

Impacts of Pay-as-You-Throw Municipal Solid Waste Collection

Prepared for:

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Background

- What is Pay-as-You-Throw (PAYT)?
- Types of PAYT
 - Volume-based
 - Weight-based
- Rationale for PAYT
 - Efficient
 - Equitable



Comparable Cities

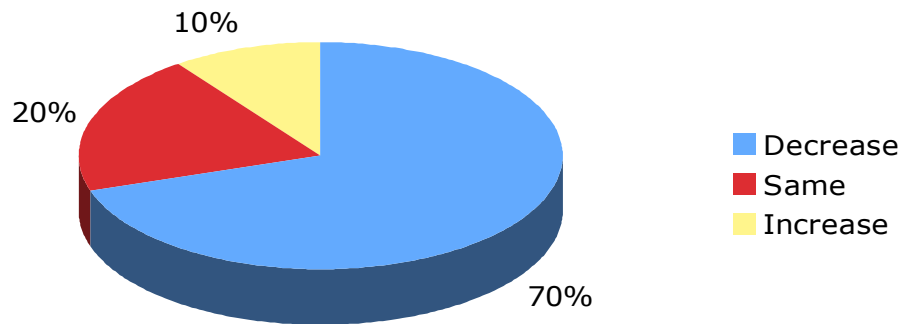
- City selection based on population size and demographics



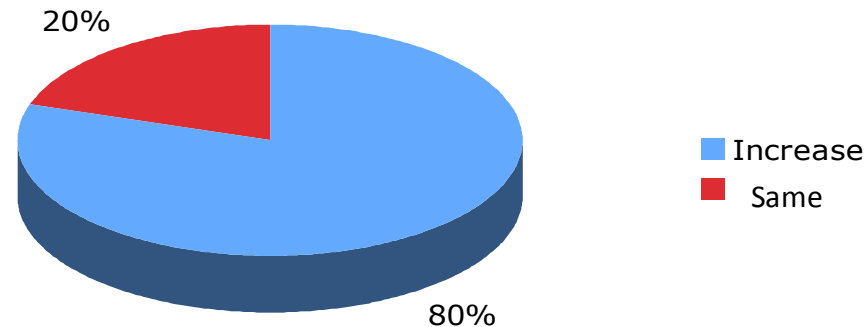
Survey Results

- Multiple carts most popular design
- Solid waste and recycling changes
- No Increase in illegal dumping

Solid Waste Collection



Recycling Collection



Evaluation Criteria

- Efficiency
 - Capital investment costs, budget considerations
- Effectiveness
 - Compliance and diversion rates
- Equity
 - Charges based on usage
 - Equity index
- Ease of Implementation
 - Administrative complexity and feasibility

Status Quo: Current System

Size of MSW Carts	95-gallons
Charge for single-cart service	\$150 / year
Charge for special pickup	\$50 / pickup
Charge for recycling collection	\$0 (included in MSW fee)



Status Quo: Evaluation

	Efficiency	Effectiveness	Equity	Ease of Implementation
Status Quo	—	—	— —	+

- Average cost: \$150 per year
- Average for full cost recovery: \$167 per year
- \$3 million annual loss
- Unfavorable economic trends:
 - Landfill fees up, recyclable prices down
- Equity index – up to 5 times the rate per unit

Alternative 1: Multiple Carts

Size of MSW Carts	32, 64, and 95-gallons
Base Charge	\$68–\$88 / year
Cart Charge	32-gallon: \$48 / year 64-gallon: \$96 / year 95-gallon: \$144 / year
Charge for additional carts	Same as first cart charge
Charge for additional MSW	\$3 / 30-gallon bag
Charge for special pickup	\$50 / pickup

- Quarterly charge varies by MSW cart size
- Average cost: \$164 - \$184 per year

Multiple Carts: Evaluation

	Efficiency	Effectiveness	Equity	Ease of Implementation
Multiple Carts	-	+	+	-

- Generally accepted, many cases to reference
- Equity index: 1.22 to 4.40
- ~\$5 million - \$10 million in cart investments
- Billing system adjustments necessary

Alternative 2: Weight-Based

Size of MSW Carts	95-gallons
Base Charge	\$50 / year
Charge per pound of MSW	7.7–11.1 cents
Charge for additional carts	Charged at same rate per pound
Charge for additional MSW	Charged at same rate per pound
Charge for special pickup	\$50 / pickup

- Truck scales and electronic cart tags, wireless data collection
- Fee varies each week by amount of MSW in cart
- Average cost: \$169 – 182 per year

Weight-Based: Evaluation

	Efficiency	Effectiveness	Equity	Ease of Implementation
Weight-based	+	++	++	--

- Most incentive to reduce waste and increase recycling
- Equity index: 1.09 to 1.80
- Pilot study information
- Equipment investment and certifications

Recommendation

Weight-based system

	Efficiency	Effectiveness	Equity	Ease of Implementation	Total
Status Quo	-	-	-	++	--
Multiple Cart	-	+	+	-	0
Weight-based	+	++	++	--	+++

Implementation

- Pilot Program
 - One year program covering 10% of the City
 - Evaluate equipment
 - Evaluate results
 - EPA grant and/or manufacturer partnership
- Education and Outreach
 - Ensure residents are aware of program function and goals

Additional Information

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