



The Financial and Operational Benefits of Bag-Based Pay-as-You-Throw

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About WasteZero

- 100% driven to cut trash in half across the US
- In business since 1991
- Is the national leader in municipal waste reduction
- Helps municipalities reduce waste, increase recycling, & save money
- Specializes in PAYT programs, with experience in all types
- Has a 100% success rate with WasteZero-designed programs
- Offers consulting, as well as program design & management
- Is a certified B Corp, meeting rigorous social & environmental standards
- Is based in Raleigh, NC, with regional support around the nation



The Trash Problem: Financial & Environmental

- Many cities are struggling financially, and solid waste is a big contributor.
- The cost of trash has risen 2.4 times faster than inflation over the last 30 years.
- Often, trash fees do not cover the full costs.
- Even financially healthy communities spend more than they need to on trash.
- Our mission to cut the trash in half and help communities...



Solve Financial Challenges

- Generate revenue
- Reduce costs
- Align revenues with costs
- Free up resources



Achieve Environmental Goals

- Reduce waste
- Increase recycling
- Save energy and resources
- Reduce greenhouse gases

The Cause of the Problem: Our “Broken” Trash System



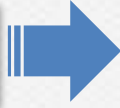
Electricity



Gas

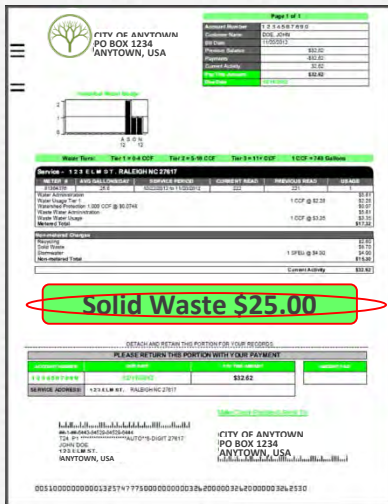


Water



Residents pay for most utilities based on how much they use. Trash is different: In most places, trash is the last unmetered utility...

1 Flat Fee or No Fee



2 Request



3 Blank Check



“Fill ‘er up!”

The flat fee or “no fee” approach causes waste and does not provide any incentive to recycle. Often, municipalities are frustrated that they are unable to engage with residents in ways that change behavior.

The Solution: Pay-As-You-Throw

With PAYT, residents pay for trash based on how much they generate. If they recycle more and throw away less, they pay less. The economic incentives to reduce waste are strong.

Benefits:

- ✓ Solid waste is reduced
- ✓ Recycling increases
- ✓ Collection and disposal costs drop
- ✓ The environment is improved
- ✓ Landfill life is extended



Types of PAYT

PAYT programs can take many different forms. **Bag-based systems are by far the most effective.**



Cash

Residents pay a set fee in cash for each bag they dispose of at a convenience or transfer station.



Variable-Rate Carts

Residents choose from among different sizes of carts, paying more for the larger carts and less for the smaller ones.



Overflow

Residents pay a flat fee that covers everything they can fit into a certain size cart, and then pay extra (usually by the bag) to dispose of anything that does not fit into that cart.



Stickers/Tags

Residents pay by the bag by affixing a pre-paid tag or sticker to each bag of trash.



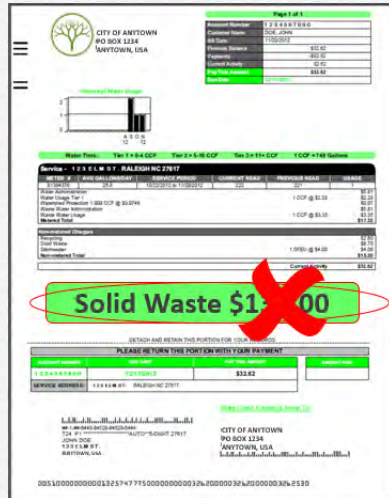
Bags (Most Effective Method)

Residents dispose of their waste in specialized bags approved by the municipality and clearly marked with the municipal seal or other unique instructions or information.

The Bag-Based PAYT Model

Bag-based PAYT is the most effective available means of reducing municipal solid waste, and it works with all collection methods.

