Paying for Waste Disposal

What Are the Choices?

Tax Base
General Fund

Flat Fee

User Fee
(Pay-As-You-Throw)
Challenges in MSW Management

- More garbage to collect and dispose
- Higher costs of collection services
- Limited municipal budgets
- Public-sector pressure to more cost-efficient
“3E” Benefits of Pay-As-You-Throw

- **Environmental Sustainability**: Effectively promotes waste reduction
- **Economic Stability**: Stable revenue covers cost of services
- **Equity**: Economically fair delivery of services
How PAYT Programs Work

- Pay for MSW service based on garbage thrown out
- Pay for waste like a utility
- Residents only pay for what they use
Types of PAYT Programs

- **Cans:** Residents pay higher fees for larger containers
- **Bags:** Residents pay a fee for garbage bags
- **Stickers:** Residents pay for stickers affixed to bags/containers
- Duke University National Study
  - 14 to 27% average waste reduction
  - 32 to 59% increase in recycling
  - 19% found slight increase in illegal dumping
Examples of U.S. City Savings

- **Wilmington, NC**— $400,000 per year (Population: 75,000)
- **Littleton, NH**— $40,000 in extra funds with PAYT (Population: 5,800)
- **Gainesville, FL**— $186,200 savings (Population: 96,000)
- **San Jose, CA**— reduced cost by $4 million annually (Population: 850,000)
PAYT Growing in the U.S.

- More than 5,000 communities in U.S. practice PAYT
- Cities large and small, rural and urban
- More than 60 cities with populations above 100,000 practice PAYT
Map of PAYT Communities

Number of Communities with Pay-As-You-Throw

- White: 0
- Light Blue: 1-25
- Blue: 26-100
- Medium Blue: 101-200
- Dark Blue: 200+

# Large Cities and PAYT

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
<th>Recycling Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Jose, CA</td>
<td>782,248</td>
<td>43%</td>
</tr>
<tr>
<td>San Francisco</td>
<td>723,959</td>
<td>Approx. 33%</td>
</tr>
<tr>
<td>Portland, OR</td>
<td>437,319</td>
<td>50% (1996)</td>
</tr>
<tr>
<td>Seattle</td>
<td>516,259</td>
<td>44% (1996)</td>
</tr>
<tr>
<td>Worcester, MA</td>
<td>169,759</td>
<td>54% (1996)</td>
</tr>
</tbody>
</table>
What People Say about PAYT

Approval from elected officials to environmental groups and residents

- PAYT offers “a direct economic payback to the people”—San Jose elected official
- High recycling rates in cities correlates with PAYT
- Surveys indicate residential approval
- Positive changes in consumer purchasing behavior
Lessons Learned from PAYT

- Economic incentives encourage behavioral changes
- Treating MSW services as a utility — you pay for what you use
- **Win-win**: high recycling rate and economic stability
EPA Tools/Technical Assistance

What is EPA doing to support PAYT?

- Tool kit, PAYT Video, Fact sheets, Testimonials, Guidebook
- Technical assistance workshops in cities across the U.S.
- Web site: www.epa.gov/payt
Climate Change

- PAYT helps reduce the greenhouse gas emissions associated with making, distributing, and disposing of products.
- If 200 more communities adopted PAYT and reduced waste by 20%, greenhouse gas emissions would be cut by 3.8 million MTCE.
- This equals taking almost 2.8 million cars off the road for almost a year.
Pricing Systems

- Proportional
- Variable
- Two-tiered/Multi-tiered
Complementary Programs

- Curbside Recycling
- Yard Trimmings and Composting
- Bulky Items and White Goods
Growth in PAYT Programs

Number of Communities

Year

No. of Communities

6000
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0

65 70 75 80 85 90 95 0

Year

Number of Communities
**San Jose, California**

<table>
<thead>
<tr>
<th>Population</th>
<th>Start Date</th>
<th>Prgm. Type</th>
<th>Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>850,000</td>
<td>July 1993</td>
<td>Four-Sort</td>
<td>Cans</td>
</tr>
</tbody>
</table>

- Before PAYT: Unlimited collection for $12.50/month.
- Before PAYT: Three 32-gallon garbage cans/week.
- City reduced costs by over $4 million/year.
- 87% of residents use the 32-gallon size container.
- Recyclables/yard trimmings double pre-PAYT level.
- Residents happy with program (80% approval in 1993, 90% in 1996).
**San Francisco, California**

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<th>Container</th>
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<tr>
<td>723,959</td>
<td>1900s</td>
<td>Variable</td>
<td>Cans</td>
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- PAYT program one of the oldest in the country.
- 1999: City recycling rate 42%.
- “Fantastic 3” program: three 32-gallon carts.
- First program to collect food scraps at curbside.
- All apartment buildings have access to PAYT.
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<tr>
<td>516,259</td>
<td>1981</td>
<td>Variable</td>
<td>Cans</td>
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</table>

- City offers 10, 20, 30, 60, or 90-gallon cans.
- City uses totes, semi-automated collection for containers over 30 gallons.
- 25% of residents use 20-gallon cans.
- Water/trash bills issued jointly:
  City pays for trash, shuts off water.
Austin, Texas

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<th>Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>465,622</td>
<td>1991</td>
<td>Variable</td>
<td>Cans</td>
</tr>
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- 2000: Recycling rate 28.5%.
- 1991 (program began): Recycling rate 9.8%.
- Switch to fully automated, one-person crews.
- Residents can use 30-, 60-, or 90-gallon carts.
- Excess garbage placed in bag with $2 sticker.
- Bags without stickers charged $4/untagged bag.
### Vancouver, Washington

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</tr>
</thead>
<tbody>
<tr>
<td>69,000</td>
<td>1990</td>
<td>Variable</td>
<td>Cans</td>
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- Second-can rate 84% greater than first can.
- 500 residents switched to the mini-can.
- Weekly recycling costs $3.10/month.
- Set out 96 gallons of yard debris: $5.55/month.
- City exceeded 50% recycling goal by 1995.
Portland, Maine

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<th>Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>64,000</td>
<td>1999</td>
<td>Variable</td>
<td>Bags</td>
</tr>
</tbody>
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- Residents purchase bags for $0.68 each.
- Pre-PAYT: No curbside recycling; recycling rate 7%.
- After PAYT: Recycling rate now 35%.
- Waste decreased by 80-100 tons/week.
- City set up Q&A hotline before program began.
Wilmington, North Carolina

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<th>Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>64,513</td>
<td>1992</td>
<td>Two-tiered</td>
<td>Cans</td>
</tr>
</tbody>
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- Combat illegal dumping: City used newspapers, radio, and TV.
- Citizen focus groups gathered support.
- 40-, 90-gallon roll-out carts collect waste weekly.
- Biweekly pickup or stickers for overflow available.
- Increase: 10% recyclables, 40% yard debris.