IMPROVING AMERICA'S HOUSING 2015

EMERGING TRENDS IN THE REMODELING MARKET

JOINT CENTER FOR HOUSING STUDIES
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1 INTRODUCTION AND SUMMARY

As a $300 billion industry, home improvements and repairs currently generate about 1.8 percent of US economic activity—slightly below its decade-long average share. Indeed, the slow recovery in the housing market as well as in the broader economy is holding back homeowner spending on the larger discretionary projects that typically fuel growth in remodeling. But as prices for both single-family owner-occupied homes and rental properties continue to firm, and as new industry niches continue to emerge, investment in improvements to the nation's housing stock is likely to strengthen.

While the US construction industry is recovering, most sectors still have a long way to go. By 2014 estimates, spending on homebuilding was less than 60 percent of its pre-recession levels, while spending on nonresidential construction had retraced less than 40 percent of its drop during the downturn. Indeed, many analysts believe that changes in the demographics of the population and in the structure of the economy will delay a full rebound in both residential and nonresidential construction activity for several years.

The home improvement industry, however, has fared much better in the aftermath of the Great Recession. The US housing stock of more than 130 million homes requires regular investment merely to offset normal depreciation. And many households that might have traded up to more desirable homes during the downturn decided instead to make improvements to their current homes. Meanwhile, federal and state stimulus programs encouraged homeowners and rental property owners to invest in energy-efficient upgrades that they might otherwise have deferred. Finally, many rental property owners, responding to a surge in demand from households either facing foreclosure or nervous about buying amid the housing market uncertainty, reinvested in their units.

As a result, improvement and repair spending held up relatively well over the cycle, falling only 13 percent from peak to trough compared with the more than 60 percent plunge in residential construction spending. And while homebuilding is many years away from a full recovery, the home improvement industry could easily post record-level spending in 2015.

Even so, the remodeling industry faces a radically different landscape than before the recession. The generation of house-

holds now entering the housing market has different home improvement priorities. And, after years of declining revenue and high failure rates, a revitalized home improvement industry is in the process of repositioning itself to address emerging growth markets and rebuild its workforce to better serve its evolving customer base. Finally, as housing developers shift their focus from exurban communities toward urban and older suburban neighborhoods, high-income metropolitan areas on both coasts are re-emerging as leaders in home improvement spending. With these changes comes a new set of opportunities for the remodeling industry that will help to ensure its long-term growth.

THE IMPROVEMENT SPENDING RECOVERY

In 2013, homeowner improvement spending accounted for just under 65 percent of the nearly $300 billion remodeling market **(Figure 1).** While still below the nearly 70 percent peak in 2007, this share is up from the trough in 2011. Meanwhile, homeowner maintenance and repair expenditures totaled $52 billion in 2013, lifting its share from 14 percent in 2007 to about 18 percent by 2013. Investment in the rental stock was also on an uptick, increasing from just over 16 percent of spending in 2007 to about 18 percent in 2013.

At this level of spending, the home improvement market appears to be returning to its long-term trend. On an inflation-adjusted basis, outlays per owner averaged $2,500 in 2013, well below the peak of $3,400 in 2007 but more than 8 percent above the $2,300 annual average posted between 1995 and 2005.

Annual homeowner spending on improvements as a share of home value, averaging just over 1 percent in 2013, has remained remarkably stable over the past decade. Even during the market boom in 2004–07, per-owner expenditures remained near this level, with percentage increases in spending roughly matching the percentage rise in house prices. Similarly, the decline in home improvement spending during the downturn was proportional to that in national house prices.

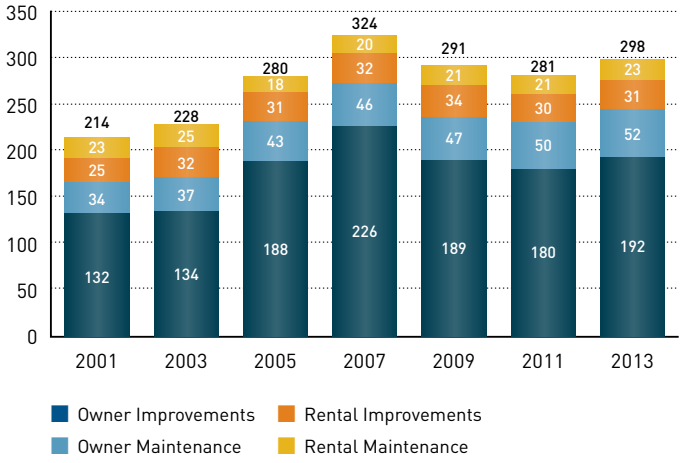
DISCRETIONARY PROJECTS ON THE UPSWING

With the economy strengthening and house prices recovering, spending by owners on discretionary home improvements rose by almost $6 billion between 2011 and 2013. Even more significantly, the share of spending on discretionary projects increased for the first time since 2005. This category includes larger home remodels and additions that improve homeowner lifestyles but can be deferred when economic conditions are uncertain. In 2013, discretionary spending on kitchen and bath

Figure 1

The Rebound in Homeowner Improvement Spending Has Lifted the Remodeling Market Back Near $300 Billion

Billions of Dollars



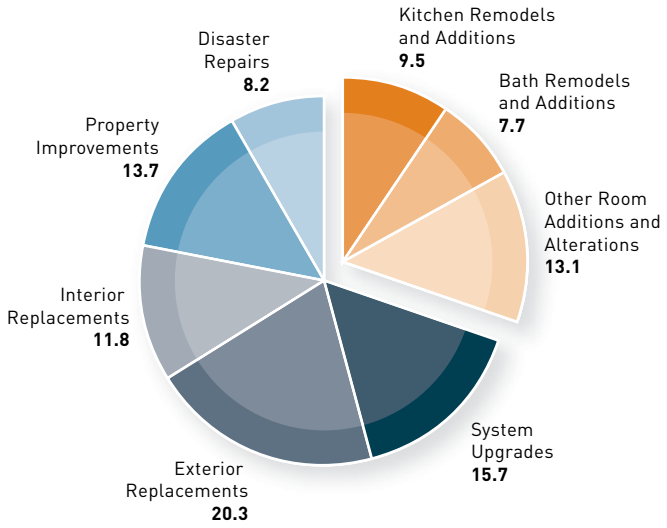
Notes: Tabulations of 2013 data use JCHS-adjusted weights. For more information about the re-weighting methodology, see www.jchs.harvard.edu/research/improving-americas-housing.

Sources: JCHS tabulations of US Department of Housing and Urban Development (HUD), American Housing Surveys; US Department of Commerce, Surveys of Expenditures for Residential Improvement and Repairs (C-50); and Abbe Will, *Estimating National Levels of Home Improvement and Repair Spending by Rental Property Owners,* JCHS Research Note N10-2, October 2010.

Figure 2

Discretionary Projects Account for a Significant Share of Improvement Spending

Share of Spending in 2013 (Percent)



Homeowner Spending in 2013 = $192 Billion

Notes: Tabulations use JCHS-adjusted weights. Other room additions and alterations include outside attachments.

Source: Table A-1.

upgrades contributed 17 percent of the $192 billion in total homeowner spending, while expenditures for additions and major structural alterations to other rooms made up another 13 percent **(Figure 2).**

Replacement projects, in contrast, refer to improvements that affect the safety and efficient functioning of the home. Spending in this category across the business cycle is generally more stable than on discretionary projects. In 2013, exterior replacements (for example, roofing, siding, windows, and exterior doors) accounted for 20 percent of total homeowner expenditures, and interior replacements (including flooring, wall coverings, and ceilings) for almost 12 percent. Meanwhile, spending on systems and equipment upgrades (including plumbing, electrical, HVAC, and major appliances) amounted to almost 16 percent of overall outlays.

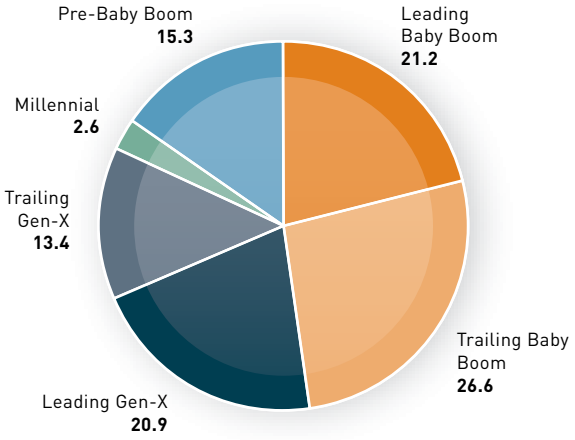
Until the housing downturn, the shares of homeowner spending for discretionary and replacement projects were almost equal. But in 2013, discretionary spending had fallen to 30 percent of the total, while replacement spending had increased to almost 50 percent. However, given the sharp retreat in discretionary spending during the downturn and the current recovery in housing prices, the modest uptick in discretionary outlays from 2011 to 2013 suggests that these types of projects will likely drive a significant share of growth in the home improvement market in the future.

The final two project categories—property improvements and disaster repairs—together contributed over 20 percent of homeowner spending. Property improvements refer to outlays for structures other than the principal residence, such as detached garages, sheds, or other outbuildings. This category also covers nonstructural improvements, such as driveways and walkways, fencing and walls, patios and terraces, and swimming pools and tennis courts. Disaster-related repairs and improvements are not linked to specific project categories.

Figure 3

The Baby Boomers Continue to Dominate Spending, While Millennials Still Account for Only a Small Share of the Market

Share of Improvement Spending by Generation (Percent)



Homeowner Spending in 2013 = $192 Billion

Notes: The pre-baby boom generation was born before 1945, leading baby boom in 1945–54, trailing baby boom in 1955–64, leading gen-X in 1965–74, trailing gen-X in 1975–84, and millennial in 1985–2004. Tabulations use JCHS-adjusted weights.

Source: Table A-3.

HOUSEHOLD SPENDING BY GENERATION

Spending on home improvement activity peaks among owners in their mid-30s to mid-50s, a time when family sizes and household incomes are typically growing. In 2013, owners in this age range spent about 30 percent more on average on improvement projects than the rest of the population. The fact that most of the baby-boom generation (born 1945–64) was in this high-spending age group during the housing boom no doubt contributed to the record levels of home improvement expenditures in the middle of the last decade.

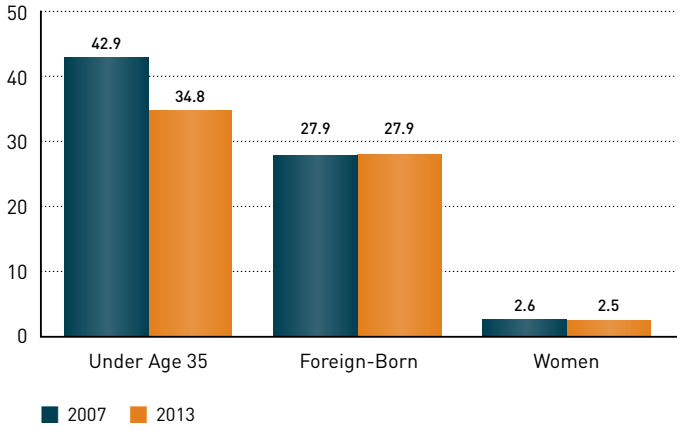
While the baby boomers are moving out of the prime home improvement spending years, they are still active in the market. They survived the housing downturn better than most other generations, buffered from the drop in house values by many years of strong house price appreciation. The baby boomers have also remained in the labor force well beyond the traditional retirement age of previous generations. Indeed, although average per-owner spending on home improvement projects fell more than 15 percent from 2007 to 2013, spending by owners aged 55 and over declined less than 9 percent. Baby boomers thus accounted for almost half of all home improvement spending nationally in 2013 **(Figure 3).**

Meanwhile, most gen-X homeowners (born 1965–84) are now in their prime spending years. Although this generation originally numbered almost 10 million (12 percent) less than the baby boom, years of strong immigration filled its ranks. By the time they were 20–39 years old in 2005, the number of gen-Xers thus equaled that of the baby boomers at comparable ages. In 2013, gen-Xers contributed over a third of home improvement outlays, with the leading edge alone accounting for over 20 percent.

Figure 4

After the Downturn, the Construction Industry Included a Smaller Share of Younger Workers

Share of Construction Labor Force (Percent)



Note: The number of employed and unemployed workers in the construction industry fell from 8.3 million in 2007 to 6.8 million in 2013.

Source: JCHS tabulations of US Census Bureau, American Community Surveys.

Much of the millennial generation (born 1985–2004), in contrast, has yet to enter the housing market. Even the oldest members of this age group have been slow to form households and buy homes because of high levels of student loan debt; high rates of unemployment or underemployment (and low salaries and wages for those that are employed); and stringent mortgage lending standards. In 2013, millennial homeowners therefore accounted for just under $5 billion in home improvement spending, or only 2.6 percent of the total.

Once the millennials begin to catch up with the gen-Xers in terms of progress in the housing market, however, their sheer numbers alone will drive up improvement spending. At more than 79 million births between 1985 and 2004, the number of native-born members of the millennial generation already equals the number of births of the baby-boom generation. By 2025, when millennials are more fully engaged in the housing market, immigration is expected to have increased their numbers to more than 86 million. This will make the millennial generation almost 7 percent larger than the baby-boom generation at comparable ages.

INDUSTRY STRUCTURE AND WORKFORCE TRENDS

Small contractor firms continue to dominate the home improvement industry, with a majority consisting of self-employed individuals or partnerships with no employees on payroll. The traditional dominance of small businesses in this industry has provided little opportunity for firms to develop skilled employees, which in turn has created growing fears of a labor shortage as the market continues to recover.

From a high of more than 20 percent in 2010, the national unemployment rate for the broader construction industry declined to just over 8 percent at the end of 2014. However, the last time that construction unemployment was this low was in 2007, when the workforce was 26 percent larger. The construction labor force shrank significantly during the downturn, suggesting that workers either moved to other industries or dropped out of the labor force altogether.

The construction labor force is not only smaller than at the peak of the market, but it also has different characteristics **(Figure 4).** Most notably, the industry attracts fewer younger workers, with the share of the labor force under age 35 down eight percentage points between 2007 and 2013. And despite rapid growth in the foreign-born population in recent decades and the industry's long-time reliance on immigrants, the foreign-born share of the labor force was flat over this period. Finally, women workers, already underrepresented in the industry, made up a slightly smaller share of the construction workforce in 2013.

GEOGRAPHIC CONCENTRATION OF SPENDING

During the housing downturn, the sharpest declines in improvement spending were generally in the Sunbelt. These areas of the country were home to most of the overbuilt markets that ultimately experienced high shares of distressed properties. As a result, improvement spending in the South and West has been slow to rebound, although the strong house price recovery in these regions suggests that remodeling activity will likely accelerate in the coming years.

