Purchasing a home is typically the largest purchase and among the most important financial decision a family makes. There are numerous factors that influence the home buying decision, and among the most important are the tax benefits that help offset some of the cost of homeownership. Previous NAHB research has discussed the federal government’s flawed budget measurement and policy justifications for these housing tax law provisions. This article examines how these tax benefits reduce the cost of homeownership for individual homeowners and homebuyers for certain mortgage amounts and income levels.

Using the methods developed in the paper, a household, for example, with $80,000 in annual income who obtains a $200,000 mortgage will save on average $1,765 in the first year of homeownership. By the end of the fifth year of homeownership, the household will save on average $8,607 on taxes, and this amount grows to $19,488 by the end of the average period ownership — twelve years. This stylized homeowner can expect to save $21,650 in capital gains taxation, yielding a total benefit of $41,138 over the expected period of homeownership. Further, the paper provides variants of these calculations if the analysis allows the homeowner’s income to increase with their age and labor market experience. For example, the five-year tax savings for this homeowner increases to $9,723.

The paper also considers how these numbers are increased by the existence of the temporary $8,000 first-time home buyer tax credit. In the case illustrated above, the five-year tax savings estimate increases 82% from $9,723 to $17,723.

Homeownership Tax Benefits
There are three major tax benefits for homeowners: deductibility of mortgage interest, deductibility of real estate taxes, and the capital gain tax exclusion for principal residences. Taken together, these benefits significantly reduce the cost of homeownership. Each represents a significant provision of law. According to the Congressional Joint Committee on Taxation, for fiscal year 2008 the tax expenditure (approximately the size of the program in terms of tax savings) of the mortgage interest deduction totals $67.0 billion, the real estate tax deduction equals $24.6 billion, and the capital gain exclusion sums to $16.8 billion.

As seen in these estimates, the largest benefit for most homebuyers is the ability to deduct home mortgage interest. The tax code permits homeowners who itemize their
federal income tax deductions to reduce their taxable income by the annual amount of mortgage interest paid on a first (and second) home, up to $1 million in total home mortgage debt. Further, taxpayers may deduct interest allocable to up to $100,000 of home equity loans.\(^4\) For the purpose of the Alternative Minimum Tax [AMT], taxpayers may deduct non-home equity loan interest from AMT taxable income as well.\(^5\) Itemizing homeowners may also deduct state and local real estate taxes paid on an owner-occupied home.\(^6\)

Finally, taxpayers may exclude from capital gains taxation the proceeds from the sale of a principal residence. Taxpayers are limited in the amount of gains that may be excluded from tax: $500,000 of gain for married homeowners and $250,000 for single homeowners. Recent changes in tax law reduce these maximum exclusion amounts proportionally for the amount of time the home is actually used as a principal residence. Periods of ownership prior to January 1, 2009 are treated as periods of principal residence use under a grandfathering rule included in the law.

**Measuring the Tax Benefits of the Mortgage Interest and Real Estate Tax Deductions**
Calculating the net benefits of the major homeownership benefits seems straightforward but can lead to overestimation if not done in the context of other income tax rules. At first glance, the monetary value of the deductions is equal to the sum of the deductions times the marginal tax rate. For example, a homeowner who deducts $10,000 of mortgage interest and real estate tax deductions and who is in the 25% tax bracket would theoretically realize a tax savings of $2,500 on his/her income tax return.

However, this calculation overstates the benefit on average by failing to account for the fact that the taxpayer must itemize in order to receive a net benefit from these deductions. Unless the sum of the taxpayer’s itemized deductions exceeds the standard deduction (the deduction available in lieu of itemization), it is not to the taxpayer’s advantage to itemize.

This itemization decision implies that a certain amount of the summed itemized deductions yields no net benefit to the taxpayer because of the standard deduction. For example, if a taxpayer in the 25% tax bracket has a standard deduction of $5,700 and a set of itemized deductions totaling $6,000, the net value of the deductions is not equal to $1,500 (25% times $6,000). Even with no itemized deductions available, the standard deduction is available to reduce tax payment by $1,425 (25% times $5,700). So the true, incremental value of the itemized deductions in this example is equal to the difference between $1,500 and $1,425 or $75. Of course, the marginal value — the value of the next dollar of deductions — is equal to 25 cents, but it is the average net value that is important in determining the realized value of the homeownership tax benefits.

