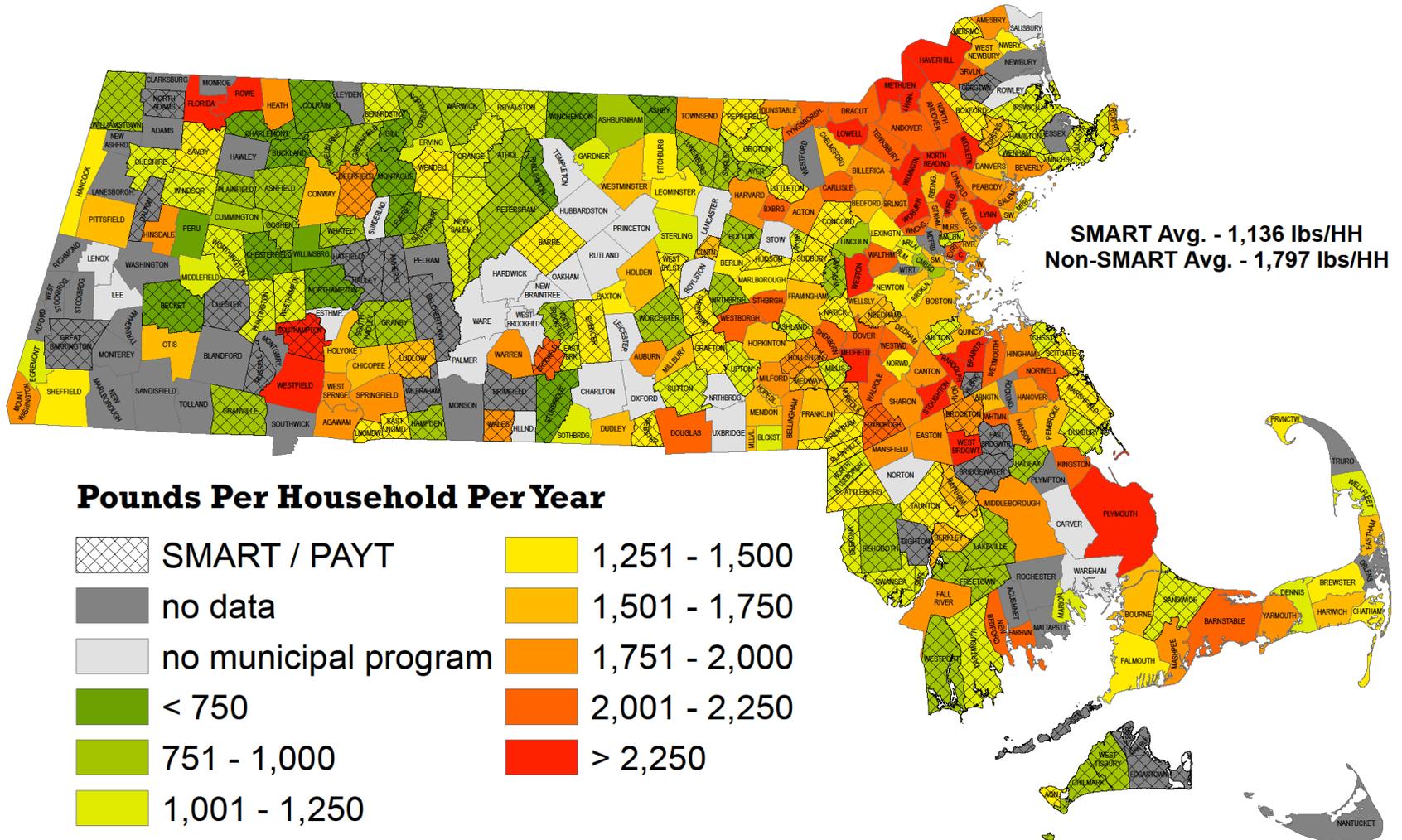


SMART/PAYT and MassDEP



- Environmental/Economic Benefits
- Technical Assistance
- Over \$1 million in SMART/PAYT grant awards
- 143 Municipalities in MA have adopted

How Much Trash Did We Throw Out in 2012?



