

The complexity of emission allocations by county can cause some confusion, and there are many factors that are not intuitively obvious and need to be considered when determining emissions allocations. Rural areas are more reliant on RWC for home heating than urban areas. However, this does not mean that such areas have more RWC households than urban areas. While the urban area may have fewer RWC devices per capita, there is usually a larger population, and more households, in the urban area. Even though there is a lower per capita RWC use in the urban area, it may have more total RWC units being used than the rural area simply due to more households, which in turn produces more emissions.

Location	County	HDD	Heating Category	Population, 2002, U.S. Census Bureau	Estimated number of households 2002	Fraction of households using a RWC device	Number of RWC Devices
Urban	Bergen County	5780	Medium	894,847	334,832	0.070	23398
	Union County	5780	Medium	529,536	188,616	0.045	8421
Rural	Cumberland County	5020	Low	148,040	49,681	0.105	5229
	Gloucester County	5020	Low	262,583	93,535	0.072	6728

It is easy to see why NJ has such low emissions as compared to other states when examining the map of the fraction of households using RWC devices for heat by county for the MANE-VU region (Final Report Figure 2.12). New Jersey counties in total have a much lower fraction of households using RWC devices for heat. That coupled with New Jersey's location in lower heating degree categories, meaning less wood is burned per unit than in colder areas, helps explain why New Jersey has low emissions compared to its neighboring states. Further, the population and number of households are lower in New Jersey than in Pennsylvania and New York.

Urban vs. Rural county distribution

Location	County	Households				
		Total	Urban	Rural	Fraction Urban	Fraction Rural
Urban	Bergen	339,820	339,196	624	0.998	0.002
	Union	192,945	192,945	0	1	0
Rural	Cumberland	52,863	41,438	11,425	0.78	0.22
	Gloucester	95,054	84,909	10,145	0.89	0.11

Even rural counties of Cumberland and Gloucester still have more households in urban areas than in rural areas, according to the 2000 US Census Bureau Data for New Jersey.

The calculations in this project include both households using wood as the main heating fuel and households using wood as an “other” (secondary) heating fuel. Similarly, It includes both households using a heating device (stove, fireplace with insert, or fireplace without insert) for main heat, and households using a heating device as “other” heat.

Location	Households Using Wood as Main Heat Fuel	Households Using Wood as Other Heat Fuel	Ratio of Total (other+main) to Main Heating Use
National*	1,768,000	9,361,000	6.29

*National AHS Data for 2005

Location	Households Using Heating Device as Main Heat	Households Using Heating Device as Other Heat	Ratio of Total (other+main) to Main Heating Use
National Urban*	206,000	7,753,000	38.6
National Rural*	879,000	5,865,000	7.7
Bergen County**	0	22,800	All other

* National AHS data for 2005

** Northern New Jersey AHS for Subarea 2 (Bergen County) 2003

Which means that nationally, on average, 6.3 times more households are using wood as main AND other (secondary) heat than just main heat, and 38.6 times more households using a stove, fireplace with insert, and fireplace without insert as main and other heat than just main heat. An example is Bergen County, one of the most urban New Jersey counties. Although no households report using a stove, fireplace with insert or fireplace without insert for main heat, 22,800 households report using at least one of the devices for other heat.

Due to the facts stated above, OMNI is confident that the county emission allocations used in this project are correct.