**Calculating an Example**
We can now estimate the true tax benefits of homeownership for examples of various taxpayers. Consider a homebuyer with gross income of $60,000 who purchases a principal residence in tax year 2009 with a mortgage of $180,000. Assuming a mortgage interest rate of 5.86%, the first year mortgage interest payment is approximately equal to $10,580.\(^7\) Conservatively, assume that the buyer uses a downpayment of 20%, so the purchase price of the home is $225,000. Further assume that property taxes are equal to 1.2% of the market price.\(^8\) Thus, this taxpayer also pays $2,700 in potentially deduct-
ible state and local real estate taxes in the first year of ownership.

Assuming the taxpayer is married and files a joint return, the household could claim a standard deduction of $11,400 in 2009. Clearly, with $13,280 in itemized deductions from mortgage interest and real estate taxes alone, the taxpayer will not claim the standard deduction, thus itemizing their deductions on Schedule A of their 1040 income tax return. However, to calculate the net benefit of the housing tax deductions, we need an estimate of all the other itemized deductions in order calculate the incremental value.

Using Internal Revenue Service Statistics of Income data for 2006, we estimate the average sum of all non-housing itemized deductions by income class. For this stylized taxpayer, the estimated total is equal to $6,936 in charitable, state and local income or sales taxes, personal property taxes, and all other itemized deductions. With this information, we can calculate the taxpayer’s taxable income (gross income minus itemized deductions) and marginal income tax rate of 15%.

Now we can estimate the net value of the housing benefits. The net value is equal to the sum of itemized deductions ($13,280) minus the difference of the standard deduction ($11,400) and sum of the non-housing itemized deductions ($6,936) times the marginal tax rate of 15%. This calculation yields a net benefit for the first year of homeownership equal to $1,322.

Using this approach and adjusting the declining annual mortgage interest payment consistent with a self-amortizing loan, we can calculate average tax savings for certain income classes and mortgage amounts. Table 1 provides these amounts for the first year of homeownership. (Table 1)

<table>
<thead>
<tr>
<th>Mortgage Amount</th>
<th>$300,000</th>
<th>$250,000</th>
<th>$200,000</th>
<th>$180,000</th>
<th>$160,000</th>
<th>$140,000</th>
<th>$120,000</th>
<th>$100,000</th>
<th>$80,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Taxable Income*</td>
<td>$40,000</td>
<td>$50,000</td>
<td>$60,000</td>
<td>$70,000</td>
<td>$80,000</td>
<td>$90,000</td>
<td>$100,000</td>
<td>$110,000</td>
<td>$120,000</td>
</tr>
</tbody>
</table>

* Borrower income minus average personal exemptions and itemized deductions. Data from IRS Statistics of Income.

The example calculated above is found in the row for $180,000 in mortgage and $60,000 in borrower income. As can be seen in this table, the benefits of the tax provisions increase in terms of borrower income and mortgage amount. Nonetheless, as demonstrated in a previous article most of these benefits are claimed by middle-income homeowners ($40,000 to $200,000 AGI).
Summing over the first five years of homeownership, and adjusting for the declining mortgage interest payment over time, yields the following estimates, shown in Table 2. (Table 2)

<table>
<thead>
<tr>
<th>Mortgage Amount</th>
<th>$300,000</th>
<th>$250,000</th>
<th>$200,000</th>
<th>$180,000</th>
<th>$160,000</th>
<th>$140,000</th>
<th>$120,000</th>
<th>$100,000</th>
<th>$80,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$23,636</td>
<td>$23,636</td>
<td>$20,854</td>
<td>$14,344</td>
<td>$12,541</td>
<td>$10,737</td>
<td>$9,333</td>
<td>$8,038</td>
<td>$7,215</td>
</tr>
<tr>
<td>Average Taxable Income*</td>
<td>$15,175</td>
<td>$25,175</td>
<td>$35,433</td>
<td>$45,433</td>
<td>$53,951</td>
<td>$63,951</td>
<td>$73,951</td>
<td>$83,951</td>
<td>$93,951</td>
</tr>
</tbody>
</table>

Source: NAHB Estimates using IRS SOI Data
Interest rate 5.86% 5.86% 5.86% 5.86% 5.86% 5.86% 5.86% 5.86%
Marginal tax rate 15% 15% 15% 15% 15% 25% 25% 25%
Filing Status: Married Couples filing Jointly
Tax Rates: In effect during calendar year 2009
Interest Rate: FHLMC Primary Market Survey, 4th Quarter 2008 Average
* Borrower income minus average personal exemptions and itemized deductions. Data from IRS Statistics of Income.

