

Paint Stewardship: Effects on Household Hazardous Waste Programs

FINAL REPORT

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The Product Stewardship Institute

The Product Stewardship Institute (PSI) is a national, membership-based nonprofit committed to reducing the health, safety, and environmental impacts of consumer products across their lifecycle with a strong focus on sustainable end-of-life management. Headquartered in Boston, Mass., we take a unique product stewardship approach to solving waste management problems by encouraging product design changes and mediating stakeholder dialogues. With 47 state environmental agency members, hundreds of local government members, and nearly 100 corporate, business, academic, non-U.S. government, and organizational partners, we work to design, implement, evaluate, strengthen, and promote both legislative and voluntary product stewardship initiatives across North America.

Acknowledgements

This report was developed by PSI for PaintCare, a non-profit 501(c)(3) organization established to represent paint manufacturers (paint producers) to plan and operate paint stewardship programs in the United States in those states that pass paint stewardship laws. PSI's primary author was Sydney Hausman-Cohen. PSI would like to thank the many individuals who provided input in the development of this report, including Marjaneh Zarrehtarvar, Paul Fresina, Jim Quinn, David Skakel, Jen Holliday, Tom Metzner, Jennifer Volkman, Jeffrey Smedberg, Patrick Hamel, Jen Iannucci, Allyson Williams, Hillary Collins, Mia Roethlein, and Pete Pasterz.

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I. EXECUTIVE SUMMARY

Every year, consumers in the United States purchase over 650 million gallons of architectural paint (i.e., paint used in the interior and exterior of structures), more than 65 million of which go unused. Although paint is highly reusable, and recyclable, much of the country's leftover paint is dried and sent to landfills. Leftover paint is also one of the largest components of household hazardous wastes collection programs and is a financial burden for overextended municipal budgets.

To address the challenges of wasted resources and high municipal costs, paint manufacturers, federal, state, and local government officials, recyclers and nonprofit organizations signed a Memorandum of Understanding in 2007 supporting the establishment of an industry-funded paint stewardship program. Two years later, Oregon passed the nation's first paint stewardship law, requiring architectural paint manufacturers to establish a system and cover the costs for collecting and managing post-consumer leftover paint. Between 2009 and 2015, eight states and the District of Columbia passed similar paint stewardship legislation. In response, paint manufacturers established the PaintCare organization, an industry-run nonprofit, to implement the required paint stewardship programs.

Paint stewardship legislation can affect all stakeholders involved in creating, selling, using, and managing paint, including manufacturers, retailers, consumers, and waste managers. However, its impacts may be most notable among household hazardous waste (HHW) programs. Paint stewardship legislation is designed to shift the management burden and costs away from local government programs. At the same time, increased consumer education around paint recycling, resulting from paint stewardship programs, may drive additional participants to HHW programs. Until 2014, there was no national data on how paint stewardship legislation was affecting HHW programs, including cost savings and changes to participation.

At the request of PaintCare, the Product Stewardship Institute (PSI) evaluated the effects of the PaintCare program on HHW programs in five states that implemented paint stewardship prior to September 2014: California, Connecticut, Oregon, Rhode Island, and Vermont. This report summarizes PSI's findings from this cross-state evaluation.

Based on PSI's evaluation, key findings include the following:

- Most HHW programs save money through the PaintCare program.
- HHW programs that save money through PaintCare most frequently use cost savings to reduce their overall budget or to offset costs of managing other waste products.
- HHW programs are more likely to experience an increase or no change in program participation than a decrease.
- HHW programs are more likely to experience an increase in paint volume received than a decrease
- HHW programs are most likely to experience no change in non-paint HHW volume.
- Increased collection of non-paint HHW by some programs is the most likely cause of higher costs to HHW programs.
- Even when HHW programs collect more paint and non-paint products or have greater participation, they are more likely to experience overall cost savings than increased costs.
- Most HHW programs are satisfied with the PaintCare program.

Based upon these and other findings, we recommend:

Plan for an increase in both paint and non-paint HHW under the PaintCare program: HHW programs should be prepared for an increase in the amount of both paint and non-paint HHW collected following implementation of paint stewardship legislation. This may include developing a budget that accounts for a decrease in paint management costs as well as an increase in management costs for non-paint HHW and overhead costs for higher participation.

- **Identify opportunities to simplify and streamline the contracting process:** Mechanisms to simplify the contracting process (such as universal clauses to be applied to all programs and early communication to review contracting options) may reduce costs for some programs.
- **Evaluate potential drivers of increased PaintCare program participation.** Forty-five percent of respondents indicated that participation in their HHW program increased through the PaintCare program. To evaluate the reasons for changes in program participation, further study could compare outreach efforts and structural changes (e.g., expanding collection hours) of HHW programs that did and did not experience an increase in participation.
- **Determine effects on HHW programs as the PaintCare program matures.** Paint stewardship is still in an early stage in the United States; at the time of this survey the oldest program had only operated for four years, and most were less than one year into implementation. While this study provided insight into the effects on HHW programs shortly after implementation, it is still unknown how the PaintCare program will affect HHW programs once the program is more established. A repetition of this study after one to three years will provide greater insight into important effects of PaintCare on HHW programs as the program gains experience and becomes established in a state.

II. INTRODUCTION

Each year, American consumers purchase more than 650 million gallons of architectural paint, and leave an estimated 65 million gallons of it unused.¹ Leftover oil-based paint, and, in some cases, leftover latex paint, are often collected and managed by municipal or county household hazardous waste (HHW) programs at a high cost. In fact, with management costs estimated at \$8 per gallon, municipal programs nationwide report that paint management consumes nearly 50 percent of their HHW budgets.²

To relieve cash-strapped governments of this financial burden, more than 200 stakeholders, including paint manufacturers, state and local government officials, recyclers, and nonprofit organizations, signed a Memorandum of Understanding in 2007 supporting the establishment of an industry-managed paint stewardship program.³ Two years later, the Oregon Legislature passed the nation's first paint stewardship law, which requires manufacturers to implement a cost-effective and environmentally sound program for the management of post-consumer architectural paint.

The landmark initiative—which was endorsed by the American Coatings Association (ACA), the Oregon Department of Environmental Quality (OR DEQ), and Metro regional government (which represents 1.5 million people in the Portland Metro area)—launched in July 2010. From 2010 to 2014, seven other states passed paint stewardship laws, including California (2010), Connecticut (2011), Rhode Island (2012), Vermont (2013), Maine (2013), Minnesota (2013), and Colorado (2014). In 2015, the District of Columbia also passed a paint stewardship law.

