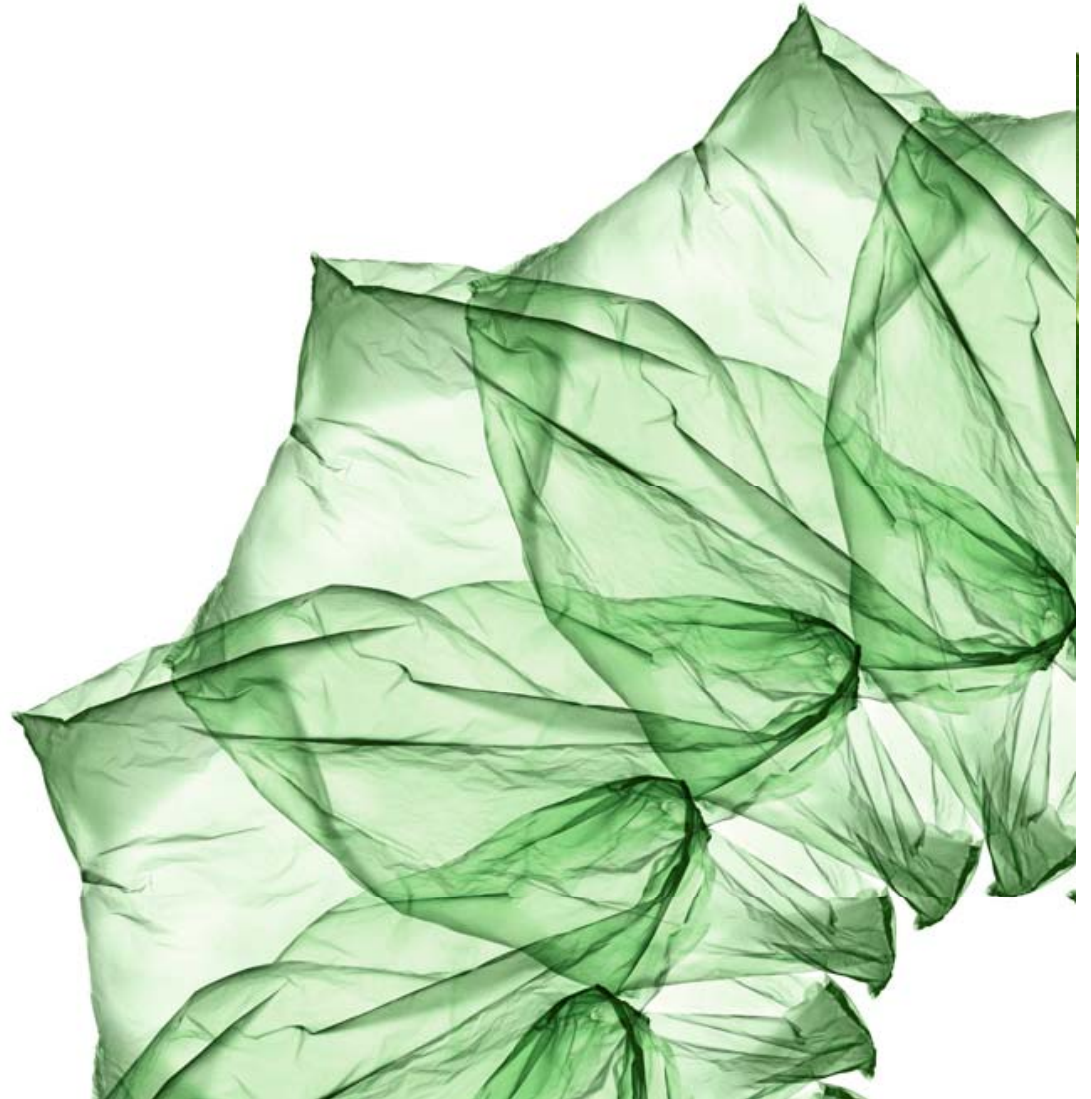


Rate Structures and Zero Waste

Best practices and sample contracts/results

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Overview

Sample contracts

PAYT/Best Practices study

Summary: Beyond waste and beyond pricing

Sample contracts - pricing

PAYT/Best Practices study

Summary: Beyond waste and beyond Rates

Contract Example #1: Seattle (no disposal)

- Contractor paid separately for base collection costs for trash, recycling and compostables.
- Contract base price adjusted annually for units changes and tonnage changes
- Ancillary fees added to base price for each material collected
- Residential and commercial rates both contemplate base pricing with adjustments for tonnage shifts and unit count changes
- CPI adjusted pricing



PAYT Pricing - Don't forget Compostables!