Map by David Quinn; Tonnage/HH Data from MassDEP CY2012 Solid Waste and Recycling Survey & DEP Municipal Assistance Coordinators; Massachusetts Municipalities from MassGIS



Town of Norwell



Status Quo

- Tip fee increase
- Higher costs
- No incentive to reduce waste
- No incentive to recycle
- Budget increase

SMART/PAYT

- Trash decrease
- Costs decrease
- Incentive to reduce waste
- Incentive to recycle more
- Budget decrease

Status Quo



Current – Dec 2014
\$34.52 Tip Fee

Average Yearly:

- Trash tons 3,600
- Disposal cost \$124,200
- Total SW costs \$622,000
- Direct Cost per HH - \$0.00
- Tax Base - \$622,000

Jan 2015 – Dec 2017
\$73.50 Tip Fee

Average Yearly:

- Trash tons 3,600
- Disposal cost \$264,600
- Total SW costs \$762,000
- Direct cost per HH - \$0.00
- Tax Base - \$762,000

Status Quo



Pros

- Easy
- No change for residents

Cons

- No savings
- No incentive to reduce waste
- No incentive to recycle more
- Budget increase needed

SMART – One Barrel Included*

Jan 2015 – Dec 2017

\$1.00/bag

Average Yearly:

- Trash tons 3,060
- Disposal cost \$224,900
- Bag Revenue \$47,000
- Total SW costs \$734,000
- Direct cost per HH - \$ 14
- Tax base - \$686,000

Jan 2015 – Dec 2017

\$2.00/bag

Average Yearly:

- Trash tons 3,060
- Disposal cost \$224,900
- Bag Revenue \$95,000
- Total SW costs \$734,000
- Direct cost per HH - \$28
- Tax base - \$639,000

*15% reduction in trash and 30-gal bag considered in this analysis.

SMART – One Barrel Included



Pros

- 15-20% Reduction in waste
- Increase in recycling
- \$34,200 PAYT grant funding

Cons

- Politically challenging
- Change for residents
- Compliance challenging
- Snow coning
- Barrel size fluctuations
- Addition staff may be needed
- Small budget increase needed

SMART – No Barrel Included*

Jan 2015 – Dec 2017
\$1.00/bag

Average Yearly:

- Trash tons 2,520
- Disposal cost \$185,220
- Bag Revenue \$201,600
- Total SW costs \$743,000
- Direct cost per HH - \$59
- Tax base - \$541,000

Jan 2015 – Dec 2017
\$2.00/bag

Average Yearly:

- Trash tons 2,520
- Disposal cost \$185,220
- Bag Revenue \$403,000
- Total SW costs \$743,000
- Direct cost per HH - \$119
- Tax base - \$339,000

*30% reduction in trash and 30-gal bag considered in this analysis.

SMART – No Barrel Included



Pros

- 30-50% Reduction in waste
- 20-35% Increase in recycling
- Decrease in budget
- Environmentally sustainable
- Economically sustainable
- Frees up monies for program improvements – wheeled carts, recycling center upgrades
- \$51,300 PAYT grant funding

Cons

- Politically challenging
- Change for residents

Program Comparison – Annual Savings



Program

Disposal Cost Savings

Tax Base

• Status Quo		• 0	\$762,000
• SMART One Barrel \$1/bag		• \$ 76,000	\$686,000
• SMART One Barrel \$2/bag		• \$123,000	\$639,000
• SMART No Barrel \$1/bag		• \$221,000	\$541,000
• SMART No Barrel \$2/bag		• \$423,000	\$339,000

Program Comparison – Annual Costs



Program

Direct Cost per HH

Tax Base

• Status Quo		• \$ 0	\$762,000
• SMART One Barrel \$1/bag		• \$ 14	\$686,000
• SMART One Barrel \$2/bag		• \$ 28	\$639,000
• SMART No Barrel \$1/bag		• \$ 59	\$541,000
• SMART No Barrel \$2/bag		• \$119	\$339,000
• Private Hauler 1		• \$360	
• Private Hauler 2		• \$390	
• Private Hauler 3		• \$480	

Single Stream Wheeled Carts Total Costs**



State Contract Pricing*

Size

Total Cost

● **Average Cost**

- 64-gal
- 96-gal

\$ 153,058
\$ 180,277

* Pricing is approximate, various options included and available, negotiations are typical.

** Total Costs based on 3,391 participating households.

*** Vendors Cascade, Rehrig and Toter pricing considered in analysis.

Program Based Grant Monies



Program

FY14 SMART*

FY15 CART*

- | | | |
|--------------------|------------|------------|
| • Status Quo | • 0 | • 0 |
| • SMART One Barrel | • \$33,910 | • \$67,820 |
| • SMART No Barrel | • \$50,865 | • \$67,820 |

*Grant Monies based upon 3,391 participating households.

Program Based Grant Monies



Program

Total Grant Monies

- | | |
|--------------------|-------------|
| • Status Quo | • 0 |
| • SMART One Barrel | • \$101,730 |
| • SMART No Barrel | • \$118,685 |

*Grant Monies based upon 3,391 participating households.

