

BEST PRACTICES IN RECYCLING: PAY-AS-YOU-THROW

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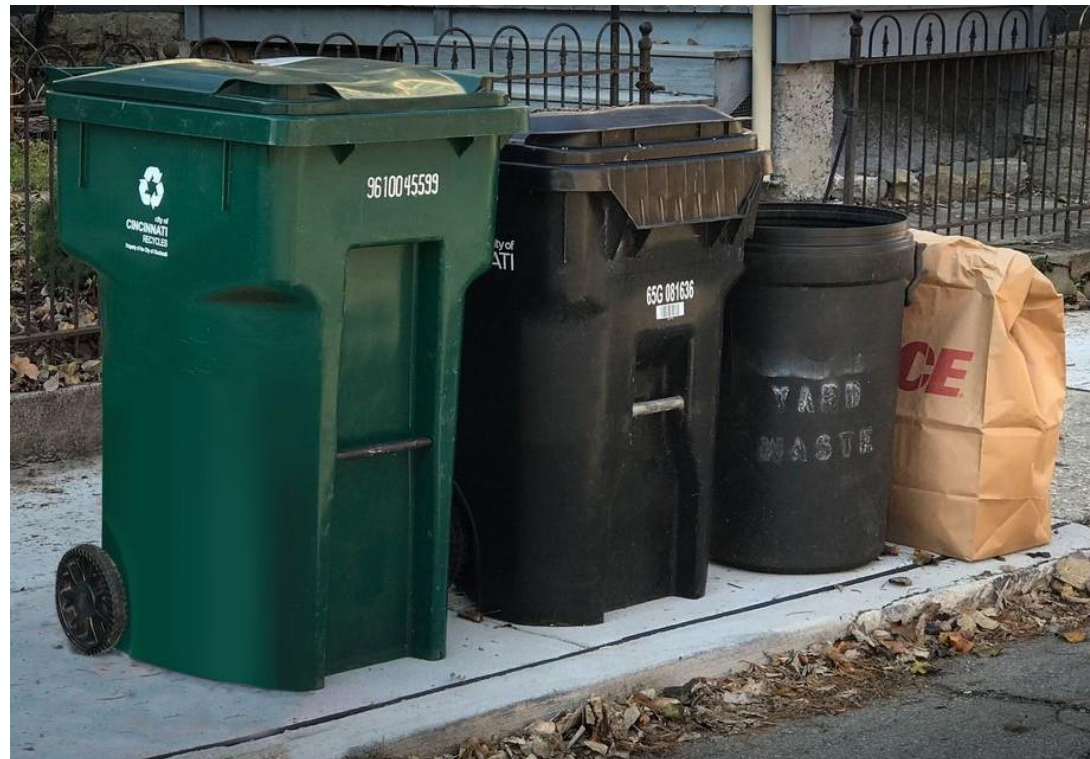
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Immediate Past President
National Recycling Coalition

A 45-year career in recycling

Advisor to Cincinnati Office of Environment
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WHAT ARE THE BEST PRACTICES IN RECYCLING?



- **Council establishment of Zero Waste goals and benchmarks with funding support (GCP)**
- **Promotes “Reduce and Reuse” as a priority (GCP)**
- **Support for local Reuse collection systems (GCP)**
- **Above 75% residential recycling set-out rate**
- **Multi-family and single-family residential access to recyclables and compostables collection**
- **Focused support on domestic local recycling and reuse economic development**
- **Pay-As-You-Throw pricing structure for residential collection to promote waste reduction and recycling**

Unit-Based-Pricing

PAYT

variable
metering

usage-pricing

unit
system
model

Pay-as-you-Throw

WHAT IS PAY-AS-YOU-THROW?

PAYT DEFINITION:

Pay as you throw (PAYT), also known as variable rate or unit based pricing, charges customers based on the amount of solid waste (trash) they discard.

- Wasters pay more
- Recyclers pay less



The Evolution of the waste can



WHAT IS PAY-AS-YOU-THROW?

PAYT is a “Pricing System” for trash collection that supports an environmental policy of encouraging waste reduction, reuse, recycling and composting through a market pricing disincentive to “wasters” through the use of variable pricing of the trash container.

- Wasters pay more
- Recyclers pay less



WHY PAY-AS-YOU-THROW?

PAYT fees pay for

- Recycling collection and processing
- Trash collection and processing
- Yard Waste collection and processing



WHY PAY-AS-YOU-THROW?

PAYT fees replace local taxes through a utility bill, deposited into an enterprise fund

- PAYT fees are NOT TAXES – they are UTILITY FEES
- Fees collected pays for all the utility costs of providing the services

A pair of glasses with a black frame is positioned at the top left of the image. Below them, a yellow sticky note is placed on a wooden surface. The sticky note has the words "Cost" and "accounting" written in red marker. The background is a dark grey gradient.

WHY PAY-AS-YOU-THROW?

PAYT fees are calculated through full cost accounting rate study

- Fees are assessed to residents on a utility bill (e.g. monthly water bill)
- Removes the expense from the local tax revenues, offering more funding for public safety, parks, libraries, and other govt services.



WHY WOULD YOU DESIRE PAYT? ADVANTAGES?

Residents pay for service based on trash thrown out

- PAYT is modeled like an electric or water utility: Residents only pay for what they dispose
- With PAYT, residents who reduce and recycle are rewarded with a lower trash bill



WHY WOULD YOU DESIRE PAYT? ADVANTAGES?

