

# CT DEP Survey for Used Mattress Management in Connecticut

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## *Final Report and Summary of Results*

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## Introduction

The Connecticut Department of Environmental Protection (DEP) recently administered a survey to all 169 municipalities in the state to get a current picture of municipal used mattress management. The survey was targeted at municipal officials and employees and centered on the question: "How does your community manage disposal of used mattresses?" The goal was to get an idea of how mattresses were handled by Connecticut towns, the types of funding sources used and other issues encountered by town officials.

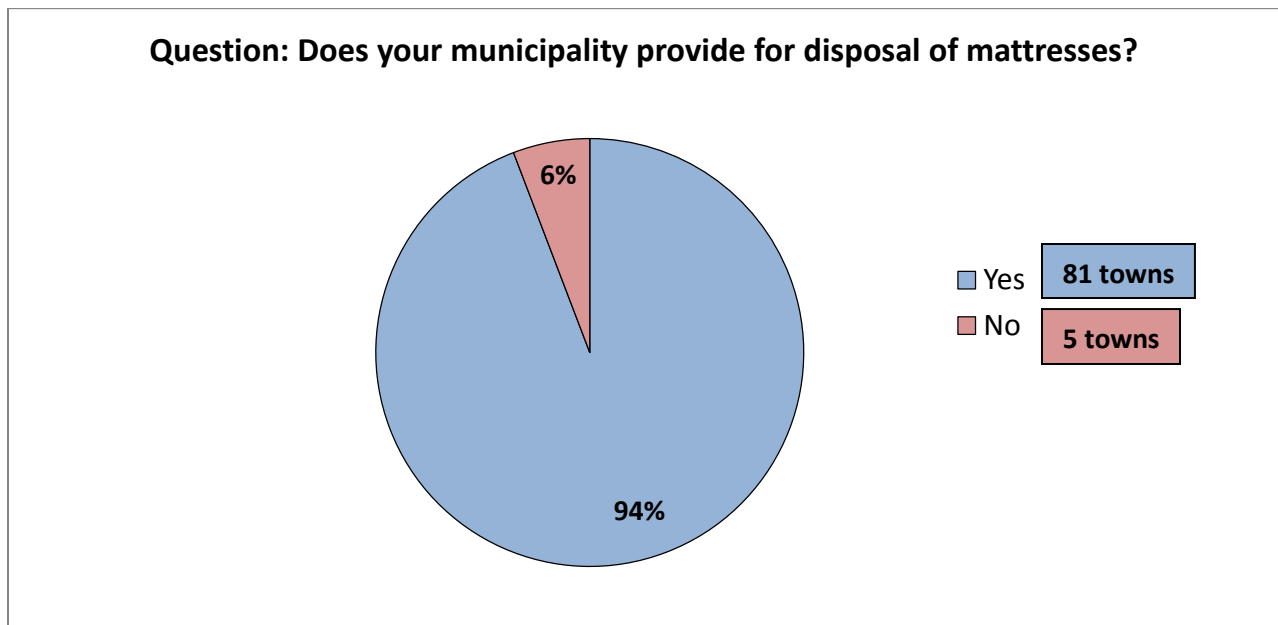
When the word "mattress" was used in the survey, it was in reference to mattresses and/or box springs of all sizes, including twin, full, queen and king. A mattress/box spring pair was counted as two "mattresses" for the purposes of this survey.

The survey data was compiled from responses submitted March 23rd through April 6th, 2011. A total of 90 municipalities responded, a response rate of 53%. Included in the responses were an adequate cross-section of small towns, suburban communities and large cities.