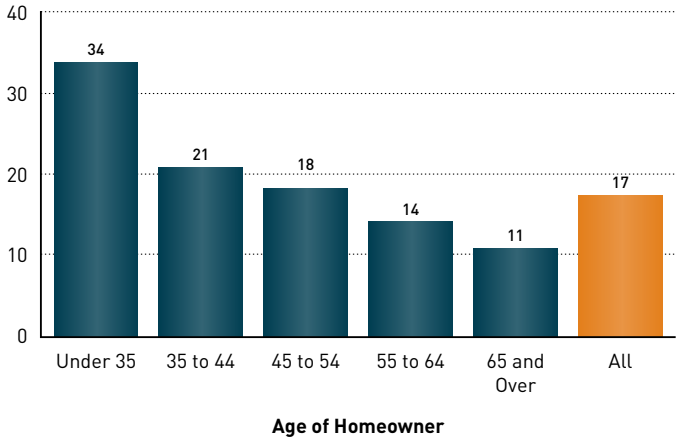
Homeowners in the nation's metropolitan areas continue to account for a disproportionately large share—81 percent—of overall improvement spending. Thanks primarily to their higher incomes and higher home values, owners in metro areas spent 50 percent more on improvement projects on average than their non-metro counterparts in 2013. Moreover, spending was up 5.0 percent among metro area owners between 2011 and 2013, but down by 0.2 percent among non-metro households.

Within metropolitan areas, the growing popularity of infill developments has stimulated an increase in improvement spending in central cities. The strongest growth, however, has occurred in inner suburban neighborhoods, where homes are typically older and smaller than in the outer suburbs. Indeed, home improvement spending in inner suburbs rose 11 percent

Figure 5

Younger Homeowners Devote a Much Larger Share of Improvement Spending to DIY Projects

Do-It-Yourself Share of Spending in 2013 (Percent)



Note: Tabulations use JCHS-adjusted weights.

Source: JCHS tabulations of HUD, American Housing Survey.

between 2011 and 2013, surpassing the growth rate for metro areas overall.

The rental stock in metro areas also has benefited from higher improvement spending. With many younger households delaying marriage and family, demand for rental housing—particularly in downtown locations—has surged. While these households are likely to gravitate toward homeownership in the suburbs as they age, growth in investment in rental properties is likely to remain strong in the coming years.

OPPORTUNITIES FOR GROWTH

While the home improvement market has largely recovered from the Great Recession, the aging of the US population brings several opportunities for further growth. In particular, the movement of the baby-boom generation into the traditional retirement years is already pushing up demand for accessibility improvements that will enable owners to remain safely in their homes as they age. Given their significant housing wealth and willingness to remain in the labor force longer than previous generations, baby boomers are likely to remain active in the home improvement market. Indeed, with the large gen-X population in their peak remodeling years, their spending should compensate for any falloff among the baby boomers.

However, the key to future market growth is the millennial generation. While currently lagging previous generations in forming households and buying homes, the millennials will eventually give a dramatic lift to home improvement spending. More immediately, the growing presence of millennials in the rental market is encouraging property owners to invest in updates to their units.

The impending influx of younger homeowners is also likely to reverse the long-term slide in the do-it-yourself (DIY) market. In 2013, younger owners (under the age of 35) put a third of their outlays into DIY improvements—almost twice the share among all owners **(Figure 5).** Since a much larger share of DIY than of professional spending is for discretionary projects (over 40 percent vs. 28 percent), increased DIY spending should also boost the discretionary share of improvement expenditures.

The growing involvement of younger households in the home improvement market also holds out promise that sustainable home improvements will continue to be one of the fastest growing market segments. Increasing demand for energy-efficient upgrades, spurred by government incentives in the form of tax credits, remains the primary driver of sustainable projects, although homeowner spending on healthy home modifications, water conservation and efficiency upgrades, and products utilizing rapidly renewable or recycled materials also continues to gain momentum. With US household mobility rates declining steadily, homeowners have more incentive to make energy-efficient improvements to their current homes despite typically long payback periods.

2

CHANGING HOUSEHOLD DEMOGRAPHICS

The shifting characteristics of US households will shape the home remodeling market for many years to come. Longer-term trends include the aging population, stagnating incomes, and declining household mobility, while more recent changes include increasing racial and ethnic diversity and growth in the number of young renters. Each of these forces will have meaningful impacts on improvement spending levels, the mix of discretionary and replacement projects, and the choice of professional or do-it-yourself installation.

OLDER HOMEOWNERS REMAIN KEY

With members of the baby-boom generation now entering their retirement years, the number and share of older households are set to increase significantly. According to the Joint Center's 2013 projections, the number of householders age 65 and over will rise from 26 million in 2010 to 35 million in 2020, and to 45 million in 2030.

Meanwhile, the share of improvement spending by homeowners age 65 and over has already increased dramatically, rising from just 13 percent in 2005 to 23 percent in 2013. This growth reflects not only the rising number of older owners, but also an increase in per-owner outlays. Indeed, more than 60 percent of the growth in share is due to higher inflation-adjusted per-owner spending.

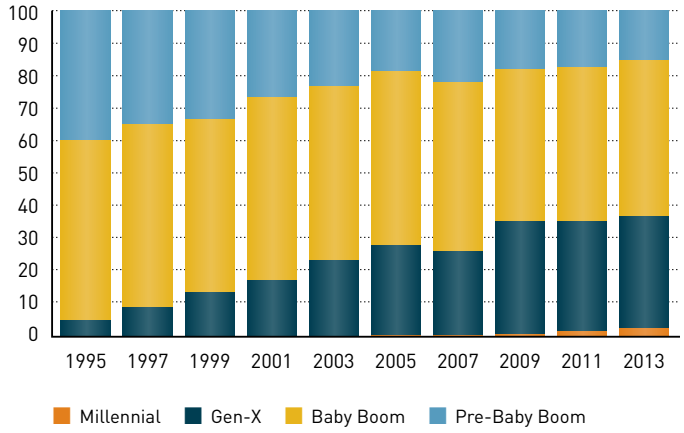
On average, baby boomers have more wealth and greater longevity, and remain in the workforce longer than previous generations. But like those that preceded them, the overwhelming majority prefer to age in place. A 2013 survey by the Demand Institute found that 55 percent of baby boomers have lived in their current homes for more than ten years, and 63 percent do not plan to move again. Of that group, fully 85 percent intend to stay in their current homes by choice (rather than being forced to stay for financial or other reasons).

Baby boomers have been, and continue to be, a driving force in the home improvement market. As members of this generation have aged from their 30s and 40s in 1995 to their 50s and 60s today, they have consistently accounted for about half of total spending **(Figure 6).** Although their share has started to dip in recent years as the gen-Xers moved into the prime homeownership and improvement spending years (roughly ages 35 to 55), baby boomers still make up the largest share of the remodeling market.

Figure 6

While the Baby Boomers Are Still the Primary Drivers of Improvement Spending, Gen-Xers Are Gaining Share

Share of Spending by Generation (Percent)



Note: The millennial generation was born in 1985–2004, gen-X in 1965–84, baby boom in 1945–64, and pre-baby boom before 1945. Tabulations of 2013 data use JCHS-adjusted weights.

Source: JCHS tabulations of HUD, American Housing Surveys.

The aging of US homeowners affects the demand for home improvements in several ways. Regardless of economic conditions or changes in the business cycle, older homeowners tend to focus much more of their spending on replacement projects related to roofing, siding, windows, doors, plumbing, electrical wiring, and other systems (over 50 percent in a typical year), and less on discretionary projects such as kitchen and bath upgrades (under 30 percent). Younger homeowners, in contrast, tend to spend equal shares (about 40 percent) of their budgets on replacements and on discretionary projects.

Since replacement projects often involve professional installation, an important impact of higher replacement spending is that it has reduced the share of do-it-yourself expenditures. The DIY share of total home improvement spending trended down from about 25 percent in the late 1990s to just 17 percent in 2013, primarily because of the aging population. Indeed, younger homeowners (under age 35) consistently devote much larger shares of their improvement spending—about one in three dollars—to DIY projects, while older homeowners (age 65 and over) spend much less. In fact, the DIY share of expenditures among this older group shrank from over 14 percent in 2005 to under 11 percent in 2013 as the leading edge of the baby-boom generation moved into this age range.

SLUGGISH HOUSEHOLD INCOME GAINS

The stagnation or erosion of incomes among all but the top quintile of households is another long-term trend that affects remodeling expenditures. The average inflation-adjusted income of households in the lowest income quintile remained unchanged from 1993 to 2013, while that for households in the middle income quintiles rose a modest 3–8 percent. In contrast, households in the highest income quintile saw a 15 percent increase over the same period.

Lower-income homeowners are much less likely than higher-income households to make improvements, and those that do spend considerably less on those projects. Among households between ages 35 and 64, only half (51 percent) of those in the lowest income quintile reported undertaking a project in 2012–13 compared with more than two-thirds of owners in the highest income quintile **(Figure 7a).** Middle-aged homeowners in the lowest income quintile who did make improvements spent just $2,900 annually, significantly less than the $8,600 average among highest-income homeowners. Even owners in the middle income quintiles spent 40–60 percent less on home remodeling projects than top-income owners.

At the same time, however, lowest-quintile households spend much more of their incomes on home improvements (4.4 percent) than top-quintile households (1.5 percent) **(Figure 7b).** This is because much of their spending is not discretionary, and most homeowners ultimately make the upgrades to roofing, plumbing, electrical, and other systems necessary to keep their properties safe and comfortable. The cost of these often unavoidable projects thus falls much more heavily on lowest-income homeowners.

In fact, the mix of replacement and discretionary projects changes dramatically with income, with lowest-quintile owners focusing much more of their remodeling budgets (58 percent) on replacements than highest-income owners (42 percent). While the split between professional and DIY installations is largely a function of a homeowner's age, the DIY share of spending among 35–64 year olds also declines considerably with household income. Top-quintile homeowners spend less than 13 percent of their outlays on DIY improvements, while all other owners spend over 20 percent.

Given these large differences in improvement activity, it is not surprising that high-spending homeowners drive the upswings and downswings in the remodeling market. For example, at the height of the housing boom in 2005, homeowners that were in the top 5 percent of spenders accounted for just over 60 percent of all improvement outlays. In 2003, their share had fallen to about 52 percent as even high-spending homeowners focused more on replacements than on high-end discretion-

ary projects. And while high-income owners making large discretionary improvements will remain responsible for much of spending growth, the flat or falling incomes of most homeowners will likely have a dampening effect on total outlays in the market.

DECLINING HOUSEHOLD MOBILITY

Mobility rates, or the share of households changing residences within a given year, have fallen steadily for several decades. A number of factors have contributed to the decline, including the aging of the population; the increase in two-earner households, making it both less critical and more difficult to relocate for work; and the postponement of retirement, whether out of choice or necessity.

The housing market crash further diminished mobility rates as falling house prices left millions of homeowners underwater on their mortgages (owing more than the value of their homes). Between 2007 and 2013, the share of recent homebuyers shrank from 17 percent to 12 percent of owners, while the share of total improvement spending by these homeowners dropped from 23 percent to 15 percent. Although house prices in much of the country have now recovered, historically low interest rates provide an incentive for owners to remain in their current homes when mortgage rates head up again. This mortgage lock-in effect may thus continue to depress household mobility and future remodeling activity.

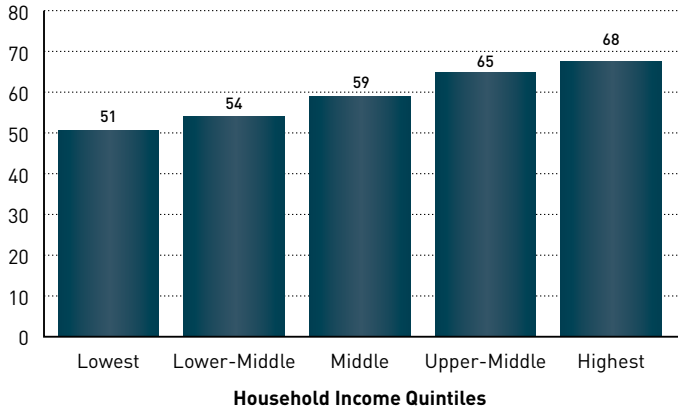
In general, lower household mobility reduces remodeling demand because households tend to spend more on improvements both when they are putting their homes on the market and during the first several years after purchase. According to a 2014 Home Improvement Research Institute survey, fully half of recent sellers (who had sold and purchased homes in the preceding three years) undertook one or more improvement projects to prepare their homes for sale, with their expenditures averaging well over $8,000.

The post-purchase spending of recent buyers is also considerably higher than the spending of non-movers, even after controlling for age and income. Recent buyers aged 35–64 in the middle-income quintiles consistently spend significantly more—about 33 percent—on improvements than otherwise similar non-movers **(Figure 8).** In particular, homeowners that have recently moved devote much higher shares of their improvement dollars to DIY and discretionary projects. As a result, falling household mobility rates are likely to put downward pressure on the DIY and discretionary shares of improvement spending.

Figure 7a

Although Lower-Income Owners Are Less Likely to Make Home Improvements...

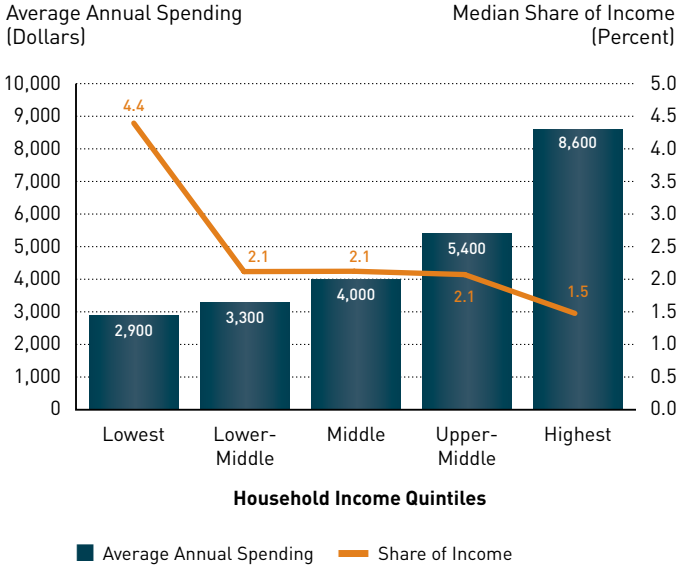
Share of Homeowners Aged 35–64 Reporting One or More Projects in 2012–13 (Percent)



Notes: Quintiles are equal fifths of homeowners ranked by total household income. Tabulations use JCHS-adjusted weights.
Source: JCHS tabulations of HUD, American Housing Survey.

Figure 7b

...Those That Do Spend a Much Larger Share of Their Incomes



Notes: Estimates include only homeowners aged 35–64 undertaking improvement projects. Quintiles are equal fifths of those homeowners ranked by total household income. Tabulations use JCHS-adjusted weights.
Source: JCHS tabulations of HUD, 2013 American Housing Survey.