Under paint stewardship laws, leftover latex and oil-based paint is managed by the industry-run nonprofit organization PaintCare from the point of collection through final disposition. HHW programs in states with paint stewardship laws may contract with PaintCare to have PaintCare cover transportation and processing costs for paint collected by their program. In many communities, PaintCare has established one or more paint drop-off sites at paint retail stores, increasing convenience for consumers and relieving local governments of the financial burden of managing large volumes of paint. To inform residents of new paint drop-off opportunities, PaintCare conducts extensive public outreach via paint retailers (point-of-sale), television, radio, newspaper, and other media channels. Outreach messaging directs the public to find paint drop-off sites in their area by using PaintCare's site locator tool at paintcare.org. The tool lists all HHW programs participating in the PaintCare program, and all PaintCare retail (and other) drop off sites.

There are numerous ways in which participation in the PaintCare program can affect HHW programs. This study evaluates these effects in terms of costs, volumes of paint and non-paint HHW collected, and participation – i.e., the number of residents (and/or businesses) that drop-off paint. For example, the PaintCare program reduces the per gallon costs of paint management to local HHW programs because PaintCare covers, at minimum, all transportation and processing costs. Yet other aspects of the PaintCare program may affect HHW program operations and costs in ways not previously examined. Retail collection sites in many jurisdictions may be handling some of the leftover paint that would otherwise go to HHW programs. At the same time, prior to PaintCare, many HHW programs in some

¹ "US Architectural Coatings Forecast to 2015." Decision Metrics (October 2012).

² "A Background Report for the National Dialogue on Paint Product Stewardship." The Product Stewardship Institute, March 2004.

http://productstewardship.us/associations/6596/files/Background_Report_for_the_National_Dialogue_on_Paint.pdf

³ Paint Product Stewardship Initiative Memorandum of Understanding, October 6, 2004.

http://productstewardship.us/associations/6596/files/Final_Paint_MOU.doc

states did not collect latex paint. When HHW programs partner with PaintCare, they have the option to collect latex paint, which may increase participation their program. This may lead to increases in collection volumes of other HHW products as participants dropping off latex paint typically bring in non-paint products at the same time.

In fall 2014, the Product Stewardship Institute (PSI) conducted a survey of HHW managers in California, Connecticut, Oregon, Rhode Island, and Vermont, on behalf of PaintCare, to evaluate the impacts and benefits of the PaintCare program on HHW program operations. This report presents the results of that survey, reports how HHW program managers have allocated savings generated by the PaintCare program, and provides recommendations to minimize negative outcomes and maximize positive outcomes for HHW programs in states with paint stewardship programs.

III. SURVEY DESIGN

Target Audience & Distribution

PSI distributed the survey by email to 167 HHW program managers in California, Connecticut, Oregon, Rhode Island, and Vermont – the five states operating paint stewardship programs at the time of the survey. PaintCare provided PSI lists of all managers of HHW programs participating in the PaintCare program. PaintCare also provided contact information for HHW programs that were not participating in the program.

Survey Tool

Participants completed the survey using the online tool SurveyGizmo.

Response Rate

Of the 167 HHW program manager surveyed, 89 responded, representing a response rate of 53%. Of the respondents, 87% ran HHW programs that were participating in the PaintCare program.

IV. KEY FINDINGS

Survey results pointed to the following key findings on the effects of the PaintCare program on HHW programs.

- **Most HHW programs save money through the PaintCare program.** 76% of respondents indicated their paint-related program costs decreased through participation in the PaintCare program, and 60% responded that overall program costs decreased.
- **HHW programs that save money through PaintCare most frequently use cost savings to reduce their overall budget or to offset costs of managing other products.** 74% of respondents chose one of these two options as their current or intended use of saved funds.
- **HHW programs are more likely to experience an increase or no change than a decrease in their HHW program participation.** 45% of respondents indicated that participation had increased, 33% indicated no change, and 15% indicated a decrease.
- **HHW programs are more likely to experience an increase in paint volume than a decrease.** 46% of respondents indicated that their total paint volume had increased, 14% indicated no change, and 18% indicated a decrease.
- **HHW programs are most likely to experience no change in non-paint HHW volume while an increase is more likely than a decrease.** 54% of respondents indicated that non-paint HHW volumes remained the same, 36% indicated an increase, and 10% indicated a decrease.

- **Increased collection of non-paint HHW is the most likely cause of higher costs to HHW programs.** 60% of programs whose costs increased through the PaintCare program cited disposal or labor costs for non-paint HHW as a cause of higher costs.
- **Even when HHW programs collect more products or have greater participation, they are more likely to experience cost savings than increased costs.** Among programs that collected more paint, 58% indicated that costs decreased, while 34% indicated that costs increased. Among programs that collected more non-paint HHW, 57% indicated that costs decreased, while 38% indicated that costs increased.
- **Most HHW programs are satisfied with the PaintCare program.** 77% of respondents indicated that they are satisfied or very satisfied with the PaintCare program.

V. DETAILS OF SURVEY RESPONSES

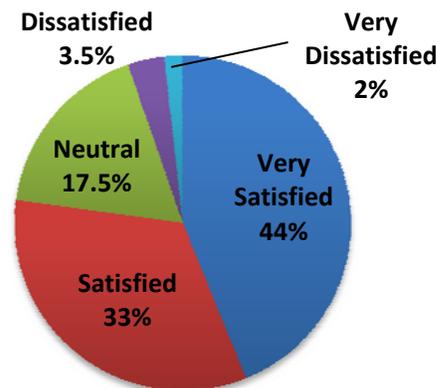
The following results outline HHW program managers’ responses to the survey.

Program Satisfaction

Seventy-seven percent of respondents were **satisfied or very satisfied** with the PaintCare program, while less than six percent indicated that they were dissatisfied or very dissatisfied (see Figure 1).

Figure 1. PaintCare Program Satisfaction

How satisfied are you with the PaintCare program overall? (N=57)



When asked to suggest changes to the program that would help their HHW programs operate more effectively, or would improve the PaintCare program, respondents most frequently described efforts to simplify the contracting process (cited by nine respondents), collection cost reimbursement⁴ (cited by nine respondents), increases in the number of retail collection sites (cited by eight respondents), and greater data transparency (cited by seven respondents).

