



NAHB

A State Tax Credit for Home Buyers in New York: Positive Impacts on State Government Revenue



Prepared by the Housing Policy Department

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Executive Summary

This report presents estimates of the impacts on state government revenue of a proposed state income tax credit in the State of New York. The proposal analyzed is a one-year tax credit equal to \$7,000 on the purchase of all homes—including condominiums and co-operatives, as well as new single family homes whether built in a subdivision or on a customer's lot—with a price under \$1 million.

The most obvious impact is a reduction of \$7,000 in state income tax revenue every time the credit is claimed. However, the credit will stimulate home buying and other economic activity in the state, and this will generate revenue for the state government that will offset the obvious loss revenue to some extent. The tax credit will induce more households to buy homes in New York State during the course of a year than would otherwise be the case.

The home buying activity will generate fees for real estate agents, income for the professionals who provide services at closing, and additional spending on items such as home appliances and furnishings, and this activity will generate income, sales, and other tax revenue for the New York State government. Increased home buying means that vacant units for sale on the market will be absorbed more quickly and allow production of new housing to recover from its current depressed condition to more normal levels. The construction activity stimulated this way will generate income for workers and businesses in the state, leading to additional revenue for the state government. Some of the households who use the credit would have bought homes anyway. Although this category of home buying would not be attributable to the credit, these buyers will realize a \$7,000 increase in income and spend part of it within the state, again leading to increased revenue for the New York State government.

Table 1 below shows estimates of the amount of revenue generated for the New York State government in the first year after the proposed tax credit is enacted, from each of the three categories of home buyers: households induced by the credit to buy or acquire new homes, households induced by the credit to buy existing homes, and households who would have bought homes without the credit, but now know that they will have \$7,000 in additional disposable income due to the tax credit. The table also shows estimates of the number of home buyers in each of these categories. The current version of the proposal does not cap the credit, but for discussion purposes the table also shows estimates of the number of buyers using the credit if it were capped at a total of \$100 million (which would limit the number of \$7,000 that could be claimed to 14,290):

Table 1. One-Year Estimates of the Increase in New York State Government Revenue Generated by Home Buying Activity

	Revenue for the New York State Government	Number of Home Buyers: No Cap on the Credit	Number of Home Buyers: \$100 Million Total Cap
Induced Buyer of a New Home	\$30,253	1,150	190
Induced Buyer of an Existing Home	\$4,937	3,840	640
Credit User Who Would Have Bought Without the Credit	\$432	81,360	13,460

The revenue estimates in Table 1 exclude all income taxes paid by the buyers of the home. The following sections described the assumptions used in the analysis and explain how these estimates were generated.

Baseline Sales and Price Estimates

The most current information on home sales in the State of New York comes from surveys conducted by the New York State Association of REALTORS® (NYSAR).¹ NYSAR reports a little under 79,000 existing single family home sales in 2008. For purposes of analyzing the proposed tax credit, the shortcomings of this number is that it excludes new construction, as well as multifamily condominiums and co-operatives (which constitute a large share of home sales in certain parts of the state, and to which the proposed tax credit would apply).

Baseline estimates of home sales thus require adjusting the NYSAR number upward to account for new construction and owner-occupied multifamily units, forecasting the result into the year after the tax credit is enacted, then accounting for the presence of homes over \$1 million to which the proposed credit would not apply. For the production of new single family housing, we use the 2009 state housing forecast NAHB purchases from Moody's Economy.com.² Economy.com projects that there will be 8,400 single family housing starts in the State of New York in 2009.

To adjust for the presence of owner-occupied multifamily units, which are excluded from NYSAR's sales figures and the Economy.com forecast, we use data from the U.S. Census Bureau's American Community Survey (ACS). The ACS, which is the replacement for the decennial Census long form, was fully implemented for the first time in 2005.³ At present, ACS data from 2005, 2006, and 2007 are available.

Over the 2005-2007 period, the ACS shows that about 28 percent of existing home sales and 18 percent of occupied new homes in the State of New York were multifamily condominiums or co-operatives. Applying these percentages produces a forecast of 9,910 owner-occupied new homes (single family plus multifamily condominiums and co-operatives) built in New York in 2009 and, an estimate of 100,900 existing owner-occupied housing units sold in 2008. Through March, NYSAR's existing sales numbers were running about 27 percent lower in 2009 than in 2008. Assuming this percentage reduction will prevail throughout the year produces a forecast of 73,660 existing home sales.

For existing single-family homes sold in the State of New York in 2008, NYSAR reports a median price of \$215,000. In addition to excluding new construction and multifamily condominiums and co-operatives, this number is a median rather than a mean or average.

