Value Provided by NAHB in 2019

Estimates Produced by the
NAHB Economics and Housing Policy Group

February 2019

Total Estimated Value in 2019
$7.0 Billion, or $5,500 per Housing Start

This document provides an analysis of additional revenue and cost savings that NAHB members will realize in 2019 on a per housing start basis due to NAHB's advocacy efforts in 2018 and other select benefits.

To convert total dollar estimates for 2019 to dollars per start, all totals for the year in this document are divided by 1,272,250, which is NAHB's forecast for total housing starts in 2019 as of January 7, 2019.

1. Favorable IRS Ruling Preserves Remodeling Expenditures

Estimated value: $102.6 million in residential remodeling preserved in 2019.
Approximately $100 per housing start.

The Tax Cuts and Jobs Act of 2017 created a potential problem for the residential remodeling industry by eliminating the deduction for interest paid on home equity lines of credit (HELOCs). However, after combing through prior law and regulatory guidance, NAHB concluded that interest paid on home equity loan debt remains deductible under the new law, because debt secured by a taxpayer's residence falls under the definition of "acquisition debt" and therefore should be considered "qualified mortgage interest."

Three weeks after NAHB submitted a letter to this effect to Treasury Secretary Steven Mnuchin, the Internal Revenue Service issued guidance agreeing with NAHB's assessment.

NAHB then analyzed the positive implications for the remodeling industry in an "Eye on Housing" blog post published on May 22, 2018. Using data from the IRS and the latest (2016) Survey of Consumer Finances produced by the Federal Reserve Board and taking into account home owners' income and tendency to actually claim the HELOC deduction, NAHB estimated that the favorable IRS ruling would have preserved $760 million in tax deductions that home owners used in 2016, had it been applicable at that time.

The new tax law made two major changes that will affect this amount in future years. First, it doubled the standard deduction, so that that fewer home owners are likely to take the HELOC interest deduction into account when making a renovation decision. Offsetting this, however, is the increase in people itemizing their tax returns who may claim the deduction as a result of changes to the alternative minimum tax. As a rough approximation, this analysis assumes that these two effects offset each other.

The result is brought forward to 2019 first by adjusting for the increase in remodeling the Census Bureau's estimate of spending on home improvements to owner-occupied housing in 2014 and NAHB's current forecast of this spending in 2019. Next, the result is adjusted downward for the reduced tendency to itemize under the reformed tax code. The adjustment uses the ratio of 19 million itemizers in 2018 (estimated by the Tax Policy Center) and the 45 million itemizers in 2016 as reported by the IRS. The 2019 deductions are then converted to actual tax savings multiplying by a 25% marginal tax rate, typical of the rate that should be paid by the itemizers claiming the deduction, based on the incomes of these itemizers in 2016 and the rates that applied under the revised tax code. The result is an estimated $102.6 million in reduced federal income taxes for home owners who use HELOCs to fund improvements to their homes in 2019.

A price elasticity of demand of -1 translates the $102.6 million in tax savings directly into expenditures on remodeling. The elasticity of -1 is a standard assumption about the responsiveness of demand to a change in price that is used widely—for example, in academic research and by government agencies, such as the Joint Committee on Taxation. Hence, the $106.2 million is an estimate of additional remodeling in 2019 as a result of the IRS guidance NAHB obtained. Dividing by NAHB's forecast of 1,272,250 housing starts for the U.S. in 2019 produces an estimate of approximately $100 per start.

2. Fish and Wildlife Service Withdraws Onerous Compensatory Mitigation Policy

Estimated value: $123 million in savings for the residential construction industry in 2019 total. Approximately $100 per housing start.

In response to a 2015 Presidential Memorandum, the U.S. Fish and Wildlife service (FWS) proposed a policy to require developers and builders obtaining a permit under the Endangered Species Act (ESA), under certain circumstances, to perform potentially costly off-site compensatory habitat mitigation. NAHB actively lobbied against this policy as soon as it was proposed, and achieved a major victory on July 30, 2018 when FWS withdrew the proposed rule.

To estimate the impact this policy would have had if in effect throughout 2019, the analysis begins with a 2015 report issued the U.S. Army Corps of Engineers. That report showed that an average of 56,386 nationwide permits of all types were issued per year, but not how many were specifically triggered by the ESA. Through a special request to the Corps, NAHB obtained data for a sample of 38 districts over a 3-year period that showed 31.6 percent of the nationwide permits in these areas were subject to ESA requirements. According to the 2015 report, recipients of 10 percent of nationwide permits overall were required to perform compensatory mitigation under the Clean Water Act (CWA). Assuming 2019 will be a typical year for nationwide permit applications and that the above percentages are relevant and continue to hold, an estimated 1,781 construction projects would have required compensatory mitigation during 2019 as a result of the policy had it not been withdrawn.