Previous NAHB research indicates that twelve years is a reasonable estimate for the average duration of homeownership of a single dwelling. Correspondingly, the twelve-year estimates using the method in this paper are shown in Table 3. (Table 3)

<table>
<thead>
<tr>
<th>Mortgage Amount</th>
<th>$300,000</th>
<th>$250,000</th>
<th>$200,000</th>
<th>$180,000</th>
<th>$160,000</th>
<th>$140,000</th>
<th>$120,000</th>
<th>$100,000</th>
<th>$80,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$53,153</td>
<td>$53,153</td>
<td>$42,817</td>
<td>$32,480</td>
<td>$28,346</td>
<td>$24,211</td>
<td>$20,077</td>
<td>$16,942</td>
<td>$12,807</td>
</tr>
<tr>
<td>Average Taxable Income*</td>
<td>$15,175</td>
<td>$25,175</td>
<td>$35,433</td>
<td>$45,433</td>
<td>$53,951</td>
<td>$63,951</td>
<td>$73,951</td>
<td>$83,951</td>
<td>$93,951</td>
</tr>
</tbody>
</table>

Source: NAHB Estimates using IRS SOI Data
Interest rate 15.00% 5.86% 5.86% 5.86% 5.86% 5.86% 5.86% 5.86%
Marginal tax rate 15% 15% 15% 15% 15% 25% 25% 25%
Filing Status: Married Couples filing Jointly
Tax Rates: In effect during calendar year 2009
Interest Rate: FHLMC Primary Market Survey, 4th Quarter 2008 Average
* Borrower income minus average personal exemptions and itemized deductions. Data from IRS Statistics of Income.

Graphing three examples of these results yields the following year-by-year estimates of the tax savings of homeownership attributable to the mortgage interest and real estate tax deductions, as seen in Figure 1. (Figure 1)
Principle Residence Gain Exclusion
The final major housing tax incentive is the exclusion of capital gains for the sale of a principal residence. To calculate the benefit of this tax provision, we must forecast the average price appreciation over the average duration of homeownership. We use the average housing price appreciation rate over the prior 20 years, which includes the historic price declines of 2007 and 2008 as well as the period of unprecedented price appreciation that preceded it. This average is 4.23% according to the Case-Shiller National U.S. Home Price Index. We use a conservative estimate of the capital gains tax rate (15% under present law, despite the likelihood that it will increase to 20% in 2011) to calculate the tax benefit of the exclusion. With these parameters and assuming that the home is sold at the end of twelve years of homeownership, we can calculate the tax benefits realized by the capital gain exclusion, which are reported in Table 4. (Table 4)
Summing the benefits of the mortgage interest and real estate tax deductions with the capital gain exclusion yields the twelve-year benefit estimates shown in Table 5, which in most cases represent significant tax savings for the homeowner. (Table 5)

### Table 4: Capital Gains Tax Savings upon Sale

<table>
<thead>
<tr>
<th>Mortgage Amount</th>
<th>$300,000</th>
<th>$250,000</th>
<th>$200,000</th>
<th>$180,000</th>
<th>$160,000</th>
<th>$140,000</th>
<th>$120,000</th>
<th>$100,000</th>
<th>$80,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrower Income</td>
<td>$40,000</td>
<td>$50,000</td>
<td>$60,000</td>
<td>$70,000</td>
<td>$80,000</td>
<td>$90,000</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$150,000</td>
</tr>
<tr>
<td>Average Taxable Income*</td>
<td>$15,175</td>
<td>$21,175</td>
<td>$33,433</td>
<td>$45,433</td>
<td>$53,951</td>
<td>$63,951</td>
<td>$73,951</td>
<td>$73,951</td>
<td>$119,743</td>
</tr>
</tbody>
</table>

Source: NAHB Estimates using IRS SOI Data
Interest rate 0.00%  5.86%  5.86%  5.86%  5.86%  5.86%  5.86%  5.86%  5.86%
Capital gains tax rate 15%  15%  15%  15%  15%  15%  15%  15%  15%
Filing Status: Married Couples filing Jointly
Tax Rates: In effect during calendar year 2009
Interest Rate: FHLMC Primary Market Survey, 4th Quarter 2008 Average
* Borrower income minus average personal exemptions and itemized deductions. Data from IRS Statistics of Income.