The 2008 median existing home sale price is converted to an average price for all homes under \$1 million in 2009 through the following steps. First, the \$215,000 2008 median is deflated by 6.15 percent, based in NAHB's projected decline in the repeat sales house price index produced by the Federal Housing Finance Agency.⁴ Next, the median existing single family home price and average price for all homes under \$1 million is computed from the ACS Public Use

¹ <http://www.nysar.com/>.

² <http://www.economy.com/default.asp>

³ More information is available on the Census Bureau's web site: <http://www.census.gov/acs/www/>.

⁴ <http://www.fhfa.gov/Default.aspx?Page=14>

Microdata Sample. The ratio between the average sub-million price and median existing single family price in the state of New York was somewhat variable over the 2005-2007 period, but averaged just over 1.2-to-1.0. This ratio was used to inflate the projected median price of existing single family homes and produce an estimated average price of \$243,900 for all sub-million dollar homes sold in the State of New York in 2009.

The same ACS data can be used to estimate the relationship between average price of homes sold and the share of sales over \$1 million. If a straight line is fit through the annual ACS estimates for the State of New York in 2005, 2006, and 2007 and then applied to the projected price of homes sold in 2009, it indicates that 2.64 percent of the homes sold in 2009 would be over the \$1 million threshold. In order to confine the analysis to homes priced under \$1 million, this percentage is subtracted from the projected number of home sales.

The results are baseline estimates of 81,360 homes sold with an average price of \$243,900. These are the estimates for homes that would be sold over the next year in New York—including new and existing homes, and multifamily condominiums and co-operatives as well as single family homes, but excluding transactions priced over \$1 million—in the absence of the proposed tax credit.

Impact on Sales and Production

Given an average price of \$243,900, a tax credit worth \$7,000 effectively reduces the price of the average home (priced under \$1 million) in the State of New York by about 2.87 percent.⁵ In the field of housing economics, it is conventional to use a price elasticity of demand of -1 to estimate how a price change will translate into a change in housing activity. For example, this method is employed in academic research,⁶ and by the Joint Committee on Taxation to analyze changes in federal tax policy.⁷ In this case, it implies that the effective 2.87 percent reduction in the price of a home will increase home sales by 2.87 percent.

One possibility is to apply this rule of thumb to the 2009 forecast, but this forecast reflects the atypical depressed market conditions that currently exist. It is reasonable to generate a stimulus impact estimate by applying the 2.87 percent to a baseline of activity that would be expected to prevail under more typical circumstances. To represent the more typical situation, this analysis uses annual single family starts from Moody's Economy.com and single family sales from NYSAR averaged over the ten years from 1999 through 2008. This is a period that includes both years of very high sales and production, like 2005, as well as low points like 2008.

⁵ It is assumed that the credit could be carried forward, so that nearly all home buyers claiming the credit would realize the full \$7,000 irrespective of their tax liability in the next year, and would do so quickly enough so that the effect of discounting to account for delays in the flow of payments would be minimal.

⁶ See, for example, Sundig, David, Aaron Swoboda, and David Sundig, *The Economic Costs of Environmental Permitting*, p 16: http://www.pitt.edu/~swoboda/papers/permitting_2005.pdf, or Zabel, Jeffrey and Robert Paterson, "The Effects of Critical Habitat Designation on Housing Supply: An Analysis of California Housing Construction Activity," *Journal of Regional Science*, 46 (2006): pp 67-95 <http://www3.interscience.wiley.com/journal/118594767/abstract>

⁷ See Dietz, Robert, "The First-Time Homebuyer Tax Credit: A Primer," *Housing Economics*, Nov 2008: <http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=104893&channelID=311>

The ten year averages are 92,700 existing single family sales and 22,300 single family starts per year. These numbers are adjusted to account for condominiums and co-operatives, and transactions valued at \$1 million or more each, to which the proposed tax credit would not apply. The result is a base of 141,140 new owner-occupied homes and existing homes sold under the \$1 million threshold in the State of New York in a given year under typical circumstances. The tax credit as proposed is thus estimated initially to increase sales of new and existing homes by 2.87 percent of 141,140, or 4,050. This number represents households who would be induced to buy a home only because a tax credit has become available.

The 4,050 initially induced buyers will include some first-time and some trade-up buyers. They will also encompass a combination of buyers of new homes, buyers of existing occupied homes, and buyers of existing vacant homes. Estimates of the numbers of buyers in each of these categories are derived from shares of recent home buyers in the 2007 American Housing Survey (AHS). The AHS is based on a nationally representative sample of housing units, funded by the Department of Housing and Urban Development, and conducted in odd-numbered years by the U.S. Census Bureau.