Food and Yard Cart Options

- * 13-gallon cart / \$3.60 per month
- * 32-gallon cart / \$5.40 per month
- * 96-gallon cart / \$6.90 per month
- * No cart - service exemption *

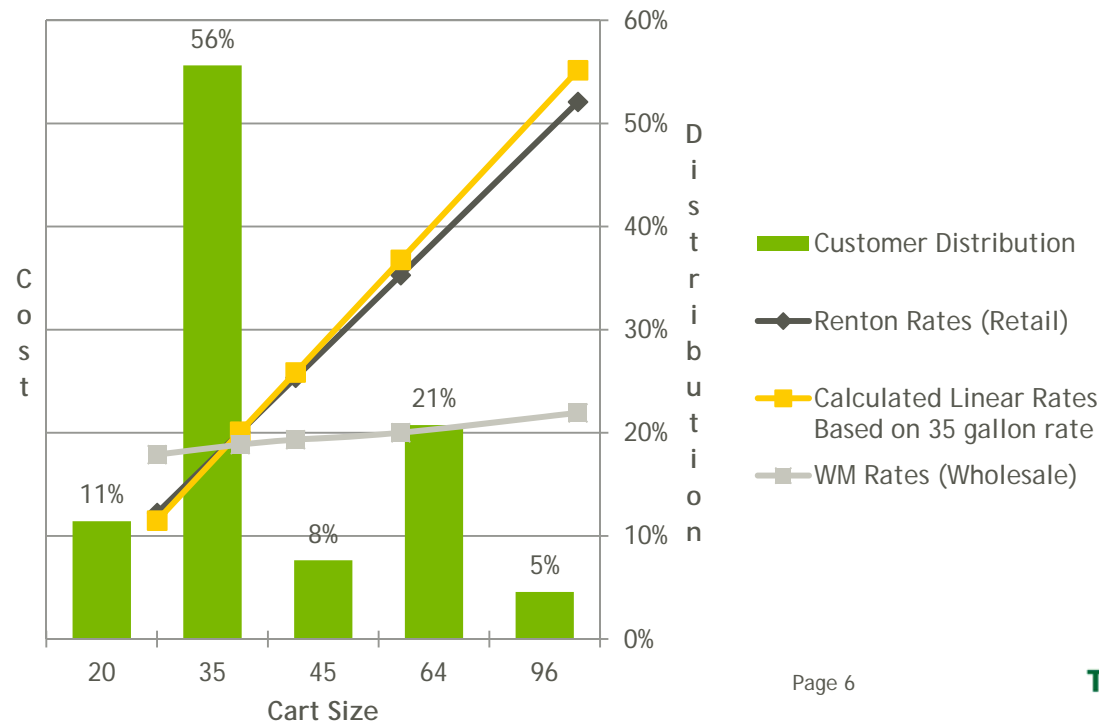
* Customers who compost food waste in a worm bin, Green Cone or other food composter may request an exemption. Learn more about composting at www.seattle.gov/util/services/yard/composting or 206-633-0224



- People intuitively understand that organics collection has a cost
- Many communities have aggressive yard waste diversion programs and yard waste bans
- Yard waste services increases overall recycling rates by as much as 39%

Contract Example #2: Renton (disposal included)

- Significant service shift created base rate uncertainty (move to EOW trash, weekly FW/YW)
- Contractor paid cost of service pricing for services in base contract pricing plus CPI
- City sets retail rates
- Contract base price adjusted based on CPI only



Contract Pros and Cons

Pros

- Building fees into collection reduces risk to for shifting tons
- Formula pricing brings certainty to customers and contractor

Cons

- Requires review of units and tons by material

Question

Can we get there another way? Are new rate models necessary?