1 Cut Fees (if possible)



2 Pay per Bag for Trash



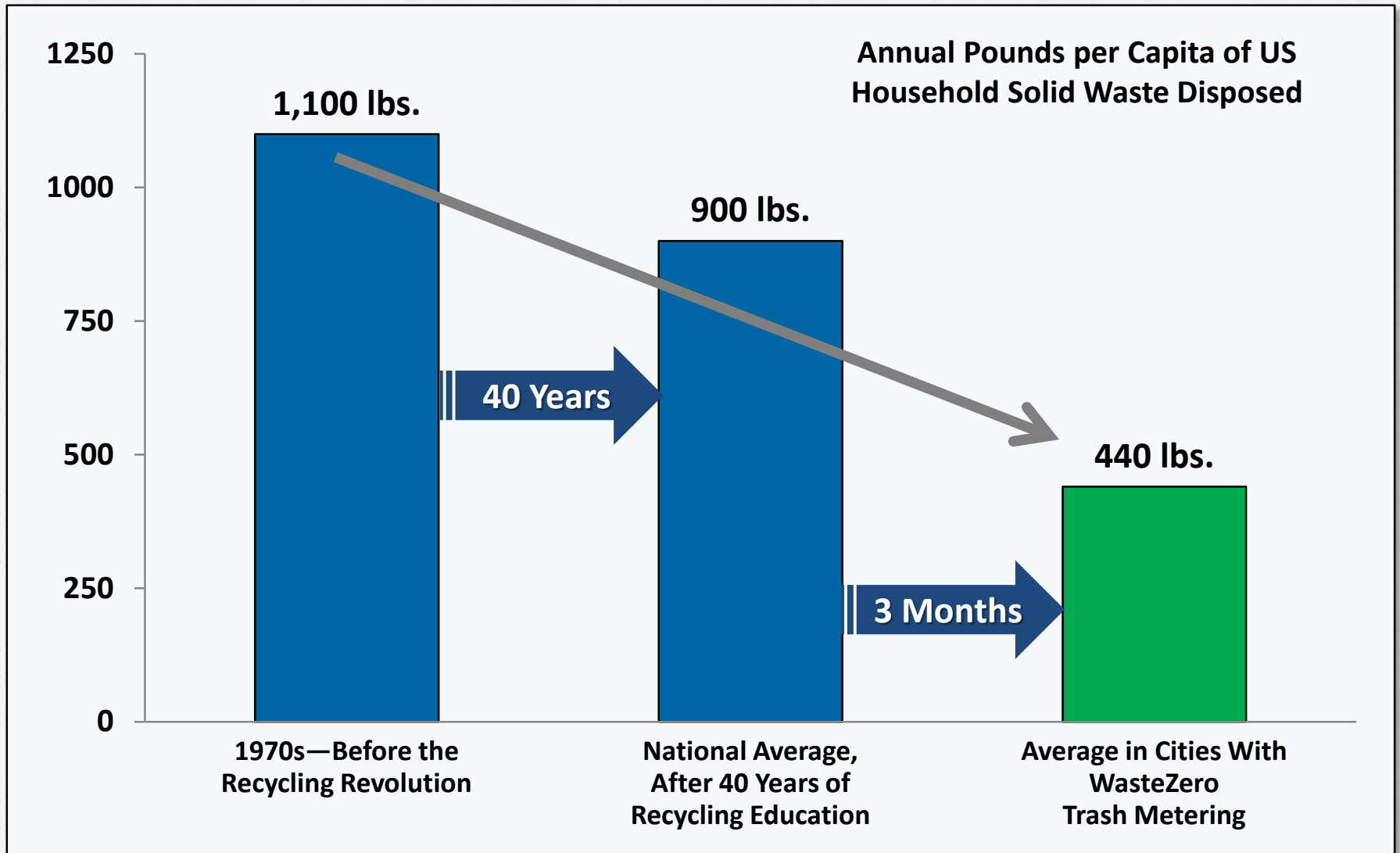
3 Residents Recycle More



- Fairer to residents
- Easy to implement
- Works better than any alternative

- No direct cost to the City
- Works with any collection method, automated or manual