PAYT INCREASES DIVERSION:

Duke University National Study

Communities implementing PAYT gained these results

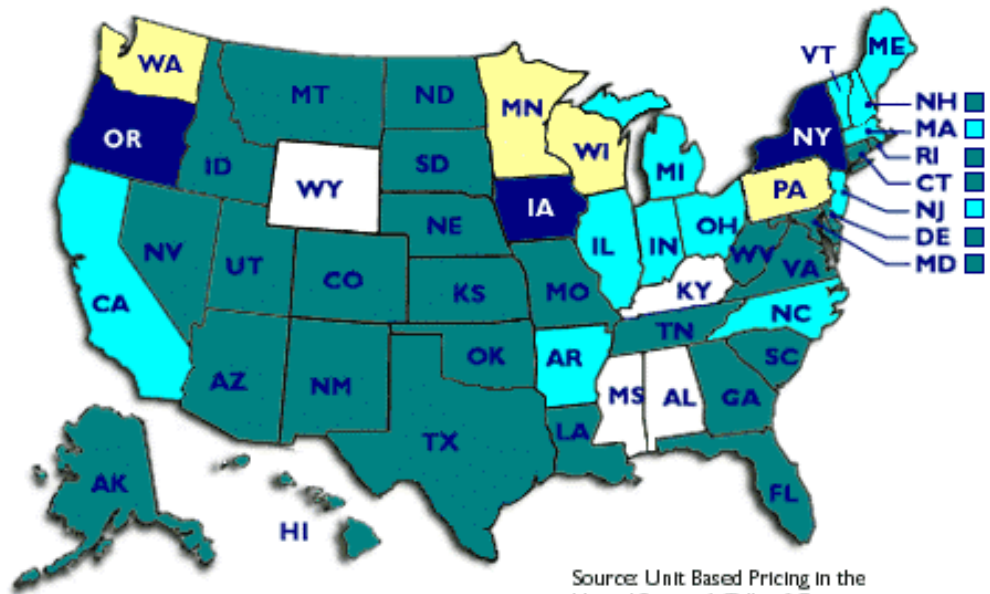
- **14 to 27%** average waste reduction
- **32 to 59%** increase in recycling

Source: USEPA Region 5

HOW COMMON IS PAYT?

PAYT IS MORE COMMON IN THE US THAN YOU WOULD GUESS

- More than 10,000 communities in the U.S. practice PAYT
- 29 of the largest 50 Cities in the US have PAYT
- 1999: Ohio had 89 PAYT cities
- 2017: Ohio had 250 PAYT cities



Source: Unit Based Pricing in the United States: A Tally of Communities, M.L. Miranda, Duke University, 1999.



Source: USEPA Region 5

PAYT VARIABLE CAN SYSTEMS: VARIATIONS

- Purchase new “sized” trash cans
 - e.g., 96, 64, 32, 24-gallon containers
- Billed by variable size of cans
 - E.g. 96@ \$20/mo, 64 @ \$15/mo, 32 @ \$10/mo, 24 @ \$5/mo
- Restrictions on the number of cans per household
- Recurring charge on monthly utility or other service bill
- “Extras trash” through purchased bags or tags
- Fixed costs plus incremental costs as part of the fee
- Bundled fee includes trash, recycling composting, educ.



VARIOUS US PAYT COMMUNITIES

PAYT INCREASES DIVERSION:

San Jose,
CA
930,862



Diversion
rate is
74%

San Francisco,
CA
715,717



Diversion
rate is
80%

Portland,
OR
619,286



Diversion
rate is
81%

Seattle,
WA
725,487



Diversion
rate is
53%*

Worcester,
MA
205,272



Diversion
rate is
54%*

Source: Municipal websites

VARIOUS US PAYT COMMUNITIES

Wilmington, NC

- \$400,000 per year revenues
- Population: 75,000

Littleton, NH

- \$40,000 in extra funds with PAYT
- Population: 5,800

Gainesville, FL

- \$186,200 program savings
- Population: 96,000

San Jose, CA

- Reduced cost by \$4 million annually
- Population: 850,000

OHIO PAYT COMMUNITIES

Mariemont, OH

- SF- \$75 annual fee plus \$2 fee per bag sticker
- MF- \$45 annual fee plus \$2 fee per bag sticker
- Rumpke service
- Population: 3,414

Bellefontaine, OH

- SF- Nine options priced from \$9 to \$39 /month
- MF – varied rates by bin size
- Bundled Service: Trash and Recycling
- Serviced by Republic
- Population: 14,054

City of Napoleon, OH

- SF- Two bags trash “free” (General Fund) – additional trash bags: \$2 sticker
- Recycling “free”
- City-provided services
- Population: 8,695

St. Marys, OH

- SF – \$10 / month plus \$1 per trash bag
- MF – varied rates by bin size
- Bundled Service: Trash and Recycling
- Service Provider City of St. Marys
- Population: 8,438

MADEIRA RESULTS



RECYCLING
RATE
25-30%
increase



EDUCATION



ECONOMIC
BENEFIT
Reduced
Service Costs



PARTNERSHIPS

SUCCESS



Austin Residential Recycling Rate

12%

BEFORE

32%

ONE YEAR AFTER

42%

FIVE YEARS AFTER



GRANT FUNDING OPPORTUNITIES

Start-up investment and infrastructure

- Purchase trash/recycling carts
- RFID tags
- Equipment to read RFID
- Program advertisement
- Bags/stickers for overflow
- Educational material
- Educational PAYT training
- Recycling incentive programs

Grant Funding Available

- [USEPA Climate Pollution Reduction Grants](#)
 - Award amounts range from \$2M-\$500M
 - OKI accepting proposals through 2/16
 - Full local OKI package due by 4/1/24
 - Regional MSA Collaboration Required
- [USEPA Source Reduction Assistance Grant](#)
 - Up to \$250,000
 - Applications Round expected by 7/2024
- [OEPA Recycling Grants](#)
 - Up to \$200,000
 - Applications due 12/1/2024

ANY QUESTIONS?



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