GROWING DIVERSITY AMONG YOUNGER GENERATIONS

The millennial generation is already as large as the baby boom and its numbers will continue to increase with the arrival of new immigrants. Millennials are also much more racially and ethnically diverse, with minority householders making up nearly 40 percent of their ranks, compared with just 27 percent of the baby boomers. Moreover, immigration will help to expand the minority share of millennial households over the coming decades.

This demographic shift is important for the home improvement market because minority households traditionally have lower incomes and wealth as well as far lower homeownership rates than white households. Joint Center tabulations of the American Housing Survey indicate that minorities have consistently earned about 70 percent of white incomes since 1995 and their homeownership rates have held about 25 percentage points below white rates. Minority homeowners also tend to be younger, with a third under age 45 in 2013 compared with only a quarter of white owners.

The impacts of increasing racial and ethnic diversity on the level and mix of remodeling projects are due primarily to differences in income and age between whites and minorities. Minority owners historically spend about 25 percent less on home improvements than white households, and Hispanic, Asian, and multiracial owners devote more of their budgets to DIY and discretionary projects. Even when looking just at middle-aged and middle-income households, Hispanic, Asian, and multiracial homeowners spend a larger share on DIY and discretionary improvements than white homeowners.

MILLENNIALS' SLOW START TO HOMEOWNERSHIP

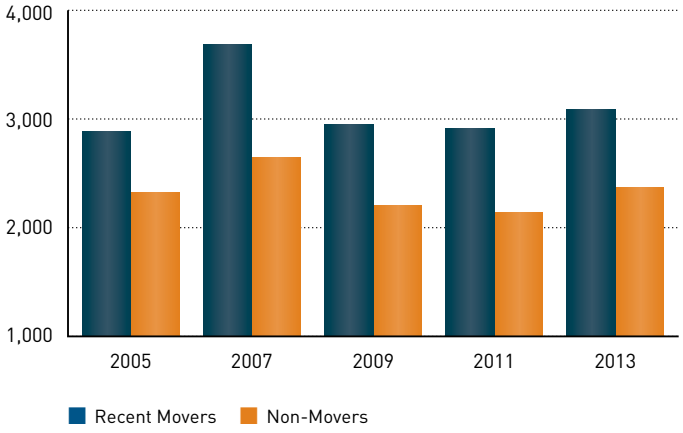
Millennials are much less likely than previous generations to have formed their own households, be married, or have children by the age of 28. As a 2012 report from the Bipartisan Policy Center notes, nearly half (47 percent) of millennials between the ages of 18 and 28 were living with at least one family member, compared with 43 percent of the gen-X and 39 percent of the baby-boom generations at similar ages. Just 21 percent of millennials were married by age 28, compared with 29 percent of gen-Xers and half of baby boomers. Finally, only 20 percent of millennials had children compared with 30 percent of baby boomers at the same ages.

Although these differences in part reflect long-term declines in household formation, marriage, and childbearing rates, the severity of the recent recession also played a key role. Having come of age during the country's worst downturn since the Great Depression, millennials have faced significant challenges to homeownership including high student loan debt, limited employment opportunities, and housing affordability pressures. At more than 64 percent in 2014, the rentership rate for householders under age 35 still exceeds the 61 percent average in the late 1990s, a period that might be considered more typical for rental and owner markets.

Figure 8

Recent Movers Spend Considerably More on Home Improvements

Average Annual Spending by Owners Aged 35–64 in the Middle Income Quintiles (Dollars)



Notes: Recent movers bought their homes within the previous three calendar years. Estimates include owners in the lower-middle, middle, and upper-middle income quintiles. Quintiles are equal fifths of homeowners aged 35–64 ranked by total household income. Tabulations of 2013 data use JCHS-adjusted weights.

Source: JCHS tabulations of HUD, American Housing Surveys.

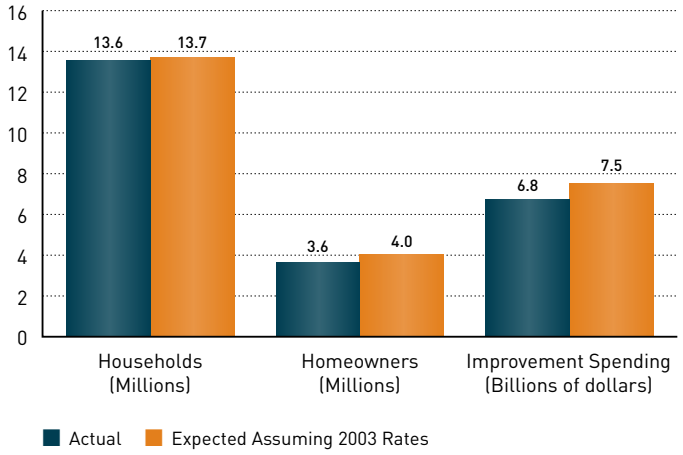
Continuation of a high rentership rate has implications for the home improvement market because per-unit spending on rental housing is significantly lower than on owner-occupied housing. According to Joint Center estimates, spending for improvements to renter-occupied units averaged just $770 in 2013. By comparison, outlays for improvements to owner-occupied single-family homes averaged $2,600. Even condominium owners spent over $800 more on remodeling in 2013 than the typical rental unit owner.

If individuals under the age of 30 today formed households and purchased homes at the same rates as their counterparts a decade ago, improvement spending by this age group would be nearly 11 percent higher **(Figure 9).** By this calculation, depressed household formation and homeownership rates among this age group shaved about three-quarters of a billion dollars off total improvement spending on owner-occupied units in 2013.

Figure 9

With Their Lower Household Formation and Homeownership Rates, Millennials Spend Less than Expected on Home Improvements

Actual and Expected Households, Homeowners, and Spending in 2013 for Persons Under Age 30



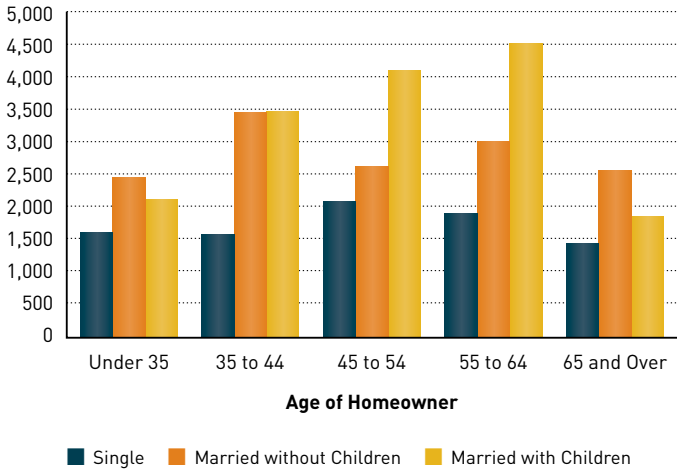
Notes: Expected figures assume 2003 household formation and homeownership rates for persons under age 30. Tabulations use JCHS-adjusted weights.

Sources: US Census Bureau, Current Population Survey, March and Annual Social and Economic Supplements, Housing Vacancies & Homeownership Rates, and Population Estimates; JCHS tabulations of HUD, American Housing Survey.

Figure 10

Married Couples of All Ages Spend More on Home Improvements than Single Homeowners

Average Annual Spending in 2013 (Dollars)



Note: Tabulations use JCHS-adjusted weights.

Source: JCHS tabulations of HUD, American Housing Survey.

Delayed marriage by millennials is also a concern for the home remodeling market because, regardless of age, married homeowners spend considerably more on improvements than singles **(Figure 10).** The presence of children provides an even bigger lift to spending. Among homeowners between the ages of 45 and 64, married couples (with or without children) spent about the same on DIY projects as single homeowners, while married owners with children spent significantly more on discretionary projects.

THE OUTLOOK

Of the many household characteristics that are changing, age and income are the most important to future remodeling demand. Other major demographic shifts—including continued declines in household mobility, growth in the minority share of households, and delayed household formation, marriage, childbearing, and homebuying among the millennial generation—also influence remodeling expenditures primarily through their age and income effects.

As the baby boomers move into their retirement years, their improvement spending already outpaces that of the preceding generation at similar ages, and it is expected that older homeowners will continue to play a significant role in the remodeling market for years to come. Meanwhile, members of the equally large gen-X generation are now in the peak remodeling age group and represent a growing segment of the market. Finally, although off to a slow start, millennials have similar aspirations to homeownership as previous generations. As a recent Fannie Mae National Housing Survey indicates, well over 90 percent of young people today expect to buy homes in the future, suggesting that members of the millennial generation will ultimately represent a substantial force in the home improvement market.

3

INDUSTRY STRUCTURE AND LABOR TRENDS

Remodeling contractors are experiencing a strong rebound, especially larger-scale firms that could take advantage of their size to gain market share during the downturn. While the remodeling industry is still highly fragmented, specialty trade or replacement contractors have been particularly successful in achieving scale economies and posting strong, steady growth over the business cycle. Meanwhile, industry employment is still well below the market peak and the construction workforce is aging. As housing and improvement demand revives, it will be critical for the industry to attract and develop a younger workforce.

Since the market bottom, the number of general residential remodeling firms with payrolls increased from less than 80,000 in 2011 to more than 83,000 in the second quarter of 2014, with the pace of growth accelerating each year. The industry has now recovered fully half of the payroll firms lost since the market peak. Job growth has been even faster, up 20 percent from the market low to an estimated 282,000 employees in 2014, restoring more than 60 percent of jobs lost during the downturn **(Figure 11).**

With employment levels outpacing growth in the number of firms, the average size of general remodelers has ticked up from a decade low of 2.9 payroll employees in 2010 to 3.3 in the second quarter of 2014. While still below the 2006 peak of 3.7 payroll employees, the firm size of general remodelers has thus returned to the decade average.

Unlike other industries within the broader construction sector, remodeling remains highly fragmented with large shares of self-employed contractors and small-scale, single-location payroll businesses. According to the most recently available economic census, the revenues of residential remodelers with payrolls averaged $700,000 in 2007—just one-third the size of a typical firm in the broader construction sector (including both residential and nonresidential), one-fifth the size of building material dealers, and one-tenth the size of wood product manufacturers. In fact, the average residential remodeling contractor with a payroll operated on even a smaller scale than the typical business serving the similarly fragmented accommodations and food services sector.

During the housing market downturn and Great Recession, the remodeling industry became even more fragmented. The share of general remodeling firms with fewer than five employ-

ees increased from less than 81 percent in 2007 to 84 percent in 2010, where it remained in 2012 (the most recent year for which data are available). Clearly contributing to this growing fragmentation, although difficult to quantify, is the increased presence of single-family home builders in the remodeling market since the housing crash. According to member censuses by the National Association of Home Builders (NAHB), the share of home builders that reported residential remodeling as a secondary activity jumped from 44 percent in 2008 to 50 percent in 2010 and remained at this elevated level as the new home construction market continued its own slow recovery.

PERFORMANCE OF LARGER-SCALE CONTRACTORS

The obstacles to achieving scale economies in the remodeling industry are many: low barriers to entry, volatile business cycles, and difficulty attracting capital, to name only a few. Firms that are able to overcome these hurdles, however, enjoy a long list of potential benefits, including stronger revenue growth, higher labor productivity, significantly lower failure rates, improved buying power, more efficient management, and increased brand recognition and trust. Indeed, the performance of larger-scale remodeling contractors in recent years provides clear evidence of the many advantages of scale and of the growing momentum toward full recovery from the worst downturn on record.

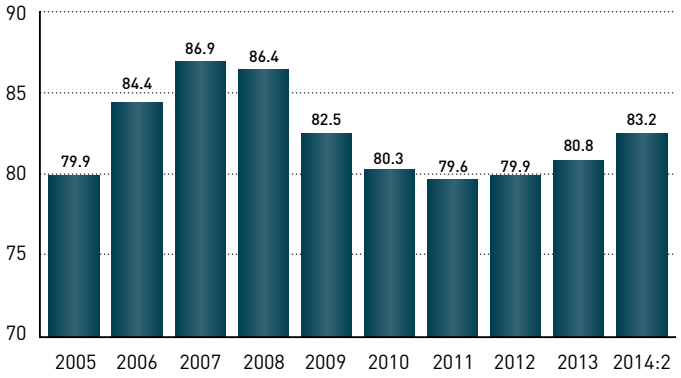
In 2013, firms on *Qualified Remodeler* magazine's Top 500 list reported median annual revenue growth of 10.8 percent, far outstripping the 3.6 percent increase in total market spending for professionally installed improvements that year. Indeed, recent revenue growth at these larger companies was even stronger than during the housing boom **(Figure 12).** Overall, revenues of larger-scale contractors grew 5.2 percent annually in 2010–13, compared with 4.6 percent annually in 2004–07. And now that homeowners are making some of the discretionary improvements that they deferred during the downturn, revenue growth at design/build and full-service firms is outpacing that at lower-ticket replacement contractors. The scale of the average job for companies in the Top 500 is also edging back up to the pre-recession level of $17,000, rising 15 percent between 2011 and 2013 to $13,000.

The very largest firms consistently outperform the rest of the remodelers on the Top 500 list by a considerable margin. In 2013, businesses ranked in the Top 100 reported average revenues of $43 million, while firms ranked below that group had average revenues of less than $4 million. The Top 100 remodelers also experienced significantly smaller losses during the downturn and much stronger gains during the recovery than other large contractors **(Figure 13)**.

Figure 11a

While the Number of General Remodeling Firms Is Growing Steadily...

Number of Firms with Payrolls (Thousands)



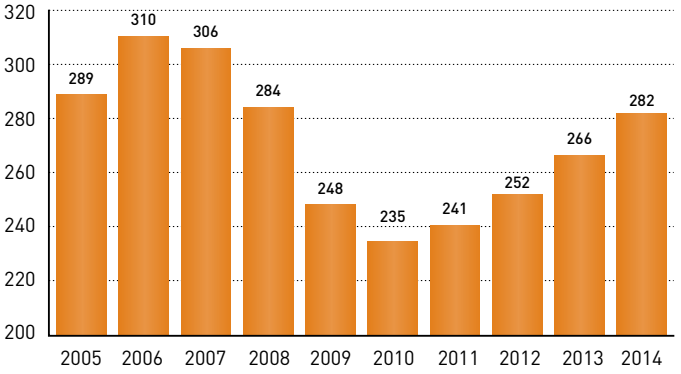
Note: Estimate for 2014:2 is preliminary.

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

Figure 11b

...Employment Is Climbing Back Even More Quickly

Number of Employees at General Residential Remodeling Firms (Thousands)



Note: The 2014 estimate is annualized using reported data through November.

Source: US Department of Labor, Bureau of Labor Statistics, Current Employment Statistics.

DEVELOPING SCALE AND EFFICIENCIES THROUGH SPECIALIZATION

Since the remodeling industry encompasses many diverse business segments and market niches, there is no one-size-fits-all approach to achieving scale. Remodeling companies employ a wide variety of strategies that may involve partnerships with franchisors, investors, or nationally known manufacturing and retail brands.

