

Increasing Carpet Recycling in Washington Stakeholder Survey Results



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Survey Background

Objective

To learn more about current stakeholder behaviors and perceptions regarding carpet recycling; to gauge interest and perceived barriers to carpet recycling among different stakeholder groups; to probe for ideas to increase carpet recycling in Washington state.

Strategy

Online SurveyMonkey® survey

- Assess whether stakeholders and those involved in related industries currently recycle carpet, whether they feel there is a need, what barriers currently exist preventing them or others from increased carpet recycling in the state.
- Understand what steps could be taken to improve access/availability/process for carpet recycling in Washington state.

Survey Background

Parameters

- Survey a number of businesses and agencies likely to be engaged in or interested in carpet recycling in Washington and known to us through our previous carpet recycling work.
- Conduct a non-random survey, for which it is understood that the sample will not be statistically representative.

Results

- Survey results are reported stating each question and the collective responses, in some cases comparing sub-groups of respondents.

Responses: what we heard

- We received 73 survey responses, a few of them incomplete or unusable. 69 are analyzed in the following report.
- 67% of respondents were businesses, and 33% were government agencies.
- Asked to categorize their business type, 19% chose “retailer;” 12% “carpet installer/remover”; 12% carpet manufacturer (*Category table is on next slide.*)

Question 13 (intentionally out of sequence)

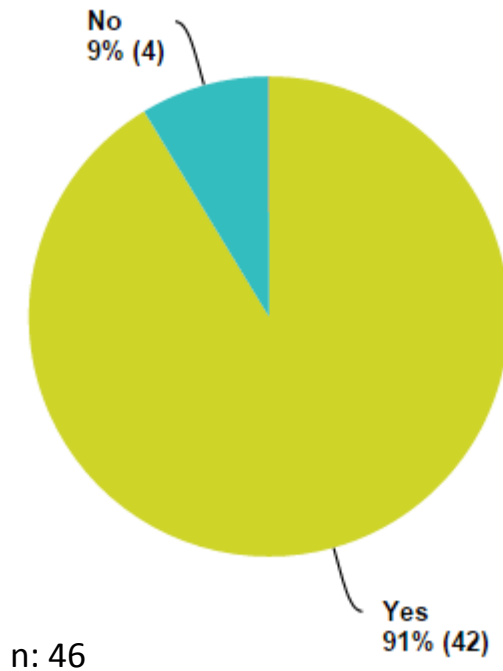
Please categorize your business/organization.

Answer Choices	Responses
Government	33% 23
Retailer	19% 13
Carpet Installers/Removers	12% 8
Carpet Manufacturers	12% 8
Other (please specify) or Comments	10% 7
Processing	10% 7
Design & Build (architect, interior designer, engineer, contractor, etc.)	9% 6
End-Market for Recovered Materials (plastics pelletizer, compounder, molder; concrete products manufacturer; recycled-content carpet manufacturer, etc.)	7% 5
Hauler	7% 5
Sorting & Consolidation	3% 2
Association Staff	3% 2
Property Management/Property Rental Firm	1% 1
Economic Development	0% 0

n: 69 *note: respondents could choose more than one category*

Question 2

Do you do business in Washington state?

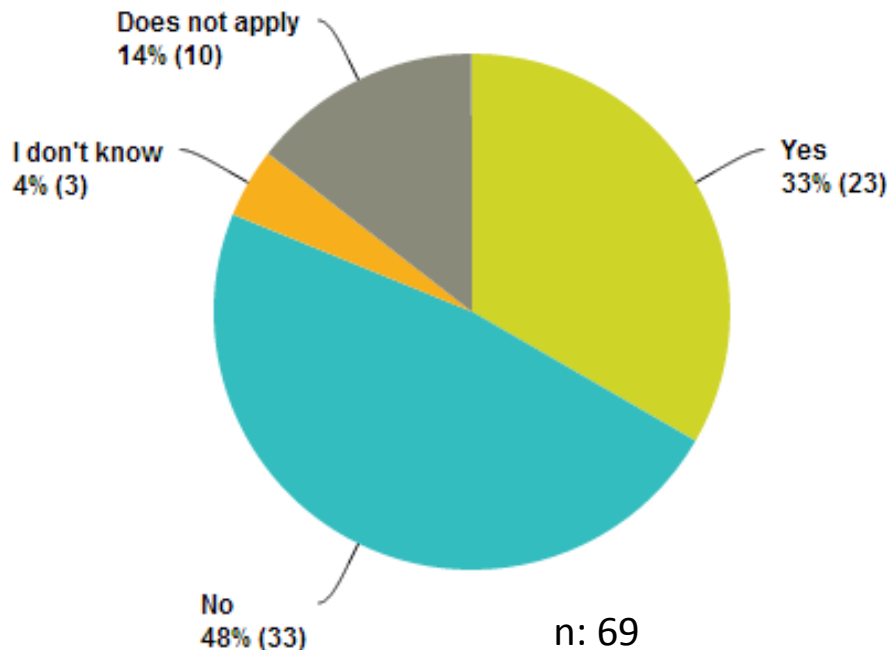


Almost all (91%) of non-government respondents do business in Washington state.

Of these, most (84%), are located in Washington state. A few are located outside of the state but do some business in the state.

Question 3

Does your company/organization currently recycle carpet?



Industry sectors with large numbers of respondents saying “Yes” included Carpet Manufacturers (8), Retailers (6), and Processors (5).

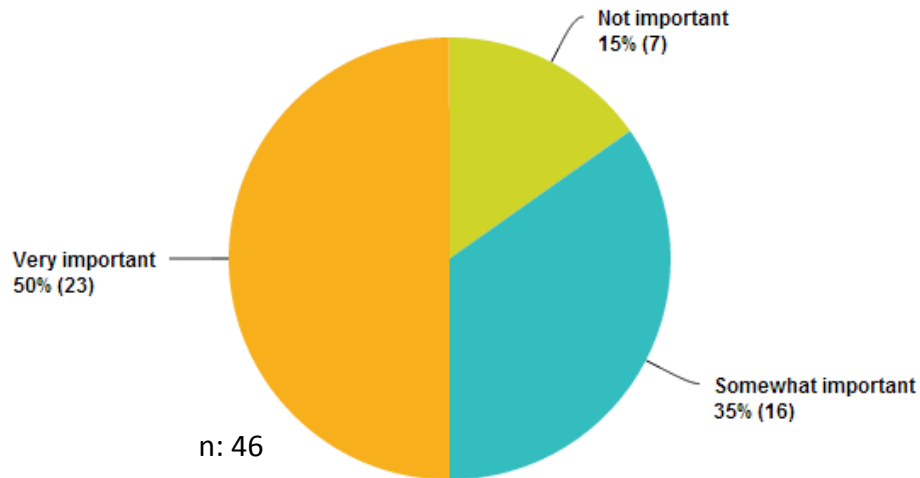
Industry sectors with large numbers of respondents saying “No” included Government (14) and Retailers (7). Of those who answered “Does not apply” or “I don’t know”, most were from Government (9). Our analysis suggests that respondents may have been confused as to what it means to recycle carpet.