Sample contract pricing

PAYT/Best Practices study

Summary: Beyond waste and beyond pricing

Washington State PAYT/Best Practices Study

- Looked at almost 3 dozen service areas in Washington State
- All had some form of PAYT (required by state law)
- Reviewed price differential by container size (small variables up to linear rates)
- Reviewed container size by city
- Reviewed basic rates by city
- Reviewed single stream and organics recycling rates by city
- Contemplated impact of public education programs

Variable Cart Rate Analysis

Note: As calculated, 1.0 = linear rates (meaning 64gal = 2 x 35gal). The closer the slope is to 0.0, the less expensive the additional gallons above 35.

Area	Recycling Type	County	Subscription Levels (MSW)										Recycling and Organics Rate	Recycling Rate	Organics Rate		
			35 gal Cart Rate	64 gal Cart Rate	96 gal Cart Rate	Difference between 96 gal and 35 gal Rate	Slope of the best fit line* (35 gal basis)	10 gal	20 gal	35 gal	35 gal or smaller	45 gal				64 gal	96 gal
Duvall	Embedded	King	\$ 27.10	\$ 36.18	\$ 43.98	\$ 16.88	0.012	0%	8%	57%	65%	0%	30%	5%	61%	24%	37%
East Wenatchee	Embedded	Douglas	\$ 12.51	\$ 16.62	\$ 22.78	\$ 10.27	0.013	0%	0%	20%	20%	0%	32%	48%	14%	11%	3%
Federal Way	Embedded	King	\$ 18.80	\$ 25.62	\$ 34.36	\$ 15.56	0.017	4%	21%	45%	70%	0%	25%	5%	57%	33%	24%
Snoqualmie	Embedded	King	\$ 22.85	\$ 34.43	\$ 46.02	\$ 23.17	0.017	2%	7%	48%	57%	0%	39%	4%	47%	33%	14%
Burlington	Embedded	Skagit	\$ 11.24	\$ 17.05	\$ 22.82	\$ 11.58	0.017	0%	16%	53%	68%	0%	28%	4%	46%	23%	23%
Maple Valley	Embedded	King	\$ 16.49	\$ 25.61	\$ 35.11	\$ 18.62	0.019	0%	8%	54%	62%	0%	32%	6%	52%	32%	20%
Mukilteo	Embedded	Snohomish	\$ 15.80	\$ 25.15	\$ 34.07	\$ 18.27	0.020	0%	16%	59%	75%	0%	23%	2%	63%	26%	37%
Mill Creek	Embedded	Snohomish	\$ 13.01	\$ 20.24	\$ 28.25	\$ 15.24	0.020	0%	11%	57%	68%	0%	29%	3%	62%	26%	36%
Burien	Embedded	King	\$ 23.21	\$ 32.70	\$ 42.05	\$ 18.84	0.474	0%	19%	59%	79%	0%	18%	4%	56%	36%	21%
Bremerton	Embedded	Kitsap	\$ 15.13	\$ 19.66	\$ 25.72	\$ 10.59	0.497	2%	11%	58%	71%	0%	25%	4%	56%	48%	8%
Renton (EOW MSW) (Retail)	Embedded	King	\$ 20.11	\$ 35.29	\$ 52.09	\$ 31.98	0.602	0%	11%	56%	67%	8%	21%	5%	66%	43%	23%
Ellensburg	Embedded	Kittitas	\$ 12.67	\$ 20.03	\$ 27.68	\$ 15.01	0.609	0%	3%	69%	72%	0%	24%	4%	38%	26%	12%
Tukwila	Embedded	King	\$ 11.43	\$ 17.94	\$ 24.46	\$ 13.03	0.655	1%	8%	60%	69%	0%	24%	8%	45%	30%	15%
Pacific	Optional	King	\$ 21.15	\$ 37.37	\$ 49.69	\$ 28.54	0.834	4%	8%	63%	76%	0%	22%	2%	34%	18%	17%
Kirkland (Retail)	Embedded	King	\$ 22.25	\$ 40.66	\$ 60.99	\$ 38.74	0.978	1%	11%	55%	66%	0%	27%	6%	70%	45%	25%
Redmond	Embedded	King	\$ 12.73	\$ 25.25	\$ 40.23	\$ 27.50	1.082	0%	11%	65%	76%	0%	20%	4%	64%	41%	23%
Bothell	Embedded	King	\$ 15.71	\$ 31.09	\$ 46.66	\$ 30.95	1.106	0%	13%	63%	76%	0%	22%	3%	67%	39%	27%
Auburn (Retail)	Embedded	King	\$ 15.05	\$ 33.26	\$ 46.34	\$ 31.29	1.110	7%	8%	67%	82%	0%	15%	3%	72%	35%	37%