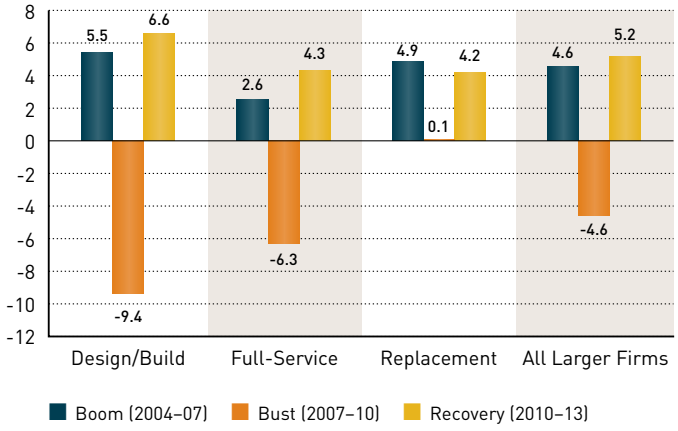
Opportunities for scale and consolidation are especially likely to exist in the specialty replacements segment, which includes

roofing, siding, windows, painting, cabinet refacing, bath liners and surrounds, and other kitchen and bath product replacements. Scheduling and installation of specialty replacement projects tend to be much less labor-intensive than for full-service remodeling projects, which means shorter job cycles and potentially higher margins. This specialization also allows replacement firms to develop greater efficiencies in their operations and obtain more favorable pricing on materials than full-service remodeling firms.

Figure 12

Larger Contractors Have Seen a Sharp Rebound in Revenues

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



Notes: Companies qualifying for the *Qualified Remodeler* Top 500 list typically generate annual revenues of $1 million or more. Analysis includes firms reporting revenue in the beginning and ending years of each time period and ranking in the Top 400 in at least one of those years.

Source: JCHS tabulations of *Qualified Remodeler* Top 500 lists.

Specialty firms have pursued scale by focusing heavily on lead generation and sales and marketing, and by integrating with manufacturers of their core product lines. Specialization and vertical integration give companies substantial competitive advantages and provide significant value, thus strengthening their position for outside investment, mergers, or acquisitions.

Indeed, specialty replacement contractors represent a much greater share of the largest firms on the *Qualified Remodeler* Top 500 list. Over the past decade, these firms have made up 45–50 percent of the top 100 contractors on that list each year, compared with only 27–30 percent of companies ranking below 100. Given that specialty companies have already been more effective than full-service companies in achieving scale, it is likely that consolidation in this segment of the industry will increase moving forward.

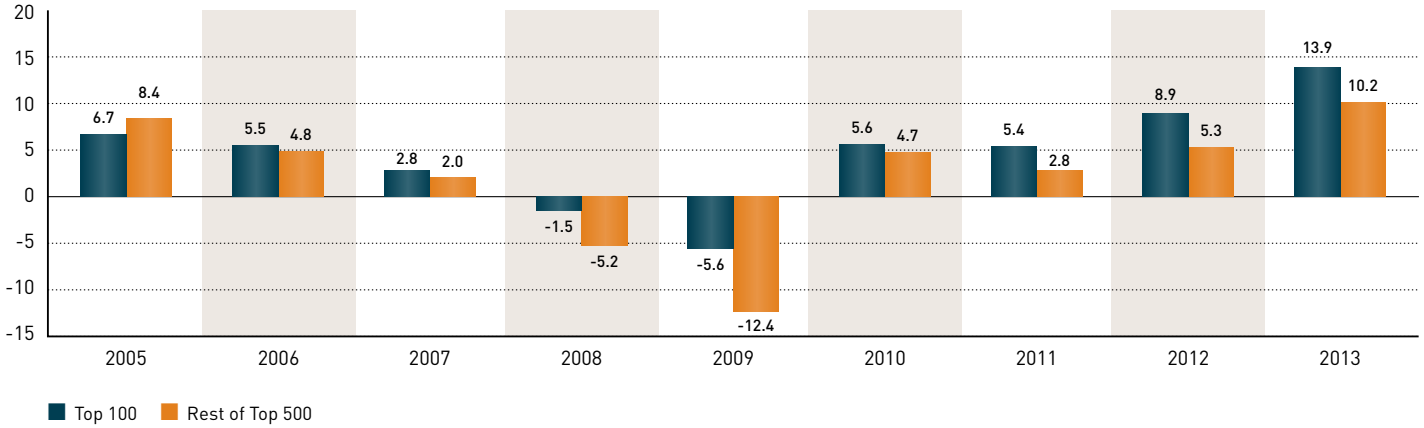
CHANGING CHARACTERISTICS OF THE WORKFORCE

Many construction workers have moved on to other industries or left the workforce entirely since the downturn. The labor force in the broader construction industry—including all employed or unemployed workers in construction and extraction occupations, whether self-employed or on a payroll—numbered 6.8 million in 2013 and represented 4.3 percent of the total US workforce. At the peak of the market in 2007, how-

Figure 13

Revenue Growth at the Top 100 Remodeling Contractors Has Been Much More Stable than at Other Large Firms

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



Note: Companies qualifying for the *Qualified Remodeler* Top 500 list typically generate annual revenues of $1 million or more. Analysis includes firms reporting revenue in any two consecutive years and ranking in the Top 400 in at least one of those years.

Source: JCHS tabulations of *Qualified Remodeler* Top 500 lists.

ever, the construction labor force was 1.5 million stronger and accounted for a 5.5 percent share of the national workforce.

The demographic characteristics of those engaged in construction and extraction occupations are strikingly different from those of the national labor force **(Figure 14).** The largest disparity is in the share of women, who made up only 2.5 percent of the construction labor force in 2013, compared with nearly half of the total workforce. Less than 31 percent of construction workers had education beyond a high school diploma or GED, compared with nearly two-thirds of the national workforce. And fully 28 percent of construction workers were foreign-born, compared with less than 17 percent of the national labor force. While figures specifically for the residential remodeling labor force are not available, the profile of workers is likely to be quite similar to that of construction workers overall.

The large differences between the construction and national workforces are important as the industry looks to rebuild its ranks. The general concern is that the construction sector might have difficulties securing the labor force it needs if it cannot broaden its hiring to include more female, college-educated, and native-born workers, especially given the uncertainty surrounding the current immigration system. The fact that the construction sector has not traditionally attracted women and more educated workers has likely contributed to the aging of the labor force. From 2002 to 2013, the share of the construction workforce aged 55 and over increased from under 9 percent to almost 16 percent, and the share of the workforce under age 35 declined from 44 percent to less than 35 percent.

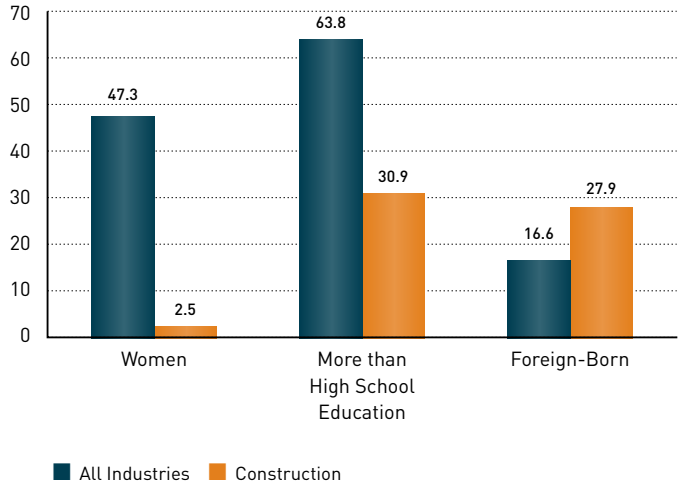
The inability to attract young workers is detrimental to the future vitality of the industry. This concern relates not only to workers that left construction for more stable sectors, but also to the industry's ability to find new skilled workers. Indeed, a 2013 survey by the Associated General Contractors of America indicated that fully 45 percent of member respondents considered the quantity and quality of local college, trade school, and apprenticeship programs to be poor or below average. Better preparation of younger workers is clearly necessary.

Immigrants remain a major source of labor for the construction industry, although their characteristics changed in meaningful ways during the industry boom and bust **(Figure 15).** While most foreign-born construction workers come from Mexico, their share of the immigrant labor force declined noticeably from 62 percent in 2002 to 57 percent in 2013. The drop in share of young immigrant workers was even more dramatic, falling from 55

Figure 14

The Construction Workforce Differs from the Overall Labor Force in Several Key Areas

Share of Labor Force in 2013 (Percent)



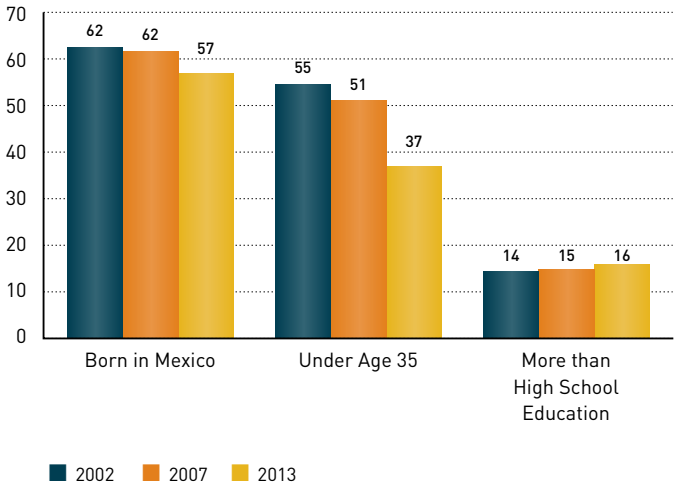
Notes: Data include all workers age 16 and over housed in non-group quarters and are employed or unemployed but available for and seeking work. The construction labor force includes workers with construction and extraction occupations in the construction industry.

Source: JCHS tabulations of US Census Bureau, American Community Survey.

Figure 15

The Characteristics of the Foreign-Born Construction Workforce Have Shifted Somewhat

Share of Foreign-Born Construction Labor Force (Percent)



Notes: Data include all foreign-born workers age 16 and over housed in non-group quarters and are employed or unemployed but available for and seeking work. The construction labor force includes workers with construction and extraction occupations in the construction industry.

Source: JCHS tabulations of the US Census Bureau, American Community Survey.

percent to only 37 percent over this period. Although the share of immigrant construction workers having more than a high school education inched up over the decade, it still stood at only 16 percent in 2013—less than half the share of native-born workers. Future immigration levels will certainly be an important factor in whether the construction industry is able to meet its demand for younger, less educated workers.

THE OUTLOOK

Although the remodeling industry will almost certainly remain more fragmented than the overall construction sector, opportunities for consolidation and economies of scale are especially likely in the specialty replacement segment. Companies that are focused on branding and customer satisfaction, developing and retaining skilled labor, and finding innovative uses of technology will also gain competitive advantage.

The massive decline in, and aging of, the construction industry labor force following the Great Recession have raised alarms about potential shortages of both skilled and unskilled workers as the market recovers. Ultimately, the construction and remodeling industries will need to attract new employees from key segments of the labor force whose shares have either declined or stagnated in recent years—in particular, young, female, and immigrant workers.

4

METRO AND REGIONAL REMODELING MARKETS

Remodeling activity is highly concentrated within the nation's metropolitan areas, with homeowners in those markets accounting for four out of five dollars of spending. Even so, wide differences in household incomes and house prices mean that average improvement expenditures, especially on larger discretionary projects, vary sharply across metro areas. Emerging opportunities for spending growth—driven by shifting demographics and increasing demand for energy-efficient retrofits and rental property improvements—also exhibit strong geographic patterns.

REGIONAL SPENDING PATTERNS

Consistent with historical trends, home improvement spending in 2013 was highest in the Northeast and West. In large measure, this strength reflects the fact that home values in the two regions were more than 20 percent above the national average while household incomes were at least 10 percent above.

In the Northeast, home improvement spending climbed 5.6 percent from 2009 to 2011 and another 10.8 percent from 2011 to 2013 in real terms **(Figure 16).** Average per homeowner expenditures stand at $3,300, or nearly 90 percent of the pre-recession peak. The larger and earlier remodeling rebound in the Northeast reflects relatively moderate losses in home values and jobs during the downturn.

In contrast, home prices and remodeling activity in the West were much more volatile during the recent housing cycle. When home prices soared in 2007, remodeling expenditures also rose rapidly. But when the housing bubble burst and plunging house prices eroded home equity, improvement spending in the region fell sharply. Average spending per homeowner continued to slide from 2011 to 2013, dipping 1.2 percent to $2,600 or more than 40 percent below the previous peak.

While lower than in the Northeast and West, average annual improvement spending in the South and Midwest has been more stable over time. Remodeling expenditures rose 4.4 percent in the South and edged up 0.5 percent in the Midwest in 2011–13, marking the first period of growth since the crash. These small increases lifted average spending per homeowner to just over $2,300, or about 80 percent of pre-recession peaks.

METRO MARKET PERFORMANCE

The home improvement recovery in the Northeast owes much of its strength to the healthy house price recovery in some metro areas. Metro area homeowners spend about 50 percent more on average on remodeling than those living in non-metro areas. Nationwide, metro area households contributed more than four-fifths of improvement expenditures in 2013, but fully 92 percent in the Northeast. By comparison, the metro shares of spending were 84 percent in the West, 77 percent in the South, and 74 percent in the Midwest.

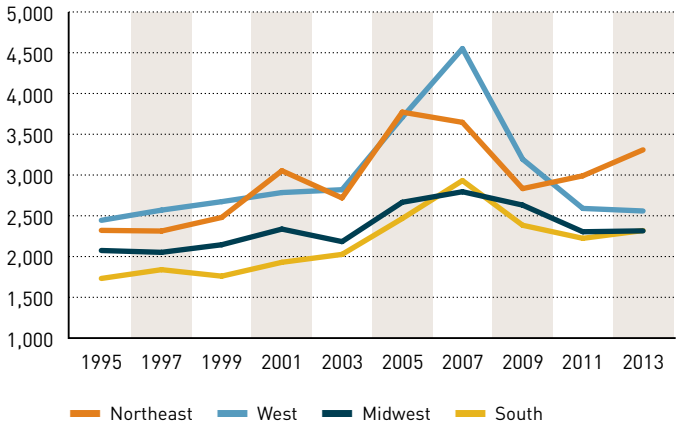
Moreover, the top 50 remodeling markets in the country accounted for nearly 60 percent of all home improvement spending in 2013, and the top 15 for fully a third. New York was the largest remodeling market, with over $12 billion in expenditures. Washington, DC, Los Angeles, Chicago, and Philadelphia were the next largest, with spending that ranged from $4 billion to $7 billion.