Question 4

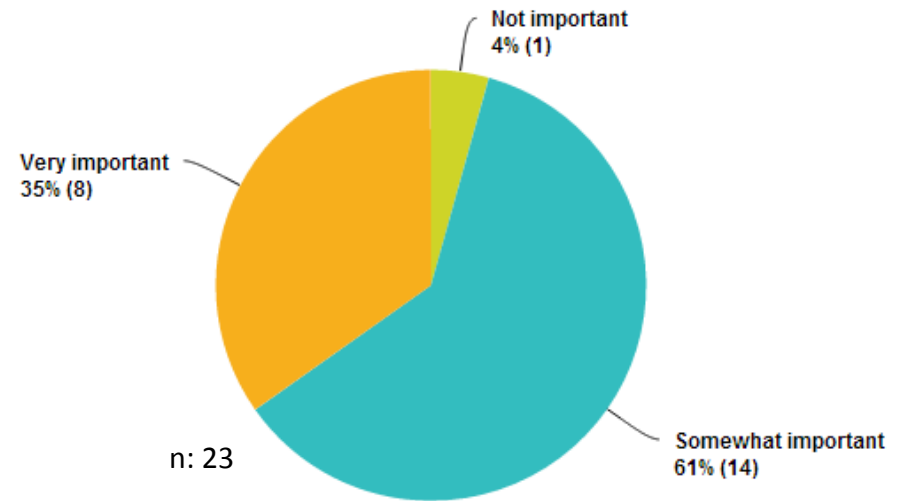
Business – Government Comparison

How important is carpet recycling to your business/organization?

Business



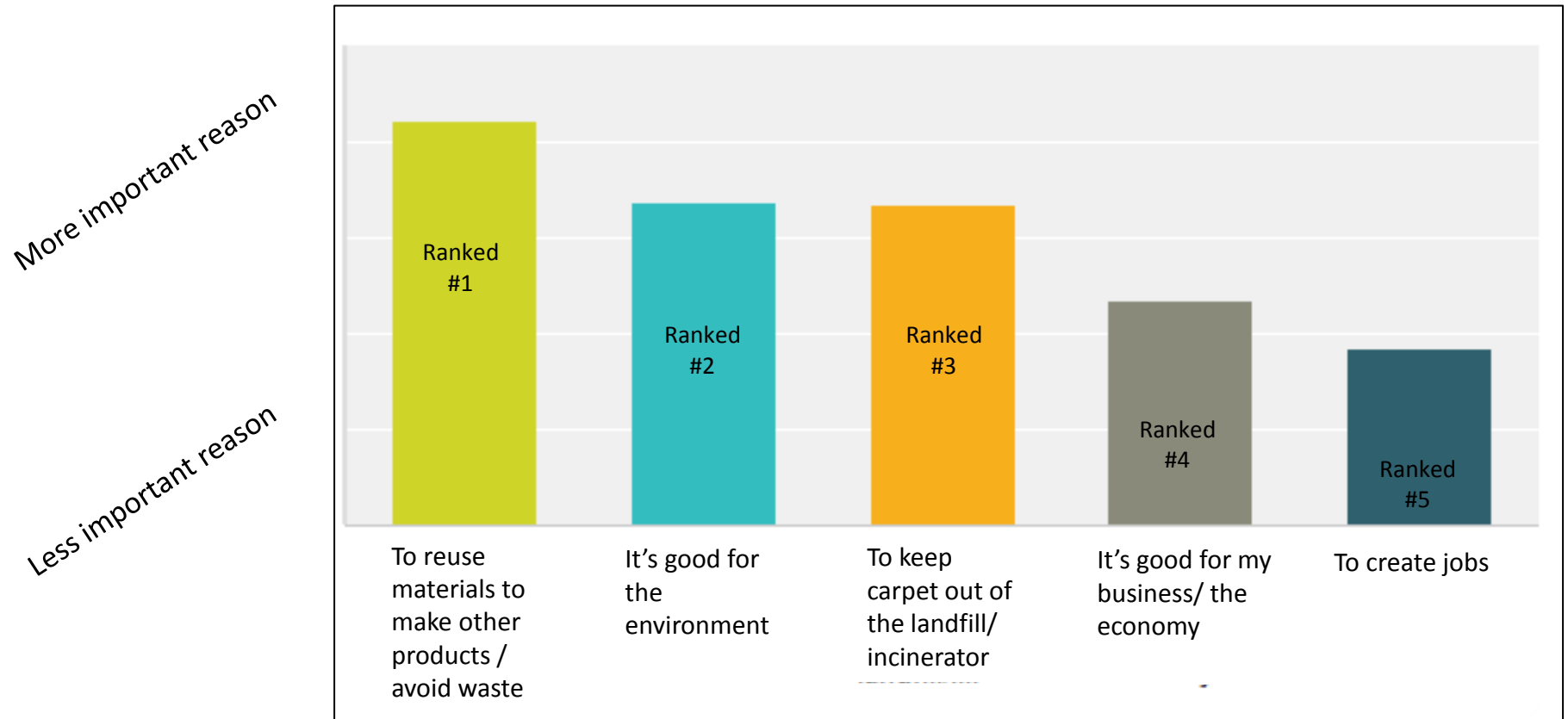
Government



In general, a higher percentage of business respondents view carpet recycling as “very important” to their business/organization (50%) compared to government respondents (35%). Paradoxically, a higher percentage of business respondents (15%) also view carpet recycling as “not important” as compared with government respondents (4%). Nearly 90% of all respondents said carpet recycling is “somewhat” or “very” important to their business/organization.

Question 5

Why do you believe it's important to recycle carpet? (Ranked in order of importance)



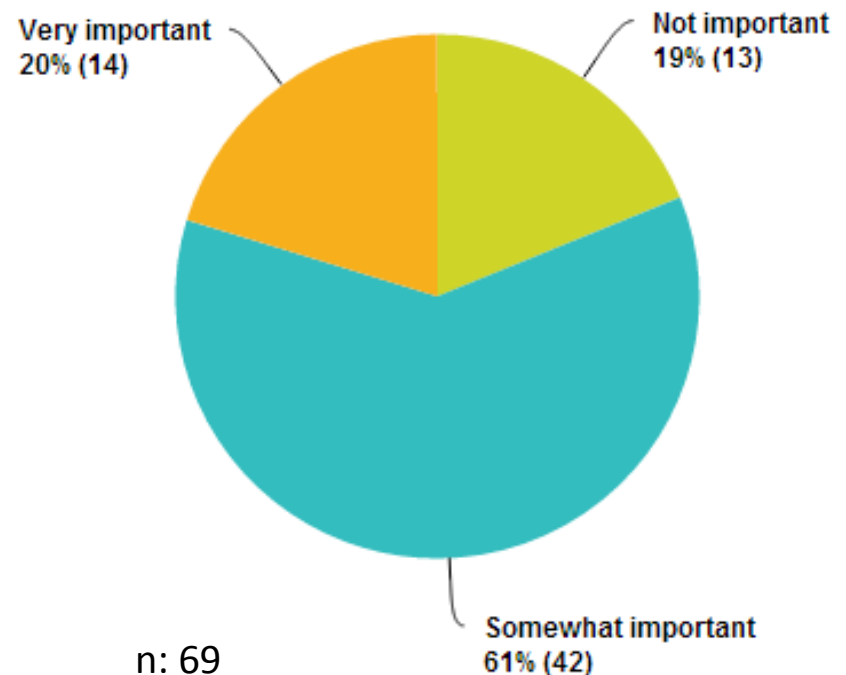
n: 68

Question 6

How important do you think carpet recycling is to your customers/members?