## Survey Results and Analysis

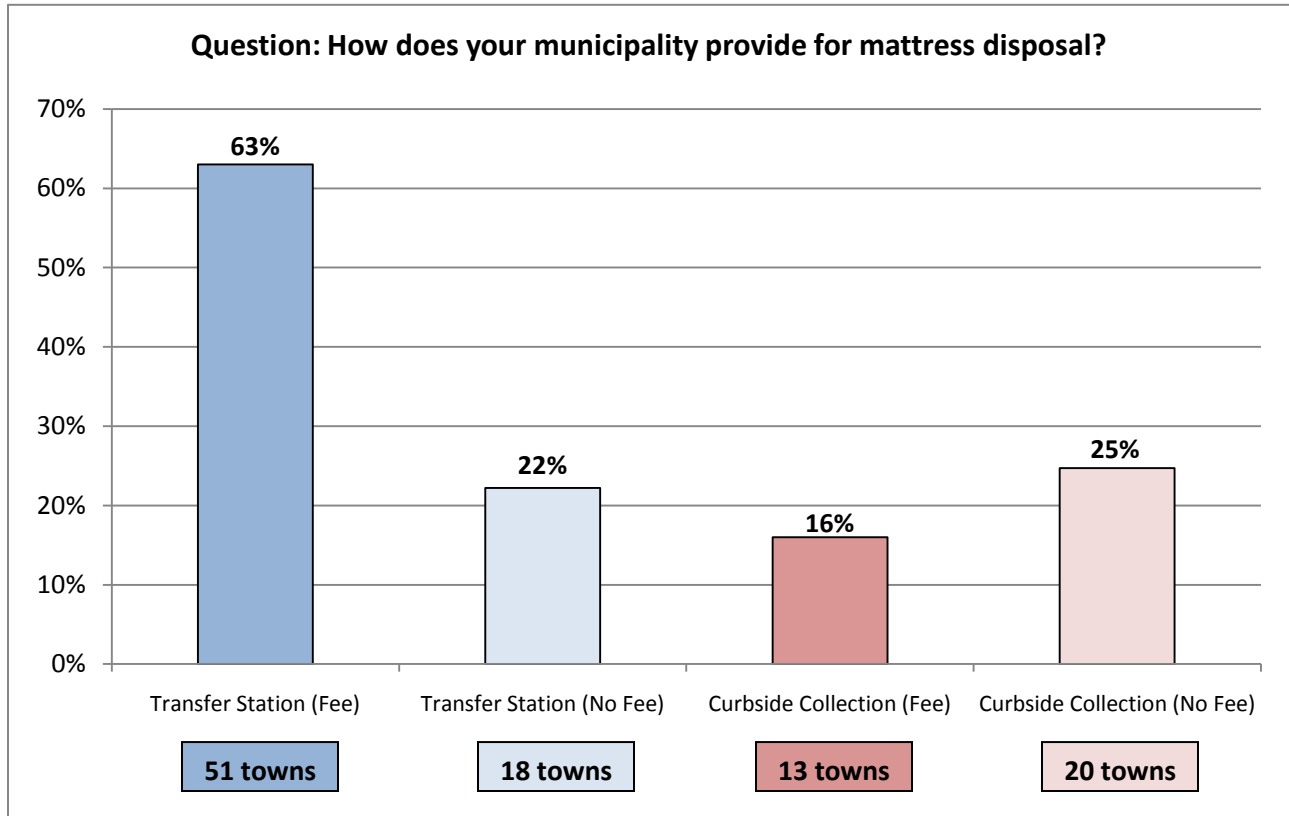
Key survey questions were analyzed in greater detail and graphs were generated from the data. The following section will highlight some of these results, broken down by each individual survey question.