Findings of Washington Best Practices Study

- PAYT increases recycling - Washington State generally has high recycling rates.
- Basic pricing plays a role - Recycling rates do not increase when rates are very low, even with PAYT rates
- PAYT rates impact recycling rates - to a point.
- Successful programs combine PAYT with a range of other programs. Pricing is not the only driver for success



Example: City of Kirkland, Washington

City of Kirkland, Washington

- Highest recycling rate in suburban King County: 70%
- Population: 51,000
- Rate structure: 0.869 linear (based on 32 gallon can)
- Rates: \$22.25 (35), \$40.66(64), \$60.00 (96).
- Diversion rate - 70%
 - 45% single stream recyclables
 - 25% FW/YW
- Recycling and YW/FW provided weekly at no additional charge
- Commercial recycling cost embedded in trash cost
- Commercial FW programs
- MF recycling and FW offered to residents
- Numerous community programs, education, outreach provided

Example: City of Duvall, Washington

City of Duvall, Washington

- High trash rates, high recycling rate.
- Linear rate relationship is very low - 0.012 (based on 35 gallon cart)
- Population: 7,200
- High rates: \$27.10 (35), \$36.16(64), \$43.98 (96).
- Diversion rate - 61%
 - 24% single stream recyclables
 - 37% FW/YW
- Recycling and YW provided EOW at no additional charge.
- Targeted foodwaste diversion has been effective
- Good community programs, education, outreach provided

High trash rates creates incentives to recycle. Strong community engagement, especially to divert foodwaste from City's WWTF.

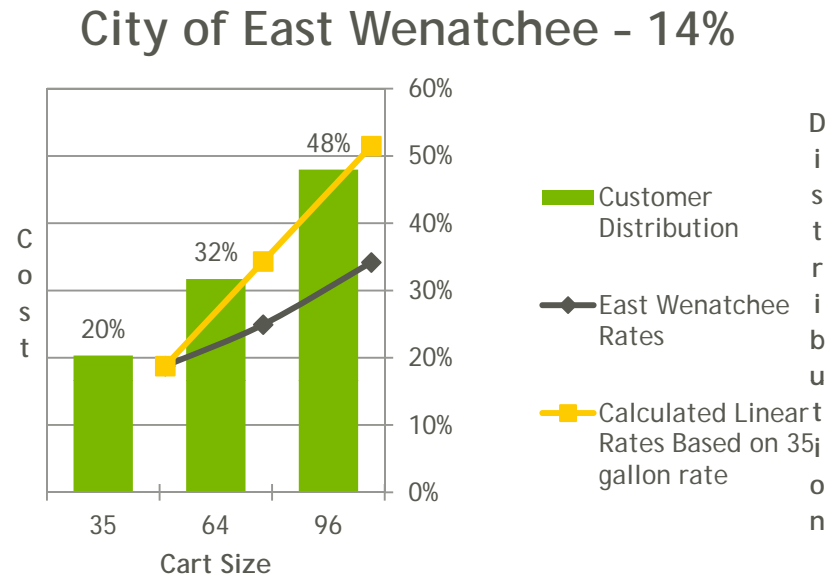
Example: City of Wenatchee, Washington

City of Wenatchee, Washington

- Low recycling rate: 14%
- Population: 13,500
- Rate structure: 0.013 linear rate ratio (based on 35 gallon cart)
- Rates: \$12.51 (35), \$16.62(64), \$22.78 (96).
- Diversion rate - 14%
 - 11% single stream recyclables
 - 3% FW/YW
- Recycling provided EOW weekly at no additional charge
- YW extra charge - new, undeveloped program with little incentive
- Few community programs, education, outreach provided

