

Action Item from March 14, 2008 Quarterly NHPUC meeting

- Define the scope of the low income housing "problem"
 1. How many low income households have been served?
 2. How many low income households still need to be served?
 3. How much funding will be needed to serve all remaining low income households?
 4. How long will it take to serve all remaining low income households?

Low Income Assessment Team comprised of;

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For the purpose of this document, we are defining a "low income household" as a household with a gross income of 185% or less than the Federal Poverty Guidelines as defined in Appendix 2.

1. How many low income households have been served?

The number of New Hampshire low income households served by either the US Department of Energy Weatherization program (Wxn) or the NHCORE Home Energy Assistance program (HEA) between April 1, 1998 and December 31, 2007 is 8,540.

The WXN program has been funding home energy improvements since established by the US Congress in 1976 under Title IV of the Energy Conservation and Production Act. Unfortunately, accurate records of the numbers of households served in those first 20 years are not easily accessible nor may they be of much relevance because the standard of weatherization works has changed dramatically producing significantly greater savings in homes. The April 1, 1998 date was selected as the "starting point" because that is the limit of the available historical data in the Wxn database. Additionally, Wxn Program rules generally prohibit "re-weatherization" of any home served by the program after 1993. The total was derived by combining participation data from the Wxn program from the time period of April 1, 1998 to December 31, 2007 with the statewide HEA participation from the time period of July 31, 2002 to December 31, 2007. The total number of participating households is broken down by county in Appendix 1, but the total number of low income households that participated exclusively in the Wxn program

was 2,805, exclusively in the HEA program was 3,485 and those who received some level of services from both programs was 2,250.

*2. How many **qualifying** households still need to **be** served?*

The current income to poverty ratio eligibility level used for both HEA and Wxn is 185% of Federal Poverty guidelines. Using this FPG level to define the population to serve, the number of low income households potentially still needing service is estimated to be at 87,002.

The total number of New Hampshire low income households that have not been served by a residential energy efficiency program was determined by using New Hampshire specific data from the US Census Bureau for 2006 shown in Appendix 2 and subtracting the total number of households already served by either HEA or Wxn shown in Appendix 1.

The data used was from 2006 household estimates published in the 2007 Current Population Survey (CPS) Social and Economic Supplement by the US Census Bureau. Some CPS questions, such as income, refer to the previous year, while others, such as age, refer to the time of the survey. This was the most current population data available. It is important to note that this Census Bureau data represents a fixed point in time and is not necessarily representative of the actual number of households that are currently or will be at or below the current income eligibility thresholds for HEA and Wxn as economic changes continue to occur. It was the consensus of this low income assessment team that the actual number of low income households in New Hampshire will continue to grow in future years, but there is no accurate method to estimate that growth rate.

Factors affecting the size of the estimated population to serve

While the Census Bureau data above provide a good estimate of the "total" estimated population that might be served, there are a number of "hard-to-quantify" factors that we know may reduce this population estimate, as we consider those who are eligible vs. those who will participate. Experience indicates that various factors and social phenomenon exist such as:

1. Some households consisting of elderly householders may resist participating in programs that they view as "government assistance"
2. Some households may not wish to have energy auditors and installers in their home.
3. Some households may be ineligible due to other program criteria (do not pay their own energy bills, etc)
4. Some households may be resistant to performing EE measures in the order of most-cost-effective-first and insist on having other measures installed – making the job impossible to perform according to program criteria.
5. Some households may not need weatherization or have any measures that fit the program guidelines left to be installed.

These and other "hard-to-quantify" factors may reduce the current "total" estimated servable population of 87,002.

3. How much funding will be needed to serve all remaining low income households?

Total funding to serve all remaining low income households under the current HEA and Wxn program rules is estimated to be \$300,000,000. This total funding level is based upon the average combined funding for all 2007 low income households that participated in either HEA or Wxn of approximately \$3,413 and the estimated 87,002 households not yet served by either HEA or Wxn.