Because the policy was withdrawn, data on the costs of compensatory mitigation triggered by the ESA have not been produced. The closest analogy is compensatory mitigation triggered by the Clean Water Act. A 2015 economic analysis issued by the U.S. Army Corps of Engineers and EPA reported that an average of 0.83 acres required compensatory mitigation at a cost that ranged from $41,572 to $111,985 in 2014 dollars. The midpoint of this range, inflated to 2019 dollars using NAHB's current forecast for the Consumer Price Index, is $68,888.

Multiplied by the projected 1,781 projects that would have been affected, this translates to $122.7 million in extra costs builders and developers would have incurred in 2019 had the compensatory mitigation proposal not been withdrawn. Dividing by NAHB's forecast of 1,272,250 housing starts for 2019 produces an estimate of approximately $100 per start.

3. Lower Cost Options Preserved in 2015 I-Codes

Estimated Value: $2.06 billion in cost savings for home builders in 2019 total. Approximately $1,600 per housing start.

NAHB's Construction, Codes and Standards (CC&S) Department maintains an ongoing effort to keep unnecessarily costly provisions out of building codes. An important part of this effort is participating in the International Code Council (ICC) code development process. NAHB members have seats on ICC Code Development committees, and NAHB staff participate extensively in ICC hearings, testifying against proposals that would needlessly drive up construction costs and in favor of sensible, cost-effective proposals. NAHB was successful in keeping a number of costly provisions out of the 2015 and 2018 versions of the International Residential Code (IRC) and International Energy Conservation Code (IECC) in particular. According to the most recent ICC tables (as of December 2018), the 2018 versions of these codes have not yet been adopted in many states. However, adoption of the 2015 IECC—and particularly of the 2015 IRC—became considerably more widespread over the past year, and many builders will benefit from these cost saving successes throughout 2019 because an increasing number of states and local jurisdictions have adopted that 2015 IRC and IECC. The following list is far from exhaustive; it is limited to items for which it was possible to obtain a reasonable estimate of the cost of the provision for an average single-family home:

Provisions Kept Out of 2015 Codes	Average Cost per Home	Number of New Homes Affected in 2019
A. Mandatory requirements for new homes to facilitate future solar energy system installations.	307	224,091
B. Fenestration-U-Factor in Climate Zones 5, 6, 7 and 8 increased to triple pane levels	3,147	83,194
C. No electric heat or ducts in conditioned space	1,574	179,392
D. High efficiency water heating equipment required	1,574	161,453
E. A provision that would have required draftstopping every 1,500 square feet in attics.	525	501,297
F. A provision that would have required motorized dampers connected to kitchen exhaust systems instead of gravity dampers.	262	476,232
G. Removal of the underside sheathing exemption for floors with joists 2x10 or larger.	2,078	102,387

The average cost figures were developed by NAHB's CC&S and Housing Policy Departments. The estimated number of homes affected is based on NAHB's forecast of single-family housing starts for 2019 in the jurisdictions that had adopted the 2015 versions of the IRC and IECC at the end of 2018.

The cost difference is not applied to all homes projected to be built in these jurisdictions in 2019 because a share of the homes (typically the more expensive ones) would have been built to these standards in the absence of the code provision, so the code provision has no effect on them.

Information on the share of new homes built to proposals B and G comes from the 2017 Builder Practices Survey Report from Home Innovation Research Labs. Information on the share of homes built to proposal C comes from the Survey of Construction of new single-family homes started in 2017, which was conducted by the U.S. Census Bureau with partial funding from HUD. Information on the share of new homes built to proposals A and D comes from special questions on the monthly survey used to generate the NAHB/Wells Fargo Housing Market Index. The share of homes built to proposals E and F is based on estimates developed by NAHB's CC&S Department. Where CC&S provided a range, the upper (most conservative) end of the range was used to avoid overstating the value of a particular victory in the codes arena.

In total, estimated savings generated by avoiding the code provisions listed above equals $2.06 billion. Dividing by NAHB's forecast of 1,272,250 housing starts for 2019 produces an estimate of approximately $1,600 per start.

4. Continued Availability of Federal Flood Insurance for New Construction

Estimated value: $2.63 billion in residential investment preserved in 2019 total.
Approximately $2,100 per housing start.