⁴ Under paint stewardship legislation, PaintCare pays for HHW programs’ paint management costs related to transportation and processing, but does not pay for overhead and staffing costs related to collecting paint. Under a “collection cost reimbursement” model, these costs would also be covered by the PaintCare program.

Program Costs

Seventy-six percent of respondents indicated that their **paint-related program costs decreased** through participation in the PaintCare program (see Figures 2 and 3; for additional data see Appendix A). **Sixty-percent** indicated that **overall program costs decreased**.

Figure 2. Changes to Paint-Related Program Costs

Since you began participating in PaintCare, which of the following best describes changes, if any, to your paint-related costs? (N=72)

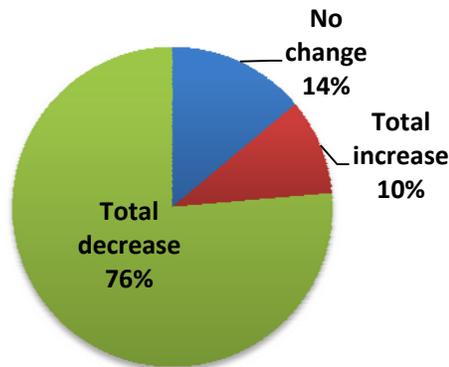
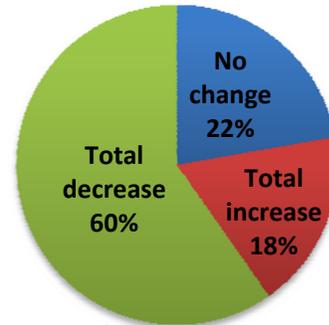


Figure 3. Changes to Overall Program Costs

Since you began participating in PaintCare, which of the following best describes changes, if any, to your overall HHW program costs? (N=72)



Ninety percent of respondents whose costs decreased through participating in the PaintCare program reported the program’s coverage of transportation and processing costs as a key reason for cost savings (see Figure 4). Many programs also received revenue through payments from PaintCare for various value-added services, including reuse programs, latex paint reprocessing, and oil-based paint bulking. The majority of these respondents indicated that they used cost savings to reduce their overall budget or to offset the costs of managing other HHW products (see Figure 5).

Figure 4. Reasons for Cost Decrease

If your total HHW or paint-related program costs have decreased since participating in the PaintCare program, which of the following describe the reason(s) for the decrease? (Select all that apply) (N=59)

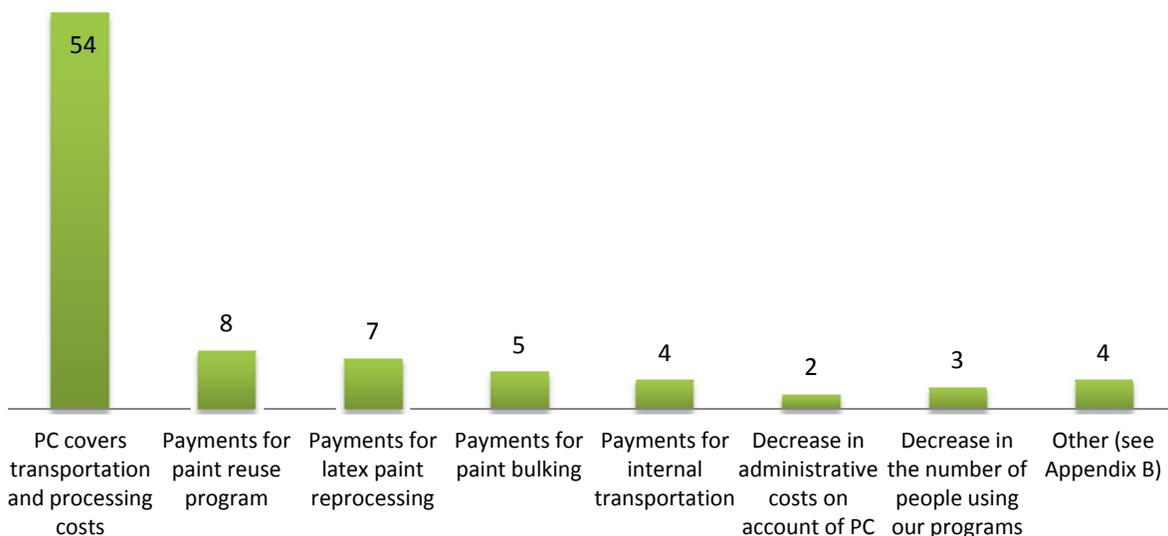
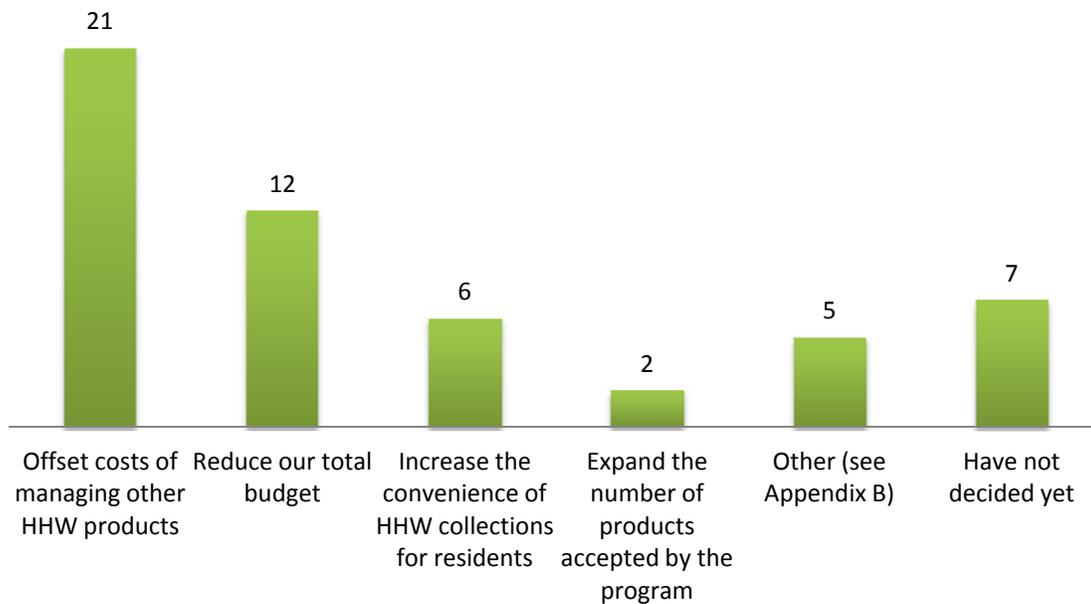


