

Calgary



Industrial, Commercial and Institutional (ICI) Sector Waste Diversion Survey Key Findings Report

Prepared for The City of Calgary by:



Contact:

Matthijs Visser

Principal

780.229.1141

mvisser@advanis.net



Table of Contents

<u>Background, Objectives, and Methodology</u>	3
<u>Summary of Findings and Recommendations</u>	8
<u>Detailed Findings: Awareness and Compliance</u>	13
<u>Detailed Findings: Barriers to Compliance</u>	39
<u>Detailed Findings: Supports and Communications</u>	46
<u>Segmentation</u>	56
<u>Firmographics</u>	62
<u>Appendix</u>	68



Background, Objectives, and Methodology

Background and Objectives

Background

The Industrial, Commercial and Institutional (ICI) sector in Calgary includes around 53,000 hospitals, schools, offices, malls, restaurants, hotels, manufacturers, warehouses and other businesses.

In 2016 and 2017 The City implemented a Waste Bylaw that states The owner of a non-residential parcel must ensure adequate containers are available for the separate storage of:

- (a) garbage;
- (b) non-residential recyclable material (2016);
- (c) food and yard waste material (2017).

To continue to improve the effectiveness of its programs and to encourage businesses to divert recyclables and compostables, The City is seeking to understand awareness of, compliance with, and barriers to compliance with the Waste Bylaw.

Objectives

The objectives of the phone survey are to:

- Determine levels of awareness of the waste diversion measures;
- Measure compliance with the measures;
- Identify barriers to compliance;
- Identify barriers to effective diversion; and,
- Explore how The City can support businesses to increase diversion.



Research Methodology

- Advanis conducted a telephone survey between October 5th and 22nd, 2020, with 481 owners and employees responsible for waste and recycling decisions at Calgary ICI businesses. 40% of businesses have 5 or less employees, 40% have 6 to 20 employees, and 20% have more than 20 employees. Quotas were set for specific sectors and sub-sectors:

Sector	Completed Surveys
Manufacturing / Warehousing / Transportation	51
Accommodation and Food Services	126
Restaurants	91
Retail	125
Retail Stores, Excluding Grocery *	75
Health Care / Social Assistance	50
Other sectors	129
Offices	77

- Average interview length was 18 minutes.
- The margin for error is $\pm 4.5\%$, 19 times out of 20.
- Data was weighted by sector to create an even sample proportion for each sector (i.e., 20%) for consistency with historical data.

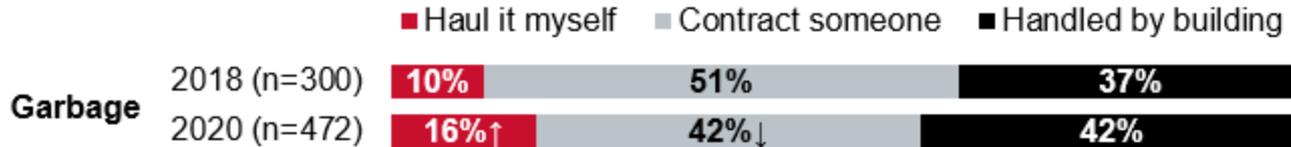
* Excludes: Motor vehicle or parts dealer; Grocery, supermarket, convenience store, specialty food store, beer, wine or liquor store; Gas station; Direct sales or vending machine operator.



A Note on Statistical Testing in This Report

This report shows three ways of statistical testing:

1. Comparing 2018 and 2020 results year-over-year:



This type of testing is indicated with the following note:

↑ denotes a significant increase since 2018
 ↓ denotes a significant decrease since 2018

2. Comparing between a subgroup and sum of all other subgroups:

	n	Clear signage on collection containers
Calgary businesses separating recycling, food, yard waste	454	66%
Manufacturing / Warehousing / Transportation	50	60%
Accommodation / Food service	120	73%
Restaurants	88	76% ↑

In this example, *Restaurants* are significantly higher in complying with the clear signage requirement, compared to all non-restaurants (i.e., Calgary businesses that are not *Restaurants*).

This type of testing is indicated with the following note:

↑ denotes a significantly higher number than all others combined
 ↓ denotes a significantly lower number than all others combined

Stat testing is not performed for subgroups with base sizes of less than 30. Consistent with the 2018 report, small base size warning is shown for base sizes 35 and less, and data is not shown for subgroups with base sizes of 15 or less.



A Note on Statistical Testing in This Report

This report shows three ways of statistical testing:

3. Comparing among subgroups:

NET Agree (8 - 10)

Awareness / Compliance		
Low (A)	Medium (B)	High (C)
69%	41%	33%
B C		

We don't have enough compostable materials ... to warrant having a composting or food and yard waste diversion program

In this example, low-, medium-, and high-awareness/compliance segments are compared among each other. The low sector (A) is significantly higher than the medium (B) and high (C) sectors.

This type of testing is indicated with the following note:

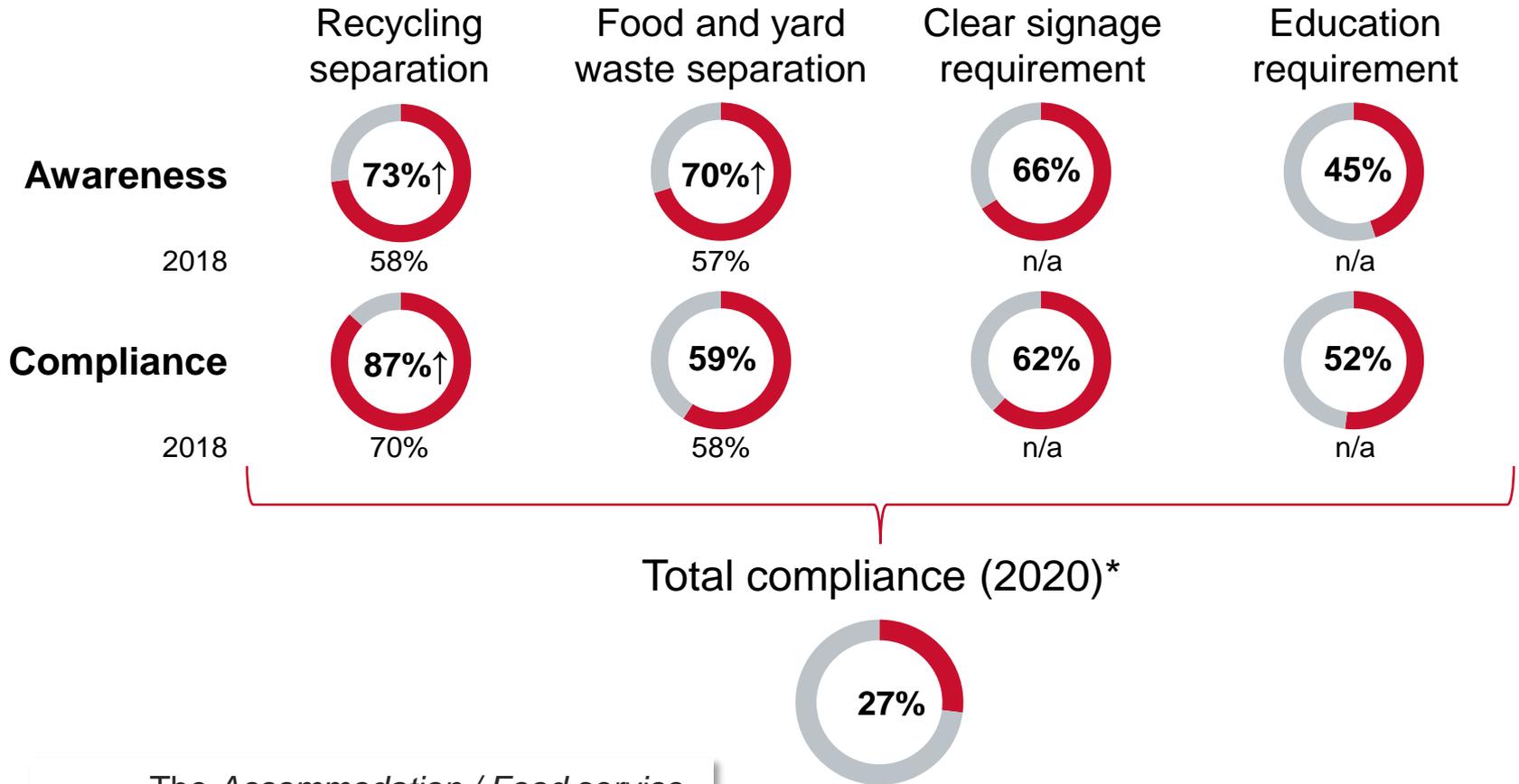
Letters A, B, C denote that a number is significantly higher than the segment(s) signified by the letter(s).



Summary of Findings and Recommendations



Awareness and Compliance



The *Accommodation / Food service* sector is most aware of and compliant with the bylaws.

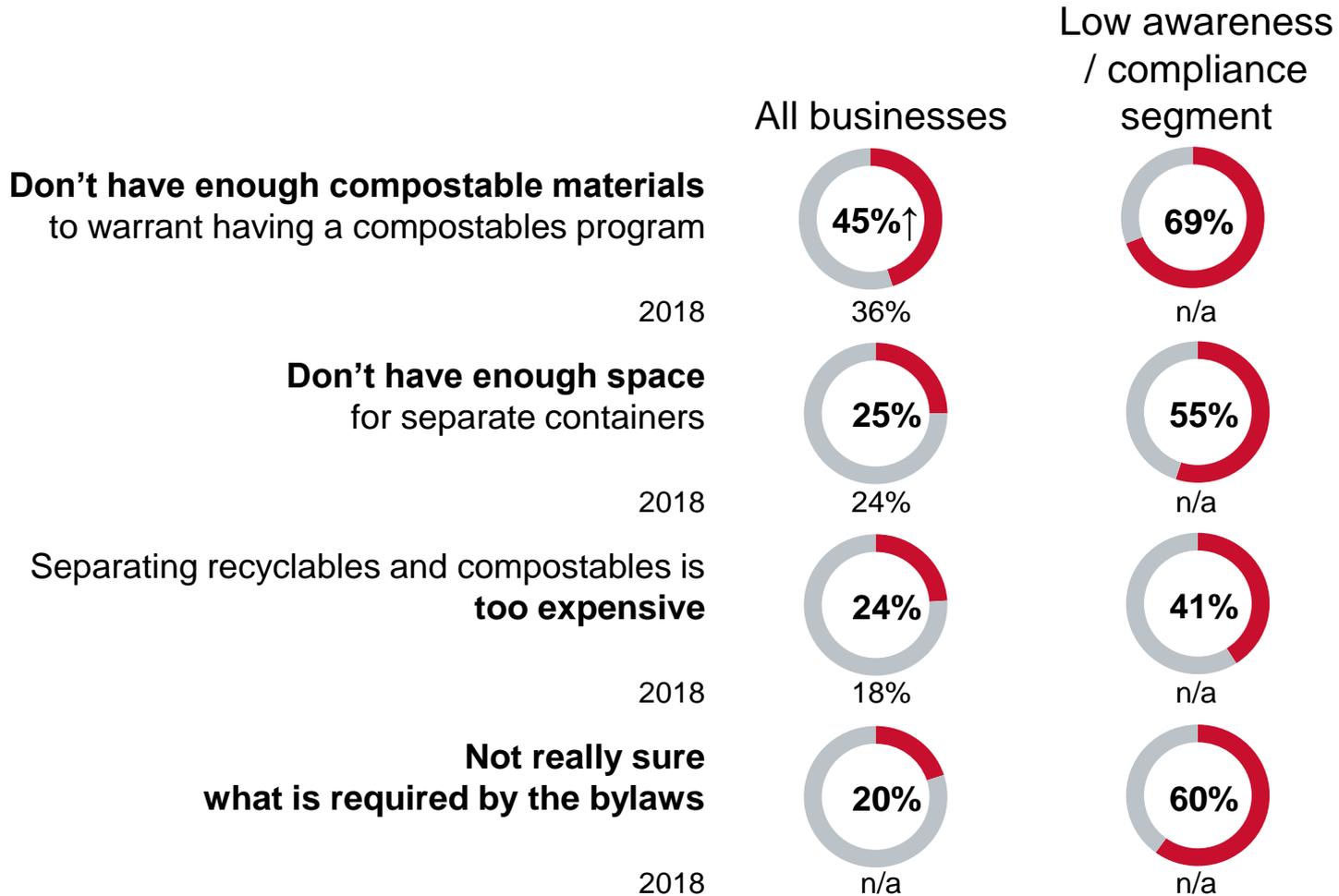
* Recycling bylaw compliant *and* food and yard waste bylaw compliant. Please [see the appendix for details on the compliance calculations.](#)

↑ denotes a significant increase since 2018
↓ denotes a significant decrease since 2018



Barriers to Compliance

The primary barrier to complying with composting bylaws is the perception of not having enough compostable material to warrant a composting program. Another important barrier among low awareness / compliance businesses is being unsure about what is required.





Supports and Communications

Most Calgary-based businesses are interested in potential supports.

- Nearly 8 in 10 businesses would find **support for reducing their waste program cost** useful.
 - **Information** — reminders, templates, and tips — is considered useful by 7 in 10 Calgary-based businesses.
- The *Accommodation / Food service* industry, and particularly *Restaurants*, are most interested in receiving **tools or resources to help reduce the amount of food waste in their garbage** — 7 in 10 say they are very or somewhat interested, compared to around 3 in 10 in other (sub)sectors.

The City, property managers, and haulers are considered to be the most useful sources to receive information from.

- Calgary businesses across all industries who hire contractors to haul their recyclable or compostable waste would find **the hauler** to be the most useful information channel.
- 3 in 4 businesses find **The City website** useful; this is followed by the **Property Manager** and **direct communications from The City**, which 7 in 10 businesses find useful.
 - Businesses in the *Manufacturing* sector consider **Industry publications** more useful compared to other industries.
 - The **Property Manager** is considered to be a more useful source of information among the *Accommodation / Food service* sector compared to other sectors.



Recommendations

1. All sectors and sub-sectors would benefit from additional supports and communications regarding compliance with waste diversion bylaws.
2. Additional supports and communications should focus on:
 - Explaining the specific requirements of the waste diversion bylaws, including:
 - Addressing the common perception among businesses that they don't have enough compostable materials to warrant having a organics program; and
 - The annual employee training requirement.
 - Reducing the cost of waste diversion requirements;
 - Providing information, including reminders, templates, and tips to reduce overall waste, as well as on how to make space for separate containers.
 - For restaurants, tools and resources to help reduce the amount of food waste in their garbage.
3. These supports and communications should be communicated through The City, property managers, and haulers (for those who hire contractors to haul their recyclable or compostable waste).



Detailed Findings: Awareness and Compliance



Types of Waste at Calgary Businesses

Paper and cardboard is the most common type of waste, present at almost all Calgary businesses. Six in 10 Calgary businesses have *food and beverage consumption-related waste*, both compostable and recyclable. Wood pallets, scrap metal, and yard waste are less common—present at 1 in 5 businesses.

% have the type of waste at location	Calgary											
	Base	481	Manufacturing / Warehousing / Transportation	51	Accommodation / Food service	126	Retail	125	Health care / Social assistance	50	Other	129
Paper and cardboard	96%	96%	98%	94%	96%	95%						
Refundable beverage containers	64%	63%	83% ↑	50% ↓	62%	62%						
Other compostable materials paper napkins, paper plates, tissues	64%	49% ↓	85% ↑	55% ↓	66%	63%						
Recyclable plastic, glass and metal containers other than refundable containers	61%	59%	67%	60%	64%	54%						
Food waste scraps, fruit and vegetable peels, plate scrapings	60%	39% ↓	90% ↑	52% ↓	64%	57%						
Wood pallets	23%	41% ↑	17%	42% ↑	2% ↓	12% ↓						
Scrap metal	21%	53% ↑	10% ↓	24%	6% ↓	12% ↓						
Yard waste grass clippings, small branches	18%	14%	18%	18%	18%	25%						

Base (2020): Calgary businesses; varies by sector.

Q8a (2020). Which of the following types of waste do you have at your location?

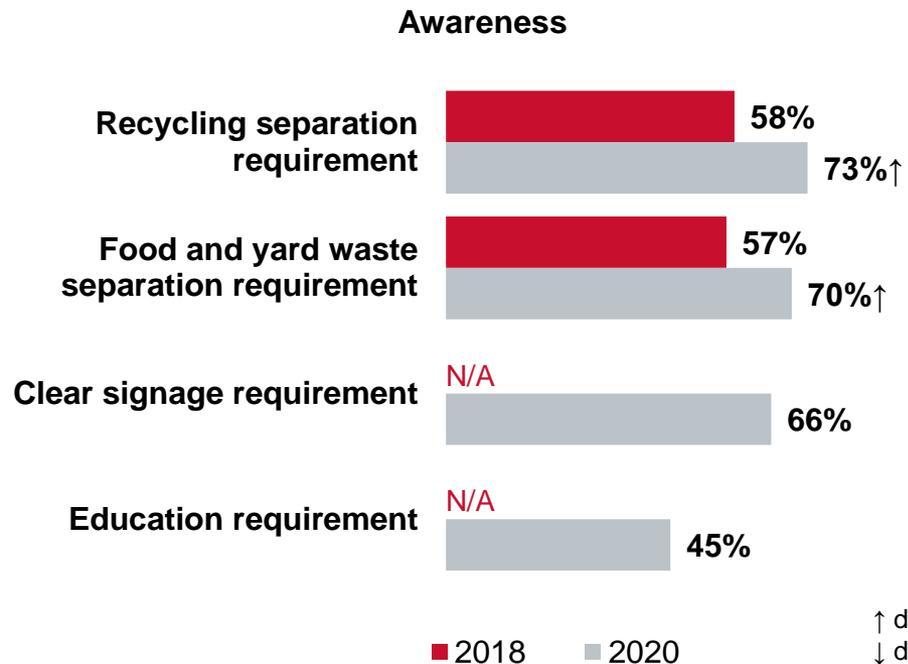
↑ denotes a significantly higher number than all others combined

↓ denotes a significantly lower number than all others combined



Awareness of Bylaws

Awareness of the education requirement is highest in the accommodation and food services sector (60%, and 56% among restaurants), and lowest in the manufacturing sector (33%). Businesses in accommodation and food services are also most aware of the food and yard waste separation requirement (79%). Awareness of the recycling separation requirement is consistent throughout each of the sectors.