In 2018 NAHB, worked successfully on several measures related to FEMA's National Flood Insurance Program (NFIP) as it relates to new residential construction. The measures included:

1. A proposal to restrict access home builders have to the NFIP for new construction in the long term re-authorization package considered by the House of Representatives,
2. FEMA guidance that would impede operation of the NFIP program during a lapse in appropriations (for example, during a federal government shutdown)
3. A series of short term extensions to ensure that the program would not be interrupted so it could continue to fulfill the mandatory purchase requirement for homes with a federally backed mortgage in the special flood hazard area.

NAHB's successes included defeating the first of these, securing a rescission of the second, and achieving the extensions in the third. Together, the effect of these victories is to assure the continued availability of federal flood insurance for new residential construction in 2019.

Previously, NAHB had contracted with Wetland Studies and Solutions, Inc. to estimate the share of land in the flood plain in each block group in the country, and applied data on recent construction in each block group from the Census Bureau's American Community Survey to estimate how much single-family and multifamily construction required flood insurance in 2017. These estimates are brought forward by applying NAHB's forecast of the change in real residential investment, and of the change in the Consumer Price Index to account for inflation. The result is an estimate that $40.1 billion of single-family and $7.4 billion of multifamily construction would be built in an area requiring flood insurance in 2019.

According to FEMA Memorandum W-17061, the average cost of a single-family NFIP policy for a home owner in 2019 is expected to be $1,062. To estimate the cost of this obtained from an equivalent source, NAHB applied the coefficient on the value of a home built near water in the latest version of its House Price Estimator to the maximum amount of $250,000 that an NFIP plan will cover. The result is an estimate that a buyer would be willing to pay $2,317 more for an otherwise similar home if built in an area near water where flood insurance is required. In the absence of a federal program, it is assumed a private insurance company would extract the maximum amount the market would bear in premiums. Next, Principal, Interest, Taxes and Insurance on a typical loan for a single-family home that requires flood insurance are calculated under the same assumptions published recently in NAHB's "Priced Out Estimates for 2019." The result shows an estimated 5.3 percent increase in PITI if the insurance is obtained from a private company rather than the NFIP. The same percentage increase is used for multifamily.

An elasticity of -1 (see item 1) applied to the above estimates implies that the increase in insurance costs due to a lack of the NFIP would reduce residential investment by approximately $2.63 billion ($2.22 billion in investment in new single-family structures, $411 million in multifamily structures) in 2019. Dividing by NAHB's forecast of 1,272,250 housing starts for the U.S. in 2019 produces an estimate of approximately $2,100 per start.

5. Grandfathering of Flood Insurance Rates

Estimated value: $147 million in additional new construction and remodeling in 2019 total. Approximately $100 per housing start.

Another victory for NAHB in 2018 was avoiding a proposal to restrict grandfathering of lower rates for existing homes in FEMA's National Flood Insurance Program (NFIP). The proposal would have increased premiums on existing homes in areas where the flood plain maps are re-drawn. It would have affected new residential construction in two ways. By increasing the cost of homeownership, it would have inhibited sales of the existing homes and owners relocating, a share of whom would have bought new homes. And by raising the carrying cost of a dollar's worth of home value, it would have inhibited remodeling projects that increased home values.

NAHB previously used FEMA's master flood file to estimate the magnitude of these two effects for every county in the country in 2014 as part of its analysis of the Homeowner Flood Insurance Affordability Act. These estimates are adapted to the 2018 victory by estimating 1) how many of the homes would be subject to map re-drawing in 2019, and 2) adjusting for changes in prices and rates of housing activity since 2014.

The first of these is estimated by flagging the counties where the maps were redrawn over the previous 12 months and assuming that existing homes in these areas provide a reasonable estimate of the homes that would be subject to redrawing in 2019. In total, maps were redrawn for 224 of the counties in the latest 12-month period. The maps were redrawn for every jurisdiction in 200 of the counties, and in a subset of jurisdictions for the other 4. It is assumed half of the homes in partial cases were affected. It is further assumed that the affected homes would become subject to the proposed policy at a constant rate throughout the year, so that on average half of the normal remodeling and home sales activity would be impacted in 2019.

The second adjustment, for changes in prices and the rates of housing activity, is based on NAHB's latest economic and housing forecast. New home construction stimulated indirectly by sales of existing homes is adjusted using NAHB's forecast of real residential fixed investment in new single-family structures in

2019, compared to 2014, and annual changes to the Consumer Price Index, or NAHB's forecast of the changes, for every year since 2014 through 2019. Remodeling activity stimulated is adjusted using the Census Bureau's estimate of spending on home improvements to owner-occupied housing in 2014 and NAHB's current forecast of this spending in 2019.