Figure 5. HHW Programs' Use of Cost Savings

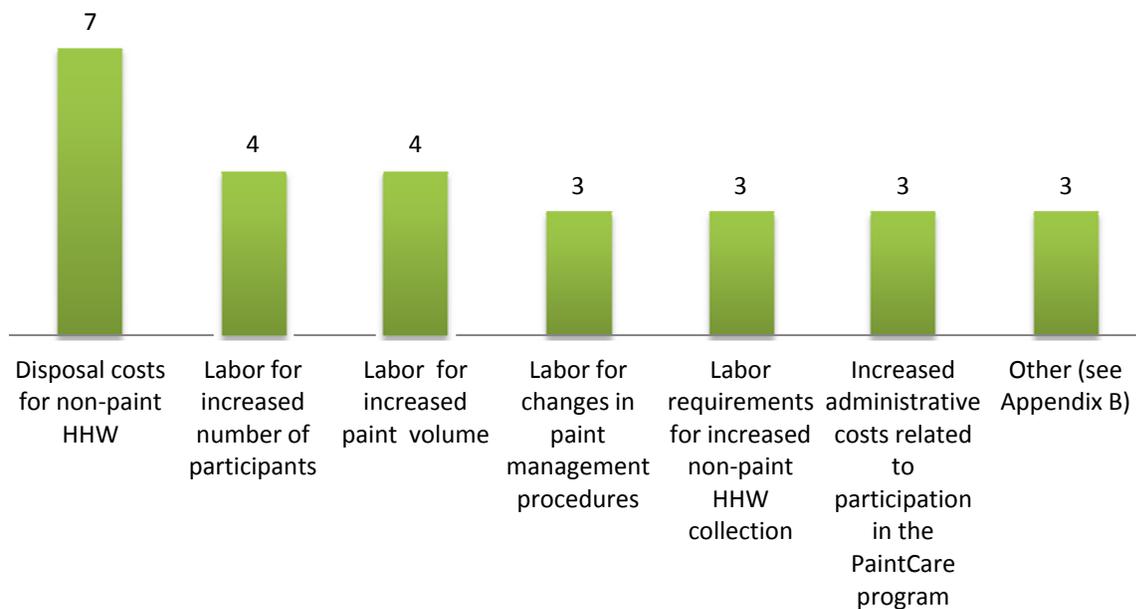
If your HHW program costs have decreased since participating in the PaintCare program, how do you currently or plan to use the savings? (Select all that apply) (N=42)



Respondents who indicated that their program costs had increased since participating in PaintCare most frequently cited disposal costs for non-paint HHW and labor requirements for increased paint volumes and/or program participation as a reason for the increase (see Figure 6).

Figure 6. Reasons for Cost Increase

If your total HHW or paint-related program costs have increased since participating in the PaintCare program, which of the following describes the reason for the increase? (Select all that apply) (N=15)

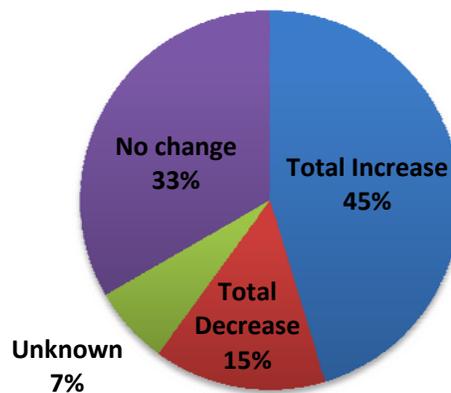


Program Participation

Nearly half of survey respondents indicated an **increase in participation** in their municipal HHW program as a result of the PaintCare program, while 15% indicated a decrease (see Figure 7). These results indicate that even as retail collection sites provide additional outlets for leftover paint, HHW programs participating in the PaintCare program were most likely to experience an increase or no change in program participation following PaintCare program implementation. Numerous aspects of the PaintCare program may be responsible for the observed increase in participation for some HHW programs. For example, the PaintCare program enables HHW programs that did not previously accept latex paint to begin collecting it, which may bring more residents to their collection site or event. In addition, cost savings through the PaintCare program may allow HHW programs to expand their collection hours.

Figure 7. Changes to HHW Program Participation

Change in average number of households per year that dropped off paint with the program (N=75)



To evaluate the possible effects of increased or decreased HHW program participation on costs, we compared changes in participation with changes to the overall program costs. Regardless of the change in participation (whether it increased or decreased), most programs experienced cost savings overall. While the majority (53%) of programs with increased participation had lower overall program costs, 33% had higher costs (see Figures 8, 9, and 10).

Only one of the 11 programs with decreased participation saw an increase in costs. Despite slightly lower participation (number of participants decreased by less than one percent), this HHW program collected an increased volume of paint and non-paint HHW following implementation of the PaintCare program.

Figures 8, 9, & 10. Change in HHW Program Participation and Overall Program Costs

Figure 8. Change in overall program cost for programs with **increased** participation (N=33)

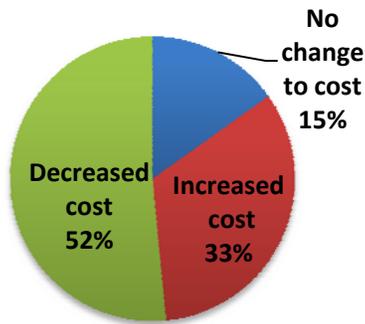


Figure 9. Change in overall program cost for programs with **decreased** participation (N=11)

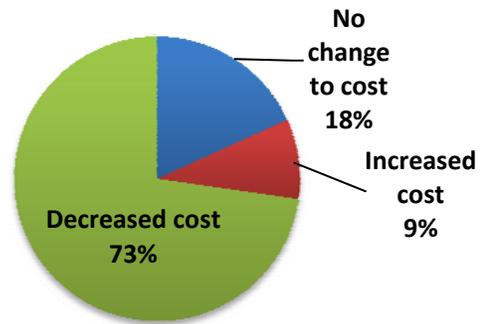
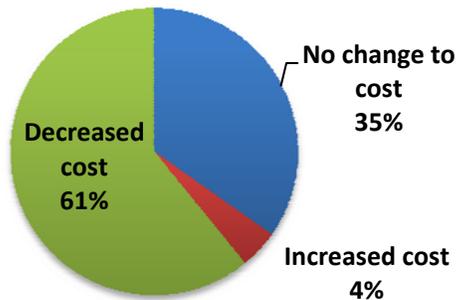