### I. Municipalities Providing for Disposal of Used Mattresses



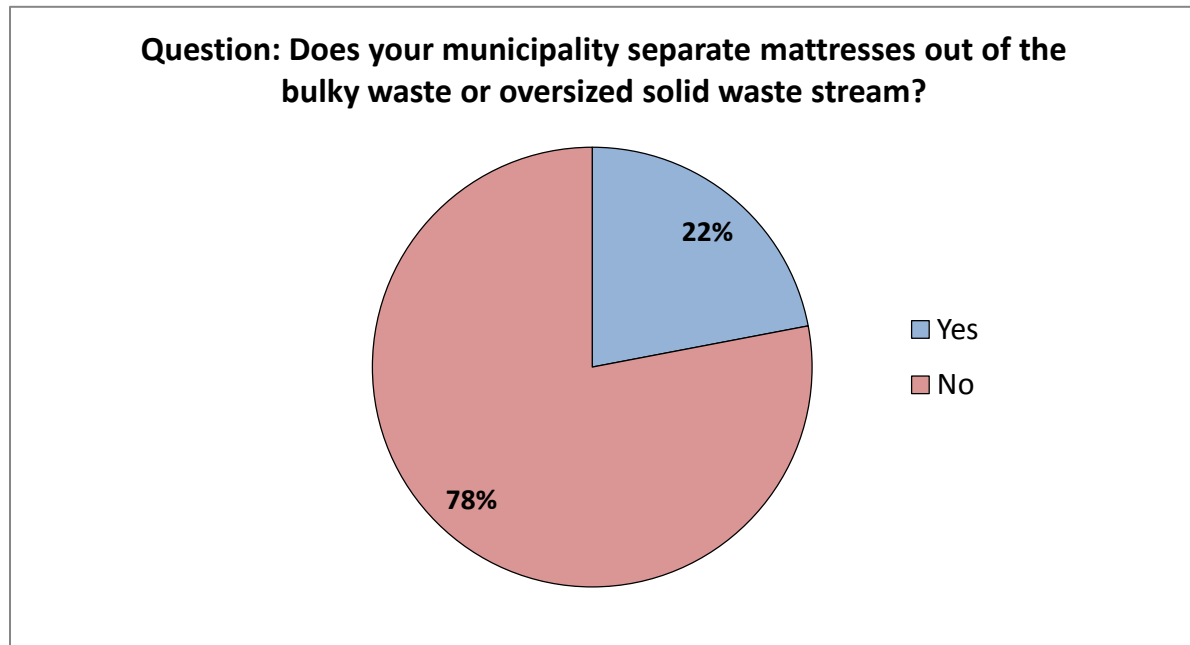
Overwhelmingly, the results show that most municipalities do provide in some way for disposal of used mattresses. Respondents that selected "No" were asked to skip to the end of the survey and provide comments only. The following questions will go into more detail about exactly how this process works in each town, for those who responded "Yes".

## II. Mattress Collection Method



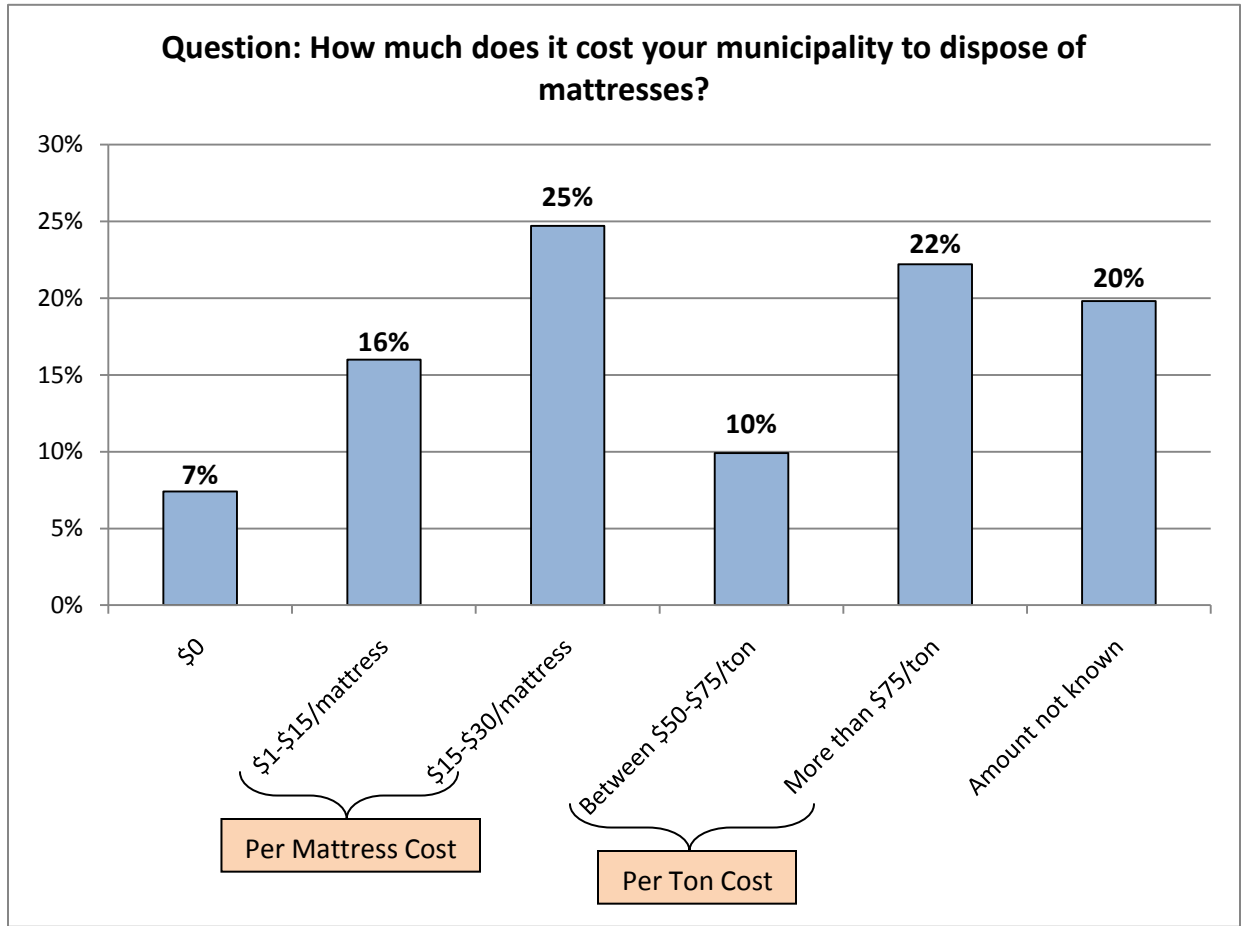
This question illustrates the types of collection methods that municipalities use to manage mattresses. The most common way to collect mattresses is to provide a location at the municipal transfer station for residents to drop them off. The majority of respondents charge a fee to the resident bringing in mattresses. A much smaller number of municipalities don't charge their residents at their transfer stations. Some towns also collect curbside, but it is slightly more common to not charge a fee at the curb. The percentages do not total to 100% because respondents had the option of selecting multiple responses (as some use multiple collection methods).