Program Based Disposal and Grant Savings



Program

Disposal

Grants

• Status Quo		• 0	0
• SMART One Barrel \$1/bag		• \$ 76,000	\$101,730
• SMART One Barrel \$2/bag		• \$123,000	\$101,730
• SMART No Barrel \$1/bag		• \$221,000	\$118,685
• SMART No Barrel \$2/bag		• \$423,000	\$118,685

*Grant Monies based upon 3,391 participating households and are one time grant.

Year One Total Savings - SMART and CARTS



Program

Savings

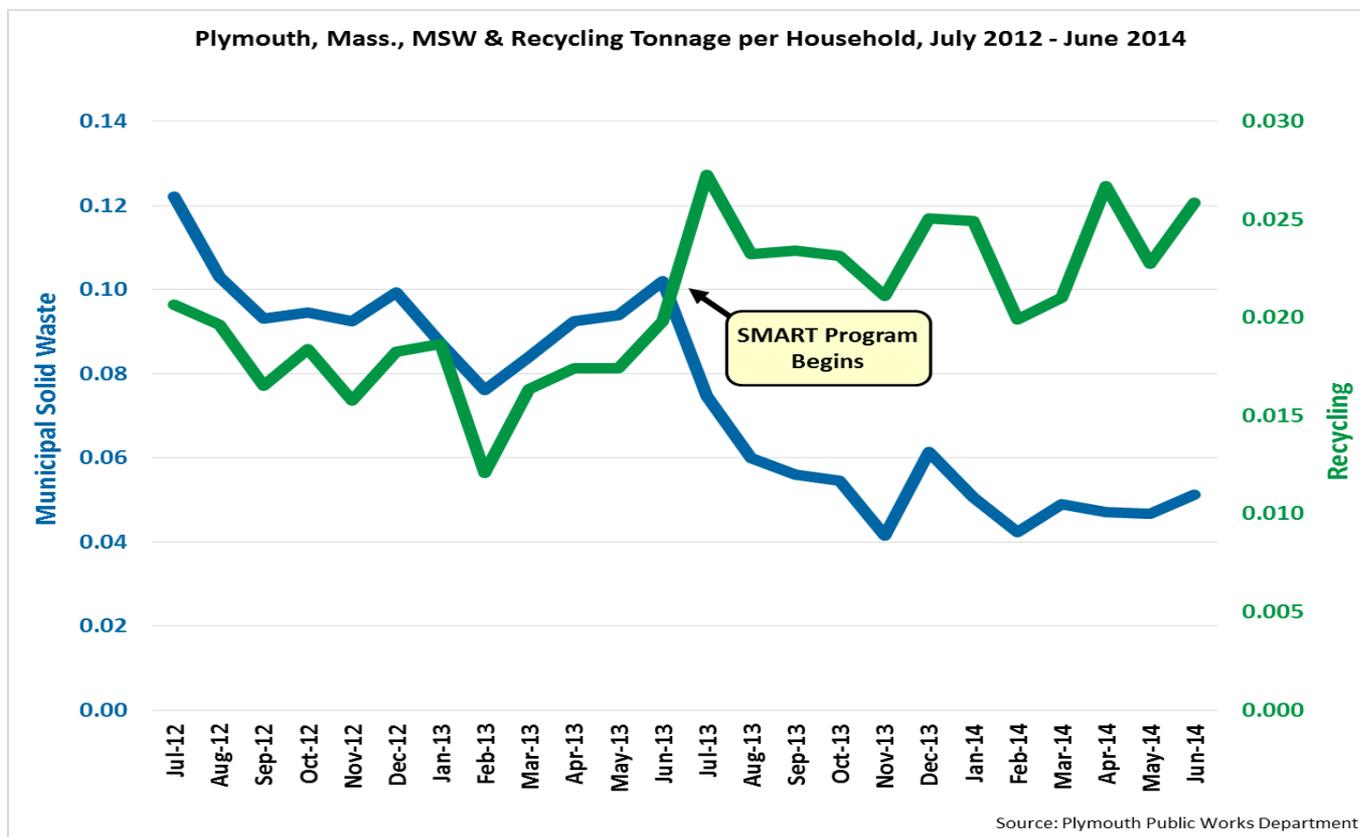
Tax Base**

• Status Quo		• 0	\$762,000
• SMART One Barrel \$1/bag		• \$177,730	\$584,270
• SMART One Barrel \$2/bag		• \$224,730	\$537,270
• SMART No Barrel \$1/bag		• \$339,865	\$422,135
• SMART No Barrel \$2/bag		• \$541,865	\$220,135

* Grant Monies based upon 3,391 participating households.

** Remaining balance on cart purchase not included in Tax Base.

Plymouth SMART-PAYT Results MSW & Recycling—Year One



During first year of PAYT, MSW decreased by 44% and recycling increased by 35%.

Janine Delaney

MassDEP



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