↑ denotes a significant increase since 2018
 ↓ denotes a significant decrease since 2018

Base: Calgary businesses (2018 n=300; 2020 n=481)

Q14 (2020). Prior to now, which of the following measures were you aware of? (1) As of 2016, a bylaw came into effect that requires all businesses and organizations in Calgary to recycle the same materials we do at home plus materials specific to commercial waste such as scrap metal and wood pallets. (2) As of 2017, a bylaw came into effect that requires all businesses and organizations in Calgary to separate food and yard waste, and soiled paper such as napkins and tissues, from the garbage for composting or diversion. (3) All businesses and organizations in Calgary must provide clear signage on all collection containers showing what materials can be deposited in each bin. (4) All businesses and organizations in Calgary must provide information to employees at least once per year on the list of materials that need to be separated from their garbage, where they are collected, and how to properly sort and prepare them for diversion

Q16 (2018). Over the next past five years, The City of Calgary is has introduced introducing a series of measures to encourage businesses and organizations to reduce, recycle and compost. Before today, have you heard about... (a) Increased City landfill fees for garbage that contains paper and cardboard (b) Increased City landfill fees for garbage that contains food and yard waste (c) Bylaw changes that will require on-site separation of recyclables (d) Bylaw changes that will require on-site separation of food and yard waste



Awareness of Bylaws by Sector

Awareness of the education requirement is highest in the accommodation and food services sector (60%, and 56% among restaurants), and lowest in the manufacturing sector (33%). Businesses in accommodation and food services are also most aware of the food and yard waste separation requirement (79%). Awareness of the recycling separation requirement is consistent throughout each of the sectors.

	n	Recycling separation requirement	Food and yard waste separation requirement	Clear signage requirement	Education requirement
All Calgary businesses	481	73%	70%	66%	45%
 Manufacturing / Warehousing / Transportation	51	73%	61%	69%	33% ↓
 Accommodation / Food service	126	70%	79% ↑	72%	60% ↑
 Restaurants	91	70%	77%	70%	56% ↑
 Retail	125	78%	74%	65%	51%
 Retail Stores Excluding Grocery	75	79%	72%	59%	47%
 Health care / Social assistance	50	74%	72%	68%	44%
 Other	129	71%	64%	55% ↓	39%
 Offices	77	74%	64%	56%	36%

Base (2020): Calgary businesses.

Q14 (2020). Prior to now, which of the following measures were you aware of?

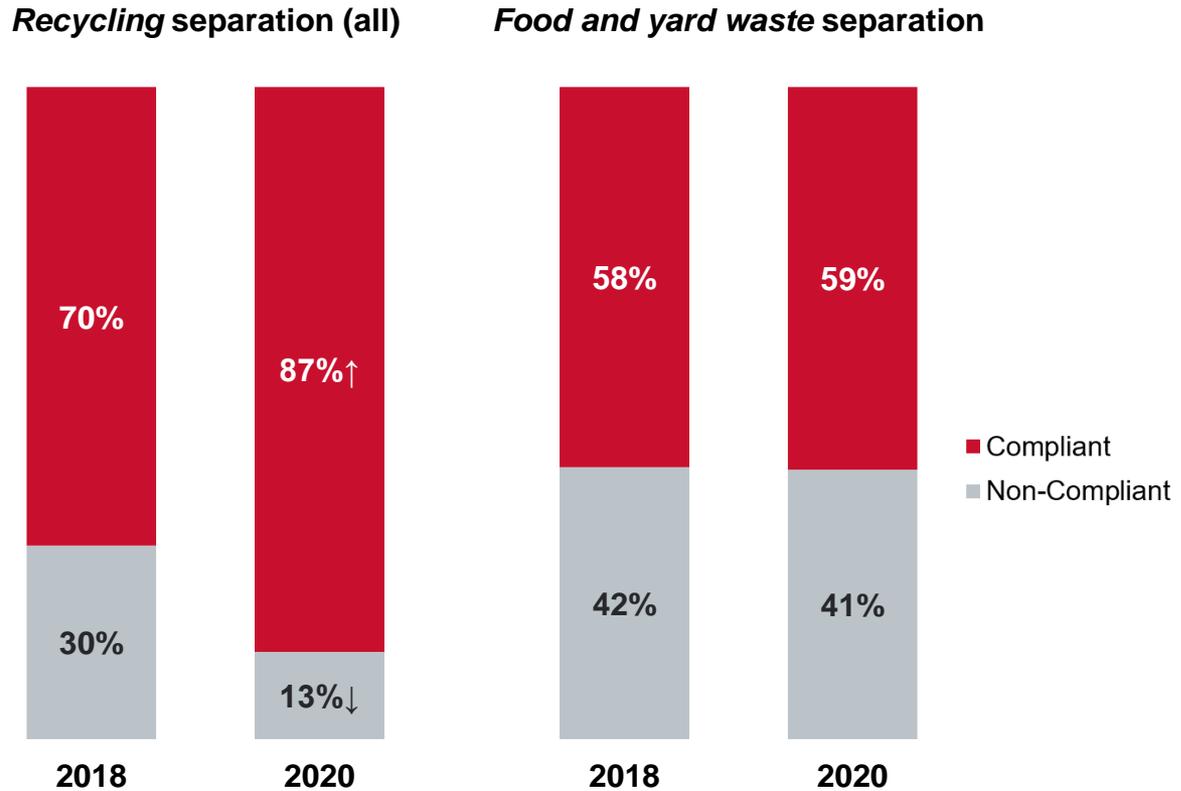
↑ denotes a significantly higher number than all others combined

↓ denotes a significantly lower number than all others combined



Compliance with Bylaws: 2018 vs. 2020

Compliance with recycling separation is up compared to 2018 (from 70% to 87% in 2020), while compliance with food and yard waste separation has remained stable (at just under 6 in 10).



Base: Calgary businesses (2018 n=300; 2020 n=481). Please [see the appendix for a description of compliance calculations.](#)

Note: “Food or yard waste” option from 2018 was separated into the three separate types of waste in the 2020 wave.

Q8 (2020). Within your location, do you.. **[b]** separate any of the following materials from your garbage to keep it out of the landfill?

[c] have clearly marked bins to collect recyclable materials separate from your garbage?

[d] have clearly marked bins to collect compostable materials separate from your garbage?

↑ denotes a significant increase since 2018

↓ denotes a significant decrease since 2018



Compliance with Bylaws by Sector

One-quarter of Calgary-based businesses are fully compliant with the bylaws.

Restaurants, and the *Accommodation / Food service* sector overall, are most compliant compared to other businesses, in terms of both separating recyclables and compostables and displaying proper signage and educating staff.

	n	Total* compliance	Recycling separation (all)	Food and yard waste separation	Signage compliance	Education compliance	Signage and education compliance
All Calgary businesses	481	27%	87%	59%	62%	52%	40%
 Manufacturing / Warehousing / Transportation	51	20%	86%	45% ↓	59%	49%	33%
 Accommodation / Food service	126	38% ↑	85%	75% ↑	69%	66% ↑	53% ↑
 Restaurants	91	38% ↑	86%	73% ↑	74% ↑	68% ↑	57% ↑
 Retail	125	25%	83%	56%	55%	52%	40%
 Retail Stores Excluding Grocery	75	21%	85%	59%	45% ↓	49%	35%
 Health care / Social assistance	50	28%	88%	54%	68%	48%	40%
 Other	129	24%	91%	63%	61%	43% ↓	34%
 Offices	77	23%	92%	66%	60%	44%	32%

Base (2020): Calgary businesses (varies by (sub)sector)

Q8 (2020). Within your location, do you.. [b] separate any of the following materials from your garbage to keep it out of the landfill? [c] have clearly marked bins to collect recyclable materials separate from your garbage?

[d] have clearly marked bins to collect compostable materials separate from your garbage?

*Compliance for both *recycling* and *food and yard waste*.

Note: please [see the appendix for a description of compliance calculations](#).

↑ denotes a significantly higher number than all others combined

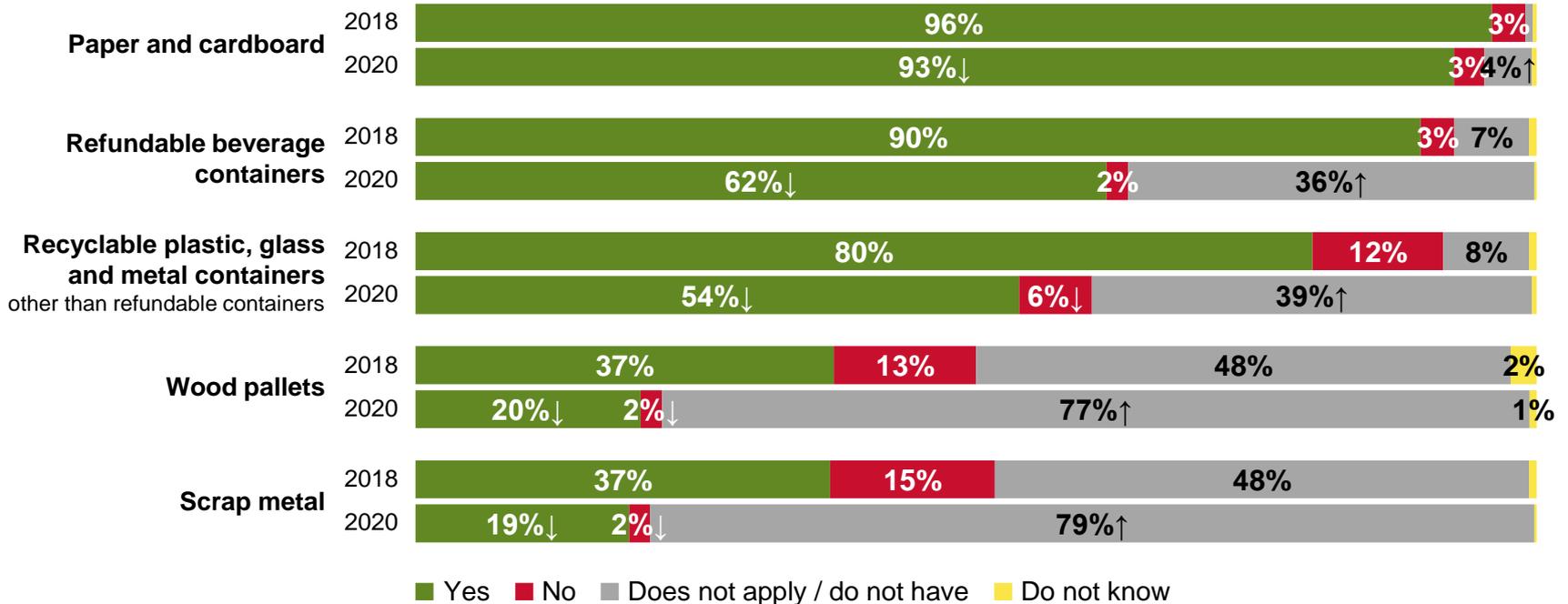
↓ denotes a significantly lower number than all others combined



Compliance with Bylaws: *Recyclables*

In 2018, businesses were asked which of each of the types of waste they separate and needed to volunteer if they didn't have a specific type of waste. In 2020, businesses were asked first which of each of the types of waste they have prior to asking which of those they separate. This approach ensured that businesses were only asked about separating types of waste they have at their location, thereby increasing accuracy, but also leading to more businesses indicating that they did not have several types of waste.

Separation of *Recyclables* from garbage among Calgary businesses



Base: Calgary businesses (2018 n=300; 2020 n=481)

↑ denotes a significant increase since 2018

Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill? ↓ denotes a significant decrease since 2018

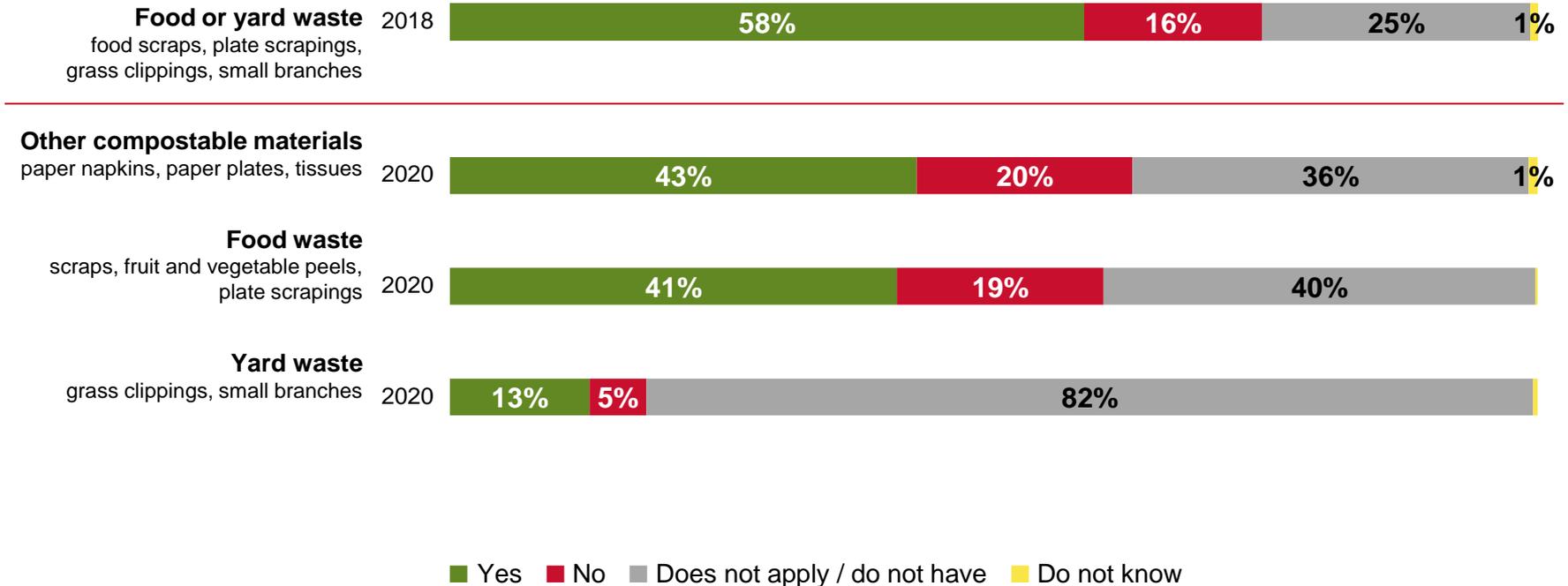


Compliance with Bylaws: *Compostables*

Around 4 in 10 Calgary businesses separate food waste and other compostable materials. Over half of businesses have these types of waste at their location.

Yard waste is present at less than 1 in 5 businesses, with around three quarters of them separating yard waste from garbage.

Separation of *Compostables* from garbage among Calgary businesses



Base: Calgary businesses (2018 n=300; 2020 n=481)

Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?

Note: "Food or yard waste" option from 2018 was separated into the three separate types of waste in the 2020 wave.



Types of Waste at Calgary Businesses: Comparing “Does not apply” 2018 vs. 2020

To illustrate how the revised approach improved accuracy, in 2018 only 45% of *accommodation / food service* businesses indicated that they do not have scrap metal, compared to 90% in 2020, which would seem to be more in line with the services provided by these businesses.

		% Does not apply (2018) / Do not have (2020)	Calgary	Manufacturing / Warehousing / Transportation	Accommodation / Food service	Retail	Health care / Social assistance	Other
Base	2018		300	60	60	60	60	60
	2020		481	51	126	125	50	129
Paper and cardboard	2018		1%	0%	0%	2%	0%	2%
	2020		4% ↑	4%	2%	6%	4%	5%
Refundable beverage containers	2018		7%	10%	2%	5%	8%	8%
	2020		36% ↑	37% ↑	17% ↑	50% ↑	38% ↑	38% ↑
Other compostable materials paper napkins, paper plates, tissues	2018		-	-	-	-	-	-
	2020		36%	51%	15%	45%	34%	37%
Recyclable plastic, glass and metal containers other than refundable containers	2018		8%	5%	5%	10%	7%	12%
	2020		39% ↑	41% ↑	33% ↑	40% ↑	36% ↑	46% ↑
Food waste scraps, fruit and vegetable peels, plate scrapings	2018		-	-	-	-	-	-
	2020		40%	61%	10%	48%	36%	43%
Wood pallets	2018		48%	18%	53%	43%	77%	47%
	2020		77% ↑	59% ↑	83% ↑	58%	98% ↑	88% ↑
Scrap metal	2018		48%	28%	45%	58%	70%	37%
	2020		79% ↑	47% ↑	90% ↑	76% ↑	94% ↑	88% ↑
Yard waste grass clippings, small branches	2018		-	-	-	-	-	-
	2020		82%	86%	82%	82%	82%	75%

Base (2018, 2020): Calgary businesses; varies by sector.

Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?

Q8a (2020). Which of the following types of waste do you have at your location?

↑ denotes a significant increase since 2018

↓ denotes a significant decrease since 2018



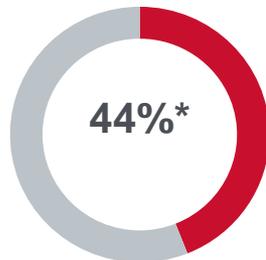
Compliance with Bylaws: Clearly Marked Bins On Site for *Recyclables* and *Compostables*

Among the small handful of businesses that do not have or indicate initially that they do not separate any of their recyclables, 4 in 10 do still have clearly marked bins for recyclables.

Among businesses that do not have or indicate initially that they do not separate any of their food waste and other compostable materials (other than yard waste), 4 in 10 do still have clearly marked bins for compostables on-site.

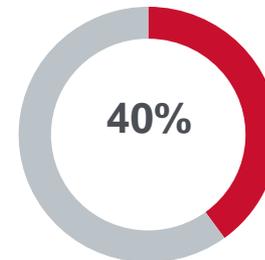
Clearly marked bins for *recyclables*

Among businesses who do not have or do not separate *recyclables*, 4 in 10* have clearly marked bins



Clearly marked bins for *compostables*

Among businesses who do not have or do not separate *compostables*, 4 in 10 have clearly marked bins



Base (2020): Calgary businesses that do not have any type of waste, or do not separate recyclables other than scrap metal or wood pallets or food or other compostable waste other than yard waste (recyclables n=17*; compostables n=191).