Generally, respondents believe that carpet recycling is important to their customers (More than 80% believe it is very or somewhat important), though they tend to believe that their customers care about it less than they do personally (see question 4). This is not surprising given that the self-selected respondents are likely predisposed to care deeply about carpet recycling.

A significantly larger percentage of business respondents (26%) view carpet recycling as “very important” to their customers/members compared with government respondents (9%).



Question 7

Business – Government Comparison

What do you see as the primary barriers to carpet recycling?

Business

1. Cost/Benefit (44%)
2. Operational issues/tech shortcomings (39%)
3. Lack of local recycling and collection infrastructure (33%)
4. Lack of profitable end-markets (22%)
5. Lack of information/awareness (8%)
6. Carpet not designed to recycle (6%)
7. Lack of legislation/oversight (6%)
8. Lack of financing (3%)

n:36

Government

1. Cost/Benefit (61%)
2. Lack of local recycling and collection infrastructure (50%)
3. Lack of information/awareness (28%)
4. Lack of profitable end-markets (22%)
5. Lack of legislation/oversight (17%)
6. Operational issues/tech shortcomings (6%)
7. Carpet not designed to recycle (6%)
8. Lack of financing (6%)

n:18

In general, government and business respondents share similar beliefs as to the primary barriers to carpet recycling: cost/benefits, lack of profitable end-markets and lack of local recycling and collection infrastructure. Business respondents, however, also prioritized “operational issues” such as material separation and contamination of old carpet as major barriers. This implies a notable difference between business and government as to the practical barriers of carpet recycling.

Note: This was an opened-ended question. Many respondents provided more than one answer. The percentage indicates the percent of respondents that mentioned the indicated barrier. Answers were grouped into the above general categories based on a qualitative assessment.

Question 8

What would motivate or enable YOU to recycle more carpet?*

Additional convenient locations to drop off carpet for recycling



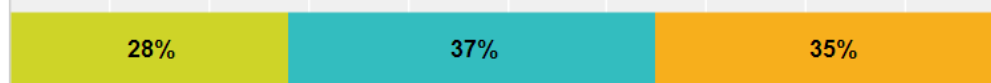
Additional or nearby locations in WA state to process carpet



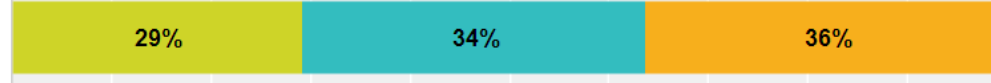
Carpet made with materials that are economically recyclable in the region



Better methods and equipment for separating carpet into recyclable components



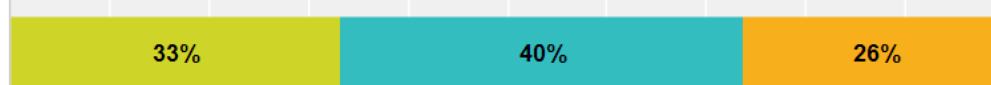
Disposal and/or recycling costs included in the price of removing carpet



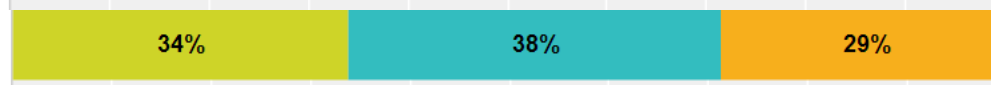
More reliable quantity and quality of carpet to put into recycling



More use of recovered material, especially for PET (polyester) in new products



Government policies



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

n: 62

Not motivate or enable Moderately motivate or enable Highly motivate or enable

Providing more locations to drop off carpet was selected by respondents as what would most highly motivate or enable them to recycle more carpet (61%). Other important motivators included additional Washington locations for processing (49%), and manufacturing carpet from materials that are economically recyclable in the region (42%).

**Order ranked by combining "Moderately motivate or enable" with "Highly motivate or enable"*

Question 8

Business – Government Comparison

What would motivate or enable YOU to recycle more carpet? (Top 3 answers shown)*

Business

1. Additional or nearby locations in Washington state to process carpet (44% highly motivate; 39% moderately motivate)
2. Additional convenient locations to drop off carpet for recycling (51% highly motivate / 27% moderately motivate)
3. Better methods and equipment for separating carpet into recyclable components (44% highly motivate; 33% moderately motivate)

n: 42

Government

1. Additional convenient locations to drop off carpet for recycling (83% highly motivate; 11% moderately motivate)
2. Disposal and/or recycling costs included in the price of removing carpet (58% highly motivate; 26% moderately motivate)
3. Carpet made with materials that are economically recyclable in the region (47% highly motivate; 37% moderately motivate)