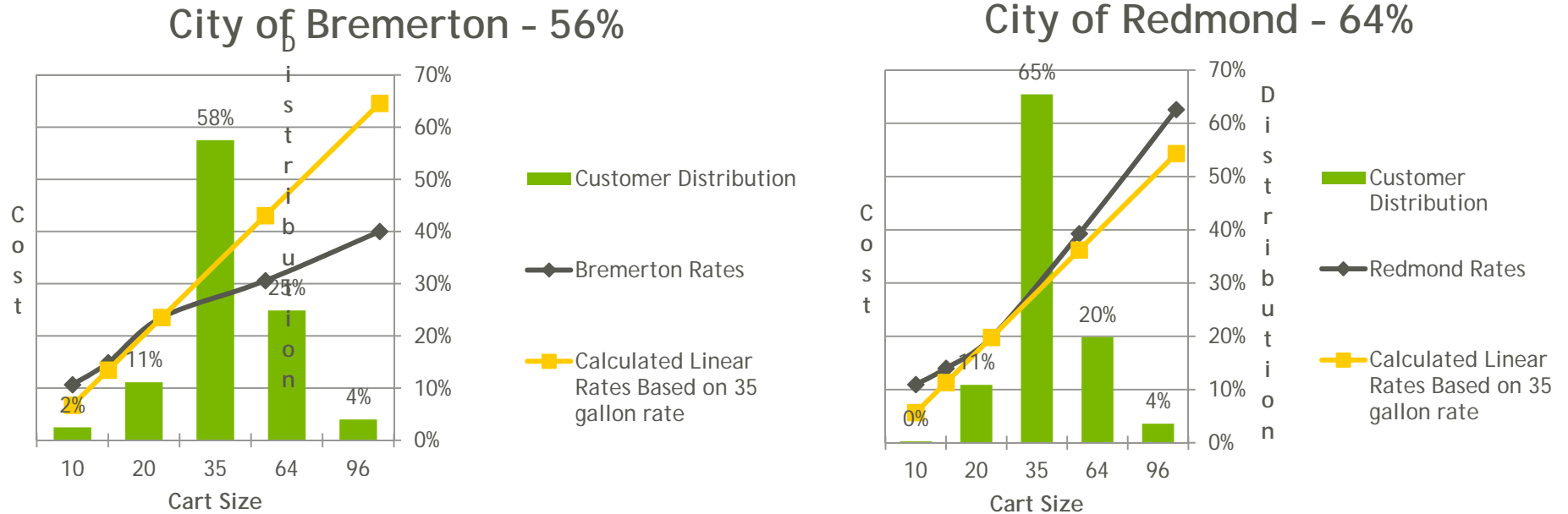
Low overall cost structure creates little incentive to recycle

Example: Low trash rate = low diversion rates



- Low rates impact container size/subscriptions
- Low trash rates lead to low recycling rates (14%), even with variable can rates (0.013 slope)
- Extra charge for YW combined with low garbage rates (and no regulations) result in low organics diversion (3%)