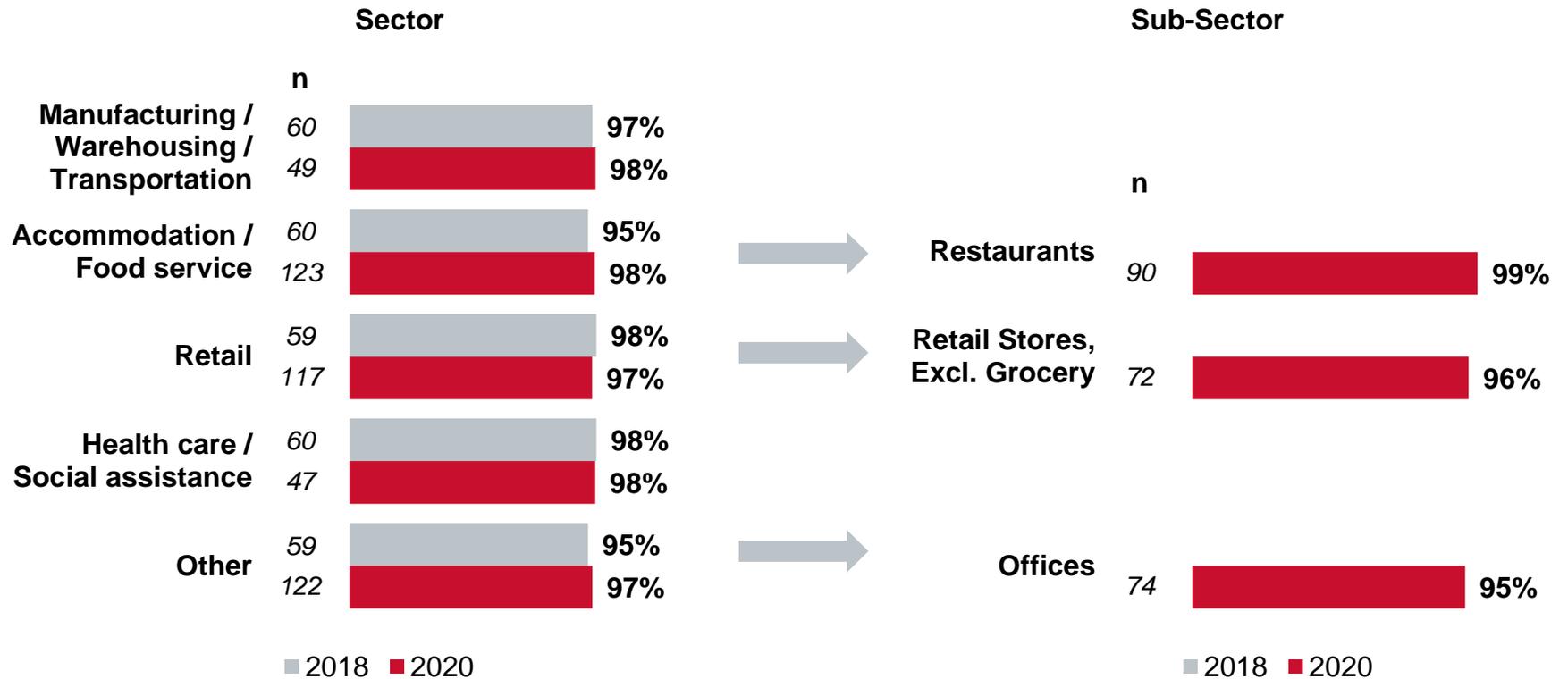
* Small base size, interpret with caution.

Q8 (2020). Within your location, do you have clearly marked bins to collect [c] recyclable / [d] compostable materials separate from your garbage?



Separation of *Paper and Cardboard*: 2018 vs. 2020

Paper and cardboard are overwhelmingly separated by Calgary-based businesses, in all industry sectors. This 2020 result is consistent with the previous year of data collection, 2018.



Base (2020): businesses that have paper and cardboard; varies by (sub)sector.

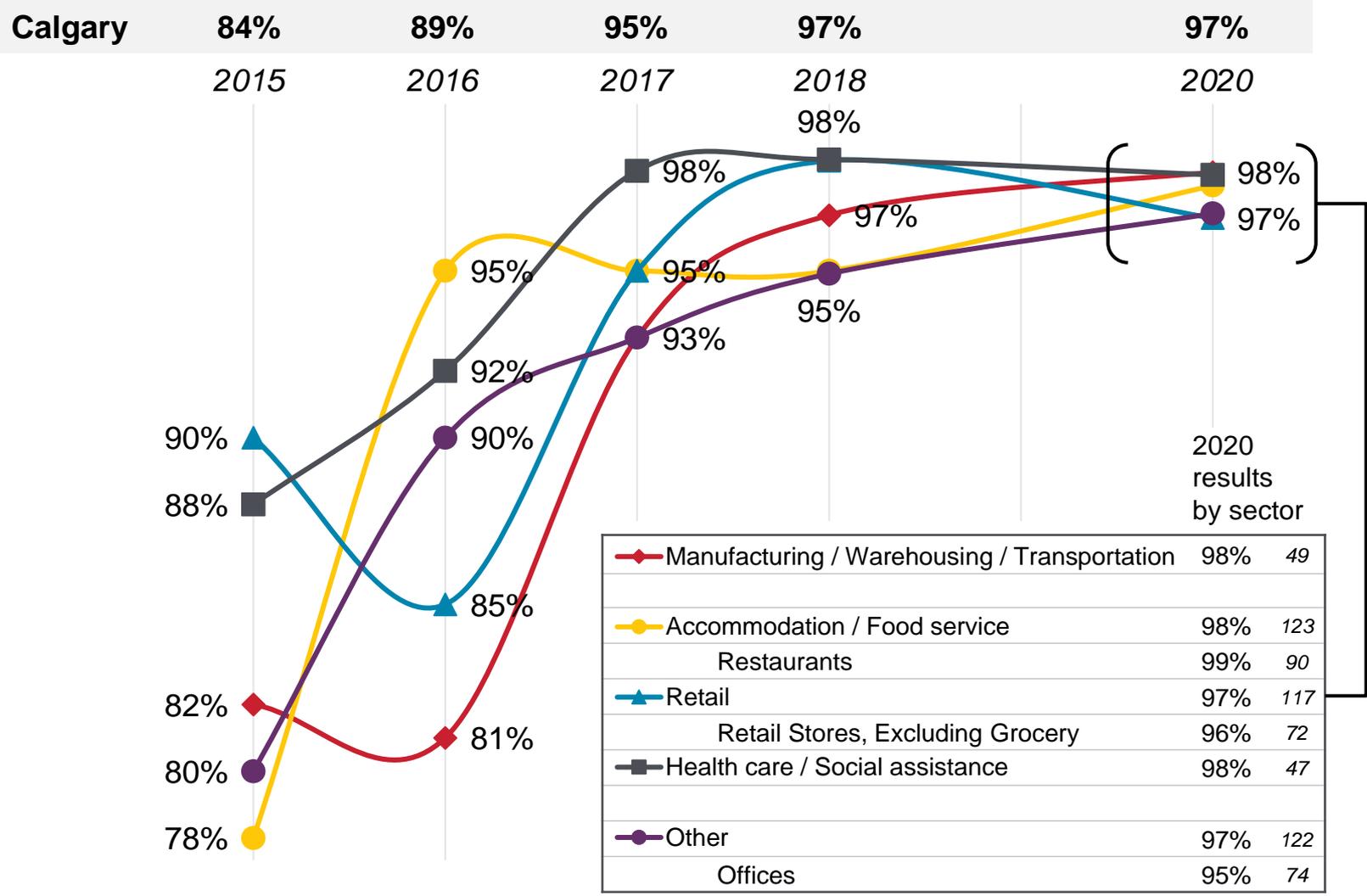
Base (2018): businesses excluding "does not apply"; varies by sector.

* Small base size, interpret with caution.

Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill? ↑ denotes a significant increase since 2018 ↓ denotes a significant decrease since 2018



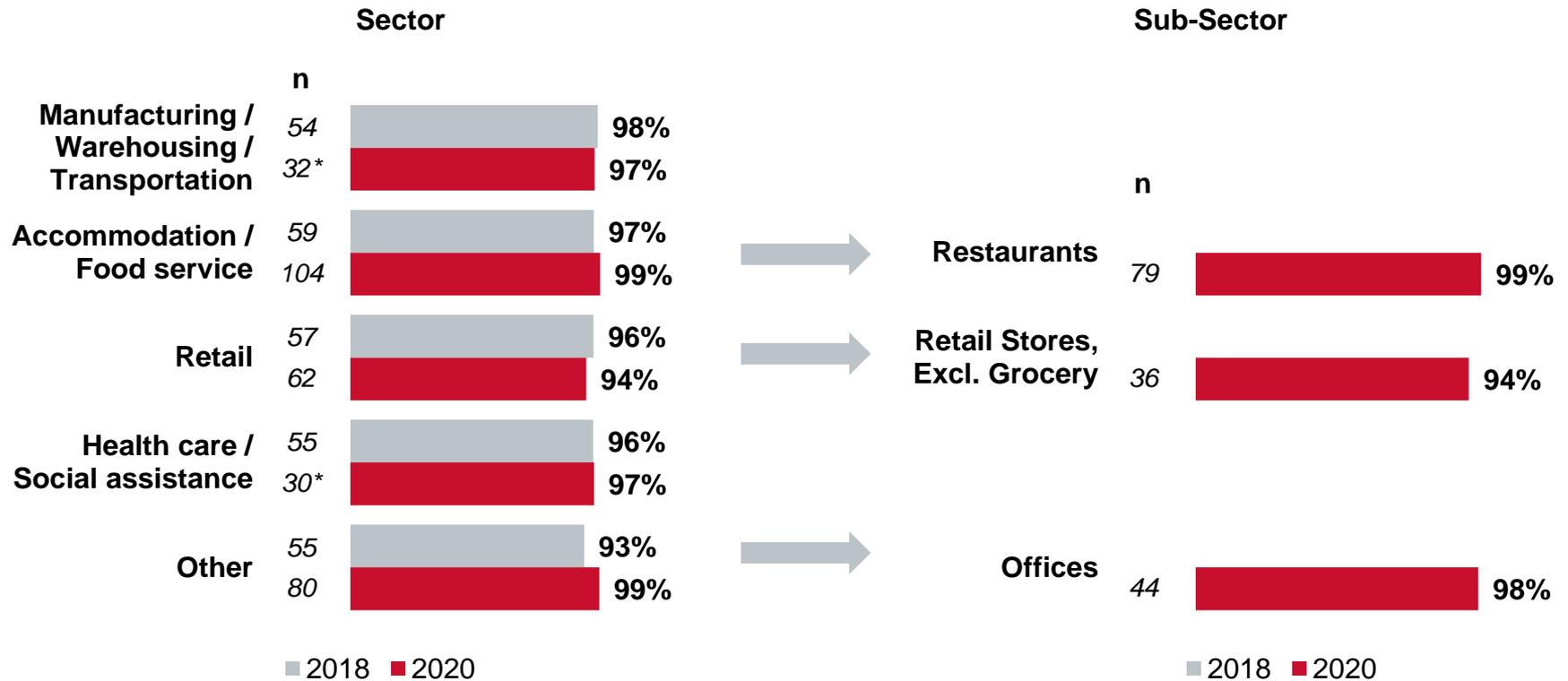
Separation of Paper and Cardboard: 2015 to 2020



Base: Calgary businesses; total base by year: 2015 – n=298, 2016 – n=296, 2017 – n=297, 2018 – n=298, 2020 – n=458; base by sector shown for 2020 only. Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?

Separation of *Refundable Beverage Containers*: 2018 vs. 2020

Consistent with 2018, refundable beverage containers are separated by almost all Calgary businesses.



Base (2020): businesses that have *refundable beverage containers*; varies by (sub)sector.

Base (2018): businesses excluding "does not apply"; varies by sector.

* Small base size, interpret with caution.

↑ denotes a significant increase since 2018

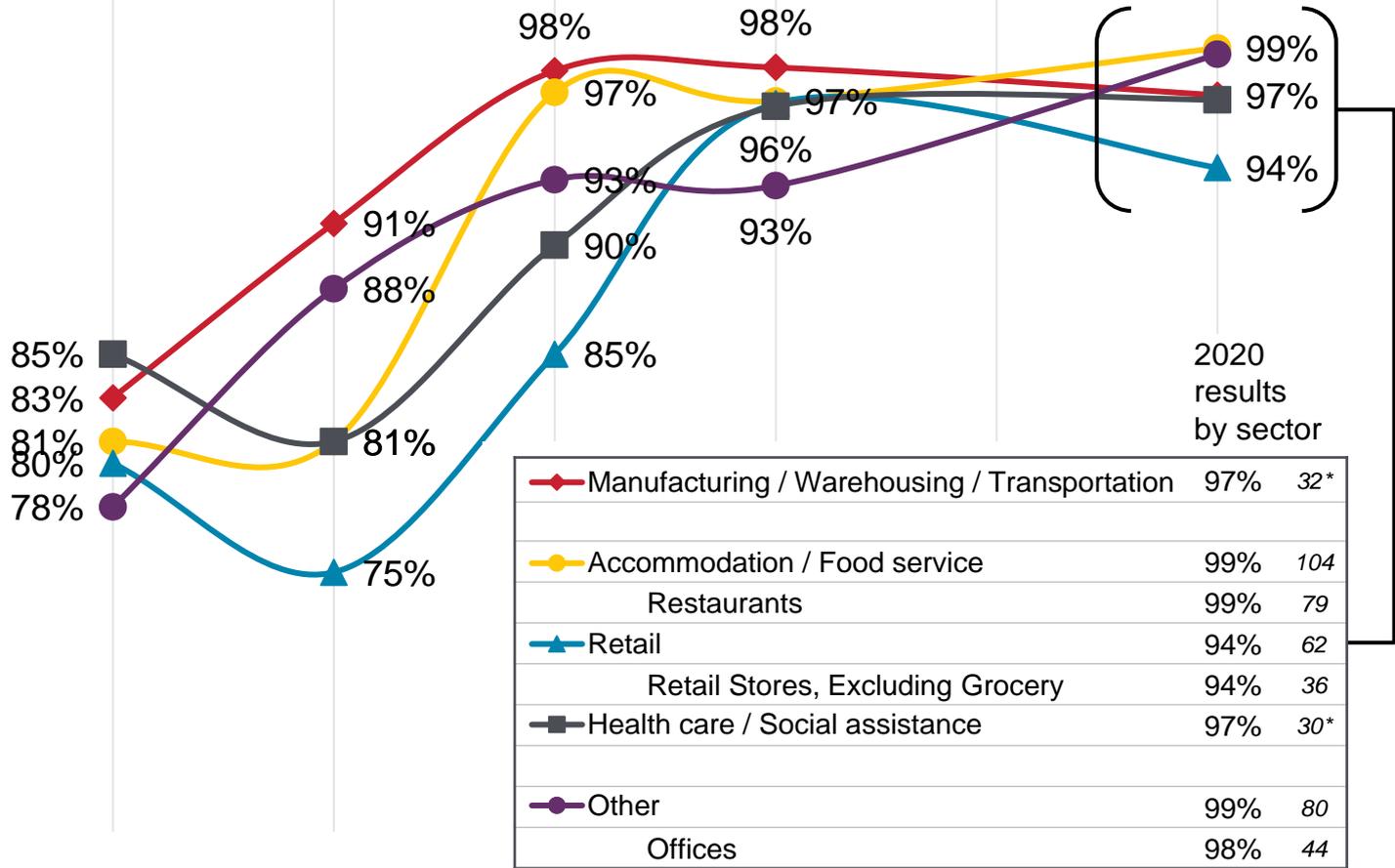
↓ denotes a significant decrease since 2018

Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?



Separation of Refundable Beverage Containers: 2015 to 2020

Calgary	81%	83%	92%	96%	97%
	2015	2016	2017	2018	2020

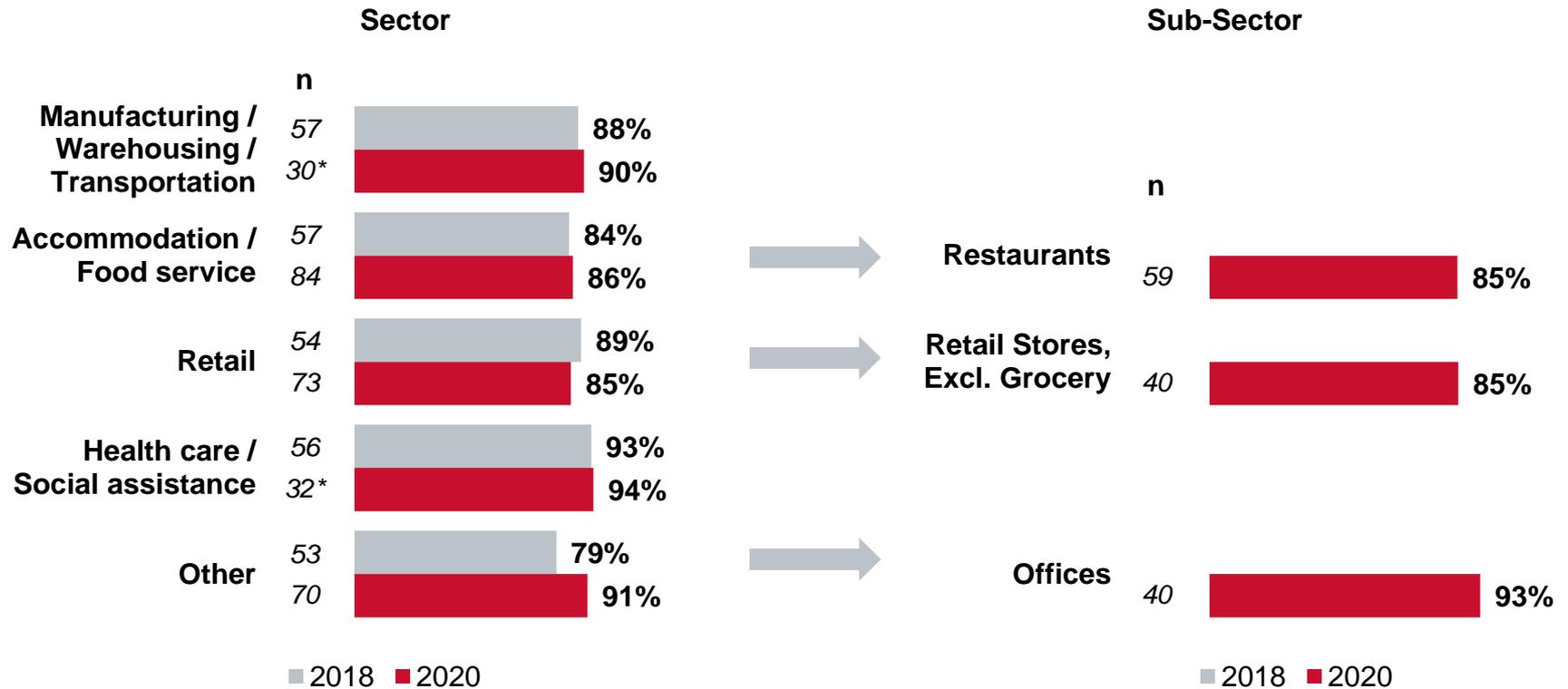


Base: Calgary businesses; total base by year: 2015 – n=294, 2016 – n=288, 2017 – n=292, 2018 – n=280, 2020 – n=308; base by sector shown for 2020 only. * Small base size, interpret with caution. Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?



Separation of *Recyclable Plastic, Glass, Metal Containers*: 2018 vs. 2020

And consistent with 2018 as well, recyclable plastic, glass and metal containers are separated by most Calgary-based businesses across all sectors.