Figure 10. Change in overall program cost for programs with **no change** in participation (N=23)

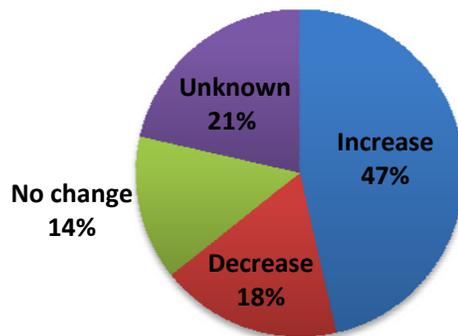


Quantity of Paint Collected

Forty-six percent of respondents indicated that the amount of paint their program collected **increased** following implementation of the PaintCare program (see Figure 11). Eighteen percent indicated the amount decreased. Expanded collection times, the addition of latex paint collection, and increased public outreach may be responsible for an increase in the amount of paint brought to HHW programs, while the introduction of retail collection sites in the area may be responsible for a decrease.

Figure 11. Change in Quantity of Paint Collected by HHW Programs

Change in total volume of paint collected since participating in PaintCare program (N=56)



To evaluate the effects of an increase or decrease in the amount of paint collected by HHW programs on the cost of these programs, we compared these results with changes to overall program costs. Regardless of changes to the volume of paint collected, most programs experienced a decrease in overall program costs. For programs that collected a higher annual volume of paint since participating in the PaintCare program, 58% had decreased overall costs, while 35% had increased costs (see Figures 12, 13, and 14). None of the programs with decreased paint collections or no change to collections had an increase in overall costs. This may indicate that **increased paint volumes may increase costs** to some programs, but that **not all programs with increased paint volumes experience increased program costs**.

Figures 12, 13, & 14. Change in Paint Volumes Collected by HHW Programs and Overall Program Costs

Figure 12. Change in overall program cost for programs with **increased** paint volumes (N=26)

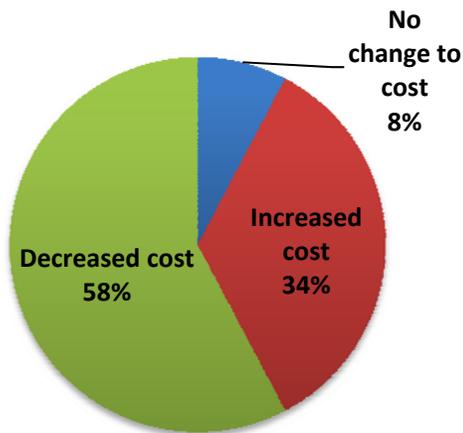


Figure 13. Change in overall program cost for programs with **decreased** paint volumes (N=10)

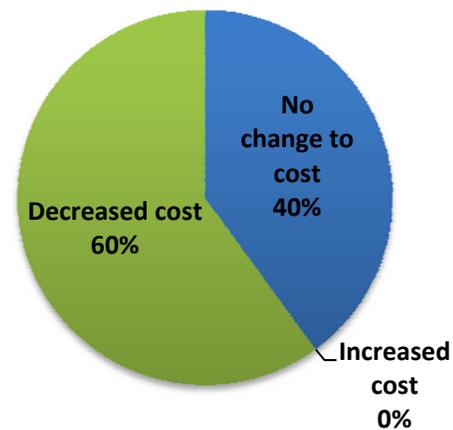
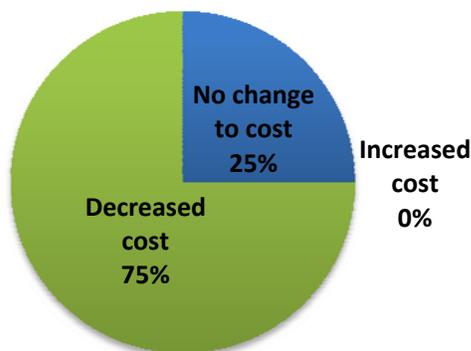


Figure 14. Change in overall program cost for programs with **no change** in paint volumes (N=8)



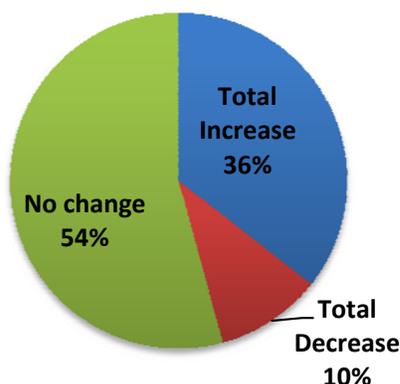
Quantity of Non-Paint HHW Collected

Paint is a generally the largest product by volume in the HHW stream, averaging 40-60% percent of the materials collected by programs nationwide. With the introduction of PaintCare, and the resulting sweeping changes to the paint collection infrastructure, many local government officials questioned whether the diversion of post-consumer paint to retail sites might cause a decrease in collection of other products by HHW facilities, or, conversely, whether extended hours or new latex paint collections would increase the quantities of non-paint products brought to HHW programs. While **most**

respondents described **no change to non-paint HHW collections**, 36% indicated an increase and 10% indicated a decrease (see Figure 15).

Figure 15. Change in Quantity of Non-Paint HHW Collected by HHW Programs

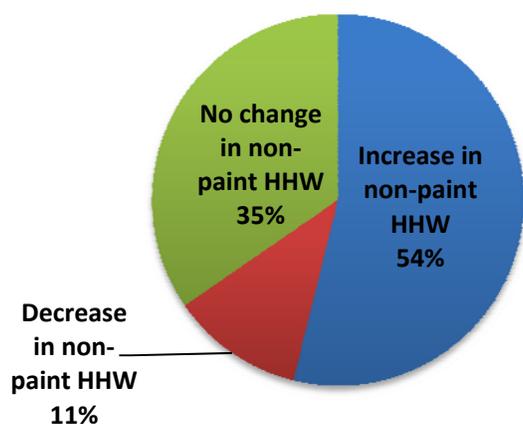
Overall, has your HHW program seen an increase or decrease in total non-paint HHW collected since participating in the PaintCare program? (N=56)