The 2007 AHS shares are adjusted to account for the trends of declining homeownership and increasing vacancies that continue to persist after 2007, based on quarterly numbers published by the Census Bureau from its Housing Vacancy Survey. This adjustment increases the number of vacant units absorbed by the induced home buyers, and a greater number of units that are currently rented being sold to owner-occupiers. In the current environment, a significant number of units are likely to be rented because the owners have experienced difficulty in selling them.

First-time buyers who purchase homes that were previously owner-occupied generate a ripple of trade-up buying by the displaced owners. Assuming that purchases by first-time buyers take place at a constant rate during the year, the first ripple has, on average, half a year from its inception to propagate in the one-year estimates reported here. The result is an estimated 940 home sales beyond the 4,050 initially induced.

A share of the homes purchased by both the initially induced and ripple-effect buyers represents construction of new owner-occupied housing. Expansion of the owner-occupied housing stock will tend to either reduce the rental housing stock or slow the net addition of rental housing units to the stock.

When home buying is stimulated, however, two factors tend to mitigate any reduction in the construction of rental unit. The first is a response in the rate of household formations. An expanding opportunity for home ownership tends to encourage existing households to split. Young people are able to move from their parent's home or out of a shared housing arrangement. Families that are doubled up can each find its own place to live. The second is a response in the demolition rate. As families move out of rental units into home ownership, the best rental units will remain occupied and the worst ones will fall out of the stock. A statistical analysis that estimates the magnitude of these effects is shown in the NAHB article "Economic Effects of a Policy to Stimulate Home Buying."⁸

Table 2 summarizes these estimated changes in sales and production.

⁸ *Housing Economics*, January 2009:

<http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=108465&channelID=311> .

Table 2. Summary of Sales and Production Activity Stimulated by a \$7,000 Tax Credit

	With No Cap on the Credit	With a \$100 Million Total Cap
Sales		
Initially induced by the credit	4,050 housing units	670 housing units
Ripple impact of displaced home owners	940 housing units	160 housing units
Vacant units absorbed	730 housing units	120 housing units
Rented units sold to owner-occupiers	600 housing units	100 housing units
Production		
Additional owner-occupied homes built	1,150 housing units	190 housing units
Impact on production of rental units	-26 housing units	-4 housing units
Net aggregate change in construction value	\$291 million	\$48 million

The change in construction value is the sum of the value of all new owner-occupied housing units built as a result of the tax credit (including all development costs but not raw land) minus the value of the rental units that will not need to be built as a result.

Again, the table shows estimates for a tax credit both without a cap (the current proposal), and with a total cap on the credit of \$100 million. With such a cap, the 4,050 induced and 940 ripple effect buyers will be competing for tax credits with the 81,360 households projected to buy homes in the State of New York in the absence of the tax credit. The last column of Table 2 assumes that these different categories of buyers will compete for the credit at the same rate and assumes the same proportional reduction for all numbers in the column.

Table 2 is also constructed assuming that a full \$100 million credit cap would be used, but that there would be no “falsely induced” buyers—i.e., households induced to buy new homes because of the credit who subsequently discover that they cannot in fact claim the credit because the cap has been exhausted. Relatively simple methods (such as the one used in California that tracks the total amount of the credit cap applied for on the state government’s web site) are available to limit the number of false inducements.

Revenue Generated per Transaction

As described above, the proposed tax credit would generate a combination of additional buyers of existing homes, additional buyers of new homes, and buyers who would have bought homes even without a tax credit but who are now able to take advantage of the credit.

Each of these cases generates a different set of impacts on revenue realized by the New York State government. In order to estimate the revenue impacts, the analysis employs a combination of tax rate information supplied by the New York State Builders Association and revenue line items reported by the State of New York to the federal government in the last Census of Governments.⁹

Based on recommendations from the New York State BA, the analysis assumes that the effective state personal income tax rate is 6.85 percent, that a state sales tax of 4.0 percent applies to construction materials, that there is a state tax on the transfer of property transfer

⁹ <http://www.census.gov/govs/www/cog2002.html>

tax of \$4 per thousand, and that there is state mortgage recording tax equal to 3/4 of one percent.

Other revenue impacts are estimated by applying line items from the Census of Governments expressed as a fraction of personal income. This allows us to analyze income generated in each industry while accounting for all sources of revenue reported by the New York State government.