Base (2020): businesses that have recyclable plastic, glass, metal containers; varies by (sub)sector.

Base (2018): businesses excluding "does not apply"; varies by sector.

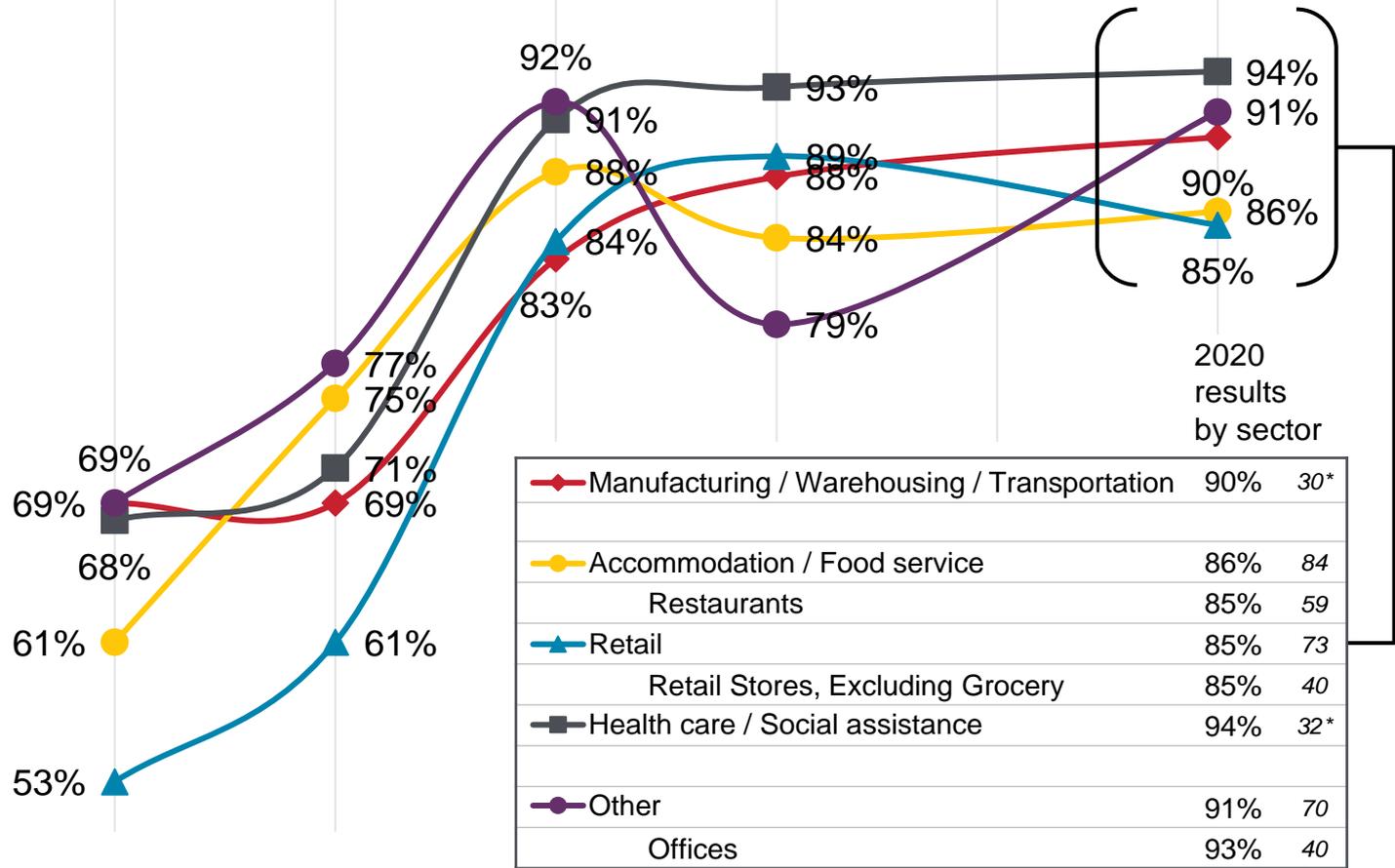
* Small base size; interpret with caution.

Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill? ↑ denotes a significant increase since 2018 ↓ denotes a significant decrease since 2018



Separation of *Recyclable Plastic, Glass, Metal Containers*: 2015 to 2020

Calgary	64%	71%	88%	87%	89%
	2015	2016	2017	2018	2020



Base: Calgary businesses; total base by year: 2015 – n=293, 2016 – n=273, 2017 – n=278, 2018 – n=277, 2020 – n=289; base by sector shown for 2020 only. * Small base size, interpret with caution. Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?

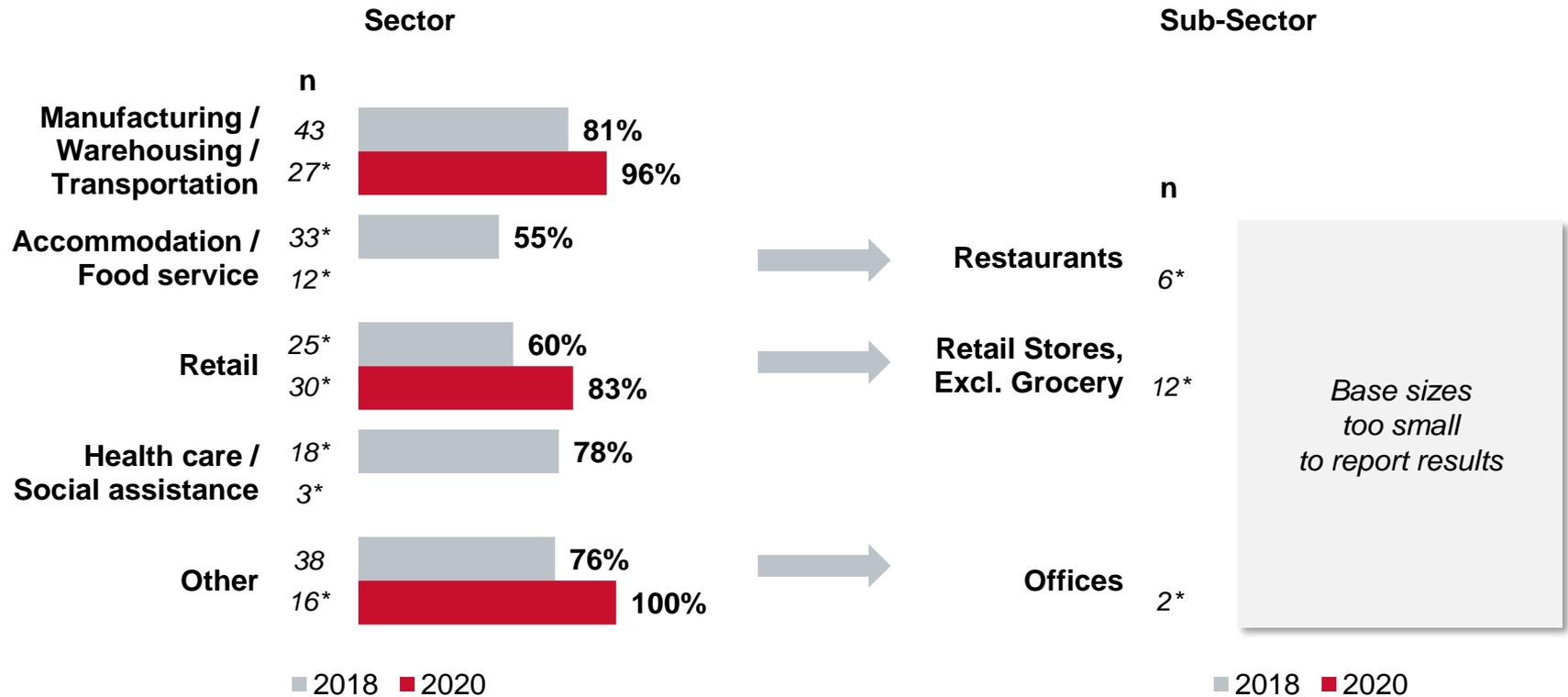


Separation of Scrap Metal: 2018 vs. 2020

Scrap metal is rare outside of the *manufacturing, warehousing, and transportation* sector.

Directionally, scrap metal separation in the *manufacturing* sector appears to have increased compared to 2018.

Throughout the sectors, at least 8 in 10 businesses that have scrap metal separate it from garbage.



Base (2020): businesses that have scrap metal; varies by (sub)sector.

Base (2018): businesses excluding "does not apply"; varies by sector.

* Small base size, interpret with caution. Results for (sub)sectors with base sizes of 15 and under are not reported.

↑ denotes a significant increase since 2018

↓ denotes a significant decrease since 2018

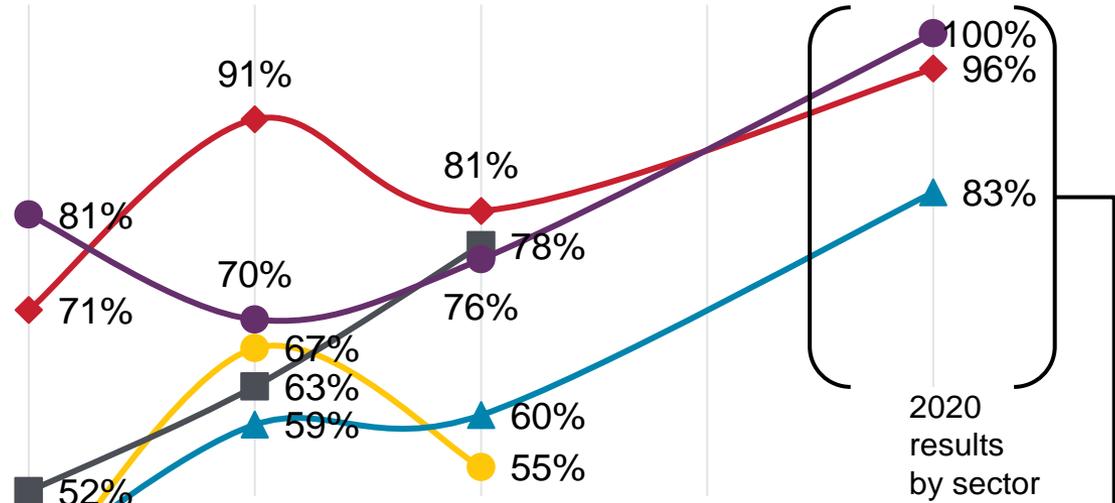
Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?



Separation of Scrap Metal: 2015 to 2020

Calgary

59% 72% 71% 91%↑
2016 2017 2018 2020



Manufacturing / Warehousing / Transportation	96%	27*
Accommodation / Food service	-	12*
Restaurants	-	6*
Retail	83%	30*
Retail Stores, Excluding Grocery	-	12*
Health care / Social assistance	-	3*
Other	100%	16*
Offices	-	2*

Base: Calgary businesses;

total base by year: 2016 – n=175, 2017 – n=156, 2018 – n=157, 2020 – n=88; base by sector shown for 2020 only.

* Small base size, interpret with caution. Results for (sub)sectors with base sizes of 15 and under are not reported.

Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill? ↑ denotes a significant increase since 2018 ↓ denotes a significant decrease since 2018

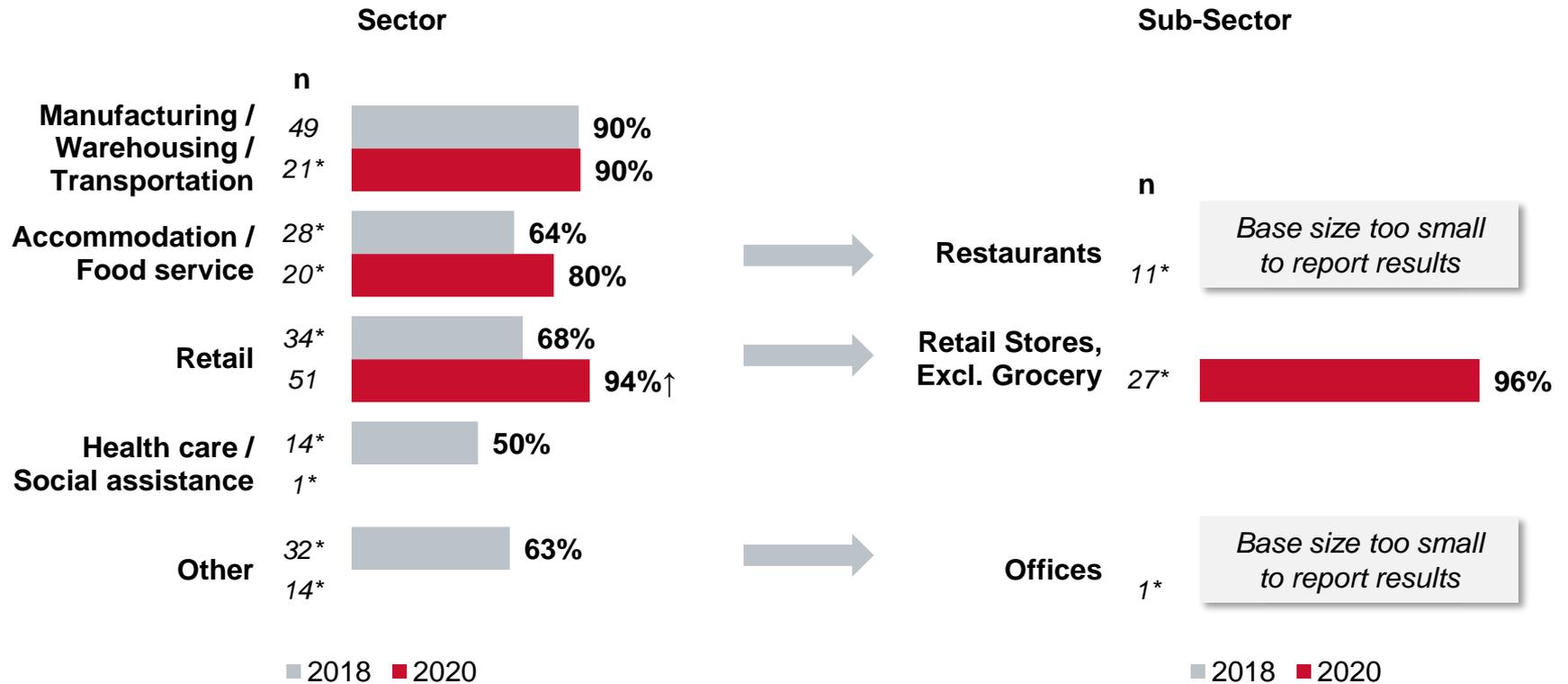


Separation of *Wood Pallets*: 2018 vs. 2020

Similarly, wood pallets are rare in most sectors other than *retail*.

In the *retail* sector, separation of wood pallets has increased compared to 2018.

Throughout the sectors, at least 8 in 10 businesses separate wood pallets in each sector that has them.



Base (2020): businesses that have wood pallets; varies by (sub)sector.

Base (2018): businesses excluding "does not apply"; varies by sector.

* Small base size, interpret with caution. Results for (sub)sectors with base sizes of 15 and under are not reported.

↑ denotes a significant increase since 2018

↓ denotes a significant decrease since 2018

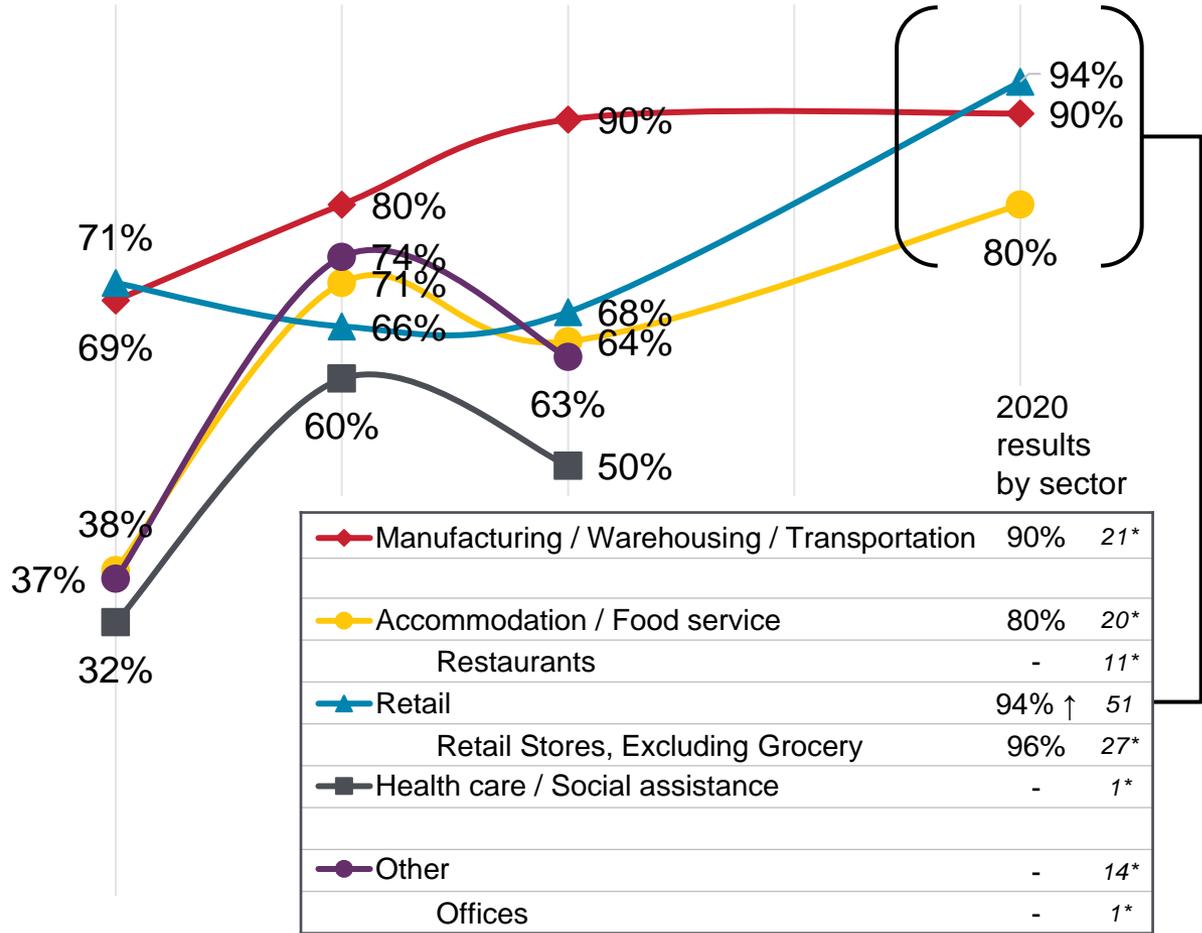
Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?