n: 20

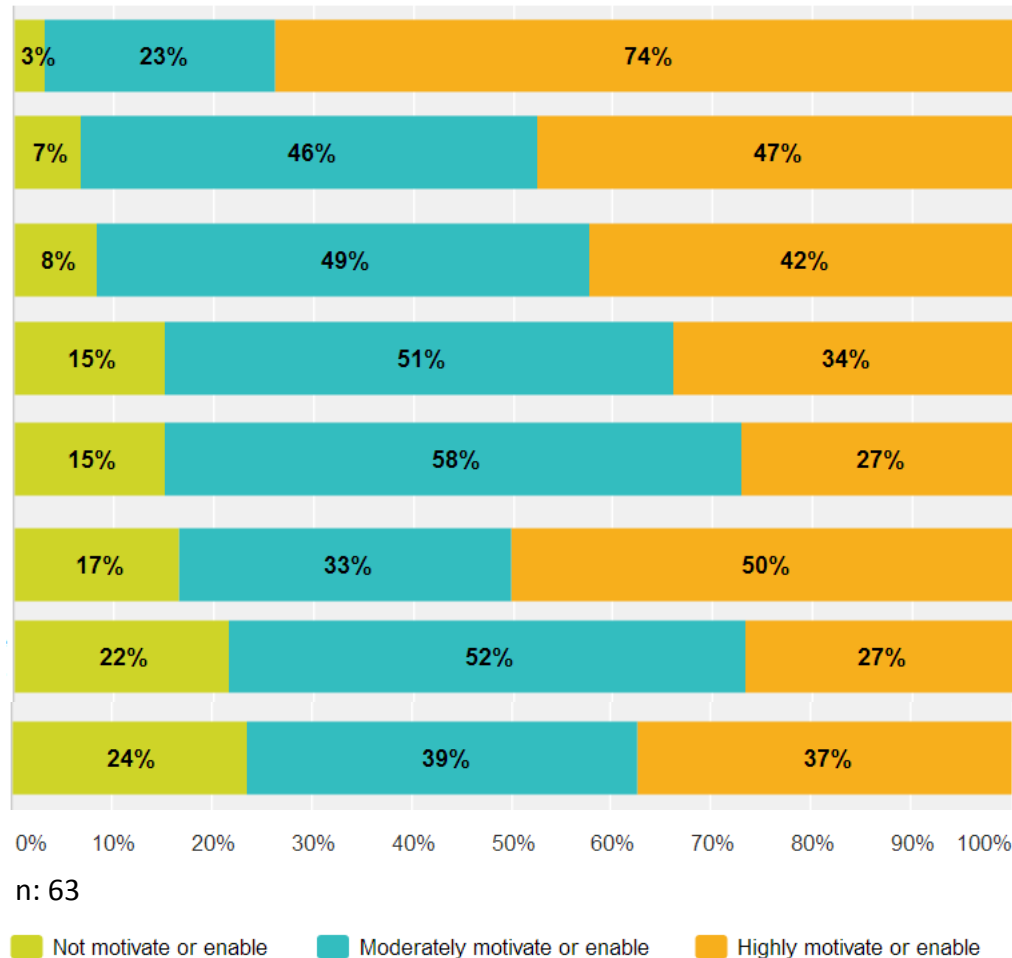
Business and government respondents differed in which motivators would inspire them to recycle more carpet. A strikingly high percentage of government respondents believe that additional drop off locations would motivate them to recycle more carpet.

**Order ranked by combining "Moderately motivate or enable" with "Highly motivate or enable"*

Question 9

What would motivate or enable OTHERS to recycle more carpet?*

- Additional convenient locations to drop off carpet for recycling
- Additional or nearby locations in WA state to process carpet
- Carpet made with materials that are economically recyclable in the region
- Better methods and equipment for separating carpet into recyclable components
- More use of recovered material, especially for PET (polyester) in new products
- Disposal and/or recycling costs included in the price of removing carpet
- More reliable quantity and quality of carpet to put into recycling
- Government policies



When asked what would motivate OTHERS, the vast majority of respondents cited “additional convenient locations” and “additional or nearby locations in WA state to process carpet” as prime motivators to recycle more carpet. A high percentage of respondents (50%) stated that including disposal and/or recycling costs in the price of removing carpet would “highly motivate” OTHERS to recycle carpet.

**Order ranked by combining “Moderately motivate or enable” with “Highly motivate or enable”*

Question 9

Business – Government Comparison

What would motivate or enable OTHERS to recycle more carpet? (Top 3 answers shown)*

Business

1. Additional convenient locations to drop off carpet for recycling (68% highly motivate; 28% moderately motivate)
2. Carpet made with materials that are economically recyclable in the region (36% highly motivate; 56% moderately motivate)
3. Additional or nearby locations in Washington state to process carpet (49% highly motivate; 41% moderately motivate)

n: 41

Government

1. Additional convenient locations to drop off carpet for recycling (86% highly motivate; 14% moderately motivate)
2. Additional or nearby locations in Washington state to process carpet (45% highly motivate; 55% moderately motivate)
3. Carpet made with materials that are economically recyclable in the region (55% highly motivate; 35% moderately motivate)

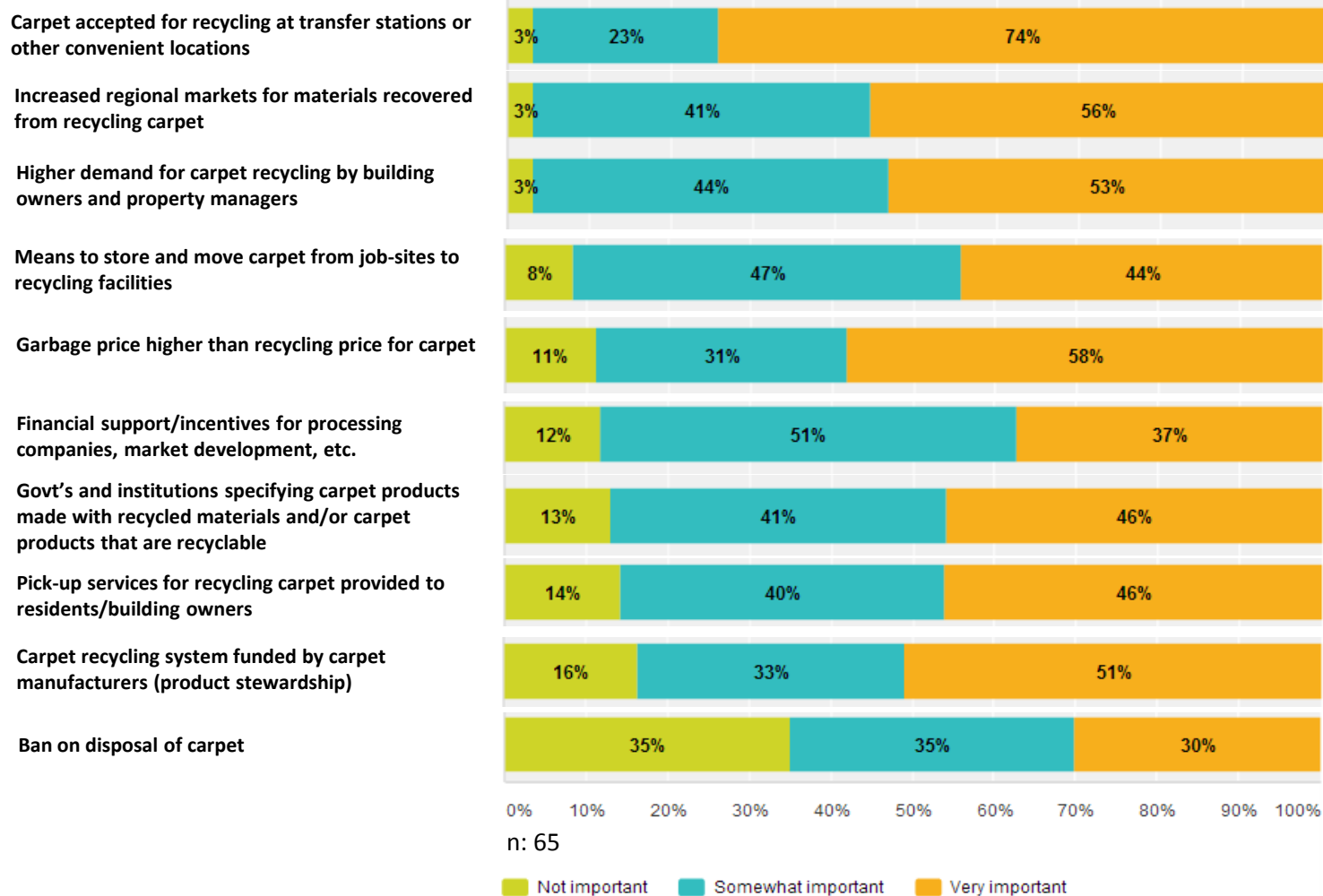
n: 22

Both groups agreed that increasing drop-off locations would be the greatest motivator for others followed by (in differing order), manufacturing carpet with recyclable materials and increasing locations to process carpet.