### III. Separation of Used Mattresses



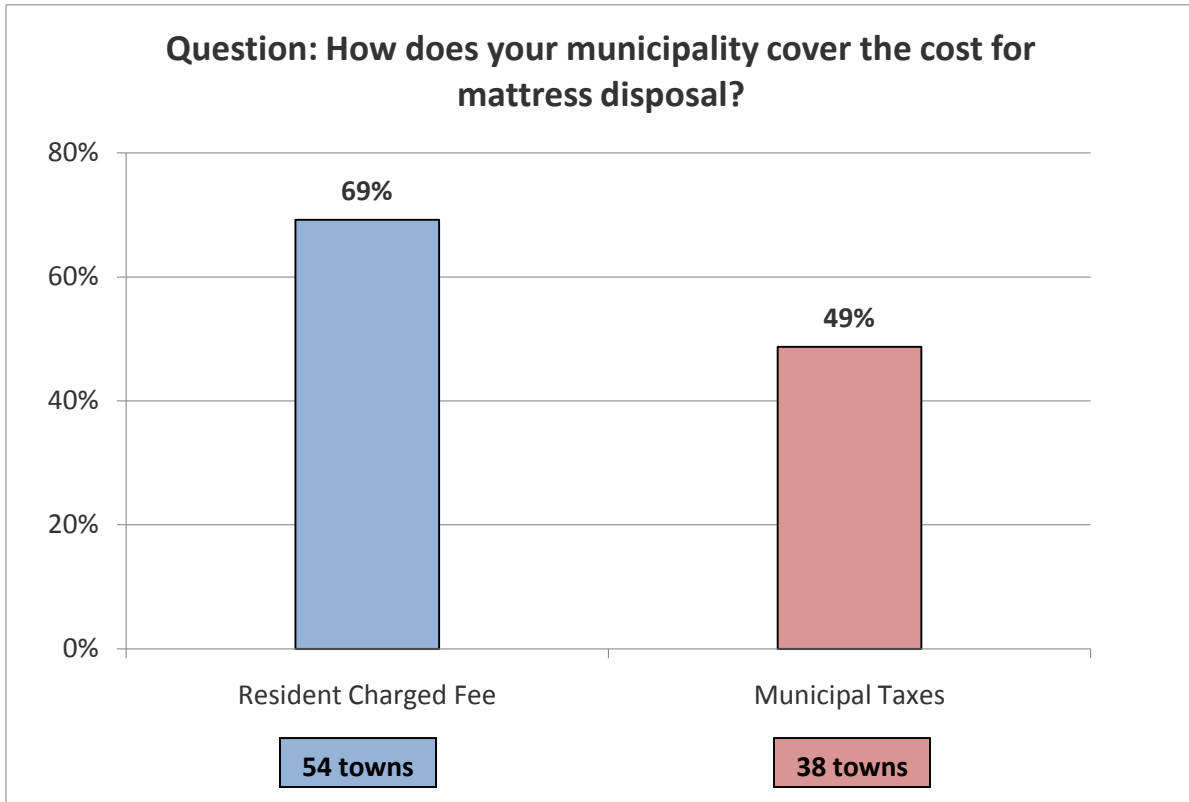
Municipalities may separate mattresses from the rest of the solid waste for a number of reasons; including breaking them down before they go through a waste to energy facility. Of the municipalities providing for mattress disposal, only 22% sort mattresses into a separate waste stream. The remaining 78% of towns group mattresses with their other bulky or oversized municipal solid waste items. This result shows that many towns would need to implement a separation step in order to facilitate mattress recycling.

