

Strategies for Enhancing LIHEAP Performance
Hands-On Exercises
QUESTIONS AND ANSWERS SHEET

The goal of this exercise is to help grantees identify ways to improve the performance of their state's LIHEAP program. Grantees will make use of the LIHEAP Performance Measures data to better understand the needs of their clients and how well the program is currently meeting those needs.

Group Members: _____

State Chosen: _____

Exercise #1 – Understanding How Your Benefit Matrix Distributes Benefits by Income

Special Note: We understand that state benefit matrices may vary, and some states may not be able to perfectly identify benefits according to the criteria specified below. If you are unable to identify all of the criteria listed below, *please pick one fuel type for which you are able to look at the lowest and highest income categories.*

Question 1-1: In your state's benefit matrix, identify the benefit for a natural gas main heat household of three in a single-family home in the lowest income category. Record the midpoint of the lowest income category and the benefit amount for that category.

The income midpoint is \$_____ and the benefit amount is \$_____.

Question 1-2: In your state's benefit matrix, identify the benefit for a natural gas main heat household of three in a single-family home in the highest income category. Record the midpoint of the highest income category and the benefit amount for that category.

The income midpoint is \$_____ and the benefit amount is \$_____.

Question 1-3: What is the ratio of the lowest income category midpoint to the highest income category midpoint for this type of natural gas main heat household? What is the ratio of the lowest income benefit to highest income benefit? Record the values in the following table.

	Income Midpoint	Benefit Amount
Lowest Income Category		
Highest Income Category		

Ratio		
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The ratio of the lowest income category midpoint to the highest income category midpoint is _____.

The ratio of the lowest income benefit to the highest income benefit is _____.

Question 1-4: In your Snapshot, look at natural gas main heat households. For the average household, what is the average annual income and average annual total LIHEAP benefit? Record the values below.

The average natural gas main heat household has an average annual income of \$_____ and an average annual total LIHEAP benefit of \$_____.

Question 1-5: Look at natural gas main heat households again. For high burden households, what is the average annual income and average annual total LIHEAP benefit? Record the values below.

A high-burden natural gas main heat household has an average annual income of \$_____ and an average annual total LIHEAP benefit of \$_____.

Question 1-6: What is the ratio of the high burden household income to the average household income for natural gas households? What is the ratio of the high burden benefit to average LIHEAP benefit?

	Average Annual Income	Average Annual Total LIHEAP Benefit
High Burden Natural Gas Households		
Average Natural Gas Household		
Ratio		

The ratio of the high burden household income to the average household income is _____.

The ratio of the high burden LIHEAP benefit to the average LIHEAP benefit is _____.

Question 1-7: Is the average annual income ratio from your LIHEAP data consistent with the benefit matrix income ratio? Is the LIHEAP benefit ratio consistent with the benefit ratio from your benefit matrix? What differences do you see, if any?

Question 1-8: What is the energy burden before LIHEAP for the average natural gas main heat household and high burden natural gas main heat household? Record the values below.

The energy burden before LIHEAP for the average natural gas main heat household is _____%.

The energy burden before LIHEAP for high burden natural gas main heat households is _____%.

Question 1-9: What is the energy burden after LIHEAP for the average natural gas main heat households and high burden natural gas main heat household? Record the values below.

The energy burden after LIHEAP for the average natural gas main heat household is _____%.

The energy burden after LIHEAP for high burden natural gas main heat households is _____%.

Question 1-10: What is the ratio of a high burden household’s energy burden before LIHEAP to an average household’s energy burden before LIHEAP? What is the ratio of the energy burden after LIHEAP?

	Energy Burden before LIHEAP	Energy Burden after LIHEAP
High Burden Natural Gas Households		
Average Natural Gas Household		
Ratio		

The ratio of the high burden household energy burden before LIHEAP to the average household energy burden before LIHEAP is _____.

The ratio of the high burden household energy burden after LIHEAP to the average household energy burden after LIHEAP is _____.

Question 1-11: Compare the energy burden before and after LIHEAP for both groups. Compare the energy burden ratios you calculated. Do you see any reason to change the distribution of benefits between those two groups?

Question 1-12: Now that you have looked at your benefit matrix and Performance Measures data together, how well does your benefit matrix handle the distribution of benefits by income? Does your state need to update its matrix? Explain why.