**Order ranked by combining "Moderately motivate or enable" with "Highly motivate or enable"*

Question 10

How important are the following to making carpet recycling more widespread throughout WA state?*



**Order ranked by combining "very important" with "somewhat important"*

Question 10

Business – Government Comparison

How important are the following to making carpet recycling more widespread throughout WA? (Top 3 answers shown)*

Business

1. Carpet accepted for recycling at transfer stations or other convenient locations (71% very important; 27% somewhat important)
2. Higher demand for carpet recycling by building owners and property managers (54% very important; 41% somewhat important)
3. Increased regional markets for materials recovered from recycling carpet (48% very important; 48% somewhat important)

n: 43

Government

1. Carpet recycling system funded by carpet manufacturers (product stewardship) (81% very important; 19% somewhat important)
2. Garbage price higher than recycling price for carpet (76% very important; 24% somewhat important)
3. Increased regional markets for materials recovered from recycling carpet (71% very important; 29% somewhat important)

n: 22

Business and Government respondents had quite different responses on this question. Business respondents feel that the increasing supply/demand is key whereas government respondents preferred instituting a product stewardship system or adjusting pricing/incentive structure.

**Order ranked by combining "very important" with "somewhat important"*

Question 10

Business – Retailers Comparison

How important are the following to making carpet recycling more widespread throughout WA? (Top 3 answers shown)*

Business

1. Carpet accepted for recycling at transfer stations or other convenient locations (71% very important; 27% somewhat important)
2. Higher demand for carpet recycling by building owners and property managers (54% very important; 41% somewhat important)
3. Increased regional markets for materials recovered from recycling carpet (48% very important; 48% somewhat important)

n: 43

Retailers

1. Carpet accepted for recycling at transfer stations or other convenient locations (100% very important)
2. Higher demand for carpet recycling by building owners and property managers (60% very important; 40% somewhat important)
3. Means to store and move carpet from job-sites to recycling facilities (30% very important; 70% somewhat important)

n: 12

Retail respondents unanimously believed that accepting carpet at transfer stations or other convenient locations would be the most important step to making carpet recycling more widespread throughout WA. They also cited providing pick-up services for residents/building owners as an important step – higher than business respondents, in general.

**Order ranked by combining "very important" with "somewhat important"*

Business – Manufacturers Comparison

How important are the following to making carpet recycling more widespread throughout WA? (Top 3 answers shown)*

Business

1. Carpet accepted for recycling at transfer stations or other convenient locations (71% very important; 27% somewhat important)
2. Higher demand for carpet recycling by building owners and property managers (54% very important; 41% somewhat important)
3. Increased regional markets for materials recovered from recycling carpet (48% very important; 48% somewhat important)

n: 43

Manufacturers

1. Higher demand for carpet recycling by building owners and property managers (71% very important; 29% somewhat important)
2. Governments and institutions specifying carpet products made with recycled materials and/or carpet products that are recyclable (71% very important; 29% somewhat important)
3. (tie) Means to store and move carpet from job-sites to recycling facilities (57% very important; 43% somewhat important)
3. (tie) Carpet accepted for recycling at transfer stations or other convenient locations (71% very important; 27% somewhat important)

n: 8

*Order ranked by combining "very important" with "somewhat important"

Question 10

Business – Processors Comparison

How important are the following to making carpet recycling more widespread throughout WA? (Top 3 answers shown)*

Business

1. Carpet accepted for recycling at transfer stations or other convenient locations (71% very important; 27% somewhat important)
2. Higher demand for carpet recycling by building owners and property managers (54% very important; 41% somewhat important)
3. Increased regional markets for materials recovered from recycling carpet (48% very important; 48% somewhat important)

n: 43

Processors

1. Increased regional markets for materials recovered from recycling carpet (43% very important; 57% somewhat important)
2. Carpet accepted for recycling at transfer stations or other convenient locations (57% very important; 29% somewhat important)
3. Governments and institutions specifying carpet products made with recycled materials and/or carpet products that are recyclable (57% very important; 29% somewhat important)

n: 7

Processors identified increasing regional markets for materials recovered from recycling carpet as the most important way to make carpet recycling more widespread throughout the state. Additionally, processors answered that governments and institutions specifying recyclable/recycled carpet would be an important step in increasing carpet recycling.

**Order ranked by combining "very important" with "somewhat important"*

Question 11

Whom do you believe is most appropriate to pay for carpet recycling?*

	Most appropriate	Somewhat appropriate	Least appropriate	I don't know
Carpet manufacturers	49% 32	37% 24	12% 8	2% 1
Consumers of carpet	52% 33	30% 19	14% 9	3% 2
Carpet sellers	13% 8	65% 40	19% 12	3% 2
State Government	3% 2	19% 12	75% 47	3% 2
Federal Government	3% 2	17% 11	78% 49	2% 1
Local Government	3% 2	15% 9	79% 49	3% 2

Respondents clearly identified carpet manufacturers and consumers of carpet as those most appropriate to pay for carpet recycling. They also overwhelmingly believed it is not appropriate for any level of government to pay for carpet recycling (other than from floors in their own buildings).

n: 65

*Order ranked by combining "most appropriate" with "somewhat appropriate"

Question 11

Business – Government Comparison

Whom do you believe is most appropriate to pay for carpet recycling? (Top 3 answers shown)*

Business

1. **Consumers of carpet** (57% most appropriate; 29% somewhat appropriate)
2. **Carpet manufacturers** (35% most appropriate; 49% somewhat appropriate)
3. **Carpet sellers** (12% most appropriate; 61% somewhat appropriate)

n: 43

Government

1. **Carpet manufacturers** (77% most appropriate; 14% somewhat appropriate)
2. **Carpet sellers** (14% most appropriate; 71% somewhat appropriate)
3. **Consumers of carpet** (43% most appropriate; 33% somewhat appropriate)

n: 22

While business respondents believed consumers of carpet to be the most appropriate group to pay for carpet recycling, government respondents saw manufacturers and sellers as the more appropriate groups to pay for carpet recycling.

