Methodology: Housing Affordability Index

About the Index

The NATIONAL ASSOCIATION OF REALTORS® affordability index measures whether or not a typical family could qualify for a mortgage loan on a typical home. A typical home is defined as the national median-priced, existing single-family home as calculated by NAR. The typical family is defined as one earning the median family income as reported by the U.S. Bureau of the Census. The prevailing mortgage interest rate is the effective rate on loans closed on existing homes from the Federal Housing Finance Board. These components are used to determine if the median income family can qualify for a mortgage on a typical home.

To interpret the indices, a value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. An index above 100 signifies that family earning the median income has more than enough income to qualify for a mortgage loan on a median-priced home, assuming a 20 percent down payment. For example, a composite HAI of 120.0 means a family earning the median family income has 120% of the income necessary to qualify for a conventional loan covering 80 percent of a median-priced existing single-family home. An increase in the HAI, then, shows that this family is more able to afford the median priced home.

The calculation assumes a down payment of 20 percent of the home price and it assumes a qualifying ratio of 25 percent. That means the monthly P&I payment cannot exceed 25 percent of the median family monthly income.

Computations

Components of the index include:

Median price of Existing Single-Family Home Sales: comes from the existing home sales monthly survey conducted by the National Association of Realtors®

Monthly Mortgage Rates: NAR uses the “effective mortgage rates” for preoccupied homes in the HAI calculations. The effective mortgage rates is reported by the Federal Housing Finance Board on a monthly basis. The effective rate reflects the amortization of initial fees and charges.

Formulas used to calculate the Housing Affordability Index (HAI)

Median Price Existing Single-Family Home – Comes from the existing home sales monthly survey conducted by the National Association of Realtors

Monthly Mortgage Rate – NAR uses the “effective mortgage rate” for preoccupied homes in the HAI calculations. The effective mortgage rate is reported by the Federal Housing Finance Board on a monthly basis. The effective mortgage rate reflects the amortization of initial fees and charges.

Principle & Interest Payment – Monthly Payment

Formula: **MEDPRICE*.8 * (IR/12)/(1-(1/(1+IR/12)^360))**

This will equal MS Excel’s PMT function

Median as % of Income = Necessary monthly income

Formula: **((PMT*12)/MEDINC)*100**

Median Family Income – NAR uses Income data from the Census Bureau American Community Survey.

Census income data is not available for later than 2017. Thus, NAR projects income levels for later than 2017. Specifically, median family income estimates are based on the average of wage growth and last year’s actual income growth.

Qualifying Income – Income necessary to qualify for a loan for the median priced home

Formula: **PMT * 4 * 12**

Housing Affordability Index(Composite)- Measures the degree to which a typical family can afford the monthly mortgage payments on a typical home.

Formula: **(MEDINC/QINC)*100**

Key:

IR = Interest Rate

MEDPRICE = Median price of existing single-family home sale

PMT= Monthly payment

MEDINC = Median Family Income

MINC = Necessary Monthly Income

QINC = Qualifying Income

Headquarters
430 N. Michigan Ave
Chicago, IL 60611-4087
800-874-6500

DC Office
500 New Jersey Avenue, NW
Washington, D.C. 20001-2020
202-383-1000