Exercise #2: Understanding How Your Benefit Matrix Distributes Benefits by Main Heating Fuel Type

Special Note: We understand that state benefit matrices may vary, and the following exercise uses natural gas and delivered fuel as the fuel types. *If you do not have one of these fuel types, substitute it with a fuel type that you do have data for.*

Question 2-1: In your state’s benefit matrix, identify the benefit for a natural gas main heat household of three in a single-family home in the *middle income* category. Record the midpoint of the income category and the benefit amount for that category.

The income midpoint is \$_____ and the benefit amount is \$_____.

Question 2-2: In your state’s benefit matrix, identify the benefit for a delivered fuel (fuel oil or propane) main heat household of three in a single-family home in the *middle income* category. Record the midpoint of the income category and the benefit amount for that category.

The income midpoint is \$_____ and the benefit amount is \$_____.

Question 2-3: What is the ratio of the income midpoint for natural gas households to delivered fuel households? What is the ratio of the natural gas benefit to the delivered fuel benefit? Record the values in the following table.

	Income Midpoint	Benefit Amount
Natural Gas Household		
Delivered Fuel Household		
Ratio		

Question 2-4: In your Snapshot, look at natural gas main heat households. For the average household, what is the average annual income, average annual total residential energy bill, and the average annual total LIHEAP benefit? Record the values below.

The average annual income for the average natural gas main heat household is \$_____.

The average annual total residential energy bill for the average natural gas main heat household is \$_____.

The average annual total LIHEAP benefit for the average natural gas main heat household is \$_____.

Question 2-5: In your Snapshot, look at delivered fuel (either fuel oil or propane) main heat households. For the average household, what is the average annual income, average annual total residential energy bill, and the average annual total LIHEAP benefit? Record the values below.

The average annual income for the average delivered fuel main heat household is \$_____.

The average annual total residential energy bill for the average delivered fuel main heat household is \$_____.

The average annual total LIHEAP benefit for the average delivered fuel main heat household is \$_____.

Question 2-6: What is the ratio of the natural gas income to the delivered fuel income? What is the ratio of the natural gas energy bill to the delivered fuel energy bill? What is the ratio of the natural gas benefit to the delivered fuel benefit?

	Average Annual Income	Average Annual Total Residential Energy Bill	Average Annual Total LIHEAP Benefit
Average Natural Gas Household			
Average Delivered Fuel Household			
Ratio			

The ratio of the average natural gas household income to the average delivered fuel household income is _____.

The ratio of the average natural gas household residential energy bill to the average delivered fuel household residential energy bill is _____.

The ratio of the average natural gas LIHEAP benefit to the average delivered fuel LIHEAP benefit is _____.

Question 2-7: Is the average annual income ratio from your LIHEAP data consistent with the benefit matrix income ratio? Is the LIHEAP benefit ratio consistent with the benefit ratio from your benefit matrix? Using the energy bill ratio, does the benefit matrix accurately represent the differences in energy costs?

Question 2-8: What is the energy burden before LIHEAP for the average natural gas main heat household and delivered fuel main heat household? Record the values below.

The energy burden before LIHEAP for the average natural gas main heat household is _____%.

The energy burden before LIHEAP for the average delivered fuel main heat household is _____%.

Question 2-9: What is the energy burden after LIHEAP for the average natural gas main heat households and delivered fuel main heat household? Record the values below.

The energy burden after LIHEAP for the average natural gas main heat household is _____%.

The energy burden after LIHEAP for the average delivered fuel main heat household is _____%.

Question 2-10: What is the ratio of the average natural gas household's energy burden before LIHEAP to the average delivered fuel household's energy burden before LIHEAP? What is the ratio of the energy burden after LIHEAP?

	Energy Burden before LIHEAP	Energy Burden after LIHEAP
Average Natural Gas Households		
Average Delivered Fuel Household		
Ratio		

The ratio of the natural gas household energy burden before LIHEAP to the delivered fuel household energy burden before LIHEAP is _____.

The ratio of the natural gas household energy burden after LIHEAP to the delivered fuel household energy burden after LIHEAP is _____.

Question 2-11: Compare the energy burden before and after LIHEAP for both groups. Compare the energy burden ratios you calculated. Do you see any reason to change the distribution of benefits between those two groups?

Question 2-12: Now that you have looked at your benefit matrix and Performance Measures data together, how well does your benefit matrix handle the distribution of benefits by main heating fuel type? Does your state need to update its matrix? Explain why.