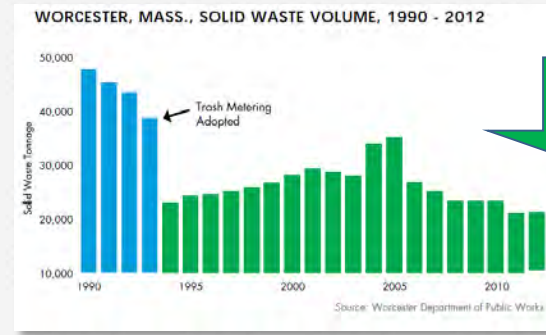
The Most Effective Intervention



Bag-Based Pay-as-You-Throw

Typical Results

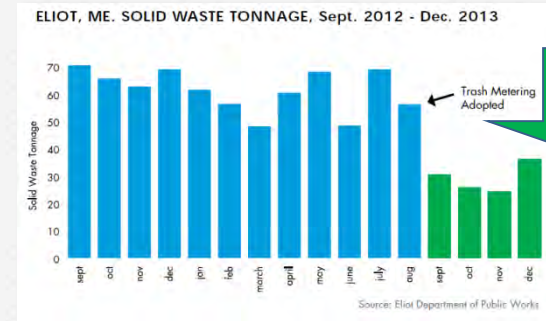
- Average reduction of MSW and disposal costs of 44%
- Substantial increases in recycling
- Significant results within 30-90 days
- Permanent impact
- Effective in cities and towns, regardless of
 - Population size
 - Average income level
 - Numerous demographic factors
 - Method of trash collection



47%



39%



57%

PAYT Results—Sanford ME

The Power of Pay-as-You-Throw

In July 2010, the City of Sanford, Maine, instituted a bag-based pay-as-you-throw program. Immediately, trash volume dropped by half. Four months later, the town repealed the program, and trash tonnage shot up, almost back to where it started. In September 2013, Sanford reinstated PAYT, with impressive results.

In the program's first 2 months:

- 42% decrease in solid waste tonnage
- \$28,000 in disposal savings
- Recycling rate nearly doubled

SANFORD, MAINE, SOLID WASTE VOLUME, 2010 - 2014



ANNUAL POUNDS OF TRASH PER CAPITA



PAYT Results—Gloucester MA

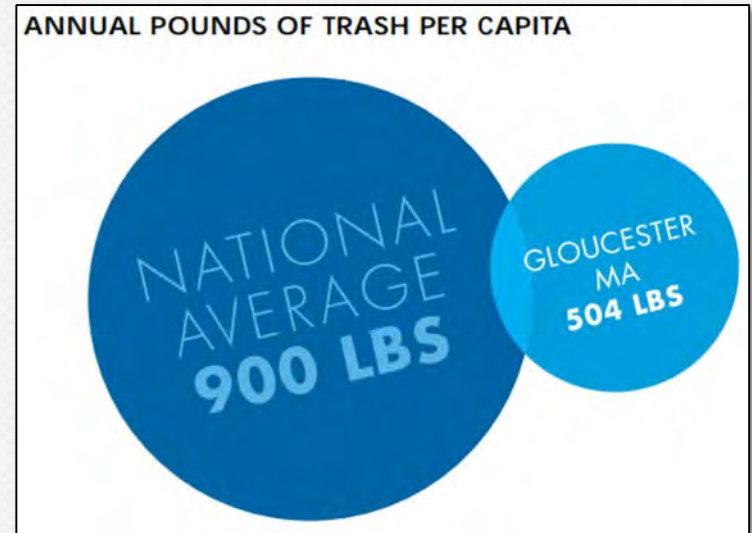
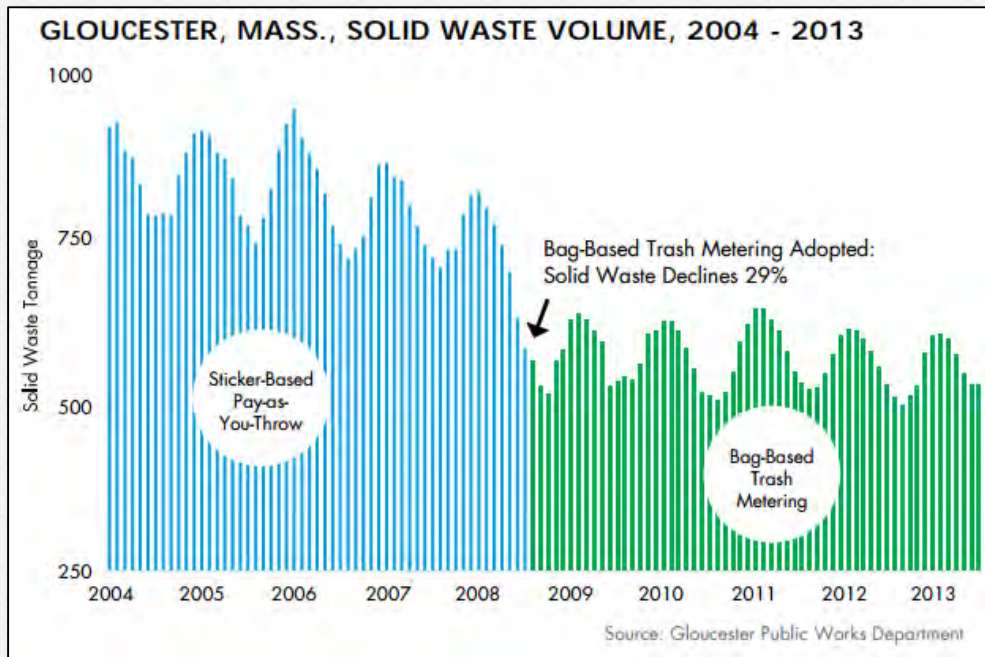
Switching From Stickers to Bags—and Saving \$1 Million