### Table 5: Typical Federal Income Tax Savings Through Average Duration of Homeownership

<table>
<thead>
<tr>
<th>Mortgage Amount</th>
<th>$300,000</th>
<th>$250,000</th>
<th>$200,000</th>
<th>$180,000</th>
<th>$160,000</th>
<th>$140,000</th>
<th>$120,000</th>
<th>$100,000</th>
<th>$80,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrower Income</td>
<td>$40,000</td>
<td>$50,000</td>
<td>$60,000</td>
<td>$70,000</td>
<td>$80,000</td>
<td>$90,000</td>
<td>$100,000</td>
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<td>$15,175</td>
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<td>$63,951</td>
<td>$73,951</td>
<td>$73,951</td>
<td>$119,743</td>
</tr>
</tbody>
</table>

Source: NAHB Estimates using IRS SOI Data
Interest rate 0.00%  5.86%  5.86%  5.86%  5.86%  5.86%  5.86%  5.86%  5.86%
Marginal tax rate 15%  15%  15%  15%  15%  15%  25%  25%  25%
Filing Status: Married Couples filing Jointly
Tax Rates: In effect during calendar year 2009
Interest Rate: FHLMC Primary Market Survey, 4th Quarter 2008 Average
* Borrower income minus average personal exemptions and itemized deductions. Data from IRS Statistics of Income.
Assumes 12 year ownership period, 4.23% annual price appreciation (20 year Case Shiller average), and a 15% capital gains tax rate.

**Lifetime Income Growth**

One limitation of this approach for calculating the value of homeownership tax savings is that it assumes the homebuyer has a fixed income for the period in which they own the home. Clearly, this is not a reasonable assumption. This is important because while a homebuyer may have a relatively low income — and thus a relatively low marginal income tax rate — when purchasing a home, his/her income and tax rate is likely to grow as the homeowner ages and gains experience in his/her career. Assume the average annual income increase (at the taxpayer/homeowner level due to aging, as opposed to per capita increases for all workers) is 4%. (Table 6)
Using this approach, re-estimating the five-year table estimated according to initial borrower income yields the larger values reported in Table 6. For example, the tax savings are higher in the $80,000 column in Table 6 than they are in Table 2, reflecting homeowners who enter a higher tax bracket in the fifth year of homeownership. Consider the graph in Figure 2 which reports the tax savings for a borrower with an initial income of $80,000 who obtains a home with a $250,000 mortgage. In year five, the cumulative savings from homeownership begin to diverge because the value of the homeownership tax incentives increases as the homeowner’s income increases, which is presumably correlated with the homeowner’s experience in the labor market. At the time of sale, the difference in this example is more than $11,000 in tax savings — all due to increases in the homeowner’s marginal tax rate. (Figure 2)
Conclusion
This article has presented estimates of the financial benefits of homeownership. These savings total thousands of dollars for the period of ownership and are due to the deductibility of mortgage interest and real estate taxes, as well as the principal residence capital gain exclusion. The estimates in this paper account for the lost standard deduction that results when a taxpayer itemizes and thus reflect the incremental or true value of the housing tax incentives.

An additional tax incentive that became available in 2009 is $8,000 first-time homebuyer tax credit. Including the effects of this refundable credit increases the estimates in each of these tables on average by $8,000, which represents a significant increase in the tax savings of the first five years of homeownership. For example, for a homebuyer with an income of $70,000 who obtains a mortgage $200,000 the tax savings increase from $7,718 to $15,718 — an increase of 104%. Or as another example, a homebuyer with $80,000 in income and a $200,000 mortgage can expect his/her five-year tax savings estimate to increase 82% from $9,723 to $17,723.

The combination of the standard tax benefits of homeownership combined with the temporary tax credit makes 2009 an attractive time period to purchase a home.

For more information about this item, please contact: Robert Dietz at 800-368-5242 x8285 (rdietz@nahb.com)
It should be noted that in this article “benefit” does not equate with “subsidy.” There are tax benefits for owners of rental housing as well, including interest and depreciation deductions, as well as the Low-Income Housing Tax Credit. Previous research on the home buying decision can be found here.

There are other benefits not considered in this article, including the tax exemption for imputed-owner’s rent, the deduction for mortgage insurance, and the tax treatment of reverse mortgage proceeds.


It is important to note that not all cash-out mortgage refinancing is classified as a home equity loan, in contrast to acquisition indebtedness that is subject to the larger $1 million cap. Provided the proceeds of a cash-out refinancing are used for home improvement or residential investment, such debt is not home equity debt but the more favorably treated acquisition indebtedness.

The calculations in this paper do not include interactions with the AMT. For more information on real estate tax statistics, consult the following article.

To the extent that these taxes are in fact fees assessed for a specific, targeted benefit to the home in question, such fees may not be deducted from taxable income.

5.86% is the 4th quarter average of 2008 from the Freddie Mac Primary Market Survey.

2004 American Housing Survey reported a 1.17% estimated average annual state and local rate residential property taxation.

This analysis assumes real estate tax payments and all other itemized deductions increase with the rate of inflation.