#### IV. Cost of Disposal to Municipalities



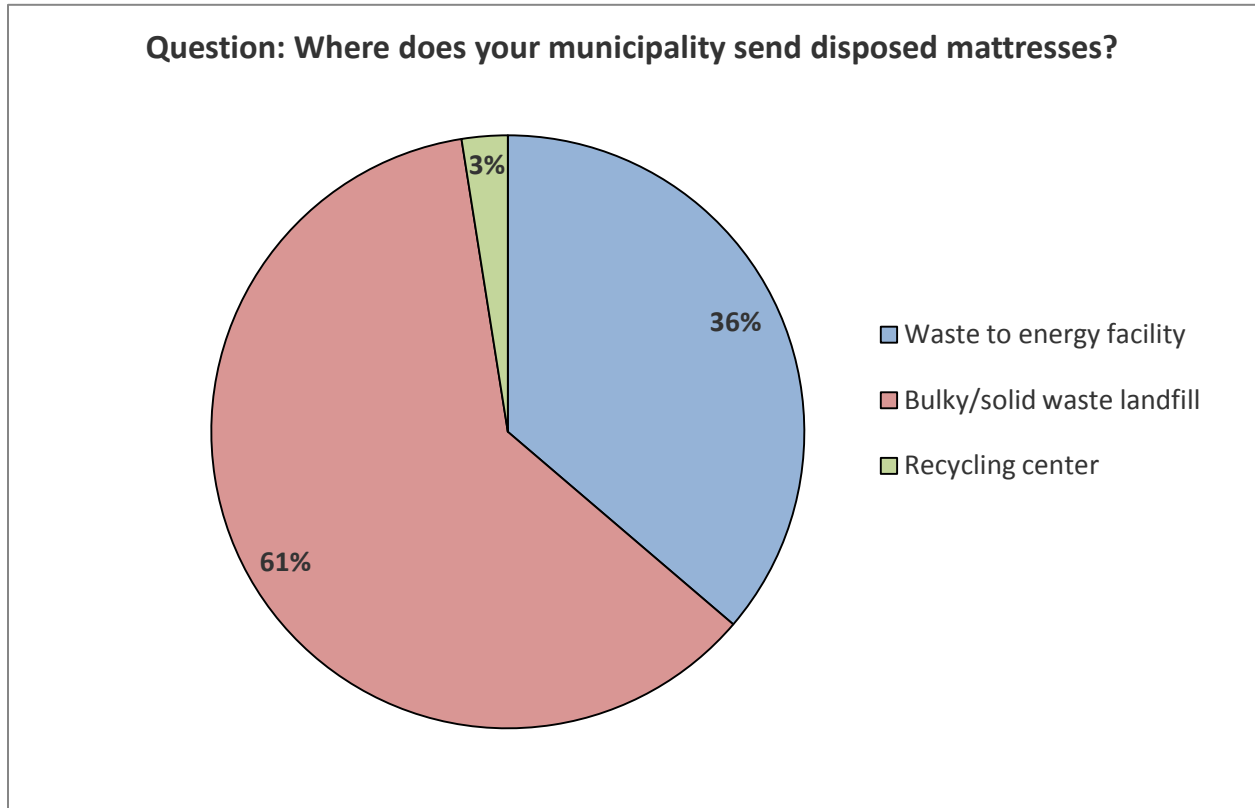
Cost calculation methods vary on a town-by-town basis, so the survey question included response choices as a cost per mattress or a cost per ton. The latter usually indicates the mattresses are disposed with other oversized municipal solid waste and a per ton tipping fee is charged to the towns. A sizable percentage (20%) of towns couldn't give a cost estimate, but more than half of those that did indicated it cost either \$15-\$30 per mattress or more than \$75 per ton to dispose of these items. The cost is not insignificant to the municipalities, especially those that are paying disposal costs of up to \$30 per mattress.