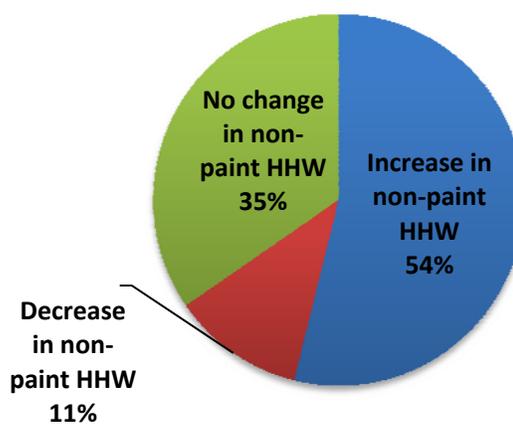
To further evaluate the relationship between paint and non-paint HHW collections, and the relationship between non-paint HHW collections and program costs, we compared the data from these questions. More than half of the programs that collected a greater volume of paint through the PaintCare program also collected a greater volume of non-paint HHW. For HHW programs that collected less paint, only 20 percent collected a greater amount of non-paint HHW (see Figures 16 and 17). This is consistent with anecdotal reports that paint is a “core” HHW product, and that many participants regularly bring other products when dropping off paint.

Figures 16 & 17. Change in Paint Collected and Non-Paint HHW Collected

*Figure 16. Change in non-paint HHW collected by programs with **increased** paint volumes (N=26)*



*Figure 17. Change in non-paint HHW collected by programs with **decreased** paint volumes (N=10)*



For programs reporting greater collections of non-paint HHW, 57% experienced increased overall program costs, while 38% had decreased overall costs. None of the programs with decreased collections of non-paint HHW and 6% of programs with no change to non-paint HHW collections experienced increased overall costs (see Figures 18 and 19). **This may indicate that increased HHW collection volumes may cause increased overall costs for some programs.**

Figures 18 & 19. Change in Non-Paint HHW Collected and Overall Program Costs

Figure 18. Change in overall program cost for programs with **increased non-paint HHW collections** (N=12)

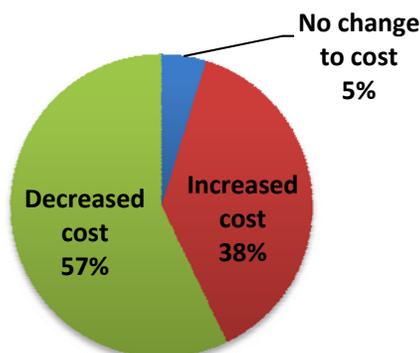
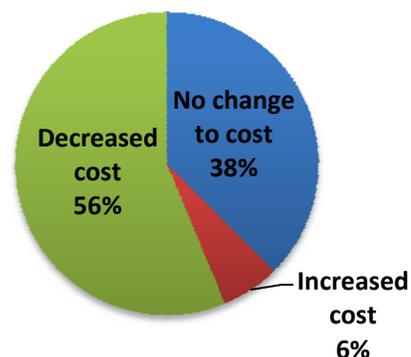


Figure 19. Change in overall program cost for programs with **no change to non-paint HHW collections** (N=32)

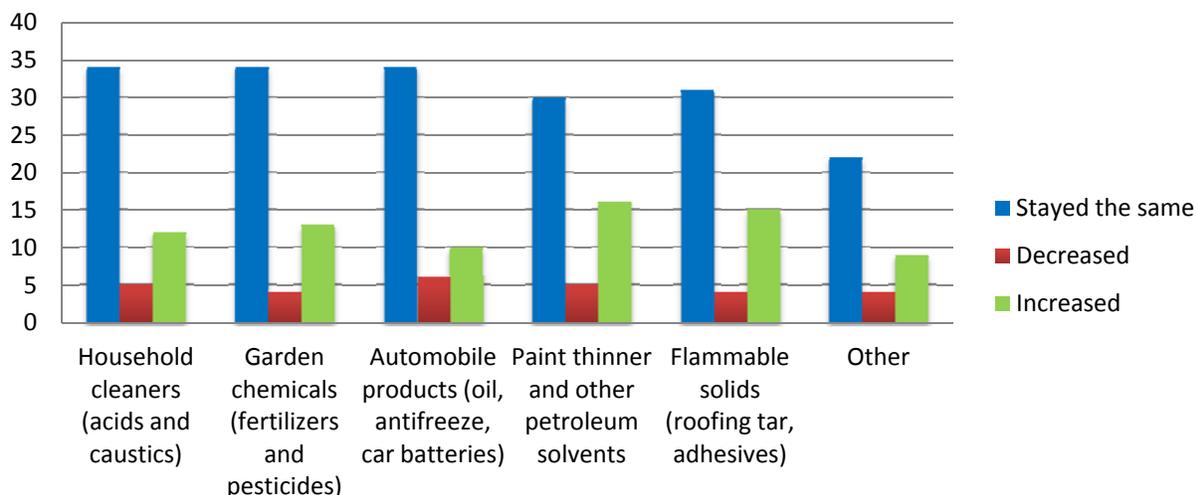


Non-Paint HHW: Product Categories

As discussed above, programs were more likely to experience an increase in the overall quantity of non-paint HHW collected than a decrease. Figure 20, below, depicts the breakdown of these changes by HHW product category. Respondents most frequently noted an increase in collection of paint thinners and other petroleum solvents – 31% indicated that they collected a greater volume of these products since participating in the PaintCare program.

Figure 20. Changes to Quantities of Non-Paint HHW Products Collected

Please indicate which products your HHW program has collected more and less of since you began participating in the PaintCare program. (N=51)



Reuse

At the time of the survey, 40% of HHW programs that participated in the PaintCare program operated or partnered with a reuse program to distribute reusable paint. Through the PaintCare program, many of these programs were able to collect a greater quantity of paint for reuse – 39% reported an increase in the volume of paint collected for reuse, while 11% noted a decrease (see Figure 21). For the 60% of programs that did not redistribute paint for reuse, respondents most frequently cited labor or storage requirements as the reason for not operating a reuse program (see Figure 22).