The income generated in the state as the result of a new home being built is essentially the same as described in NAHB's local impact of home building model.¹⁰ It includes wages and salaries of construction workers and profits of state home building firms, as well as employee and business income generated in ancillary industries like sales and professional services. The NAHB model is relatively conservative and excludes income generated in many industries (such as virtually the entire manufacturing sector) and profits for C-corporations, on the grounds that markets for manufactured products and share holders in C-corporations are unlikely to be confined to a particular state. The NAHB model does include a ripple or multiplier effect, that occurs when income earned from construction activity is spent and recycled in the economy of New York state. The economic activity generated by this multiplier effect also generates revenue for the state government.

The state government revenue estimate associated with a new home is estimated by applying the NAHB local impact model to a home with a construction value of \$253,400. This is based on the relationship between the average price of new and existing homes valued at \$1 million or less in New York in the ACS data. The \$253,400 represents construction value that excludes the value of raw land (assumed to be 10.6 percent of the price of a new home, the percentage the Census Bureau and U.S. Bureau of Economic Analysis apply when feeding the value of new single family homes built for sale into the national GDP accounts). The \$253,400 also incorporates a modest downward adjustment in order to net out the effect of the rental housing units that will not be built.

Induced purchases of existing homes will result in new mortgages, services provided by real estate agents, and other spending connected with buying and financing a home. Most home purchases are financed with mortgages. Based primarily on tabulations of AHS data, this analysis assumes that 85 percent of home purchases are financed, and that the average loan-to-value ratio for these mortgages is 90 percent. In addition to the New York state mortgage recording tax, financing arrangements typically involve a 1 percent fee for the originator that offsets the cost of origination and approximately 2 percent in additional settlement fees to appraisers, surveyors, credit bureaus and other settlement agents. These percentages were supplied to NAHB by the Mortgage Bankers Association.

Most home sales also involve a real estate agent who is paid out of the proceeds from the sale. The analysis here assumes an average fee of 6 percent on the sale of existing homes (consistent with the treatment of these fees in the GDP accounts). All of these fees and charges generate income for residents of New York State, and revenue for the state government.

Moreover, when families buy homes, they often spend more on home repairs and alterations compared to otherwise similar households who do not purchase homes. Regression estimates based on data from the Bureau of Labor Statistics' Consumer Expenditure Survey show that the

¹⁰ <http://www.nahb.org/generic.aspx?sectionID=784&genericContentID=35601>

amount spent on remodeling, repair and alterations depends upon whether or not a home was recently purchased, whether the home purchase is a new or existing home.¹¹ To the extent that this spending is higher than it would be for an otherwise similar household that has not recently purchased a home, this generates income for remodeling contractors in the state.

Additional spending in the state is triggered as homebuyers spend money on furnishings and appliances when they first move into their newly purchased homes. Regressions similar to the ones used to estimate changes in remodeling can be used to estimate the size of these effects. The analysis does not assume that appliances and furnishings are produced in New York state, but that they are sold by merchants residing in the state, and that they therefore generate business and labor income for these merchants that is subject to taxes and fees imposed by the state government.

New home buyers also take out mortgages, pay closing costs, and purchase appliances and furnishings for their homes. These effects are captured in the NAHB local impact model for new home construction. A multiplier effect is also applied to the income for New York residents generated by the sale of an existing home, as part of this income is spent and recycled within the state economy.

The above cases are impacts resulting from the sale or production of a home that would not occur in the absence of the proposed tax credit. Other home buyers who may not, strictly speaking, need the credit to induce a new home purchase still benefit from a tax credit worth \$7,000 over five years. This represents a net increase in income for these households, and this also will have some stimulative effect on the state's economy and therefore on state government revenue. The impacts on New York State government revenue for each of the three cases discussed above are shown in Table 3, including detail on type of revenue generated:

Table 3. New York State Government Revenue per Home Buying Transaction

	Induced Buyer of a New Home	Induced Buyer of an Existing Home	Credit User Who Would Have Bought Without the Credit
Transfer & Mortgage Recording Taxes	\$2,739	\$2,341	\$0
General Sales Taxes	\$5,775	\$416	\$61
Specific Excise Taxes	\$1,126	\$218	\$32
Individual Income Taxes*	\$13,557	\$1,202	\$164
Corporate Income Taxes	\$563	\$109	\$16
License Taxes	\$284	\$38	\$5
Other Taxes	\$350	\$44	\$6
Revenue for State Govt. Enterprises	\$1,492	\$131	\$40
Hospital Charges	\$2,272	\$204	\$86
Transportation Charges	\$157	\$14	\$2
Education Charges	\$540	\$48	\$6
Other User Fees and Charges	\$1,398	\$172	\$24

¹¹ "Spending Patterns of Home Buyers," Housing Economics, October 2008:

<http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=106491&channelID=311>

Total	\$30,253	\$4,937	\$432
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*Does not include state income taxes paid by the buyer of the home.