Separation of *Wood Pallets*: 2015 to 2020

Calgary

54% 72% 71% 91%↑
2016 2017 2018 2020



Base: Calgary businesses;

total base by year: 2016 – n=174, 2017 – n=156, 2018 – n=157, 2020 – n=107; base by sector shown for 2020 only.

* Small base size, interpret with caution. Results for (sub)sectors with base sizes of 15 and under are not reported.

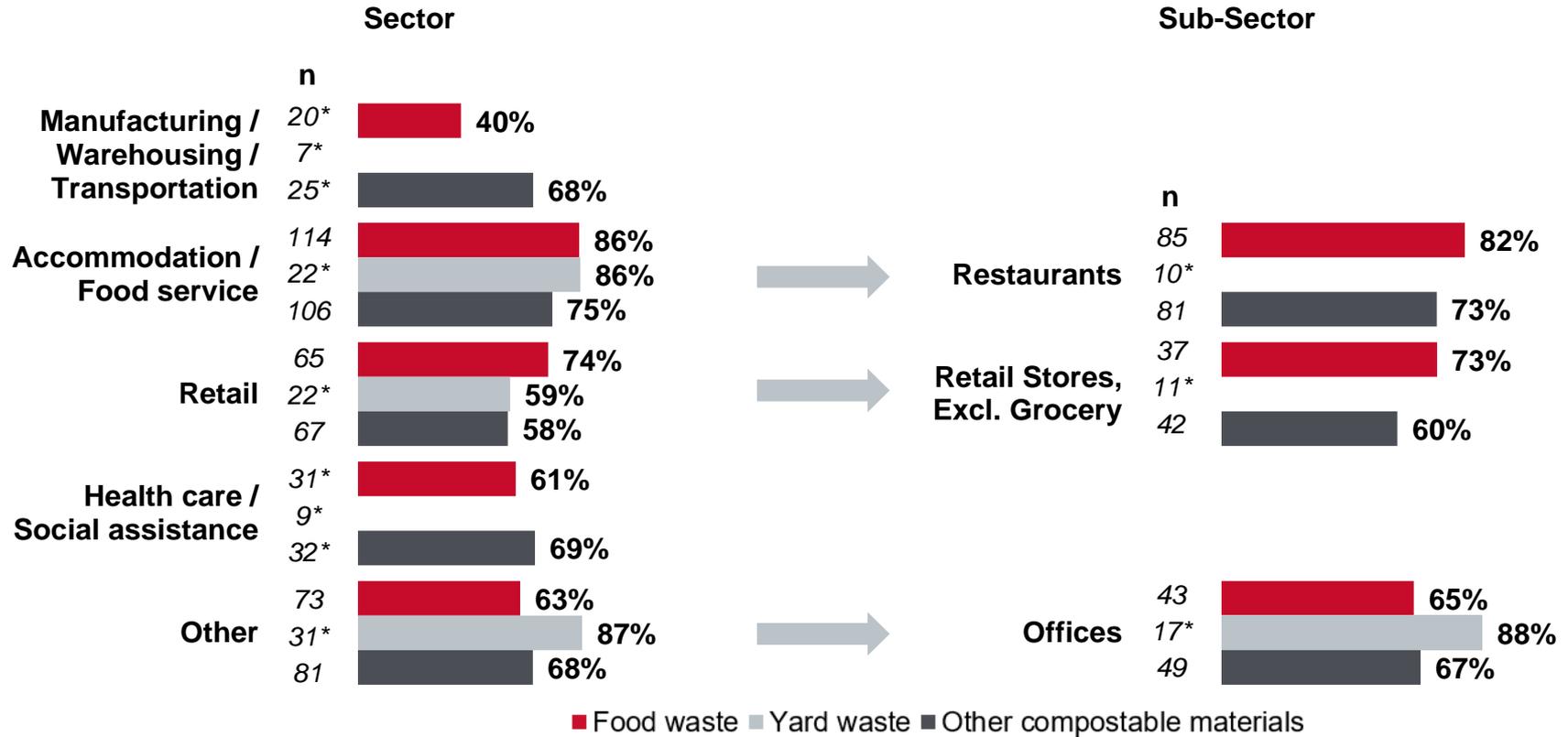
Q8b (2020), Q9 (2018). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill? ↑ denotes a significant increase since 2018 ↓ denotes a significant decrease since 2018



Separation of *Compostables*: 2020

Accommodation / food service and *restaurants* separate their food waste to the greatest degree, compared to other industries. Although few businesses report having yard waste, more than half separate it in all industries.

A comparatively low level of separating food waste in sectors other than *accommodation / food service* presents an opportunity to reduce waste in these sectors.



Base (2020): businesses that have the relevant type of *compostable waste*; varies by (sub)sector. * Small base size; interpret with caution.

Q8b (2020). Within your location, do you separate any of the following materials from your garbage to keep it out of the landfill?

* Small base size, interpret with caution. Results for (sub)sectors with base sizes of 15 and under are not reported.

Note: prior to 2020, food waste, yard waste, and other compostable materials were not asked as separate items; hence, comparison to 2018 (Q9) is not charted.



Restaurants: Separation of *Recyclables* and *Compostables* for Customers

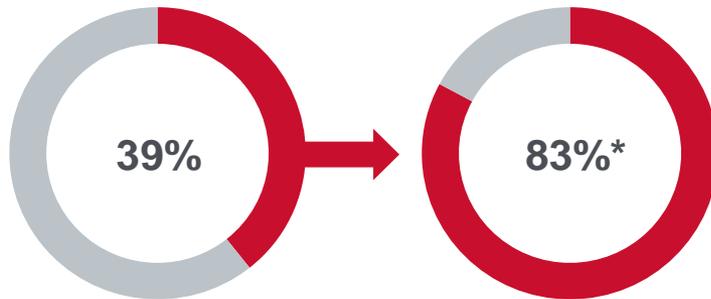
Customers dispose of recyclables and compostables in 4 in 10 Calgary restaurants.

While disposing of the two types of waste is equally prevalent, fewer restaurants have bins for compostable items available — 8 in 10 have bins for recyclables, but only half have bins for compostables.

Separation of *recyclables* in restaurants by customers

Customers dispose of *recyclables* in 4 in 10 Calgary restaurants

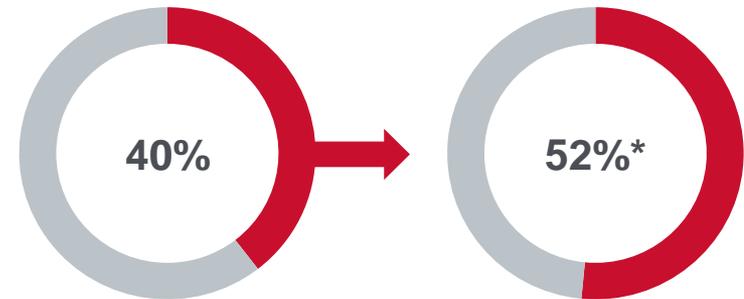
8 in 10* of these restaurants have bins for *recyclables*



Separation of *compostables* in restaurants by customers

Customers dispose of *compostables* in 4 in 10 Calgary restaurants

Half* of these restaurants have bins for *compostables*



Base (2020): Calgary-based restaurants, except “*don't know*” (recyclables n=89; compostables n=86).

Q7 (2020). Does your business have customers that dispose of [a] *recyclable* / [b] *compostable* materials on your premises?

Base (2020): Restaurants where customers dispose of recyclable / compostable materials (recyclables n=35*; compostables n=33*)

* *Small base size, interpret with caution.*

Q11 (2020). Within your location, do you have bins for your customers for [a] *recyclable materials* / [b] *compostable items such as food scraps or paper towels*?



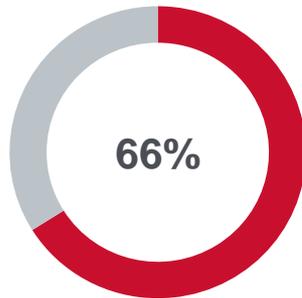
Signage and Training for Employees

Among Calgary businesses that separate recyclables, food, and yard waste, 2 in 3 post clear signs that show what materials can be deposited in each bin, and just over half (56%) provide annual training to their employees on what materials are accepted, where, and how to sort them.

(In 2018, 61% of Calgary businesses posted signs to educate their employees about where to dispose of different materials, and 47% provided ongoing training for current employees about why or how to divert waste from landfill)

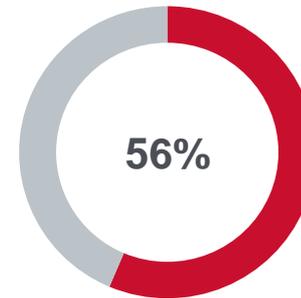
Clear signage on collection containers

2 in 3 post clear signage on collection containers



Annual employee training

Over half train employees annually on sorting materials



Base (2020): Calgary businesses that separate recyclables, food, and yard waste, excluding “don’t know/not sure” (signage n=454, training n=440).

Q10 (2020). Does your organization...

[a] Post clear signage on collection containers, showing what materials can be deposited in each bin;

[b] Provide information to employees on an annual basis on the list of materials accepted, how to sort materials, and where they are collected.

Base (2018): Calgary businesses that separate any type of material, excluding “don’t know” (signage n=298, training n=298).

Q11 (2018). Does your organization...

[a] Post signs about where to dispose of the different materials that you separate from your garbage

[c] Provide ongoing training for your current employees about why or how to divert waste from landfill



Signage and Training for Employees by Sector

Businesses in the *Accommodation / Food service* sector (including *Restaurants*) are most likely to provide annual employee training on how to sort materials, and *Restaurants* are most likely to post clear signage on their collection containers, as well.

Retail stores (other than grocery stores) are least likely to post clear signage on collection containers.

	n	Clear signage on collection containers	n	Annual employee training on sorting materials
Calgary businesses separating recycling, food, yard waste	454	66%	440	56%
 Manufacturing / Warehousing / Transportation	50	60%	48	52%
 Accommodation / Food service	120	73%	114	73% ↑
 Restaurants	88	76% ↑	84	74% ↑
 Retail	119	58%	116	56%
 Retail Stores Excluding Grocery	72	47% ↓	71	52%
 Health care / Social assistance	46	74%	45	53%
 Other	119	66%	117	48%
 Offices	70	66%	69	49%

Base (2020): Calgary businesses that separate recyclables, food, and yard waste, excluding “don’t know/not sure”.

Q10 (2020). Does your organization...

[a] Post clear signage on collection containers, showing what materials can be deposited in each bin;

[b] Provide information to employees on an annual basis on the list of materials accepted, how to sort materials, and where they are collected.

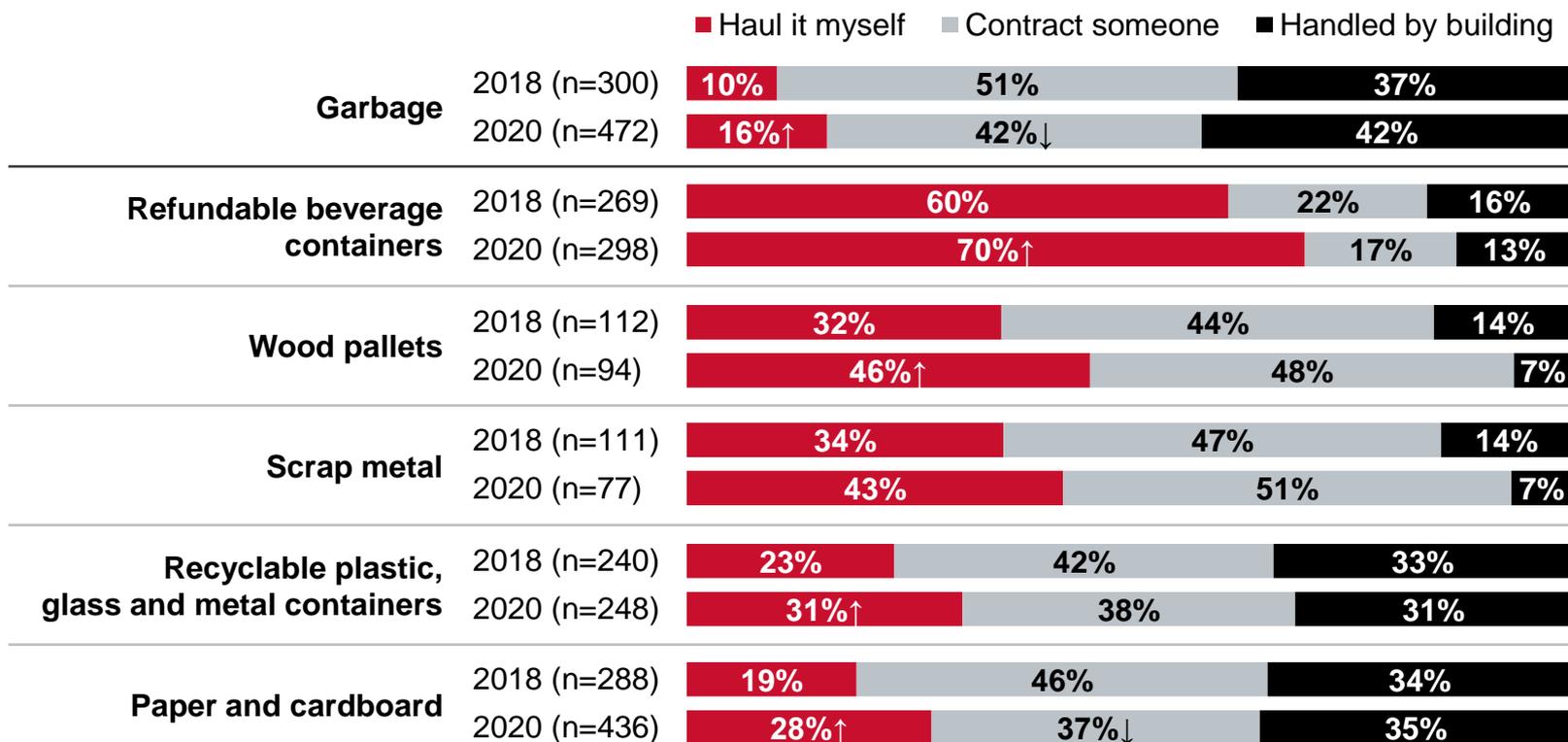
↑ denotes a significantly higher number than all others combined

↓ denotes a significantly lower number than all others combined



Responsibility for Removing Garbage and Recyclables: 2018 vs. 2020

In 2020, more businesses indicate that they haul their waste themselves, including garbage and all types of recyclables other than scrap metal, compared to 2018.



Base: Calgary businesses that separate each type waste, excluding "don't know". Q12 (2020), Q10 (2018). I will now read the list of items that you separate from your garbage, and ask how your organization handles the removal of each item.

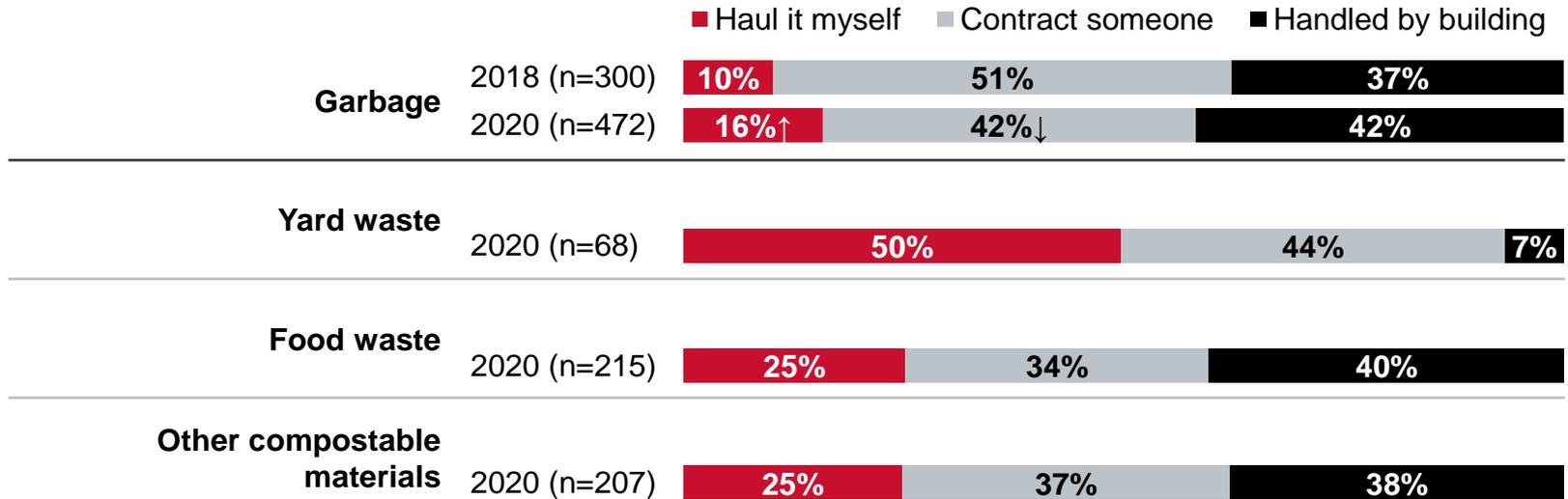
Base: Calgary businesses, excluding "don't know". Q13 (2020), Q8 (2018). To the best of your knowledge, how is garbage removal handled at your location? **Note:** some percentages may not add up to 100% due to rounding.

↑ denotes a significant increase since 2018
↓ denotes a significant decrease since 2018



Responsibility for Removing Garbage and Compostables: 2018 vs. 2020

Around half of Calgarian businesses haul yard waste away themselves; most others hire a contractor. A quarter of businesses haul food waste and other compostables themselves, with around one in three hiring a contractor.



Base: Calgary businesses that separate each type waste, excluding “don’t know”. **Q12 (2020), Q10 (2018).** I will now read the list of items that you separate from your garbage, and ask how your organization handles the removal of each item.

Base: Calgary businesses, excluding “don’t know” **Q13 (2020).** To the best of your knowledge, how is garbage removal handled at your location? **Note:** Q12 (2020) comparison to Q8 (2018) is not charted because “Food and yard waste” was asked as a single option. some percentages may not add up to 100% due to rounding.