The city of Gloucester MA began a tag-based pay-as-you-throw program in 1990 to cut solid waste and save money.

To increase efficiency and drive greater waste reduction, they moved to a bag-based program in 2009.

In the program's first 5 years:

- 29% decrease in solid waste tonnage from stickers to bags
- Recycling rate up from 23% with stickers to 31% with bags
- Additional \$1 million in disposal savings from switching to bags



PAYT Results—Merrimac MA

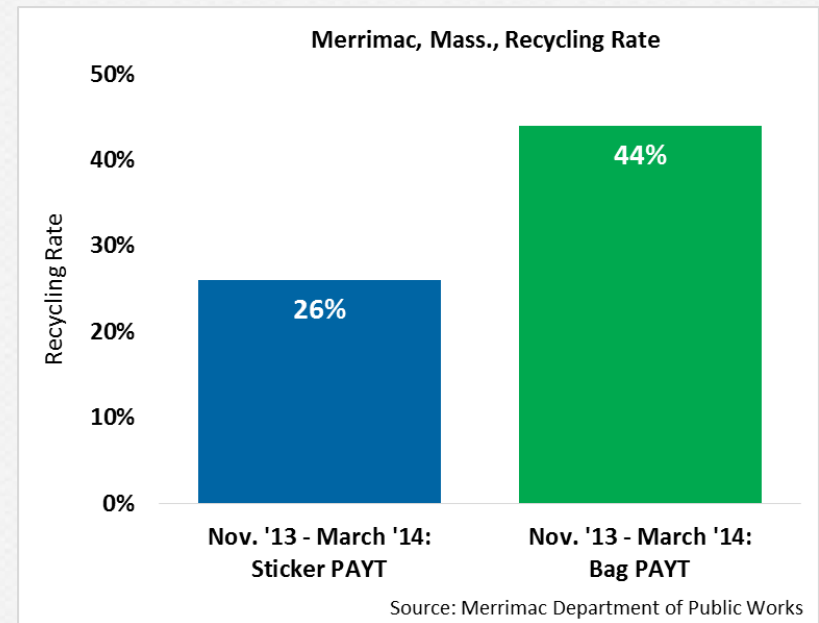
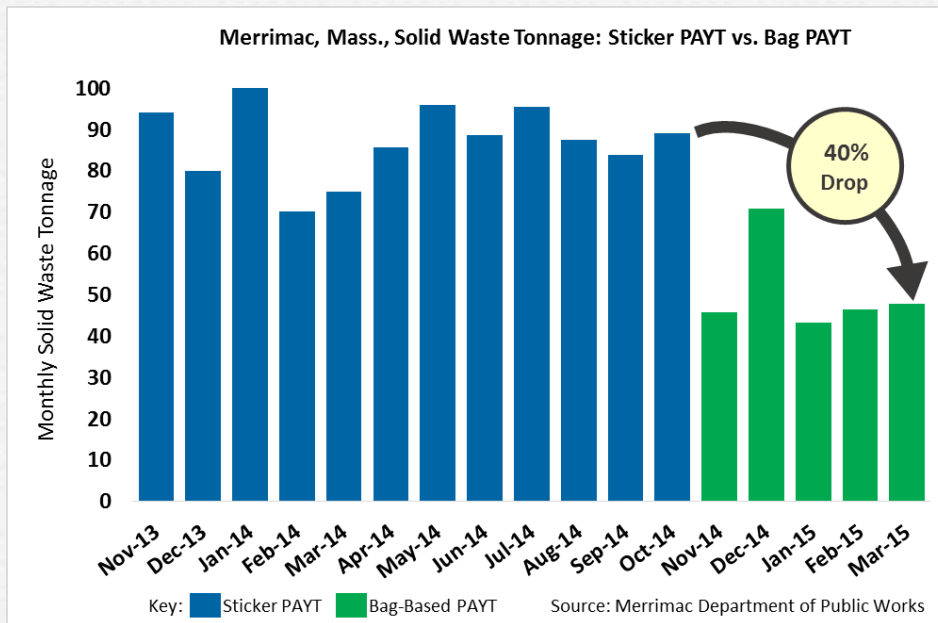
Big Drop in MSW After Switching From Stickers to Bags