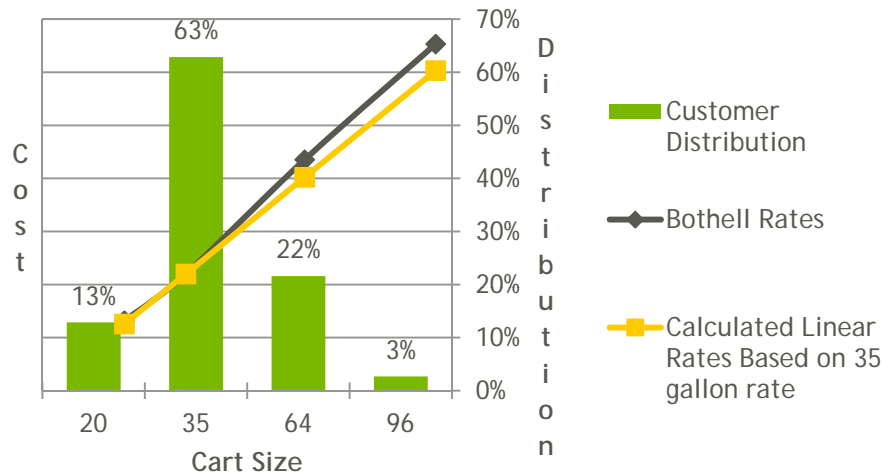
Reduced risk of container size shifting



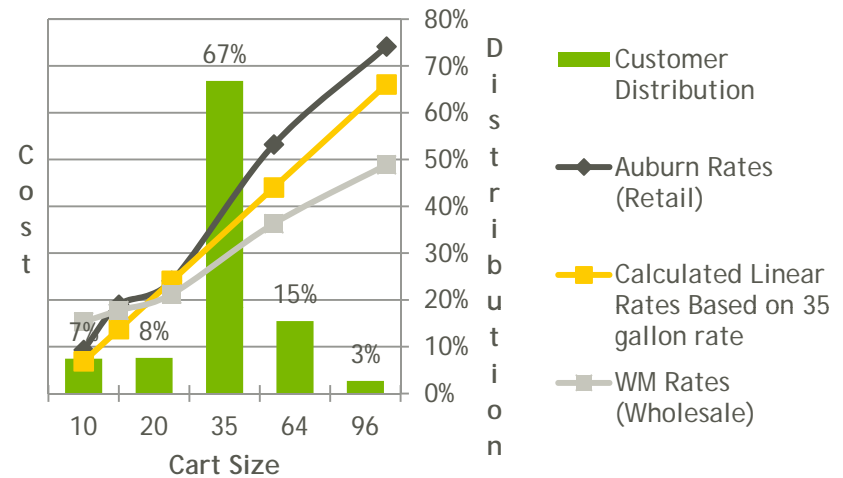
- Ability to predict container sizes reduces risk to City/Contractor
- Ability to develop optimal rate structures reduces risk to City/Contractor