The result is an estimate of $94.1 million in new residential construction and $52.5 million in remodeling—for a total of $146.6 million in residential investment—preserved by avoiding the proposed restrictions on grandfathering that would have raised the costs of flood insurance on a portion of existing homes. Dividing by NAHB's forecast of 1,272,250 housing starts for the U.S. in 2019 produces an estimate of approximately $100 per start.

6. Lower AFCI Requirements in Many States

Estimated value: $251 million in cost savings for builders in 2019 total.
Approximately $200 per housing start.

In recent years, advocates have sought to use the electrical code to increase the number of Arc Fault Circuit Interrupters (ACFIs) used in residential construction. NAHB believes that these attempts have been made without evidence that extra ACFIs improve safety and are motivated by product manufacturers seeking to increase their sales through building codes, or are motivated by a general belief that the code should be ratcheted up periodically without consideration of the benefits and costs.

NAHB's Construction, Codes and Standards (CC&S) Department has provided information and technical assistance to many state and local HBAs to help them counter these attempts. CC&S staff has also used their position on Panel 2 of the National Electrical Code to advocate against expanding AFCI requirements in the model code.

They were successful in blocking expansion in the 2017 edition, saving costs for those states that adopt the NEC unamended. As of this writing, HBAs in 41 states have achieved victories where they prevented proposed changes to the electrical codes that would require increasing the number of AFCIs or they were able to amend the model codes when they were adopted in a way that reduces the number of required AFCIs.

The CC&S Department has also calculated how many AFCIs are used in the average home under the current version of the electrical code in these states and compared it to the number under whole-house coverage that advocates sought to impose. The reductions range from 7 to 22 fewer AFCIs per house, depending on the state.

A survey of hardware stores and other outlets conducted by the National Electrical Manufacturers Association in 2007 found costs for an AFCI that ranged from $30 to $35, compared to $2 to $4 for a standard circuit breaker. Taking the midpoints of these numbers and adjusting for inflation using NAHB's latest forecast for the Consumer Price Index produces a projected cost difference of $36.59 between an AFCI and standard circuit breaker in 2019. It is assumed that there is no difference in installation costs.

This cost difference is multiplied by the average reduction in AFCIs per house in each of the affected states, for an average construction cost savings per home that ranges from $256 to $805 per home. These numbers are then multiplied by NAHB's current forecast of single-family starts in each of these states in 2019 for an aggregate $251 reduction in construction costs for builders in the states where the code victories occurred. Dividing by NAHB's forecast of 1,272,250 housing starts for the U.S. in 2019 produces an estimate of approximately $200 per start.

7. NAHB Designations Boost Members' Business

Estimated value: $324 million in additional business in 2019 total.
Approximately $300 per housing start.

NAHB members continue to invest time, effort and money to attain professional designations offered by NAHB. The association's latest consumer survey provides insight into the value of designations, as 79 percent of recent and prospective home buyers agreed that contractors with such specialized professional designations are "worth paying a higher price for."

A simple way to assign a rough value to a designation is to look at the revenue differential between businesses of members with and without a designation. It is possible to do this by matching records of builders and remodelers who have earned NAHB professional designations to other comparable builders and remodelers in NAHB's Member Census.

The results are as follows:

- Companies of builder members with NAHB's Certified Graduate Builder, or Graduate Master Builder designation averaged $880,958 more annual revenue than companies of builder members without that designation.
- Companies of members with the Certified Green Professional™ (CGP) or Master CGP designation averaged $612,187 more revenue than companies of builder members without one of those designations.
- Revenues of companies of remodeler members with any of the remodeling designations, including Certified Graduate Remodeler, Graduate Master Remodeler, or Certified Aging-in-Place Specialist, averaged $628, 535 more than companies of remodeler members without one of those designations.
- Companies of remodeler members with a Certified Graduate Remodeler or Graduate Master Remodeler designation averaged $603,717 more revenue than companies of remodeler members without one of these designations.
- Companies of members with the Certified Aging-in-Place Specialist designation averaged $691,464 more revenue than companies of remodeler members without one of these designations.

In 2018, according NAHB administrative records, a total of 504 NAHB members earned one of these designations. The differences in average revenue noted above, if they remain constant, imply that companies of these members will earn an aggregate $324 million per year, which we apply to 2019. Dividing by NAHB's forecast of 1,272,250 housing starts for 2019 produces an estimate of approximately $300 per start.

8. Council Members Earn More Revenue

Estimated value: $857 million in revenue in 2019 total.
Approximately $700 per housing start.

NAHB members continue to join and participate in NAHB councils that serve important subsets of the residential construction industry.

In addition to advocacy efforts on their behalf, councils provide business information, research and networking opportunities designed to strengthen their businesses.

