

Turning Blue Into Green

**How Chicago's Failed Blue Bag Program
Could Be Replaced With A True Recycling
Program Without Breaking The Bank**

*A White Paper by the
Chicago Recycling Coalition*

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We dedicate this paper to the people of Chicago.

program. They acknowledge its limitations. The only thing holding them back is fear of change and lack of clarity about its fiscal impacts.

On December 20, 2005, Alderman Joe Moore (49th) announced that he would introduce in the City Council an order to direct the Department of Streets and Sanitation to implement a citywide

What Does Good Recycling Really Cost?

Different cities budget for recycling in different ways. Some bundle their recycling with other solid waste handling costs; some keep the numbers separate; some won't release numbers at all. But as "money" continues to be Chicago's publicly expressed "sticking point" for initiating an effective citywide source-separated program, CRC undertook two studies to analyze municipal recycling costs. The first was to compare the city's blue bag program to recycling in other cities. The second was to model costs of a citywide program based upon the Beverly pilot on a large scale. The results of both studies are surprising and encouraging.

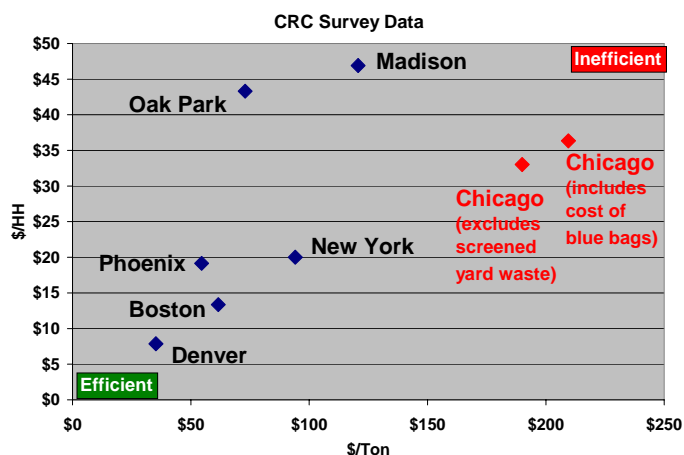
CRC began this research by reviewing the results of the 2005 "Municipal Recycling Survey," published by the trade magazine, *Waste News* by the trade handling Tj-1s's

household to run source-separated systems that recover far more recyclable commodities for every dollar spent.

However, the *Waste News* survey only gives a picture of municipal recycling in very broad strokes. For example, the self-reported recycling numbers for some cities include commercial and construction and demolition waste. (By including the heavy weight of concrete and steel, Chicago claimed a 52% overall recycling rate!) Others limit their reporting to just what city trucks pick up from residences. Because the focus of this analysis is exclusively on city-run residential programs, and to get the necessary data, CRC developed its own brief survey.

CRC Survey	\$/Ton	\$/Household
Chicago (excluding screened yard waste and adjusted for cost of buying blue bags)	\$210	\$36
Chicago (excluding screened yard waste)	\$190	\$33
Madison	\$121	\$47
New York	\$94	\$20
Oak Park	\$73	\$43
Boston	\$62	\$13
Phoenix	\$55	\$19
Denver	\$35	\$8

By phone and e-mail, we contacted a number of very large American cities (starting with New York and Los Angeles) as well as several local towns (e.g. Elgin, Oak Park, Madison, Wisconsin) that were too small to be included by *Waste News*. We were successful in getting most of our questions answered, although as expected, cost data was the most difficult to obtain. Cities lacking complete information are not included in this graph and table. (See Appendix 1 for the full results, including partial data from other cities.)



For this comparison, CRC computed Chicago’s recycling costs for 440,000 households, or two-thirds of the 660,000 visited by Streets and Sanitation trucks. That is because, as previously noted, the city has chosen to take one-third of the residential loads straight to transfer stations, without sorting for recycling. As for tons recovered, Chicago’s actual amount is much lower than reported to *Waste News*, as that number includes the “screened yard waste” that is merely taken

to an Indiana landfill and creates no usable compost for residential, agricultural or other purposes.