↑ denotes a significant increase since 2018
 ↓ denotes a significant decrease since 2018

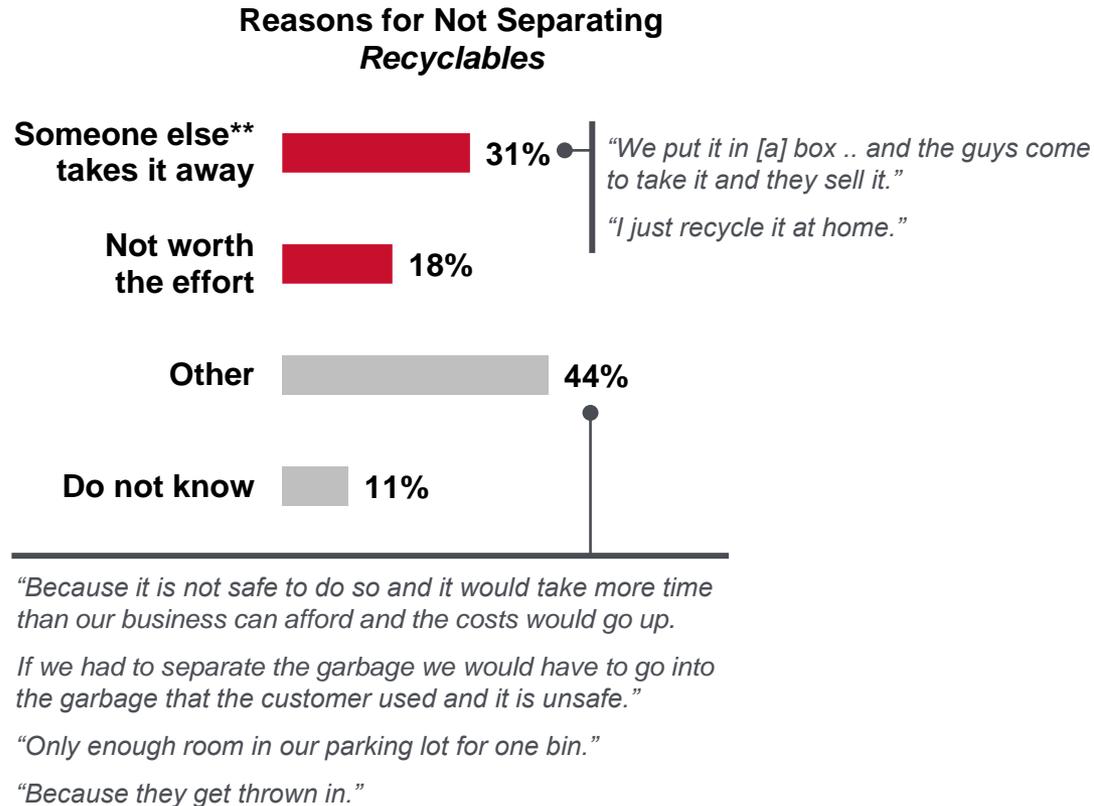


Detailed Findings: Barriers to Compliance



Reasons for Not Separating *Recyclables* (Unaided)

Very few do not separate recyclables at all; among them, most have alternative arrangements (someone other than the business or a contractor takes away the recycling) or other varied and situation-specific reasons (from not enough space for an extra bin to time and cost concerns). However, just 18%* think recycling is not worth the effort.



Base: Calgary businesses that do *not* separate the recyclable materials that they have on-site (n=20*)

* Small base size, interpret with caution. **Someone other than the business location or a contractor.

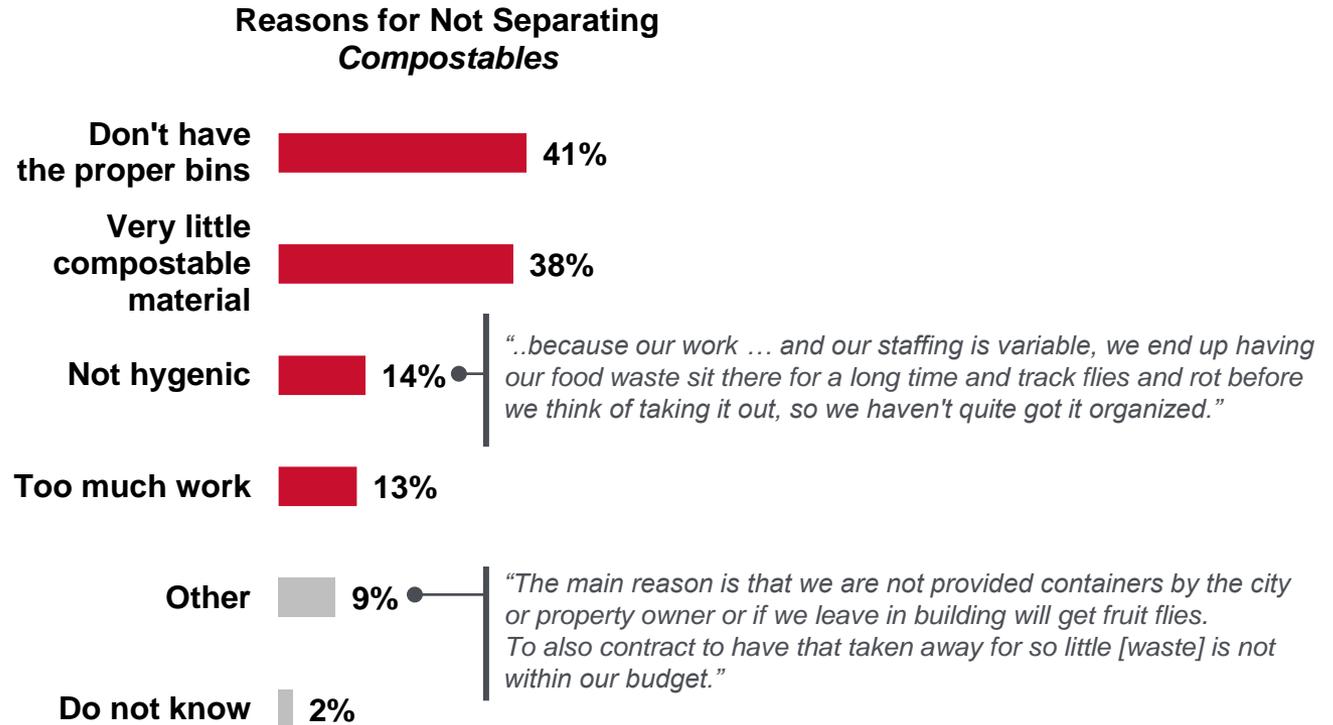
Q9 (2020). Why don't you separate [a] recyclable materials from your garbage?



Reasons for Not Separating *Compostables* (Unaided)

4 in 10 among those not composting say they do not have the required bins or believe they do not have enough compost.

Related concerns include encountering odors before a bin can be filled fully; hygiene concerns, particularly for materials left by customers; and a lack of time or staff resources to separate compost.



Base: Calgary businesses that do not separate the compostable materials that they have on-site (n=128)
Q9 (2020). Why don't you separate **[b]** compostable materials from your garbage?



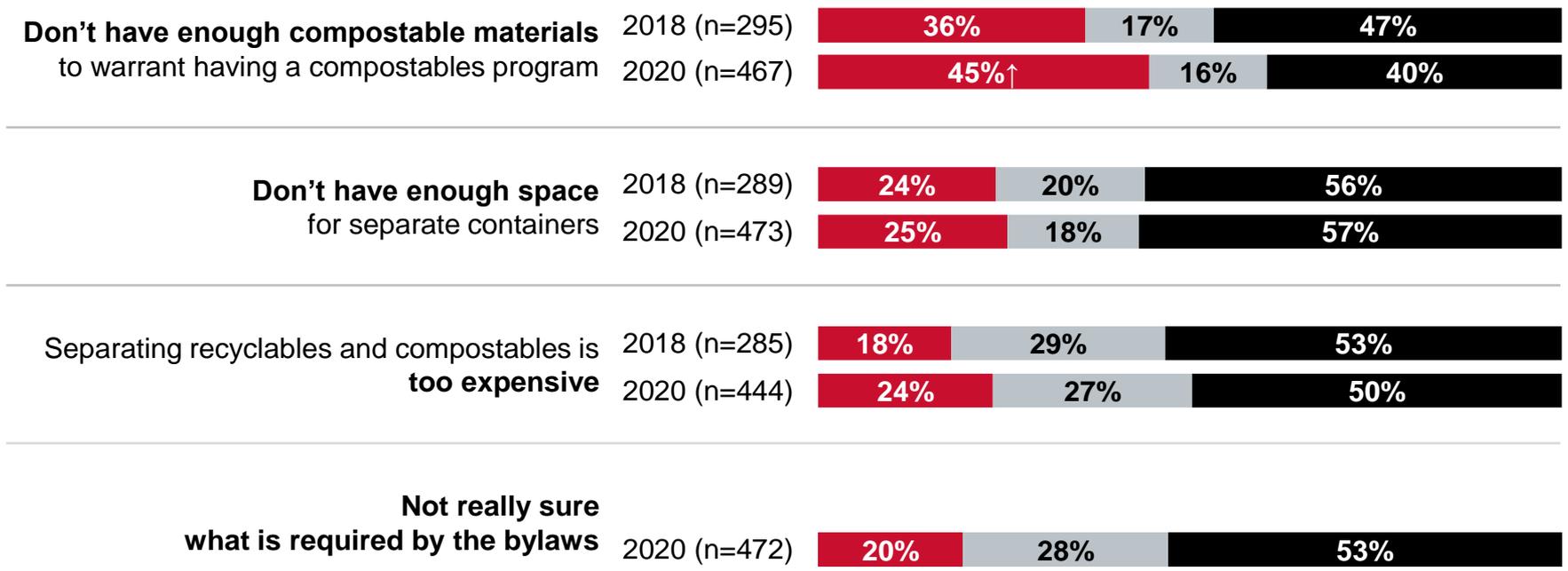
Challenges to Compliance (1/3)

The top barrier to complying with the bylaws is the perception that the business or organization does not have enough compostable materials to warrant composting — for over 4 in 10 Calgary businesses.

One-quarter of businesses cite space limitations and a similar number cite perceived cost as barriers to complying with the bylaws.

1 in 5 businesses are not fully aware of what is required by the bylaws.

■ NET Agree (8-10) ■ NET Neutral (4-7) ■ NET Disagree (1-3)



Base: Calgary businesses, excluding "do not know"

Q15 (2020), Q20 (2018). I am going to read some statements about challenges some businesses have faced in complying with these bylaws. As I read each statement, please tell me how much you agree or disagree using a 10-point scale where 1 means you strongly disagree and 10 means you strongly agree. **Note:** Q20 (2018) rebased to exclude "do not know". Comparisons to Q20 (2018) are charted for similar question items. Showing 2020 answer items. Please [see the appendix for a list of compared items](#).

↑ denotes a significant increase since 2018
 ↓ denotes a significant decrease since 2018



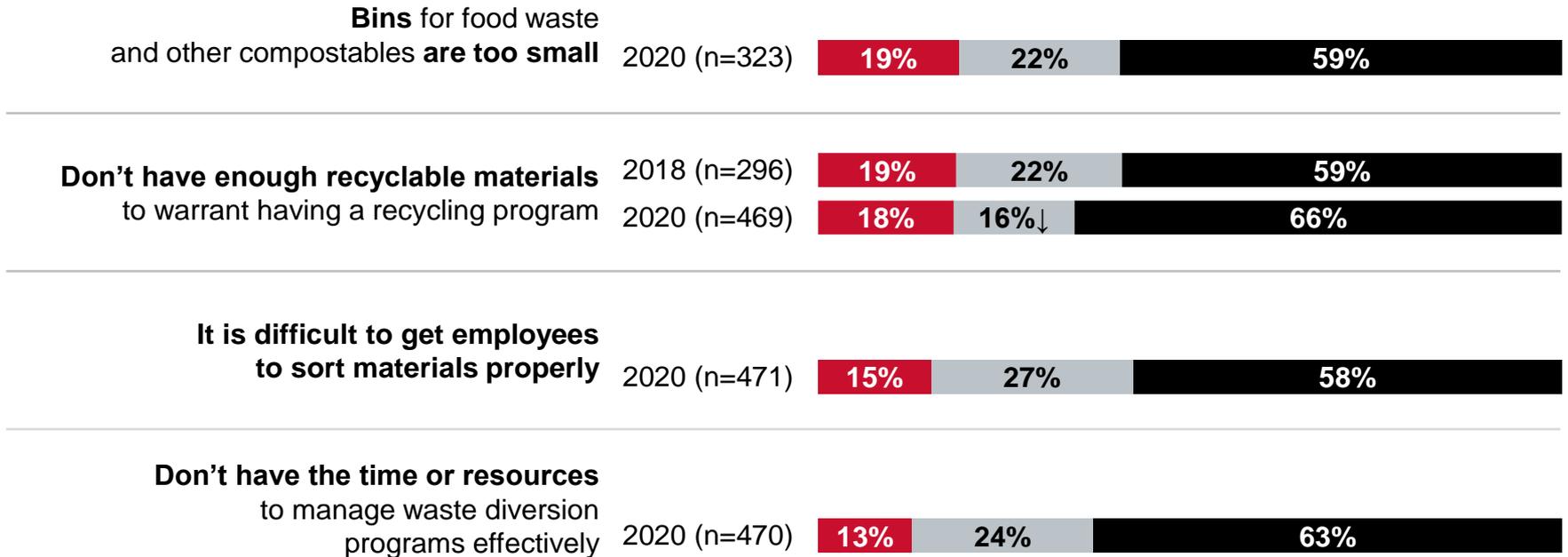
Challenges to Compliance (2/3)

For 8 in 10 businesses, the separate bins for organic materials are not too small.

In contrast to organics — where over 4 in 10 mention they do not have enough of to warrant separating — just 1 in 5 businesses say they do not have enough materials to warrant recycling.

Employee training or lack of resources to manage waste diversion are cited by 15% and 13% of businesses as barriers to complying with the bylaws.

■ NET Agree (8-10) ■ NET Neutral (4-7) ■ NET Disagree (1-3)



Base: Calgary businesses, excluding "do not know"

Q15 (2020), Q20 (2018). I am going to read some statements about challenges some businesses have faced in complying with these bylaws. As I read each statement, please tell me how much you agree or disagree using a 10-point scale where 1 means you strongly disagree and 10 means you strongly agree. **Note:** Q20 (2018) rebased to exclude "do not know". Comparisons to Q20 (2018) are charted for similar question items. Showing 2020 answer items. Please [see the appendix for a list of compared items](#).

↑ denotes a significant increase since 2018
↓ denotes a significant decrease since 2018



Challenges to Compliance (3/3)

Finally, few have had issues with their property management or haulers regarding implementation of recycling or composting programs.

Few also cite language barriers for employees reading the signage as a challenge.

■ NET Agree (8-10) ■ NET Neutral (4-7) ■ NET Disagree (1-3)

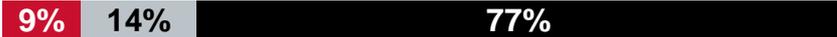
Had issues with property management to implement recycling or composting programs

2020 (n=431)



Had issues with the hauler who takes away recyclable or compostable materials

2020 (n=412)



Some employees are not able to read English signage effectively

2020 (n=468)



Base: Calgary businesses, excluding “do not know” Q15 (2020), Q20 (2018). I am going to read some statements about challenges some businesses have faced in complying with these bylaws. As I read each statement, please tell me how much you agree or disagree using a 10-point scale where 1 means you strongly disagree and 10 means you strongly agree. **Note:** Q20 (2018) rebased to exclude “do not know”. Comparisons to Q20 (2018) are charted for similar question items. Showing 2020 answer items. Please [see the appendix for a list of compared items](#).

↑ denotes a significant increase since 2018
 ↓ denotes a significant decrease since 2018

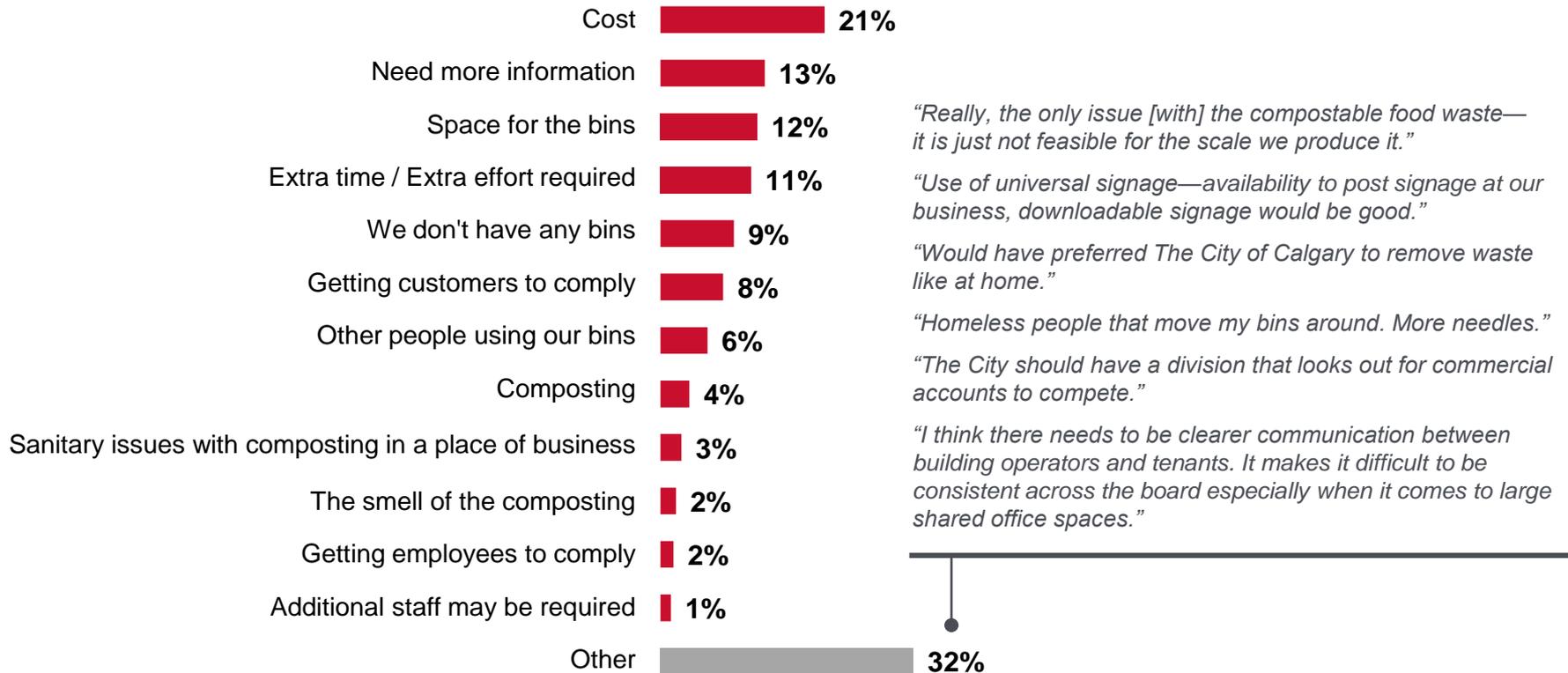


Other Barriers to Compliance (Unaided)

Cost is a barrier for 1 in 5 Calgary businesses that mention an additional barrier to compliance.

Other common barriers, noted by around 1 in 10 businesses, are a need for more information; lack of space for the recyclable and compostable bins; and extra time and effort required to implement waste diversion.