Owners in the 50 largest markets spent $3,000 on average on home improvements, although outlays in specific markets ranged from less than $2,000 to nearly $5,000. Spending was typically higher in metros located on the coasts, where higher property values and household incomes encouraged more reinvestment in housing **(Figure 17).** While Washington, DC ($5,000) and Boston ($4,900) were the top remodeling markets, several other metros in the Northeast—including New York and Philadelphia—posted above-average spending. On the West Coast, San Francisco and San Jose reported the highest

Figure 16

The Northeast Is Leading the Recovery in Home Improvement Spending

Average Annual Per-Owner Spending (2013 dollars)

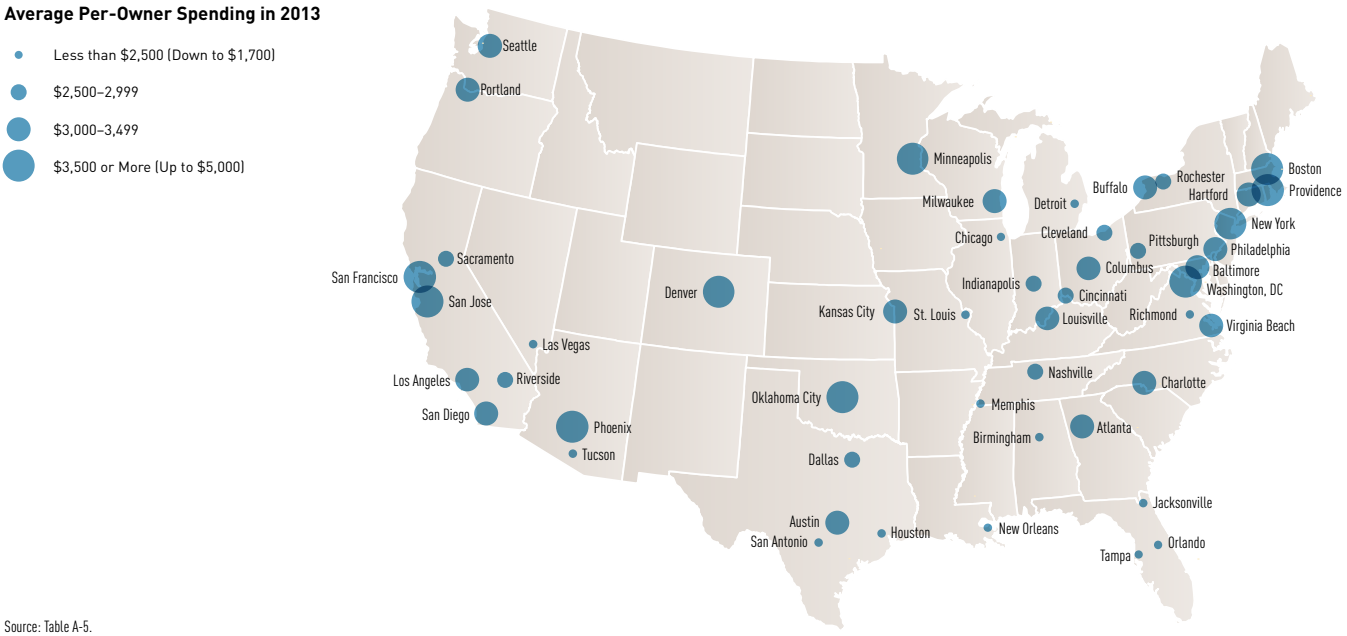


Note: Tabulations of 2013 data use JCHS-adjusted weights.

Source: JCHS tabulations of HUD, American Housing Surveys.

Figure 17

Owners in Coastal Metro Areas Generally Spend More on Improvements



Source: Table A-5.

average spending of more than $3,700 per homeowner, followed by San Diego and Los Angeles.

But not all high-spending metros are concentrated on the coasts, nor have all coastal metros performed well. For example, average homeowner spending levels in Denver ($4,000) and Phoenix ($3,800) were especially strong. At the same time, major metro areas in Florida—including Miami, Orlando, and Jacksonville—registered below-average spending of $2,000 or less per homeowner. This weakness reflects the fact that prices in these markets are still depressed and shares of distressed properties remain high.

The depth of the recent housing downturn is a key factor in the hardest-hit markets, where prices fell 40 percent or more. Homeowner improvement spending in these areas averaged only $2,300 in 2013, compared with $3,200 in markets with less dramatic price drops. The metros with the lowest expenditures are Las Vegas, Orlando, Jacksonville, and Detroit, where per-owner spending averaged less than $2,000. In addition to steep house price declines, these markets experienced high unemployment and a glut of foreclosed properties. Another contributing factor in Las Vegas is its newer housing stock.

METRO HOME VALUES AND INCOMES

Big-ticket home improvements typically drive remodeling market growth. Indeed, large projects costing $50,000 or more in 2013 made up half of all expenditures in Boston, nearly 45 percent in Washington, DC, and 44 percent in New York City **(Figure 18).** To illustrate the role of large projects in boosting expenditures, spending in the 10 markets with the largest shares of major projects averaged $3,800 per homeowner, compared with just $2,500 in the 10 markets with the smallest shares of major projects. St. Louis, Pittsburgh, and Jacksonville were among the second group, with less than 15 percent of spending originating from high-cost projects.

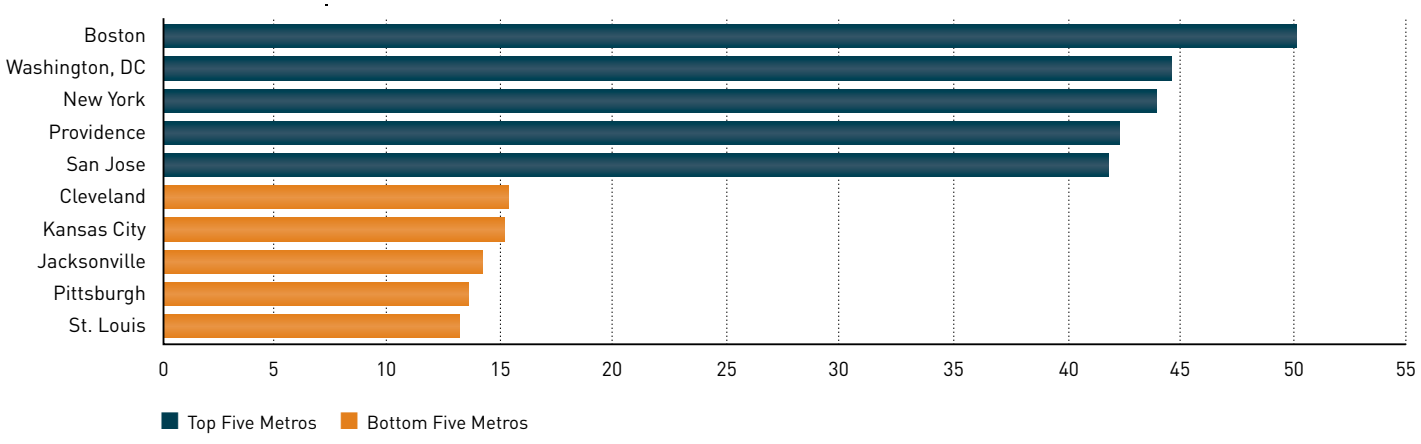
Differences in home values and household incomes explain much of this variation. Large remodeling projects generally make sense only for higher-value homes and for owners with financial resources. For example, the average property value in the top 10 markets ranked by large project spending was $446,000—more than twice the $176,000 average in the 10 metros with the smallest shares of large project spending. In addition, owner household incomes averaged $114,000 in the top metros, compared with just $78,000 in the bottom group.

Housing affordability, measured by the ratio of incomes to home values, also plays a role. On average, owners reinvest about 1.1 percent of their home values in improvements each year. But households living in more affordable areas of the country tend to spend more than that share. In 2013, improvement spending as a share of home value was 1.8 percent or more in several Midwestern and Rustbelt cities, including Oklahoma City, Buffalo, Louisville, Kansas City, and Columbus. In less affordable areas such as San Francisco, New York, Los Angeles, and Miami, the reinvestment share was just 0.8 percent or less.

Figure 18

Metro Markets with Higher Levels of Spending Also Have Larger Shares of High-Cost Projects

Share of Spending on Improvements Costing $50,000 or More in 2013 (Percent)



Source: Table A-5.

The types of projects that homeowners undertake also differ by metro area. Since discretionary improvements such as kitchen and bath remodels, room additions, and outside attachments are typically higher-end projects, they are more concentrated in metros with higher home values. Indeed, discretionary projects contributed 36 percent of total outlays in the 10 metro markets with the highest home values, compared with just 25 percent in the 10 markets with the lowest home values. For example, discretionary projects accounted for 40 percent or more of total spending in Boston, Los Angeles, and San Francisco, but only 20 percent or less in Kansas City, Dallas, and Oklahoma City.

At the same time, energy-sensitive projects—including replacements of roofing, siding, windows and doors, insulation, and HVAC systems—made up the largest share of expenditures in several mid-sized markets such as Buffalo, Milwaukee, Providence, Charlotte, and Nashville. Not surprisingly, per household spending on energy-sensitive improvements was highest in the Northeast, where the housing stock is older and the winters harsher. Several metros in the middle of the country—including Oklahoma City, Milwaukee, Louisville, Denver, and Minneapolis—also posted higher than average energy-sensitive spending. Incentives for energy retrofits are likely a factor, with fully 39 of the 50 states providing subsidies in one form or another in 2014. For instance, Wisconsin offers rebates to help offset the costs of air-sealing and insulation, while Minnesota provides low-interest loans for certain energy-efficient improvements.

CONTRIBUTIONS OF YOUNGER AND OLDER HOUSEHOLDS

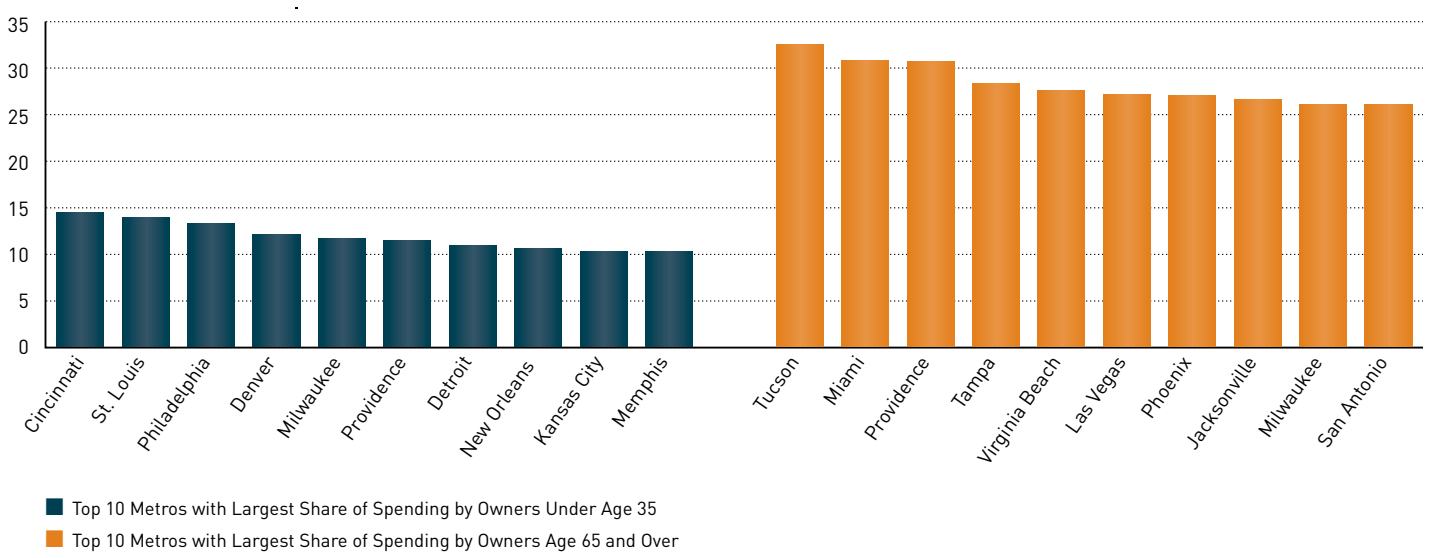
Housing affordability is a key factor in the geographic distribution of remodeling activity. Younger households contribute larger shares of improvement spending in metros with lower house prices, where they are more able to buy and invest in first homes. Indeed, areas with the largest shares of spending by young households are significantly more affordable, with prices averaging $210,000. By comparison, home values in markets where young homeowners account for the smallest share of improvement spending average $400,000. For example, younger households accounted for 12–14 percent of remodeling expenditures in lower-cost metros such as Cincinnati, St. Louis, Philadelphia, and Denver **(Figure 19).** Although younger households typically have lower incomes, their spending in these top 10 markets still averaged $2,900 annually. The relatively large shares of younger households already active in these home improvement markets suggest a strong base for future spending.

Meanwhile, the markets with the largest shares of improvement spending by older adults are concentrated mainly in the South Atlantic and Southwest regions. In Tucson, Miami, Tampa, Virginia Beach, Las Vegas, and Phoenix, older house-

Figure 19

Metro Areas with High Shares of Spending by Younger or Older Households Are Typically More Affordable

Share of Improvement Spending in 2013 (Percent)



Note: Analysis includes esitmates for 50 metro markets using data pooled from the 2011 and 2013 American Housing Surveys.
Source: JCHS tabulations of HUD, American Housing Surveys.

holds provided at least 27 percent of remodeling expenditures in 2013. Home values in these areas are also more moderate, but because incomes tend to fall during the retirement years, per homeowner outlays in the top 10 areas for older household spending averaged only $2,700.

Even so, households in this age group represent a large and growing market for universal design features that allow aging in place. Metro areas with high concentrations of households aged 55–64 should see increasing demand for accessibility retrofits in the coming years. Riverside, Portland, New Orleans, Birmingham, and Cleveland already report high shares of improvement spending by households in this age group. Other areas with large shares of older residents included Baltimore, Richmond, St. Louis, and Philadelphia.

The need for accessibility improvements will be particularly acute in the Midwest and Northeast, where less than one-third of homes have no-step entries versus nearly half of homes in the South and West. In addition, fully 43 percent of homes in the Northeast and 28 percent in the Midwest lack a bedroom and full bath on the first floor, compared with 19 percent in the West and 16 percent in the South.

RENEWAL OF THE RENTAL STOCK

In the wake of the housing market crash, soaring demand for rental units has fueled a strong recovery in spending on the rental stock. The Joint Center estimates that improvement expenditures in this market amounted to about $31 billion as of 2013, or $54 billion if maintenance and repairs are included. This translates into average annual spending of about $770 on capital improvements per rental unit and about $560 in maintenance and repairs. According to the National Apartment Association's Annual Survey of Operating Income and Expenses, per-unit capital spending on professionally managed garden-style properties with 50 or more apartments is even higher at $900.