Figure 21. Changes to Quantity of Paint Collected for Reuse

Change in total volume of paint collected for reuse since participating in PaintCare program (N=18)

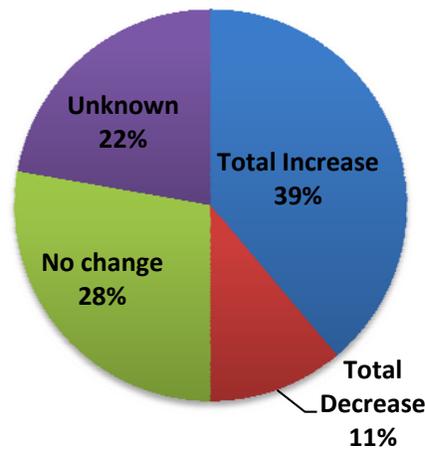
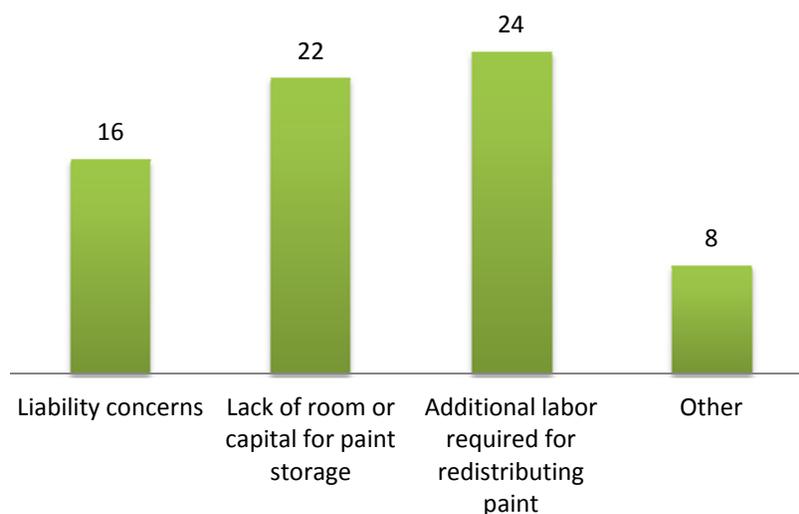


Figure 22. Reasons for Not Collecting Paint for Reuse

Which of the following describes your HHW program's reason for not operating a reuse program? (Select all that apply) (N=36)

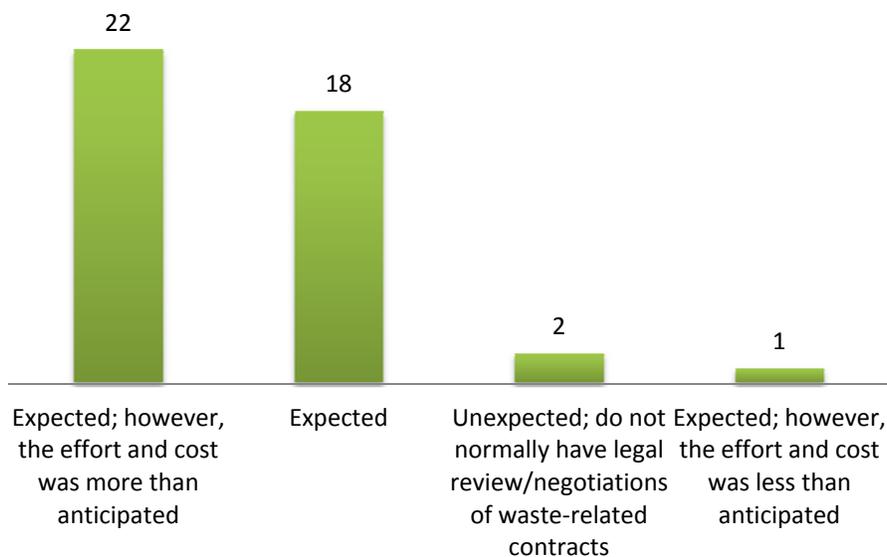


Additional Program Costs

In addition to overhead costs related to managing an HHW program and collecting paint, legal expenses incurred for contracting with PaintCare for paint transportation and processing presented an additional (generally one-time) cost to 60% of programs. In most states, PaintCare develops individual contracts with each HHW program. Templates are used as a basis for these contracts; however, each contract is tailored based on the operations of the individual HHW program. While 95% of these programs anticipated some legal costs, these costs were greater than expected for 51% of the programs (see Figure 23).

Figure 23. Expectations Regarding Legal Expenses

Which of the following best describes your expectations regarding legal expenses for participation in the PaintCare program? (N=43)



VI. RECOMMENDATIONS

Based on the results of the survey, PSI recommends the following actions:

- 1. Plan for an increase in both paint and non-paint HHW under the PaintCare program.** Forty-six percent of HHW programs collected more paint following PaintCare program implementation, and for 16 percent paint collections increased by more than 100 percent. Thirty-six percent of programs indicated that they received a greater amount of non-paint HHW after PaintCare implementation. HHW programs should be prepared for an increase in the amount of both paint and non-paint HHW collected if participating in the PaintCare program. This may include developing a budget that accounts for a decrease in paint management costs as well as an increase in management costs for non-paint HHW and overhead costs for higher participation.
- 2. Identify opportunities to simplify and streamline the contracting process.** Sixty percent of respondents incurred some form of legal expenses as part of negotiating an agreement to participate in the PaintCare program. Of these, 51 percent stated that some legal costs were expected, but the actual effort and costs were more than expected. Clear communication between HHW program managers and PaintCare staff at the beginning of the negotiation

process to review contracting options and set expectations for liability and insurance clauses is important to streamline the process.

- 3. Determine effects on HHW programs as the PaintCare program matures.** Paint stewardship is still in an early stage in the United States; at the time of this survey the oldest program had only operated for four years, and most were less than one year into implementation. While this study provided insight into the effects on HHW programs shortly after implementation, it is still unknown how the PaintCare program will affect HHW programs once the program is more established. Furthermore, every year, additional states are added to the program, increasing the sample size of HHW programs in states with paint stewardship legislation. A repetition of this study after one to three years will provide greater insight into important effects of PaintCare on HHW programs as the program gains experience and becomes established in a state.

APPENDIX A: SUPPLEMENTARY TABLES

The following data tables provide greater detail on the survey results discussed throughout this report.