It is important to note that this estimated amount is developed based on current market pricing, as well as the current HEA/Wxn program rules and constraints, and therefore it may differ from the actual cost that may be required to effectively weatherize these remaining homes. Similarly, it is also important to note that the average of \$3,413 per household is not based upon an estimate of the actual energy efficiency opportunities in an average low income home, but instead simply uses the average funding used on households that participated in the HEA/Wxn programs in 2007. There may be additional opportunities to provide further weatherization and energy efficiency measures to homes under different cost effective decision making criteria, or with new sources of funding. It was the consensus of this low income assessment team that the actual funding required will continue to grow in future years due to various factors; however there is no accurate method to determine the potential rate of increase.

4. How long will it take to serve all remaining low income households?

The New Hampshire Community Action Agencies have committed to increasing production by approximately 250% over a three year period after an initial ramp up cost of approximately \$500,000. At this maximum production level, it will still take just over 36 years to serve all potential remaining low income households assuming that the number of households does not increase in that time period.

Appendix 1

NH Households already served by the NHCORE HEA program or the DOE Wxn program from 1998-2007

| County | Households | Non CORE Funding | CORE Funding | All Funding |
|--------------|------------|------------------|----------------|----------------|
| Belknap | 552 | \$401,107.84 | \$537,099.33 | \$938,207.18 |
| Carroll | 512 | \$542,669.49 | \$878,567.64 | \$1,421,237.13 |
| Cheshire | 619 | \$499,283.44 | \$738,471.24 | \$1,237,754.68 |
| Coos | 608 | \$914,470.90 | \$900,926.00 | \$1,815,396.89 |
| Grafton | 633 | \$555,333.03 | \$627,897.85 | \$1,183,230.88 |
| Hillsborough | 1770 | \$1,962,265.81 | \$2,092,192.51 | \$4,054,458.32 |
| Merrimack | 1268 | \$1,572,337.51 | \$1,122,264.61 | \$2,694,602.12 |
| Rockingham | 1400 | \$869,750.60 | \$1,730,858.99 | \$2,600,609.59 |
| Strafford | 895 | \$698,236.43 | \$947,959.72 | \$1,646,196.16 |
| Sullivan | 283 | \$223,748.05 | \$337,378.20 | \$561,126.25 |

Statewide 8540 \$ 8,239,203.10 \$ 9,913,616.10 \$ 18,152,819.20

Note: # households and funding data based on Wxn participation from 1998-2003 and HEA/Wxn combined from 2003-2007

Poverty Data on New Hampshire Households

| Range or Bin Number | Inc-to-Pov Ratio 2006 (FPG level) | # Households | FPG Level of Interest | Total # Households |
|---------------------|-----------------------------------|--------------|-----------------------|--------------------|
| 1 | < 100% | 30,412 | 185% | 95,542 |
| 2 | 100% - 125% | 17,182 | | |
| 3 | 125% - 150% | 22,052 | | |
| 4 | 150% - 175% | 15,475 | | |
| 5 | 175% - 200% | 26,052 | | |
| 6 | 200% - 250% | 38,468 | | |
| 7 | 250% - 300% | 41,548 | | |
| 8 | > 300% | 325,654 | | |

Description of method used to estimate number of households at a particular level of poverty:

The following methodology was used to estimate the total number of New Hampshire households currently at or below a given Federal Poverty Guideline:

- 1) identify the range or bin number that the FPG level of interest falls into (185% FPG falls in Bin # 5) and call this the "top Bin"
- 2) add up the number of households in all Bins lower than this "top Bin" (Bin#1 {30412} + Bin #2 {17182} + Bin #3 {22052} + Bin#4 {15475} = 85121)
- 3) calculate the relevant proportion of the "top Bin" ($10125 \times 26052 = 10421$)
- 4) add the subtotal from step 2 to the number from step 3 to get the total estimate of households at a particular level of poverty ($85121 + 10421 = 95542$)

Note: # households in FPG levels is from US Census Bureau 2007 Community Population Survey Annual Social and Economic Supplement available at www.census.gov