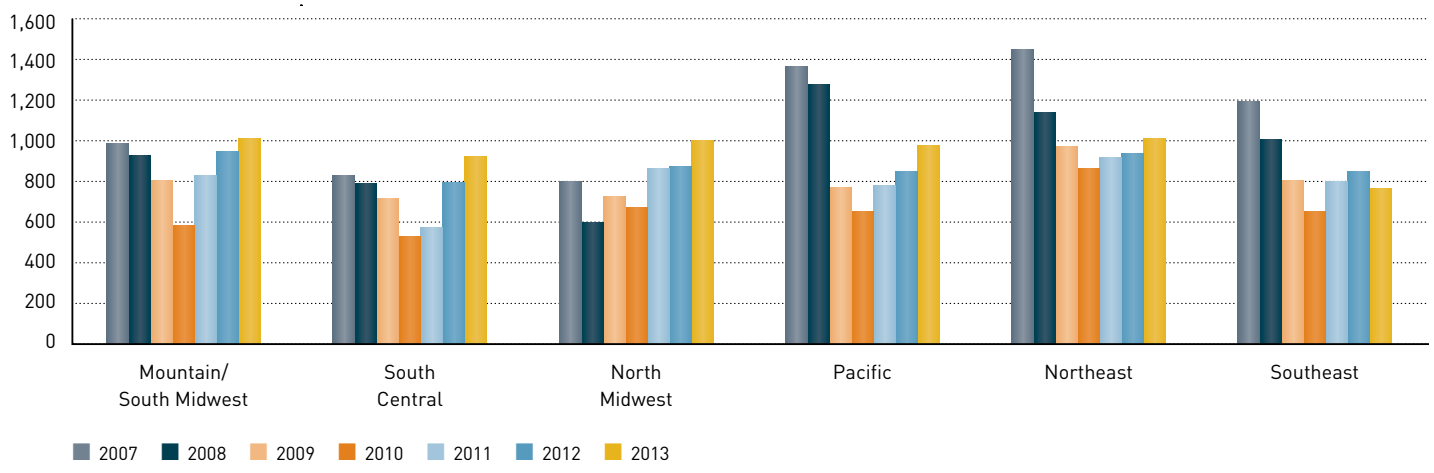
The NAA survey also indicates that capital investment in these rental properties increased in 2013 in nearly all regions of the country. Similar to homeowner improvement spending, average annual rental expenditures in the Northeast and Pacific regions climbed sharply during the housing boom and then fell sharply during the bust, and are now well below the pre-recession peaks **(Figure 20).** In contrast, spending on rental properties in the interior regions has already surpassed previous highs. The only region where rental spending appears to have leveled off is the Southeast, where homeowner spending has also struggled to revive.

Among professionally managed properties, top markets for rental improvement spending include San Francisco, Los Angeles, Washington, DC, Minneapolis, and Denver, where annual expenditures averaged $1,200 or more per unit over 2012–13. Compared with the previous two-year period, rental

Figure 20

While Recovering Across the Nation, Rental Improvement Outlays in Formerly High–Spending Regions Still Lag Previous Peaks

Average Per-Unit Capital Expenditures for Professionally Managed Garden-Style Properties (2013 dollars)



Note: See Table W-8 for information about survey coverage and definitions.

Source: JCHS tabulations of National Apartment Association, Surveys of Operating Income and Expenses in Rental Apartment Communities.

spending rose rapidly in several metros, including certain distressed markets (such as Detroit and Phoenix) as well as areas where rents were already high or rising (San Francisco, Dallas, Denver, Austin, and Washington, DC).

Metros with the lowest expenditures on apartment properties include St. Louis, San Antonio, Sacramento, and Las Vegas, averaging less than $700 per unit. In most of these areas, both rents and operating incomes were lower than average, leaving few resources available for reinvestment. In some cases, the rental stock is newer and thus in less need of repair. In other cases, the markets were especially hard hit by the Great Recession. The average apartment turnover rate in these metros is also higher, perhaps indicating greater difficulty maintaining profitability in these markets.

THE OUTLOOK

As house prices and incomes continue to recover, homeowner improvement spending should pick up steam, particularly in the West. Given their higher mobility rates and higher incomes, homeowners in markets such as San Francisco, Sacramento, Las Vegas, and San Jose are likely to boost their spending on improvements. In other areas such as Phoenix and Denver, however, spending growth is expected to moderate from its recent strong pace. Meanwhile, homeowner improvement spending in many metros of the Northeast should remain strong, although growth in other regions will gradually close some of the gap in performance.

In the Midwest and South, homeowner spending growth should be more moderate but also more stable. With significant shares of their owner-occupied housing stocks built before the 1960s, Detroit, Chicago, Cincinnati, and St. Louis should all see a pickup in improvement expenditures. In the South Atlantic region, remodeling activity in Florida metros such as Jacksonville and Orlando is also expected to revive as home values recover. However, the relatively new owner-occupied stock in this region will limit spending gains in these and similar areas. Other Southern metros where improvement spending is likely to increase include Houston and Richmond, where recent activity has been lower than expected.

On the rental property side, remodeling expenditures are expected to remain strong, although growth could moderate in a handful of metro areas if new construction results in excess supply. Overall, though, this market is likely to grow as rental demand and rents continue to rise, especially in the Northeast and West. At the same time, affordability concerns in several major markets are likely to shift demand toward middle-market rentals. These properties may in turn see stronger investment relative to the higher-end, professionally managed stock.

Single-family rentals are also a potential growth market for remodelers. From 2006 to 2013, about 3.6 million single-family homes were added on net to the pool of units either rented or for rent. The American Community Survey indicates that metros where at least 100,000 single-family homes were converted to rentals include Phoenix, Los Angeles, and Atlanta. Given the larger average size of single-family homes, as well as the higher turnover rates and maintenance needs of rentals, property owners will have to make significant investments to repair and update this stock.

5 OPPORTUNITIES FOR GROWTH

With the home improvement market nearing full recovery, spending growth is likely to moderate. Indeed, given the demographic and economic obstacles facing the industry, generating even modest increases in the near term could be a challenge. Fortunately, several emerging market niches will give momentum to growth over the longer run even as spending in some traditional segments stabilizes.

During the housing boom, rapidly appreciating home values and the resulting increase in home equity, coupled with very accommodating lending standards, helped to fuel the upper-end improvement market. In 2005, homeowners that were in the top 1 percent of spenders accounted for more than one-third of total spending. Today, though, several socioeconomic and demographic changes are shifting consumer demand to smaller-scale and more targeted projects. As a result, more than 57 percent of homeowners reported spending on home improvements in 2012–13 (a slightly higher share than during the 2002–07 upturn), while the top 1 percent contributed less than one-quarter of the total.

Chief among the trends driving this shift in the remodeling market are the delayed entrance of the large millennial generation into homeownership; the aging of the baby boomers into their retirement years; the ongoing decline in the US household mobility rate; and increasing environmental awareness and technological sophistication, particularly among younger households. With these changes come opportunities for stronger growth in spending in several key areas: improvements to the rental stock, retrofits of existing homes to improve accessibility, and system upgrades that are environmentally sustainable. The DIY market is also poised for a rebound.

REINVESTING IN THE RENTAL STOCK

Since the housing downturn, the share of US households that rent rather than own their homes has increased. Indeed, the national rentership rate for households under age 35 stood at 64 percent in 2014, its highest level in three decades. For many of these younger households, the decision to rent reflects lifestyle preferences for more urban locations, hous-

ing affordability issues given their generally lower incomes and higher debt, and greater awareness of the financial risks involved in homeownership.

While rental demand has thus increased, investment in the rental stock has not kept pace. Production was so depressed during the housing downturn that the median age of the rental stock rose to 41 years in 2013, up from 35 years in 2005. However, capital investment in the aging rental stock is finally on the rebound. The National Apartment Association reports that per-unit spending on professionally managed rental properties with 50 or more units jumped by more than 40 percent between 2010 and 2013. However, some of this increase may have been compensating for a decline in maintenance and repair spending, thus offsetting some of the overall growth in spending **(Figure 21).** On net, then, the recent growth in total spending on this portion of the rental stock was less than 20 percent.

But even this lower figure may overstate the level of rental housing investment because the estimates cover only a small portion of the stock. In particular, single-family homes make up around a third of the rental inventory, and multifamily buildings with two to four units another 17 percent. And while single-family and small multifamily rentals are more spacious on average than units in larger multifamily properties, their rents per square foot tend to be somewhat lower and thus provide less gross revenue for capital expenditures. The owners of these types of properties are also likely to be individuals or couples with limited holdings and little experience managing rental portfolios.

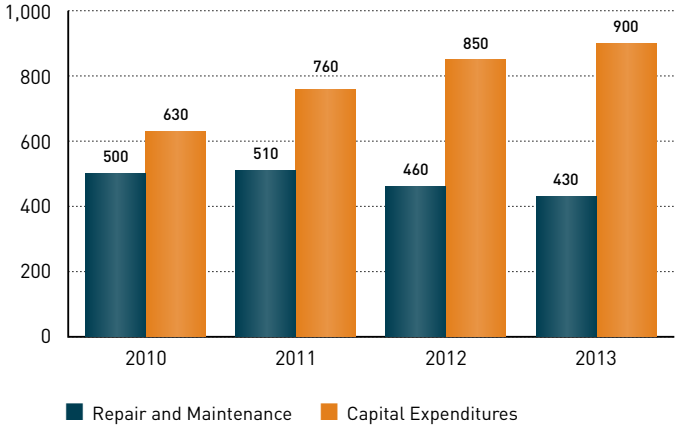
Moreover, the number of single-family rentals has increased significantly in recent years as a result of the housing market crash. According to Joint Center estimates, 3.6 million single-family homes were added on net to the rental stock from 2006 to 2013, largely as a result of the foreclosure crisis. These homes were typically under-maintained not only during the lengthy foreclosure process, but also beginning when their owners realized that they were in financial trouble. When some of these distressed properties are eventually converted back to homeownership, another round of improvement spending is likely to ensue.

Spending on rental improvements and maintenance is lower on average than on owner-occupied homes. The Joint Center estimates that per-unit improvement and maintenance spending on multifamily rental units averages $1,300 annually. By comparison, outlays average $2,200 for owner-occupied multifamily units (condos and co-ops), and almost $3,300 for owner-occupied single-family homes.

Figure 21

Capital Spending on Apartment Units Is on the Rise

Per-Unit Spending for Professionally Managed Garden-Style Rental Properties (2013 dollars)



Note: Sample includes garden-style rental properties with 50 or more units and stabilized operations.
Source: Table W-8.

The composition of improvement spending is also very different in the rental and owner markets. Almost 60 percent of multifamily rental expenditures are for replacement projects, but less than 50 percent of homeowner expenditures fall into this category. Within replacements, exterior projects account for 27 percent of multifamily rental capital expenditures, systems replacements and upgrades for 20 percent, and flooring, carpeting, and other interior replacements for 12 percent—all above the shares of spending for comparable projects in owner-occupied homes. In contrast, kitchen and bath projects make up a mere 10 percent of capital improvements to the multifamily rental stock, while projects such as pools, playgrounds, clubhouses/common areas, laundry rooms, parking and garages, and landscaping account for the remaining 31 percent.

ACCOMMODATING AN AGING POPULATION

While the millennial generation will drive much of the growth in home improvement spending in the coming decades, the baby boomers currently play a significant role in the market. In 2010, 34.3 million baby-boom homeowners were in the high-spending age group of 45–64. According to Joint Center estimates, 34.1 million owners from this generation will be aged 55–74 in 2020 and 29.0 million will be aged 65–84 in 2030.

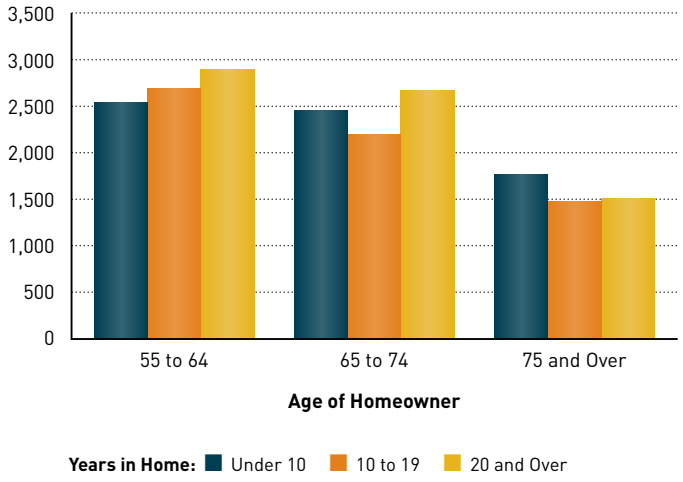
With the aging of the US population and the traditionally lower mobility rates of older owners, the concern is that overall improvement spending may suffer. But even though spending does decline as homeowners age, lower household mobil-

ity within a given age range does not necessarily imply lower spending. In fact, improvement spending in 2013 was actually modestly higher among owners aged 55–64 who had lived in their current homes for 20 years or more compared to that of same-aged owners with shorter tenure **(Figure 22).**

Figure 22

For Older Owners, Improvement Expenditures Decline with Age But Not with Length of Tenure

Average Annual Per-Owner Spending in 2013 (Dollars)



Note: Tabulations use JCHS-adjusted weights.

Source: JCHS tabulations of HUD, American Housing Survey.

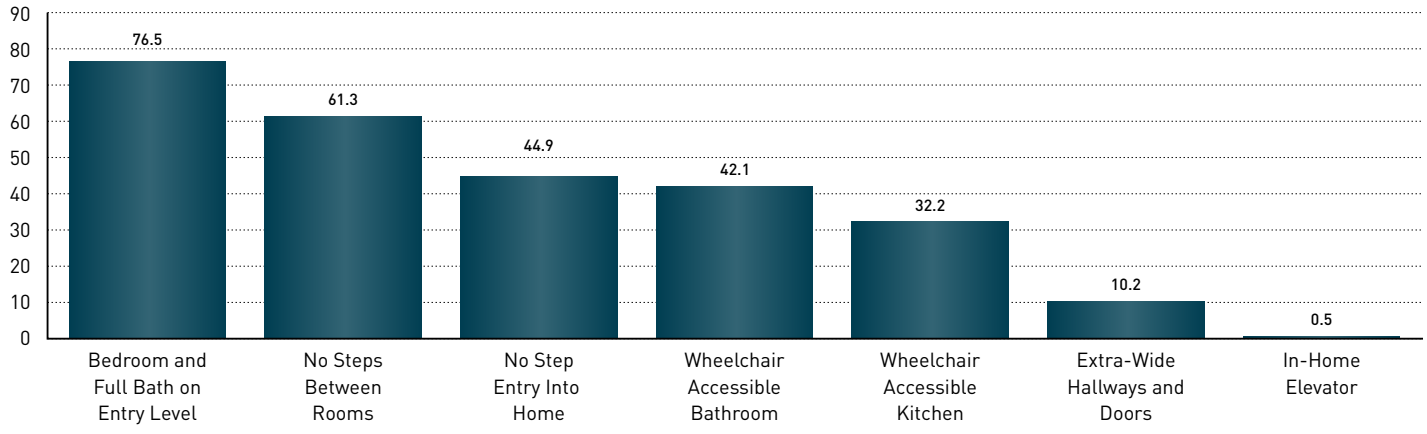
Many owners in their mid-50s to mid-60s begin to consider their post-retirement housing needs. Given that much of the US housing stock lacks basic accessibility features, however, many of these older households will have to modify their homes to age safely in place. While over three-quarters of homes owned by households aged 55 and over have a bedroom and full bath on the entry level, only about 60 percent of these homes have no steps between rooms, and less than half have a no-step entry **(Figure 23).** In total, less than a quarter of homes occupied by older owners have all of these features. Other accessibility features needed by those with more limited mobility are even less common. For example, only one in ten homes occupied by older owners have extra-wide hallways and doors, while less than 1 percent of older homeowners living in multi-story units have an in-home elevator.

