland, OH	1,836	2,843	2,445	54.9	-14.0	33.2
Columbus, OH	2,214	2,379	2,720	7.5	14.3	22.9
Dallas, TX	1,971	2,278	2,719	15.6	19.3	37.9
Detroit, MI	2,133	2,836	1,824	33.0	-35.7	-14.5
Houston, TX	2,133	1,995	2,954*	-6.5	48.0	38.5
Indianapolis, IN	1,755	2,408	2,598	37.2	7.9	48.0
Kansas City, MO	1,998	2,192	2,989	9.7	36.3	49.6
Los Angeles, CA	2,686	4,528	2,916	68.6	-35.6	8.5
Miami, FL	1,863	2,145	2,166*	15.2	1.0	16.3
Milwaukee, WI	2,011	3,176	3,104	57.9	-2.3	54.3
Minneapolis, MN	2,322	4,568	2,914*	96.7	-36.2	25.5
New Orleans, LA	2,241	3,201	2,138	42.8	-33.2	-4.6
New York, NY	2,605	3,621	3,208	39.0	-11.4	23.1
Orlando, FL	2,146	3,092	2,424*	44.1	-21.6	12.9
Philadelphia, PA	2,605	3,205	2,577	23.0	-19.6	-1.1
Phoenix, AZ	1,714	2,523	3,986	47.1	58.0	132.5
Pittsburgh, PA	1,809	1,662	2,589	-8.1	55.8	43.1
Sacramento, CA	2,187	4,478	2,466	104.8	-44.9	12.8
Salt Lake City, UT	1,566	2,969	2,166	30.2	-3.1	38.3
San Antonio, TX	2,281	1,277	2,876*	-6.3	113.4	26.1
San Diego, CA	1,363	4,559	2,726*	112.4	-29.6	99.9
San Francisco, CA	2,146	4,176	3,207	30.0	-18.6	49.4
Seattle, WA	3,213	3,475	3,399	47.9	-12.7	5.8
St. Louis, MO	2,349	2,261	3,033*	44.4	-4.2	29.1
Tampa, FL	1,606	1,983	2,171*	23.4	9.5	35.2
Virginia Beach, VA	1,309	2,128	2,918	62.5	37.1	122.8
Washington, DC	2,632	3,720	3,589*	41.3	-3.5	36.3

Notes: Average annual per-owner improvement spending is from the American Housing Survey, supplemented by JCHS estimates of spending for additional metro areas for 2011 (indicated by asterisk). Metro areas are those in the top 50 ranked by population from the 2010 Decennial Census for which current and historical data and/or estimates were available.

Sources: JCHS tabulations of the 1991–2011 AHS; JCHS model estimates.

The Harvard Joint Center for Housing Studies advances understanding of housing issues and informs policy. Through its research, education, and public outreach programs, the center helps leaders in government, business, and the civic sectors make decisions that effectively address the needs of cities and communities. Through graduate and executive courses, as well as fellowships and internship opportunities, the Joint Center also trains and inspires the next generation of housing leaders.

For additional information, please contact:

Joint Center for Housing Studies
Harvard University
1033 Massachusetts Avenue, 5th Floor
Cambridge, MA 02138

617.495.7908

www.jchs.harvard.edu

Prepared by the Joint Center for Housing Studies of Harvard University

William Apgar
Kermit Baker
Pamela Baldwin
Eric Belsky
Kerry Donahue
Angela Flynn
Christopher Herbert
Jackie Hernandez
Elizabeth La Jeunesse
Mary Lancaster
Irene Lew
Ellen Marya
George Masnick
Daniel McCue
Jennifer Molinsky
Nicolas Retsinas
Mark Richardson
Rocio Sanchez-Moyano
Alexander von Hoffman
Abbe Will

Editing and Project Management
Marcia Fernald

Report Design
John Skurchak

JCHS

Joint Center for Housing Studies
of Harvard University

FIVE DECADES OF HOUSING RESEARCH
SINCE 1959