Table 1. Changes to HHW Program Costs

Since you began participating in PaintCare, which of the following best describes changes, if any, to your program costs? (N=72)				
	Overall HHW program costs		Paint Related Costs	
	Percent	Count	Percent	Count
Total increase	18%	13	10%	7
Increase of more than 10%	10%	7	3%	2
Increase of 1-10%	8%	6	7%	5
Total decrease	60%	43	76%	55
Decrease of more than 10%	25%	18	50%	36
Decrease of 1-10%	35%	25	26%	19
No change	22%	16	14%	10

Table 2. Changes to HHW Program Participation

Change in average number of households per year that dropped off paint with the program (N=75)		
	Percentage	Count
Total Increase	45%	34
Increase by 100% or more	4%	3
Increase by 25% to 100%	13%	10
Increase by less than 25%	27%	20
Didn't Collect Paint Prior	1%	1
Total Decrease	15%	11
Decrease by less than 25%	12%	9
Decrease by 25% to 100%	3%	2
No change	33%	25
Unknown	7%	5

Table 3. Changes to HHW Program Participation Compared with Overall Program Cost

Changes to program participation and overall costs (n=72)							
	Increase in overall costs		Decrease in overall costs		No change to overall costs		Total Responses
	Percent	Count	Percent	Count	Percent	Count	
Increased participation	33%	11	53%	17	15%*	5	33
Decreased participation	9%	1	72%	8	18%	2	22
No change to participation	5%	1	61%	14	35%	8	23
Unknown change to participation	0%	0	80%	4	20%	1	5

*due to rounding, data may not add up to 100%

Table 4. Changes to Quantity of Paint Collected

Change in total volume of paint collected since participating in PaintCare program (N=56)		
	Percentage	Count
Total Increase	46%	26
Increase by 100% or more	16%	9
Increase by 25% to 100%	7%	4
Increase by less than 25%	23%	13
Total Decrease	18%	10
Decrease by less than 25%	9%	5
Decrease by 25% to 100%	9%	5
No change	14%	8
Unknown	21%*	12

*due to rounding, data may not add up to 100%

Table 5. Changes to Quantity of Paint Collected and Overall HHW Program Costs

Changes to paint collection volumes and overall program costs (n=56)							
	Increase in overall costs		Decrease in overall costs		No change to overall costs		Total Responses
	Percent	Count	Percent	Count	Percent	Count	
Increased collection	35%	9	58%	15	8%*	2	26
Decreased collection	0%	0	60%	6	40%	4	10
No change to collection	0%	0	75%	6	25%	2	8
Unknown change to collection	8%	1	50%	6	42%	5	12

*due to rounding, data may not add up to 100%

Table 6. Changes to Non-Paint HHW Collected by HHW Programs

Overall, has your HHW program seen an increase or decrease in total non-paint HHW collected since participating in the PaintCare program? (N=59)		
	Percent	Count
Total Increase	36%	21
Increase of more than 10%	17%	10
Increase of 1-10%	19%	11
Total Decrease	10%	6
Decrease of more than 10%	3%	2
Decrease of 1-10%	7%	4
No change	54%	32

Table 7. Changes to Quantity of Paint Collected and Quantity of Non-Paint HHW Collected

Changes to paint and non-paint HHW collections (N=56)							
	Increase in non-paint HHW		Decrease in non-paint HHW		No change in non-paint HHW		Total Responses
	Percent	Count	Percent	Count	Percent	Count	
Increased paint	54%	14	12%	3	35%*	9	26
Decreased paint	20%	2	10%	1	70%	7	10
No change to paint	25%	2	0%	0	75%	6	8
Unknown change to paint	25%	3	8%	1	67%	8	12

*due to rounding, data may not add up to 100%

Table 8. Changes to Quantity of Non-Paint Collected and Overall HHW Program Costs

Changes to non-paint HHW collections and program costs (N=59)							
	Increase in overall costs		Decrease in overall costs		No change to overall costs		Total Responses
	Percent	Count	Percent	Count	Percent	Count	
Increased non-paint HHW	38%	8	57%	12	5%	1	21
Decreased non-paint HHW	0%	0	100%	6	0%	0	6
No change to non-paint HHW	6%	2	56%	18	38%	12	32

Table 9. Changes to Quantity of Paint Collected for Reuse by HHW Programs

Change in total volume of paint collected for reuse since participating in PaintCare program (N=18)		
	Percentage	Count
Total Increase	39%	7
Increase by 25% to 100%	17%	3
Increase by less than 25%	17%	3
Didn't collect prior	6%	1
Total Decrease	11%	2
Decrease by 25% to 100%	6%	1
Decrease by less than 25%	6%	1
No change	28%	5
Unknown	22%	4

APPENDIX B: ADDITIONAL INFORMATION

The following lists provide responses to survey questions allowing an open-ended “Other” response.

1. *If your total HHW or paint-related program costs have decreased since participating in the PaintCare program, which of the following describe the reason(s) for the decrease? (Select all that apply)*

Responses:

- PaintCare covers transportation and processing costs (54)
- Payments for paint reuse program (8)
- Payments for latex paint reprocessing (7)
- Payments for paint bulking (5)
- Payments for internal transportation (4)
- Decrease in administrative costs on account of PaintCare (2)
- Decrease in the number of people using our program (3)
- Other (4):
 - Less labor associated with paint management and drying of latex paint
 - Our total increased
 - We are also reimbursed by PaintCare for a portion of advertising for the HHW collection events.
 - Decrease in paint disposal

2. *If your HHW program costs have decreased since participating in the PaintCare program, how do you currently or plan to use the savings? (Select all that apply)*

Responses:

- Offset costs of managing other HHW products (21)
- Reduce our total budget (12)
- Increase the convenience of HHW collections for residents (6)
- Expand the number of products accepted by the program (2):
- Have not decided yet (7)
- Other (4):
 - The savings will help off-set the cuts we've experience in our overall solid waste program in recent years
 - Hire more staff
 - Savings accrue mostly to our transfer station operations contractor, not this local government agency
 - Started sending all alkaline batteries off for recycling rather than disposal
 - Member towns are paying less for collection days

3. *If your total HHW or paint-related program costs have increased since participating in the PaintCare program, which of the following describes the reason for the increase? (Select all that apply)*

Responses:

- Disposal costs for non-paint HHW (7)
- Labor for increased number of participants (4)
- Labor for increased paint volume (4)
- Labor for changes in paint management procedures (3)
- Labor requirements for increased non-paint HHW collection (3)

- Increased administrative costs related to participation in the PaintCare program (3)
- Other (3):
 - Charges incurred per flex bin regardless of actual volume collected. For example, flex bins containing one item are charged as if the bin was full by the vendor. Hire more staff
 - Staffing increase
 - New facility, new costs