Home builders are responding to the emerging need for more accessible housing, and newly constructed homes could dramatically reduce the gap between demand and supply. The problem, however, is the mismatch between where the aging population lives and where more accessible homes are being built. Households aged 55 and over are spread proportionately across the country, with a slightly higher concentration in slower-growing Frostbelt locations. In fact, the states with the largest shares of older households in 2013 were Delaware, Maine, Michigan, Montana, Pennsylvania, Vermont, and West Virginia (in addition to Florida, Hawaii, and New Mexico). Meanwhile, almost three-quarters of new homes built in the last decade are located in the South and West.

Figure 23

Many of the Homes Owned by Older Households Lack the Accessibility Features that Enable Aging in Place

Share of Units Owned by Households Aged 55 and Over with Accessibility Feature in 2011 (Percent)



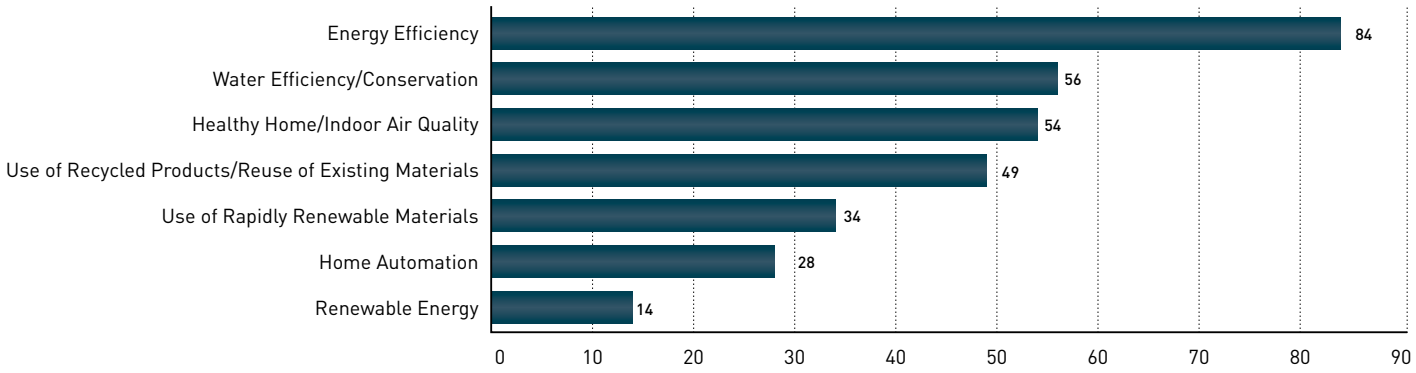
Note: In-unit elevators are computed for multi-story homes only.

Source: JCHS tabulations of HUD, American Housing Survey.

Figure 24

Projects that Boost Energy Efficiency Remain the Most Popular Sustainable Improvements

Share of Contractors Reporting Installation of Environmentally Sustainable Projects (Percent)



Notes: Respondents were asked to select sustainable remodeling projects that their companies had installed over the previous year. Estimates are averages for the 2013:3, 2014:1, and 2014:3 surveys.

Source: JCHS/Farnsworth Group Survey on Environmental Sustainability Trends in Remodeling.

As a result, many older households in slower-growing regions of the country will likely have to retrofit their existing homes with accessibility features rather than move to new homes. The Joint Center has estimated that even if every new home projected to be built over the coming decade in the Northeast and Midwest had basic accessibility features, the shortfall between the supply of and demand for these units would still be almost a million homes.

PROMOTING ENVIRONMENTAL SUSTAINABILITY

With the growing popularity of energy efficiency retrofits over the past three decades, home improvement projects that promote environmental sustainability have accounted for a growing share of spending. Sustainable projects are defined as those motivated by one or more of the following objectives: energy efficiency; water efficiency and conservation; healthy home/indoor air quality; use of recycled building products; use of rapidly renewable materials; home automation related to other sustainability goals; and utilization of renewable energy sources.

Recent surveys conducted by the Joint Center and the Farnsworth Group found that sustainable home improvement projects generate about 30 percent of revenue at full-service remodeling firms. Moreover, more than four out of five contractors report that sustainable projects account for at least 10 percent of their revenue. Energy efficiency projects are far and away the most common subcategory, with 84 percent of respondents indicating that they had installed these types of improvements during the previous year **(Figure 24).** Projects related to water efficiency, home health, and use of recycled products are the next most popular subcategories, with about half of contractors indicating that they had recently installed such improvements. Projects related to home automation and renewable energy are much less commonly installed by the typical full-service remodeler, in part because specialty firms have sprung up to serve these markets.

Of the households reporting home improvement spending in 2012 or 2013 in the American Housing Survey, 20 percent indicated that at least one of their projects was for energy efficiency purposes. A broad cross-section of homeowners has made energy efficiency a priority. For example, lower-income owners were almost as likely as those with higher incomes to pursue such improvements. Similarly, younger owners and recent homebuyers (who might be expected to have a long list of competing home improvement priorities) were almost as likely as other households to undertake energy efficiency upgrades.

Interest in most sustainable home improvement categories seems to be on the upswing. Although recent increases in domestic energy production and falling costs may reduce some of the momentum behind energy efficiency investments, other areas remain strong. In particular, spending on projects related to healthy homes and indoor air quality is increasing. According to a 2014 Joint Center/Farnsworth Group survey, almost a quarter of owner respondents indicated some degree of concern about the health impacts of their homes, and one in 20 expressed major or moderate concern over whether their

homes negatively affected the health of household members. Renters are even more apprehensive about conditions, with over a third conveying some level of concern and one in six indicating that healthy home issues are a problem.

REBOUND IN DO-IT-YOURSELF ACTIVITY

From 1995 to 2005, the DIY share of home improvement spending averaged around 25 percent. The DIY share of home improvement product purchases is much higher, however, because costs for DIY projects include only materials while costs for professionally installed projects also include labor, profit, and overhead. A 25 percent share of spending on DIY projects could thus imply that upwards of 45 percent of remodeling materials purchases are installed on a DIY basis.

Since 2005, though, the DIY share of home improvement spending has been on the decline, falling to 17 percent in 2013. The DIY share of home improvement activity is associated with the types of projects undertaken, and key homeowner characteristics such as age, income, household composition, and racial and ethnic mix. All of these factors now point to a turnaround in DIY activity in the coming years.

The recent increase in spending on discretionary home improvement projects is the clearest sign of an imminent rebound. About a quarter of spending on discretionary projects (kitchens, baths, and other additions and alterations) is DIY—significantly higher than the 14 percent share of spending on replacement projects. As the discretionary share of spending returns to more traditional levels, the DIY share should thus follow suit.

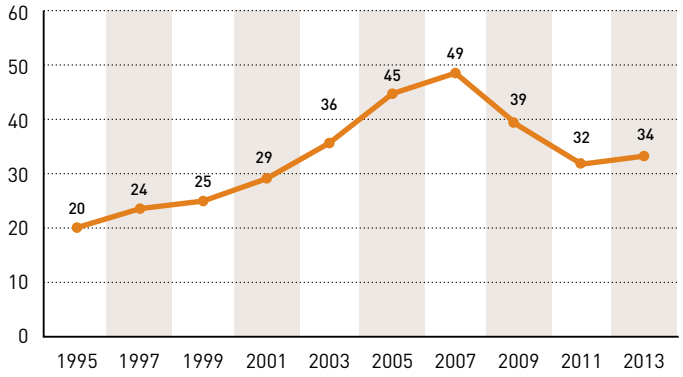
The potential for additional growth in discretionary home improvement activity is largely due to changing demographic characteristics—specifically, the impending move of the young, diverse millennial generation into the home improvement market. Younger homeowners devote a larger share of their spending to DIY projects. Indeed, owners under age 35 spent a third of their budgets on DIY projects in 2013, while owners aged 65 and over spent just 11 percent. Income levels also affect the DIY share. More than 20 percent of spending by non-elderly households in the lowest income quintile was on DIY projects, compared with less than 13 percent by those in the highest income quintile.

With the exception of blacks, most racial and ethnic minorities also devote a larger share of their home improvement spending to DIY projects than whites. In addition, married-couple owners spend a slightly larger share of their improvement dollars on DIY projects than do single-person households.

Figure 25

The DIY Market Has Finally Begun to Recover

Do-It-Yourself Improvement Expenditures (Billions of dollars)



Note: Tabulations of 2013 data use JCHS-adjusted weights.

Source: JCHS tabulations of HUD, American Housing Survey.

Even though the DIY share did not increase in 2013, overall market growth pushed total DIY spending up from $32.0 billion in 2011 to $33.5 billion. This was the first DIY spending increase since the market peaked in 2007 **(Figure 25).** The movement of the large millennial generation into the housing market and ultimately into homeownership should propel even stronger growth in DIY spending moving forward. With their moderate incomes and growing racial/ethic diversity, these households have the key characteristics associated with higher shares of DIY activity.

Beyond the DIY market, millennials are key to the remodeling outlook. With the baby boomers still active in the market and the gen-Xers in their prime home improvement years, spending on remodeling has a solid base on which to build. The millennials' increasing presence in the rental market has already helped to boost improvement spending in that segment, and it is only a matter of time before this generation becomes more active in the owner-occupied housing market. As that transition occurs, the millennial generation will support strong growth in home improvement spending for decades to come.

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

Homeowner Improvement Expenditures: 2013

	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)
DISCRETIONARY	**5,138**	**11,318**	**58,147**
Kitchen Remodels	**1,826**	**9,459**	**17,273**
Minor	1,059	3,207	3,398
Major	767	18,097	13,876
Bath Remodels	**2,459**	**4,844**	**11,910**
Minor	1,348	1,558	2,101
Major	1,111	8,829	9,809
Room Additions and Alterations	**1,765**	**13,314**	**23,496**
Kitchen Addition	28	34,699	976
Bath	342	8,294	2,834
Created finished bathroom from unfinished space	111	7,325	812
Added bathroom onto home	90	12,822	1,151
Bathroom created through structural changes	141	6,173	871
Bedroom	550	14,506	7,984
Created finished bedroom from unfinished space	192	6,758	1,296
Added bedroom onto home	132	39,536	5,233
Bedroom created through structural changes	226	6,429	1,455
Other	1,210	9,673	11,702
Created finished recreation room from unfinished space	199	9,661	1,921
Created other finished inside room from unfinished space	380	7,146	2,713
Added other inside room onto home	175	23,306	4,083
Other room created through structural changes	456	6,544	2,985
Outside Attachments	**730**	**7,489**	**5,468**
Porch/Deck	633	5,867	3,714
Added porch onto home	290	5,594	1,625
Added deck onto home	343	6,099	2,089
Garage/Carport	121	14,439	1,754
Added attached garage onto home	61	23,606	1,450
Added carport onto home	60	5,069	305
REPLACEMENT	**18,751**	**4,889**	**91,681**
Systems and Equipment Additions & Replacements	**12,671**	**2,375**	**30,097**
Internal water pipes	1,461	1,148	1,677
Plumbing fixtures	4,038	933	3,769
Electrical wiring, fuse boxes or breaker switches	2,220	1,228	2,726
HVAC	4,445	3,782	16,808
Central air conditioning	2,215	4,187	9,275
Built-in heating equipment	2,230	3,378	7,533
Appliances/Major Equipment	8,597	595	5,117
Water heater	3,245	794	2,577
Built-in dishwasher	2,360	611	1,443
Garbage disposal	1,636	183	299
Security system	1,356	589	799
Exterior Additions & Replacements	**7,127**	**5,467**	**38,962**
Roofing	3,628	6,485	23,525
Siding	1,055	4,594	4,846
Windows or doors	3,894	2,720	10,591
Interior Additions & Replacements	**7,705**	**2,936**	**22,622**
Insulation	1,625	1,187	1,929
Flooring/Paneling/Ceiling	8,433	2,021	17,046
Wall-to-wall carpeting	2,215	2,086	4,620
Other flooring such as wood, tile, marble, or vinyl	4,346	2,297	9,980
Paneling or ceiling tiles	1,872	1,306	2,445
Other major improvements inside home	832	4,386	3,647
OTHER	**6,510**	**6,475**	**42,156**
Disaster Repairs	**1,138**	**13,896**	**15,819**
Other Property Additions & Replacements	**7,125**	**3,697**	**26,336**
Other outside structure	217	6,071	1,315
Septic tank	176	3,328	585
Driveways or walkways	1,840	2,976	5,475
Fencing or walls	1,880	1,915	3,600
Patio, terrace, or detached deck	1,293	3,928	5,081
Swimming pool, tennis court, or other recreational structure	372	8,289	3,087
Shed, detached garage, or other building	909	5,892	5,356
Other major improvements or repairs to lot or yard	438	4,197	1,838
Total	**21,736**	**8,833**	**191,984**

Notes: Homeowner numbers do not add to total because respondents may report projects in more than one category. 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. Tabulations use JCHS-adjusted weights. For more information about the re-weighting methodology, see www.jchs.harvard.edu/research/improving-americas-housing.

Source: JCHS tabulations of HUD, American Housing Survey.