Examples: Linear rates work - to a point

City of Bothell - 67%
Slope = 1.106



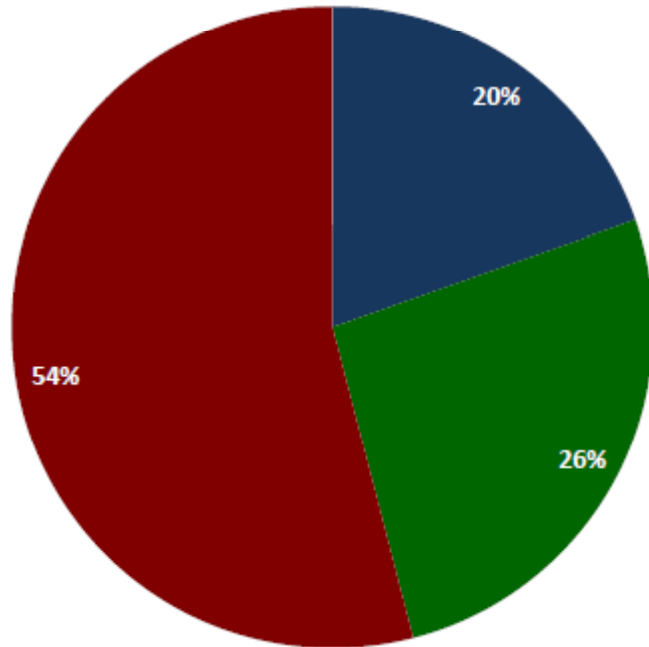
City of Auburn - 72%
Slope = 1.110



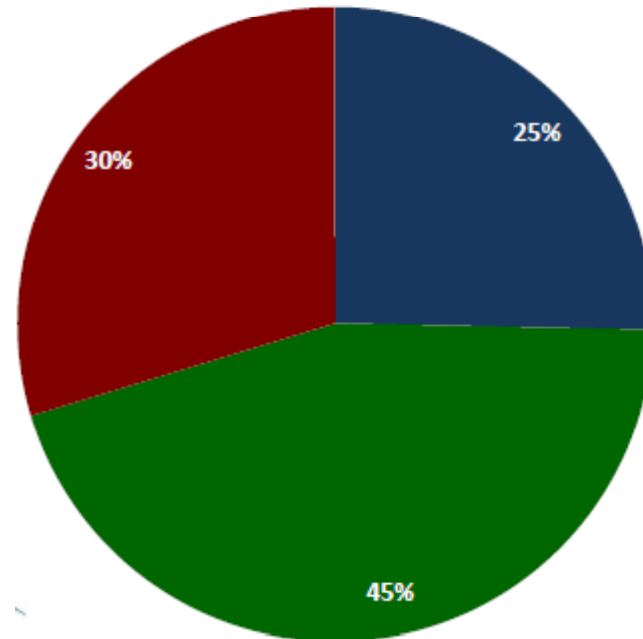
- Linear rates only get you so far. Other programs are important to achieving goals.
- PAYT, high base trash rates, convenient service offerings and public education all impact recycling rates

City of Renton: 1990-2010

1990 CURBSIDE RESIDENTIAL WASTE STREAM



2010 CURBSIDE RESIDENTIAL WASTE STREAM



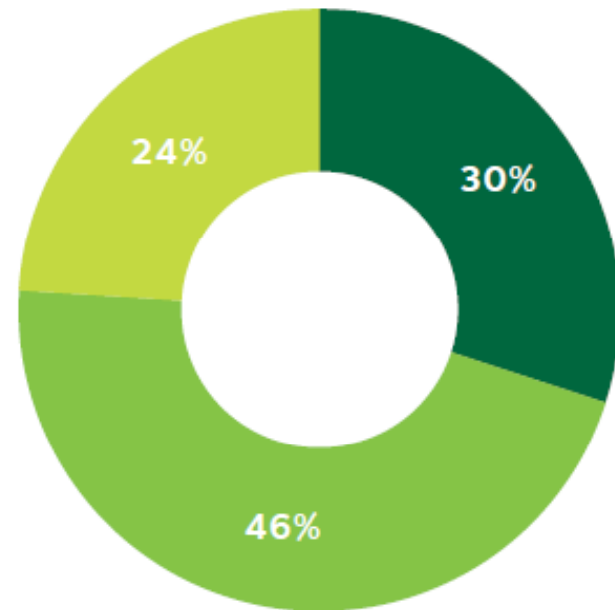
- RESIDENTIAL RECYCLING
- RESIDENTIAL YARD WASTE
- RESIDENTIAL GARBAGE

Renton Recycling Results - 2012

- Services include EOW garbage, EOW recycling and weekly YW/FW
- Garbage rates are high
- Recycling programs are leveling off - what's next?
- Focused public education targeted to material left in waste stream?

RESIDENTIAL

- RECYCLING
- YARD WASTE
- SOLID WASTE



Residential Recycling	5,491
Residential Yard Waste	10,595
Residential Solid Waste	7,031
TOTAL RESIDENTIAL	23,117

Corporate Snapshot

Sample contract pricing

PAYT/Best Practices study

Summary: Beyond waste and beyond pricing

Looking forward: where do we go from here?

Balancing rates with programs

- Do not count on rates alone to achieve high diversion
- Thoughtful programs to meet community needs are at least as important as rates
- Zero Waste goals can be achieved with rates that contemplate services, pricing incentives, programmatic costs and human behavior
- Don't forget organics - folks understand that there is a cost to organics - not so much recyclables. Variable rates for organics can help offset costs
- Don't scrimp on public education costs.