Using actual tonnage recovered in 2005 (recycled commodities plus bagged, not screened, yard waste), Chicago’s residential recycling cost rises to \$190/ton. If you add in the cost of blue bags for participating families, which aren’t a cost in cities that provide bins for separate collection (we estimated \$17/year for 13.3% of the households, that is, the percentage who actually recycle), the cost per ton rises further to \$210/ton. The next highest cost per ton surveyed is

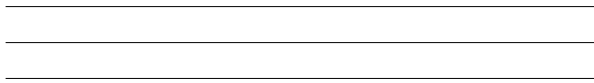
Madison at \$121/ton (but that includes a one-time purchase of new collection bins this past fall). New York City's per ton recycling costs are only half that of Chicago, at \$94/ton!

According to CRC's analysis of both data from *Waste News* and our own surveys, it is clear that Chicago's blue bag, rather than being the most cost-effective big-city recycling program in the country, is one of the most expensive and wasteful.

What Would Good Recycling Cost Chicago?

CRC also analyzed the Beverly pilot program and carefully researched what scaling it up citywide would cost, using several variables. Our findings? Chicago's recycling could go from one of the most expensive, inefficient programs in the nation to one that would be both effective and affordable. The graph below shows three estimates of what an improved program would cost to operate compared to the current cost of the blue bag program.

How did we arrive at these projections? CRC considered two key variables: how many households could be served by one recycling truck in a day, and how often would recyclables be collected – weekly or every other week (i.e., biweekly)? In addition, CRC calculated the cost of



This analysis of the costs of a citywide source separated recycling program makes it clear that it won't break the bank. Using three of the four scenarios above, a new citywide program would cost well less than the anecdotal \$34 million above current costs.

But there are further savings to be gained if source-separated recycling were established citywide: (a) The city would be saved "tipping fees" for the tons of new recycling, as they obviously would not go to the landfill. This is commonly called "diversion credit" and would save the city about \$36/ton. (b) MRRF processing costs for the current program would be eliminated, which are approximately \$14/for every ton of garbage going to the sorting centers (834,339 tons in 2005). The table below shows the operating costs that a new recycling program would create for the city budget. Note, in the most efficient scenarios, *money is actually saved*.

Pickup frequency	Households per day serviced	Recycling commodities only (tons)	Annual cost minus revenue	Tipping fees saved	Annual cost
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Appendix 1: Survey of other city's recycling programs

City Recycling Comparisons from *Waste News* 2005 Survey

(Published February 2006. "Collection Method" updated from additional research by CRC)

Appendix 2: Projected Operating Cost(s) of Source-Separated Municipal Recycling for the City of Chicago

The City of Chicago continues to claim that a source-separated municipal recycling program is “too expensive” compared to the blue bag. Is this a valid argument? How much would such a program actually cost and would it break the bank?

We believe that the city itself has been studying this issue, but unfortunately, it has yet to share a

numbers are from City of Chicago Department of Streets and Sanitation reports to Illinois Department of Commerce and Economic Opportunity (DCEO), per the state grant to the city for the purchase collection bins for the Beverly pilot. Reports were obtained by a Freedom of Information Act (FOIA) request made by the CRC. Truck cost projected at \$2,427/month, also from the report. The costs varied slightly over the reported nine months of the project; this is the monthly average. Assumption is that the recycling truck in pilot was “dedicated” to project and billed for “full use.”

Daily collection rate: The Beverly pilot recycling truck emptied about 350 bins a day, per the same report to DCEO. That is, it took about two days a week to collect from the almost 700 homes in the pilot area. However, according to multiple recycling agencies and coordinators in the northern Illinois region, the typical daily collection with semi-automated carts (like Chicago uses) is 650-850, or twice as many as in the pilot. And this is usually with just one driver working, not a driver and laborer as in Beverly. If fully automated trucks are used, where the driver rarely leaves the cab, 900-1,200 bins a day can be serviced. We chose 400 and 800 containers/day for our estimates; but

Cost Projections for Source-Separated Recycling for the City of Chicago

Commodities only - does not include yard waste

Pickup Frequency	Totes/day serviced	Totes serviced in one week	Totes serviced in two weeks	Total households	Trucks needed	Annual cost per truck	Annual cost of
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Appendix 3: What About Yard W