Table A-2

Professional and Do-It-Yourself Home Improvement Expenditures: 2013

	Professional			Do-It-Yourself		
	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)
DISCRETIONARY	**3,210**	**13,816**	**44,353**	**2,836**	**4,864**	**13,794**
Kitchen Remodels	**1,068**	**28,401**	**12,432**	**758**	**13,051**	**4,841**
Minor	670	4,109	2,752	390	1,656	645
Major	398	24,292	9,680	368	11,394	4,196
Bath Remodels	**1,343**	**6,650**	**8,933**	**1,116**	**2,668**	**2,977**
Minor	715	2,217	1,584	633	815	516
Major	629	11,690	7,349	482	5,101	2,460
Room Additions and Alterations	**908**	**20,231**	**18,379**	**886**	**5,775**	**5,118**
Kitchen	21	41,269	881	7	14,070	96
Bath	168	13,254	2,229	153	3,941	605
Bedroom	246	25,981	6,398	252	6,300	1,586
Other	548	16,183	8,871	556	5,092	2,831
Outside Attachments	**428**	**10,773**	**4,609**	**302**	**2,841**	**859**
Porch/Deck	353	8,332	2,945	272	2,830	769
Garage/Carport	86	19,427	1,664	35	2,595	90
REPLACEMENT	**14,026**	**5,601**	**78,557**	**7,764**	**1,690**	**13,124**
Systems and Equipment Additions & Replacements	**8,853**	**2,903**	**25,702**	**5,116**	**859**	**4,395**
Internal Water Pipes	889	1,598	1,421	572	448	256
Plumbing Fixtures	2,074	1,292	2,681	1,964	554	1,088
Electrical System	1,464	1,540	2,256	756	622	470
HVAC	3,033	5,131	15,560	459	2,722	1,248
Appliances/Major Equipment	4,579	827	3,785	2,884	462	1,332
Exterior Additions & Replacements	**5,386**	**6,454**	**34,760**	**1,987**	**2,115**	**4,202**
Roofing	3,059	7,099	21,713	569	3,183	1,812
Siding	779	5,665	4,412	276	1,571	433
Windows/Doors	2,505	3,448	8,635	1,390	1,408	1,957
Interior Additions & Replacements	**5,074**	**3,566**	**18,095**	**3,200**	**1,415**	**4,527**
Insulation	997	1,587	1,582	628	552	347
Flooring/Paneling/Ceiling	4,061	3,330	13,524	2,722	1,294	3,522
Other Interior	602	4,962	2,989	252	2,609	658
OTHER	**4,322**	**8,237**	**35,596**	**2,531**	**2,592**	**6,559**
Disaster Repairs	950	14,259	13,549	188	12,061	2,271
Other Property Additions & Replacements	3,508	6,285	22,048	2,378	1,804	4,289
Total	**16,319**	**9,713**	**158,506**	**9,783**	**3,422**	**33,478**

Notes: Homeowner numbers do not add to total because respondents may report projects in more than one category. 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 the AHS (see Table A-1). Tabulations use JCHS-adjusted weights. For more information about the re-weighting methodology, see www.jchs.harvard.edu/research/improving-americas-housing.

Source: JCHS tabulations of HUD, American Housing Survey.

Table A-3

Improvement Expenditures by Homeowner Characteristics: 2013

	Number of Homeowners (000s)	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)
Income				
Under $40,000	24,095	5,967	5,590	33,356
$40,000–79,999	22,360	6,410	6,966	44,654
$80,000–119,999	13,811	4,320	9,314	40,232
$120,000 and Over	14,312	4,818	15,017	72,358
Home Value				
Under $100,000	19,627	5,047	4,814	24,297
$100,000–149,999	12,894	3,786	6,022	22,802
$150,000–199,999	11,358	3,414	7,191	24,551
$200,000–249,999	7,621	2,292	8,063	18,475
$250,000–399,999	13,231	3,903	11,511	44,925
$400,000 and Over	10,944	3,294	17,283	56,933
Age of Householder				
Under 35	8,907	2,510	6,962	17,473
35–44	12,161	3,578	10,131	36,243
45–54	16,327	4,829	9,933	47,962
55–64	16,635	4,959	9,162	45,441
65 and Over	21,646	5,861	7,655	44,865
Generation				
Millennial (Born 1985-2004)	2,877	772	6,355	4,905
Trailing Gen-X (Born 1975-84)	10,237	2,990	8,600	25,709
Leading Gen-X (Born 1965-74)	13,852	4,078	9,849	40,167
Trailing Baby Boom (Born 1955-64)	17,298	5,141	9,949	51,148
Leading Baby Boom (Born 1945-54)	15,446	4,575	8,877	40,614
Pre-Baby Boom (Born before 1945)	15,965	4,180	7,043	29,440
Race/Ethnicity				
White	58,826	17,191	9,188	157,948
Black	6,355	1,758	6,375	11,208
Hispanic	6,738	1,787	7,781	13,903
Asian	2,593	655	9,734	6,379
Multirace	1,163	345	7,392	2,547
Spending Level				
Under $2,500	9,309	9,309	838	7,797
$2,500–4,999	3,345	3,345	3,538	11,835
$5,000–9,999	3,979	3,979	6,866	27,319
$10,000–19,999	2,853	2,853	13,537	38,618
$20,000–34,999	1,240	1,240	26,006	32,248
$35,000–49,999	445	445	41,070	18,270
$50,000 and Over	565	565	98,961	55,897
No Projects	53,940			
Total	**75,676**	**21,736**	**8,833**	**191,984**

Notes: Income data exclude households that did not respond to the question. White, black, Asian, and multirace householders are non-Hispanic. Hispanic householders may be of any race. Tabulations use JCHS-adjusted weights. For more information about the re-weighting methodology, see www.jchs.harvard.edu/research/improving-americas-housing.

Source: JCHS tabulations of HUD, American Housing Survey.

Table A-4

Professional and Do-It-Yourself Improvement Expenditures by Homeowner Characteristics: 2013

	Number of Homeowners (000s)	Professional			Do-It-Yourself		
		Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)	Homeowners Reporting Projects (000s)	Average Expenditure ($)	Total Expenditures (Millions of $)
Income							
Under $40,000	24,095	4,356	6,346	27,642	2,494	2,291	5,714
$40,000–79,999	22,360	4,594	7,683	35,294	3,119	3,001	9,360
$80,000–119,999	13,811	3,205	10,020	32,115	2,095	3,874	8,117
$120,000 and Over	14,312	4,008	15,599	62,519	1,957	5,028	9,360
Home Value							
Under $100,000	19,627	3,375	5,338	18,017	2,602	2,414	6,280
$100,000–149,999	12,894	2,742	6,448	17,684	1,846	2,772	5,118
$150,000–199,999	11,358	2,556	7,771	19,859	1,629	2,881	4,693
$200,000–249,999	7,621	1,777	8,170	14,521	1,018	3,884	3,954
$250,000–399,999	13,231	3,063	12,437	38,096	1,625	4,203	6,830
$400,000 and Over	10,944	2,805	17,942	50,330	1,063	6,214	6,603
Age of Householder							
Under 35	8,907	1,658	6,998	11,604	1,518	3,867	5,868
35–44	12,161	2,526	11,361	28,696	1,882	4,010	7,547
45–54	16,327	3,541	11,080	39,233	2,462	3,546	8,730
55–64	16,635	3,773	10,335	38,999	2,122	3,036	6,442
65 and Over	21,646	4,820	8,293	39,974	1,800	2,718	4,891
Generation							
Millennial (Born 1985-2004)	2,877	492	6,390	3,145	457	3,852	1,760
Trailing Gen-X (Born 1975-84)	10,237	2,036	9,085	18,492	1,752	4,120	7,217
Leading Gen-X (Born 1965-74)	13,852	2,910	11,200	32,588	2,148	3,529	7,579
Trailing Baby Boom (Born 1955-64)	17,298	3,813	11,125	42,421	2,450	3,562	8,727
Leading Baby Boom (Born 1945-54)	15,446	3,603	9,810	35,342	1,759	2,998	5,272
Pre-Baby Boom (Born before 1945)	15,965	3,466	7,652	26,517	1,218	2,400	2,105
Race/Ethnicity							
White	58,826	12,892	10,170	131,105	7,782	3,449	26,843
Black	6,355	1,457	6,482	9,444	631	2,797	1,763
Hispanic	6,738	1,182	9,026	10,668	982	3,293	3,235
Asian	2,593	534	9,935	5,304	220	4,888	1,075
Multirace	1,163	254	7,810	1,985	168	3,345	562
Spending Level							
Under $2,500	9,309	5,360	869	4,658	4,939	635	3,138
$2,500–4,999	3,345	2,734	3,215	8,791	1,339	2,274	3,044
$5,000–9,999	3,979	3,481	6,280	21,857	1,525	3,581	5,462
$10,000–19,999	2,853	2,633	12,058	31,751	1,166	5,889	6,867
$20,000–34,999	1,240	1,151	23,539	27,089	441	11,692	5,159
$35,000–49,999	445	416	36,511	15,192	159	19,371	3,079
$50,000 and Over	565	544	90,397	49,168	214	31,441	6,729
No Projects	53,940						
Total	**75,676**	**16,319**	**9,713**	**158,506**	**9,783**	**3,422**	**33,478**

Notes: Income data exclude households that did not respond to the question. White, black, Asian, and multirace householders are non-Hispanic. Hispanic householders may be of any race. Tabulations use JCHS-adjusted weights. For more information about the re-weighting methodology, see www.jchs.harvard.edu/research/improving-americas-housing.

Source: JCHS tabulations of HUD, American Housing Survey.

Table A-5

Metropolitan Trends in Home Improvement and Repair Spending: 2013

Metropolitan Area	Owner-Occupied Homes								Garden-Style Rental Apartment Properties	
			Average Annual Per-Owner Improvement Spending ($)							
	Share of Homeowners Reporting Projects (Percent)	Share of Spending on Improvements Costing $50,000 or More (Percent)	Total	Professional	Do-It-Yourself	Discretionary	Replacements	Energy-Sensitive	Average Annual Capital Expenditures per Unit ($)	Average Annual Repair and Maintenance Expenditures per Unit ($)
Atlanta, GA*	31	24	3,050	2,660	390	1,050	1,380	1,100	800	460
Austin, TX	32	38	3,480	2,970	510	1,420	1,250	980	1,060	440
Baltimore, MD	31	28	3,420	2,940	490	1,250	1,530	1,160	850	560
Birmingham, AL*	28	22	2,410	2,110	310	730	1,040	850	480	400
Boston, MA	30	50	4,890	4,350	540	2,160	2,030	1,320	930	660
Buffalo, NY*	35	19	3,240	2,620	620	1,170	1,630	1,340	-	-
Charlotte, NC*	33	18	3,110	2,720	390	950	1,500	1,220	910	390
Chicago, IL	27	26	2,520	2,160	360	980	1,100	910	910	530
Cincinnati, OH*	33	16	2,670	2,100	570	940	1,210	960	900	420
Cleveland, OH*	32	15	2,660	2,160	490	1,060	1,090	920	-	-
Columbus, OH*	32	34	3,120	2,620	500	1,460	1,170	940	1,110	400
Dallas, TX*	33	23	2,960	2,540	420	950	1,290	1,050	1,020	470
Denver, CO*	35	24	4,000	3,320	680	1,430	1,590	1,250	1,210	380
Detroit, MI	27	16	1,920	1,570	350	690	870	720	1,060	410
Hartford, CT	29	30	3,260	2,790	470	1,320	1,340	1,070	-	-
Houston, TX	27	26	2,310	1,800	510	950	880	630	780	420
Indianapolis, IN*	34	17	2,870	2,290	570	1,090	1,220	990	1,020	440
Jacksonville, FL	22	14	1,840	1,450	380	610	840	680	980	450
Kansas City, MO*	34	15	3,160	2,760	410	1,020	1,390	1,190	840	440
Las Vegas, NV	27	23	1,700	1,330	370	650	640	400	640	400
Los Angeles, CA*	27	37	3,140	2,620	520	1,700	960	630	1,270	500
Louisville, KY	35	21	3,460	2,870	590	1,060	1,540	1,310	-	-
Memphis, TN*	33	18	2,340	2,100	250	740	930	730	660	490
Miami, FL	23	27	2,010	1,660	340	820	870	700	-	-
Milwaukee, WI*	35	20	3,370	2,850	530	1,160	1,640	1,390	-	-
Minneapolis, MN	32	28	3,530	2,930	600	1,420	1,440	1,180	1,520	680
Nashville, TN	31	19	2,990	2,570	430	880	1,460	1,230	870	430
New Orleans, LA*	24	26	2,220	1,830	390	810	910	680	-	-
New York, NY	25	44	3,670	3,110	560	1,180	1,130	920	-	-
Oklahoma City, OK	34	27	3,970	3,470	490	810	1,730	1,490	-	-
Orlando, FL	22	24	1,770	1,420	350	650	770	620	800	460
Philadelphia, PA	32	26	3,210	2,810	410	1,290	1,300	990	960	640
Phoenix, AZ*	35	32	3,840	3,380	460	1,190	1,410	1,130	960	370
Pittsburgh, PA*	34	14	2,750	2,250	500	1,040	1,120	870	-	-
Portland, OR*	33	25	3,130	2,550	580	1,360	1,170	850	1,070	270
Providence, RI*	32	42	4,020	3,310	710	1,480	1,930	1,600	-	-
Richmond, VA	27	25	2,420	2,030	390	850	1,010	800	840	400
Riverside, CA*	28	34	2,630	2,140	490	1,170	790	550	790	540
Rochester, NY	34	21	2,770	2,190	580	1,160	1,200	910	-	-
Sacramento, CA*	31	16	2,760	2,260	510	1,050	1,030	800	500	800
St. Louis, MO*	31	13	2,380	1,910	470	780	1,000	800	660	320
San Antonio, TX	30	18	2,130	1,700	430	700	970	750	550	400
San Diego, CA*	28	32	3,390	2,950	450	1,770	1,010	720	970	430
San Francisco, CA*	29	39	3,760	3,200	560	1,970	1,200	840	1,450	430
San Jose, CA*	27	42	3,890	3,470	430	1,900	1,360	980	-	-
Seattle, WA	32	35	3,390	2,700	690	1,540	1,240	990	1,020	330
Tampa, FL	28	26	2,440	2,060	390	920	1,070	900	1,170	510
Tucson, AZ	32	21	2,420	1,990	430	950	1,080	760	820	310
Virginia Beach, VA*	33	34	3,180	2,750	440	1,240	1,370	1,120	650	300
Washington, DC	32	45	4,960	4,530	440	2,110	1,910	1,430	1,260	680
50 Metro Average	**30**	**26**	**3,010**	**2,540**	**470**	**1,150**	**1,230**	**970**	**930**	**460**
United States	**29**	**29**	**2,540**	**2,090**	**440**	**1,000**	**980**	**760**	**880**	**440**

Notes: Homeowner improvement spending for the 50 metro areas is pooled from the 2011 and 2013 American Housing Surveys. Spending levels in 2011 for 26 metros (indicated by asterisk) are adjusted by the CPI-U for All Items, as well as by the national change in average spending from 2011 to 2013. See Table A-1 for definitions of discretionary and replacement projects. Energy-sensitive projects include roofing, siding, windows/doors, insulation, and HVAC.

Survey data from the National Apartment Association cover rental apartment properties with 50 or more units under professional management with stabilized operations. Average annual apartment expenditures were calculated over 2012–13 for metro areas with a minimum of 2,000 apartment units and 10 properties sampled. See NAA survey for definitions of capital expenditures and repairs and maintenance.

Sources: JCHS tabulations of HUD, American Housing Surveys; National Apartment Association, Surveys of Operating Income and Expenses.

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