## V. Source of Funding for Municipalities



Charging fees can be a major disincentive to recycling or even proper disposal, and the survey shows over two-thirds of towns obtain funding by charging fees for residents to dispose mattresses. In addition, almost half of the towns pay for disposal through municipal taxes. The percentages do not total to 100% because respondents had the option of selecting multiples responses (some use both sources to fund mattress disposal).

## VI. Destination of Used Mattresses



This question summarizes the fact that there is very little, if any, residential recycling of mattresses currently happening in Connecticut. The CT DEP is not aware of any current mattress recycling facilities in the state, therefore the 3% of towns reporting mattresses sent to “recycling” may be interpreting the question differently. It is likely that the term “recycling center” is being equated with the municipal transfer station and that mattresses are not being sent to a recycling facility.

In some cases, volume reduction facilities will receive mattresses from municipalities and the metal inner springs are pulled out and recycled, but the mattresses as a whole are not recycled and most end up in landfills. The 61% of mattresses ending up in landfills is not inaccurate and could be an underestimation. Connecticut also has a significant amount of its municipal solid waste sent to waste-to-energy incinerators with 36% of towns reporting their mattresses end up there.

## VII. Total Number of Mattresses Managed by Connecticut Municipalities

Question: Give an estimate, or known number, of mattresses disposed every year at:

- a) Transfer Station
- b) Curbside

To interpret the results of this question, transfer station and curbside totals were estimated based on responses. Data was further analyzed by matching municipal yearly totals with population to generate



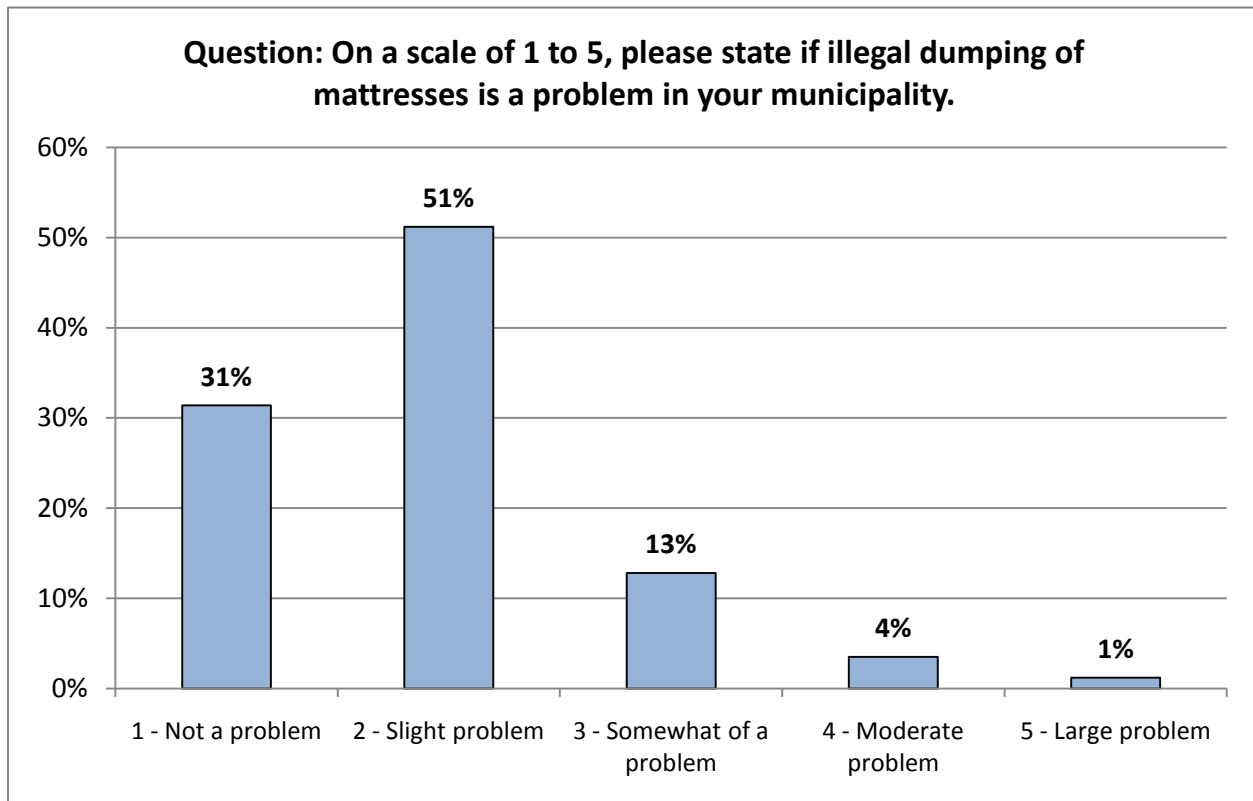
per capita collection rates for each town. Using an average of these per capita rates and the population of Connecticut, a total number of mattresses collected per year statewide was generated.