**Order ranked by combining "most appropriate" with "somewhat appropriate"*

Question 12

Do you have any other ideas/observations/comments for how to increase carpet recycling in WA state?

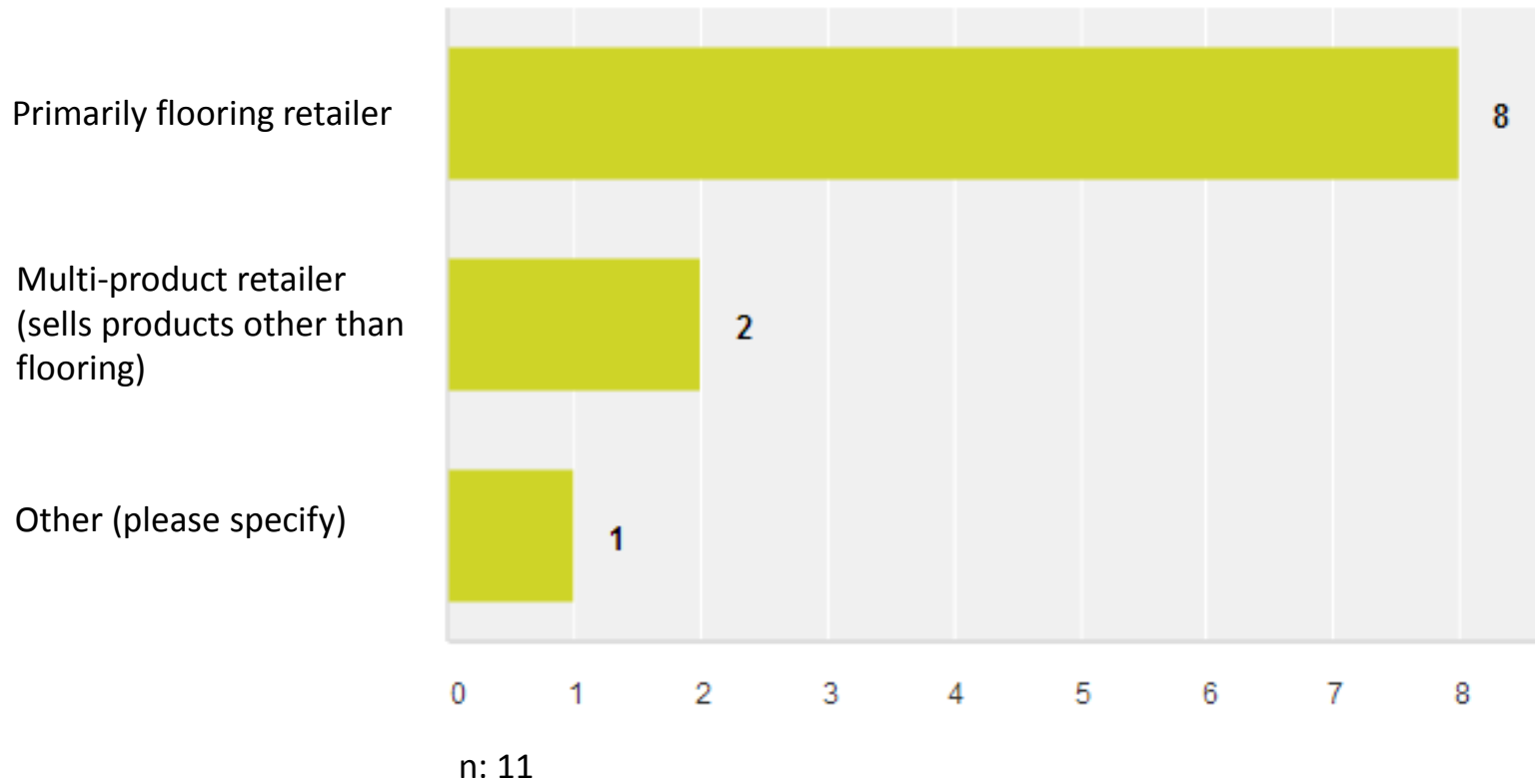
- Increase awareness via informational outreach (6)
- Create a stewardship system that finances the full program costs (4)
- Increase number of collection sites/collectors (4)
- Increase end markets (3)
- Increase processing capacity (2)
- Ensure that all carpet made is recyclable (2)
- Utilize purchasing power of government to purchase recycled material and require recyclable material in contracts (2)
- Implement policies that penalize land-filling of carpet (1)

n: 19

Note: This was an opened-ended question. Some respondents provided more than one answer. The number in parenthesis indicates the number of people that mentioned the item indicated. Answers were grouped into the above general categories based on a qualitative assessment.

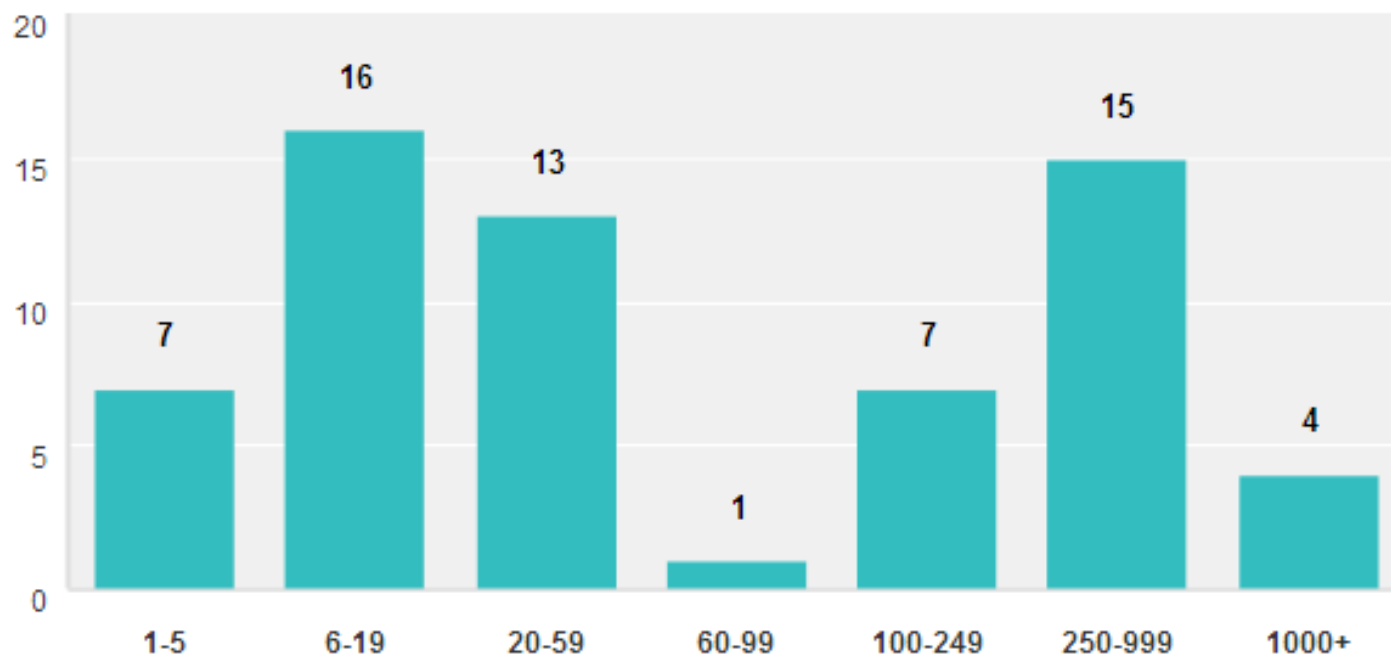
Question 14

If retailer, which type?