Other Barriers to Compliance



Base: Calgary businesses, except “don’t know” and “no / nothing else” (n=114)

Q16 (2020). Now, in addition to the challenges I just listed, do you have any other concerns or are there any other barriers to your business or organization’s ability to comply with the waste diversion bylaws?

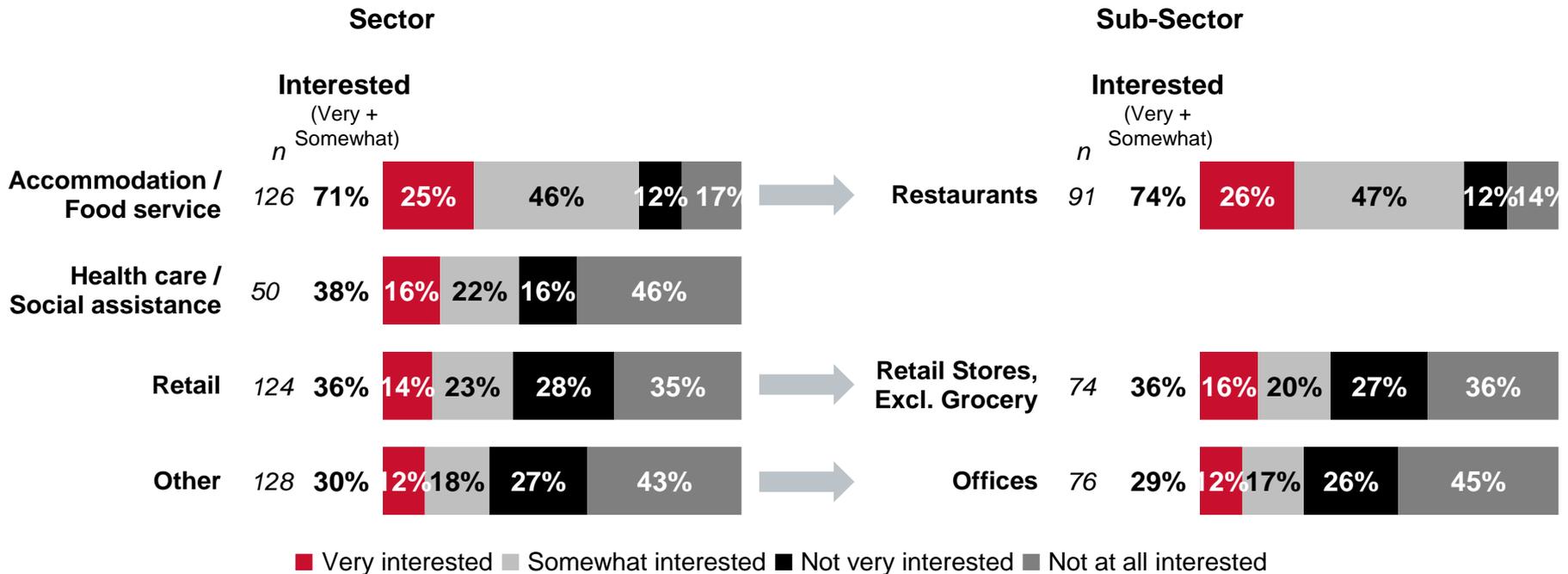


Detailed Findings: Supports and Communications



Interest in Food Waste Reduction Resources

The *Accommodation / Food service* industry, and particularly *Restaurants*, are most interested in receiving tools or resources to help reduce the amount of food waste in their garbage — 7 in 10 say they are very or somewhat interested, compared to around 3 in 10 in other (sub)sectors.



Base: Calgary businesses, excluding manufacturing (varies by (sub)sector)

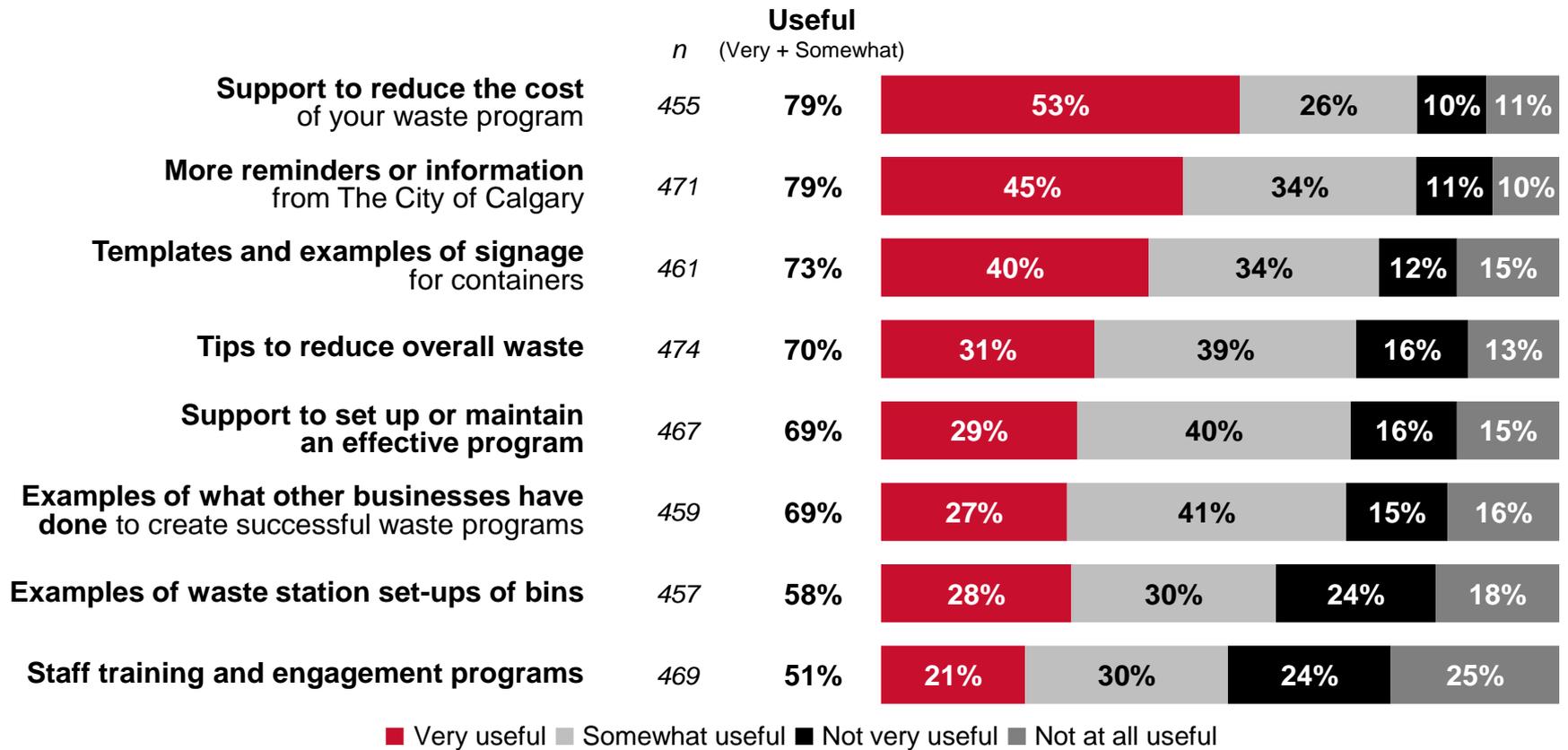
Q19. How interested would your organization be in receiving tools or resources to help reduce the amount of food waste in your garbage? Would you say very interested; somewhat interested; not very interested; not at all interested? Note: some percentages may not add up to 100% due to rounding.



Usefulness of *Resources to Support Compliance*

More than half of Calgary businesses would find the proposed resources useful for encouraging compliance with the bylaws. Nearly 8 in 10 businesses would find support for reducing their waste program cost useful.

While *staff training and engagement programs* are rated as least useful, *information* — reminders, templates, and tips — is considered useful by most Calgary-based businesses.



Base: Calgary businesses, excluding “don’t know” (varies).

Q17. There are a number of things The City could provide to support and encourage businesses to comply with these bylaws. Please indicate if each of the following would be very useful, somewhat useful, not very useful or not at all useful for your business or organization. **Note:** some percentages may not add up to 100% due to rounding.



Usefulness of *Resources to Support Compliance*

Calgary businesses in the *Accommodation / Food service* industry would find the proposed resources more useful, compared to all other industries.

Particularly, staff training and engagement programs — which are perceived as least useful among Calgary businesses overall — are considered more useful in the *Accommodation / Food service* sector.

NET Useful (Very + Somewhat)	Calgary	Manufacturing / Warehousing / Transportation	Accom. / Food service	Retail	Health care / Social assistance	Other
Support to reduce the cost of your waste program	79% 455	84% 50	95% ↑ 120	76% 117	74% 42	66% ↓ 126
More reminders or information from The City of Calgary	79% 471	80% 50	83% 122	77% 123	78% 49	77% 127
Templates and examples of signage for containers	73% 461	76% 49	87% ↑ 120	76% 119	69% 48	61% ↓ 125
Tips to reduce overall waste	70% 474	60% 50	82% ↑ 125	74% 122	68% 50	66% 127
Support to set up or maintain an effective program	69% 467	64% 50	86% ↑ 123	73% 121	60% 47	63% 126
Examples of what other businesses have done to create successful waste programs	69% 459	69% 49	78% ↑ 120	70% 117	62% 47	63% 126
Examples of waste station set-ups of bins	58% 457	66% 50	74% ↑ 117	64% 116	42% ↓ 48	46% ↓ 126
Staff training and engagement programs	51% 469	47% 51	67% ↑ 123	53% 119	48% 48	41% ↓ 128

Base: Calgary businesses, excluding “don’t know” (varies by sector).

Q17. There are a number of things The City could provide to support and encourage businesses to comply with these bylaws. Please indicate if each of the following would be very useful, somewhat useful, not very useful or not at all useful for your business or organization.

↑ denotes a significantly higher number than all others combined

↓ denotes a significantly lower number than all others combined



Usefulness of *Resources to Support Compliance*

Similarly to the *Accommodation* industry overall, Calgary *Restaurants* would find the proposed compliance supports more useful than other types businesses, particularly *staff training and engagement*.

Offices consider most information-related and financial supports less useful than other Calgary businesses.

NET Useful (Very + Somewhat)	Calgary	Accom. / Food	Subsector	Retail	Subsector	Other	Subsector
			Restaurants		Excl. Grocery		Offices
Support to reduce the cost of your waste program	79% 455	95% ↑ 120	97% ↑ 86	76% 117	77% 71	66% ↓ 126	58% ↓ 76
More reminders or information from The City of Calgary	79% 471	83% 122	87% ↑ 89	77% 123	74% 74	77% 127	75% 77
Templates and examples of signage for containers	73% 461	87% ↑ 120	88% ↑ 88	76% 119	74% 74	61% ↓ 125	59% ↓ 76
Tips to reduce overall waste	70% 474	82% ↑ 125	85% ↑ 91	74% 122	68% 74	66% 127	69% 77
Support to set up or maintain an effective program	69% 467	86% ↑ 123	90% ↑ 90	73% 121	67% 73	63% 126	60% 77
Examples of what other businesses have done to create successful waste programs	69% 459	78% ↑ 120	79% ↑ 87	70% 117	67% 73	63% 126	66% 76
Examples of waste station set-ups of bins	58% 457	74% ↑ 117	77% ↑ 86	64% 116	59% 69	46% ↓ 126	44% ↓ 75
Staff training and engagement programs	51% 469	67% ↑ 123	73% ↑ 91	53% 119	42% 71	41% ↓ 128	38% ↓ 77

Base: Calgary businesses, excluding "don't know" (varies by (sub)sector).

Q17. There are a number of things The City could provide to support and encourage businesses to comply with these bylaws. Please indicate if each of the following would be very useful, somewhat useful, not very useful or not at all useful for your business or organization.

↑ denotes a significantly higher number than all others combined
 ↓ denotes a significantly lower number than all others combined

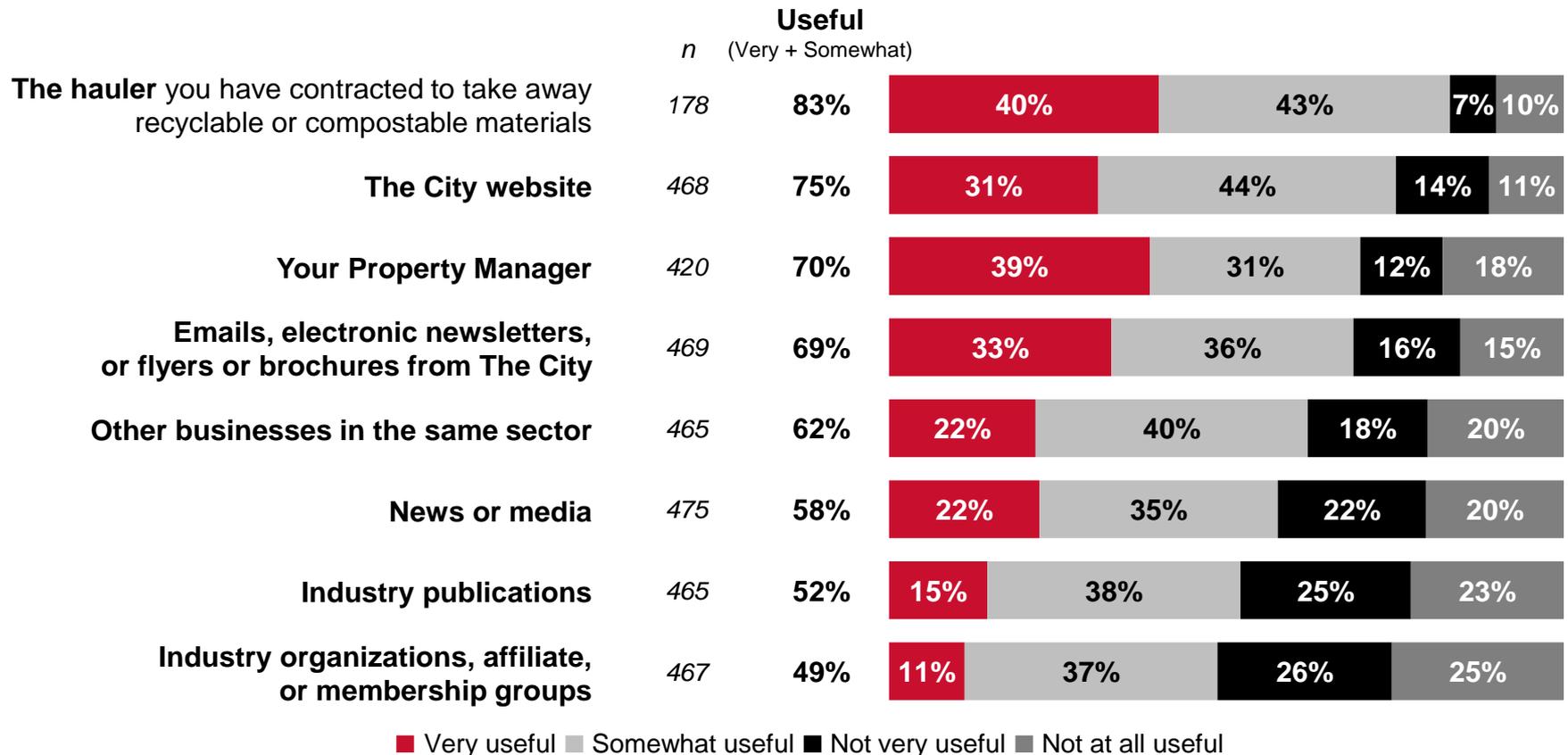


Usefulness of *Information Channels*

Calgary businesses that hire contractors to haul their recyclable or compostable waste would find *the hauler* to be the most useful information channel.

3 in 4 businesses find The City website useful; this is followed by *the Property Manager* and *direct communications from The City*, which 7 in 10 businesses find useful.

Industry sources are considered less useful.



Base: Calgary businesses, excluding "don't know" or not applicable (varies).

Q21. How useful would it be to your organization to receive information from the following sources? Note: some percentages may not add up to 100% due to rounding.



Usefulness of *Information Channels*

Haulers are considered equally useful sources of information across all industries. Businesses in the *Manufacturing* sector consider *Industry publications* more useful compared to other industries. The *Property Manager* is considered to be a more useful source of information for the *Accommodation / Food service* sector compared to other sectors.

NET Useful (Very + Somewhat)	Calgary	Manufacturing / Warehousing / Transportation	Accom. / Food service	Retail	Health care / Social assistance	Other
The hauler you have contracted to take away recyclable or compostable materials	83% 178	87% 31*	86% 64	79% 39	- 11*	82% 33*
The City website	75% 468	69% 48	81% 124	73% 119	78% 50	74% 127
Your Property Manager	70% 420	64% 44	83% ↑ 110	67% 107	73% 45	62% 114
Emails, electronic newsletters, or flyers or brochures from The City	69% 469	71% 48	78% ↑ 122	69% 121	64% 50	63% 128
Other businesses in the same sector	62% 465	67% 51	74% ↑ 120	63% 120	56% 48	51% ↓ 126
News or media	58% 475	57% 51	66% ↑ 124	60% 122	50% 50	55% 128
Industry publications	52% 465	69% ↑ 49	67% ↑ 121	47% 121	37% ↓ 49	41% ↓ 125
Industry organizations, affiliate, or membership groups	49% 467	59% 51	60% ↑ 121	53% 120	36% ↓ 50	37% ↓ 125

Base: Calgary businesses, excluding "don't know" or not applicable (varies by sector).

* Small base size; interpret with caution. Results for (sub)sectors with base sizes of 15 and under are not reported.

Q21. How useful would it be to your organization to receive information from the following sources?

↑ denotes a significantly higher number than all others combined

↓ denotes a significantly lower number than all others combined



Usefulness of Information Channels

Subsectors' attitudes to the usefulness of information channels are similar to those of their parent sectors.

NET Useful (Very + Somewhat)	Calgary	Accom. / Food	Subsector	Retail	Subsector	Other	Subsector
			Restaurants		Excl. Grocery		Offices
The hauler you have contracted to take away recyclable or compostable materials	83% 178	86% 64	83% 46	79% 39	75% 20*	82% 33*	- 15*
The City website	75% 468	81% 124	83% ↑ 89	73% 119	71% 72	74% 127	74% 77
Your Property Manager	70% 420	83% ↑ 110	84% ↑ 82	67% 107	66% 64	62% 114	72% 68
Emails, electronic newsletters, or flyers or brochures from The City	69% 469	78% ↑ 122	80% ↑ 88	69% 121	67% 72	63% 128	64% 77
Other businesses in the same sector	62% 465	74% ↑ 120	80% ↑ 87	63% 120	58% 73	51% ↓ 126	47% ↓ 76
News or media	58% 475	66% ↑ 124	70% ↑ 89	60% 122	63% 73	55% 128	61% 77
Industry publications	52% 465	67% ↑ 121	71% ↑ 89	47% 121	44% 73	41% ↓ 125	40% ↓ 75
Industry organizations, affiliate, or membership groups	49% 467	60% ↑ 121	58% 88	53% 120	53% 72	37% ↓ 125	35% ↓ 75

Base: Calgary businesses, excluding "don't know" or not applicable (varies by (sub)sector).