A simple way to assign a number to the value of these benefits is to compare the revenue of members who specialize in the same aspect of the residential construction industry and who do or do not belong to the relevant NAHB council. This is possible by matching records of members who belong to NAHB Remodelers and NAHB's Multifamily Council with responses to NAHB's 2017 Member Census.

The results were as follows:

- Median revenue of remodelers who belonged to NAHB Remodelers was $611,144 higher than the median revenue of remodelers who did not belong to NAHB Remodelers.

- Median revenue of multifamily builders who belonged to NAHB's Multifamily Council was $7,685,635 higher than the median revenue of multifamily builders who were not members of the Council.

Over 1,000 new members joined NAHB Remodelers in 2018, and 31 new members joined NAHB's Multifamily Council. These new members will be able to realize a full year's worth of benefits in 2019.

Valuing the benefits at the median revenue differentials noted above produces an estimated aggregate benefit of $857 million in 2019. Dividing by NAHB's forecast of 1,272,250 housing starts for 2019 produces an estimate of approximately $700 per start.

9. Increased Profits for NAHB 20 Club Members

Estimated value: $96 million in profit in 2019 total.
Approximately 100 per housing start.

Offering unique networking opportunities, the NAHB 20 Clubs are comprised of similar type builders or remodelers from noncompeting markets who meet several times each year to share their knowledge and learn ways to improve their operations and increase their bottom lines. Statistics indicate that 20 Club members perform better than non-members in financial growth and long-term success. An analysis by NAHB showed that, on average, 20 Club members double their net profit by their third year of membership in this program.

According to NAHB's Customized Member Services Department, 77 members passed the three-year threshold in 2016 and should therefore realize a full year's worth of benefits in calendar year 2019. Valuing this at the average $1,241,000 in net profit noted in the 2019 edition of NAHB's Cost of Doing

Business study (released at IBS) produces an aggregate increase in net profit of $96 million. Dividing by NAHB's forecast of 1,272,250 housing starts for 2019 produces an estimate of approximately $100 per start.

10. Change to IRS Proposed Rules Regarding Like-Kind Exchange Property

Estimated value: $397.1 million in annual tax savings in 2019 total.
Approximately $300 per housing start.

The Tax Cuts and Jobs Act of 2017 (TCJA) created a new 20 percent deduction for qualified business income attributable to a pass-through entity (i.e. S-corporation, partnership, sole proprietorship, LLC). To qualify for the full deduction, a taxpayer's annual income must be below an income threshold.

Above this threshold, the taxpayer's qualifying income is capped by one of two calculations:

The amount of W-2 wages paid to employees in the given tax year divided by two, or

- The amount of W-2 wages paid to employees in the given tax year divided by four, plus 2.5 percent of qualified depreciable property.

In August 2018, the IRS issued proposed regulations regarding the sec. 199A deduction. Unlike their treatment of other capital investments, the regulations stated that only a small portion of the value of property acquired through a like-kind exchange would count as "qualified depreciable property." The proposed rule would have all but eliminated the 20 percent deduction available to home builders.

NAHB filed comments with the Treasury explaining that this rule was contrary to the spirit of the law and would have negative consequences for real estate liquidity and economic growth.

In final regulations issued in January, the IRS agreed with NAHB's position and stated that the differential treatment between like-kind exchange real property and other depreciable assets was unnecessarily punitive. As a result, property acquired through a like-kind exchange counts as "qualified depreciable property," which will save home builders $317.7 million in taxes in 2019.

This figure was calculated using academic research (Ling and Petrova 2015), as well as IRS Statistics on Income data and research published by the Department of the Treasury's Office of Tax Analysis.

The most recent IRS data available for like-kind exchanges is from 2015. As the new rule indicated that unadjusted basis would be the value of LKE property for the purposes of 199A, the initial dollar figure needed was the value of property relinquished in all LKEs during 2015--$180.3 billion.

This figure was brought forward to 2019 using the average annual increase prior to 2015, equal to 15.8 percent. Applying this percentage to 2015 figures results in a projected $324.2 billion worth of property to be received in a like-kind exchange in 2019.

According to Ling and Petrova's analysis, roughly 14 percent of the dollar amount of this property consists of real estate such as apartment buildings and land. Thus, the estimated dollar value of LKE-derived property in 2019 is $44.4 billion.

Applying the 2.5 percent rule to this amount yields a 199A cap increase equal to $1.1 billion. Assuming an average top marginal tax rate of 35 percent for these taxpayers, they would save $397.1 million per year in taxes. Dividing by NAHB's forecast of 1,272,250 housing starts for the U.S. in 2019 produces an estimate of approximately $300 per start.