Question 15

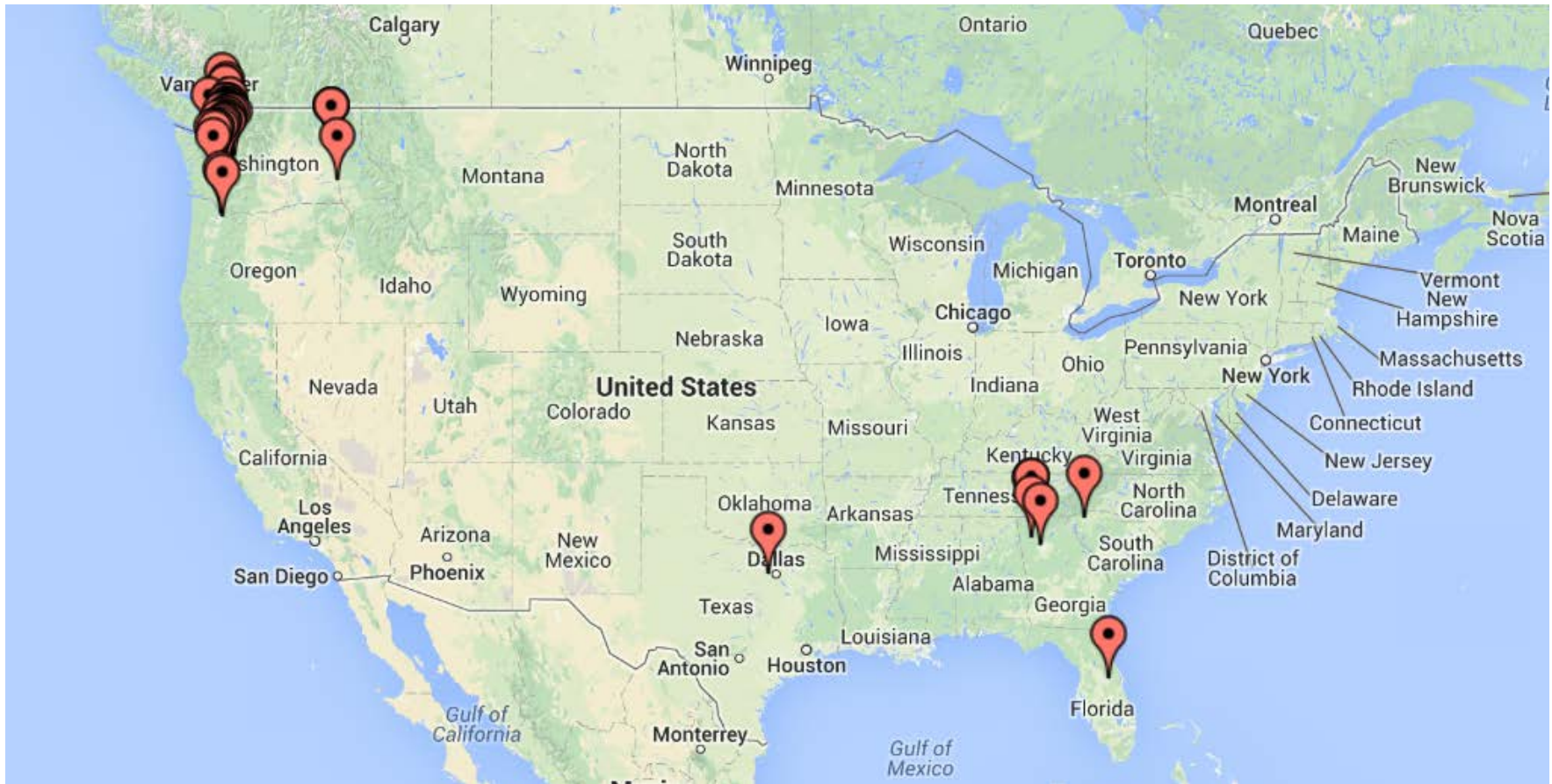
Number of employees at your location



n: 63

Question 16

Zip Code of respondents' locations

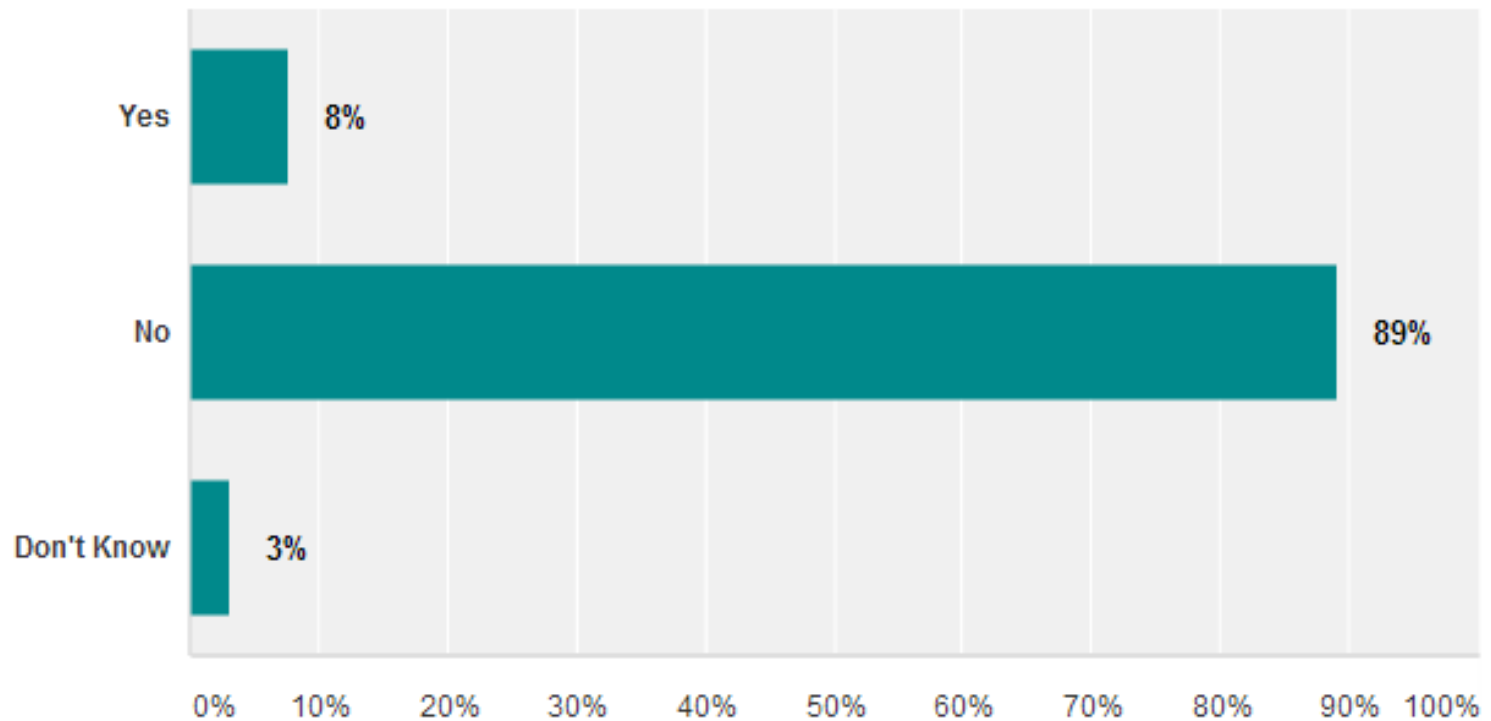


58 of 64 who answered this question listed a zip code within Washington state.

n: 64

Question 17

Are you registered as a Woman or Minority-Owned Business?



n: 64

Key Findings

- Diverse range of stakeholders responded.
- Carpet recycling is important to the overwhelming majority of respondents, with the top reason being to reuse materials to make other products / avoid waste.
- Primary barriers to recycling carpet:
 - Cost/benefit
 - Lack of local recycling and collection infrastructure
 - Operational issues/technology shortcomings
 - Lack of profitable end markets
- A majority responded that *consumers of carpet or carpet manufacturers* are most appropriate to pay for carpet recycling and that government is the least appropriate to pay—businesses showing a preference for consumers and governments showing a preference for manufacturers.

Key Findings

- Top needs for enabling or motivating carpet recycling:
 - *Additional convenient locations to drop off carpet for recycling*
 - *Additional or nearby locations in WA state to process carpet*
 - *Carpet made with materials that are economically recyclable in the region.*
 - *Better methods and equipment for separating carpet into recyclable components* was ranked higher by businesses than governments for enabling/motivating “themselves.”

Key Findings

- Top needs for making carpet recycling more widespread throughout WA:
 - *Carpet accepted for recycling at transfer stations or other convenient locations (#1 for Retailers, #2 for Business and Processors)*
 - *Increased regional markets for materials recovered from recycling carpet (#1 for Processors)*
 - *Higher demand for carpet recycling by building owners and property managers (#1 for Manufacturers, #2 for Business)*
 - *Means to store and move carpet from job-sites to recycling facilities (#3 for Retailers and Manufacturers)*
 - *Garbage price higher than recycling price for carpet (#2 for Government)*

Thank you!

Contacts

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Appendix

SURVEY QUESTIONS

Survey Questions

1. Please provide your name, organization and email address. We may follow up with you but will not share your answers or contact information with anyone.
2. Do you do business in Washington state?
 - Yes
 - No
 - I don't know
 - Does not apply
3. Does your company/organization currently recycle carpet?
 - Yes
 - No
 - I don't know
 - Does not apply
4. How important is carpet recycling to your business/organization?
 - Not important
 - Somewhat important
 - Very important

Survey Questions (cont.)

5. Why do you believe it's important to recycle carpet? (Please rank the following reasons by order of importance.)
 - To reuse materials to make other products / avoid waste
 - It's good for the environment
 - To keep carpet out of the landfill/incinerator
 - It's good for my business/the economy
 - To create jobs
6. How important do you think carpet recycling is to your customers/members?
 - Not important
 - Somewhat important
 - Very important
7. What do you see as the primary barriers to carpet recycling? (Open-ended)

Survey Questions (cont.)

8. What would motivate or enable YOU to recycle more carpet?

- Additional convenient locations to drop off carpet for recycling