* Small base size; interpret with caution. Results for (sub)sectors with base sizes of 15 and under are not reported.

Q21. How useful would it be to your organization to receive information from the following sources?

↑ denotes a significantly higher number than all others combined

↓ denotes a significantly lower number than all others combined



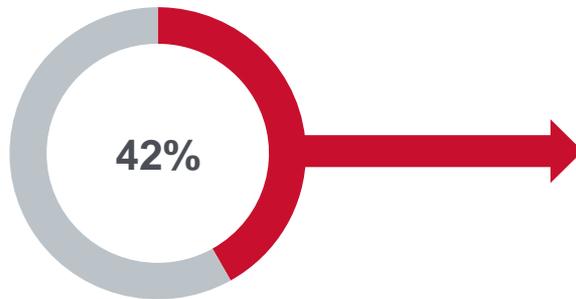
The City of Calgary *Business Recycling Website*: Awareness and Visitation

4 in 10 Calgary-based businesses and organizations are aware of the *calgary.ca/businessrecycling* web page before the day they took the survey.

Among businesses and organizations that were aware of the site, most (72%) have visited the page.

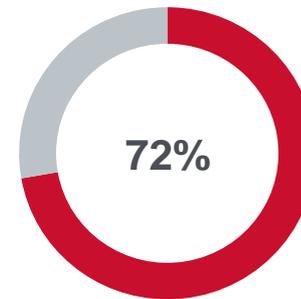
Awareness

4 in 10 are aware of *calgary.ca/businessrecycling*



Visitation

Among those aware, 7 in 10 have visited *calgary.ca/businessrecycling*



Base: Calgary businesses (n=481)

Q22a. Before today, were you aware of the website *calgary.ca/businessrecycling*?

Base: Calgary businesses that were aware of the website *calgary.ca/businessrecycling* before they took the survey (n=200)

Q22b. Have you visited this website?

The City of Calgary *Business Recycling Website*: Awareness and Visitation by Sector

Awareness and visitation of the *calgary.ca/businessrecycling* web page does not vary significantly by sector.

	n	Aware of website	n	Visited the website
All Calgary businesses	481	42%	200	72%
 Manufacturing / Warehousing / Transportation	51	47%	24*	75%
 Accommodation / Food service	126	45%	57	79%
 Restaurants	91	42%	38	82%
 Retail	125	40%	50	70%
 Retail Stores Excluding Grocery	75	32%	24*	71%
 Health care / Social assistance	50	38%	19*	74%
 Other	129	39%	50	62%
 Offices	77	32%	25*	60%

Base: Calgary businesses (varies by sector)

Q22a. Before today, were you aware of the website *calgary.ca/businessrecycling*?

Base: Calgary businesses that were aware of the website *calgary.ca/businessrecycling* before they took the survey (varies by sector)

* Small base size; interpret with caution.

Q22b. Have you visited this website?

↑ denotes a significantly higher number than all others combined

↓ denotes a significantly lower number than all others combined



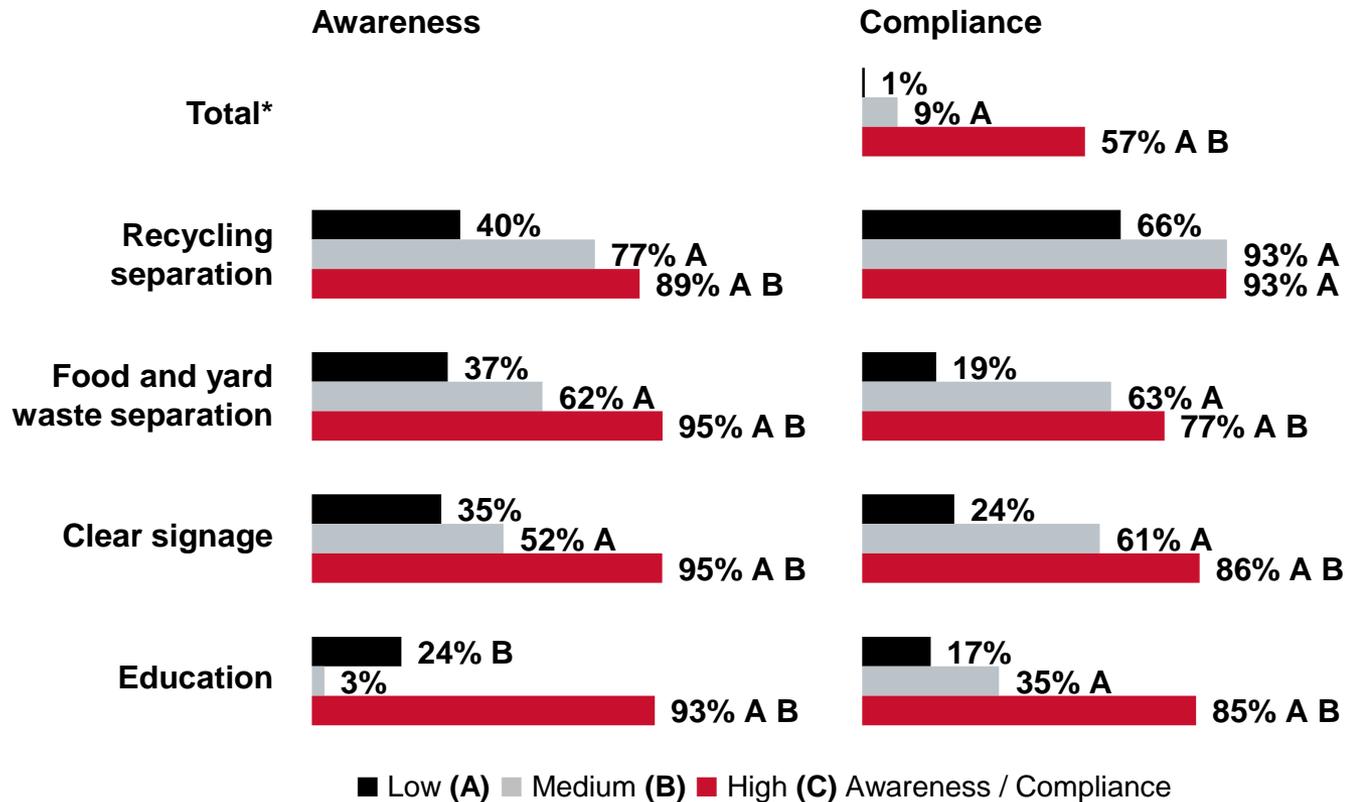
Segmentation



Who Are They?

A cluster analysis was conducted to gauge if businesses can be grouped based on their waste diversion attitudes and behaviours. As shown in the charts below, this analysis uncovered three segments:

- A. A low awareness / compliance segment;
- B. A medium awareness / compliance segment; and
- C. A high awareness / compliance segment.



Base: Calgary businesses. Base varies by segment: n=114 — low, n=159 — medium, n=208 — high awareness/compliance segment.

Q14. Prior to now, which of the following measures were you aware of?

*Compliance for both recycling and food and yard waste. Note: please see the appendix for a description of compliance calculations.

Letters A, B, C denote that a number is significantly higher than the segment(s) signified by the letter(s)



Who Are They?

Accommodation / Food service businesses are more likely to fall into the high awareness / compliance segment, while businesses in the Manufacturing / Warehousing / Transportation sector are less likely to be in the high awareness / compliance segment.

Sectors and Subsectors

Awareness / Compliance	Calgary	Manufact. / Warehousing. / Transport.	Accom. / Food	Subsector Restaurants	Retail	Subsector Excl. Grocery	Health care / Social assistance	Other	Subsector Offices
	Base	481	51	126	91	125	75	50	129
Low	23%	27%	20%	21%	30%	32%	18%	22%	19%
Medium	35%	43%	24% ↓	22% ↓	28%	27%	40%	40%	44%
High	41%	29% ↓	56% ↑	57% ↑	42%	41%	42%	37%	36%

↑ denotes a significantly higher number than all others combined
 ↓ denotes a significantly lower number than all others combined



What Challenges Do They Experience?

Most barriers to compliance are significantly more prevalent among the low compliance / awareness segment. Of particular note is 6 out of 10 mentioning that they are not really sure what is required by the bylaws among this segment.

NET Agree (8 - 10)

	Awareness / Compliance		
	Low (A)	Medium (B)	High (C)
We don't have enough compostable materials ... to warrant having a composting or food and yard waste diversion program	69% B C	41%	33%
I'm not really sure what is required by the bylaws	60% B C	7%	7%
We don't have enough space for separate containers for food waste, recycling and garbage	55% B C	17%	17%
We don't have enough recyclable materials to warrant having a recycling program	48% B C	6%	11%
Our bins for food waste and other compostable items are too small	44% B C	12%	18%
Having programs to separate recyclables and food and yard waste from the garbage are too expensive	41% B C	11%	25% B
It is difficult to get our employees to sort materials properly	33% B C	7%	12%
We don't have the time or resources to manage waste diversion programs effectively	30% B C	4%	10% B
We have had issues with property management trying to implement recycling or composting programs	21% B	4%	15% B
Some employees are not able to read English signage effectively	21% B C	3%	6%
We have had issues with the hauler we have contracted to take away recyclable or compostable materials	17% B	5%	9%

Base: Calgary businesses, excluding "don't know"; **varies by segment and item:** low (38-111), medium (102-157), high (183-207).
Q15 (2020). I am going to read some statements about challenges some businesses have faced in complying with these bylaws. As I read each statement, please tell me how much you agree or disagree using a 10-point scale where 1 means you strongly disagree and 10 means you strongly agree.

Letters A, B, C denote that a number is significantly higher than the segment(s) signified by the letter(s)



What Would Help Them?

However, segments do not differ in terms of preferred supports for encouraging compliance with bylaws.

NET Useful (Very/Somewhat)	Awareness / Compliance		
	Low	Medium	High
	(A)	(B)	(C)
More reminders or information about the bylaw requirements and any changes or updates from The City of Calgary	77%	80%	79%
Support to reduce the cost of your waste program	77%	76%	83%
Templates and examples of signage for containers	69%	75%	75%
Support to set-up or maintain an effective program	68%	65%	73%
Examples of what other businesses have done to create successful waste programs	68%	68%	69%
Tips to reduce overall waste	66%	71%	72%
Staff training and engagement programs	50%	44%	58% B
Examples of waste station set-ups of bins	53%	56%	63%

Base: Calgary businesses, excluding “don’t know”; **varies by segment and item:** low (106-112), medium (147-157), high (198-206). **Q17 (2020).** There are a number of things The City could provide to support and encourage businesses to comply with these bylaws. Please indicate if each of the following would be very useful, somewhat useful, not very useful or not at all useful for your business or organization.

Letters A, B, C denote that a number is significantly higher than the segment(s) signified by the letter(s)



What Would Help Them?

Contracted haulers, The City (website and other communications), and property managers are channels that would reach all three awareness / compliance segments.

NET Useful (Very/Somewhat)	Awareness / Compliance		
	Low (A)	Medium (B)	High (C)
The hauler you have contracted to take away recyclable or compostable materials	89%	77%	86%
The City website	71%	74%	78%
Your Property Manager	71%	61%	76% B
Emails, electronic newsletters, or flyers or brochures from The City	70%	63%	73%
Other businesses in the same sector	68% B	51%	68% B
News or media	59%	50%	63% B
Industry publications	56%	44%	57% B
Industry organizations, affiliate groups, or membership groups	50%	41%	55% B

Letters A, B, C denote that a number is significantly higher than the segment(s) signified by the letter(s)

Base: Calgary businesses, excluding “don’t know” or not applicable; varies by segment and item: low (38-111), medium (64-158), high (76-206).
 Q21. How useful would it be to your organization to receive information from the following sources?



Firmographics



Firmographics (Unweighted) (1/5)

Label	%	Base	Base description
Membership in ICI Working Group		481	Calgary businesses
Member	1%		
Not a member	99%		
Sectors and subsectors		481	Calgary businesses
Manufacturing / Warehousing / Transportation	11%		
Accommodation and Food Services	26%		
Restaurants	14%		
Retail	26%		
Retail Stores, Excluding Grocery	12%		
Health Care / Social Assistance	10%		
Other sectors	27%		
Offices	12%		
Type of organization		481	Calgary businesses
A for-profit company or business	88%		
A not-for-profit organization	5%		
A public institution	1%		
Something else	6%		



Firmographics (Unweighted) (2/5)

Label	%	Base	Base description
Types of Retail businesses		125	Retail sector
Grocery, supermarket, or convenience store; specialty food store; or beer, wine or liquor store	26%		
Sporting goods, hobby, book or music store	17%		
Clothing, shoes, or clothing accessories store	14%		
Motor vehicle or parts dealer	13%		
Furniture or home furnishings store	6%		
Home improvement, Building material or garden equipment and supplies	6%		
Electronics or appliance store	5%		
Department or other general merchandise stores	5%		
Health or personal care store	4%		
Gas station	2%		
Direct sales or vending machine operator	0%		
Or another type of business	5%		



Firmographics (Unweighted) (3/5)

Label	%	Base	Base description
Types of businesses in Other sectors		129	Calgary businesses in Other sectors
Accounting, tax preparation, bookkeeping, or payroll services	26%		
Legal services	12%		
Architectural, engineering, or related services	11%		
Management, scientific, or technical consulting services	11%		
Or another industry or business	40%		
Number of employees		474	Calgary businesses, excl. "don't know"
One	9%		
2 to 5	31%		
6 to 10	23%		
11 to 20	17%		
21 to 50	14%		
51 to 100	3%		
More than 100	3%		
Years in business		476	Calgary businesses, excl. "don't know"
Less than 1 year	2%		
1 to 5 years	11%		
6 to 10 years	15%		
More than 10 years	73%		



Firmographics (Unweighted) (4/5)

Label	%	Base	Base description
Number of locations		476	Calgary businesses, excl. "don't know"
1	80%		
2-5	15%		
6-20	4%		
21-100	1%		
More than 100	0%		
Type of location		476	Calgary businesses, excl. "don't know"
Head office	88%		
Regional, branch, or district office	3%		
Franchise operation	5%		
Or something else	4%		
More than \$100 million	1%		



Firmographics (Unweighted) (5/5)

Label	%	Base	Base description
Number of volunteers		20	Non-profits, excluding "don't know"
None	25%		
One	5%		
2 to 5	10%		
6 to 10	5%		
11 to 20	15%		
21 to 50	20%		
51 to 100	10%		
More than 100	10%		
Revenue		388	Calgary businesses and organizations with a revenue amount, excl. "don't know"
Less than \$1 million	61%		
\$1 million to \$5 million	29%		
\$5 million to \$10 million	4%		
\$10 million to \$20 million	2%		
\$20 million to \$50 million	2%		
\$50 million to \$100 million	1%		
More than \$100 million	1%		



Appendix



2020 Compliance Calculations (1/3)

- **Recycling separation (blue cart recyclables) compliance**

- For those **who have** at least one of ...

- Refundable beverage containers
- Recyclable plastic, glass and metal containers
- Paper and cardboard

... confirm that they separate all of the waste types they have:

- If so, they are compliant.
- Those who have at least one type of waste that they do not separate are considered non-compliant.

- For those **who do not have** any of ...

- Refundable beverage containers
- Recyclable plastic, glass and metal containers
- Paper and cardboard

... confirm that they have clearly marked bins to collect recyclable materials separate from their garbage.

- If so, they are compliant.
- If not, they are non-compliant.

- **Recycling separation (all) compliance**

- Compliant if:

- Blue cart blue cart recyclables separation compliant (as per above); and
- Separate scrap metal (if scrap metal present); and
- Separate wood pallets (if wood pallets present).

[\(Return to Compliance section\)](#)



- **Food waste separation compliance**

- For those **who have** at least one of ...
 - Food waste
 - Other compostable materials

... confirm that they separate all of the waste types they have:

- If so, they are compliant.
 - Those who have at least one type of waste that they do not separate are considered non-compliant.
 - For those **who do not have** any of ...
 - Food waste
 - Other compostable materials
- ... confirm that they have clearly marked bins to collect compostable materials separate from their garbage.
- If so, they are compliant.
 - If not, they are non-compliant.

- **Food and yard waste separation compliance**

- Compliant if:
 - Food waste separation compliant (as per above); and
 - Separate yard waste (if yard waste present).



2020 Compliance Calculations (3/3)

- **Signage compliance**
 - Compliant if organization posts clear signage on collection containers, showing what materials can be deposited in each bin.
- **Education compliance**
 - Compliant if organization provides information to employees on an annual basis on the list of materials accepted, how to sort materials, and where they are collected.
- **Signage and education compliance**
 - Compliant if:
 - Signage compliant (as per above); and
 - Education compliant (as per above).
- **Recycling bylaw compliance**
 - Compliant if:
 - Recycling separation (all) compliant (as per previous pages); and
 - Signage and education compliant (as per above).
- **Food and yard waste bylaw compliance**
 - Compliant if:
 - Food and yard waste separation compliant (as per previous pages); and
 - Signage and education compliant (as per above).
- **Total compliance (for both recycling and food and yard waste)**
 - Compliant if:
 - Recycling bylaw compliant (as per above); and
 - Food and yard waste bylaw compliant (as per above).

[\(Return to Compliance section\)](#)



Challenges to Compliance

For the question

Q20 (2018) / Q15 (2020). *I am going to read some statements about challenges some businesses have faced in complying with these bylaws.*

As I read each statement, please tell me how much you agree or disagree using a 10-point scale where 1 means you strongly disagree and 10 means you strongly agree.

comparison is charted only for several sufficiently similar items between the 2018 and 2020 questionnaires:

Item from Q20 (2018)	Item from Q15 (2020)
(a) Having programs to separate recyclables and food and yard waste from the garbage will cost our organization too much money	(1) Having programs to separate recyclables and food and yard waste from the garbage are too expensive
(j) We don't have the space to set up separate bins for recyclables, food and yard waste, and garbage	(2) We don't have enough space for separate containers for food waste, recycling and garbage
(k) We don't create enough waste to warrant having a recycling program	(3) We don't have enough recyclable materials to warrant having a recycling program
(l) We don't create enough waste to warrant having a composting/food and yard waste diversion program	(4) We don't have enough compostable materials such as food waste or paper towels to warrant having a composting or food and yard waste diversion program

[\(Return to Challenges to Compliance section\)](#)



Any Questions? Contact:

Matthijs Visser
Principal

(780) 229 1141
mvisser@advanis.net