Average Per Capita Rate (mattresses/person/year)	0.025
State Population (July 2009)	3,518,288
Total Collected Per Year Statewide (residential and through municipality)	88,050*

\*This number is an underestimation because it doesn't include all curbside collection numbers. Respondents overall were not able to give an accurate number of the amount of mattresses collected curbside.

It is important to remember that this number does not include non-residential sources, such as hospitals, hotels or universities, all of which have a high volume of used mattresses needing proper disposal. Also left out are retail trade-in or buy-back programs because those numbers are not tracked through the municipalities.

### VIII. Illegal Dumping of Mattresses



The majority of towns felt that illegal dumping was a slight problem in their communities. Almost a third did not feel that they had problems with illegal dumping. The scale is always a challenge when interpreting results of questions like this – some town employees may have felt that illegal dumping of mattresses was not a large problem compared to all the issues that a municipality faces. However,

relative to other waste and recycling issues, this could rank nearer to the top. The comments in the next section will help to highlight some specific issues that towns were eager to bring up.

## **IX. Comments Related to Mattress Disposal**

As part of the last question, the survey provided an opportunity for municipalities to provide other comments about mattress disposal. A large range of topics was covered and selected comments are provided here.

### **Illegal Dumping**

- *“It causes blight, once residents see a mattress lying on the side of the road they start dumping other bulky items there.”*
- *“It requires staff from public works to collect them and then transfer them to our transfer station. This time erodes into other projects.”*
- *“One section of the city...has a problem with mattresses being left by tenants in high turnover apartments. They are left behind buildings, by commercial dumpsters, etc.”*
- *“When mattresses are illegally dumped on our streets, we have to clean and pay disposal regardless of their origin.”*
- *“Cost of time & equipment to pick up illegally dumped materials and dispose of properly, not to mention lost dumping fees.”*
- *“It cannot be traced when dumped so the town is forced to pick it up and dispose of it through tax base. It is expensive to bring to our transfer station, or to dispose of when buying a new mattress at many places, so of all the items we find illegally dumped it is one of the more frequent.”*
- *“As the economy flounders and disposal costs to individuals rise I fully expect that illegal dumping will escalate.”*

### **Product Stewardship**

- *“It would be nice if the manufacturers had a system of recycling the old [mattresses].”*
- *“Our town would like to see a mattress take back program in place by all appropriate retailers/manufacturers, without undue expense placed upon the resident.”*

### **Other Comments and Concerns**

- *“[Mattresses] are problematic when processing them with landfill equipment, so we would prefer there to be alternative options.”*
- *“During evictions in our city, workers do not want to unload mattresses for health concerns and recent bed bug infestations.”*
- *“Residents are not happy about paying a separate fee for the disposal of mattresses & box springs.”*
- *“Our population also uses refurbished mattresses that may not be kept by household as long as new purchases, resulting in greater disposal rates.”*
- *“It would be nice to have a regional mattress processing facility in the area.”*

## Conclusion

The results of this survey help to illustrate the current state of municipal mattress disposal and recycling in Connecticut. In summary, there is little or no recycling of whole used mattresses at this time. Most of the mattresses from Connecticut municipalities end up in landfills or are burned for energy in incinerators. Municipalities use different sources to fund mattress disposal, most commonly charging their residents fees to drop off the items at a fixed site. Curbside collections are less common and more likely to be free, but obtaining numbers is difficult if a private hauler provides for that collection. Very few towns separate mattresses out of other waste streams, and the cost to dispose ranges from a per ton tipping fee for all bulky waste to a per mattress charge that can run quite high. Illegal dumping does not appear to be a large problem overall, however, responses from most towns implied it can be burdensome. Comments at the end of the survey provided a look into the key issues that municipalities face when it comes to disposing used mattresses.