- Additional or nearby locations in Washington state to process carpet (separate carpet into sellable components)
- Carpet made with materials that are economically recyclable in the region
- Disposal and/or recycling costs included in the price of removing carpet
- Better methods and equipment for separating carpet into recyclable components
- Government policies
- More use of recovered material, especially for PET (polyester) in new products
- More reliable quantity and quality of carpet to put into recycling

9. What would motivate or enable OTHERS to recycle more carpet?

- Additional convenient locations to drop off carpet for recycling
- Additional or nearby locations in Washington state to process carpet (separate carpet into sellable components)
- Carpet made with materials that are economically recyclable in the region
- Disposal and/or recycling costs included in the price of removing carpet
- Better methods and equipment for separating carpet into recyclable components
- Government policies
- More use of recovered material, especially for PET (polyester) in new products
- More reliable quantity and quality of carpet to put into recycling

Survey Questions (cont.)

10. How important are the following to making carpet recycling more widespread throughout Washington state?

- Carpet accepted for recycling at transfer stations or other convenient locations
- Garbage price higher than recycling price for carpet
- Increased regional markets for materials recovered from recycling carpet
- Higher demand for carpet recycling by building owners and property managers
- Carpet recycling system funded by carpet manufacturers (product stewardship)
- Pick-up services for recycling carpet provided to residents/building owners
- Governments and institutions specifying 1) carpet products made with recycled materials and/or 2) carpet products that are recyclable
- Means to store and move carpet from job-sites to recycling facilities
- Financial support or incentives for processing companies, market development, etc.
- Ban on disposal of carpet

Survey Questions (cont.)

11. Whom do you believe is most appropriate to pay for carpet recycling? (Please rank the following in order of appropriateness.)
 - Consumers of carpet
 - Carpet manufacturers
 - Carpet sellers
 - Local government
 - State government
 - Federal government
12. Do you have any other ideas, observations or comments for how to increase carpet recycling in Washington state? (Open-ended)

Survey Questions (cont.)

13. Please categorize your business/organization. (Please choose all that apply)

- Government
- Retailer
- Carpet Installers/Removers
- Carpet Manufacturers
- Processing
- Design & Build (architect, interior designer, engineer, contractor, etc.)
- End-Market for Recovered Materials (plastics pelletizer, compounder, molder; concrete products manufacturer; recycled-content carpet manufacturer, etc.)
- Hauler
- Sorting & Consolidation
- Association Staff
- Property Management/Property Rental Firm
- Economic Development

Survey Questions (cont.)

14. Which type of retailer? (Only asked if answered “retailer” on previous question)

- Primarily flooring retailer
- Multi-product retailer (sells products other than flooring)
- Other (please specify) or Comments

15. Number of employees at your location

- 1-5
- 6-19
- 20-59
- 60-99
- 100-249
- 250-999
- 1000+

16. Zip Code of organization location

17. Are you registered as a Woman or Minority-Owned Business?

- a) Yes
- b) No
- c) Don't know