In November 2014, the town of Merrimac MA replaced its sticker pay-as-you-throw system with a bag-based program.

Although the stickers and the bags are both forms of pay-as-you-throw, the new bag system has performed far better than the stickers did.

In the program's first 5 months:

- 40% decrease in solid waste tonnage from stickers to bags
- Recycling rate up from 26% with stickers to 44% with bags
- Additional \$12,300 in disposal savings from switching to bags

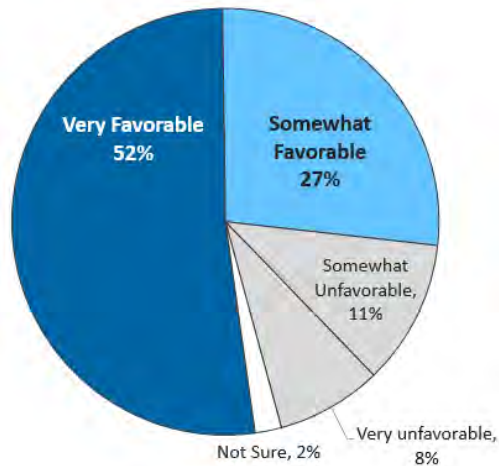


Strong Support for Pay-as-You-Throw

In a 2014 Public Policy Polling survey of almost 1,000 PAYT participants from 10 communities, significant majorities expressed satisfaction with the program.

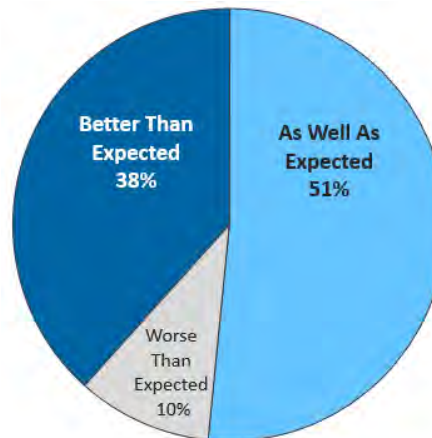
High Favorability

Do you have a favorable or unfavorable opinion of pay-as-you-throw?



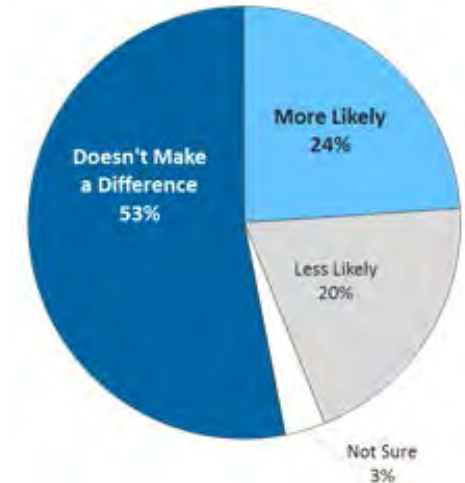
High Effectiveness

Do you feel that pay-as-you-throw is performing better than you expected, as well as you expected, or worse than you expected?



Minimal Political Impact

Does having pay-as-you-throw in place make you more or less likely to vote for the officials who implemented it, or does it not make a difference?



Thank You!

WasteZero[®]
Save Money. Reduce Waste.

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